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**CONSOLIDATED
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CONSOLIDATED TRANSLATION SURVEY

FOR JUNE 1969

<u>TABLES OF CONTENTS</u>	<u>Page</u>
Preface	iii
Request for Copies	iv
USSR	
Economic	1
Political	4
Military	6
Sociological	7
Biographic	8
Eastern Europe	
Economic	8
Political	11
Military	12
Geographic	14
Sociological	14
Western Europe	
Economic	15
Political	15
Military	16
Africa	
Economic	17
Political	17
Military	18
Sociological	19
Middle East	
Economic	19
Political	20
Military	21
Geographic	21
Sociological	21
Far East	
Economic	21
Political	22
Military	23
Sociological	24

Latin America	
Economic	24
Political	25
Geographic	29
Sociological	29
North America	
Military	29
Scientific	
Aeronautics	30
Agriculture	31
Astronomy & Astrophysics	34
Atmospheric Sciences	35
Behavioral & Social Sciences	37
Biological & Medical Sciences	37
Chemistry	52
Earth Sciences & Oceanography	54
Electronics & Electrical Engineering	59
Energy Conversion (Non-Propulsive)	63
Materials	64
Mathematical Sciences	80
Mechanical, Industrial, Civil & Marine Engineering	81
Methods & Equipment	88
Missile Technology	89
Navigation, Communications, Detection & Countermeasures	89
Nuclear Science & Technology	90
Physics	91
Propulsion & Fuels	100
Space Technology	101
Miscellaneous	101
Information on Cover-to Cover Translations	105
Index to Authors	389

CONSOLIDATED TRANSLATION SURVEY

PREFACE

This survey is prepared monthly from lists received through the cooperation of US government agencies and includes universities, research institutions, and commercial translation organizations. It is a compilation of projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects, are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identification of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (*), and when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable in such projects. New Projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

Scientific and Technical translations are grouped according to the COSATI subject category list except for military science and ordnance items which are listed under "military" in the appropriate geographic areas.

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(see CFSTI)

ACSI - (see DIA)

AEC - Atomic Energy Commission
(see CFSTI)

AFCRL Res Lib

Air Force Cambridge Research Laboratories
Research Library
Office of Aerospace Research
United States Air Force
Laurence G. Hanscom Field
Bedford, Massachusetts
ATTN: CRMCLR

AGI

American Geological Institute
1444 N Street N. W.
Washington, D. C. 20005

AGU

Americal Geophysical Union
Suite 506
1145 19th Street, N. W.
Washington, D. C. 20036

AIP

American Institute of Physics
335 East 45th Street
New York, New York 10017

APL/JHU

Applied Physics Laboratory
The Johns Hopkins University
8621 Geogria Avenue
Silver Spring, Maryland 20910

Army Topographic

U. S. Army Topographic Command
Department of the Army
Corps of Engineers
Washington, D. C. 20315

BCF - Bureau of Commercial Fisheries
(see Department of Interior)

BISI

British Iron and Steel Industry Translation Service
The Iron and Steel Institute
4 Grosvenor Gardens
London, S. W. 1, England

CEGB

Central Library
Central Electricity Generating Board
Room 601, Sudbury House
15 Newgate Street
London, E. C. 1, England

CFSTI

Clearinghouse for Federal Scientific and
Technical Information
Port Royal and Braddock Roads
Springfield, Virginia 22151

CB - Consultants Bureau
(see Plenum Press)

CTT

Columbia Technical Translations
5 Vermont Avenue
White Plains, New York 10600

Department of Interior

Dept of Interior, Room 8015
Branch of Foreign Fisheries (Translations)
Division of International Affairs
Bureau of Commercial Fisheries
Washington, D. C. 20240

Derwent Publications Ltd.

Derwent Publications Limited
Rochdale House, Theobalds Road
London, W. C. 1, England

DIA

Defense Intelligence Agency
Washington, D. C. 20301

FP

Paraday Press, Inc.
84 Fifth Avenue
New York, N. Y. 10011

FSTC - Foreign Science & Technology Center

Defense Documentation Center
Cameron Station
Alexandria, Virginia 22314

FTD - Foreign Technology Division

Defense Documentation Center
Cameron Station
Alexandria, Virginia 22314

GSFC

Goddard Space Flight Center
(see Sci & Info Facility)

HB

Henry Bratcher Technical Translations
P. O. Box 157
Altadena, California 91001

HEW - Health, Education & Welfare
(see NIH)

IEEE

Institute of Electrical and Electronics Engineers
275 Madison Avenue
New York, New York 10016

JPRS

U. S. Department of Commerce
Clearinghouse for Federal Scientific
and Technical Information
Port Royal and Braddock Roads
Springfield, Virginia 22151

NASA

National Aeronautics and Space Administration
1512 H Street N. W.
Washington, D. C. 20546

NIC

Commander, Naval Intelligence Command
Naval Intelligence Command Headquarters
NIC-133E
Washington, D. C. 20350

NIH

Circulation Unit
Readers Services Section
Library Branch, DRS
National Institutes of Health
Building 10, Room 5N118
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For Science & Technology
Boston Spa, Yorkshire, England

NMS

Navy Medical School
National Naval Medical Center
Bethesda, Maryland 20014

NOO

U. S. Naval Oceanographic Office
Code 4400
Washington, D. C. 20390

NRL

Naval Research Laboratory
Washington, D. C. 20390

OAGB

Overseas Activities Section
Electricity Council
30 Millbank, S. W. 1, London England

OSA

Optical Society of America, Inc.
American Institute of Physics
335 East 45th Street
New York, New York 10017

Patent Office

Department of Commerce, Patent Office
Scientific Library
14th and Constitution Avenue, N. W.
Washington, D. C.

PG

Petroleum Geology
Box 171
McLean, Virginia 22101

Plenum Press

Plenum Publishing Corporation
114 Fifth Avenue
New York, New York 10011

PP

Pergamon Press, Inc.
44-01 21st Street
Long Island City, New York 11101

PS

Primary Sources
11 Bleeker Street
New York, New York 10012

RSIC

Defense Documentation Center,
Redstone Scientific Information Center
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Sci & Tech Info Facility

NASA Scientific and Technical Information Facility
P. O. Box 33
College Park, Maryland 20740

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Soil Science Society of America, Inc.
Program Director, Soviet Soil Science
677 South Segoe Road
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55.
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*Dept of Interior
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DIA LN 329-69

USSR
Political (Contd)

USSR
Military

Greater Planning Role of Local Soviets Stressed,
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p 2; 11 Mar 1969, p 2; 13 Mar 1969, p 2.
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by U. Merima, 6 pp.
RUSSIAN, np, Sovetskaya Estoniya, Tallin, 10
Apr 1969, p 2.
JPRS 48086

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11 Apr 1969, pp 1-3.
JPRS 48001

Leninist Principles of Freedom of Conscience
Discussed, by I. Anichas, 6 pp.
RUSSIAN, per, Sovetskaya Litva, Vil'nyus,
30 Mar 1969, pp 2-3.
JPRS 48001

Turkmen Official Speaks on State of Republic,
by Ch. Atayev, 9 pp.
RUSSIAN, per, Turkmeneskaya iskra, Ashkhabad,
23 Mar 1969, pp 2-3.
JPRS 48001

Lenin's Comintern Speeches Still Relevant Today,
by A. Vetrov, 12 pp.
RUSSIAN, per, Voenno-Istoricheskiy Zhurnal,
Moscow, Mar 1969, pp 3-11.
JPRS 48044

Party Secretary Mzhavanadze Addresses Youth Rally,
by Mzhavanadze, 6 pp.
RUSSIAN, per, Zarya Vostoka, Tbilisi, 27 Apr 1969,
pp 1, 2.
JPRS 48044

Leninist Teachings on Nation's Defense
Discussed, by V. Zubarev, 12 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, No 7, Apr 1969, pp 23-30.
JPRS 48046

Political Objectives and the Nature of War
Discussed, by S. Tyushkevich, 11 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, No 7, Apr 1969, pp 31-38.
JPRS 48046

Kutakhov Reviews Proper Methods of Pilot
Training, by P. Kutakhov, 9 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, No 7, Apr 1969, pp 57-62.
JPRS 48046

Editors Receive Activist Letters on Winter
Training Period, 8 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, No 7, Apr 1969, pp 62-66.
JPRS 48046

Sergeant Political Indoctrination Topic
Outlined, by A. Davydov, 13 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, No 7, Apr 1969, pp 77-82.
JPRS 48046

Topic of Lenin in Military Press Reviewed,
by N. Yegorov, 9 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, No 7, Apr 1969, pp 87-91.
JPRS 48046

Psychological Model of Combat Organized,
by A. Kitov, 5 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow,
26 Mar 1969, p 2.
JPRS 48046

Camouflage in War, by M. I. Tolochkov.
RUSSIAN, bk, Maskirovka na Voynе, 1958,
pp 1-52.
ACSI J-6292
FSTC-HT-23-008-68

On the Atomic Submarine "Karasnogvardeyets".
5 pp.
RUSSIAN, per, Military Knowledge, No 31,
1969, pp 8-9.
DIA LN 1087-69

USSR
Military (Contd)

Preparation of Artillery Weapons for Firing, by
Ivan Ivanovich Denisov, 43 pp.
RUSSIAN, bk, Podgotovka Artilleriyskogo, 1962,
pp 1-48.
ARM/FSTC/HT-23-928-68

Military Training of Youths in Belorussian SSR,
by V. Korolev, 5 pp.
RUSSIAN, np, Sovetskaya Belorussiya, Minsk,
24 Apr 1969, p 3.
JPRS 48046

Military Housing Priorities, Benefits Listed,
by G. F. Krivtsov, M. Ya. Parshin, 6 pp.
RUSSIAN, bk, Spravochnik o L'gotakh
Voyennosluzhashchim Srochnoy i Sverksrochnoy
Sluzhby i Ikh Sem'iam, 1967, pp 22-28.
JPRS 48046

Nuclear Submarines.
RUSSIAN, per, Starshina Serzhant, No 1,
1969, pp 20-23.
DIA LN 1060-69

The T-54 Tank. Firepower, Armor, Speed.
RUSSIAN, per, Starshina Serzhant, No 2,
1969, pp 19-23.
DIA LN 952-69

Our Technical Circle. 13 pp.
RUSSIAN, per, Starshina Serzhant, No 2,
1969, pp 19-23.
DIA LN 952-69

U. S. Sixth Fleet Reported on Mediterranean
Maneuvers, by N. Chikhachev, 5 pp.
RUSSIAN, per, Starshina Serzhant, Moscow, No 4,
Apr 1969, pp 40-41.
JPRS 48135

Soviet State Security Agencies in the Years
of the Great Patriotic War, by Komkov.
RUSSIAN, per, Voprosy Istorii, No 5, 1965,
pp 20-39.
*ACSI J-6826

Locations of a Reaction in the Detonation of
Condensed Explosives, by S. N. Buravova.
RUSSIAN, per, Vzryvnoye Delo, No 63/20, 1967,
pp 56-60
*AEC/

Detonation of Coarse-Grained Explosives, by
A. K. Parfenov.
RUSSIAN, per, Vzryvnoye Delo, No 63/20, 1967,
pp 60-65.
*AEC

USSR
Military (Contd)

The 4 x 4 BTR-40 P Wheeled Soviet Tank.
GERMAN, per, Soldat und Technik, 3 Mar
1968.
DIA LN 858-69

Geographic

Ashkabad.
RUSSIAN, per, Geografiya v Shkole, Feb
1969, pp 12-15.
DIA LN 982-69

Sociological

Mathematical Model of the Social Structure of
Soviet Society -- A Basis for Forecasting, by
A. A. Zvorykin, 26 pp.
RUSSIAN, Source and Date not given, pp 125-141.
JPRS 48113

Legal Service Improves Contract Relations,
by P. Shcherbin, 5 pp.
RUSSIAN, per, Ekonomika Stroitel'stva, Moscow,
No 2, 1969, pp 46-49.
JPRS 47979

Measures to Improve Crime Prevention Discussed,
by A. Motskyavichyus, Yu. Bluvshcheyn, 5 pp.
RUSSIAN, per, Kommunist, Vil'nyus, May 1969,
pp 73-76.
JPRS 48135

Development of Belorussia's Schools Discussed,
by A. Kontsevaya, 6 pp.
RUSSIAN, per, Kommunist Belorussii, Minsk, No 11,
1968, pp 49-52.
JPRS 48044

Proceedings of Moscow Writers' Organization
Reported, 9 pp.
RUSSIAN, per, Literaturnaya Rossiya, Moscow,
No 14, 1969, pp 8-9.
JPRS 48001

Absence of Urban School Male Teachers Explored,
by M. Grigor'yev, B. Khendros, 6 pp.
RUSSIAN, per, Literaturnaya Gazeta, Moscow,
no 11, Mar 1969, p 12.
JPRS 48135

Movie Producer G. L. Roshal' Interviewed by
D. Ostrovskiy, 6 pp.
RUSSIAN, per, Literaturnaya Rossiya, Moscow,
No 14, 1969, p 10.
JPRS 48001

Seminar on Atheistic Propaganda Reviewed, by
T. Kering, 5 pp.
RUSSIAN, per, Nauka i Religiya, Moscow, Mar 1969,
pp 40-41.
JPRS 48044

New Edition of Great Soviet Encyclopedia
Evaluated, by A. Grebenshchikov, 6 pp.
RUSSIAN, per, Oktabr', Moscow, 5 May 1969,
pp 200-202.
JPRS 48044

Use of Specialists in Industry Described, by
V. Komarov, 8 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, no 4,
1969, pp 17-23.
JPRS 48026

Many Factors Affect Female Employment in Belorussia,
by A. A. Rakov, 5 pp.
RUSSIAN, per, promyshlennost' Belorussii, Minsk,
no 4, Apr 1969, pp 36-37.
JPRS 48026

Long-Range Prospects of Manev Reserve Discussed,
by M. Ishchenko, 6 pp.
RUSSIAN, np, Rabochaya Gazeta, Kiev, 28 Mar 1969,
p 4.
JPRS 48039

Prosecutor's Offices Allow Illegal Dismissals,
by Yu. Leonov, 6 pp.
RUSSIAN, per, Sotsialisticheskaya Zakonnost',
Moscow, no 3, 1969, pp 13-16.
JPRS 48026

Rudolf Abel Tried Before American Court, by
A. V. Tishkov, 13 pp.
RUSSIAN, per, Soverskoye Gosudarstvo i Pravo,
Moscow, no 4, 1969, pp 131-137.
JPRS 48044

Trends of Soviet Pedagogical Science Defined,
by V. M. Zhivotov, 7 pp.
RUSSIAN, per, Uchitel'skaya Gazeta, Moscow, 27
Mar 1969, pp 1-2.
JPRS 48006

Efficiency Proposals for Academy of Pedagogical
Sciences, by Yu. Sharov, 6 pp.
RUSSIAN, np, Uchitel'skaya Gazeta, Moscow,
3 Apr 1969, p 3.
JPRS 48001

Success of Shchekino Experiment Discussed, by
T. Baranenkova, 6 pp.
RUSSIAN, per, voprosy ekonomiki, Moscow, Mar 1969,
pp 114-117.
JPRS 48073

Need for Improvements in Education Discussed, by
G. Zhiblache, 5 pp.
RUSSIAN, np, Zarya Kostoka, Tbilisi, 26 Apr 1969,
p 3.
JPRS 48135

Biographic

Rostov Moves into the Future, by
V. A. Rebayn, 9 pp.
RUSSIAN, bk, Rostov Shagayet v Buduschchye,
1967.
DIA LN 863-69

EASTERN EUROPE
Economic

General Outlines of 1969 Bulgarian Plan Given,
5 pp.
BULGARIAN, per, Bulgarski Profsoyuzi, Sofia,
No 2, Feb 1969, pp 1-2.
JPRS 48045

Cooperation of Food Industries Within CEMA Re-
viewed, by Khr. Kunev, 6 pp.
BULGARIAN, per, Khranitelna Promishlenost, Sofia,
no 1, 1969, pp 4-7.
JPRS 48028

Eastern Europe
Economic (Contd)

Financial Situation of Communications Reviewed, by Josef Cerny, 5 pp.
CZECH, per, Ceskoslovenske Spole, Prague, no 1, Feb 1969, pp 2-3.
JPRS 48022

Power Collectives Production Program Analyzed, 5 pp.
CZECH, per, Energetik, Prague, 17 Apr 1969, pp 1, 2, 4.
JPRS 48048

Status of Czechoslovak Industry Analyzed, by Josef Krejci, 48 pp.
CZECH, per, Hospodarske Noviny, Prague, 28 Mar 1969, Special Supplement, pp I-VI.
JPRS 48022

Miscellaneous Data Regarding the Development of the Largest Czechoslovak Cities, 14 pp.
CZECH, per, Statistika, No 1, 1969, pp 17-26.
DIA LN 977-69

Water Management. 26 pp.
CZECH, rpt, Statisticka po Kazdeho, 1968-1969, pp 196-216.
DIA LN 893-69

Tele Income Greater than Postal Income in 35 Post and Telegram Offices.
FINNISH, per, Lennattaja, No 11, 1968, p 6.
DIA LN 990-69

Savonlinna, The Center of Saimaa Waterways Ship Traffic and Salma Radio.
FINNISH, per, Lennattaja, No 11, 1968, p 18.
DIA LN 990-69

Water Management. 12 pp.
GERMAN, per, Jahrbuch der Deutschen Demokratischen Republik, 1961, pp 224-231.
DIA LN 1079-69

Criticisms, Suggestions Offered Machinery Works, by Dieter Brueckner, Otto Schoth, 13 pp.
GERMAN, np, Neues Deutschland, East Berlin, 1, 2, 3 Apr 1969, p 3.
JPRS 48080

Eastern Europe
Economic (Contd)

Pond Farming and Fishery in Israel, by E. Danecker, 7 pp.
GERMAN, per, Osterreichs Fisheries, Vol 22, No 4, 1969, pp 49-55.
*TT 69-52025
Available from DCF only

Ship Construction in East Germany. 7 pp.
GERMAN, per, Schiff und Hafen, 21 Jan 1969, pp 199-200.
DIA LN 1001-69

Deputy Premier Views CEMA Plan Coordination, by Gerhard Weiss, 5 pp.
GERMAN, per, Sozialistische Aussenwirtschaft, East Berlin, No 3, Mar 1969, pp 1, 2.
JPRS 48056

Forms of CEMA Industrial Cooperation Described, by H. Heinze, 8 pp.
GERMAN, per, Sozialistische Aussenwirtschaft, East Berlin, Mar 1969, pp 5-8.
JPRS 48056

Trends of Polish Railroad Investment Described, by J. Weldycz, 9 pp.
GERMAN, per, Zeitschrift der Deutschen Eisenbahnen, East Berlin, Mar 1969, pp 1-4.
JPRS 48080

Status of Foreign Trade in Foodstuffs Described, by Lajos Lenart, 9 pp.
HUNGARIAN, per, Elelmезesi Ipar, Budapest, Mar 1969, pp 65-68.
JPRS 48056

Situation of Electric Power Industry Discussed, by Robert Tarjan, 8 pp.
HUNGARIAN, per, Energiagazdalkodas, Budapest, Jan 1969, pp 18-21.
JPRS 48046

Heavy Current Industry's Workings, Setup Defined, 10 pp.
HUNGARIAN, np, Figyelo, Budapest, 19 Mar 1969, pp 16-17.
JPRS 48080

Changes in Turnover-Tax System Discussed, by Imre Vincze, 8 pp.
HUNGARIAN, np, Figyelo, Budapest, 9 Apr 1969, p 3.
JPRS 48022

Eastern Europe
Economic (Contd)

Eastern Europe
Economic (Contd)

Discussion of the New Railroad Law. 6 pp.
HUNGARIAN, per, Kozlekedes Tudomanyi Szemle,
No 1, 1969, pp 11-14.
DIA LN 854-69

Present Conditions and the Future Development of Transportation in the Polish People's Republic. 12 pp.
HUNGARIAN, per, Kozlekedes Tudomanyi Szemle, No 3, 1969,
DIA LN 994-69

1968 Employment and Manpower Trends Discussed, by Laszlo Berettyan, Karoly Losonczy, 9 pp.
HUNGARIAN, per, Markaznyi Szemle, Budapest, Mar 1969, pp 81-84.
JPRS 48048

Shortcomings in CMEA Cooperation Discussed, by Imre Pardi, 6 pp.
HUNGARIAN, per, Szabadsg, Budapest, 15 Apr 1969, pp 3-4.
JPRS 47994

Container Exhibition in Budapest.
HUNGARIAN, per, Vasut, No 11, 1968, pp 27-28.
DIA LN 1031-69

Monthly Supplement for Railway Specialists foremen and Bridge Engineers. 5 pp.
POLISH, per, Przeglad Kolejowy Drogowy, No 12, Dec 1968, pp 89-91.
DIA LN 867-69

Amending Transport Law for Highway Trucking.
POLISH, per, Przeglad Komunikacyjny, No 12, 1968, pp 441-448.
DIA LN 890-69

Paths of Change in Planning and Administration Methods in the Commercial Transport of REPG Member Nations.
POLISH, per, Przeglad Komunikacyjny, No 12, 1968, pp 456-463.
DIA LN 890-69

The Actual State of Palletization in Poland. 11 pp.
POLISH, per, Przeglad Komunikacyjny, No 1, 1969, pp 8-13.
DIA LN 993-69

Integration of Production, Foreign Trade Urged, by Jerzy Glowacki, 7 pp.
POLISH, np, Zycie Gospodarcze, Warsaw, 13 Apr 1969, p 9.
JPRS 48056

Rumanian Domestic Trade to be Improved, by Ion Patan, 10 pp.
RUMANIAN, per, Comertul Modern, Bucharest, Jan 1969, pp 3-9.
JPRS 48022

Retail Trade Census Figures for 31 December 1966, 16 pp.
RUMANIAN, per, Comertul Modern, Bucharest, Jan 1969, pp 4-57.
JPRS 48022

Determination of Textile Plant Efficiency Viewed, 15 pp.
RUMANIAN, per, Industria Textila, Bucharest, Mar 1969, pp 161-165.
JPRS 48096

Arrangages in Steel Production Noted, 5 pp.
RUMANIAN, np Scinteia, Bucharest, 4 Apr 1969, pp 1, 3.
JPRS 48048

Activities in Technological Research Reviewed, by Ioan Roman, 6 pp.
RUMANIAN, np, Scinteia, Bucharest, 18 Apr 1969, pp 1, 3.
JPRS 48042

Bilateralism and Multilateralism in Foreign Trade, by Radu Negru, 13 pp.
RUMANIAN, per, Viata Economica, Bucharest, Feb 1969, pp 60-68.
JPRS 48028

Critique of Foreign Trade Promotion and Advertising, by S. Minastireanu, 11 pp.
RUMANIAN, per, Viata Economica, Bucharest, No 2, Feb 1969, pp 69-77.
JPRS 48028

First Industrial Centrals Established, by Ion Peteanu, 6 pp.
RUMANIAN, np, Viata Economica, Bucharest, 11 Apr 1969, p 9.
JPRS 48030

Eastern Europe
Economic (Contd)

Hungarian Shipbuilding,
RUSSIAN, per, Sudostroyeniye, No 9,
1968, pp 81-82.
Dept of Navy NIC Trans No 4814(c)

Effect of Investment on Trade Reviewed, 5 pp.
SERBO-CROATIAN, per, Ekonomika Politika, Belgrade,
7 Apr 1969, pp 16-17.
JPRS 48023

High Postwar Birth Rate Swells Manpower Surplus,
by Alica Wertheimer-Saletic, 12 pp.
SERBO-CROATIAN, per, Ekonomski Pregled, Zagreb,
Jan-Feb 1969, pp 53-63.
JPRS 48080

Neglect of Planning by Enterprises Demonstrated
by Zvonimir Medvedovic, 31 pp.
SERBO-CROATIAN, per, Ekonomski Pregled, Zagreb,
Jan-Feb 1969, pp 94-118.
JPRS 48080

Economic Development in 1968 Reviewed, by
Radoslav Ruksanovic, 31 pp.
SERBO-CROATIAN, per, Finansijske, Belgrade, Mar-
Apr 1969, pp 129-154.
JPRS 48096

Rural Households Distribution of Income Reviewed,
by Milan C. Petrovic, 26 pp.
SERBO-CROATIAN, per, Finansijske, Belgrade, Mar-
Apr 1969, pp 185-209.
JPRS 48096

1967 Social Product, National Income Analyzed,
by Predrag Bozovic, 18 pp.
SERBO-CROATIAN, per, Finansijske, Belgrade, Mar-
Apr 1969, pp 209-224.
JPRS 48096

Personal Consumption in Croatia Analyzed, by
Josip Stahan, 15 pp.
SERBO-CROATIAN, per, Case Teme, Belgrade, Feb
1969, pp 226-242.
JPRS 48028

Eastern Europe
Political

Importance of Control by Working Class Stressed,
by Idriz Dhrami, 12 pp.
ALBANIAN, per, Rruga e Partise, Tirana,
Dec 1968, pp 32-42.
JPRS 47978

Soviet-U.S. Alliance Called 'Counterrevolutionary',
by Vangjel Moisiu, 15 pp.
ALBANIAN, per, Rruga e Partise, Tirana,
Dec 1968, pp 64-77.
JPRS 47978

Importance of Workers' Control Stressed, by
Vangjel Mehilli, 11 pp.
ALBANIAN, per, Rruga e Partise, Tirana, Feb
1969, pp 13-23.
JPRS 48096

Party Role in Socialist Society Discussed, by
Asen Kozharov, 12 pp.
BULGARIAN, per, Filosofska Misul, Sofia, No 2,
Feb 1969, pp 3-14.
JPRS 47959

Methodological Problems of Atheism Discussed,
by Nikolay Mizov, 11 pp.
BULGARIAN, per, Filosofska Misul, Sofia, No 2,
Feb 1969, pp 50-58.
JPRS 47959

International Feature of Socialism Defended, by
Raycho Pischev, 8 pp.
BULGARIAN, per, Bladezh, Sofia, No 2, Feb 1969,
pp 32-36.
JPRS 48065

Aspects of New Constitution Interpreted, by
Gospodin Zhelev, 14 pp.
BULGARIAN, per, Novo Vreme, Sofia, No 1, Jan
1969, pp 95-106.
JPRS 47959

Todor Zhivkov Address Hails Forestry Week, by
Todor Zhivkov, 7 pp.
BULGARIAN, per, Rabotnichesko Delo, Sofia, 29
Apr 1969, pp 1, 2.
JPRS 48029

Lenin Birthday Anniversary Commemorated,
by Luchezar Avramov, 19 pp.
BULGARIAN, rpt, Sofia Radio, 1700 GMT,
22 Apr 1969.
JPRS 47978

Eastern Europe
Political (Contd)

Police Investigations Topic of Interview, by
Jaroslav Strun, 5 pp.
Czech, np, Prace, Prague, 1 May 1969, Annex p 3.
JPRS 48020

Rebirth of an Act of Parliament, by
Lapkiado Vallalat.
HUNGARIAN, per, Vasut, No 11, 1968, pp 9.
DIA LN 1032-69

Early Resurrection of Slovak Writers Organ ex-
plained, by Jozky Ladislav, 8 pp.
Slovak, np, Smena, Bratislava, 10 Apr 1969, p 3.
JPRS 48029

Ladislav Szanto Sees Leninism Applicable in
Czechoslovakia, by Ladislav Szanto, 5 pp.
Slovak, np, Pravda, Bratislava, 22 Apr 1969,
pp 1, 5.
JPRS 48029

Ladislav Abraham Stresses Importance of Leninism,
by Ladislav Abraham, 6 pp.
Slovak, np, Pravda, Bratislava, 22 Apr 1969, pp 1, 2.
JPRS 48029

Radio Free Europe, CIA Activity Discussed, by
Jaroslav Strun, 10 pp.
Czech, np, Prace, Prague, 10 Apr 1969, p 13.
JPRS 48029

Markiewicz Shows Ways to Overcome Revisionism,
by Wladyslaw Markiewicz, 13 pp.
POLISH, per, Trybuna Ludu, Warsaw, 11, 13, 15
Apr 1969, pp 5, 3, 7, 3.
JPRS 47978

Trybuna Ludu Highlights ZSL Congress Resolution,
10 pp.
POLISH, np, Trybuna Ludu, Warsaw, 23 Apr 1969,
p 4.
JPRS 48029

Changes, Problems in Warsaw Party Training,
by Adam Nowalik, 5 pp.
POLISH, per, Zycie Partii, Warsaw, Apr 1969,
pp 21, 22.
JPRS 48065

Kepa Addresses Warsaw Election Meeting, by
Jozef Kepa, 10 pp.
POLISH, np, Zycie Warszawy, Warsaw, 15 Apr 1969,
pp 3, 4.
JPRS 48003

Eastern Europe
Political (Contd)

Philosophy of Herbert Marcuse Evaluated, by
Eugen Jacob, 16 pp.
RUMANIAN, per, Lupta de Clasa, Bucharest,
Feb 1969, pp 41-52.
JPRS 48020

Settlement of International Disputes Discussed,
by I. Closca, 13 pp.
RUMANIAN, per, Lupta de Clasa, Bucharest,
Feb 1969, pp 59-68.
JPRS 48020

State Organs Relations with Citizens Analyzed,
by Neculai Frost, 5 pp.
RUMANIAN, per, Lupta de Clasa, Bucharest,
Feb 1969, pp 69-72.
JPRS 48020

The Eastern Policy of the Federal Republic
of Germany, by M. S. Voslenskiy.
RUSSIAN, rpt, Vostochnaya Politika FRG
(1949-1966), 1967.
*ACSI J-6923
ID 2204003009

Intervention in Czechoslovakia Analyzed, by
Branko Caratan, 6 pp.
SERBO-CROATIAN, per, Kase Teme, Belgrade, Feb
1969, pp 282-287.
JPRS 48029

Elements of True Commune Listed, Defined,
by Stojan J. Iomic, 16 pp.
SERBO-CROATIAN, rpt, Pregled, Sarajevo, Mar
1969, pp 307-321.
JPRS 48003

Military

The Armored Battalion Deep Advance.
BULGARIAN, per, Armeyski Pregled, No 5,
1967, pp 9-24.
DIA LN 742-69

The Tank Company in Defense Followed by
Going Into Attack.
BULGARIAN, per, Armeyski Preglad, No 5,
1967, pp 30-32.
DIA LN 742-69

Eastern Europe
Military (Contd)

Eastern Europe
Military (Contd)

The Mechanized Armored Company in a Reconnaissance Mission.
BULGARIAN, per, Armeyski Preglad, No 5,
1967, pp 37-41.
DIA LN 742-69

Artillery Cover When Introducing the
Battalion's Reserve Troops into a Battle.
BULGARIAN, per, Armeyski Preglad, No 7,
1967, pp 25-27.
DIA LN 742-69

Introducing Reserve Troops of the Mechanized Armored Battalion.
BULGARIAN, per, Armeyski Preglad, No 7,
1967, pp 28-30.
DIA LN 742-69

Transporting the Battalion on Railways.
BULGARIAN, per, Armeyski Preglad, No 7,
1967, pp 53-56.
DIA LN 742-69

The Lessons.
The Red Berets. 11 pp.
BULGARIAN, per, Bulgarski Voin, Oct 1969,
pp 22-25.
DIA LN 967-69

Sanitary Inspection in Army Discussed, by
V. Gerganov, iet Petrov, 5 pp.
BULGARIAN, per, oanno-meditsinsko Lelo, Sofia,
no 1, 1969, pp 45-58.
JPRS 46003

General Kosmel Discusses Action Program,
by Edward Kosmel, 6 pp.
CZECH, per, A Revue, Prague, No 3, 1969,
pp 8-9.
JPRS 46020

Courses at Military Schools Criticized,
by A. Kolinek, 5 pp.
CZECH, per, A Revue, Prague, No 3, 1969,
pp 14-15.
JPRS 46020

Policies for Border Guards Need Improvement,
by Bohuslav Taus, 5 pp.
CZECH, per, A Revue, Prague, No 3, 1969,
pp 16-17.
JPRS 46020

Electronic Warfare Equipment and Methods.
Technology and Methods of Electronic
Warfare, by A. I. Pail.
GERMAN, bk, 1968.
Dept of Navy NIC Trans No 2823

How Modern are the Federal Armed Forces,
11 pp.
GERMAN, per, Bundesheer Illustrierte,
Nov 1968.
DIA LN 668-69

Decree Sets Liability of Armed Forces Members,
2 pp.
GERMAN, per, Gesetzblatt der Deutschen
Demokratischen Republik, East Berlin, Part II,
No 25, 25 Mar 1969, pp 11-12.
JPRS 46020

Manual of Military Chemistry. Vol 2, by
Siegfried Franke.
GERMAN, bk, Lehrbuch der Militaerchemie,
Vol 2, 1969, 547 pp.
*ACSI J-6807
*FSTC-HT-23-557-69

Navy Armament as Reflected in the New
Fleet Handbooks. 11 pp.
GERMAN, per, Marine Rundschau, Feb 1969,
pp 51-57.
DIA LN 1021-69

The Development of Czechoslovakian Small Arms (II),
by M. Sada, 9 pp.
GERMAN, per, Militartechnik, No 6, 1968, pp 253-255.
ARM/FSTC/HT-23-325-68

Armored Vehicles of Second Generation. 12 pp.
GERMAN, per, Soldat und Technik, 3 Mar
1968.
DIA LN 858-69

Soviet Zone of Germany Increasing the
Naval Inventory, by Siegfried Breyer.
GERMAN, per, Soldat und Technik, No 3,
1969.
Dept of Navy NIC 2835

The Soviet 4x4 (5x8) Wheeled APC: BTR-40S.
GERMAN, per, Soldat und Technik, No 5,
1969, pp 120-126.
*ACSI J-6911
*FSTC-HT-23-239-69

Eastern Europe
Military (Contd)

Espionage. 8 pp.
GERMAN, per, Der Spiegel, No 12, 17 Mar
1969, pp 36, 38.
DIA LN 946-69

Automobile Transport of the 1 Army of the
Polish People's Armed Forces.
POLISH, per, Motoryzacja, No 10, 1968,
pp 256-260.
DIA LN 891-69

Civil Defense Discussed in Poznan Voivodship,
18 pp.
POLISH, np, Zolnierz Wolnosci, Warsaw, 15 Apr
1969, pp 3, 4.
JPRS 47959

National Defense Law. 55 pp.
SERBO-CROATIAN, rpt, National Defense Law,
12 Feb 1969.
DIA LN 985-69

Military Identification Booklet Described,
5 pp.
SERBO-CROATIAN, per, Sluzbeni List SFRJ,
Belgrade, 13 Mar 1969, pp 348-349.
JPRS 48020

Geographic

The Northeast Edge of the Thuringian For-
est Between the Ruhl Crystal and the
Schwayburg Ridge. 94 pp.
GERMAN, rpt, Der Nordostrand des Thuringer
Waldes Zwischen Ruhlaer Kristallin und
Schwarzbunger Sattel, No 3, Jan 1959.
DIA LN 552-69

Sociological

Hygienic Conditions in Rural Areas Criticized,
by Myftar Mico, Zisa Cikuli, 4 pp.
ALBANIAN, per, Rruga e Partise, Tirana,
Dec 1968, pp 56-63.
JPRS 47978

Eastern Europe
Sociological (Contd)

Collapse of Culture in China Described, by
Yordan Bozhilov, 6 pp.
BULGARIAN, per, Literaturen Front, Sofia, 13 14,
2 Apr 1969, p 4.
JPRS 48065

Law on Execution of Court Sentences Passed, 27 pp.
BULGARIAN, per, Nazharen Vestnik, Sofia, 15 Apr
1969, pp 1-3.
JPRS 48065

Subject Index of Regulations Published in Coirka
Zanovku during 1968, 123 pp.
CZECH, per, Coirka Zagonu Ceskoslovenske social-
isticke Republiky, Prague, Vol 1968, Part 1-51,
pp 1-40.
JPRS 48120

Development Trends of Bloc Patent Law Surveyed,
by Habil Wolfgang Seiffert, Guenter Schenfeld,
14 pp.
GERMAN, per, Der Neuerer B, East Berlin,
Mar 1969, pp 55-62.
JPRS 47994

Lesser Chemical Education, Research Described,
13 pp.
HUNGARIAN, per, Muszaki Elet, Budapest, 16 Apr
1969, pp 25-27.
JPRS 48078

New Legislation on Inventions Reviewed, by
D. Zanaria, 3 pp.
ROMANIAN, per, Inventii si Inovatii, Bucharest,
Jan 1969, pp 8-10.
JPRS 48056

Trade Unions Active in Establishing Labor Norms,
by Ion Cocot, 6 pp.
ROMANIAN, np, lanca, Bucharest, 8 Apr 1969, pp 1-5.
JPRS 47959

Law on Funds of Work Organizations Amended,
by AI, 5 pp.
SERBO-CROATIAN, per, Vesnik Jugoslovenske
Investicione Banke, Belgrade, Nov 1968,
pp 1-3.
JPRS 48048

WESTERN EUROPE

Economic

Personnel reduction at Bordeaux; Situation of French Naval Construction; the Ateliers Terrin Company of Provence. 13 pp.
FRENCH, per, Journal de la Marine Marchande 20 Feb 1969, pp 401-404, 423.
DIA LN 879-69

Credits for Reconstruction and Modernization of the Federal Republic's Fleet Reached 4 Billion Marks by 1 January 1969.
FRENCH, per, Journal de la Marine Marchande No 2567, Feb 1969, pp 469.
DIA LN 1103-69

Mr. Chaban-Delmas Hopes that the Conversion Plan for the Bordeaux Yards, for Three to Five Years, will Provide a Last Chance for Naval Construction.
FRENCH, per, Journal de la Marine Marchande No 2567, Feb 1969, pp 474.
DIA LN 1103-69

Union Hall for Ship and Marine Engine Constructors Publishes Its Annual Report.
FRENCH, per, Navires, Ports et Chantiers, No 226, Nov 1968, pp 831-835.
DIA LN 960-69

French Shipyards. 13 pp.
FRENCH, per, Navires, Ports et Chantiers, No 225, Feb 1969, pp 130-133.
DIA LN 957-69

Twenty Years of Later Rouen, Capital of Haute-Normandie, Port of the Parisian Basin 6 pp.
FRENCH, per, L'Ouest Industriel, No 166, Sept 1965, pp 18-23.
DIA LN 1051-69

The Commercial Fleet and French Naval Construction. 39 pp.
FRENCH, per, La Revue Maritime, No 260, Dec 1968, pp 1472-1510.
DIA LN 678-69

French Inland Navigation in 1968.
FRENCH, rpt, Revue de la Navigation Fluviale Europeenne Ports et Industries Aménagement de Territoire, 25 Mar 1969, pp 201-207.
DIA LN 1114-69

Programming of Transportation on the Mosel.
FRENCH, rpt, Revue de la Navigation Fluviale Europeenne Ports et Industries Aménagement de Territoire, 25 Mar 1969.
DIA LN 1114-69

The Modernization of the Oise.
FRENCH, per, Revue de la Navigation Interieure, No 16, Sept 1968, p 590.
DIA LN 587-69

Record Accomplishments of the Austrian Shipping System on the Danube River Since 1945.
GERMAN, per, Zeit fur Binnenschifffahrt, No 3, 1969, pp 79, 111.
DIA LN 553-69

Power Production Since 1951 and Its Future Development, by A. de Carvalho.
PORTUGUESE, rpt, 9 pp.
Army Topographic Command
TKJ, E38

Federal Legislation, Executive Directives - Decree-Law No 161.
PORTUGUESE, per, Geographic Bulletin, No 201.
Army Topographic Command
G1, B65

Financial Statement of the Telephone Company. 5 pp.
SPANISH, per, Espana Economica, No 3, 27 Jan 1968, pp 28-29.
DIA LN 988-69

The Demand for Transportation of Freight and Passengers Up to 1975. 5 pp.
SPANISH, bk, El Transporte, all Pages.
DIA LN 1068-69

Political

or Aims for Socialist Inland by Peaceful Means, by Aarne Saarinen, 5 pp.
FINNISH, rpt, Jansan Ouliset, Helsinki, 6 Apr 1969, p 10.
DIA 48066

Western Europe
Political (Contd)

Statement of International Matters Approved.
5 pp.
FINNISH, np, Kansan Utiset, Helsinki, 9 Apr 1969,
p 5.
JPRS 48036

Seminar on Revolution, Revolting Youth Reported,
by Rauno Setälä, 8 pp.
FINNISH, per, Kommunist, Helsinki, No 2, 1969,
pp 71-74.
JPRS 47996

Drumaux Reports on Problems of Foreign Policy,
by Marc Drumaux, 5 pp.
FRENCH, rpt, Le Grapreau Rouge, Brussels, 4 Apr
1969, pp 4, 5.
JPRS 47957

French CP Gains, Losses Since May 1968 Reviewed,
by Claude Harmel, 12 pp.
FRENCH, rpt, Est et Ouest, Paris, 16-31 Mar 1969,
pp 510.
JPRS 47957

CP Writer Discusses Engineers, Staff Employees,
by Joe Metzger, 11 pp.
FRENCH, per, La Nouvelle Critique, Paris, Apr
1969, pp 63-67.
JPRS 47957

Communist Discusses Situation in Spain, 14 pp.
FRENCH, per, Politique Aujourd'hui, Paris, Mar
1969, pp 34-41.
JPRS 47957

Socialist United States of Europe Proposed, 13 pp.
FRENCH, per, Quatrième Internationale, Paris,
Vol 27, No 36, Mar 1969, pp 1-12.
JPRS 48036

Marxist-Leninist Comment on Political System,
Parties, by P. St., 5 pp.
GERMAN, per, Rote Fahne, Vienna, No 108, 2nd Apr/
Beginning May 1969, pp 8-11.
JPRS 48066

Communist Discusses Chinese-Soviet Conflict,
by Leopoldo Spira, 5 pp.
GERMAN, per, Tag und Ziel, Vienna, Vol 26, No 5,
May 1969, pp 225-229.
JPRS 48066

Western Europe
Political (Contd)

CP Writer Criticizes Soviet Interpretation of
Stalin, by Eva Priester, 8 pp.
GERMAN, per, Tag und Ziel, Vienna, Vol 26, No 5,
May 1969, pp 235-240.
JPRS 48066

Freedom, Democracy Seen as Imminent in Spain,
by Santiago Carrillo, 10 pp.
SPANISH, rpt, Espana Republicana, Havana, 1 Apr
1969, pp 8-10.
JPRS 48066

Military

A Regiment of Battle Tanks. 9 pp.
FRENCH, per, L'Armee, No 85, Mar 1969,
pp 24-29.
DIA LN 1058-69

International Naval Construction. 9 pp.
FRENCH, per, La Revue Maritime, No 259,
Nov 1968, pp 1343-1350.
DIA LN 1102-69

Royal Marines. 26 pp.
FRENCH, bk, Les Royal Marines, pp 53-55.
DIA LN 956-69

Mines and Booby-traps.
PORTUGUESE, bk, Minas e Armadilhas, 1965,
702 pp.
*ACSI J-6933
ID 2879010167

Brigade Logistics.
SPANISH, per, Revista Ilustrada de las
Armas y Servicios, No 327, pp 58.
DIA LN 953-69

Midshipmen's School Trains Future Naval Officers,
by Lisanka, 6 pp.
SPANISH, per, Verde Olivo, Havana, 20 Apr 1969,
pp 34-40.
JPRS 48126

Artillery News Organ for the Artillery
and for the Air Defense - A 8 The Royal
Boden Artillery Regiment.
SWEDISH, per, Artilleri Tidskrift, No 97,
1968, pp 115-116.
DIA LN 693-69

Western Europe
Military (Contd)

Training in the Uses of Self-Propelled Cannon.
SWEDISH, per, Artilleri Tidskrift, No 97, 1968, pp 120-123.
DIA LN 693-69

Chemical Warfare Agents and Their Effects, by Bo Sorbo.
SWEDISH, bk, Forsvarets Och Katastrofmedicin, Chapter 18, 28 pp.
NAV/NIC/TRAN-2827-69

AFRICA
Economic

French, MEC Aid to Senegal Shows Increase, 5 pp.
FRENCH, per, Bulletin de l'Afrique Noire, Paris, 12 Mar 1969, pp 10980-10982.
JPRS 47953

Survey of Organization, Status of Private business, 6 pp.
FRENCH, np, Bulletin de l'Afrique Noire, Paris, 26 Mar 1969, pp 11017-11021.
JPRS 48077

Railway Growth and Development Plans Reviewed, 5 pp.
FRENCH, np, Dakar-Matin, Dakar, 10 Apr 1969, p 5.
JPRS 48067

Financial, Political Situation Hinder Economy, 5 pp.
FRENCH, per, Informations d'Outre-Mer, Paris, 19 Feb 1969, pp 8, 9; 12 Mar 1969, pp 9, 10; 26 Mar 1969, pp 8, 9.
JPRS 47976

The Ports of Guiana. 11 pp.
FRENCH, per, Journal de la Marine Marchande, 26 Sept 1968, pp 2050-2055.
DIA LN 606-69

1968 West German-African Trade Increased, 6 pp.
FRENCH, np, Le Moniteur Africain, Dakar, 3 Apr 1969, p 10.
JPRS 48009

Africa
Economic (Contd)

Deterioration of Terms of Trade Analyzed, 5 pp.
FRENCH, np, Le Moniteur Africain, Dakar, 3 Apr 1969, p 11.
JPRS 48077

Port Traffic and Expansion Plans Reviewed, 5 pp.
FRENCH, np, Le Moniteur Africain, Dakar, 24 Apr 1969, pp 12, 10.
JPRS 48077

RAI Plans the Television Network for the Island of Malta. 6 pp.
ITALIAN, per, Notizie Iri, Apr 1968, pp 71-72, 74/
DIA LN 1008-69

1968 Figures Reflect Angolan Industrial Growth, 8 pp.
PORTUGUESE, rpt, Actualidade Economica, Luanda, 10 Apr 1969, pp 3-6.
JPRS 48067

What was Equatorial Guinea Yesterday, by Ramiro Santamaria, 11 pp.
SPANISH, rpt, Fraga Iribarne en Guinea Ecuatorial, Sept 1968, pp 3-8.
DIA LN 725-69

Political

Destourian Socialist Party's Policy Statement, 6 pp.
ARABIC, np, Al-'Amsal, Tunis, 23 Mar 1969, p 9.
JPRS 47953

Communist Views Problems, U. S. Involvement in Congo, by Gabriel Molina, 7 pp.
ENGLISH, per, Tricontinental, Havana, Mar-Apr 1969, pp 106-112.
JPRS 48009

Raul Verges Criticizes French 'Colonial Policy', 6 pp.
ENGLISH, per, Tricontinental, Havana, Mar-Apr 1969, pp 116-124.
JPRS 48009

Dutch Magazine Interviews President Bourguiba, 6 pp.
FRENCH, np, L'Action, Tunis, 23 Apr 1969, p 7.
JPRS 48009

Africa
Political (Contd)

National Assembly Adopts Four Important Bills, 5 pp.

FRENCH, np, Afrique Nouvelle, Dakar, 24-30 Apr 1969, pp 4, 14.
JPRS 48077

Senghor Views Senegal on Independence Day, by President Senghor, 8 pp.

FRENCH, rpt, Dakar-Matin, Dakar, 5 Apr 1969, pp 1-4.
JPRS 47953

Current Situation in Senegal Analyzed, by Sara Liouf, 9 pp.

FRENCH, np, Dakar-Matin, Dakar, 15 Apr 1969, pp 1-2, 16 Apr 1969, p 3.
JPRS 48077

Simango Reaffirms Policies of Liberation Front, 5 pp.

FRENCH, per, El Djelch, Algiers, Apr 1969, pp 31-33.
JPRS 47976

Semipublic Offices Accused of Embezzlement, 5 pp.

FRENCH, np, L'Etoile, Kinshasa, 1-2 Mar 1969, pp 7, 11, 6 Mar 1969, pp 2, 5.
JPRS 48067

Counterrevolutionary Struggle Must be Defended, 8 pp.

FRENCH, rpt, Horoya-Hebdo, Conakry, 12-18 Apr 1969, pp 2, 20-24.
JPRS 47953

Ideologies of African Independence Discussed, by Emile Simon, 7 pp.

FRENCH, rpt, Jeune Afrique, Paris/ Tunis, 14-20 Apr 1969, pp 30-32.
JPRS 48009

Critical Point in National Development Reached, 5 pp.

FRENCH, np, Le Moniteur Africain, Dakar, 24 Apr 1969, p 7.
JPRS 48067

Reorganization of Government Structures Examined, 6 pp.

FRENCH, np, El Moudjahid, Algiers, 15 Apr 1969, p 3.
JPRS 48040

Africa
Political (Contd)

National Service Commended in Mobilizing Youth, by Majer Chabou, 6 pp.

FRENCH, np, El Moudjahid, Algiers, 20-21 Apr 1969, p 4.
JPRS 48067

Action Group Official Interviewed on Biafra, by S. G. Ikoku, 6 pp.

FRENCH, rpt, Politique Aujourd'hui, Paris, Feb 1969, pp 33-37.
JPRS 47953

Ideologies of Independent African Countries, by Yves Benot, 7 pp.

FRENCH, rpt, Politique d'Aujourd'hui, Paris, Feb 1969, pp 40-45.
JPRS 47953

Last African Community: Rwanda to Join?, by Pierre Gashumba, 7 pp.

FRENCH, rpt, Rwanda Carrefour d'Afrique, Kigali, Nov-Dec 1968, pp 4-5, 10.
JPRS 47953

New Charter and Statutes Issued by UNC, 19 pp.

FRENCH, per, L'Unité, Yaounde, No 119, 1969, pp 10-11, 11, 14.
JPRS 48040

African Revolutionary Movements Praised, Analyzed, 5 pp.

SPANISH, per, Boletin Tricontinental, Havana, Jan 1969, pp 11-15.
JPRS 48067

Frolin'a Operations and Objectives Outlined, 9 pp.

SPANISH, per, Boletin Tricontinental, Havana, Jan 1969, pp 30-31, 33-35.
JPRS 48077

Military

Navy of Malagasy. 7 pp.

FRENCH, per, Freres d'Armes, No 37, Mar-Apr 1969, pp 12-15.
DIA LN 1073-69

Africa
Military (Contd)

Decree Reorganizes Dahomeyan Armed Forces, 5 pp.
FRENCH, per, Journal Officiel de la Republique du Dahomey, Porto-Novo, 1 Jan 1969, pp 2-4.
JPRS 48040

Guerrilla Warfare in Africa Described, by
Guillermo Solana, 6 pp.
SPANISH, per, Africa, Madrid, Jan 1969, pp 3-6.
JPRS 48067

Africa's War of Revolution. 5 pp.
SWEDISH, per, Officers Forbunds Bladet,
No 2, 1969, pp 46-47, 51,
DIA LN 1118-69

Sociological

Importance of Clans, Nobles, Notables Examined,
by Jean Martin, 21 pp.
FRENCH, per, L'Afrique et l'Asie, Paris,
Nos 81-82, 1968, pp 39-63.
JPRS 48021

Congress Stresses Teachers' Role in Revolution,
5 pp.
FRENCH, per, Bulletin Quotidien de l'Agence Congolaise d'Information, Brazzaville, 24 Mar 1969, pp 1-5.
JPRS 48009

Education Minister on Current School Year, 5 pp.
FRENCH, rpt, Dakar Matin, Dakar, 19 Mar 1969, p 1.
JPRS 47953

Ordinance on New Government Structure,
Procedures, 7 pp.
FRENCH, per, L'Etoile, Kinshasa, 7 Mar 1969,
p 2; 8-9 Mar 1969, p 2.
JPRS 48021

Malagasy View of Traditional Fokonolona Given,
by Rene Perrin, 7 pp.
FRENCH, np, Lumiere, Fianarantsoa, 20 Apr 1969,
p 5.
JPRS 48009

Africa
Sociological (Contd)

Peasant Resettlement Experiment Described, 5 pp.
FRENCH, rpt, Renaissance Carrefour d'Afrique, Algali,
Nov-Dec 1968, pp 8-9.
JPRS 47953

Deans Sign Document on University Reform, 5 pp.
FRENCH, np, La Tribune Africaine, Kinshasa, 8 Feb 1969, p 3.
JPRS 48040

Sidamo Social Structure and Customs Reviewed,
by Bruno Lonfernini, 15 pp.
ITALIAN, per, Migrazia, Verona, Apr 1969, pp 8-13.
JPRS 48077

MIDDLE EAST
Economic

Minister of Labor Speaks on 1969-1970 Budget,
by Yosef Almogi, 6 pp.
ENGLISH, per, 'Avodah Habitua' Leumi-Lahon
misra'at 'avodah, Tel Aviv, Mar 1969, pp 124-126.
JPRS 48089

Health of Lebanese Economy Viewed by Sector,
by Jean Chami, 6 pp.
FRENCH, per, L'Orient, Beirut, 31 Mar 1969,
pp 1, 3.
JPRS 47985

Iran's Progress in Past Seven Years Cited, 12 pp.
PERSIAN, per, Gahnameh-ye Artesh, Tehran, Nos 5,
6, Mar 1968 - Mar 1969, p 104.
JPRS 48089

Middle East
Political

Middle East
Political (Contd)

Aden Sends a Memorandum to the Arab League,
5 pp.
ARABIC, np, 14 October, Aden, 20 Mar 1969,
p 4.
JPRS 47985

Nature of Occupation and Resistance Analyzed,
by Lutfi Al-Khuli, 5 pp.
ARABIC, np, Al-Ahram, Cairo, 23 Feb 1969, p 5.
JPRS 48004

In'am Ra'd Tells his Experiences and Opinions,
by Fu'ad Hubayqah, 7 pp.
ARABIC, np, al-Anal, Beirut, 5 Apr 1969, p 2.
JPRS 48083

Ba'ath Party Indicts Lebanon Government as
Pro-US, 12 pp.
ARABIC, per, Dirasat, Beirut, Apr 1969,
pp 117-128.
JPRS 48053

Development of Syrian Ba'ath Party Discussed,
by Mihad al-Ghadiri, 7 pp.
ARABIC, np, al-Hayah, Beirut, 2 Apr 1969, p 8.
JPRS 48083

Heated Debate Over Commando Issue in Lebanon
Government, 15 pp.
ARABIC, np, al-Hayah, Beirut, 25 Apr 1969,
pp 5, 7, 8.
JPRS 48089

Iraqi Communist Party's Palestine Policy
Given, 13 pp.
ARABIC, per, al-Hurriya, Beirut, 10 Mar 1969,
pp 12-14.
JPRS 48053

Arab Communist Parties Disagree on Palestine,
by Muhammad Kishli, 8 pp.
ARABIC, per, al-Hurriyyah, Beirut, 31 Mar 1969,
pp 10-11, 15.
JPRS 48083

Communists Dispute Role of Petty Bourgeoisie,
by Muhammad Kishli, 8 pp.
ARABIC, per, al-Hurriyyah, Beirut, 7 Apr 1969,
pp 10-11, 15.
JPRS 48083

New Radio Personalities Train Rigorously,
by Sakinah Fu'ad, 5 pp.
ARABIC, per, Al-Idha'ah wa Al-Telifisiya,
Cairo, 22 Feb 1969, pp 8-9.
JPRS 47985

Egyptian Land Reclamation Authority Reorganized,
6 pp.
ARABIC, np, Al-Jumhuriyah, Cairo, 14 Apr 1969,
p 7.
JPRS 48083

Egypt Pursues Diplomatic Activity in Europe,
by Fu'ad Matar, 7 pp.
ARABIC, per, an-Nahar, Beirut, 29 Mar 1969,
pp 1, 6.
JPRS 47985

Evolution of Socialist Consciousness Discussed,
by 'Ala' Hamrushi, 5 pp.
ARABIC, np, Al-Tullab, Cairo, 1 Apr 1969, p 4.
JPRS 48004

Minister Discussed Youths, Press and Politics,
by Safi al-Din Abu al-'Izz, 7 pp.
ARABIC, np, Al-Tullab, Cairo, 1 Apr 1969, p 7.
JPRS 48004

Revolutionary Movement in Gulf Area Discussed,
14 pp.
ENGLISH, per, Tricontinental, Havana, Mar-Apr
1969, pp 79-80, 89-90.
JPRS 48004

New Palestine Proposed as Middle East Solution,
by Philippe Devillers, 12 pp.
FRENCH, per, Jeune Afrique, Tunis/Faris,
31 Mar-6 Apr 1969, pp 48-54.
JPRS 47985

Alleged Sapir-Dayan Conversation on Election
Strategy, by Uri Avneri, 7 pp.
HEBREW, per, Haolam Hazeh, Tel Aviv, 26 Mar
1969, pp 11-12.
JPRS 48053

Maki Takes Leftist Stand on National Defense,
by Moshe Sneh, 6 pp.
HEBREW, np, Kol Haam, Tel Aviv, 23 Mar 1969,
p 2.
JPRS 47985

Middle East
Military

Egypt Works Toward Military Preparedness,
by Fu'ad Matar, 7 pp.
ARABIC, per, an-Nahar, Beirut, 30 Mar 1969,
pp 1, 8.
JPRS 47985

Egypt Lives in a Perpetual State of War,
by Fu'ad Matar, 7 pp.
ARABIC, per, an-Nahar, Beirut, 31 Mar 1969,
pp 1, 4.
JPRS 47985

Writer Believes Egypt Now Ready to Fight Israel,
by Fuad Matar, 6 pp.
ARABIC, np, an-Nahar, Beirut, 1 Apr 1969, p 1.
JPRS 48083

Command Training Exercise Illustrated, by
A. Oren, 6 pp.
HEBREW, per, Bamahaneh, Tel Aviv, 25 Mar 1969,
pp 8-11.
JPRS 47985

Mobile to Static Defense Shift Along Suez
Explained, by Eli Tabor, 6 pp.
HEBREW, per, Haolam Hazeh, Tel Aviv, 1 Apr 1969,
pp 9-11.
JPRS 48053

Geographic

The Rivers of Afghanistan, by V. L. Shultz.
61 pp.
RUSSIAN, bk, Reki Afganistana, 1968,
pp 1-30.
DIA LN 675-69

Sociological

UAR Law on Private Education Decreed, 13 pp.
ARABIC, per, al-Jaridah al-Rasmiyah, Cairo, 23
Jan 1969, pp 58-64.
JPRS 48089

Middle East
Sociological (Contd)

Kuwaitis Refrain from Fractional Employment,
by Musayn Muryi Al-Jar, 5 pp.
ARABIC, np, Al-Ra'i al-'Am, Kuwait, 31 Mar 1969,
p 4.
JPRS 48083

Situation in a Damascus Prison Discussed, 5 pp.
ARABIC, np, Ath-Thawrah, Damascus, 29 Mar 1969,
p 6.
JPRS 48004

Golan Heights Development Plan Discussed,
by Nahum Barnes, 8 pp.
HEBREW, per, Bamahaneh, Tel Aviv, 25 Mar 1969,
pp 5-7.
JPRS 47985

FAR EAST
Economic

Communist China's Economic Reports Questioned,
by Ho Yu-wen, 17 pp.
CHINESE, per, Fei-ch'ing Yueh-pao, Taipei,
1 Feb 1969, pp 56-62.
JPRS 48016

Communist China's Transportation, Communication,
by Ch'eng Chun-pei, 11 pp.
CHINESE, per, Fei-ch'ing Yueh-pao, Taipei,
1 Feb 1969, pp 71-75.
JPRS 48016

Draft of Fourth 5-Year Plan Discussed, 5 pp.
ENGLISH, Radio, Delhi Radio, 1432 GMT, 21 Apr
1969.
JPRS 47961

The Railroad Agency - Seven Year Plan.
39 pp.
INDONESIAN, bk, The Railroad Agency - Seven
Year Plan, Vol 1, 1960-1966, pp 1-38.
DIA LN 944-69

Control Characteristics of BWR Plants
Computer Control in BWR Plants.
JAPANESE, per, Toshiba Review, 1969,
pp 30-49.
*Dept of Navy NIC

Far East
Economic (Contd)

Further Development of Machine Industry is Urgent, by Sin Pong-sop, 13 pp.
KOREAN, per, Kulloja, P'yongyang, 15 Mar 1969, pp 46-52.
JPRS 48070

Party Members Assigned to Aid Factory Workers, by Ch. Sangisharab, 6 pp.
MONGOLIAN, per, Amyn Am'dral, Ulan Bator, No 6, 1968, pp 30-34.
JPRS 48035

Political

Haiphong Chinese Teachers Hold Conference, by Ch'en Chih, 6 pp.
CHINESE, np, Bao Tan Viet Hoa, Hanoi, 27 Mar 1969, pp 1, 4.
JPRS 48043

Overseas Chinese Schools Take Party Guidance, by Lin Ming, 15 pp.
CHINESE, np, Bao Tan Viet Hoa, Hanoi, 27 Mar 1969, p 2.
JPRS 48043

Nijalingappa Views Party Role, National Needs, by Nijalingappa, 10 pp.
ENGLISH, np, Hindustan Times, New Delhi, 28 Apr 1969, p 8.
JPRS 48047

American Aggression, Tragedy of Laos Discussed, by Theo Ramco, 11 pp.
FRENCH, rpt, Cahiers du Communisme, Paris, Mar 1969, pp 76-85.
JPRS 47961

China's Strategic and Defensive Posture Analyzed, 15 pp.
FRENCH, per, Forces Aeriennes Francaises, Paris, No 257, Apr 1969, pp 501-514.
JPRS 48063

Peking, The World, The 'Two China' Theory, by Ferenc Fabian, 9 pp.
HUNGARIAN, per, Magyarorszag, Budapest, 30 Mar 1969, pp 4-5.
JPRS 48016

Far East
Political (Contd)

Kim Il-sung's Policy for Party Work Discussed, 16 pp.
KOREAN, per, Kulloja, P'yongyang, 15 Mar 1969, pp 20-29.
JPRS 48070

The Revolutionary Work Method Described, by Pak Hui-sok, 14 pp.
KOREAN, per, Kulloja, P'yongyang, 15 Mar 1969, pp 30-37.
JPRS 48070

Democratic Reforms Summarized, by Son Chong-hu, 15 pp.
KOREAN, per, Kulloja, P'yongyang, 15 Mar 1969, pp 38-45.
JPRS 48070

Violence is the Only Way to Seize Power in South Korea, by Paek Hui-man, 11 pp.
KOREAN, per, Kulloja, P'yongyang, 15 Mar 1969, pp 53-58.
JPRS 48070

The Vietnamese War is an American Graveyard, by Ko Sung-il, 11 pp.
KOREAN, per, Kulloja, P'yongyang, 15 Mar 1969, pp 59-64.
JPRS 48070

Non-Staff Committees Check Individual Members, by S. Choijams, 6 pp.
MONGOLIAN, per, Amyn Am'dral, Ulan Bator, No 6, 1968, pp 8-11.
JPRS 48032

Party Committees Check on Individuals, Party, by S. Bataa, 7 pp.
MONGOLIAN, per, Amyn Am'dral, Ulan Bator, No 6, 1968, pp 35-40.
JPRS 48035

Regularity Urged in Holding Party Organization Meetings, by K. Basanjab, 6 pp.
MONGOLIAN, per, Amyn Am'dral, Ulan Bator, No 8, 1968, pp 47-51.
JPRS 48035

Laicism -- The Threat to Socialism in China, by Fedor Burlatskiy, 79 pp.
RUSSIAN, bk, Laicism -- Ugroza Sotsializmu v Kitaye, Moscow, 1968, pp 1-22, 58-64, 120-192.
JPRS 47958

Far East
Political (Contd)

Impressions of Visit to Vietnam Recorded, 11 pp.
RUSSIAN, bk, Under the Skies of Vietnam, Moscow,
1963, 31 pp.
JPRS 48072

Cuban Correspondent Interviews U. S. Prisoner,
by Joaquin Crespo Jaga, 6 pp.
SPANISH, per, Verde Olivo, Havana, 4 May 1969,
pp 4-57.
JPRS 48119

Protect Public Property; Implement Savings;
Fight Corruption, Waste, Bureaucratic Behaviour,
by Ho Chi Minh, 34 pp.
VIETNAMESE, bk, Bao Ve Cua Cong, Thuc Hanh Tiet
Kiem, Chong Tham U, Lang Phi, Qui Lieu, Hanoi,
Dec 1968, pp 3-86.
JPRS 48082

Credits Adherence to Party Ideology for
Survival, by Tran Dong, 15 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 11-20, 54.
JPRS 48019

Achievements Lauded But Harder Work Urged,
12 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 1-10.
JPRS 48019

Stresses Adherence to Party Ideology Even in
Wartime, by Nguyen Tu Thuan, 17 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 21-32, 64.
JPRS 48019

Ha Tinh Recounts Four Years of Accomplishment,
by Nguyen Xuan Linh, 14 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 33-44.
JPRS 48019

Ngha An Reviews Past Success, Future Plans,
by Nguyen Si Que, 13 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 45-54.
JPRS 48019

Comintern History, Role Reviewed on Anniversary,
by Hong Linh, 12 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 55-64.
JPRS 48019

Far East
Political (Contd)

Organization, Management Views of Lenin
Studied, by Nguyen Vinh, 8 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 71-77.
JPRS 48019

Masses' Art, Literature Important to War
Effort, by Le Xuan Vu, 9 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 78-84, 89.
JPRS 48019

1968 Fatherland Front Contribution Assessed,
10 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 31 Mar 1969,
p 2.
JPRS 48051

Promises Gloomy Future for 'De-Americanize'
War Scheme, 5 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 1 Apr 1969,
p 3.
JPRS 48051

US Charged with War Crimes in Vietnam, 5 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 5 Apr 1969,
pp 3, 4.
JPRS 48051

Military

Naval Officers.
CHINESE, per, Chinese Navy, No 6/7, pp 1-4
DIA LN 961-69

China's Navy: Its Past and Present.
CHINESE, per, Chinese Navy, No 6/7, pp 10-19.
DIA LN 961-69

The Growth of the Chinese Navy.
CHINESE, per, Chinese Navy, No 6/7,
pp 25-27.
DIA LN 961-69

Major Events of the Chinese Navy.
CHINESE, per, Chinese Navy, No 6/7,
pp 55-56.
DIA LN 961-69

Far East
Military (Contd)

Chinese Navy. 5 pp.
CHINESE, per, Chinese Navy, No 10, 31 Oct
1950, pp 3-4.
DIA LN 950-69

Table of Contents for Air Defense pamphlet,
5 pp.
CHINESE, bk, Li Chih-tao Tsou-yang sang-k'ung
Li, Peking, 1965.
JPRS 48063

Success Factors of Armed Security Units
Analyzed, by Huynh Thu, 3 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 65-70, 77.
JPRS 48019

February Attacks Better than TET Offensive,
7 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar
1969, pp 85-89.
JPRS 48019

Factors Given for U.S. Losses in South Vietnam,
6 pp.
VIETNAMESE, np, Huan Dan, Hanoi, 22 Feb 1969, p 3.
JPRS 48119

Heavy US Losses in, Around Saigon Reviewed,
5 pp.
VIETNAMESE, np, Huan Dan, Hanoi, 5 Apr 1969,
p 3.
JPRS 48051

Sociological

Difficulties of New Province Discussed, by
Rene Laporte, 5 pp.
FRENCH, rpt, Realites Combodgiennes, Phnom Penh,
7 Feb 1969, pp 7-10.
JPRS 47961

No Excuse for Poor Educational Set-up Acceptable,
by G. Mandisaihan, 5 pp.
PORTUGUESE, per, Manyn Am'dral, Ulan Bator, No 8,
1968, pp 53-56.
JPRS 48035

Far East
Sociological (Contd)

Women's Labor Constitutes a Major Resource,
by Le Chan Phuong, 5 pp.
VIETNAMESE, per, Khan Hoc Thuong Thuc,
Hanoi, 28 Feb 1969, pp 1, 6.
JPRS 48025

Inspectors Also Check Individual Work Habits,
by Lu Cong Thao, 5 pp.
VIETNAMESE, np, Huan Dan, Hanoi, 23 Apr 1969, p 2.
JPRS 48119

LATIN AMERICA
Economic

The Industrial Development of the Republic
of Cuba. 13 pp.
BULGARIAN, per, Planovo Stroytelstvo,
Oct 1968, pp 63-72.
DIA LN 775-69

Economic Contacts with South American Reviewed,
by Peter Veress, 6 pp.
BULGARIAN, np, Kigvelo, Budapest, 7 May 1969, p 7.
JPRS 48126

Latin-American Trade with Soviet Bloc Reviewed,
by Eneze Peter, 11 pp.
BULGARIAN, per, Kulkereskedelem, Budapest, Apr
1969, pp 115-118.
JPRS 48030

Transports, by Rua Clelia. 24 pp.
PORTUGUESE, rpt, Banas-Brasil Industrial
68/69, 1969, pp 57-76.
DIA LN 866-69

Peruvian Economic, Financial Situation Described,
by Romulo A. Ferraro, 5 pp.
PORTUGUESE, np, O Globo, Rio de Janeiro, 26
Apr 1969, p 3.
JPRS 48126

Port Revolution - A Special Supplement
of Journal do Brasil. 52 pp.
PORTUGUESE, per, Jornal do Brasil, Mar
1969,
DIA LN 928-69

Latin America
Economic (Contd.)

Latin America
Economic (Contd.)

Financial Status of Municipalities Analyzed,
by Antonio Carlos Scartezini, 6 pp.
PORTUGUESE, np, Jornal do Brasil, Rio de Janeiro,
15 Apr 1969, p 3.
JPRS 48017

Wage Levels Throughout Brazil Reviewed,
13 pp.
PORTUGUESE, np, Jornal do Brasil, Rio de Janeiro,
13 Apr 1969, p 23.
JPRS 48024

The Ports and Their Importance in a General
System of Transportation.
PORTUGUESE, per, Portos e Navios, No 115,
Mar 1969, pp 19-22.
DIA LN 1062-69

Cost of Locks.
PORTUGUESE, per, Portos e Navios, No 115,
Mar 1969, p 31.
DIA LN 1062-69

Transport by Water. 9 pp.
PORTUGUESE, per, Revista Maritima, Brasil-
eira, July, Aug, Sept 1968, pp 123-132.
DIA LN 889-69

Paraguayan Bishops Seek to Aid Development, 6 pp.
SPANISH, per, Comunicad, Asuncion, Apr 1968,
pp 8-9.
JPRS 48126

Prices, Costs, Other Indicators Reviewed, 6 pp.
SPANISH, per, Ercilla, Santiago de Chile, 26 Mar-
1 Apr 1969, pp 38-39.
JPRS 47970

Copper: \$765 Million of Investments Reported,
by Carlos Sepulveda Vergara, 6 pp.
SPANISH, per, Ercilla, Santiago, 9-15 Apr 1969,
pp 20-22.
JPRS 48054

Commercialization of Canned Fish in Chile, by
A. P. Maschke. 37 pp.
SPANISH, rpt, Institute of Fisheries Research,
Santiago, Chile, Publication No 41, 1969.
*TT 69-52021
Available from BCF only

Industry: 1968 and Outlook for 1969 Reviewed,
7 pp.
SPANISH, np, La Nacion, Santiago, Chile,
7 Apr 1969, p 12.
JPRS 48054

New Economic Policy to Improve Peru's Position,
by Morales Bermudez, 12 pp.
SPANISH, np, La Prensa, Lima, 3 Apr 1969,
p 3.
JPRS 48017

Address to Central American Bank Governors,
by Enrique Ortiz Colindres, 15 pp.
SPANISH, per, Prensa Libre, Guatemala City,
22 Apr 1969, pp 36-38.
JPRS 48049

Peru Weighs Steps Against 'Economic Aggression',
by Enrique V. Gorcinas, 6 pp.
SPANISH, np, Propositos, Buenos Aires,
13 Mar 1969, p 1.
JPRS 48017

Industrialists Oppose Ausgrave Tax Reform Plan,
by Gonzalo Castellanos, 5 pp.
SPANISH, np, El Tiempo, Bogota, 20 Apr 1969,
pp 1, 3, 6.
JPRS 48030

Grancolombiana Reports on 1968 Operations,
10 pp.
SPANISH, np, El Tiempo, Bogota, 21 Apr 1969,
p 3.
JPRS 48049

Political

How an Ideological Work Program is Elaborated,
5 pp.
ENGLISH, np, Granma Weekly Review, Havana,
9 Mar 1969, p 2.
JPRS 48049

Possibilities of Revolution in Brazil Reviewed,
by Aluizio Falhiano, 7 pp.
ENGLISH, per, Tricontinental Bulletin, Havana,
Mar 1969, pp 3-10.
JPRS 47975

Latin America
Political (Contd)

El Salvador Revolutionary Struggle Discussed,
by Roque Dalton, 18 pp.
ENGLISH, per, Tricontinental, Havana,
Mar-Apr 1969, pp 6-22.
JPRS 48023

Brazilian Regime Surrenders to U. S. Capitalism,
by Paulo R. Schilling, 35 pp.
ENGLISH, per, Tricontinental, Havana,
Mar-Apr 1969, pp 44-47, 55-78.
JPRS 48023

Newton Discusses Black Panther Struggle,
Objectives, by Huey P. Newton, 5 pp.
ENGLISH, per, Tricontinental, Havana,
Mar-Apr 1969, pp 101-104.
JPRS 48023

Terrorist Crimes Frequent in 1964-69, List Shows,
by Luiz Carlos Sarmento, 14 pp.
PORTUGUESE, np, Correio da Manhã, Rio de Janeiro,
6 Apr 1969, p 5.
JPRS 47970

Former Communist Leader Views CP History, by
Josue Machado, 8 pp.
PORTUGUESE, per, Jornal Do Brasil, Rio de Janeiro,
27 Apr 1969, p 26.
JPRS 48118

New Style Christian Democrat Senator Gives Views,
6 pp.
SPANISH, np, Clarín, Santiago de Chile, 9 Mar
1969, p 3.
JPRS 47970

Onganía Defines Nation's Concepts, Objectives,
by Juan Carlos Onganía, 33 pp.
SPANISH, per, Clarín, Buenos Aires, 29 Mar
1969, pp 14-15, 24-25, 29.
JPRS 48054

National Convention Sets Forth Principles of FN,
by Hugo Astaiza C, 6 pp.
SPANISH, np, El Comercio, Quito, 29 Mar 1969,
p 12.
JPRS 47970

Brazil Charged with Fraud on Guaira Frontier,
by Isidro Ramirez, 6 pp.
SPANISH, np, Comunidad, Asuncion, 13-19 Apr 1969,
pp 8, 9.
JPRS 48112

Latin America
Political (Contd)

Significance of Guerrillas' Operations Assessed,
7 pp.
SPANISH, per, Correo de la Tarde, Buenos Aires,
22-28 Apr 1969, pp 10-12.
JPRS 48118

Declaration of Revolutionary Wing at Congress,
12 pp.
SPANISH, rpt, Cristianismo y Revolution, Buenos
Aires, Mar 1969, pp 6-9.
JPRS 48000

Bishop, Church Groups Protest Political
Arrests, 9 pp.
SPANISH, per, Cristianismo y Revolution,
Buenos Aires, Apr 1969, pp 25-28.
JPRS 48049

Profile Shows Many Sides of Dona Bertha, by
Camilo Restrepo, 5 pp.
SPANISH, per, Cronos, Bogota, 21 Apr 1969, pp 13-
17.
JPRS 48030

Bolivia's Rich Heritage Key to Brilliant Future,
by Alfredo Ovando Candia, 11 pp.
SPANISH, np, El Diario, La Paz, 6, 7, 8 Mar 1969,
p 4.
JPRS 47970

Labor Union Front Hails Guatemalan People, 5 pp.
SPANISH, np, Diario El Grafico, Guatemala City,
1 May 1969, p 23.
JPRS 48126

Problems of Latin America are Challenge to World,
by Abraham Santibanez, 6 pp.
SPANISH, rpt, Ercilla, Santiago de Chile, 2-8
Apr 1969, pp 34-37.
JPRS 47970

Radical Party Leaders Differ on Policy, 8 pp.
SPANISH, per, Ercilla, Santiago, 9-15 Apr 1969,
pp 8-10.
JPRS 48054

Reforms in Chile's Catholic Universities,
by Elena Vial, 5 pp.
SPANISH, per, Ercilla, Santiago, 9-15 Apr
1969, pp 45-46.
JPRS 48054

ADCO Reveals Reasons Behind Tomio's Refusal,
by Luis Hernandez Parker, 7 pp.
SPANISH, per, Ercilla, Santiago de Chile,
16-22 Apr 1969, pp 3-10.
JPRS 43030

Socialist Leaders Queried on Party's Orientation,
5 pp.
SPANISH, per, Ercilla, Santiago de Chile,
16-22 Apr 1969, pp 10-12.
JPRS 48054

Causes Behind Tragic Eviction in Puerto Montt,
by Hernan Alibas, 9 pp.
SPANISH, per, Ercilla, Santiago de Chile, 16-22
Apr 1968, pp 12-15.
JPRS 48126

Organization of Public Administration Outlined,
8 pp.
SPANISH, np, Expreso, Lima, 26 Apr 1969, pp 4, 5.
JPRS 48112

Alejo Carpentier Gives Interview to Granma,
by Euclides Vazquez Candela, 5 pp.
SPANISH, np, Granma, Havana, 27 Mar 1969, p 5.
JPRS 47970

ECLA Meeting Expresses Pro-Cuban Attitude,
by Isidro Pineda, Juan Marrero, 12 pp.
SPANISH, np, Granma, Havana, 29 Apr 1969,
p 7.
JPRS 48017

Relationship of Socialism and the New Man
Discussed, by Marcos Lijtenstein, 7 pp.
SPANISH, per, Izquierda, Montevideo,
11 Apr 1969, pp 8-9.
JPRS 48049

Effectiveness of Farm Youth Movement Noted,
5 pp.
SPANISH, np, La Jirana, Montevideo, 28 Mar
1969, p 13.
JPRS 47970

Tupamaro Report on Press Association Issued,
5 pp.
SPANISH, np, La Jirana, Montevideo, 8 Apr 1969,
p 6.
JPRS 48000

Church Study Groups Report on National
Problems, by Hector Borrat, 9 pp.
SPANISH, np, Marcha, Montevideo, 28 Mar 1969,
p 1.
JPRS 48017

Interviews Concerning Nature of Tupamaros, by
Maris Ester Gilio, 11 pp.
SPANISH, np, Marcha, Montevideo, 11 Apr 1969,
pp 14, 15.
JPRS 48000

Youth, Politics and Revolution Discussed, by
Raul Gutierrez Valenzuela, 6 pp.
SPANISH, per, Mensaje, Santiago de Chile, Mar-
Apr 1969, pp 105-108.
JPRS 48000

Venezuelan Armed Forces Conflict Discussed,
by Gonzalo Albornoz, 7 pp.
SPANISH, per, Momento, Caracas, 20 Apr 1969,
pp 22-26.
JPRS 48049

Professor Ivan Schulman Interviewed in Cuba,
by Maria Muir, 6 pp.
SPANISH, rpt, El Mundo, Havana, 3 Apr 1969,
pp 6-7.
JPRS 48000

Background to Rebel Priests' Movement Given,
by Ludom, 6 pp.
SPANISH, np, El Mundo, Lima, 12 Apr 1969, pp 15,
16, 58.
JPRS 48112

Clergy Sign Statement Supporting Rebel Priests,
6 pp.
SPANISH, np, La Nacion, Buenos Aires, 10 Apr
1969, p 20.
JPRS 48000

Universities' Responsibility to State Emphasized,
by Eduardo Frei, 9 pp.
SPANISH, np, La Nacion, Santiago de Chile,
11 Apr 1969, p 3.
JPRS 48054

Cuba's ECLA Delegate Projects Country's
Future, by Mirko Lauer, 5 pp.
SPANISH, per, Oiga, Lima, 25 Apr 1969,
pp 18-19.
JPRS 48049

Latin America
Political (Contd)

Mgr. Corso, J. Little Called Anti-Progressive,
6 pp.
SPANISH, np, El Popular, Montevideo, 7 Apr 1969,
p 5.
JPRS 47970

Historical Claim to Territorial Waters Advanced,
by Andres Bchevarria Murtua, 8 pp.
SPANISH, np, La Prensa, Lima, 29 Mar 1969,
p 13.
JPRS 47970

Peronist Terrorists Discovered and Arrested,
7 pp.
SPANISH, np, La Prensa, Buenos Aires, 24 Apr 1969,
pp 1, 12.
JPRS 48126

Documents Drafted by Argentine Bishops Released,
17 pp.
SPANISH, np, La Prensa, Buenos Aires, 3 May 1969,
pp 1, 7.
JPRS 48126

Cuban Workers Praised as Martyrs, Heroes, by
Mario Cerda Gutierrez, 6 pp.
SPANISH, per, Prensa Libre, Santiago de Chile,
22 Apr 1969, pp 10-11.
JPRS 48076

Church in Argentina Accused of Material Interests,
by Luis H. Decurgez, 5 pp.
SPANISH, np, Propositos, Buenos Aires, 27 Mar 1969,
pp 5.
JPRS 48030

Peru warned of CIA Plot Similar to Iran Oil Coup,
by Gregorio Selser, 11 pp.
SPANISH, per, Propositos, 3 Apr 1969, pp 1, 5.
JPRS 48126

Corominas Analyzes Peruvian-American Conflict,
by Enrique V. Corominas, 5 pp.
SPANISH, np, Propositos, Buenos Aires,
3 Apr 1969, p 5.
JPRS 48049

Conservative Editors Stress Need for Party
Unity, 14 pp.
SPANISH, per, La Republica, Bogota, 21 Apr 1969,
pp 1, 14.
JPRS 48054

Latin America
Political (Contd)

Auxiliary Bishop of Santiago Expresses Views,
by Carlos Berger, 6 pp.
SPANISH, np, El Siglo, Santiago Chile,
5 Apr 1969, p 12.
JPRS 48054

Nature, Functions of help himself Institute,
by Hernando Sanchez, 5 pp.
SPANISH, np, El Siglo, Bogota, 9 Apr 1969, p 3.
JPRS 48000

Incompatibility of Marxism, Catholicism
Stressed, by Luis Rueda Gomez, 5 pp.
SPANISH, np, El Tiempo, Bogota, 17 Apr 1969,
pp 1, 2.
JPRS 48049

Pre-Convention Political Maneuvering Criticized,
by Gabriel Gutierrez, 7 pp.
SPANISH, np, El Tiempo, Bogota, 17 Apr 1969,
pp 1, 26.
JPRS 48049

Bipartisan Youth Group Discusses Politics,
by Andres Alzate, 5 pp.
SPANISH, np, El Tiempo, Bogota, 21 Apr 1969,
p 6.
JPRS 48049

President Alaraz Says Reform will be Achieved,
by President Alaraz, 10 pp.
SPANISH, np, El Tiempo, Bogota, 22 Apr 1969, p 15.
JPRS 48112

Army Plays Part in National Development, by
Valencia Rovar, 5 pp.
SPANISH, np, El Tiempo, Bogota, 25 Apr 1969, p 6.
JPRS 48118

Articles Found in Raid on Guerrilla Cache, by
Hernando Acevedo, 5 pp.
SPANISH, np, El Tiempo, Bogota, 27 Apr 1969,
pp 1, 3.
JPRS 48112

'Young Church' Group Attacks Government,
Church, 6 pp.
SPANISH, np, Ultima Hora, Santiago de Chile,
28 Mar 1969, p 3.
JPRS 48054

Latin America
Political (Contd)

Bishop Camara Challenged by Young Church Group,
by Herman Levin Creda, 6 pp.
SPANISH, np, Ultima Hora, Santiago de Chile,
13 Apr 1969, p 2.
JPRS 48076

Report on Fifth Communist Party Congress,
11 pp.
SPANISH, np, Unidad, Lima, 3, 10 Apr 1969,
pp 2, 4.
JPRS 48049

Liberal Leaders Urge Sub-Organizations to
Action, 5 pp.
SPANISH, per, Vanguardia Liberal, Bucaramanga,
22 Apr 1969, pp 1, 3.
JPRS 48054

Poetry, Stories by Rodriguez Highly Praised, by
Angel Augier, 7 pp.
SPANISH, per, Verde Olivo, Havana, 2 Mar 1969,
pp 31-33.
JPRS 48118

Former President Gives Penetrating Interview,
by Carlos Julio Arosemena, 7 pp.
SPANISH, per, Vistazo, Quito, Apr 1969, pp 79-82.
JPRS 48118

Geographic

Physical Landscapes of Guanabara. 32 pp.
PORTUGUESE, per, Revista Brasileira de
Geografia, No 4, Oct-Dec 1965, pp 539-567.
DIA LN 900-69

Sociological

Guatemalan Book 'Popol Vuh' Reviewed, by
Manuel Galich, 9 pp.
ENGLISH, per, Tricontinental, Havana,
Mar-Apr 1969, pp 125-133.
JPRS 48023

Latin America
Sociological (Contd)

Havana Bus Transportation Studied in Detail, by
Tubal Paez, 5 pp.
SPANISH, np, Granma, Havana, 31 Mar 1969, p 5.
JPRS 48000

Organization of Chilean Working Class Studied,
by Clotario Blest A., 9 pp.
SPANISH, per, Prensa firme, Chile, 22 Apr 1969,
pp 22-25.
JPRS 48112

Nationwide Education System Criticized, by
Atilio E. Torrassa, 5 pp.
SPANISH, np, Propositos, Buenos Aires,
10 Apr 1969, p 4.
JPRS 48054

NORTH AMERICA
Military

The New Organizational-Logistical Structure
of the Canadian Armed Forces and in Partic-
ular, That of the Navy. 14 pp.
ITALIAN, per, Revista Maritima, 1969,
pp 39-54.
DIA LN 1010-69

Dependence of Calcium and Phosphorus Levels in the
Bones on the Amount and Duration of Fluorine Application
by J. Kortus.
CZECH, per, Biologia, Vol 21, No 3, 1966, pp 202-209.
HEW NIH
4-36-69

SCIENTIFIC
Aeronautics

Aerodynamics of Rockets, by N. F. Krasnov.
RUSSIAN, bk, Aerodinamika Raket, 1968,
772 pp.
*NASA TT F-601

Results of Rocket Soundings in the Atmosphere, Kheysa, Ostrov Island, 1964 (Second Half), 1965.
RUSSIAN, per, Byulleten Tsentral'naya Aerologicheskaya Observatoriya, 1968,
61 pp.
*AFCL

Results of Rocket Soundings in the Atmosphere.
RUSSIAN, Per, Byulleten Tsentral'naya Aerologicheskaya Observatoriya, 1968,
39 pp.
*AFCL

Turbine-Powered Mi-8, New Equipment from the Five Year Plan, by V. A. Kuznetsov. 7 pp.
RUSSIAN, per, Grazhdanskaya Aviatsiya, No 2, 1968,
pp 15-16.
ARM/FSTC/HT-23-902-68

Ekranoplany - Winged Craft of the Future. An Air-sled-amphibian from the Design Bureau of A. N. Tupolev, by D. Pipko.
RUSSIAN, per, Nauka i Zhizn, No 1, 1966,
pp 32-41.
ARM/FSTC/HT-23-852-68

Handbook of Astronautics, 223 pp.
RUSSIAN, bk, Spravochnik po Kosmonavtike, 1966.
NASA TT F-500
CFSTI TT 68-50304

Construction of an Airfield. 25 pp.
RUSSIAN, per, Stroitel'stvo Aerodromov, 1968, pp 53-58; 134-148; 312-315.
DIA LN 951-69

Aerodynamics of a Turbulent Diffusion Flame Jet in a Wake Flow, by Sh. A. Yerzhin, L. P. Yarin.
RUSSIAN, per, Vestnik Ak Nauk Kaz SSR, No 4(205), 1962, pp 46-51.
Dept of Navy APL/JHU CLB-3 T-579

Survey of Work Performed at the Moscow University Dealing with the Investigation of External and Internal Problems in Aerodynamics, by G. S. Roslyakov.
RUSSIAN, per, Vychislitel'nyy Metody i Programirovaniye: Chislennyye Metody v Gazovoy Dinamike, No 11, 1968, pp 93-112.
*NASA TT F-12,445

Description of Invention - 186169. Stand for Testing Propellers.
RUSSIAN, Patent No 186,169.
*ACSI J-6790
*FSTC-HT-23-154-69

Atomic, Turboramjet Aircraft Engines Discussed, by Boris Tenchev, 8 pp.
BULGARIAN, per, Voenna Tekhnika, Sofia, No 2, Feb 1969, pp 15-17.
JMS 47960

Belgian and European Aeronautical Center.
FRENCH, per, Aviation et Astronautique, Jan 1969, pp 13-21.
DIA LN 756-69

SABCA-Aerospace in Belgium. 27 pp.
FRENCH, per, Aviation Magazine International, 1 Mar 1969, pp 28-41.
DIA LN 986-69

Experimental Research on Supercritical Wing Profiles, by Michel Vincent de Paul.
FRENCH, rpt, ONERA N69-18225.
*NASA TT F-12,415

Investigation of Aircraft Noise During Take-off, by I. P. A. Pianko Marc.
FRENCH, rpt, Paper Presented at the AGARD Propulsion and Energetics Panel Meeting at St. Louis, France.
*NASA TT F-12,441

Human Pilot and Automatic Systems, by R. Lami.
FRENCH, rpt, Paper Presented at the 8th International Aeronautical Congress, Paris, 29-31 May 1967.
NASA TT F-12,307

Scientific
Aeronautics (Contd)

Research on Low-drag Transonic Profiles,
by Vincent de Paul.
FRENCH, rpt, Paper Presented at the 4th
Meeting of Applied Dynamics, Lille,
8-10 Nov 1967.
NASA TT F-12,171

An Analytical Approach to the Problem of
the Accessible Domain of a Re-entry
Glider, by Jean Fave.
FRENCH, per, Recherche Aerospatiale,
May-June 1968, pp 3-11.
NASA TT F-12,158

Interferometric Study of a Mach 5 Flow
Around a Sphere, by Jean Louis Solignac.
FRENCH, per, Rech Aerospatiale, No 125,
Jul-Aug 1968, pp 31-39.
NASA TT F-12,121

Accessible Domain of a Re-entry Glider.
Gradient Method, by J. Fave.
FRENCH, per, La Recherche Aerospatiale,
No 128, 1969, pp 3-16.
*NASA TT F-12,400

Experimental Investigations on Wave Riders
(Caret Wings) in the Hypersonic Range, by
K. Kipke.
GERMAN, rpt, DFL-67/39, DLR-FB-68-41.
NASA TT F-12,115

Aerodynamic Construction of Transport Air-
plane Wings for Cruising Flight at High
Subsonic Speeds, by H. Fridel.
GERMAN, Rpt, DLR-67-24.
NASA TT F-12,048

Lufthansa - Planning for 747 Services.
GERMAN, per, Flug Revue, Apr 1969, pp 24-27
55-56, 80, 82.
DIA LN 992-69

Portrait of an Airline: LTU, Successful
Mixture of Charter and Regular Line
Traffic.
GERMAN, per, Flug Revue, Apr 1969, pp 24-27
55-56, 80, 82.
DIA LN 992-69

On the Calculation of the Induced Velocity
Field of a Wing, by Klaus Gersten.
GERMAN, rpt, Wissenschaftliche Gesellschaft
fur Luftfahrt, 1957, pp 172-190.
*NASA TT F-12,426

Scientific
Aeronautics (Contd)

Severe Bumping of Aircraft Caused by High-
Altitude Atmospheric Turbulence, by A. Kapovits.
9 pp.
HUNGARIAN, per, Idojaras, No 5, 1966, pp 294-298
AIR/FTD/HT-23-1149-68

Human Engineering Investigation of F-104J
Cockpit by Questionnaire, by Hiroko Hagi-
hara.
JAPANESE, per, Japan Air Self Defense
Force, Aeromedical Lab, Vol 8, Sept
1967, pp 1-12.
NASA TT F-12,137

Informative Interpretation of Subjective
Pilot Ratings Concerning the Maneuverabil-
ity of Flight Vehicles, by
Mieczyslaw Rybak.
POLISH, per, Prace Instytut Lotnictwa,
No 36, 1968, pp 17-28.
*NASA TT F-12,427

Agriculture

Production Expenditures and Profits Compared,
by V. Ahlebnikov, 16 pp.
RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva,
Moscow, No 3, 1969, pp 1-10.
JPRS 48060

1969 Goals of Soviet Agriculture Examined, by
N. Gusev, 15 pp.
RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva,
Moscow, No 4, 1969, pp 7-16.
JPRS 48116

Land Use in Soviet Agriculture Discussed, by
S. Udachin, 12 pp.
RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva,
Moscow, No 4, 1969, pp 17-25.
JPRS 48116

Along the path of a Steady Upsurge in Agriculture,
by A. Kokarev, 12 pp.
RUSSIAN, per, Communist, Moscow, No 6, Apr 1969,
pp 105-114.
JPRS 48141

Status of Farm Equipment Needs Analysis, by
I. Kolomyitsev, 3 pp.

RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye
Moscow, No 3, 1969, pp 33-38.
JPRS 48116

Need for Grain Storage Facilities Outlined, by
Ye. Shabanov, 6 pp.

RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye
Moscow, No 3, 1969, pp 38-41.
JPRS 48116

Irrigation Projects Proposed for Central Asia,
by I. Robochev, M. Asenov, 5 pp.

RUSSIAN, np, Pravda, Moscow, 27 Mar 1969, p 2.
JPRS 48060

Forest Conservation Measures Advocated, by
V. Nikolayuk, 5 pp.

RUSSIAN, np, Pravda, Moscow, 11 Apr 1969, p 1.
JPRS 48060

Forced Ventilation of Sugar Beet Piles at
Factories of the Central Black Earth and Kuban
Regions, by V. G. Divigin, et al. 5 pp.
RUSSIAN, per, Sakhamaya Promyshlennost', Vol 40,
No 11, 1966, pp 46-50.
*CFSTI TT 69-53024/3

Using New Methods of Artificial Ventilation While
Storing Sugar Beets in Clamps, by M.Z. Khelenskiy,
6 pp.

RUSSIAN, per, Sakhamaya Promyshlennost', Vol 41,
No 2, 1967, pp 36-41.
*CFSTI TT 69-53024/1

Planting Nears Completion in Northern Caucasus,
by N. Borodin, 6 pp.

RUSSIAN, np, Sel'skaya Zhizn', Moscow, 12 Apr
1969, p 2.
JPRS 48013

Central Asian Cotton Planting Progresses, by
A. Kudratullayev, 6 pp.

RUSSIAN, np, Sel'skaya Zhizn', Moscow, 15 Apr
1969, p 1.
JPRS 48013

Chernozem Zone Sowing Proceeds Satisfactorily,
by V. Ilineyev, 6 pp.

RUSSIAN, np, Sel'skaya Zhizn', Moscow, 26 Apr
1969, p 1.
JPRS 48116

Design of Suggrades and Pavements of Stab-
ilized Soils.

RUSSIAN, per, Stroitel'stvo Aerodromov,
1968, pp 187-223.
DIA LN 594-69

Inertial Mechanism of Settling of Coarsely Dispersed
Aerosol on Terrestrial Vegetation, by V. F. Donskiy,
13 pp.

RUSSIAN, rpt, Voprosy Atmosfernoy Diffuzii i
Zagryazneniya Vozdukhuztrudy Glavny Geofizicheskoy
Obstervatoriy, No 172, 1965.
ARM/FSTC/RT-23-627-68

Proposals to Increase Milk Production Profits,
by P. Pasechnik, 7 pp.

RUSSIAN, per, Voprosy Ekonomiki, Moscow,
No 3, 1969, pp 122-125.
JPRS 47982

Profitability of Agricultural Production and
Prices, by V. Gorodniy, A. Tipko, 7 pp.

RUSSIAN, per, Voprosy Ekonomiki, Moscow,
No 3, 1969, pp 147-150.
JPRS 47982

Material Technical Base of Procurement Reviewed,
by L. R. Korniyets, 6 pp.

RUSSIAN, per, Zakupki Sel'skokhozyaystvennykh
produktov, Moscow, No 2, 1969, pp 1-3.
JPRS 48116

Animal Husbandry Reserves Activation Urged,
by V. Margapolov, 9 pp.

RUSSIAN, per, Zakupki Sel'skokhozyaystvennykh
produktov, Moscow, No 2, 1969, pp 15-17.
JPRS 48116

Protection of Forest Resources Encouraged, by
Thoma Dine, 7 pp.

ALBANIAN, per, Aruga e Partise, Tirana, Feb 1969,
pp 41-47.
JPRS 48056

1969 Bulgarian Food Industry Plan Described,
by Vulkan Shopov, 6 pp.

BULGARIAN, per, Khranitelna Promishlenost,
Sofia, No 1, Jan 1969, pp 1-3.
JPRS 48056

Scientific
Agriculture (Contd)

Participation of Workers in Farm Management, by Mourad Benachenhou, 22 pp.
FRENCH, per, Actualite, Algiers, 23-29 Mar 1969, pp 6-12.
JPRS 47976

Agricultural Research Programs Described, 14 pp.
FRENCH, np, Actualite, Algiers, 23-29 Mar 1969, pp 14, 15, 28, Supplement.
JPRS 48009

Employment Situation in Agriculture Reviewed, 7 pp.
FRENCH, rpt, Actualite, Algiers, 23-29 Mar 1969, pp 18, 19, Supplement.
JPRS 48009

Citrus Fruits: Economics and Outlooks Reviewed, by Nadir D. 8 pp.
FRENCH, rpt, Actualite, Algiers, 23-29 Mar 1969, pp 26, 27, Supplement.
JPRS 48009

Milk Production Development Plans Reviewed, 5 pp.
FRENCH, rpt, Actualite, Algiers, 23-29 Mar 1969, pp 29, 30, Supplement.
JPRS 48009

Relocation of 85,000 Baoule Farmers, by Pierre Ballet, 7 pp.
FRENCH, per, Eburea, Abidjan, Apr 1969, pp 2-5.
JPRS 48067

Prospects for African Agriculture Assessed, by Jean-Bernard Hulot, 5 pp.
FRENCH, per, France Afrique, Paris, Mar 1969, pp 34-36.
JPRS 48077

Agricultural Reform and Cooperation in Africa, by N. O. Ijere, 7 pp.
GERMAN, per, Afrika Heute, Bonn, 1 Apr 1969, pp 106-108.
JPRS 48067

Crop and Weather Report, February 1969, by D. Krumbiegel, 5 pp.
GERMAN, per, Feldwirtschaft, East Berlin, No 4, Apr 1969, pp 199-200.
JPRS 47994

Scientific
Agriculture (Contd)

Lithuanian Party Chief Discusses Agricultural Problems, by Antanas Sneckkus, 5 pp.
LITHUANIAN, Radio, Vil'nyus, 0610 GMT, 7 Mar 1969.
JPRS 48060

Black Soils of Valley Peat Bogs and Their Chemical and Physical Properties, by Henryk Okruszko, 79 pp.
POLISH, per, Roczniki Nauk Rolniczych, Vol 74-F-1, 1960, pp 5-89.
CFSTI TT 67-56119

Theory and Design of Agricultural Machinery, by Cz. Kanafojski. 836 pp.
POLISH, bk, Teoria i Konstrukcja Maszyn Rolniczych, 1967.
*CFSTI TT 69-50019

Use of the Soil in the Municipality of Ribeirao Preto, State of Sao Paulo.
PORTUGUESE, per, Boletim Paulista de Geografia, No 43, July 1966, pp 5-58.
DIA LN 829-69

Eco-Physiognomic Types of Vegetation in the Federal Territory of Amapa. 29 pp.
PORTUGUESE, per, Revista Brasileira de Geografia, No 2, Apr-June 1967, pp 25-51.
DIA LN 899-69

Ways to Implement 1969 Agricultural Plan Suggested, by Milorad Miksic, 9 pp.
SERBIAN, per, Opstina, Belgrade, Feb 1969, pp 33-42.
JPRS 48028

Mechanization of the Sugarcane Harvest Studied, by Alberto Pozo, 12 pp.
SPANISH, per, Bohemia, Havana, 20 Dec 1968, pp 35-41.
JPRS 48054

State Dairies Mechanizing Calf Rearing, by Rafael Sanchez Lalebret, 8 pp.
SPANISH, per, Bohemia, Havana, 18 Apr 1969, pp 26-33.
JPRS 48118

Four Years of Agrarian Reform in Chile, by Carlos Sepulveda Vergara, 5 pp.
SPANISH, per, Excilla, Santiago de Chile, 23-29 Apr 1969, pp 25-26.
JPRS 48118

Scientific
Agriculture (Contd)

Agricultural Development of Ariguanabo Under
Way, by Pedro Abreu, 8 pp.
SPANISH, per, Granma, Havana, 16 Apr 1969,
pp 4-5.
JPRS 48076

Expert Criticizes Location of New Meat Plant,
by Vedat Danoglu, 5 pp.
TURKISH, per, Ulus, Ankara, 6 Mar 1969,
pp 2-5.
JPRS 48053

State Farms Given Five Mechanization Tasks, by
Lam Hong Nhan, 6 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 21 Mar 1969, p 2.
JPRS 48043

Forest Exploitation Needs Stable Work Force,
by Pham Dinh Son, 6 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 1 Apr 1969,
p 2.
JPRS 48051

Results of Poor, Good Planning Compared, by
Tran Nguyen, Nguyen Chung, 6 pp.
VIETNAMESE, per, Nhan Dan, Hanoi, 2 Apr 1969,
p 2.
JPRS 48051

Astronomy & Astrophysics

Astrometry and Astrophysics I: Physics of the
Moon and Planets, by I. K. Koval'.
RUSSIAN, bk, Astrometriya i Astrofizika I: Fizika
Luny i Planet, 1968, 212 pp.
*NASA TT-F-593

Astrometry and Astrophysics III: Problems of
Astrophysics, by A. F. Bogorodskiy.
RUSSIAN, bk, Astrometriya i Astrofizika III:
Voprosy Astrofiziki, 1968, 118 pp.
*NASA TT-F-598

Astrometry and Astrophysics IV: Physics of Comets,
by V. P. Konopleva.
RUSSIAN, bk, Astrometriya i Astrofizika IV: Fizika
Komet, 1969, 224 pp.
*NASA TT-F-599

Scientific
Astronomy & Astrophysics (Contd)

Astrometry and Astrophysics V: Problems of
Atmospheric Optics, by I. G. Kolchinskiy.
RUSSIAN, bk, Astrometriya i Astrofizika V:
Voprosy Atmosfernoy Optiki, 1969, 134 pp.
*NASA TT-F-606

On Expanding the Disturbing Function in Powers of
the Eccentricities in the Elliptical Problem
of Three Bodies, by B. K. Martynenko, 10 pp.
RUSSIAN, per, Byulleten Inst Teoreticheskoy
Astronomiy, Vol 10, No 7, 1965, pp 457-506.
ARM/RSIC-Tr-890-69

On the Disintegrating Action of Meteoritic
Impacts, by K. P. Stanyukovich,
V. V. Fedynskiy.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 57,
No 2, 1947, pp 129-132.
NAS/GSFC/ST-1M-LPES-10802-69

Photodissociation of C₂ Molecules in Comet
Atmosphere, by D. P. Mokhnach.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 180,
No 4, 1968, pp 817-820.
NAS/GSFC/ST-COM-OR-10740-68
P910268068-V
Available CFSTI

On the Emergence Mechanism of Lunar Maria,
by A. L. Sukhanov.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 181,
No 2, 1968, pp 309-312.
NAS/GSFC/ST-LPS-LS-10744-68
P910267968-V
Available CFSTI

Quasi-periodical Variations of Sun's Radio-
emission in the 3.3 CM Wavelength, by
M. S. Durasova, G. A. Lavrinov.
RUSSIAN, per, Iz VUZ Radiofizika, Vol 11,
No 12, 1968, pp 1782-1790.
NAS/GSFC/ST-SP-RA-10806-69

Oval of Aurorae Borealis and the Ring
Current in the Earth's Magnetosphere,
by A. D. Shevin, Ya. I. Fel'dshteyn.
RUSSIAN, per, Kosmicheskiye Issled, Vol
6, No 4, 1968, pp 598-603.
NAS/GSFC/ST-PF-GM-10745-68
P910267768-V
Available CFSTI

Greenhouse Effect in The Atmosphere of
Venus, by G. M. Strelkov,
N. F. Kukharskaya.
RUSSIAN, per, Kosmicheskiye Issledovaniya,
Vol 7, No 2, 1969, pp 247-257.
NAS/GSFC/ST-PA-IT-10835-69
Available from CFSTI

The Nature and Origin of Comets and Meteorites,
by S. K. Vsekhsvyatskiy.
RUSSIAN, bk, Priroda i Troiskhozhdeniye Komet i
Meteorogo Veshchestva, 1967, 184 pp.
*NASA TT-F-608

Optimum Signal Conversion in an Astroinertial
System, by Yu. N. Khenin, I. B. Chelpanov. 10 pp
RUSSIAN, per, Trudy Leningrad. Politekhnikeskii
Institut, No 266, 1966, pp 119-125.
AIR/FTD/MT-24-429-68

Thin Magnetite Plates of Carbonaceous
Meteorites From Alais, Ivuna and Orgueil,
by J. Jedwab.
DUTCH, per, Earth and Planetary Sci.
Letters, Vol 2, 1967, pp 440-444.
NAS/GSFC/ST-1M-ACH-10834-69
Available from CFSTI

On the Magnetohydrodynamics Mechanism of
Solar Activity, by Alexandre Dauvillier.
FRENCH, per, Comptes Rendus, Vol 267, Ser
B, No 14, Oct 1968, pp 840-845.
NAS/GSFC/ST-SP-CLG-10785-68

Problems of the Operation Reliability of
the Light Control Systems and Automatic
Piloting of Aircraft, by Olaf Peters.
GERMAN, bk, Dissertation Technische
Universitat, Berlin, 1967, 195 pp.
*NASA TT F-610

The Accuracy of a Point in Space, by
E. Grafarend.
GERMAN, per, Zeit fur Vermessungswesen,
Vol 93, No 3, 1968, pp 107-111.
ACIC TC-1506

Atmospheric Sciences

Decoding and Synoptic Interpretation of
Infrared (IR) Cloud Cover Photographs,
by Ye. P. Dombkovskaya.
RUSSIAN, per, No 11, 1967.
ARM/FSTC/MT-23-050-69

Aeroclimatic Reference Book of South Amer-
ica. 288 pp.
RUSSIAN, per, Aeroklimaticheskii Spravochn-
ik Ameriki, 1968.
DIA LN 1029-69

Basic Characteristics of the Boundary Layer of
the Atmosphere over Certain Regions of Eastern
Georgia, by O. V. Lomeya. 8 pp.
RUSSIAN, per, AN GRUZSSR, Soobshcheniya, Vol 47,
No 1, 1967, pp 49-54.
AIR/FTD/MT-23-1152-68

Aviation Climatology, G. Ya. Narovlanskiy.
267 pp.
RUSSIAN, bk, Aviatsionnaya Klimatologiya, 1968.
*CFSTI TT 69-55100

Clearance of Fission Products from the
Layer of Atmosphere Below the Clouds by
Precipitation, by I. I. Burtsev,
S. G. Malakhov.
RUSSIAN, per, Izv AN SSSR, Fiz Atmos Okean,
No 4, 1968, pp 328-334.
NLL Ref: 5828.4F (M.7537)

Climatic Reference Book of Africa. Part 1. Air
Temperature and Precipitations, by A. N. Lebedev.
480 pp.
RUSSIAN, bk, Klimaticheskii Spravochnik Afriki.
Chastv I. Temperatura Vozdukh Osadki, 1968.
*CFSTI TT 69-55103

Infrared Radiation of the Upper Atmosphere,
by V. I. Krasovskiy.
RUSSIAN, per, Kosmicheskoye Issledovaniya,
Vol 6, No 6, 1968, pp 943-946.
NAS/GSFC/ST-AI-ACH-10807-69

Synoptic-Statistical Method of Diagnosis
and Forecast of Clear-air Turbulence, by
N. I. Davydov, Ye. G. Lomonosov.
RUSSIAN, per, Meteorologiya i Gidrologiya,
No 12, 1968, pp 45-54.
Dept of Navy APL/JHU T-2268

Automatic Control of Current Meteorological
Information, by L. S. Gandin, 16 pp.
RUSSIAN, per, Meteorologiya i Gidrologiya,
No 3, 1969, pp 3-13.
JPRS 48190

Evaluation of Radiosonde Data Accuracy in
the Aerological Station System of the
Soviet Union, by O. V. Marfenko. 11 pp.
RUSSIAN, per, Meteorologiya i Gidrologiya,
No 3, 1969, pp 14-21.
JPRS 48190

Planetary Development of Blocking Processes,
by G. M. Tauber. 12 pp.
RUSSIAN, per, Meteorologiya i Gidrologiya,
No 3, 1969, pp 22-30.
JPRS 48190

Scientific
Atmospheric Sciences (Contd)

On the Effect of Microturbulent Exchange on the Stability of the Boundary Layer of the Atmosphere, by M. I. Ruzin. 13 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No 3, 1969, pp 31-39. JPRS 48190

Experiment in Recognizing Pressure Formations by Statistical Structure of Radiation Temperature fields Obtained from Satellites, by Ye. Ye. Tolstikov. 13 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No 3, 1969, pp 40-48. JPRS 48190

Wind-Velocity Profiles During Glazed-Frost and Hoarfrost Phenomena, by V. G. Glukhov. 6 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No 3, 1969, pp 96-99. JPRS 48190

Some Results of Measurements of Temperature-Field Characteristics in the Lower 300-Meter Layer of the Atmosphere, by N. L. Byzova, Ye. Ye. Vyal'tseva. RUSSIAN, per, Meteorologiya i Gidrologiya, No 3, 1969, pp 99-102. JPRS 48190

Radar Measurements of Wind in the Mesosphere by S. V. Rakhomov. 11 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No 3, 1969, pp 103-108. JPRS 48190

Essays on Development of Meteorology. Volume I, by Aleksandr K. Khrgian. 428 pp. RUSSIAN, bk, Ocherki Razvitiia Meteorologii, 1959. *CFSTI TT 69-55106

Future Prospects for the Use of Satellite Meteorological Data for Weather Forecasting, by M. I. Yudin. RUSSIAN, rpt, Paper Presented at the UN Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 14-27 Aug, 1968. NASA TT F-12,174

Tropical Zone Weather in Infrared Rays, by P. N. Belov. RUSSIAN, rpt, Paper Presented at the UN Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 14-27 Aug 1968. NASA TT F-12,175

Scientific
Atmospheric Sciences (Contd)

Atmospheric Transparency for Visible and Infrared Rays, by V. Ye. Zuev. 313 pp. RUSSIAN, bk, Prozrachnost' Atmosfery Dlia Vidimyykh i Inftrakrasnykh Luchei, 1968. *CFSTI TT 69-55102

Radar Measurements of Precipitation, by A. M. Borovikov, et al. 140 pp. RUSSIAN, bk, Radiolokatsionnye Izmereniya Osadkov, 1967. *CFSTI TT 69-55101

Problems of Interpretation of Satellite Weather Data, by M. I. Yudin. RUSSIAN, per, Trudy Glav Geofiz Observ, No 166, 1964, 422 pp. NASA TT F-12,301

Charts of the Divergence and the Vorticity of the Resultant Wind-speed over the Indian Ocean, by Yu. A. Romanov. RUSSIAN, per, Trudy Inst Okeanol, Vol 78, 1965, pp 119-127. NLL Ref: 9022.551 (N.571)

On the Possibility of Using the Data of Radiosounding to Investigate the Boundary Layer of the Atmosphere, by M. S. Akhmetov. RUSSIAN, per, Trudy, Leningrad Glavnaya Geofizicheskaya Observatoriya, No 205, 1967, pp 134-142. ARM/FSTC/HT-23-883-68

On the Accuracy of Averages of Air Temperature, by M. V. Zavarine. RUSSIAN, per, Trudy Glav Geofiz Obser, No 210, 1967, pp 92-108. NLL Ref: 9022.551 (N.555)

Certain Features of Wind Conditions in the Southeast of Western Siberia, by S. A. Sapozhnikova. 20 pp. RUSSIAN, per, Trudy Nauchno-Issledovatel'skiy Institut Aeroklimatologii, No 37, 1966, pp 3-15. AIR/FTD/MT-24-456-68

Atmospheric Turbulence In and Near Cumulonimbus Clouds, by V. S. Aleksandrov, V. I. Silayeva. RUSSIAN, per, Trudy Tsentral'naya Aerologicheskaya Observatoriya, No 78, 1967, pp 32-49. AIR/AFCL/69-0178

Scientific
Atmospheric Sciences

Characteristic Parameters and Dynamical Equations of Atmospheric Motions, by Zeng Qing-Zun.
CHINESE, per, Ch'i-Meiang Kuang-Pao (Acta Meteorologica Sinica), Vol 33, No 4, Nov, 1963, pp 474-483.
Tr No 32, Nov 1968
AIR/APCRL/68-0608

Dynamic Instability of Easterly Disturbances, by Yang Ta-Cang.
CHINESE, per, Ch'i-Meiang Kuang-Pao (Acta Meteorologica Sinica), Vol 33, No 2, May, 1965, pp 189-199.
Tr No 30, Nov 1968
AIR/APCRL/68-0603

A Method of Setting Up Finite-Difference Schemes for Prediction Equations, by Wang Chang-Mao.
CHINESE, per, Ch'i-Meiang Kuang-Pao (Acta Meteorologica Sinica), Vol 33, No 4, Nov, 1965, pp 399-407.
Tr No 42, March 1969
AIR/APCRL/69-0099

Some Theoretical Problems Concerning the Microphysical Processes of Precipitation, Cloud, and Fog, by Kuo Chen-Chao, et al.
CHINESE, rpt, Institute of Geophysics and Meteorology, Peking, China, 1963, 59 pp.
Tr No 39, Dec 1968
AIR/APCRL/68-0665

Cumulus Dynamics, by Chao Jih-Ping, Chou Shiao-Ping.
CHINESE, mono, Monograph on Problems in Modern Meteorology, 1964.
Tr No 40, Jan 1969
AIR/APCRL/69-0027

The Propagation of cm to m-band Electromagnetic Waves Above the Sea with Special Reference to the Meteorological Conditions in the Maritime Boundary Layer, by Helmut Jeske.
GERMAN, per, Hamburger Geophysikalische Einzelschriften, No 6, 1965.
*Dept of Navy APL/JHU J-1297

Investigations of Atmospheric Self-Scavenging Processes from Radioactive Isotopes, 352 pp.
LITHUANIAN, rpt, Issledovanie Protsesov Samo-ochishchenia Atmosfery ot Radioaktivnykh Izotopov.
*CESTI Tr 69-55099

Scientific
Atmospheric Sciences (Contd)

Meteorological Investigation in Spain by Means of Rockets, by A. Azcarraga.
SPANISH, per, Engineering, Aeronautics and Astronauts, No 104, 1968.
*NASA TT F-12,457

Meteorology and Finnish Technique, 6 pp.
SWEDISH, per, Forum for Ekonomisk och Teknik, No 15, 27 Sept 1968, pp 24,26.
DIA LN 694-69

Behavioral & Social Sciences

Recognition of Spoken Word Ensembles With the Aid of a Digital Computer, by V. N. Trunin-Donskiy, A. S. Fimer, et al. 16 pp.
RUSSIAN, rpt, AN SSSR. Vychislitel'nyy Tsentr. Raboty Po Tekhnicheskoy Kibernetike, 1967, pp 37-51.
AIR/FTD/MT-24-442-68

An Experiment in the Application of Small Teaching Machines for the Teaching of a Foreign Language by A. R. Belopol'skaya, I. M. Novitskaya. 12 pp.
RUSSIAN, per, Leningrad. Universitet. Kafedra Vychislitel'noy Matematiki i Vychislitel'nyy Tsentr. Vychislitel'naya Tekhnika i Voprosy Programirovaniya, No 4, 1965, pp 115-127.
AIR/FTD/MT-23-70-68

On Activity of the All-Union Scientific and Technical Information Center, 7 pp.
RUSSIAN, per, Spravki. Konsul'tatsiy. Patsenzy, Vol 1, No 4, 1968, pp 20-22.
AIR/FTD/MT-24-485-68

Biological & Medical Sciences

Obtaining the L-Forms of *Listeria Monocytogenes*, by G. A. Kotlyarova, I. A. Bakulev, 8 pp.
RUSSIAN, rpt, The Allunion Science Research Institute of Veterinary Virology and the Gamaley Institute of Epidemiology and Microbiology of the Academy of Microbiological Sciences of the USSR.
ARM/FSTC/MT-23-630-68

Scientific
Biological & Medical Sciences (Contd)

Quantative Determination of the Components of Rubomycin in Composite Preparations, by N. V. Konstantinova, et al.
RUSSIAN, per, Antibiotiki, Vol 13, No 9, 1968, pp 785-787.
HEW NIH
4-39-69

Structural Organization of the Motor Zone in the Cerebral Cortex of Dolphins, by V. S. Kesaren.
RUSSIAN, per, Arkhiv Anatomiy, Gistologiy i Embriologiy, No 4, 1969, pp 48-55.
*ACSI J-6954
ID 2204004769

Beluga (Delphinapterus leucas) Investigation of the Species, by S. E. Kleinenberg, A. V. Yablokov, et al. 376 pp.
RUSSIAN, bk, Belukha. Opyt Monograficheskogo Issledovaniya Vida, 1964.
CFSTI TT 67-51345

Biochemical Bases for the Interaction of Viruses and Cells, by V.D. Solov'ev, I.T. Balandin.
RUSSIAN, bk, Biokhimicheskie Osnovy Vzaimodeistviya Virusov i Kletki, 1969.
CONSULTANTS BUREAU/PLENUM PRESS

Motion of Bats Toward Plane Targets and the Nature of Changes of Echolocative Signals in the Process of Target Selection and Recognition, by G. A. Simkin, N. D. Patlyakevich, 11 pp.
RUSSIAN, per, Biologicheskiye Nauki, Moscow, No 3, 1969, pp 48-57.
JrRS 48123

Reaction of the Organism to the Introduction of Thrombin Subjected to the Prolonged Effect of Sound, by A. Sh. Byshevskiy.
RUSSIAN, per, Byulleten Eksperimental'noy Biologii i Meditsiny, No 5, 1969, pp 16-18.
*ACSI J-6928
ID 2204003369

Culture Characteristics of Fomes pinicola, RUSSIAN, per, Byulleten Mosk Obshch Isp. Prirod Biol, No 6, 1967, pp 82-84.
NLL Ref: 5809.95 (T.6151)

Man Under Water, by V. G. Fadeyev, A. A. Pechatin.
RUSSIAN, bk, Chelovek Pod Vodoy, 1960, Chapters, II, IV, V and VII through XII.
Dept of Navy NIC Trans No 2803

Scientific
Biological & Medical Sciences (Contd)

Hexagonal Crystalline Structure of Catalase and the Structure of its Molecules, by B. K. Vainshtein.
RUSSIAN, per, Dokl Akad Nauk SSSR, Vol 182, No 3, 1968, pp 569-572.
HEW NIH
4-7-69

Effect of Tetrodotoxin on Electric Activity and Contractions of Myocardial Cells, by R. S. Orlov, V. M. Shvelev, 8 pp.
RUSSIAN, per, Doklady Akademii Nauk SSSR, Moscow, Vol 185, No 1, 1969, pp 221-224.
JPRS 48059

Disturbances of Carbohydrate-Phosphorus Metabolism in Acute Sodium Fluoride Poisonings, by N. S. Androssov.
RUSSIAN, per, Farmakol Toksik, Vol 31, No 23, 1968, pp 243-246.
HEW NIH
4-38-69

EEG Characteristics of the Coupled Activity of the Cerebral Hemisphere in the Process of Exercise During Muscular Work, by T. I. Kryvova.
RUSSIAN, Fiziologicheskii Zhurnal SSSR im. I. M. Sechenova, No 4, 1969, pp 402-407.
*ACSI J-6950
ID 2204004369

Physiology and Biochemistry of Cultivated Plants.
RUSSIAN, bk, Fiziologiya i Biokhimiya Kul'turnykh Rastenii.
CONSULTANTS BUREAU/PLENUM PRESS

The Effect of Magnetic Fields (In Industrial Conditions) on the Central Nervous System (Based of EEG Data), by A. M. Vyalov.
RUSSIAN, per, Gigiyena i Sanitariya, No 4, 1969, pp 30-35.
*ACSI J-6932
ID 2204003569

Studying the Effect of Noise on the Organism, by Ye. Ts. Andreyeva.
RUSSIAN, per, Gigiyena i Sanitariya, No 5, 1969, pp 70-75.
*ACSI J-6931
ID 2204003469

Scientific
Biological & Medical Sciences (Contd)

Health of Individuals Working in a High-voltage Electrical Field, by V. A. Danilin.
RUSSIAN, per, Gigiyena Truda i Professional'nyye Zabolobaniya, 1969.
*ACSI J-6930

Unified Decimal Classification 64.941
Canned Meats, Liver Pie with Butter.
RUSSIAN, rpt, GOST 5.39 - 67.
ARM/FSTC/HT-23-425-69

The Structure of Leontoside C, by L. G. Mzhelskaia,
RUSSIAN, per, Khim Prirodn Soedin, No 3, 1967,
pp 218-219.
HEW NIH
4-11-69

Lasers in Biology and Medicine, by R. Ye. Kavetskiy, et al.
RUSSIAN, bk, Lazery v Biologii i Meditsine, 1969.
CONSULTANTS BUREAU/PLENUM PRESS

Surgeon Discusses Progress in Cancer Research, by A. Rakov, 7 pp.
RUSSIAN, np, Literaturnaya Gazeta, Moscow, 2 Apr 1969, p 11.
JPRS 43081

The Life Span of Doctors in the Past and at Present by V. Bacvarov.
RUSSIAN, per, Med Klin, Vol 61, No 41, 1966,
pp 1635-1637.
HEW NIH
3-27-69

Mass Breeding of Aedes Aegypti Mosquitoes, by V. V. Vladimirova, 6 pp.
RUSSIAN, per, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 35, No 6, 1966,
pp 719-723.
ARM/FSTC/HT-23-603-68

Unified Adaptors of Aerosol Inhalor, by Yu. Ye. Shpairo.
RUSSIAN, per, Meditsinskaya Tekhnika, No 1, 1969, pp 42-43.
*ACSI J-6789
*FSTC-HT-23-364-69

Scientific
Biological & Medical Sciences (Contd)

Long-Term Storage of Microorganisms, by V. I. Kuznetsova, N. V. Novotel'nov, 7 pp.
RUSSIAN, per, Mikrobiologiya, Vol 36, No 6, 1967,
pp 1100-1103.
ARM/FSTC/HT-23-757-68

Toxic Effect of a Lead Complex with DL-cysteine on Aspergillus Niger, by I. V. Zlichevskaya.
RUSSIAN, per, Mikrobiologiya, Vol 37, No 5, 1968, pp 848-854.
*ACSI J-6791
*FSTC-HT-23-055-69

Auto-Oscillations in Glycolysis. A Simple Single-Frequency Model, by E. E. Selkov.
RUSSIAN, per, Molek Biol (Moskva), Vol 2, No 2, 1968, pp 252-266.
HEW NIH
4-4-69

Determination of the Number of Free Phosphate Groups in E. Coli Ribosomes by Optical Methods, by V. I. Permogorov.
RUSSIAN, per, Molekul Biol Akad Nauk SSSR, Inst Radiats i Fiz-Khim Biol, Vol 2, No 2, 1968, pp 276-281.
NASA TT F-12,118

Theory of the Epidemic Process, by I. I. Yelkin, 33 pp.
RUSSIAN, bk, Ocherki Teorii Epidemiologii, Moscow, 1960, pp 57-103.
JPRS 47966

Principles of Epidemiological Analysis, by I. I. Yelkin, 21 pp.
RUSSIAN, bk, Ocherki Teorii Epidemiologii, Moscow, 1960, pp 124-149.
JPRS 47966

Preparation and Training of Underwater Swimmers, by B. D. Surovikin.
RUSSIAN, bk, Podgotovka i Trenirovka Plovtsov-Podvodnikov, 1966, pp 1-144.
Dept of Navy NIC 2840

"Radioray". Investigations Contribute to the Treasure of Human Knowledge, by V. Troitskiy.
RUSSIAN, np, Pravda, 19 May 1969.
NAS/GSFC/ST-10-40-69
Available from CFSTI

The Effect of Splenectomy on the Hemorrhagic Syndrome in Patients with Chronic Lympholeukemia, by S. S. Soboleva, et al.

RUSSIAN, per, Probl Gemat, Vol 10, No 9, 1965, pp 49-52.

HEW NIH

3-12-69

Distribution and Biological Effects of Radio-Active Isotopes, by Yu. I. Moskalev, 717 pp.
RUSSIAN, bk, Raspredeleniye i Biologicheskoye Deystviye Radioaktivnykh Izotopov, 1966.

AEC-Tr-6944-68

Divers Manual, by I. I. Kuznetsov.

RUSSIAN, bk, Rukovodstvo dlya Vodolaza, 1954, pp 1-181.

Dept of Navy NIC 2839

Creatures of the Continental Shelf that are the Property of the USSR, by L. G. Vinogradov.

RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 5-6.

*Dept of Interior

Bureau of Commercial Fisheries

Branch of Foreign Fisheries

Natural Reproduction of "Peled" (Coregonus Peled) in Lakes, by Yu. I. Nikanorov.

RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 19-21.

*Dept of Interior

Bureau of Commercial Fisheries

Branch of Foreign Fisheries

Utilization of the Liver of Pacific Hake, by G. A. Dolbish.

RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 62-63.

*Dept of Interior

Bureau of Commercial Fisheries

Branch of Foreign Fisheries

Physiological and Technological Properties of Sugar Beet Polyploid Varieties, by I. F. Buzanov et al 12 pp.

RUSSIAN, per, Sel'skokhozyaistvennaya Biologiya, Vol 1, No 5, 1966, pp 654-665.

*CFSTI TR 69-53024/6

Signals of Human Operators State, by A. N. Luk'yanov.

RUSSIAN, bk, Signaly Sostoyaniya Cheloveka-operatora, 1969, 247 pp.

*NASA TT F-609

Estonian Discusses Doctor-patient relations, by M. El'shteyn, 5 pp.

RUSSIAN, np, Sovetskaya Estoniya, Tallin, 6 Apr 1969, p 4.

JPRS 48081

New Instruments for Gas Analysis in Modern Medicine and Physiology; Transactions of the 2nd Anniversary Conference of the

SKTB "Medfizpribor", Held 11-12 June 1965.

RUSSIAN, rpt, Spetsial'noye Konstruktorsko Tekhnologicheskoye Byuro "Medfizpribor"

Novyye Pribory Gavovogo Analiza v Sovremennoy Meditsine i Fiziologii: Trudy 2-Y Yubiley-

noy Konferentsiy SKTB "Medfizpribor", Sostoyavsheysya 11-12 Iyunya 1965, Goda.

*ACSI J-6926

ID 2204003169

Structural Changes in the Nerve Net and Their Relation to the Memory Process, by

L. V. Chavchanidze, A. B. Sergeyenko, 15 pp.

RUSSIAN, bk, Teoreticheskiye Voprosy Psioniki, 1966, pp 5-20.

JPRS 48075

Health Facilities Surveyed, by L. Lykova, 6 pp.

RUSSIAN, np, Trud, Moscow, 3 Apr 1969, p 3.

JPRS 48081

Some Data on the Biology of Bosmina Coregoni Baird in the Rybinsk Reservoir, by

L. M. Semjonova.

RUSSIAN, per, Trudy Inst Biol Vnutrenniku Vod, No 17 (20), 1968, pp 21-26.

*Dept of Interior

Bureau of Commercial Fisheries

Branch of Foreign Fisheries

Cyclopidae Population in the Inshore Zone of Rybinsk Reservoir, by A. V. Monakov.

RUSSIAN, per, Trudy Inst Biol Vnutrenniku Vod, No 17 (20), 1968, pp 33-40.

*Dept of Interior

Bureau of Commercial Fisheries

Branch of Foreign Fisheries

On the Ostracoda of Rybinsk Reservoir, by L. A. Luferova.

RUSSIAN, per, Trudy Inst Biol Vnutrenniku Vod, No 17 (20), 1968, pp 76-81.

*Dept of Interior

Bureau of Commercial Fisheries

Branch of Foreign Fisheries

Scientific
Biological & Medical Sciences (Contd)

The Females of Chyronomidae I, by
R. A. Rodova.
RUSSIAN, per, Trudy Inst Biol Vnutrenniku
Vod, No 17 (20), 1968, pp 124-144.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Dynamics of the Number of Generations and
the Growth of Bream in Kubishev Reservoir,
by I. V. Sharonov.
RUSSIAN, per, Trudy Inst Biol Vnutrenniku
Vod, No 17 (20), 1968, pp 151-179.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Food rations and Coefficients of Feeding
of Predatory Fishes in the Rybinsk Reser-
voir, by M. N. Ivanova.
RUSSIAN, per, Trudy Inst Biol Vnutrenniku
Vod, No 17 (20), 1968, pp 180-198.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

The Importance of the Food Supply for the
Surviving of Fish, by D. A. Panov.
RUSSIAN, per, Trudy Inst Biol Vnutrenniku
Vod, No 17 (20), 1968, pp 199-221.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Fecundance of Burbot in the Rybinsk Res-
ervoir, by V. M. Volodin.
RUSSIAN, per, Trudy Inst Biol Vnutrenniku
Vod, No 17 (20), 1968, pp 222-229.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

On the Ecology, Growth and Feeding of
Burbot in the Rybinsk Reservoir, by
V. M. Volodin.
RUSSIAN, per, Trudy Inst Biol Vnutrenniku
Vod, No 17 (20), 1968, pp 230-240.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

The Pelagic and Bathypelagic Fishes of
the World Oceans, by T. S. Rass.
RUSSIAN, per, Trudy Inst Okeanologiy,
Vol 84, 1967, pp 3-237.
Dept of Navy NOO CONTRACT TRANS 16

Scientific
Biological & Medical Sciences (Contd)

Prophylaxis for Oxalate Calculi, by Ye. Liunggren
10 pp.
RUSSIAN, per, Urologiya i Nefroliya, Vol 30,
1965, pp 28-33.
NMS-1328

Measurement of Absorbed Radiation Doses
During Flights of Space Vehicles, by
B. M. Makhmudov.
RUSSIAN, per, Vest Mosk Univ, Ser III,
Fiz-Astron, Vol 23, No 2, 1968, pp 11-16.
NASA TT F-12,162

Theory of the Aging of Organisms and Ways for
Aging to Develop, by L. V. Komarov.
RUSSIAN, per, Vestn Akad Nauk SSSR, Vol 36, No 1,
1966, pp 61-68.
HEW NIH
4-34-69

Protective Media for Drying Type A Strain of Hoof
and Mouth Disease Virus, by Ye. Ye. Nikitin,
G. Kh. Kmalov.
RUSSIAN, per, Veterinariya, No 9, 1966, pp 18-21.
ARM/FSTC/HT-23-726-68

Complex Immunization of Animals Against Anthrax and
Brucellosis, by A. B. Boyalshov, P. L. Kalashyan,
5 pp.
RUSSIAN, per, Veterinariya, No 7, 1967, pp 45-47.
ARM/FSTC/HT-23-547-68

36th General Session of the International
Epizootic Bureau, by A. D. Tret'yakov,
A. A. Polyakov.
RUSSIAN, per, Veterinariya, No 11, 1968.
ACSI J-6386
ID 2204000769

Model of Signal Recognition on the Level of the
Axodendritic Sphere of the Neuron, by
N. A. Aladzhalova, A. Ye. Shaban, 9 pp.
RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957,
pp 147-153.
JPRS 48122

Statistical Methods for Studying the Mechanisms
of Reliability of the Human Brain, by
L. P. Pavlova, A. T. Koranenko, 12 pp.
RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957,
pp 154-162.
JPRS 48122

Scientific
Biological & Medical Sciences (Contd)

On the Capacity of a Neuron as a Memory Element in a Highly Reliable System, by I. A. Gol'dshteyn, L. P. Krayzmer, 7 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 173-178. JPRS 48122

Some Characteristics of Interneuronal Relations in the Somatosensory Cortex, by I. A. Vladimirova, V. M. Storozhuk, 8 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 191-197. JPRS 48122

Modern Concepts of Human Memory, and Bionic Methods of Synthesizing Memory Units for Cybernetic Machines, by L. P. Krayzmer, 7 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 213-218. JPRS 48122

Role of RNA in the Mechanisms of Memory, by A. S. Braynes, 6 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 240-245. JPRS 48122

Heuristics in Image Recognition, by I. V. Bushara, 6 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 272-276. JPRS 48122

Principles of Organization of Complex Biological Control Systems, by S. M. Braynes, V. B. Svehinskiy, 7 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 287-292. JPRS 48122

Means of Communication in Animals and Their Simulation, by N. I. Naumov, G. N. Simkin, 35 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 419-445. JPRS 48122

Studies on Nervous Mechanisms of Echolocation in Bats, by E. Sh. Ayrapet'lyants, A. I. Konstantinov, 11 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 445-453. JPRS 48122

Scientific
Biological & Medical Sciences (Contd)

Acoustic Locations in Birds, by V. D. Il'ichev, 15 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 454-465. JPRS 48122

The Part Played by Gravity Waves in Orientation of Fish, by V. R. Protasov, Yu. L. Rodlipalin, 9 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 475-491. JPRS 48122

Jumps of a Dolphin as a Means of Obtaining Information on the Impulse Bioenergetics of High-Speed Aquatic Animals, by S. V. Pershin, 18 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1957, pp 549-555. JPRS 48122

Chemoreception and Schooling Behavior in Fishes, by G. A. Malyukina, 6 pp. RUSSIAN, per, Voprosy Bioniki, 1967, pp 465-468. ARM/FSTC/HT-23-17-69

Modern Problems in Bionics Research on Orientation in Migrating Animals, by B. R. Kanteyfel', V. L. Iakobi, 9 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1967, pp 468-475. JPRS 48122

Verification of the Navigation Ability of Birds, by V. R. Dol'nik, M. Ye. Shumakov, 9 pp. RUSSIAN, bk, Voprosy Bioniki, Moscow, 1967, pp 500-507. JPRS 48122

Effect of Preliminary X-Irradiation on the Susceptibility of White Mice to Ornithosis Virus Upon Infection with an Aerosol of the Virus, by O. M. Popova, O. N. Berezina, 5 pp. RUSSIAN, per, Voprosy Virusology, No 2, 1964, pp 213-216. ARM/FSTC/HT-23-587-68

Experimental Variation of Newcastle Disease Virus, by V. M. Kolosov, V. N. Fyurin, 13 pp. RUSSIAN, per, Voprosy Virusology, No 4, 1964, pp 443-451. ARM/FSTC/HT-23-658-68

The Electron Microscopic Autoradiography of Tissue Culture Cells Infected with Fowl Plague Virus, by G. A. Klisenko, V. M. Stakhanova, 6 pp.
RUSSIAN, per, Voprosy Virusologiy, No 4, 1964, pp 451-455.
ARM/FSTC/HT-23-666-68

Comparative Investigation of the Reproduction of Viruses of the Variola-Vaccinia Subgroup in L Cells, by V. I. Chernos, A. V. Gutkina, 11 pp.
RUSSIAN, per, Voprosy Virusologiy, No 4, 1968, pp 408-415.
ARM/FSTC/HT-23-844-68

Concentration and Rapid Detection of Vaccinia Virus on Sorbents by the Fluorescent Antibody Process, by F. S. Nosov, N. V. Yermakov.
RUSSIAN, per, Voprosy Virusologiy, No 4, 1968, pp 494-498.
ARM/FSTC/HT-23-845-68

Changes in Blood Systems During Chronic Exposures to SHF Field, by Ye. V. Gembitskiy.
RUSSIAN, per, Voyenno Meditsinskiy Zh, No 5, 1969, pp 21-23.
*ACSI J-6942
ID 2204003869

Normal Blood Parameters in a Hot, Humid Climate, by A. N. Mitropolskiy.
RUSSIAN, per, Voyenno Meditsinskiy Zh, No 5, 1969, pp 26-27.
*ACSI J-6942
ID 2204003869

Testing of Flight Personnel During ENT illness, by P. I. Korostelev.
RUSSIAN, per, Voyenno Meditsinskiy Zh, No 5, 1969, pp 61-62.
*ACSI J-6942
ID 2204003869

Device for Investigating Memory During Modeling Operator Activity, by V. M. Mishurin.
RUSSIAN, per, Voyenno Meditsinskiy Zh, No 5, 1969, pp 85-87.
*ACSI J-6942
ID 2204003869

Nomogram for Determination of Radii of Danger Zones of RLS (Radar Station), by A. A. Shindryayev.
RUSSIAN, per, Voyenno Meditsinskiy Zh, No 5, 1969, pp 87-88.
*ACSI J-6942
ID 2204003869

Methods and Some of the Results of Autocorrelation and Spectral Analysis of Cardiac Rhythm, by K. M. Sayevskiy, I. G. Nidekker, 12 pp.
RUSSIAN, per, Vychislitel'naya Tekhnika v fiziologii i meditsine, Moscow, 1968, pp 151-162.
JPRS 43079

Use of Multidimensional Regression Analysis in Predicting the Quality of Flight Training, by Ye. I. Garber, V. S. Krasnitskiy, 7 pp.
RUSSIAN, per, Vychislitel'naya Tekhnika v fiziologii i meditsine, Moscow, 1968, pp 172-177.
JPRS 43079

On the Assessment and Comparison of Data on Morbidity with Temporary Disability Among Workers and Employees in Different Branches of Industry, by I. D. Bogatyrev, 6 pp.
RUSSIAN, per, Zoravookhraneniye Rossiyskoy Federatsii, Moscow, No 6, 1966, pp 5-9.
JPRS 43085

Peculiarities of the Geographical Distribution of Shigellae Report 2. Change in the Etiological Structure of Dysentery in the USSR from 1950 to 1965, by O. A. Krashennnikov, 13 pp.
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii, i Immunobiologii, Moscow, Vol 45, No 9, pp 91-100.
JPRS 43033

Highlights of the Struggle Against the Most Important Infectious Diseases in the Uzbek SSR in the Fifty Years of Soviet Rule, by I. K. Musabev, M. V. Nevskiy.
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 11, 1967, pp 11-14.
ARM/FSTC/HT-23-179-68

Basic Steps Taken Against the Most Important Infectious Diseases in the Kazak SSR in the Fifty Years of Soviet Rule, by I. K. Karakulov, Ye. K. Russina, 6 pp.
RUSSIAN, per, Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, No 11, 1967, pp 15-17.
ARM/FSTC/HT-23-117-68

Achievements in the Struggle Against Infectious Diseases in the Azerbaydzhan SSR, by B. F. Medzhidov, 5 pp.
RUSSIAN, per, Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, No 11, 1967, pp 19-22.
ARM/FSTC/HT-23-124-68

Scientific
Biological & Medical Sciences (Contd)

Bactericidal Activity of the Blood of Persons Vaccinated With Various Typhoid and Typhoid-Paratyphoid Vaccines, by L. A. Levina, 11 pp.
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 12, 1967, pp 17-23.
ARM/FSTC/HT-23-821-68

Optimization of a Synthetic Nutrient Medium for Culturing Typhoid Bacilli. Report 1. Selection of the Most Essential Factors of a Nutrient Medium by the Method of Accidental Balance, by B. Vu. Shuster, V. V. Biryukov, 8 pp.
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 12, 1967, pp 59-63.
ARM/FSTC/HT-23-384-68

Toxin Formation of *Cl. Perfringens* Types A and D on Synthetic Media, by B. D. Bychenko, L. G. Ivanova, 10 pp.
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 1, 1968, pp 84-89.
ARM/FSTC/HT-23-516-68

On Adaptation of *Rickettsia Prowazekia* to a Semisynthetic Avitalized Nutritive Medium, by A. V. Pshenichnov, 7 pp.
RUSSIAN, per, Zh Mikro Epid i Immunobio, Vol 10, 1968, pp 86-89.
AEC/SC-Tr-69-1005

Experimental Basis of the Aerosol Method of Disinfecting Viral Contaminations, by G. I. Karpukhin, B. K. Slobodyenyuk, 6 pp.
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Vol 10, 1968, pp 135-138.
ARM/FSTC/HT-23-1040-68

On the Methodology of Epidemiological Theory. Communication 1. An Ecological Conception from the Positions of Materialist Dialectics, by I. I. Yelkin, A. Ye. Tarasov, 11 pp.
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Moscow, No 3, 1969, pp 3-11.
JPRS 48094

Spreading Factor of Types A, B, C, D, E and F of *Cl. Perfringens*, by L. A. Karasanova, 5 pp.
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Moscow, No 3, 1969, pp 131-134.
JPRS 48094

On the Characteristics of Response Activity of Individual Neurons of the Associative Cortex in the Cat, by S. P. Narikashvili, et al.
RUSSIAN, per, Zh Vyssh Nerv Deiat Pavlov, Vol 18, No 5, 1968, pp 865-872.
HEW NIH
3-26-69

Scientific
Biological & Medical Sciences (Contd)

Action of Surface Polarization in the Intracellular Activity of Neurons of the Motor Cortical Zone of Nonanesthetized Rabbit, by L. L. Voronin.
RUSSIAN, per, Zh Vyssh Nerv Deiat Pavlov, Vol 18, No 3, 1968, pp 478-487.
HEW NIH
3-1-69

Changes in the EEG and in Food Conditioned Reflex Activity After Short-term Hypoxia, by N. A. Agadzhanian.
RUSSIAN, per, Zhurnal Vysshey Nervnoy Deyatelnosti, 1969.
*ACSI J-6929

Certain Characteristics of Higher Nervous Activity in the Black Sea Dolphin, by L. G. Voronin.
RUSSIAN, per, Zhurnal Vysshey Nervnoy Deyatelnosti, No 2, 1969, pp 233-242.
*ACSI J-6955
ID 2204004869

Position of Toxoplasmas, Piroplasmas and Some Other Protozoa in the Protozoa System, by D. P. Zasukhin.
RUSSIAN, per, Zoologicheskii Zhurnal, Vol 44, No 1, 1965, pp 123-125.
Dept of Navy NIC 2844

Prolonged Interruptions of Epizootic Activity in Natural Plague Foci and Their Probable Causes, by N. I. Kalabukhov, 20 pp.
RUSSIAN, per, Zoologicheskii Zhurnal, Moscow, Feb 1969, pp 165-178.
JPRS 47973

Mechanism of Preservation of Natural Plague Foci in the Volga-Ural Sands, by V. L. Shevchenko, V. I. Kaymashnikov, 18 pp.
RUSSIAN, per, Zoologicheskii Zhurnal, Moscow, Feb 1969, pp 270-283.
JPRS 47973

The Acoustic Signal and Signalling Systems in Small Animals, by G. N. Simkin.
RUSSIAN, per, Zoologicheskii Zhurnal, No 4, 1969, pp 579-586.
*ACSI J-6956
ID 2204004969

Development of Veterinary Control Described, 5 pp.
BULGARIAN, per, Veterinarna Sbirka, Sofia, Vol LXVI, No 3, Mar 1969, pp 1-3.
JPRS 47960

Scientific
Biological & Medical Sciences (Contd)

Emergency Prophylaxis, Its Importance for
Bacteriological Defense, by Sv. Petrovski,
M. Gotev, 12 pp.
BULGARIAN, per, Voennomeditskino Uelo,
Sofia, Vol 24, No 1, 1969, pp 49-56.
JMS 48014

Dependence of Calcium and Phosphorus
Levels in the Bones on the Amount and
Duration of Fluorine Application, by
J. Kortus.
CZECH, per, Biologia, Vol 21, No 3, 1968,
pp 202-209.
HEW NIH
4-3-69

The Role of the Phoniatrician in Schools for
Hard-of-Hearing Children, by V. Lejska.
CZECH, per, Cesk Otolaryng, Vol 14, No 3, 1965,
pp 169-172.
HEW NIH
4-3-69

Results Obtained in a Microbiological Examination
of the Meat of Pigs Killed Because of Irradiation
Sickness, by Otto Pawel.
CZECH, per, Vet Med, No 12, 1967, pp 361-366.
*AEC/ORNL-Tr-2135

Food Research on Behalf of the Dutch Army
and Navy, by E. W. Hellendoorn.
DUTCH, per, TNO - Nieuws, 1969, pp 20-26.
*ACSI J-6787
*FSTC-HT-23-459-69

Kinetics of Cell Populations, by M. Tubiana.
FRENCH, per, Ann Biol Clin (Paris), Vol 26, No 7/9,
1968, pp 793-823.
HEW NIH
4-35-69

Lymphocyte Circulation in Chronic Lymphatic Leukemia
Studied by Labeling Methods, by J. L. Binet, et al.
FRENCH, per, Ann Biol Clin (Paris), Vol 26, No 7/9,
1968, pp 825-832.
HEW NIH
3-3-69

Cranio-Naso-Orbito-Facial Osteotomies, by
P. Tessier, et al.
FRENCH, per, Ann Chir Plast, Vol 12, No 2, 1967,
pp 103-118.
HEW NIH
3-4-69

Scientific
Biological & Medical Sciences (Contd)

Total Osteotomy of the Face. Crouzon's Syndrome.
Apert's Syndrome. Oxycephalies. Scaphocephalies.
Turriccephalies. by P. Tessier.
FRENCH, per, Ann Chir Plast, Vol 12, No 4, 1967,
pp 273-286.
HEW NIH
3-21-69

Studies on the Resorption of Cells, by
E. Metchnikoff.
FRENCH, per, Ann Inst Pasteur (Paris), Vol 13,
No 10, 1899, pp 737-769.
HEW NIH
3-25-69

On the Cytotoxins, by E. Metchnikoff.
FRENCH, per, Ann Inst Pasteur, (Paris), Vol 14, No 6,
1900, pp 369-377.
HEW NIH
3- 17-69

Leukotoxin and Its Action in the Leukocyte System,
by Besredka.
FRENCH, per, Ann Inst Pasteur, (Paris), Vol 14, No 6,
1900, pp 390-401.
HEW NIH
3-20-69

Night Sleep of the Schizophrenic at the Start of
Evolution. Polygraphic Study by Telemetry. by
J. D. Vincent, et al.
FRENCH, per, Ann Medicopsychol (Paris), No 2, 1968,
pp 227-235.
HEW NIH
4-26-69

Application of Inactivated Vaccine in Herpetic Keratitis
by G. Offret, et al.
FRENCH, per, Arch Ophtal (Paris), Vol 25, No 3,
1965, pp 287-300.
HEW NIH

4-31-69

Chemical Carcinogenesis of Rat Liver. Comparison
of Biochemical and Histopathological Points of
View. by A. Lacassagne.
FRENCH, per, Bull Cancer (Paris), Vol 53, No 1, 1966,
pp 7-26.
HEW NIH
4-24-69

Scientific
Biological & Medical Sciences (Contd)

Treatment of Herpes Recurrens with a Specific Vaccine, by R. Degos, et al.
FRENCH, per, Bull Soc Franc Derm Syph, Vol 71, No 2, 1964, pp 161-166.
HEW NIH
4-25-69

Provisional Instructions Concerning the Funding of Health Services in the Case of the Employment of Weapons of Mass Destruction.
FRENCH, bk, Instruction Provisoire sur le Fonctionnement du Service de Sante en Cas D'Emploi D'Armes de Destruction Massive, 1966, 103 pp.
*ACSI J-6927
ID 2204003269

Biological Characteristics of Strains of Influenza Virus Adapted to 29 Degrees C and 41 Degrees C, by A. Boudreault, et al.
FRENCH, per, Canad J Microbiol, Vol 14, No 8, 1968, pp 867-874.
HEW NIH
3-9-69

Reticulated Ultrastructure of a Skeletal Fiber in a Ciliate, by C. Rouiller, et al.
FRENCH, per, J Ultrastruct Res, No 1, 1957, pp 1-13.
HEW NIH
3-14-69

Antitumor Action of Toyomycin. Experimental Studies by W. H. Clode, et al.
FRENCH, per, Med Contemp, No 82, 1965, pp 85-101.
HEW NIH
4-1-69

Behaviour of Platelets in Hemorrhagic Diseases, by Z. Sinakos, et al.
FRENCH, per, Presse Med, Vol 75, No 6, 1967, pp 269-273.
HEW NIH
3-13-69

Physiology of Fluorine in Prophylactic Doses, by J. P. Dustin.
FRENCH, per, Rev Belg Med Dent, Vol 22, No 3, 1967, pp 261-278.
HEW NIH
4-20-69

Scientific
Biological & Medical Sciences (Contd)

Experimental Studies of Cerebral Concussion, by A. Polis.
FRENCH, per, Rev Chir, No 14, 1894, pp. 272-319.
HEW NIH
4-37-69

Anti-Leukocytic Iso-Antibodies and Grafting, by J. Dausset.
FRENCH, per, Rev Franc Etud Clin Biol, No 6, 1961, pp 993-996.
HEW NIH
4-16-69

Demential State, Amyotrophic Lateral Sclerosis, Extrapyramidal Syndrome. Anatomic Study. Nosologic Discussion, by J. Boudouresques, et al.
FRENCH, per, Rev Neurol (Paris), Vol 116, No 6, 1967, pp 693-704.
HEW NIH
4-14-69

Antileukocytic and Antiplatelet Immunization Provoked by Repeated Injection of the Same Blood, by G. Marchal, et al.
FRENCH, per, Sang, No 29, 1958, pp 549-560.
HEW NIH
4-5-69

Megakaryocytic Hyperplasia and Qualitative Anomalies of the Megakaryocyte-Platelet Line in the Course of Acute Myeloblastic Leukemia, by R. Zittoun, et al.
FRENCH, per, Sem Hop Paris, Vol 44, No 3/1, 1968, pp 180, 183-186.
HEW NIH
3-22-69

Speech Made by the Secretary of State to the Public Health Service at the IVth Seminar of Medical Students Held at Carthage on the 28th of June 1969. 7 pp.
FRENCH, per, La Tunisie Medicale, No 3, May-June 1968, pp 9-14.
DIA LN 987-69

Contribution to Knowledge of the Origin of Nyctitropic Movements, by W. Pfeffer.
GERMAN, per, Abhandl Saechs Akad Wiss Leipzig Math Naturw Kl, Vol 34, 1915, pp 3-154.
NASA TT F-11,940

Aphasia, by Arnold Pick.
GERMAN, bk, Aphasie, pp 1416-1524.
ACSI J-6276
ID 2204002769

Investigation of the Nucleic Acid Metabolism of SV-40 Infected Monkey Renal Tissue Cultures. III. Investigations of the Mechanism of the Virus-Conditions DNS-Synthesis Increase, by H. Werchau.
GERMAN, per, Arch Gesam Virusforsch, Vol 21, 1967, pp 265-275.
*AEC/ORNL-Tr-2129

The Asymmetrical Development and Situs Inversus Viscerum in Twins and Double Structured Organisms, by Hans Spermann, Herman Falkenberg.
GERMAN, per, Arch Entwicklungsmech Organ, Vol 45, 1919, pp 371-420.
NASA TT F-12,148

Contributions on the Development Mechanics of Embryos, by Wilhelm Roux.
GERMAN, per, Archiv fuer Mikroskopische Anatomie, Vol 29, 1887, pp 157-212.
NASA TT F-12,068

Contribution to the Knowledge of Indirect Vision. 1: Studies on the Spatial Sense of the Retina. by Aubert, Foerster.
GERMAN, per, Arch Ophthalmol, Vol 3, 1857, pp 1-37.
NASA TT F-12,074

L-Asparaginase, The First Specific Cytostatic, by H. Marquardt.
GERMAN, per, Arzneimittelforschung, Vol 18, No 11, 1968, pp 1380-1386.
HEW NIH
3-18-69

Congenital Double Formations in the Frog and Their Origins, by G. Born.
GERMAN, per, Breslauer Arztliche Zeit, No 14, 22 Jul 1882, pp 162-163.
NASA TT F-12,049

Contribution to Embryo Development Mechanics, by Wilhelm Roux.
GERMAN, per, Breslauer Aerztliche Zeit, Vol 6, 1884, pp 57-62.
*NASA TT F-12,419

Studies on the Influence of Alveolar Operation and Immediate Prosthesis on the Form and Quality of the Support of the Prosthesis, by H. Schuele.
GERMAN, per, Dtsch Zahnarztl, Vol 12, No 21, 1957, pp 1451-1455.
HEW NIH
4-18-69

Further Contributions to the Knowledge of Geotropic Stimulus Movements, by Friedrich Czapek.
GERMAN, per, Jahr fur Botanik, Vol 32, 1898, pp 174-308.
NASA TT F-12,085

Studies on the Induction of Dorsiventrality in Germinating Brood Bodies of Marchantia and Lunularia. 1: Inductors and Their Effects, by Hans Fitting.
GERMAN, per, Jahr fuer Wiss Botan, Vol 82, 1936, pp 333-376.
NASA TT F-12,038

Studies on the Induction of Dorsiventrality in Marchantia Bodies. 2: The Force of Gravity as an Inductor of Dorsiventrality, by Hans Fitting.
GERMAN, per, Jahr fuer Wiss Botan, Vol 82, 1936, pp 696-740.
NASA TT F-12,037

Studies on the Induction of Dorsiventrality in Brood Body Seedlings of the Marchantia. 5: The Reversibility of Dorsiventrality Induced by Extrinsic Factors, by Hans Fitting.
GERMAN, per, Jahr fuer Wiss Botan, Vol 86, 1938, pp 107-227.
NASA TT F-12,039

Study of Deoxyribonucleic Acid from the Spores of Bacillus Subtilis, by H. O. Halvorson, 22 pp.
GERMAN, per, J. Mol Biol, Vol 28, 1967, pp 71-86.
AEC/SC-Tr-69-1006

Experimental Investigation of the Effect of the Lateral Opture on the Central Visual Activity, by R. Depene.
GERMAN, per, Klinische Monatsblätter fur Augenheilkunde, Vol 38, 1900, pp 289-307, 390-399.
*NASA TT F-12,439

New Experimental Contribution to the Anatomy of Lemniscus, by von Monakow, 6 pp.
GERMAN, per, Neurol Zentralblatt, Vol 12, 1885, pp 265-268.
NMS/1330

Acute Psychoses Accompanying Physical Diseases and Childhood Schizophrenia, by J. Lutz.
GERMAN, per, Schweiz Med Wschr, Vol 80, No 29, 1950, pp 774-776.
HEW NIH
3-24-69

On Specific X-Ray Damages of the Myocardium, by
E. Schweizer.
GERMAN, per, Strahlentherapie, No 18, 1924,
pp 812-828.
HEW NIH
3-29-69

Rubella Virus Infection of the Central Nervous
System of Rabbits and Hamsters. 1. Virological
Studies in Vitro and in Vivo, by B. Drinovec, et al.
GERMAN, per, ZBL Bakt (Orig), No 207, 1968,
pp 442-450.
HEW NIH
4-8-69

Cancer of the Liver on Carbontetrachloride Cirrhosis
by M. Simler, et al.
GERMAN, per, Strasbourg Med, No 15, 1964, pp 910-918
HEW NIH
4-2-69

Pain-Producing Substances (Algogens), by
Ch. Lohs, 12 pp.
GERMAN, per, Zeitschrift fuer Militaermedizin,
East Berlin, No 5, July 1968, pp 281-285.
JPRS 48003

Caries Prophylaxis with Fluorine, especially with
Fluorinated Salt. 2nd Report. by H. J. Wespi.
GERMAN, per, Ther Gegenw, Vol 102, No 10, 1963,
pp 1153-1159.
HEW NIH
4-23-69

Antidotes for organophosphate poisoning, by
A. Schumacher, 13 pp.
GERMAN, per, Zeitschrift fuer Militaermedizin,
East Berlin, No 5, 1968, pp 285-289.
JPRS 48003

Caries Prophylaxis with Fluorine, Particularly with
Fluoridated Salt. 4th Report (Conclusion). by
H. J. Wespi.
GERMAN, per, Ther Gegenw, Vol 102, No 12, 1963,
pp 1448-1462.
HEW NIH
4-29-69

The Flow Curve in a Model of the Human
Aorta, by Claus Timm.
GERMAN, per, Zeit fur Physiol, Vol 101,
No 101, 1942, pp 79-99.
*NASA TT F-12,420

Cytokinetic Principles of the Actions of Cytostatics
by T. M. Fliedner.
GERMAN, per, Therapiewoche, Vol 17, No 48, 1967,
pp 1977-1980.
HEW NIH
3-2-69

Demonstration of the Occurrence of Albinism,
Melanism and Neoteny in Frogs. 2. A New
Contribution to Bio-Technology, by
Gustav Tornier.
GERMAN, per, Zool Anz, Vol 32, 1908,
pp 284-288.
NASA TT F-12,150

Survival at Sea - 2nd Naval Medicine and
Science Symposium in Kiel.
GERMAN, rpt, Überleben auf See II Marine-
medizinisch-Wissenschaftliches Symposium
in Kiel, 25 June 1965.
*Dept of Navy NIC

Organization of Pharmaceutical Industry
Changed, by Tibor Sebestyen, 5 pp.
HUNGARIAN, np, Figyele, Budapest, 26 Mar 1969,
p 5.
JPRS 48022

Complications Accompanying Blood Donations.
Myocardial Infarction and Brain Embolism Following
a Blood Donation. by E. Schubbert.
GERMAN, per, Z Aerztl Fortbild, Vol 62, No 13,
1968, pp 713-715.
HEW NIH
4-32-69

Report on Study Trip to Switzerland, by K. Toth.
HUNGARIAN, per, Fogorv Szemle, Vol 61, No 1, 1968,
pp 24-25.
HEW NIH
4-30-69

Experimental Studies on Mouse Tumors, by P. Ehrlich.
GERMAN, per, Z Krebsforsch, No 5, 1907, pp 59-81.
HEW NIH
3-10-69

Physiological and Pathological Effects of the
Fluoride Ion, by J. Sos.
HUNGARIAN, per, Fogorv Szemle, Vol 60, No 9, 1967,
pp 259-266.
HEW NIH
4-28-69

Scientific
Biological & Medical Sciences (Contd)

Indirect Haemagglutination Test for the Differentiation of Anthrax Bacillus from Related Species and for Post-mortem Diagnosis of Anthrax, by Edit Illes.
HUNGARIAN, per, Magyar Allatorvosok Lapja, No 2, 1969, pp 63-66.
*ACSI J-6945
ID 2204004169

Epidemiological Problems of Ornithosis in Hungary, by Katalin Solt.
HUNGARIAN, per, Magyar Allatorvosok Lapja, No 2, 1969, pp 93-97.
*ACSI J-6945
ID 2204004169

News of the Veterinary Stations, by Istvan Rakoczi.
HUNGARIAN, per, Magyar Allatorvosok Lapja, No 2, 1969, pp 107-108.
*ACSI J-6945
ID 2204004169

The Occurrence of Influenza Equi A-2 Virus Infection in Some Horse Stocks, by Jozsef Romvary.
HUNGARIAN, per, Magyar Allatorvosok Lapja, No 12, 1969, p 631.
*ACSI J-6946
ID 2204004269

Hungarian Microbiological Research Reviewed, by Gyorgy Ivanovics, 11 pp.
HUNGARIAN, rpt, Magyar Tudomány, Budapest, Mar 1969, pp 139-148.
CPRS 48014

Studies on Infection and on Immunity by the Herpetic Virus. Note I. Local and Tissue Immunity. Correlations between Corneal Immunity and Cerebral Immunity. by F. Magrassi.
ITALIAN, per, Boll Ist Sieroter Milanese, Vol 14, No 8, 1935, pp 773-790.
HEW NIH
4-22-69

Studies on the Physiopathology of Vaccinations. Note III. Changes in the Electroencephalic Tracing in the Course of Vaccination Against Smallpox and Pertussis, by F. Tuvo, et al.
ITALIAN, per, Minerva Pediat, Vol 18, No 2, 1966, pp 90-94.
HEW NIH
4-10-69

Scientific
Biological & Medical Sciences (Contd)

Functional Asymmetry of the Ovaries (Estimate Note), by P. Sfamini, et al.
ITALIAN, per, Monit Ostet Ginec, No 1, 1929, pp 109-115.
HEW NIH
3-8-69

Research with Gamma Spectrometry in Human and Animal Organs, by E. Lanzola.
ITALIAN, per, Nuovi Ann Ig Microbiol, No 15, 1964, pp 395-409.
*AEC/ORNL-Tr-2141

Detection of Adulterations in Citric Juices. 1. Methods for Identification of Acids in Orange Juice by Thin-Layer Chromatography and Gas-Liquid Chromatography, by E. Primo, et al.
ITALIAN, per, Rev Agrochim Technol Alimentos, Vol 3, No 4, 1963, pp 349-356.
HEW NIH
3-16-69

Fluorine and Prevention of Dental Caries. Experimental Investigations of the Actions of Fluorine on the Kidney. 3rd Report. by G. Pittorino.
ITALIAN, per, Riv Ital Stomat, Vol 21, No 12, 1966, pp 1379-1388.
HEW NIH
4-27-69

Influence of Platelet Level on Hematic Fibrinolysis in Cases of Acute and Chronic Leukemia, by A. Girolami.
ITALIAN, per, Tumori, Vol 52, No 1, 1966, pp 29-34.
HEW NIH
3-19-69

Infrared Spectrophotometry Studies on S-RNA's of Cerebral Tumors, by G. L. Viale, et al.
ITALIAN, per, Tumori, No 53, 1967, pp 323-329.
HEW NIH
3-15-69

Pharmacological Studies on the New Antibiotic Chromomycin A3, by Y. Aramaki, et al.
JAPANESE, rpt, Ann Rept Takeda Res Inst, No 19, 1960, pp 109-130.
HEW NIH
4-13-69

Reticulo-Endothelial Foam Cells Mistaken for Niemann-Pick's Cells in the Bone Marrow, Due to Intravenous Administration of Polyvinylpyrrolidone, by N. Matsuda, et al.
JAPANESE, per, Igaku to Seibutsugaku, Vol 73, No 3, 1966, pp 120-124.
HEW NIH
3-6-69

Effect of Gamma Irradiation on the Browning Reaction of Foods. Part 1 - Effect on the Amino-Carbonyl Reaction, by Shunro Kawagishi.
JAPANESE, per, Japan Food Irradiation, Vol 2, No 1, 1967, pp 73-78.
*ACSI J-6908
ID 2253004868

Radiation Effects on Amino Acids, Proteins and Enzymes in Various States, by Hiroyuki Hatano.
JAPANESE, per, Japan Food Irradiation, Vol 2, No 1, 1967, pp 78-85.
*ACSI J-6907
ID 2253004868

Dyes Film Radiation Indicator, by Tsuyoshi Sunada.
JAPANESE, per, Japan Food Irradiation, Vol 2, No 1, 1967, pp 132-133.
*ACSI J-6906
ID 2253004868

Qualifications Necessary to Become a Speech Therapist, by I. Tsukuda.
JAPANESE, per, Kango Gijutsu, No. 12, 1966, pp 83-89
HEW NIH
3-23-69

The State of Post-Transfusion Hepatitis in the National Utano Sanatorium. About the Difference Between the Paid Donor and Volunteered Donor. by M. Ichitani, et al.
JAPANESE, per, Naika, Vol 21, No 3, 1968, pp 549-552.
HEW NIH
4-21-69

Experimental Research on Thyroid Swelling due to Large Quantities of Iodine. Decline of Inner Thyroid Thyronine Synthesis Rate. by M. Sawada.
JAPANESE, per, Nippon Naibunpi Gakkai, Vol 43, No 5, 1966, pp 391-399.
HEW NIH
4-15-69

On Lipidosis, Particularly on Metachromatic Leucodystrophy and Tay-Sachs Disease, by S. Yokoi.
JAPANESE, per, Nippon Rinsho, Vol 25, No 8, 1967, pp 1597-1606.
HEW NIH
3-7-69

Two Cases of Homocystinuria, by T. Yoshida, et al.
JAPANESE, per, Rinsho Shoni Igaku, No 14, 1966, pp 402-412.
HEW NIH
3-30-69

Persistent Infection of Cell Cultures with Myxovirus Parainfluenzae L (HVJ), by K. Maeno, et al.
JAPANESE, per, Saibokagaku Shinpojumu, No 15, 1965, pp 131-150.
HEW NIH
4-12-69

Do Exogenous Factors in Gestation have any Influence on the State of Nutrition of the Newborn Child? by K. U. Toverud.
NORWEGIAN, per, Norsk Mag Laegevidensk, Vol 94, No 2, 1933, pp 121-140.
HEW NIH
3-5-69

The Dendritic Method in the Systematics of Plants, by T. Kowal, E. Kuzniewski. 11 pp.
POLISH, per, Acta Societatis Botanicorum Poloniae, Vol 28, No 2, 1959, pp 249-262.
CESTI TT-67-56113

Papers Presented at a Scientific Meeting Devoted to the Problems of the Clinical Course of Chronic Epilepsy, by A. Dowzenko, et al.
POLISH, per, Neurol Neurochir Psychiat Pol, Vol 18, No 3, 1968, pp 253-260.
HEW NIH
4-6-69

Hemolytic Shock Following Transfusion of Incompatible Blood, by R. Scharf.
POLISH, per, Pol Tyg Lek, No 23, 1968, pp 903-906.
HEW NIH
4-41-69

Stored Blood Contaminated by Bacteria as a Cause of a Characteristic Type of Septic Shock, by J. Schier.
POLISH, per, Pol Tyg Lek, Vol 23, No 24, 1968, pp 907-910.
HEW NIH
4-40-69

Problems of the Preventive Vaccine Against Influenza by E. Monteiro.

PORTUGUESE, per, Rev Brasil Med, Vol 23, No 8, 1966, pp 547-549.

NEW NIH

3-28-69

Chemico-Toxicological Study of Aldrin, by Gh. Bors, I. Popa, 6 pp.

RUMANIAN, per, Farmacia, Bucharest, Mar 1969, pp 157-160.

JPRS 48052

Development of Pharmaceuticals Traced, by Vasile Cristea, 6 pp.

RUMANIAN, per, Farmacia, Bucharest, Apr 1969, pp 193-196.

JPRS 43096

Study of Acute Poisoning with Minor Tranquilizers, Neuroleptics, by C. Gh. Dimitriu, S. Klein, 12 pp.

RUMANIAN, per, Medicina Interna, Bucharest, Mar 1969, pp 293-302.

JPRS 48052

Prevention of Dental Caries by Fluoridation of the Drinking Water in Tirgu Mures (Marosvasarhely), by L. Csogor, et al.

RUMANIAN, per, Stomatologia (Bucur), Vol 15, No 1, 1968, pp 33-38.

NEW NIH

4-19-69

Autologous Spleen Tissue Transfusion in the Treatment of Hematologic Side Effects caused by Cytostatic Agents, by N. Gingold, et al.

RUMANIAN, per Stud Cercet Med Intern, Vol 5, No 6, 1964, pp 649-652.

NEW NIH

4-9-69

First Diagnosed Case of Aujeszky's Disease in Vicinity of Ljub, Leskovac Described, by J. Canic, 5 pp.

SERBO-CROATIAN, per, Veterinarski glasnik, Belgrade, No 3, 1969, pp 231-234.

JPRS 47960

Scientific Investigation: Extraction of

Seleno-Cystathionine and Identification by

Activation Analysis, by G. J. Olivares, et al.

SPANISH, per, Acta Cient Venez, Vol 18, No 1, 1967, pp 9-12.

NEW NIH

3-31-69

Determination of Hexoamines as Index of Contents of Fish or Crustacean Offals in Commercial Fish Meal, by R. Gallardo, et al. 15 pp.

SPANISH, rpt, Institute of Fisheries Research, Santiago, Chile, Scientific Bulletin No 8, 1968.

* TT 69-52022

Available from BCF only

Military Medicine and Surgery. 5 pp.

SPANISH, per, Medicina y Cirugia de Guerra, No 1, 1966, pp 56-59.

DIA LN 979-69

Toxicology in Our Army.

SPANISH, per, Revista Ilustrada de las Armas y Servicios, No 327, pp 45-48.

DIA LN 953-69

Natural Fluorine and Prevalence of Caries in the San Juan Province of the Republic of Argentina, by C. del Cid.

SPANISH, per, Rev Asoc Odont Argent, Vol 55, No 9, 1967, pp 382-386.

NEW NIH

4-33-69

Fourth Seminary of Drugs and Food Control for Central America and Panama. 6 pp.

SPANISH, per, IV. Seminario de Control de Drogas y Alimentos, Vol 1, 1968, pp 1-4.

DIA LN 870-69

Great Successes Achieved in the War on Malaria, by Lu Thi Phan, Nguyen Trang Thi, 10 pp.

VIENTIANE, per, Phong Thuc Canh, Hanoi, No 151, Jan 1968, pp 3-7.

JPRS 48115

Offensive on Malaria in Transportation Work Camp, by Lu Thi Phan, Le van Loc, 10 pp.

VIENTIANE, per, Phong Thuc Canh, Hanoi, No 151, Jan 1968, pp 9-13.

JPRS 48115

Preliminary Observations on Leprosy Statistics, by Le Ha, Tran Quu Ngoan, 5 pp.

VIENTIANE, per, Phong Thuc Canh, Hanoi, No 151, Jan 1968, pp 24-26.

JPRS 48115

Scientific
Chemistry

Wear-Reducing Properties of Mineral Oils Containing Highly Dispersed Carbon Obtained by Electrocarbonization of Benzene (UeKb) as Additives, by D. S. Yosebidze, L. D. Melikadze.

RUSSIAN, per, Bulletin of the Academy of Sciences of the Georgian SSR, Vol 59, No 3, 1968, pp 659-664.

NAV/NIC/TRAN-2826-69

Damage to Condenser Tubes by Impingement

Corrosion, by M. I. Luzhnov, et al.

RUSSIAN, per, Elekt Stantsii, Vol 39, Mar 1968, pp 37-41.

CEGB-Tr 5067

Formation of Thin Cobalt and Nickel-Cobalt Alloy Films on a Glass Surface, by Ye. I. Saranov,

N. K. Bulatov, et al. 9 pp.

RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Khimiya i Khimicheskaya Tekhnologiya Vol 10, No 4, 1967, pp 404-407.

AIR/FTD/MT-23-1113-68

Electrochemical Method for Evaluating the Wettability of Steel in a Two-Phase Dynamic System of Electrolyte and Liquid Hydrocarbons, by V. F. Negreyev, Yu. A. Rlekperova, et al. 12 pp.

RUSSIAN, rpt, Nauchno-Tekhnicheskoye Soveshchaniye po Zashchite ot Korrozii Oborudovaniya Neftnykh i Gazovykh Skvazhin, 1964, 1967, pp 124-133.

AIR/FTD/MT-24-519-68

Production of Oxygen in High Pressure Units, by D. L. Glizmanenko. 55 pp.

RUSSIAN, bk, Polucheniye Kisloroda, 1965, pp 590-637.

AIR/FTD/MT-23-854-68

Kinetics of the Re-extraction of Nitrates of Certain Metals from Alkylphosphate Solutions into Water, by V. S. Fedorov, M. F. Pushlenkov.

RUSSIAN, per, Radiokhimiya, Vol 8, No 2, 1966, pp 132-139.

NAV/NIC/TRAN-2818-69

Continuous Rapid Separation of Groups III and IV Transition Elements Using Chlorides, by I. Zvara, T. S. Zvarova.

RUSSIAN, per, Radiokhimiya, Vol 9, No 2, 1967, pp 231-239.

NAV/NIC/TRAN-2796(A)-69

Scientific
Chemistry (Contd)

Method for Visualizing Isothermal Surfaces, by Yu. N. Vorontsov.

RUSSIAN, bk, Svoystva Gazov pri Vysokikh Temperaturakh, 1967, pp 181-183.

NASA TT F-12,218

Formation of Anomalous Water Columns During the Condensation of Water Vapor in Quartz Capillaries, by B. V. Deryagin. RUSSIAN, per, Theoretical and Experimental Chemistry, Vol 4, No 4, 1968, pp 527-532.

Dept of Navy NIC 2834

New Method for Calculation of Molecular Vibrations. Determinations of the Potential Energy Matrix of the Vibrations of Multiatom Molecules, by G. S. Koptev. RUSSIAN, per, Vestnik Moscow Univ, Ser 2, Khimiya, Vol 21, No 6, 1966, pp 3-7.

*AFCLR

Determination of the Potential Energy Matrix in the Mechanical Problem of Vibrations in Polyatomic Molecules, by G. S. Koptev.

RUSSIAN, per, Vestnik Moscow Univ, Ser 2, Khimiya, Vol 22, No 3, 1967, pp 86-89.

*AFCLR

Blending Matrices of Potential Energy in Problems of Multiatomic Molecule Oscillation, by G. S. Koptev.

RUSSIAN, per, Vestnik Moscow Univ, Ser 2, Khimiya, Vol 23, No 5, 1968, pp 3-6.

*AFCLR

Liquid Metals, by P. L. Kirillov, V. I. Subbotin.

RUSSIAN, bk, Zhidkiye Metally, 1967, 455 pp.

NAS/NASA/TT F-522 69

Reasons for the Formation of Zinc Sponge on the Cathode and Mechanism of Action of Impurities in Zincate Electrolytes, by N. T. Kudryavtsev.

RUSSIAN, per, Zhurnal Fizicheskoy Khimiy, Vol 26, No 2, 1952, pp 269-281.

Dept of Navy NIC 2838

Catalytic Oxidation of Various Classes of Organic Compounds in a Jet, by

L. Ya. Margolis, O. M. Todes.

RUSSIAN, per, Zh Obshchey Khim, Vol 18, No 6, 1948, pp 1043-1050.

Dept of Navy NRL Trans No 1171

A Method of Removing Carbon Dioxide from Gases with Aqueous Solutions of Soda ro Potash, by J. Vodicka, Z. Klupka.
CZECH, Patent No 123,148.
Dept of Navy NRL Trans No 1170

Improvement of Chemical Separations on Ion Exchange Resins: Effect of Grain Size, by J. Laverlochere, 23 pp.
FRENCH, per, Radioanalytical Chem, No 1, 1968, pp 123-137.
AEC/UCRL-Tr-10324-69

The Chemistry of Cyanogens and Isocyanogens, by J. U. Nef.
GERMAN, per, Ann Chem, Vol 287, 1895, pp 337-359.
NASA TT F-12,045

Evaluation of the Reflection Broadening of MgO by Different Methods, by P. Royen, M. Tromel.
GERMAN, per, Berichte der Bunsengesellschaft, Vol 67, No 9/10, 1963, pp 918-920.
ALL Ref: 5828.4F (N.13102)

Oxidation of Carbon Disulfide. Rates of Elementary Reactions. Part I, by K. E. Homann, G. Krome.
GERMAN, per, Berichte der Bunsen-Gesellschaft fur Physikalische Chemie, Vol 72, No 8, 1968, pp 998-1004.
Dept of Navy APL/JHU T-2267

Rate of the Reaction of Atomic Hydrogen with Acetylene. Part I, by K. Hoyeremann, H. G. Wagner.
GERMAN, per, Berichte der Bunsengesellschaft fur Physikalische Chemie, Vol 72, 1968, pp 1004-1008.
Dept of Navy APL/JHU T-2269

On the Existence of Iminoether Arising from Hydrocyanic Acid, by A. Pinner.
GERMAN, per, Ber Deut Chemischen Ges, Vol 28, 1895, pp 2454-2458.
NASA TT F-12,019

On Thioformamide, by Richard Willstaetter.
GERMAN, per, Chem Ber, Vol 42, 1909, pp 1908-1922.
NASA TT F-12,023

On Benzoylene-Benzimidazole, by H. Rupe.
GERMAN, per, Chem Ber, Vol 42, 1909, pp 4287-4305.
NASA TT F-12,024

The Effect of Hydrochloric Acid on Acetone Cyanohydrin, by J. A. Ultee.
GERMAN, per, Chemische Weekblad, Vol 58, 1941, pp 55-56.
ALL Ref: 5828.4F (N.7343)

Determination of Oxygen, Carbon, Nitrogen and Some Other Impurities in Beryllium, Calcium, Sodium and Boron by Gamma Ray Activation by, C. Engelmann, 25 pp.
GERMAN, rpt, Colloq on Meth of Radiochem Anal, October, 1968,
CEGB-Tr S1120

The Absorption of Light by Oxygen at the Wavelength $\lambda = 2144 \text{ \AA}$ as a Function of Pressure, by Walter Heilpern.
GERMAN, per, Helv Phys Acta, Vol 14, 1941, pp 329-354.
NASA TT F-12,107

The Suitability of the Thermally Excited Exo-Electron Emission of LiF for Dosimetry, by M. Frank, P. Knoll and F. Muller.
GERMAN, per, Isotopenpraxis, Vol 2, No 9, 1966, pp 369-371.
CEGB-Tr S054D

The Preparation of Polycrystalline LiF Storage Phosphors for Thermoluminescence Dosimetry, by J. U. Edelmann.
GERMAN, per, Isotopenpraxis, Vol 2, No 9, 1966, pp 371-374.
CEGB-Tr S055D

Ternary Oxides of Penta- and Hexavalent Neptunium and Plutonium with Lithium and Sodium, by Lothar Koch, 64 pp.
GERMAN, rpt, K F K 196, Feb 1964.
AEC/ANL-Tr-728-69

Determination of Undissolved Iron Oxides by the Membrane Filter Method, by H. G. Heitmann.
GERMAN, per, Mitt VGB, Vol 48, No 2, 1968, pp 25-33.
ALL Ref: 9022.09 (5028)

The Preparation of a ^{147}Pm Light Source, by P. Wolf.
GERMAN, per, Radiochimica Acta, 10(3/4), 1968, pp 168-140.
*AEC/ORNL-Tr-2145

Scientific
Chemistry (Contd)

Investigation of the Agglomeration of Titanium Dioxide in the Direct Spinning of Dederon. Part 1, by D. Haroske, J. Krahnert.
GERMAN, per, Wissenschaft Zeit, Vol 9, 1967, pp 35-40.
NLL Ref: 5828.4F (M.7536)

Investigation of the Agglomeration of Titanium Dioxide in the Direct Spinning of Dederon. Part 2, by D. Haroske, J. Krahnert.
GERMAN, per, Wissenschaft Zeit, Vol 9, 1967, pp 266-268.
NLL Ref: 5828.4F (M.7542)

Polarographic Determination of Copper, Zinc, and Manganese in Aluminum and Zinc Alloys, by M. Spalenka, 21 pp.
GERMAN, per, Z Anal Chem, Vol 128, 1948, pp 42-51.
AEC/UCRL-Tr-10331-69

Radioisotope Dilution Method for Determination of Inorganic and Organic Mercury by Paper Chromatography, by H. Tanaka.
JAPANESE, per, Bunseki Kagaku, Vol 17, No 11, 1968, pp 1424-1427.
*AEC

On the Synthesis of 4-4' Deocenophthylmethane and 4-4' Deocenophthylketone and Their Oxidation Derivatives, by K. Dziewonski.
POLISH, per, Roczniki Chem, Vol 13, 1933, pp 154-165.
*NASA TT F-12,387

Thiobenzoylamino Acids, by Bror Holmberg, 12 pp.
SWEDISH, per, Svedberg Mem, Vol 1884-1944, 1944, pp 299-308.
AEC/ORNL-Tr-2060

Earth Sciences & Oceanography

A Telemetering System for Measuring Transmittance of Ocean Waters and Possibilities of Its Application to Oceanographic Research. 10 pp.
RUSSIAN, per, 1968, pp 192-201.
DIA LN 1059-69

Rate of Sedimentation in Deep Water, by L. A. Khristyanova.
RUSSIAN, per, Byulleten Kommissiy po Izucheniyu Chetvertichnogo Perioda, No 35, 1968, pp 20-29.
*Dept of Navy NOO TRANS 458

Scientific
Earth Sciences & Oceanography (Contd)

Vegetative Remains from the Krivorozhsk Pre-Cambrian Period, by L. S. Belokrysk.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 183, No 1, 1968, pp 196-199.
*NASA TT F-12,424

Motive Forces in the Development of the Earth and Planets, by V. V. Kesarev. 155 pp.
RUSSIAN, bk, Dvizhushchiye Sily Razvitiya Zemli i Planet, 1967.
NAS/NASA/TT F-532 69

Evolution of Oilfield Equipment Plant Traced, by K. Aver'yanov, 5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, No 10, 1969, p 21.
JPRS 47956

The Development of Cartography During the Early Years of Soviet Authority (1917-1930), by N. I. Yegorov, V. F. Krempol'skiy.
RUSSIAN, per, Geodeziya i Kartografiya, No 11, 1967, pp 28-40.
ACSI J-6480
ID 2204001569

Review of the Work of the Technical Council of the Higher Geologic Administration, by A. S. Dmitriyev.
RUSSIAN, per, Geodeziya i Kartografiya, No 11, 1967, pp 66-76.
ACSI J-6481
ID 2204001669

Methods of Determining the K and C Constants of the DD-3 and DD-5 Range Finders, by I. A. Greym, N. S. Il'yin.
RUSSIAN, PER, Geodeziya i Kartografiya, No 7, 1968.
Army Topographic Command
QB275, G352

The Influence of Atmospheric Masses on the Earth's Gravitational Field, by P. D. Dvulit.
RUSSIAN, per, Geodeziya, Kartografiya i Aerofotos'yemka, No 5, 1966, pp 5-14.
*ACIC TC-1554

The Five Year Plan: Year No 4.
RUSSIAN, per, Geografiya v Shkole, Feb 1969, p 63.
DIA LN 982-69

Scientific
Earth Sciences & Oceanography (Contd)

Theoretical Shape of the Magnetosphere Boundary Taking into Account the Geomagnetic Dipole Inclination to the Geographic Axis and the Non-dipole Part of the Geomagnetic Field, by N. M. Rudneva. RUSSIAN, per, Geomagnetizm i Aeronomiya, Vol 9, No 1, 1969, pp 23-28.
NAS/GSFC/ST-GM-PF-10812-69

Economic Loss From Multi-level Mining of Ore Deposits, by I. M. Nikiforov, B. N. Bochkarev, et al. 7 pp.
RUSSIAN, per, Gornyi Zhurnal, No 2, 1966, pp 42-44.
CFSTI TT 68-50624

Statistical Analysis of Spatial Temperature Fluctuations in the Surface Layer of the Ocean, by V. V. Navrotsky, 21 pp.
RUSSIAN, per, Izvestiya Akademii Nauk SSSR, Fizika Atmosfery i Okeana, Moscow, Vol 5, No 1, Jan 1969, pp 94-110.
JPRS 48032

Possibilities of Determining the Three-Dimensional Structure of a Wave-Covered Sea Surface by Radar, by E. D. Zamarayev, A. A. Kalmykov, 5 pp.
RUSSIAN, per, Izvestiya Akademii Nauk SSSR, Fizika Atmosfery i Okeana, Moscow, Vol 5, No 1, Jan 1969, pp 124-127.
JPRS 48032

The Face of the Earth and Its Origin, by G. N. Katterfel'd. 124 pp.
RUSSIAN, bk, Lik Zemli i Ego Proiskhozhdeniye, 1962.
NAS/NASA/TT F-535 69

Orders of Forces of Inertia and Pressure Gradient in the Ground Layer of Latitudes Next to the Equator, by Yu. A. Romanov, N. A. Romanova. 5 pp.
RUSSIAN, per, Meteorologiya i Gidrologiya, No 3, 1969, pp 94-96.
JPRS 48190

Depletion Stage Oilfield Production Discussed, 5 pp.
RUSSIAN, per, Nefteyanoye Khozyaystvo, Moscow, No 2, 1969, pp 1-5.
JPRS 47998

Scientific
Earth Sciences & Oceanography (Contd)

Basic Features of the Geological Structure and the Hydrologic Regime and Biology of the Mediterranean Sea, by L. M. Fomin. RUSSIAN, bk, Osnovnye Cherty Geologicheskogo Stroyeniya Gedrologicheskogo Rezhima i Biologii Sredizemnogo Morya, 1965, pp 1-224.
Dept of Navy NOO CONTRACT TRANS 14

The Pacific Coasts, by V. P. Zenkovich. RUSSIAN, bk, The Pacific Ocean, 1967, Chapters, 5, 9 and 10, pp 236-278, 330-357.
*Dept of Navy NOO CONTRACT TRANS 20

Motion of the Earth's Poles and Astro-Geodetic Works, by I. D. Zhongolovich. RUSSIAN, rpt, Paper Presented at the Joint Symposium of the Commission of the New Adjustment of European Triangulation and the Commission of the European Satellite Triangulation Net, Paris, 24-28 Feb 1969.
*ACIC TC-1541

Exploration Geophysics.
RUSSIAN, bk, Prikladnaya Geofizika, Vol 56, 1969.
CONSULTANTS BUREAU/PLENUM PRESS

Exploration Geophysics.
RUSSIAN bk, Prikladnaya Geofizika, Vol 57, 1969.
CONSULTANTS BUREAU/PLENUM PRESS

Relationship Between a Tsunami Wave and the Buried Source Generating It, by G. S. Pod'yapol'skiy, 14 pp.
RUSSIAN, per, Problema Tsunami, Moscow, 1968, pp 51-62.
JPRS 47967

Application of Recognition Theory Methods for the Statistical Separation of Shallow and Deep Earthquakes from Dynamic Characteristics of Records, by I. L. Nersisov, V. F. Pisarenko, 13 pp.
RUSSIAN, bk, Problema Tsunami, Moscow, 1968, pp 63-74.
JPRS 47967

Patterns of Orientation of Movement During Kurile-Kamchatka Earthquakes and Possibility of Tsunami Zoning, by V. N. Aver'yanova, 18 pp.
RUSSIAN, bk, Problema Tsunami, Moscow, 1968, pp 105-120.
JPRS 47967

Scientific
Earth Sciences & Oceanography (Contd)

Determining Some Parameters of the Focus of the Tsunami-Generating Earthquake of 13 October 1963 from Long-Period Rayleigh Waves, by O. Ye. Starovoyt, 9 pp.
RUSSIAN, bk, Problema Tsunami, Moscow, 1968, pp 133-140.
JPRS 47967

Results of the Latest Studies of Tropic Cyclone Water Circulation in the Oceans, by V. N. Stepanov.
RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 7-11.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Distribution and Composition of Suspended Matter in Seas and Oceans, by A. P. Lisitsyn.
RUSSIAN, bk, Sovremennye Osadki Morey i Okeanov, 1961, pp 175-232.
*Dept of Navy NOO TRANS 456

Method of Collection and Investigation of Suspensions for Geological Purposes, by A. P. Lisitsyn.
RUSSIAN, per, Trudy Inst Okeanologii, Vol 19, 1956, pp 204-231.
*Dept of Navy NOO TRANS 457

Distribution of Cetaceans in Seas Surrounding the Chukchi Peninsula, by I. P. Nikulin.
RUSSIAN, per, TINRO, Vol 22, 1946, pp 255-257.
Dept of Navy NOO TRANS 428

On the Substance and Content of the History of Cartography and Results of Soviet Scientists' Studies in that Field in the Last 50 Years, by F. A. Shibakov.
RUSSIAN, per, Trudy Leningrad Univ, No 12, 1967.
Army Topographic Command
Q4, V58

Conference of the Students' Scientific Society Chair of Cartography, Devoted to a Specific Topic, by A. A. Pavlov.
RUSSIAN, per, Trudy Leningrad Univ, Ser Geologiya i Geografiya, No 18, 1968.
Army Topographic Command
Q4, V58

Scientific
Earth Sciences & Oceanography (Contd)

Scientific-Technical Conference on Cartography, by N. P. Aigina, A. G. Durov.
RUSSIAN, per, Trudy Leningrad Univ, Ser Geologiya i Geografiya, No 18, 1968.
Army Topographic Command
Q4, V58

Compaction of Noncohesive Soils by Explosions, by P. L. Ivanov. 170 pp.
RUSSIAN, bk, Uplotnenie Nesviaznykh Gruntov Vstryvom, 1967.
*CFSTI TT 69-53012

A Preliminary Study of the Instability and Development of Ultra-Long Waves, by Yeh Tu-Cheng, Wang Hsiao-Ling.
CHINESE, per, Ch'i-Hsiang Hsueh-Pao (Acta Meteorologica Sinica), Vol 35, No 2, May, 1965, pp 174-188.
AIR/AFCL/69-0098

Problems Relating Detail Mapping Using Planetable, by Chang Jun.
CHINESE, per, Surveying and Cartography, No 12, 1964.
Army Topographic Command
TA501, T92

Surveyors Must Set and Example in the Preservation of Geodetic Marks, by I-tao Ko.
CHINESE, per, Surveying and Cartography, No 12, 1964.
Army Topographic Command
TA501, T92

The 2nd Academic Symposium at Wuhan College of Surveying and Mapping, by Wu-han Ts'e-hui.
CHINESE, per, Surveying and Cartography, No 12, 1964.
Army Topographic Command
TA501, T92

Glaciers of the Hsi-hsia-pang-ma Region and Their Representation on Topographic Maps, by Chi-lien Yu.
CHINESE, per, Surveying and Cartography, No 12, 1964.
Army Topographic Command
TA501, T92

Geographical-Limnological Study of the Lipno Reservoir, by Miroslav Novak. 161 pp.
CZECH, bk, Udolni Nadrz Lipno Geograficko-limnologicka Studie. 1968.
*CFSTI TT 69-51020

Orthostereomaps and Steromasics, by
Harri Leppanen.
FINNISH, per, Technical Journal, No 11,
1968.
Army Topographic Command
T4, T267

Aeromagnetic Map of the Western Mediter-
ranean, by E. Le Borgne.
FRENCH, rpt, IPG Paper No 30, Sept 1968.
*Dept of Navy NOO CONTRACT TRANS 19

African phosphates outlook Called Good, 6 pp.
FRENCH, np, Le Moniteur Africain, Dakar, 13 Mar
1969, pp 11.
JPRS 48009

Adjustment of a Set of Observations Form-
ing Several Populations. Estimate of Vari-
ances.
FRENCH, rpt, Paper Presented at the Joint
Symposium of the Commission of the New
Adjustment of European Triangulation and
the Commission of the European Satellite
Triangulation Net, Paris, 24-28 Feb 1969.
*ACIC TC-1546

Application of Laser Telemetry in Geometric
Geodesy, by Bivas.
FRENCH, rpt, Paper Presented at the Joint
Symposium of the Commission of the New
Adjustment of European Triangulation and
the Commission of the European Satellite
Triangulation Net, Paris, 24-28 Feb 1969.
*ACIC TC-1548

The Diademe Survey. Results Obtained in
Semidynamic Geodesy by Means of Doppler
Measurements, by J. P. Chassaing.
FRENCH, rpt, Paper Presented at the Joint
Symposium of the Commission of the New
Adjustment of European Triangulation and
the Commission of the European Satellite
Triangulation Net, Paris, 24-28 Feb 1969.
*ACIC TC-1542

New Adjustment of the European Triangula-
tion Net, by H. M. Dufour.
FRENCH, rpt, Paper Presented at the Joint
Symposium of the Commission of the New
Adjustment of European Triangulation and
the Commission of the European Satellite
Triangulation Net, Paris, 24-28 Feb 1969.
*ACIC TC-1544

On the 1967 Geodetic Reference System,
by J. J. Levallois.
FRENCH, rpt, Paper Presented at the Joint
Symposium of the Commission of the New
Adjustment of European Triangulation and
the Commission of the European Satellite
Triangulation Net, Paris, 24-28 Feb 1969.
*ACIC TC-1543

Reflections of the Design Characteristics
of Lasers for Future Geodetic Applications.
FRENCH, rpt, Paper Presented at the Joint
Symposium of the Commission of the New
Adjustment of European Triangulation and
the Commission of the European Satellite
Triangulation Net, Paris, 24-28 Feb 1969.
*ACIC TC-1549

Use of Optical Observations in Space Geo-
desy, by H. M. Dufour.
FRENCH, rpt, Paper Presented at the Joint
Symposium of the Commission of the New
Adjustment of European Triangulation and
the Commission of the European Satellite
Triangulation Net, Paris, 24-28 Feb 1969.
*ACIC TC-1545

On the Numerical Computation of Gravimetric
Plumbline Deflection Differences and Their
Accuracy, by B. Wrobel.
GERMAN, Dissertation, 1967, 161 pp.
*ACIC TC-1550

On the Admissible Separation of Gravity
Points in the Determination of Geopo-
tential Numbers in Mountains, Moderate
Hills and Plains, by K. Ramsayer.
GERMAN, rpt, Deutsche Geodatische Kom-
mission bei der Bayerischen Akademie der
Wissenschaften, Ser A, Theoretical Geod-
esy, No 44, 1963, 79 pp.
ACIC TC-1481

Testing and Extension of the Space Tri-
angulation Procedure in a Local Cartesian
Coordinate System, by K. Ramsayer.
GERMAN, per, Deutsche Geodatische der
Wissenschaften, Series A - Higher Geodesy,
No 60, 1968, 29 pp.
*ACIC TC-1551

Critical Comparison of Several Methods to
Determine the Curvature of the Vertical,
by H. Zomorrodian.
GERMAN, rpt, Deutsche Geodatische Kom-
mission bei der Bayerischen Akademie der
Wissenschaften, Ser C - Dissertations,
No 118, 1968, 76 pp.
ACIC TC-1501

The Computation of Horizontal Derivatives of Gravity Disturbances in the Space Outside Earth from a Development of the Potential in Spherical Harmonics, by B. Witte.

GERMAN, per, Deutsche Geodatische Kommission bei der Bayerischen Akademie der Wissenschaften, Ser C, Dissertations, No 122, 1968, 89 pp.

*ACIC TC-1553

Relationships Between Parameters of the Gravity Field of the Equipotential Spheroid in Determinant Form, by M. Olberg. GERMAN, per, Gerlands Beitrage zur Geophysik, Vol 74, No 3, 1965, pp 212-217. ACIC TC-1490

The Orthometric Gravity Correction for Precision Leveling in the Hohe Tauern, by K. Mader.

GERMAN, per, Osterreichische Zeit fur Vermessungswesen, Special Issue 15, 1954, 26 pp.

ACIC TC-1497

On the Determination of the Direction of the Minor Axis of the Reference Ellipsoid and the Plane of the Initial Geodetic Meridian from Observations of Artificial Earth Satellites, by M. Bursa.

GERMAN, per, Studia Geophysica et Geodaetica, Vol 9, No 1, 1965, pp 14-22.

*ACIC TC-1555

On a Convenient Transformation of Molodenskiy's Formulas for Calculating Quasigeoid Heights and Plumbline Deflections, by L. P. Pellinen.

GERMAN, per, Studia Geophysica et Geodaetica, Vol 9, No 2, 1965, pp 124-127.

ACIC TC-1494

A Method of Calculating the Potential, Plumbline Deflections, and Stokes Constants on the Basis of Molodenskiy's Integral Equation for the Disturbing Potential, by V. F. Yeremeyev.

GERMAN, per, Studia Geophysica et Geodaetica, Vol 9, No 2, 1965, pp 128-136.

ACIC TC-1495

Averaging of Anomalies and G1 Corrections in Calculating the Characteristics of the Gravity Field from Molodenskiy's Formulas, by L. P. Pellinen.

GERMAN, per, Studia Geophysica et Geodaetica, Vol 9, No 2, 1965, pp 150-154.

ACIC TC-1493

Allowing for the Vertical Gradient in the Absolute Determination of the Earth's Gravity, by V. K. Khristov.

GERMAN, per, Studia Geophysica et Geodaetica, Vol 9, No 2, 1965, pp 177-178.

ACIC TC-1491

Report on the Relative Measurements of Gravity with Pendulum Apparatus in the Time from 1808 to 1909 and on Their Representation in the Potsdam Gravity System. Table VI. Russian Measurements. by E. Borrass.

GERMAN, rpt, Verhandlungen der 16. Allgemeinen Konferenz der Internationalen Erdmessung, London, 1909, Part 3, pp 123-160.

ACIC TC-1512

The Local Gravity Conditions in the Potsdam Geodetic Institute, by K. Reicheneder.

GERMAN, per, Vermessungstechnik, Vol 16, No 9, 1968, pp 321-325.

*ACIC TC-1552

The Increase of the Earth's Radius, by G. Eder.

GERMAN, per, Zeit fur Geophysik, Vol 31, No 3/4, 1965, pp 206-211.

ACIC TC-1509

On the Solution of the Second Geodetic Principal Problem for Great Distances, by O. Weber.

GERMAN, per, Zeit fur Vermessungswesen, Vol 92, No 5, 1967, pp 178-183.

ACIC TC-1505

Marine Ostracoda of Sweden with Special Consideration of the Skagerrak, by O. Elofson. 286 pp. GERMAN, bk, Zur Kenntnis der Marinen Ostracoden Schwedens mit Besonderer Berucksichtigung des Skageraks, 1941, 1969.

CESTI TT 68-50351

Landslides in Greece. 12 pp.

GREEK, bk, Greek Atlas, pp 103-110.

DIA LN 995-69

Investigations on Ternary Fission and Scattering of Fragments of Uranium by Means of Solid State Track Detectors, by G. Somogyi.

HUNGARIAN, per, Atomki Közlemenyek, Vol 9, No 4, 1967, pp 297-306.

NLL Ref: 9091.9F (Dounreay Trans 382)

Scientific
Earth Sciences & Oceanography (Contd)

On the Calculation for the Transformation of Coordinates from the Geocentric to the Geographic System, by P. Bencini.
ITALIAN, per, Bollettino di Geodesia e Scienze Affini, Vol 27, No 3, 1968, pp 357-367.
ACIC TC-1513

Certain Ways of Using Artificial Satellite Observations in the Field of Continental and Worldwide Geodesy, by L. Cichowicz.
POLISH, rpt, Paper No 68-07445, Presented at the United Nations Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 14-27 Aug 1968, 7 pp.
*NASA TT F-12,438

Geophysical Review. 43 pp.
POLISH, rpt, Rocznik XIII (XXI), 1968, pp 1-38.
DIA LN 805-69

Effects of Tidal Wave Phenomenon Studied by Navy, by Hilson C. Washneldt, 5 pp.
PORTUGUESE, per, Lanchete, Rio de Janeiro, 5 Apr 1969, pp 132-137.
JPRS 48030

Geographical Aspects of the Federal Territory Delta Amacuro. 22 pp.
SPANISH, bk, Aspectos Geograficos del Territorio, 1964, pp 15-21, 30-44, 61-68.
DIA LN 1067-69

The Study of Soils in the Highlands of the Chama and Santo Domingo Rivers. 11 pp.
SPANISH, per, Corporandes, July 1968, pp 32-38.
DIA LN 1066-69

Electronics & Electrical Engineering

One Modification of the "DNEPR-I" Computer for Application as a Ship Computing Center, by P. M. Sivachenko, L. T. Bondarvenko. 11 pp.
RUSSIAN, per, AN UKRSSR. Morskoy Gidrofizicheskiy Institut. Ekspress-Informatsiya, No 3, 1966, pp 146-157.
AIR/FTD/MT-24-472-68

Game Version of the Optimal Halt Problem, by Ye. B. Dynkin, 7 pp.
RUSSIAN, per, Doklady Akademii Nauk SSSR, Moscow, Vol 185, No 1, 1969, pp 16-19.
JPRS 48058

Scientific
Electronics & Electrical Engineering (Contd)

Two Methods for Finding the Equilibrium Points of Concave n-Player Games, by S. I. Zukhovitskiy, R. A. Polyak, 6 pp.
RUSSIAN, per, Doklady Akademii Nauk SSSR, Moscow, Vol 185, No 1, 1969, pp 24-27.
JPRS 48058

Regulation and Control in Management Systems, by M. N. Babunashvili, M. A. Bermant, 23 pp.
RUSSIAN, per, Ekonomika i Matematicheskiye Metody, Moscow, Vol 5, No 2, 1969, pp 212-227.
JPRS 48114

Electromedical Apparatus; Principles of Operation, Installation, and Use, by N. M. Liventsev.
RUSSIAN, bk, Elektromeditsinskaya Apparatura; Printsip Deystviya, Ustroystvo, Eksploatatsiya, 1964, 420 pp.
NASA/TT F-523 69

A Method for Determining Residual Stresses in Coatings From the Flexure of a Flat Cathode, by L. I. Dekhtyar', Yu. N. Petrov. 5 pp.
RUSSIAN, per, Elektronnaya Obrabotka Materialov, No 2, 1967, pp 48-51.
AIR/FTD/MT-23-1087-68

Comparative Characteristics of Electrical Reactions in Sympathetic Efferent Neurons to Centrifugal and Centripetal Effects, by I. A. Bulygin.
RUSSIAN, per, Fiziologicheskii Zhurnal SSSR im. I. M. Sechenova, No 4, 1969, pp 445-453.
*ACSI J-6953
ID 2204004669

Electrical Manipulator for Controlling the Amplification Stability of Aerial Gamma Spectrometers, by G. A. Pleshivtsev.
RUSSIAN, per, Geophysical Apparatus, Vol 31, 1967, pp 188-191.
Dept of Navy NIC Trans No 2813

Additional Losses in a Frame Type MHD Channel, by B. B. Volchek, Ye. U. Yantovskiy. 8 pp.
RUSSIAN, per, Izvestiya AN SSSR. Energetika i Transport, No 1, 1968, pp 142-147.
AIR/FTD/MT-23-1229-68

Electron Optical Multistable Devices, by O. F. Men'shikh.
RUSSIAN, per, Iz VUZ Radioelektronika, Vol 11, No 9, 1968, pp 970-980.
*Dept of Navy NIC

Modern Microelectronics and Its Prospects, by A. G. Alekstenkov, B. V. Malin. RUSSIAN, per, Izv VUZ Radiotekh, Vol 11, No 7, 1968, pp 661-678. NASA TT F-12,163

Some Questions on the Transformation and Storing of Information Regarding Contour Representations, by V. A. Ganzen, R. M. Granovskaya. 15 pp. RUSSIAN, per, Leningrad. Universitet. Kafedra Vychislitel'noy Matematiki i Vychislitel'nyy Tsentr. Vychislitel'naya Tekhnika i Voprosy Programirovaniya, No 4, 1965, pp 84-99. AIR/FTD/HT-23-70-68

On the Analysis of Probabilistic Automata, by M. K. Chirkov. 5 pp. RUSSIAN, per, Leningrad. Universitet. Kafedra Vychislitel'noy Matematiki i Vychislitel'nyy Tsentr. Vychislitel'naya Tekhnika i Voprosy Programirovaniya, No 4, 1965, pp 100-103. AIR/FTD/HT-23-70-68

A Class of Summators With Increased Operating Reliability, by A. M. Shauman. 6 pp. RUSSIAN, per, Leningrad. Universitet. Kafedra Vychislitel'noy Matematiki i Vychislitel'nyy Tsentr. Vychislitel'naya Tekhnika i Voprosy Programirovaniya, No 4, 1965, pp 104-109. AIR/FTD/HT-23-70-68

On the Use of a Universal Learning Program on the Electronic Digital Computing Machine "Ural-1", by I. L. Bratchikov, M.A. Krasnoperova, et al. 6 pp. RUSSIAN, per, Leningrad. Universitet. Kafedra Vychislitel'noy Matematiki i Vychislitel'nyy Tsentr. Vychislitel'naya Tekhnika i Voprosy Programirovaniya, No 4, 1965, pp 110-114. AIR/FTD/HT-23-70-68

The Arrangement of Large Masses of Information in an Electronic Digital Computing Machine, by G. G. Grigor'yev. 10 pp. RUSSIAN, per, Leningrad. Universitet. Kafedra Vychislitel'noy Matematiki i Vychislitel'nyy Tsentr. Vychislitel'naya Tekhnika i Voprosy Programirovaniya, No 4, 1965, pp 134-138. AIR/FTD/HT-23-70-68

Improving the Information Input Unit in the "INEPR" General Purpose Control Machine, by F. I. Khafizov. 6 pp. RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Upravleniya, No 3, 1967, pp 31-33. AIR/FTD/HT-24-488-68

Prospects for the Application of Cybernetics and Computer Technology in a Scientific and Technical Information System, by C. V. Mamontov, 7 pp. RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, Seriya 2, No 1, 1969, pp 3-5. JPRS 47965

Psychological Problems in Informatics, by Yu. A. Novikov, 12 pp. RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, Seriya 2, No 1, 1969, pp 6-9. JPRS 47965

Text-Semantic Modeling and the Request-Response System, by G. A. Il'yin, B. N. Leikina, 15 pp. RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, Seriya 2, Moscow, No 1, 1969, pp 10-14. JPRS 48092

Methods of Organizing Immediate-Access Memories in Document Information Retrieval Systems, by A. I. Chernyy, 15 pp. RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, Seriya 2, Moscow, No 1, 1969, pp 15-20. JPRS 48092

Scientology as a Science, by G. Dobrov, 12 pp. RUSSIAN, per, Nauchno-Tekhnicheskoye Obozhestvo SSSR, Moscow, No 1, 1969, pp 26-39. JPRS 47968

Intelligence Through The Eyes of a Cybernetician, by N. Amosov, 12 pp. RUSSIAN, per, Nedelya, Moscow, 30 Mar 1969, pp 7-8. JPRS 47980

Investigation of the Probability of Exceeding the Assigned Delay in Feedback Systems, by Ye. L. Blokh, O. V. Popov, 27 pp. RUSSIAN, bk, Opoznanie Obrazov. Teoriya Peredachy Informatsiy, 1967, pp 97-111. ARM/FTC/HT-23-281-68

Designing Electrical Supply Systems for Aircraft, by G. D. Vlasov. 245 pp. RUSSIAN, bk, Proyektirovaniye Sistem Elektro-snabzheniya Letatel'nykh Apparatov, 1967, pp 3-413. AIR/FTD/HT-23-1182-68

URAL-4 Computer Correlates Fish Quality Indexes, by G. K. Koval'chuk, 8 pp. RUSSIAN, per, Gybnoye Khozyaystvo, Moscow, No 1, Jan 1969, pp 85-88. JPRS 47998

Thermo-Electric Cooling Device, by
Ye. A. Kolenko.
RUSSIAN, bk, Termo-Elektricheskiye Okhlazh-
dayushchiye Pribory, 2nd Edition, 1967,
pp 3-283.
ACSI J-6003
FSTC-HT-23-435-68

The Influence of Adsorbed Oxygen on Electrical
and Photoelectrical Properties of Epitaxial
Lead-Sulfide Films, by T. T. Bykova. 12 pp.
RUSSIAN, rpt, Trudy Simpozium po Elektronny
m Protessam na Poverkhnosti i v Tunkikh Mono-
kristallicheskikh Sloyakh Poluprovodnikov, 1967,
pp 181-187.
AIR/FTD/HT-24-467-68

Information Capacity of Iterative Logic Circuits,
by I. V. Prangishvili. 10 pp.
RUSSIAN, rpt, Trudy Simpozium po Probleme
"Vychislitel'nyye Sistemy" Novosibirsk, 1966,
1967, pp 113-123.
AIR/FTD/HT-23-1266-68

One Variant of a Uniform Discrete Structure With
Collective Behavior of Cells, by T.M. Kokochashvili
10 pp.
RUSSIAN, rpt, Trudy Simpozium po Probleme
Vychislitel'nyye Sistemy, 1966, 1967, pp 248-256.
AIR/FTD/HT-24-469-68

Relation Between the Depth of Installation and
the Outer Thermal Resistance of Underground
Cables, by P. Slaninka.
CZECH, per, Energetika, Vol 18, April 1968,
pp 151-154.
CEGB-Tr 4988

Telex System with Spain Automatic.
DUTCH, per, Aangetekend, No 2, 15 Jan
1969, pp 2,5,6,7.
DIA LN 1128-69

Variations in Conductivity Under Various
Electrical Influences, by E. Brandly.
FRENCH, per, Comptes Rendus, Vol 111,
1890, pp 785-787.
*Dept of Navy NRL Trans No 1172

Assesing the Reliability of a Supply
System.
FRENCH, per, E.D.F. Bull Etud Rech, No 2,
1967, pp 5-17.
NLL Ref: 9022.09 (4783)

Sub-Span Lengths for Bundled Conductors, by
L. Mocks.
GERMAN, per, A. S. E. Bull, Vol 59, 3 Aug 1968,
pp 726-732.
CEGB-Tr 5077

Synthesis of Linear, Periodically Time-
variable Filters Having a Prescribed
Sequence Behavior.
GERMAN, per, Archiv Elekt Ubertr, Vol 22,
No 3, 1968, pp 150-161.
Dept of Navy NIC Trans No 2816

Recent Cases of Damage to Tubes in Condensers
and Feedheaters, by L. Splittgerber.
GERMAN, per, Elektrozitatzwirtschaft, Vol
67, No 3, 1968, pp 130-135.
NLL Ref: 9022.09 (4930)

Experience in Impulse Voltage Testing of Large
Transformers, by G. Kaiser.
GERMAN, per, Elekt Wirts, Vol 66, 4 Dec 1967,
pp 761-771.
CEGB-Tr 4915

Illness as the Cause of Incorrect Switching
Operations, by W. Runge.
GERMAN, per, Elekt Wirts, January 1968,
pp 32-34.
CEGB-Tr 5115

The Development of Automatic Load Despatching
at the Central Electricity Generating Board by,
C.C.M. Parish.
GERMAN, per, Elekt Wirts, January 1969,
pp 76-85.
CEGB-Tr 5161D

Determining Air Throughput of Natural
Draught Cooling Towers, by J. G. Mehlig.
GERMAN, per, Energiotechnik, Vol 18,
No 2, 1968, pp 72-75.
NLL Ref: 9022.09 (5018)

Switchgear Installations, by B. Stauch.
GERMAN, per, ETZ-A, Vol 89, 13 Sept 1968,
pp 506-511.
CEGB-Tr 5039D

Investigations Concerning the Radiation
Behavior of Elliptical Waveguide and the
Possibility of Producing a Circular
Polarized Circulation Field, by
K. E. Muller.
GERMAN, per, Hochfrequenztechnik und
Elektroakustik, Vol 69, No 4, 1960,
pp 140-151.
NLL Ref: 5207 (1294)

Turbine Shaft Voltages and Magnetisation of Shapes and Cylinders, by, R. Braun.
GERMAN, per, Maschinen-schaden, March 1968, pp 105-111.
CEGB-Tr 5108

Fundamental Hypothesis of Electron Theory, by M. Abraham.
GERMAN, per, Physikalische Zeitschrift, Vol 5, 1904, pp 576-579.
*NASA TT F-12,409

Into 1969 with Color Television. 6 pp.
GERMAN, per, Radio Osterreich, No 49, 30 Nov 1968, pp 2-3.
DIA LN 913-69

Properties and Application of SiC-Base Heaters for the Production of Glass-Metal Bonds, by W. Heckert, H. Grubau. 8 pp.
GERMAN, per, Silikattechnik, No 1, 1968, pp 10-12.
AIR/FTD/HT-23-1275-68

The Ignition Probability on a Low-Pressure Spark Gap in the Case of Voltage Recovery After Current Loading, by W. Fric.
GERMAN, per, Zeit Naturforsch., Vol 22a, 1967, pp 1980-1984.
NLL Ref J022,09 (4806)

New Modular Data-Processing System Developed, by Gyula Szakacs, 13 pp.
HUNGARIAN, per, Informacio Elektronika, Budapest, No 1, 1969, pp 9-14.
JPRS 48052

The Extinction of Mercury Vapour Lamps as a Result of Sudden Falls in Supply Voltage, by G. Furioli.
ITALIAN, per, Luce, No 5, 1964, 8pp.
CEGB-Tr 5060

Live-Line Working in Sweden, Germany and other Countries, by E. R. Gunter.
ITALIAN, per, Luz y Fuerza, Vol 27, June 1968, pp 19-25.
CEGB-Tr 5068

Some Basic Characteristics of Gas-Pressurized Lapped Polyethylene Tape Dielectric for Extra-High Voltage Cables. Parts 1-4, by M. Nakagawa, M. Saito and H. Otaka.
JAPANESE, per, Dainichi Nihon Densen Bull., No 34, Nov 1966, pp 29-34
No 35, Mar 1967, pp 37-40
No 36, July 1967, pp 1-4
No 39, July 1968, pp 17-24.
CEGB-Tr 5032D- 5035D

Diffusion-type Silicon Controlled Rectifiers, by Takashi Nakagawa.
JAPANESE, per, Toshiba Revue, Vol 16, 1961, pp 1358-1362.
NASA TT F-12,141

Changeover to Single Sideband. 10 pp.
NORWEGIAN, per, Teknisk Ukeblad Teknisk, No 2, 16 Jan 1969, pp 51-55.
DIA LN 907-69

Reversible Decades Built with Fast DTL Effects, by A. Sawicki, 17 pp.
POLISH, per, Przegled Telekomun, Vol 38(4), 1966, pp 104-108.
AEC/NP-Tr-1736-68

Hydroelectricity: Benefits and Costs. 16 pp.
PORTUGUESE, per, Revista - Aguas e Energia Electrica de Sao Paulo, No 6, 1967, pp 41-47.
DIA LN 851-69

Electrical Systems. 13 pp.
SPANISH, per, Boletin de la C.I.E.R., No 12, Aug 1968, pp 1-10.
DIA LN 813-69

Regional Electrical Integrational Commission Special Issue: Acaray.
SPANISH, per, Boletin de la C.I.E.R., No 16, Dec 1968, pp 1-8.
DIA LN 814-69

Experience in the Utilization of the "Dnipro" Controlling Machine in the National Economy, by L. A. Pil'kevych. 14 pp.
UKRAINIAN, per, Avtomatika, No 3, 1967, pp 87-91.
AIR/FTD/HT-23-744-68

Scientific
Energy Conversion (Non-Propulsive)

Improvement of Cavitation Qualities of Low Pressure Variable-Pitch Axial Turbine Wheels for Capsule Horizontal Turbines, by G.A. Svinarev, L.P. Mordovenko, 10 pp.
RUSSIAN, rpt, AN UKRSSR, Issledovaniya po Prikladnoy Gidromekhanike, 1965, pp 131-138.
AIR/FTD/MU-24-06-69

Planned Developments in Electric Power Outlined, by N. S. Vasil'yev, 5 pp.
RUSSIAN, per, energetik, Moscow, No 2, 1969, pp 1-3.
JPRS 48073

Iridneprovskaya Power Plant Plays Important Role, by M. K. Prosvetov, 6 pp.
RUSSIAN, per, energetik, Moscow, No 2, 1969, pp 4-5.
JPRS 48073

Operation of Tet's Under New System Analyzed, by I. P. Aleksandrov, ... N. Laskin, 9 pp.
RUSSIAN, per, energetik, Moscow, No 2, 1969, pp 5-8.
JPRS 48073

Control and Automation Devices Adopted at Tula, by V. V. Malov, 6 pp.
RUSSIAN, per, energetik, Moscow, No 2, 1969, pp 8-9.
JPRS 48073

The Effect of Blade Linkage Systems on the Vibrational Strength of Turbine Blades, by D. A. Arkadiyev.
RUSSIAN, per, Energomashinostroyeniye, Vol 14, No 3, 1968, pp 6-9.
NLL Ref: 0022.00 (4044)

Economic Shutdown and Starting of Thermal Power Station Generating Units, by I. Lencz.
CZECH, per, Elektrotech Obzor, Vol 57, June 1968, pp 318-322.
CEGB-Tr 50940

Electric Power Situation and Plans Reviewed, 5 pp.
FRENCH, rpt, Rwanda Carrefour d'Afrique, Kigali, Nov-Dec 1968, pp 6-7.
JPRS 47953

Operating Experience with Nuclear Power Stations, A. Weckesser.
GERMAN, per, Atomwirts, Vol 13, Apr 1968, pp 190-197.
CEGB-Tr 5059

Scientific
Energy Conversion (Non-Propulsive) (Contd)

The Present State of Development of Coal-fired Power Stations, by K. Schaff.
GERMAN, per, B. W. K., Vol 18, Nov 1966, pp 529-542.
CEGB-Tr 4769

Predetermination of the Behaviour of Condensing Plants Under Various Operating Conditions, by R. M. Harting.
GERMAN, per, Energie, Vol 8, Dec 1956, pp 501-503.
CEGB-Tr 5058

Practical Experience with a Control Fluid for Turbine Operation, by H. Brandenstein and F. Burgmann.
GERMAN, per, Energie, Vol 19, May 1967, pp 153-165.
CEGB-Tr 4832

Non-Steady Thermal Stresses in a Superheated Steam Line, by D. Schmidt.
GERMAN, per, Energie, Vol 19, Dec 1967, pp 393-398.
CEGB-Tr 4831

Noise and its Reduction in Power Stations, by H. Kiezath.
GERMAN, per, Energie u. Technik, Vol 19, Sept 1967, pp 312-318.
CEGB-Tr 4847

Effect of Partial Discharges on the Life of Capacitors for Power Factor Correction, by A. Bossi and G. Madama.
ITALIAN, per, Energia Elettrica, January 1968, pp 39-45.
CEGB-Tr 5106

Electric Power System Dependability Reported, by Boleslaw Bartoszek, 7 pp.
POLISH, per, Energetyka, Warsaw, Feb 1969, pp 37-39.
JPRS 48048

Voltage Limits in Electric Power Transmission, by A. Avenmescu.
ROMANIAN, per, Electrotehnica, Vol 18, Aug 1966, pp 265-270.
CEGB-Tr 4815

Surface Tension of Metals and Alloys, by A. M. Korolkov.

RUSSIAN, per, Akad Nauk SSSR Inst Met Issledovaniye Splavov Tsventnyka Metal, No 2, 1960, pp 122-134.

*NASA TT F-12,407

Investigation of Gas Corrosion of Nickel Alloys and Their Protective Coatings, by K. I. Lutsenko. 6 pp.

RUSSIAN, per, AN UKSSR Institut Problem Materialovedeniya. Zashchitnyye Pokrytiya na Metallakh, No 1, 1967, pp 149-152.

AIR/FTD/MT-23-680-68

Natural Corrosion Tests of Welded Aluminum-Steel Joints, by N. A. Langer, V. R. Ryabov, et al. 11 pp.

RUSSIAN, per, Avtomaticheskaya Svarka, No 4, 1968, pp 23-28.

AIR/FTD/MT-23-1083-68

Heavy Plastic Concrete: Material for Radiation Shielding, by V. S. Loginov.

RUSSIAN, per, Beton Zhelezobeton, No 4, 1968, pp 20-21.

*AEC

Wear-reducing Properties of Mineral Oils Containing Highly Dispersed Carbon Obtained by Electrocarbonization of Benzene (UEKb) as Additives, by D. S. Iosebidze, L. D. Melikadze.

RUSSIAN, per, Bulletin of the Academy of Sciences of the Georgian SSR, Vol XLIX, No 3, 1968, pp 659-664.

Dept of Navy NIC Trans No 2826

Importance of New Oils and Additives Increasing, by K. Aver'yanov, 6 pp.

RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, No 13, 1969, p 7.

JPRS 48026

Damage to Welded Joints Due to Buckling of Spray Type Desuperheater Pipes, by V. A. Nakhlov.

RUSSIAN, per, Elekt Stantsii, Vol 38, Sept 1967, pp 74-76.

CEGB-Tr 4865

Increasing the Strength of Copper-Alloy Wire, by V. N. Fedorov, M. V. Zakharov. 8 pp.

RUSSIAN, per, Elektrotehnika, Vol 37, No 10, 1966, pp 41-44.

AIR/FTD/MT-23-1086-68

Influence of Zinc Coating on the Mechanical Properties of Welds Joining Steel and Aluminum, by V. R. Ryabov.

RUSSIAN, per, Fiziko-Khim Mekh Mat, Vol 4, No 4, 1968, pp 478-481.

HB 7719

Hypersonic Flow of Blunt Cones with Consideration of the Equilibrium Physico-Chemical Transformations, by V. V. Lunev.

RUSSIAN, bk, Giperzvukovoye Obtekaniye Prituplennykh Konusov..., 1968, 204 pp.

*NASA TT-F-543

Beneficiation of Ore in Heavy Suspension in the Krasnodar Beneficiation Plant, by Yu. S. Badyev, A. I. Podkovykin, et al. 11 pp.

RUSSIAN, per, Gornyi Zhurnal, No 4, 1966, pp 65-70.

CFSTI TT 68-50625

Development of Deformation in Iron Subjected to Cyclical Loading at Raised Temperatures, by M.G. Lozinskiy, A.N. Romanov. 9 pp.

RUSSIAN, per, Izvestiya AN SSSR. Metally, No 1, 1968, pp 142-147.

AIR/FTD/MT-24-351-68

Cyclical Ductility as a Criterion of Sensitivity of Metal to Stress Concentration in Fatigue, by S. Ye. Gurevich. 13 pp.

RUSSIAN, per, Izvestiya AN SSSR. Metally, No 1, 1968, pp 148-154.

AIR/FTD/MT-24-351-68

Determination of the Porosity of a Loose Assembly of Spheroidal Particles from its Structure, by G. M. Platonov

RUSSIAN, per, IVUZ, Chern Met., Vol 11, No 2, 1963, pp.

*AEC

Efficient Distribution of Reductions in Passes during Rolling in Reversing Mills, by N. I. Baimov.

RUSSIAN, per, Izv VUZ Chern Met, No 4, 1963, pp 76-82.

*BISI 7337

Efficient Relationships between the Rates of Bite and Discharge, Acceleration and Retardation during Rolling in Reversing Mills, by N. I. Baimov.

RUSSIAN, per, Izv VUZ Chern Met, No 12, 1963, pp 90-98.

*BISI 7338

Scientific
Materials (Contd)

Selecting the Optimum Pauses for Rolling in Reversing Mills, by N. I. Baimov.
RUSSIAN, per, Izv VUZ Chern Met, No 2, 1967, pp 128-134.
*BISI 7334

Abrasive Wear of Materials in a Blast Furnace Under Actual Working Conditions, by G. P. Mel'nichenko, M. A. Tylkin, et al. 6 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Chernaya Metallurgiya, Vol 10, No 8, 1967, pp 159-162.
AIR/PTD/INT-23-1114-68

Method of Calculating Optimum Rolling Conditions on Reversing Mills Using Variation Curves, by N. I. Baimov.
RUSSIAN, per, Izv VUZ Chern Met, No 12, 1967, pp 68-72.
*BISI 7336

The Calculation of the Equilibrium Deoxidation of Steel with Various Deoxidising Agents by B. P. Burylev.
RUSSIAN, per, Izv. VUZ Chern. Met., No 2, 1968, pp 5-11.
BISI 6711

A Study of the Combustion Zone in a Sintering Layer, by S. G. Bratchikov, B. S. Sergeev.
RUSSIAN, per, Izv. VUZ Chern. Met., No 2, 1968, pp 39-43.
BISI 6710

On the Optimum Ratio Between the Concentration of Carbon and Manganese in Rimming Steel, by V. S. Konovalov.
RUSSIAN, per, Izv. VUZ Chern. Met., No 2, 1968, pp 48-52.
BISI 6707

Blast Furnace Productivity Index, by N. G. Makhanev.
RUSSIAN, per, Izv VUZ Chern Met, Vol 11, No 8, 1968, pp 45-46.
HB 7598

On the Calculation of the Optimum Consumption of Oxygen, by G. I. Chernysh.
RUSSIAN, per, Izv. VUZ Chern. Met., Vol 8, August 1968, pp 153-156.
*BISI 7277

Scientific
Materials (Contd)

Formation of Transition Zone in Stainless Clad Carbon Steel During Hot Working, by M. G. Lozinskiy, A. I. Tananov.
RUSSIAN, per, Izv VUZ Chern Met, Vol 11, No 10, 1968, pp 124-130.
HB 7704

Treatment of Steel in the Ladle with Synthetic Lime-Alumina and White Slags, by A. M. Yakushev, V. D. Smolyarenko.
RUSSIAN, per, Izv VUZ Chern Met, Vol 11, No 11, 1968, pp 48-52.
HB 7711

Deoxidation of Stainless Steel with Carbon in Vacuum, by B. V. Linchevskiy, A. I. Sobolevskiy.
RUSSIAN, per, Izv VUZ Chern Met, Vol 11, No 11, 1968, pp 60-63.
HB 7706

Kinetics of Flotation of Nonmetallic Inclusions in Liquid Iron, by D. Ya. Povolotskiy, V. Ye. Roshchin.
RUSSIAN, per, Izv VUZ Chern Met, Vol 11, No 12, 1968, pp 42-46.
HB 7763

Influence of Rare-Earth Metals on the Rate of Crystallization of Continuously-Cast Carbon Steel Billets, by A. P. Molchanov, V. A. Kudrin.
RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 1, 1969, pp 41-43.
HB 7770

Change in Mechanical Properties of Metal in the Cross Rolling of Tube, by F. S. Seidaliyev, et al.
RUSSIAN, per, Izv VUZ Chern Met, No 1, 1969, pp 90-94.
*HB 7793

H₂ in AL2 Alloy Varies with Refining Method, by D. F. Chernega, O. M. Byalik, 6 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Tsvetnaya Metallurgiya, Moscow, No 1, 1969, pp 113-117.
JPRS 48057

Nonsteady Si Solidus Curve in Al-Si System Found, by G. M. Kuznetsov, A. I. Kurnosov, 6 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Tsvetnaya Metallurgiya, Moscow, No 1, 1969, pp 118-121.
JPRS 48057

Model for Leaching Aluminate Sinters Derived,
by G. I. Sergeyeva, S. P. Kolotushkina, 13 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy, Tsvetnaya Metallurgiya, Moscow,
No 1, 1969, pp 150-158.
JPRS 48057

Automation of Additive Production Advocated,
by L. K. Vasserman, 9 pp.
RUSSIAN, per, Khimiya i Tekhnologiya Topliv i
Masel, Moscow, No 3, 1969, pp 44-47.
JPRS 47956

Deep Drawing of Molybdenum and its Alloys, by
V. N. Korolev, L. A. Shofman. 19 pp.
RUSSIAN, per, Kuznechno-Shtampovodnoye
Proizvodstvo, No 10, 1967, pp 17-23.
AIR/FTD/HT-23-1089-68

Automatic Control of Forgings Manufacture, by
V. B. Liberman.
RUSSIAN, per, Kuznechno-Shtampov, Vol 10, No 4, 1968,
pp 38-41.
BISI 7129

Improving the Reliability of Hammer Handling
Devices with Pneumatic Clamping Mechanisms, by
V.G. Mironov et al.
RUSSIAN, per, Kuznechno Shtampov, Vol 10, No 6,
1968, pp 27-30.
BISI 7130

A Mechanised Unit for the Heating in a Molten
Bath of Salt of Components for Punching, by
A. S. Grigorenko, et al.
RUSSIAN, per, Kuznechno-Shtampov, Vol 10, No 6,
1968, pp 37-40.
BISI 7131

Factory Experience in the Introduction into
Production of Standard Stamping Equipment, by
E. I. Krukovskii.
RUSSIAN, per, Kuznechno Shtampov, Vol 10, No 8,
1968, pp 43-45.
BISI 7133

Calculation of the Dimensions of Ingates Based
on the Weight and Wall Thickness of Castings,
by L. Nedeljkovic.
RUSSIAN, per, Livartvo, Vol 14, May/July 1967,
pp 25-27.
*BISI 7285

Calculation of the Dimensions of Ingates Based
on the Weight and Wall Thickness of Castings,
by L. Nedeljkovic.
RUSSIAN, per, Livartvo, Vol 14, May/July 1967,
pp 85-88.
*BISI 7285

Mechanical Properties of Aluminum Alloys
at Low Temperatures, by P. F. Koshelev.
RUSSIAN, per, Mashinovedeniye, No 6, 1968.
*ACSI J-6788
*FSTC-HT-23-245-69

Improved Metal Delivery Methods Proposed,
by ... Zalmanova, 9 pp.
RUSSIAN, per, Metal'no-Tekhnicheskoye Snabzheniye,
Moscow, No 3, 1969, pp 8-13.
JPRS 48110

Technological Features of the Treatment
of Irons with Ti Sponge for the Casting
of Large Ingot Molds, by L. M. Cherkasov.
RUSSIAN, per, Metallurgiya i Gornordn.
Promyshlennost, No 6, 1968, pp 43-46.
HB 7750

Resistance to Deformation of Alloy Steels During
Hot Working, by A. P. Kachailov.
RUSSIAN, per, Min Chernoi Met Prokatnoe Proiz,
Vol 28, 1967, pp 193-196.
*BISI 7289

Soaps as Fillers of Lithium Lubricants, by
I. G. Fuks, A. N. Chernyak, et al. 8 pp.
RUSSIAN, per, Neftepereabotka i Neftekhimiya,
No 9, 1967, pp 20-23.
AIR/FTD/HT-23-732-68

Yield Point during Hot Deformation of Carbon
and Alloy Steels, by A. A. Dannik.
RUSSIAN, per, Obrab Metallov Davleniem, Vol 52,
1967, pp 232-238.
*BISI 7288

The Life of Lengthened Composite Nozzles
Incorporating Flow Control Elements and
of Nozzles Used as Control Feed Inserts
for the Continuous Casting of Steel, by
L. Ya. Fridman.
RUSSIAN, per, Ogneupory, Vol 34, No 2,
1969, pp 21-24.
HB 7745

Scientific
Materials (Contd)

Reducing the Flammability of Elastic Polyurethane
by Ye. A. Bulygina, F. A. Kryuchkov. 6 pp.
RUSSIAN, per, Plasticheskiye Massy, No 1, 1968,
pp 30-31.
AIR/FTD/MT-23-1001-88

On the Various Periods in Metal Powder
Rolling, by L. M. Gaidar.
RUSSIAN, per, Poroshkovaya Metallurgiya,
Vol 9, No 3, 1969, pp 29-31.
HB 7774

High-Temperature Strength of Materials, by
G. S. Pisarenko, V. N. Rudenko. 606 pp.
RUSSIAN, bk, Prochnost' Materialov pri Vysokikh
Temperaturakh, 1966.
NASA TT F-508
CFSTI TT 68-50308

The Potential Productivity of Plants, by
B. S. Moshkov.
RUSSIAN, per, Selskokhozyaistvennaya Biologiya,
Vol 4, 1967, pp 540-550.
OAGB-Tr 257

Production Shortcomings of Cement Industry
Criticized, 5 pp.
RUSSIAN, np, Stroitel'naya Gazeta, Moscow,
5 Feb 1969, p 2.
JPRS 47979

Aluminum Particle Ignition, by T.I. Alekseyev,
M. A. Gurevich, et al. 14 pp.
RUSSIAN, per, Trudy Leningrad, Politekhnikeskii
Institut, No 280, 1967, pp 98-106.
AIR/FTD/MT-24-500-68

Comparative Test for Thermal Cycling of Nickel
Alloys, by L. P. Nikitina, N. N. Ravyakina.
12 pp.
RUSSIAN, per, Trudy Leningrad, Tsentral'nyy
Nauchno Issledovatel'skiy i Proyektirovatskiy
Kotloturbinyy Institut, No 69, 1966,
pp 159-166.
AIR/FTD/MT-23-1942-68

COMPARATIVE STUDIES OF THE EFFECT OF THE
thermal Welding Cycle on the properties
of some Low-alloy Steels.
RUSSIAN, per, Trudy Politekhnikeskii Inst.,
No 245, 1965, pp 66-76.
*Dept of Navy NIC

Anti-Corrosion Additives and Operating-Preserva-
tive Oils Based on Them, by S. Ye. Kreyin,
Yu. N. Shekhter, et al. 18 pp.
RUSSIAN, rpt, Trudy Vsesoyuznoye Soveshchaniye
Po Nauke i Tekhnologii, 2nd, 1966. Prisadki k
Maslam, 1966, pp 148-157.
AIR/FTD/MT-23-668-68

Materials (Contd)

Force Conditions in Rolling of Stainless Steel
Ingots on the 1150 Blooming Mill, by Z. Zamyslovsky,
et al.
CZECH, per, Hutn Listy, Vol 23, No 5, 1968,
pp 325-333.
*BISI 6742

Selective Reduction of Iron, Nickel, Cobalt, and
Chromium Oxides and its Application to the Treatment
of a Nickel Leached Product, by O. Vondrasek.
CZECH, per, Hutn Listy, Vol 23, No 5, 1968,
pp 351-358.
BISI 6753

Automation of Speed Control of the
Reversing Rolling Mill Drives, by
E. Cerveny.
CZECH, per, Hutn. Listy, Vol 23, No 6,
1968, pp 406-413.
BISI 6979

Deoxidation Processes During the Solidi-
fication of a Rimming Steel Ingot, by
V. Parma.
CZECH, per, Hutnické Listy, Vol 23,
No 8, 1968, pp 542-547.
HB 7610

Technological Conditions for the Hot-Forming
of Silicon Steels, by M. Foltyn and V. Smid.
CZECH, per, Hutn Listy, Vol 23, No 10, 1968,
pp 688-693.
*BISI 7239

More Accurate Mean Pressure Calculation for the
Rolling of Highly Alloyed Steels, by
D. Sichova.
CZECH, per, Hutn Listy, Vol 23, No 10, 1968,
pp 694-699.
*BISI 7240

Analogue Computer Solution of Reheating Steel
Passing Through Continuous Hearth Furnaces, by
J. Kunes, et al.
CZECH, per, Hutn Listy, Vol 23, No 10, 1968,
pp 700-706.
*BISI 7241

Structure and Properties of the Interlayer
Originating During Hot Tin-Plating and
Electrolytical Tin-Plating of Steel Sheet, by
J. Teindl, et al.
CZECH, per, Hutn Listy, Vol 23, No 10, 1968,
pp 707-713.
*BISI 7242

Effect of Small Additions of Nb, V, Ti and Zr on Steel Toughness at Reduced Temperatures, by M. Sicha
CZECH, per, Hutn Listy, Vol 23, No 10, 1968, pp 714-719.
*BISI 7243

Aims and Activities of the Research Institute of Iron Metallurgy, by A. Danihelka.
CZECH, per, Hutn. Listy, Vol 23, No 11, 1968, pp 762-773.
*BISI 7306

Effect of the Deformation Degree on the Quality of Antifriction Bearing Steel, by J. Jech.
CZECH, per, Hutn. Listy, Vol 23, No 11, 1968, pp 792-796
*BISI 7307

Cold-Rolled Non-Oriented Electrical Sheet, by E. Janda.
CZECH, per, Hutn Listy, Vol 23, No 11, 1968, pp 797-804.
*BISI 7235

Some Automation Installations for Metallurgical Workshops, by B. Dubsky.
CZECH, per, Hutn Listy, Vol 23, No 11, 1968, pp 809-814.
*BISI 7237

Metallurgical Characteristics of Magnetite Concentrate Pellets, by J. Leitner.
CZECH, per, Hutnicke Listy, Vol 24, No 1, 1969, pp 5-13.
HB 7743

Assessing the Quality of Hot-Rolling Rolls and Possibilities of their Re-use after Scrapping, by A. Fronek.
CZECH, per, Hutnik, Vol 18, No 6, 1968, pp 286-289.
BISI 6972

On the Kinetics and Mechanism of Bainitic Ferrite Growth, by P. Huml, et al.
CZECH, per, Kovove Mat, Vol 6, No 3, 1968, pp 222-235.
BISI 6782

The Effect of Cold Working and Heat Treatment on Magnetic Properties of Dynamo Sheets, by J. Groyecki and H. Majchrzaj.
CZECH, per, Prace Inst Hutniczyh, Vol 18, No 4, 1966, pp 193-208.
*BISI 7268

Maintenance Service in the Sintering Plant and the Service Life of the Base Equipment, by J. Guzej.
CZECH, per, Sbornik UVT Zavodni Udrzba Zav.1, VZKG, No 11, 1967, pp 54-61.
*BISI 7304

Activity of the Operating-Maintenance Design Department, by St. Harencak.
CZECH, per, Sbornik UVT Zavodni Udrzba zav.1, VZKG, No 15/16, 1967, pp 23-28.
*BISI 7303

Photometric Determination of Phosphorus After Extraction, by M. Benatsky.
CZECH, per, Sbornik VSB Ostrave, Vol 14, No 1, 1968, pp 49-65
*BISI 7301

Determination of Phosphorus Content in Castings, by K. Kamenicky.
CZECH, per, Sbornik VSB Ostrave, Vol 14, No 1, 1968, pp 67-73.
*BISI 7302

The Use of Ferromagnetic Properties for Analytical Purposes (Abridged), by E. Tomik and J. Tyl.
CZECH, per, Sbornik VSB OSTRAVE, Vol 14, No 1, 1968, pp 75-88.
*BISI 7273

Increasing the Output of a Sintering Plant by Perfect Preparation of the Burden Mixture, by Z. Ruzickova.
CZECH, rpt, Sbornik VSKG, Zpracovani Zelezoruchnych Koncentratu Mezinarodni Vedecko-Techicke Konf.III, Oct 1967, pp 119-124
BISI 6959

Possibilities of the Quality Improvements of Grey Cast Iron by Vibration of the Bath, by A. Vetiska.
CZECH, per, Slevarenstvi, Vol 13, No 4, 1965, pp. 128-133.
BISI 6748

A new Steel of High Strength, Toughness, and Hardenability, by K. Kraus. 5 pp.
CZECH, per, Strojirenska Wyroba, Vol 15, No 10, 1967, pp 747-749.
AIR/FTD/MT-23-984-68

Fatigue Properties of Low-Carbon Steel Strip, by A. Salak.
CZECH, per, Strojirenstvi, Vol 18, No 2, 1968, pp 122-127.
*BISI 7317

Scientific
Materials (Contd)

Toughness of Fine-Grained Weldable Steel Sheets, by J. Vrtel.
CZECH, per, Strojirenstvi, Vol 18, No 5, 1968, pp 351-358.
BISI 6743

Cooling of the Sinter in our Sintering Plants, by Z. Barta.
CZECH, per, Technicke Zprawy VZKG Ostrave, Vol 2, 1968, pp 49-58.
*BISI 7300

The Problem of Yields in Slabbing Mills, by L. Dedoch.
CZECH, per, Uspora Kovu ve Valcovnach (Ostrava), 1965, pp 36-60.
BISI 6966

Saving Metal in Rolling Thick Sheets of Steels of Type 17, by K. Matuska.
CZECH, per, Uspora Kovu ve Valcovnach (Ostrava), 1965, pp 115-133.
BISI 6967

Carbon Diffusion in Welds of Heat-Resisting Chromium Steels and Steels of the Classes 11 and 15, by M. Holy.
CZECH, per, Zvaranie, Vol 17, No 7, 1968, pp 203-213.
BISI 6951

Contribution to the Effect of Nitrogen Added to the Shielding Argon Atmosphere on Some Properties of Welds in 17246.1 (CSN) Steel, by B. Benko, D. Hrivnakova.
CZECH, per, Zvaranie, Vol 17, No 8, 1968, pp 230-234.
BISI 6950

Electroslag Welding of Low-Carbon Low-Alloyed Steels for Pressure Vessels Having a Wall Thickness of 100mm With Regard to Optimum Conditions of Welding and Heat Treatment, by E. Malinovska.
CZECH, per, Zvaranie, Vol 17, No 10, 1968, pp 293-299.
*BISI 7305

Review of Japanese Process for Producing Cr Plated Steel Strip for Cans, by G. Paardekooper.
DUTCH, per, Metaal en Kunst, Vol 6, No 18, No 19 (Conclusion), 1968, pp 855-857 & 293.
*BISI 7331

Explanation of the Works at Hoogovens, by J. H. Brouwer.
DUTCH, per, Overdruk uit her weekblad 'De Ingenieur', No 48, 1967, pp 1-12
*BISI 7299

Scientific
Materials (Contd)

Use of Gluconate Compounds in Alkaline Baths for the Currentless Electrolytic De-Rusting of Iron and Steel, by M. J. Reidt and J. L. J. Tervoort.

DUTCH, per, Tno Nieuws, Vol 23, Jan 1968, pp 9-18.
*BISI 7353

Contribution to Study of Temperature Evolution in Slabs Passing Through Furnaces, by M. M. Rosiers.
FRENCH, rpt, Association Technique de la Sidérurgie Française, Oct 1964.
*BISI 7314

Comparison of Different Methods of Spraying Fuel Oil in a Martin Furnace, by G. Hussion, et al.
FRENCH, per, C. D. S. Circ, No 3, 1956, pp 555-568.
*BISI 7275

Measurement of Large Discharges of Gas on Industrial Installations by the Trace Method. Applications in Steelworks. (with discussion), by H. Pierrard, F. Mangin.
FRENCH, per, C.D.S. Circ, No 3, 1968, pp 797-809.
BISI 6818

Commission of Investigative Methods. I - Impact Strength Tests, Schnadt tests, Impact Tensile Tests. by M. Grumbach and G. Sanz.
FRENCH, per, C. D. S. Circ, No 9, 1968, pp 1997- .
*BISI 7252

Some Applications of the Quantative 'Quantimet' Microscope, by R. Roche.
FRENCH, per, C.D.S. Circ., No 10, 1968, pp 2283-23 pp.
*BISI 7320

Commission on Oxygen Steelworks. Review of Different Studies Undertaken by the "Technology" Sub-Commission, by C. Roederer.
FRENCH, per, C. D. S. Circ, No 11, 1968, pp 2485-2495.
*BISI 7290

Duration of the Life Of Nozzles of Oxygen Lances. Theoretical Observations, by Ph. Cesselin.
FRENCH, per, C. D. S. Circ, No 11, 1968, pp 2497-2503.
*BISI 7327

Scientific
Materials (Contd)

Problems in the Tapping of Metal and Slag, by V. Etorre.
FRENCH, per, C.D.S. Circ., No 12, 1968, pp 2629-2661.
BISI 7116

Contribution to the Study of the Properties of Inoxidizable Steels 18/8 of High Purity, by J. Montuelle, 9 pp.
FRENCH, rpt, C.N.R.S. Symposium, Anatole, France, Sept 1966.
AEC/UCRL-Tr-10330-69

Behavior of Stainless Steels in Hot and Cold Seawater, by J. M. Defranoux.
FRENCH, per, Corrosion Science, No 4, 1968, pp 245-258.
NLL Ref: 9022.09 (4927)

Closed Die Forging of Steels and the Usual Alloys, by A. Chamouard.
FRENCH, per, Estam Forge, 1966, April - I; Dec, pp31-40 - II.
*BISI 7359

Contribution to the Development of Direct White Enamelling, by A. Blondel.
FRENCH, per, Fonderie, No 271, 1968, pp 433-440.
*BISI 7323

Contribution to the Production of Short Circuit Rotors by Casting, by L. Martin.
FRENCH, per, Fonderie, Vol 159, Apr 1959, pp 159-175.
*BISI 7358

Hyl Sponge Iron in Electric Steel, by J. Celada.
FRENCH, rpt, International Congress on the Production and Use of Pre-reduced Ores, Evian, May 1967, pp 317-322.
*BISI 7361

The Effect of Surface and Coating Treatments on the Embrittlement of Steel at High Resistance by Hydrogen Under Pressure: The Case of 35 NiCrMo 16 Steel, by Jean-Pierre Fidelle.
FRENCH, rpt, A Paper Presented at 7th International Congress on the Treatment of the Surface of Metals, Hanovre, 5-9 May 1968, 19 pp.
NASA TT P-12,099

Scientific
Materials (Contd)

The Stability of Gas Flames, by R. Morillon.
FRENCH, per, Rev. Gen. Therm., No 10, 1968, pp 1029-15 pp.
*BISI 7321

Continuous Measurements in the Automatic Control of Sinter Belts, by I. Harvang.
FRENCH, per, Rev. Ind. Minerale, Vol 50, No 3, 1968, pp 212-227.
BISI 6737

Mechanism of Travelling Grate Sintering, Optimum Operating Curve, and Sinter Plant Automation, by M. Boucraut.
FRENCH, per, Rev. Ind. Minerale, Vol 50, No 9, 1968, pp 629-33 pp.
*BISI 7319

Heterogeneity of Hard Steel Forge Ingots, by M. Nepper and M. Laubin.
FRENCH, per, Rev. Met., Vol 65, No 1, January 1968, pp 25-34.
BISI 6736

Research on the Regeneration of Over-Heated Steels, by C. Leymonie.
FRENCH, per, Rev. Met. Mem. Sci., Vol 65, No 2, February 1968, pp 101-111.
BISI 6739

Study of the Formation of Cracks During the Continuous Casting of Billets and Slabs, by W. Poppmeier, B. Tarmann.
FRENCH, per, Rev. Met., Vol 65, No 2, February 1968, pp 113-119.
BISI 6738

Contribution to Investigation of the Iron-Sulphur System Restricted to the Region of Iron Monosulphide (Pyrrhotite), by W. Burgmann, jun, et al.
FRENCH, per, Rev Met Mem Sci, Vol 65, July-Aug 1968, pp 567-578.
BISI 7366

Practical Interest of a New Mechanical Characteristic The Accommodation Limit, by E. Plenard.
FRENCH, per, Rev Met, Vol 65, Dec 1968, pp 845-862.
*BISI 7345

Calculation of Ferro-Magnetic Material Properties with Electronic Analogue Computers, by W. Frings.
GERMAN, per, Arch Eisenh., Vol 34, Nov 1963, pp 853-858.
BISI 7003

- Electrochemical and Electrical Studies in the System Iron-Phosphorus-Oxygen-Lime, by W. A. Fischer, et al. GERMAN, per, Arch Eisenh, Vol 39, Nov 1966, pp 853-862.
*BISI 7344
- Explanation of Internal Lattice Deformation in Plastically Deformed α -Iron, by F. Bollenrath, et al. GERMAN, per, Arch Eisenh, Vol 38, Oct 1967, pp 793- .
*BISI 7258
- Simple Method for Determining Residual Stresses in Wire, by H. Buhler, F.-J. Kreher. GERMAN, per, Arch Eisenh, Vol 39, No 7, 1968, pp 545-551.
HB 7529
- Comparative Studies on the Corrosion Resistance of Galvanised and Aluminized Steel Sheets, by C. Burgmann. GERMAN, per, Arch. Eisenh. Vol 39, No 8, 1968, pp 623-628.
*BISI 7311
- Mechanism and Kinetics of Reduction Reactions, by L. Visnyovszky. GERMAN, per, Arch Eisenh, Vol 39, Oct 1968, pp 733-740.
BISI 6933
- Influencing the Equilibria between Carbon and Oxygen in Molten Iron by Means of Nickel, Chromium and Silicon, by H. Schenck, et al. GERMAN, per, Arch Eisenh, Vol 39, Nov 1968, pp 803-808.
BISI 7200
- The Direct Determination of Oxygen in Oxide Materials, by W. Koch, H. Lemm. GERMAN, per, Arch Eisenh, Vol 39, No 11, 1968, pp 822-827.
HB 7777
- Influence of the Elements Manganese, Silicon and Aluminum on the Rate of Sulfur Transfer, by H. Schenck. GERMAN, per, Archiv fur Eisenhüttenwesen, Vol 39, No 12, 1968, pp 893-894.
HB 7746
- The FeO-NiO Constitutional Diagram and the Equilibria Between FeO-NiO (Al_2O_3) Slags and Iron-Nickel Melts at Steelmaking Temperatures, by H. Schenck, et al. GERMAN, per, Arch. Eisenh., Vol 39, Dec 1968, pp 895-901.
BISI 7112
- On the Photometric Determination of the Zirconium Content of Steel and of Its Structural Constituents, by H. Keller, K. Hennesen. GERMAN, per, Archiv Eisenh, Vol 39, No 12, 1968, pp 921-924.
HB 7709
- Investigations on the Determination of the Delta Ferrite Content in Austenitic Steels, by P. Dunner. GERMAN, per, Archiv Eisenh, Vol 39, No 12, 1968, pp 945-948.
HB 7697
- Mass Transfer Between Rising Spherical Bubbles and Fluid Metal Melts, by K. W. Lange, et al. GERMAN, per, Arch Eisenh, Vol 40, 1969, pp 99-107.
*BISI 7340
- Effect of a Three Stage Heat Treatment on the Mechanical Properties of Low Alloy Weldable Steels, by K. Born, K. Haarmann. GERMAN, per, Arch. Eisenh., Vol 40, No 1, January 1969, pp 57-66.
BISI 7114
- A Fully Automatic Hardness Testing Apparatus for Plotting End-Quench Curves, by F. Stricker, H. Irmisch. GERMAN, per, Archiv Eisenh, Vol 40, No 2, 1969, pp 159-162.
HB 7759
- Fabrication of Bars and Tubes from Metal Powders by the Extrusion Process, by G. Naeser and O. Nessel. GERMAN, per, Arch Eisenh, Vol 40, Mar 1969, pp 257-262.
*BISI 7283
- Ore Handling in Winter at the LKAB Mines in Sweden, by B. Fagerberg. GERMAN, per, Aufbereitungs-Technik, Vol 6, No 1, 1965, pp 23-29.
BISI 7198

On the Application of Conversion Coatings by the Roller Coating Process, by W. Machu.
GERMAN, per, Bänder Bleche, Vol 9, No 1, 1968, pp 9-13.
*BISI 7267

Effects of Small Additions of Vanadium on the Mechanical Properties and the Structure of Weldable Structural Steels and the Binding of Vanadium as Carbonitride, by F. Schmidt, et al.
GERMAN, per, Bänder Bleche, Vol 9, Oct 1968, pp 602-610.
*BISI 7264

Contribution to the Technology of Spot Welding of Steel Sheets Galvanised in a Continuous Process, by W. Glage.
GERMAN, per, Bänder Bleche, Vol 10, No 2, 1969, pp 103-108.
*BISI 7282

Heat Conditions During Cold Rolling, by E. Kiss.
GERMAN, per, Bänder Bleche, Vol 10, No 3, 1969, pp 161-165.
*BISI 7309

Change in Basic Bricks in Oxygen Converters, by W. S. Treffner, K. Wohllenben.
GERMAN, per, Ber. Dtsch. Keram. Ges., Vol 44, No 7, 1967, pp 350-354.
BISI 6193

Cast Steel for Special Requirements, by G. Horvath and F. Schuster.
GERMAN, per, Berg-Hütten Monatsh., Vol 113, No 11, 1968, pp 432-443.
*BISI 7272

The Effect of Very High Coking Rates on the Properties of Coke, by H. Echterhoff.
GERMAN, per, Brennstoff-Chemie, Vol 49, 1968, pp 294-300.
*BISI 7316

The Influence of Additives on Layered Fine Coal of the Ruhr, by H. R. Maybaum.
GERMAN, per, Brennstoff-Chemie, Vol 49, 1968, pp 316-321.
*BISI 7315

Corrosion Resistant Steels for Severe Service in Nitric Acid, by H. Zitter.
GERMAN, per, Dechema Monograph, Vol 45, 1962, pp 129-158.
*BISI 7261

New Aspects of Cold Forming, by K. Sieber.
GERMAN, per, Draht, Vol 19, No 8, 1968, pp 568-575.
*BISI 7308

Testing and Acceptance of Screws, Bolts, Nuts and Similar Threaded and Formed Parts, by C. O. Bauer.
GERMAN, per, Draht Welt, Vol 54, No 6, 1968, pp 417-423.
BISI 6682

Use of Linearly Polarised Microwaves for Easy Materials Testing, by A. Dietzl, et al.
GERMAN, per, Elektronische Rundschau, Vol 4, 1959, pp 12-23.
*BISI 7346

The Dependence of the Breakdown Voltage of Epoxy Resin Moulded Insulating Materials on Wall Thickness, by E. Schuhlein.
GERMAN, per, ETZ-B, Vol 20, 28 June 1968, pp 363-367.
CEGB-Tr 50300

Deep Drawing Tests and Rejections of Soft Plain Carbon Steel Sheet, by W. Made, R. Deh.
GERMAN, per, Fertigungstechnik Betrieb, Vol 17, No 11, 1967, pp 665-672.
BISI 6829

Metallographic Techniques for Obtaining Cross Sections with Optimum Edge Sharpness, by L. Illgen.
GERMAN, per, Freiberger Forschungsh., B111, 1965, pp 53-71.
BISI 6531

Molybdenum Alloy for Die Casting Tools, by H. Braun.
GERMAN, per, Giesserei, Vol 52, Apr 29 1965, pp 285-292.
*BISI 7357

Studies of the Hot Cracking of Steel Castings by W. Patterson, et al.
GERMAN, per, Giessereiforschung, Vol 19, No 4, 1967, pp 161-174.
BISI 6168

On Fire Cracking, by W. Siefert.
GERMAN, per, Giesserei, Vol 55, No 24, 1968, pp 737-742.
HB 7668

The Mechanism of Chemical Dissolution of Nitrogen in Glass Melts. Kinetics of the Reaction of Silicon Nitride with Oxidic Glass Melts, by T. Kellen and H. O. Mulfinger. GERMAN, per, Glastechnische Berichte, Vol 41, No 6, 1968, pp 230-242.
*BISI 7365

Observations in the Surface Impregnation of Steel with Boron, Part III., by H. Kunst, O. Schaaber, GERMAN, per, Harterei-Technische Mitt., Vol 22, No 4, 1967, pp 275-284.
HB 7122-111

Influence of Residual Austenite on the Strength Properties of Case-Hardened Test Pieces during Fatiguing, by C. Razim. GERMAN, per, Hart-Techn Mitt., Vol 23, Apr 1968, pp 1-8.
BISI 6448

Experiments on Carburization by Electrolytic Heating, by E. Eichhorn. GERMAN, per, Hart.-Techn. Mitt., Vol 23, No 7, 1968, pp 110-115.
BISI 6882

The Metallurgy of Gas Carburizing: The Relationship between Carbon Potential of the Gas Phase and the Component with Special Reference to Alloy Additions, by F. Neumann and B. Person. GERMAN, per, Hart-Techn Mitt., Vol 23, Dec 1968, pp 296-310.
*BISI 7266

Investigation into the Diffusion and Solubility of Hydrogen in Killed and Unkilled Mild Steel, by U. Tenhaven. GERMAN, per, Hoesch Ber. No 2, 1967, pp 68-76.
*BISI 7324

Investigations Regarding the Effect of Metallic Trace Elements on the Mechanical Properties of Deep Drawing Steels, by H. H. Hoff, H. Lipowsky. GERMAN, per, Hoesch Ber. Forsch. Entwickl., Vol 3, No 1, 1968, pp 11-20.
BISI 6558

Rolling of Wire in a Novel Finishing Train, by G. Kirchmann. GERMAN, per, Der Kalibreur, August 1966, pp 73-80.
BISI 6787

Beam and Rail Rolling in 3-High Stands or Continuous Mills to the Universal Rolling Method, by R. Starnbach. GERMAN/FRENCH, per, Kalibreur, No 9, 1968, pp 25-48.
*BISI 7310

A New Continuous Train for Semi-Finished Products, by W. Rensch. GERMAN, per, Kleppzig Fachber., Vol 1, 1965, pp 16-24.
BISI 7028

Continuous Casting Machines for Steel - Design and Construction, by H. G. Baumann and H. H. Hinze. GERMAN, per, Kleppzig Fachber., E 181, Dec 1968, pp 739-744.
*HB 7748

Production of Iron with Energy from Nuclear Reactors, by W. Wenzel. GERMAN, per, Kleppzig Fachber., Vol 77, No 2, 1969, pp 105-109.
*HB 7800

The Dielectric Strength of Epoxy Resins as a Function of Temperature and Mechanical Stresses, by R. Schmid. GERMAN, per, Kunststoffe, Vol 57, Sept 1967, pp 711-714.
CEGB-Tr 4773

Durability of Mechanically Stressed Parts in Combustion Engines with Examples from Practical Experience, by M. von Kienlein. GERMAN, per, MTZ, Vol 17, Feb 1956, pp 33-38.
*BISI 7347

Automatic Control Systems for Blast Distributions in Blast Furnaces, by W. Kalinowski. GERMAN, per, Hessen Steuern Regeln, Vol 10, No 10, 1967, pp 387-383.
BISI 6549

Manufacture and Characterisation of Ultrafine Carbides, Nitrides and Metals, by E. Neuenschwander. GERMAN, per, Metals, Vol 11, Nov 1966, pp 365-375.
*BISI 7350

New Metallographic Techniques, by W. Bernhardt. GERMAN, per, Neue Hütte, Vol 11, March 1966, pp 167-171.
BISI 6534

Sorbitising of Wire Rod at the Rolling Temp, by W. Lehnert.
GERMAN, per, Neue Hutte, Vol 12, No 10, October 1967, pp 609-614.
BISI 6789

Investigation on the Acceleration of Nitriding in the Gas Phase, by H. -J. Eckstein and W. Lerche.
GERMAN, per, Neue Hutte, Vol 13, Apr 1968, pp 210-215.
BISI 7062

The Effect of Ingot Solidification on the Properties of High-Speed Steel, by H. Fiedler, H. -J. Eckstein.
GERMAN, per, Neue Hutte, Vol 13, No 5, 1968, pp 268-278.
HB 7585

Modern Scrap Preparation Processes - Steel Scrap Preparation, by J. Tietz.
GERMAN, per, Neue Hutte, Vol 13, No 8, 1968, pp 449-453.
*BISI 7281

Surface Quality of Cold-Rolled Strip, by P. O. Strandell.
GERMAN, per, Neue Hutte, Vol 13, No 12, 1968, pp 726-729.
*HB 7784

Fundamentals and Requirements for the Accomplishment of the Oxy-acetylene Stress Relieving, by A. G. Kunz.
GERMAN, per, Schweissen und Schneiden, 1955, No 7, *BISI 7298

Electron-Beam Welding at Various Gas Pressures, by W. E. Meyer, L. Dorn.
GERMAN, per, Schweissen und Schneiden, Vol 20, No 6, 1968, pp 261-266.
HB 7649

Electron Beam Welding in Comparison with Other High-intensity Welding Processes, by A. Matting, G. Sepold.
GERMAN, per, Schweissen und Schneiden, Vol 20, No 8, 1968, pp 363-367.
HB 7650

Metallurgical Reactions During the Spraying of Steel in Air and Under Controlled Atmospheres, by H. -L. Steffens.
GERMAN, per, Schweissen und Schneiden, Vol 21, No 2, 1969, pp 79-80.
HB 7806

Improved Time-Temperature-Transformation Diagram for Welding Technology, by P. Seyffarth, B. Cord.
GERMAN, per, Schweisstechnik, Vol 16, 1966, pp 467-470.
HB 7627

Rotating Bending Fatigue Tests on Shafts with Welded Splines, by J. Farkas.
GERMAN, per, Schweisstechnik, Vol 18, No 8, 1968, pp 373-376.
ALL Ref: 5828.5F (1.7541)

Use of Sintered Metals in Automobile Industry, by H. G. Appel.
GERMAN, rpt, 2nd European Symposium on Powder Metallurgy, Stuttgart, 1968, *BISI 7354

Remarks on the Toughness Testing of Hard Metals Using the Crack Method, by H. E. Exner and G. Petzow.
GERMAN, rpt, 2nd European Symposium on Powder Metallurgy, Stuttgart, 1968, *BISI 7355

The Manufacture of Metal Powders With a Narrow Grain Size Range, by P. Schmidt.
GERMAN, rpt, 2nd European Symposium on Powder Metallurgy, Stuttgart, 1968, Vol 1, May 8-10, 1968, pp 6.
BISI 7056

Hardening of "Pure" and Lightly Doped NaCl Crystals, by J. Hesse.
GERMAN, rpt, 2nd International Symposium on Ultra-Pure Materials in Science and Engineering, Berlin, 28 Sept- 2 Oct 1965, *Tr 4785

Structure and Strength of Glass Fibers, by G. M. Bartenjew. 14 pp.
GERMAN, per, Silikatechnik, No 10, 1967, pp 315-318.
AIR/PTD/HT-23-865-68

Representation of Austenite Formation in Hypo-Eutectoid Steels on Time-Temperature-Solution Diagrams, by A. Rose and W. Strassburg.
GERMAN, per, Stahl Eisen, Vol 76, July 26 1956, pp 976-983.
BISI 6936

Scientific
Materials (Contd.)

Scientific
Materials (Contd.)

Proposals for Raising the Output of Cold-Rolling Tandem Mills, by F. -J. Lenze.
GERMAN, per, Stahl Eisen, Vol 87, July 13 1967, pp 825-833.
BISI 7151

The Working Strength of Welded and Riveted Steel Joints--A Proposal for the Systematic Treatment of Short- and Long-Term Fatigue Strength Data, by G. Bierett.
GERMAN, per, Stahl Eisen, Vol 87, Nov 30 1967, pp 1465-1472.
BISI 6740

Continuous Flexible Control of Personnel Allocation in an Integrated Steelworks, by H.-H. Plugge, et al.
GERMAN, per, Stahl Eisen, Vol 88, 18 April 1968, pp 393-397.
BISI 6830

Contribution to the Metallurgy of Iron Ore Sintering, by H.-G. Hoff, et al.
GERMAN, per, Stahl Eisen, Vol 88, 11 July 1968, pp 739-755.
BISI 6861

Experience with a Continuous Ultrasonic Testing Installation for Strip, By H. W. Grasshoff and J. Tobolski.
GERMAN, per, Stahl Eisen, Vol 88, July 11 1968, pp 782-785.
BISI 6913

Hydraulically Pre-Stressed 4-High Mill Stands, by G. Engel, F. Fischer.
GERMAN, per, Stahl Eisen, Vol 88, No 10, 1968, pp 1081-1086.
BISI 6847

Cooling of Rolled Products, by F. Kusters.
GERMAN, per, Stahl Eisen, Vol 88, 31 Oct 1968, pp 1209-1216.
BISI 6927

Application of Simulation Methods in the Iron and Steel Industry.
1 - Simulation and Mathematical Optimisation
11 - Improving the Materials Flow in Steel Bar Finishing by Simulation on a Computer, by A. Schreiner, et al.
GERMAN, per, Stahl Eisen, Vol 88, No 10, 1 - pp 1234-1236; 2 - pp 1236-1241.
BISI 7071

Problems of Removal of Dust from Waste Gases f of Iron Ore Sintering Plants, by R. Bothe.
GERMAN, per, Stahl Eisen, Vol 88, 12 Dec 1968, pp 1414-1422.
*BISI 7274

Effect of Residual Stress on the Behavior of Steel Springs Under Alternating Stress, by Karl-Heinz Muhr.
GERMAN, per, Stahl Eisen, Vol 88, 26 Dec 1968, pp 1449-1455.
*BISI 7293

Taking Samples from Solid Steel for the Determination of the Hydrogen Content, by E. E. Hofmann.
GERMAN, per, Stahl und Eisen, Vol 88, No 15, 1968, pp 809-813.
HB 7521

Quantitative Analysis of Gases by Chromatography, Specifically by the Janak Method, by G. Jacob.
GERMAN, per, Stahl und Eisen, Vol 88, No 20, 1968, pp 1104-1109.
HB 7660

Effect of Technical Progress on the Cost of Constructing Plants for Pig Iron Production, by L. von Bogdandy, D. Terlaak.
GERMAN, per, Stahl und Eisen, Vol 88, No 21, 1968, pp 1139-1144.
HB 7692

Technical and Economic Bases for Comparative Assessment of Coking Coals, by G. W. Lask, L. H. Sandhofer.
GERMAN, per, Stahl Eisen, Vol 89, 9 Jan 1969, pp 6-14.
BISI 7175

Factors Influencing the Variations in Nitrogen Content of Steel Produced in the Basic Oxygen Furnace, by H. P. Haastert.
GERMAN, per, Stahl und Eisen, Vol 89, No 1, 1969, pp 24-30.
HB 7726

Organisational and Personnel Requirements in Steelworks Transport Problems, by G. Gsell.
GERMAN, per, Stahl Eisen, Vol 89, Jan 23 1969, pp 63-67.
*BISI 7325

Scientific
Materials (Contd)

Mechanical Properties of Cold Rolled Strip After Accelerated Cooling, by M. Vater. GERMAN, per, Stahl und Eisen, Vol 89, No 3, 1969, pp 114-119.
HB 7730

Effect of Different Dew Points of the Heat-Treating Atmosphere on the Skin Decarburization of Heat-Treatable Steels, W. Grasshoff, et al. GERMAN, per, Stahl Eisen, Vol 89, 6 Feb 1969, pp 119-128.
*BISI 7271

Reflexions on the Difficulties of the Integrated Automation in Iron and Steel Works, by Karlheniz Loske. GERMAN, per, Stahl Eisen, Vol 89, 20 Feb 1969, pp 153-159.
*BISI 7293

Integrated Automation of a Rolling Mill, by E. Fiebig. GERMAN, per, Stahl Eisen, Vol 89, 20 Feb 1969, pp 160-165.
*BISI 7294

Automation of a Heavy and Medium Plate Tandem Mill. Planning, Design and First Results of Operation, by K. E. Mayer, et al. GERMAN, per, Stahl Eisen, Vol 89, 20 Feb 1969, pp 178-185.
*BISI 7295

Some Problems Relating to the Use of Pre-Stressed Concrete Steel Which Has Been End Quenched and Tempered in Oil, by K. Felcht. GERMAN, per, Stahlberatungs Mitt, No 54.
*BISI 7349

Results and Conclusions From a Study on Noise in a Steelworks and a Rolling Mill, by W. Ziebig. GERMAN, per, Die Techn. Wk., Vol 23, No 10, 1968, pp 639-644.
*BISI 7313

Flexible Couplings, by K. Stolzle. GERMAN, per, Techn Mitt, July 1962, pp 316-325.
BIS. 7173

Application of the DH Process for Work Producing Tonnage Steels According to the Present State of the Art, by F. Oeters. GERMAN, rpt, III International DH Vacuum Conference, Berlin, 2-6 May 1966, pp 2-14.
*BISI 7364

Scientific
Materials (Contd)

Manufacture and Application of Low Carbon Steels, by K. Brotzmann and J. Oberlander. GERMAN, rpt, III International DH Vacuum Conference, Berlin, 2-6 May 1966, pp 80-90.
*BISI 7362

Application of Reactive Cases, by R. Scheal, et al. GERMAN, rpt, III International DH Vacuum Conference, Berlin, 2-6 May 1966, pp 104-120.
*BISI 7363

Investigations Involving the Quasi-Isostatic Pressing Process, by D. Harkort, H. G. Kling. GERMAN, per, Tonind.-Ztg., Vol 92, No 3, 1968, pp 81-85.
BISI 6881

Some Basic Scientific and Technological Problems of Isostatic Pressing, by H. W. Hennicke and H. H. Sturhahn. GERMAN, per, Tonind Ztg., Vol 92, No 3, 1968, pp 95-97.
BISI 7187

Criteria for Balancing Rotating Solid Bodies, by Anon. GERMAN, per, VDI Report No 2060, Verein Deutscher Ingenieure.
BISI 7176

The Corrosion Properties of Galvanized Steel Sheet Subjected to Soft Hot Water Nitrated with CO2 and/or O2, by W. Schwenk. GERMAN, per, Werks Korros, No 12, 1966, pp 1033-1039.
*BISI 7269

On the Behaviour of Some Cr-Ni-Mo Steels during Service in the Chemical Industry, by E. Mohr. GERMAN, per, Werks Korros, Vol 18, Dec 1967, pp 1037-1042.
BISI 6332

Factors Affecting the Testing of Stress Corrosion Cracking, by H. Kohl. GERMAN, per, Werks. Korros., Vol 19, No 2, February 1968, pp 97-103.
BISI 6442

Investigation into Corrosion Damage by Means of P-Back Scatter, by V. Krivan. GERMAN, per, Werks Korros, Vol 19, No 12, 1968, pp 1021-1025.
*BISI 7279.

Scientific
Materials (Contd)

Some New Applications of Microanalysis by Means of the Electron Probe in the Field of Corrosion and Protection Against Corrosion, by J. A. Menzies. GERMAN, per, Werks. Korros., Vol 19, No 12, 1968, pp 1050-1062.
*BISI 7280

Electrochemical Measuring Methods for Studying Stress-Corrosion Cracking and Corrosion Fatigue, by H. Grafen. GERMAN, per, Werks Korros., Vol 20, Mar 1969, pp 209-215.
*BISI 7291

Spectrographic Analysis of Steel Chips of Different Form and Hardness, by K. H. Koch, and G. Becker. GERMAN, per, Z Anal Chem., Vol 231, No 3, 1967, pp 173-181.
*BISI 7259

On a Hydrogen Compound of Trivalent Iron, by Brigitte Sarry. GERMAN, per, Zeit fur Anorg und Allg Chem., Vol 288, 1956, pp 48-61.
Dept of Navy NIC Trans No 2815

Mechanical Properties of Solid Solutions of α -Iron, by G. Lutjering and E. Hornbogen. GERMAN, per, Z Metallk., Vol 59, Jan 1968, pp 29-46.
*BISI 7332

Vacuum-Evaporated, Single-Crystal Silicon Film on a Sapphire Substrate, by S. Narba, A. Kawazu, et al. 12 pp. HUNGARIAN, per, Finomechanika, No 7, 1968, pp 45-49.
AIR/FTD/HT-23-1324-68

Production of Ferromanganese by a Novel Technology, by V. Istvan. HUNGARIAN, per, Koh Lapok, Vol 101, Dec 1968, pp 503-509.
*BISI 7342

Rubber-Spring Bands and Their Application, by O. Suhajda. 10 pp. HUNGARIAN, per, Manyag es Gumi, No 7, 1967, pp 231-234.
AIR/FTD/HT-23-1119-68

Scientific
Materials (Contd)

Products of Mezpres Vegye Enterprises Listed, 21 pp. HUNGARIAN, per, Muszaki Elet., Budapest, 4 Apr 1969, pp 28-33.
C.R. 48080

Direct Compaction of Powder by Plastic Deformation Inside a Container, by G. Rossi and A. Perin. ITALIAN, per, Boll Tecn FINSIDER, No 260, Oct 1968, pp 683-693.
*BISI 7287

Oxidation and Thermal Etching of Fe-Si Alloys in an Atmosphere of Hydrogen Containing Traces of Water Vapour, by A. Ferro, et al. ITALIAN, per, Met Ital., No 11, 1958, pp 484-494.
*BISI 7270

Model Tests for the Study of Ejections at LD Converters, by A. Ramacciotti, A. Praitoni. ITALIAN, per, Met. Ital., No 9, 1967, pp 757-769.
BISI 6947

Effect of Heat Treatment on the Ultrasonic Attenuation in Steel Forgings, by L. Matteoli. ITALIAN, per, Met. Ital., No 4, 1968, pp 225-233.
*HB 7783

Influence of Nickel Content on the Process of Decarburization with Oxygen of Stainless Steels, by W. Nicodemi. ITALIAN, per, Met Ital., No 7, 1968, pp 620-626.
*BISI 7339

Analytic Evaluation of a D2O Moderated CO2 Cooled Power Reactor, by Hiroji Mochizuki. JAPANESE, per, Fapig, No 46, 1967, pp 98-107.
*AEC-NSJ-TR 151

Continuous and Automatic Measurement of Calorific Value of Heavy Oil by the Use of Neutron, by Kyoichi Miyashita. JAPANESE, per, Genshiryoku Kogyo, Vol 13, No 10, 1967, pp 52-55.
*AEC-NSJ-Tr 152

A Tentative Approach from the Information Theory to the Problem of Internal Contamination, by Ikuo Anzai. JAPANESE, per, Hoken Butsuri, Vol 3, No 2, 1968, pp 295-303.
*AEC-NSJ-Tr 154

Stress Corrosion Cracking of Austenite Stainless Steels in High Temperature Water, by M. Okazaki, et al.

JAPANESE, per, J. Japan Inst Metals, Vol 29, Apr 1965, pp 340-345.
CEGB-Tr 4730

Coating of Sheet Steel With Metal Powder.

1 - On Titanium Coating, by T. Shimose, et al.
JAPANESE, per, J. Met. Fin. Soc. Jap., Vol 17, No 8, 1966, pp 310-315.
BISI 6889

On the Measurement of Residual Stress in Heat Treated Steels by X-Ray Method, by M. Motoyama, et al.

JAPANESE, per, J Soc Mat Sci Japan, Vol 17, Dec 1968, pp 1077-1082.
*BISI 7265

Present State of Plasma Spraying Techniques, by Shigeru Kitahara.

JAPANESE, per, Kinzoku, Vol 8, No 1, 1968, pp 42-47.

Dept of Navy NRL Trans No 1168

Plasma Jet in the Production of Nitrides, by Osamu Matsumoto.

JAPANESE, per, Kinzoku, Vol 8, No 1, 1968, pp 69-71.

Dept of Navy NRL Trans No 1169

On the Difference in Uptake of Rb-86 and P-32 of Different Position of the Aquatic-Rice Root, by Takehiko Yoshida and Masaharu Nakamura.

JAPANESE, per, Nippon Dojo Hiriyogaku Zasshi, No 39, 1968, pp 253-257.
*AEC-NSJ-Tr 153

On the Tempering Behavior of Martensite of Hot Worked and Quenched Carbon Steels, by M. Nakamura, et al.

JAPANESE, per, Nippon Kinzoku, Vol 32, No 1, 1968, pp 28-32.
BISI 7075

Effects of Cold-Drawing Prior to Patenting on the Mechanical Properties of High Carbon Steel Wire After Low Temperature Annealing, by H. Hirano.

JAPANESE, per, Nippon Kinzoku, Vol 32, No 3, 1968, pp 234-238.
BISI 6929

On the Effect of Austenitizing Treatment Upon the Strength of As-Patented 0.8% Carbon Steel, by H. Hirano.

JAPANESE, per, Nippon Kinzoku, Vol 32, No 3, 1968, pp 238-243.
BISI 6929

Effects of Additional Elements on the Susceptibility of Austenitic Stainless Steels to Stress Corrosion Cracking in High-temperature Water Containing Chloride, by G. Ito, T. Ishihara.

JAPANESE, per, Nippon Kinzoku Gakkai-shi, Vol 32, No 3, 1968, pp 295-300.
HB 7510

Constitution Diagram of Ternary Fe-Ca-Si Alloys, by T. Ototani and Y. Kataura.

JAPANESE, per, Nippon Kinzoku, Vol 32, 1968, pp 458-463.
*HB 7786

Pig Iron Making.

JAPANESE, per, Tekhn. Rep. Fuji Iron and Steel Co., Vol 15, No 9, 1966, pp 223-250.
BISI 6035

Study of Properties of Heavy Steel Forgings Made of Basic Electric Arc and Acid Open Hearth Steels and an Examination of Vacuum Casting, by T. Shimose, K. Narita.

JAPANESE, per, Tetsu to Hagane, Vol 49, No 5, 1963, pp 765-774.
HB 7647

Internal Structure of 20-Ton Steel Ingots from Basic Electric and Acid Open-Hearth Furnaces, Also of a 20-ton Vacuum-Cast Ingot, by G. Sugano.

JAPANESE, per, Tetsu to Hagane, Vol 50, No 11, 1964, pp 1770-1772.
HB 7648

On the End Point Temperatures and Carbon Control with Dropping Thermocouple and Carbon Detector in the Molten Bath of an LD Converter during Blowing, by S. Fujii and M. Hayashi.

JAPANESE, per, Tetsu-to-Hagane, Vol 53, No 11, 1967, pp 1205-1207.
BISI 6368

Scientific
Materials (Contd)

On a Structural Nonuniformity in the Lower Part of Bottom-Poured Killed Steel Ingots, by K. Narita.

JAPANESE, per, Tetsu to Hagane, Vol 53, No 11, 1967, pp 1215-1216.
HB 7772

Physical Properties of Pre-reduced Pellets Made from Mixtures of Iron Ore and Coke, by K. Kunii.

JAPANESE, per, Tetsu to Hagane, Vol 54, No 3, 1968, p. S 14.
HB 7776

Gas Carburizing and Quenching of Sintered Iron-Base Powder Compacts, by K. Shoji and S. Yamada.

JAPANESE, per, Tetsu-to-Hagane, Vol 54, No 4, 1968, pp 150-155.
*HB 7787

The Behavior of Several Types of Oxide Inclusions in Steels During Hot Rolling, by H. Iwai.

JAPANESE, per, Tetsu to Hagane, Vol 54, No 9, 1968, pp 1037-1046.
HB 7620

Construction and Operation of 100 m.ton Basic Oxygen Furnaces at the Hirohata Second Steel Mill, by N. Nakajima.

JAPANESE, per, Tetsu to Hagane, Vol 54, No 10, 1968, p. S 449.
HB 7752

Oxide Inclusions in Aluminum-Deoxidized 18-8 Stainless Steel, by T. Fukuyama, K. Segawa.

JAPANESE, per, Tetsu to Hagane, Vol 55, No 2, 1969, pp 39-44.
HB 7756

Computer Control Systems for Soaking Pit Production for A Slabbing/Blooming Mill, by S. Machnik.
POLISH, per, Hutnik, Vol 35, No 5, 1968, pp 246-252.
BISI 6872.

Tests of Limestone Calcination in a Laboratory Fluidized Bed Furnace, by R. Stec.

POLISH, per, Hutnik, Vol 35, 1968, pp 393- 8pp
*BISI 7316

The Effects of Sand Grain Size on the Casting Properties of Synthetic Sand Mixes, by J. Szczeniawski.

POLISH, per, Prz Odlew, Vol 17, June 1967, pp 177-183
BISI 6249

Scientific
Materials (Contd)

Atmospheric Corrosion Resistance of Some Low-Alloy Steels and their Welded Joints, by F. Kalaza and J. Michalik.

POLISH, per, Prz Spawalnictwa, Vol 19, No 11, 1967, pp 261-267.
*BISI 7341

Alfa Monoerucin - New Cosmetic Emulsifying Agent, by Janina Cyganska. 6 pp.

POLISH, per, Tłuszcz i Środek Piorące, Vol 9, No 3, 1965, pp 163-168.
*CESTI TT 69-50018

Ways for Greater Aluminum Production Presented, by J. Taubman, 8 pp.

POLISH, per, Zycie Gospodarcze, Warsaw, No 16, 20 Apr 1969, p 3.
JPRS 47994

The Use of Sinter and of High Percentages of Charcoal (Wood-Carbon) in "Acesita's" Reducing Furnace, by A. C. da Fonseca.

PORTUGUESE, per, Met ABM, Vol 22, Apr 1966, pp 273-280.
BISI 7246

Injection of Charcoal Fine into Furnaces, by J. Burrell.

PORTUGUESE, per, Met ABM, Vol 22, Aug 1966, pp 645-647.
BISI 7247

Nature and Effects of Volatile Charcoal Materials Used in the Monlevade High Blast Furnaces, by J. Burrell and J. Wscieklica.

PORTUGUESE, per, Metalurgia, Vol 17, Nov 1962, pp 645-666.
*BISI 7244

Thermic Aspects of Sinterization with (Vegetable) Charcoal, by J. Wscieklica.

PORTUGUESE, per, Metalurgia, Vol 18, Nov 1962, pp 939-958.
*BISI 7245

On the Manufacture of Steelplant Ingot Molds of Spherical Graphite Cast Iron, by C. Cosmeanu.

RUMANIAN, per, Metalurgia, Vol 20, No 9, 1968, pp 527-532.
HB 7691

Preparation of Industrial Minerals, by P. G. Kilstedt
SWEDISH, per, Jernkon Ann, Vol 150, No 8, 1966, pp 509-531.

BISI 5947

Scientific
Materials (Contd)

The Swedish Charcoal Furnaces, by I. Bohm.
SWEDISH, per, Jernkon Ann, Vol 151, No 6/7, 1967,
pp 445-458.
BISI 7250

Studies of the Strength in a Reducing Atmosphere
of Cold-Bound and Sintered Iron Ore Agglomerates, by
G. Thaning.
SWEDISH, per, Jernkon Ann, Vol 151, No 10-11, 1967,
pp 705-748.
BISI 6785

The Alloy Supply Situation in the Steel Industry.
II - Production of Ferro-alloys (with discussion).
by G. Bjorling.
SWEDISH, per, Jernkon Ann, Vol 152, 1968,
pp 373-386; discussion 412-419.
*BISI 7343

Mathematical Sciences

Algebra, Topology, and Geometry.
RUSSIAN, bk, Algebra, Topologiya, Geometriya,
1968, 1969.
CONSULTANTS BUREAU/PLENUM PRESS

Progress in Mathematics.
RUSSIAN, bk, Itogi Nauki, Seriya Matematika,
1968, 1969.
CONSULTANTS BUREAU/PLENUM PRESS

Boundary Problems and Eigenvalues of the Generalized
Dinamic Equation, by G. N. Polozhiy,
B. N. Bublik. 21 pp.
RUSSIAN, per, Kiyev. Universitet. Vychislitel'naya
i Prikladnaya Matematika, No 3, 1967, pp 68-85.
AIR/FTD/MT-23-774-68

Some General Theoretical Principles of Construction
of Pattern Recognition Learning Systems. I, by
V. A. Yakubovich. 69 pp.
RUSSIAN, per, Leningrad. Universitet. Kafedra
Vychislitel'noy Matematiki i Vychislitel'nyy
Tsentr. Vychislitel'naya Tekhnika i Voprosy
Programirovaniya, No 4, 1965, pp 3-71.
AIR/FTD/MT-23-70-68

Some Learning Algorithms "Without Partiality" of
Recognizing Automata, by V. I. Ruzhanskiy. 7 pp.
RUSSIAN, per, Leningrad. Universitet. Kafedra
Vychislitel'noy Matematiki i Vychislitel'nyy
Tsentr. Vychislitel'naya Tekhnika i Voprosy
Programirovaniya, No 4, 1965, pp 76-83.
AIR/FTD/MT-23-70-68

Scientific
Mathematical Sciences (Contd)

Mathematical Fundamentals of Aerial Inter-
pretation of Forests, by G. G. Samoilovich.
RUSSIAN, bk, Lesnaya Promyshlennost, 1964,
pp 1-222.
ACST J-6387
FSTC-HT-23-733-68

Mathematical Analysis.
RUSSIAN, bk, Matematicheskii Analiz, 1968, 1969.
CONSULTANTS BUREAU/PLENUM PRESS

Calculation of Significance of Multiple
Correlation Coefficient and Selection
of Optimum Number of Predictors, by
O. V. Batyreva. 12 pp.
RUSSIAN, per, Meteorologiya i Gidrologiya,
No 3, 1969, pp 49-57.
JPRS 48190

Probability Theory, Mathematical Statistics, and
Theoretical Cybernetics.
RUSSIAN, bk, Teoriya Veroyatnostei, Matematiches-
kaya Statistika i Teoreticheskaya Kibernetika,
1968, 1969.
CONSULTANTS BUREAU/PLENUM PRESS

On the Average Number of Zeros of Random
Polynomials, by I. A. Ibragimov,
N. B. Maslova.
RUSSIAN, per, Vestnik Leningrad Univ, Ser
Mat, Mekh i Astron, No 4, 1968, pp 171-172.
Dept of Navy APL/JHU T-2266

On the Approximation of Continuous Functions
of Two Variables by Algebraic Polynomials,
by V. N. Malozemov.
RUSSIAN, per, Vestnik Leningrad Univer,
Ser Mat, Mekh i Astron, No 19, 1968,
pp 73-87.
*Dept of Navy APL/JHU J-1295

Stability of Certain Numerical Schemes in the
Three-Dimensional Method of Characteristics,
by Yu. Ya. Mikhaylov, 5 pp.
RUSSIAN, per, Zh Vychisl Math i Math Fiz, Vol 8,
1968, pp 1158-1160.
AEC/SC-Tr-69-1016

On One New Approach to the Solution of
Non-linear Boundary Value Problem, by
Yu. S. Kushitsky.
UKRAINIAN, per, Ukr Mat Zh, Vol 20, No 6,
1968, pp 723-731.
*Dept of Navy APL/JHU J-1295

Scientific
Mathematical Sciences (Contd)

On Stabilization of the Solution of a Parabolic Boundary Value Problem, by Yu. S. Kushitsky.
UKRAINIAN, per, Ukr Mat Zh, Vol 20, No 6, 1968, pp 766-779.
*Dept of Navy APL/JHU J-1294

The Solution of Equations in the Calculus of Logic, by Leopold Lowenheim.
GERMAN, per, Mathematische Annalen, Vol 68, 1910, pp 169-207.
AIR/AFCL/69-0149

The Green's Function of the Wave-Mechanics Kepler Problem, by J. Meizner.
GERMAN, per, Mathemat Zeit, Vol 36, 1933, pp 677-707.
NLL Ref: 5207 (1251)

The MultiRound Theory, by H. Brandli.
GERMAN, bk, Theorie des Mehrfach Schusse, 1930, pp 1-198.
*ACSI J-6897

On Adjustment with Supplementary Minimum Conditions for Functions of the Unknowns, by H. Wolf.
GERMAN, per, Zeit fur Vermessungswesen, Vol 92, No 9, 1967, pp 351-354.
ACIC TC-1507

Approximate Solutions of Differential Equations, by Hikoji Yamada.
JAPANESE, per, Ryutai-Kogaku Kenkyusyo, Vol 3, No 3, 1947, pp 29-35.
NASA TT F-12,170

Research in the Theory of Functions of Real Variables, by Solomon Marcus, 11 pp.
RUMANIAN, per, Progresele Stiintei, Bucharest, Feb 1969, pp 49-53.
JPRS 45052

Mechanical, Industrial, Civil & Marine
Engineering

Old and New in the Composition of a Town, by A. Ikonnikov. 15 pp.
RUSSIAN, per, Arkhitektura, No 11, 1968, pp 19-25.
DIA LN 821-69

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

The Use of Bimetal in Welding Ships Superstructures.
RUSSIAN, per, Avtomaticheskaya Svarka, No 9 (186), 1968, pp 51-55.
Dept of Navy NIC Trans No 2805

Kinematic and Power Linkages in a Multiple-Axle Vehicle with Two Power Plants, by G. A. Smirnov, 9 pp.
RUSSIAN, per, Avtomobil'naya Promyshlennost, No 12, 1967, pp 15-17.
ARM/FSTC/HT-23-469-68

On the Question of the Combined Operation of the Hydromechanical Transmission of the Tractor and the Electrical Transmission of a Trailer Unit of a Multitrailer Train, by M. P. Afinogenov, V. I. Slivinskiy.
RUSSIAN, per, Avtomobil'naya Prom, No 2, 1968, pp 5-8.
FSTC/HT-23-1071-68

Exploitation of Roadbeds in Icing Areas, by D. A. Demanov.
RUSSIAN, per, Bor'ba s Naledami na Zheleznym i Avtomobil'nykh Dorogakh, No 7, 1966, pp 5-11.
ACSI J-6554
FSTC-HT-23-509-68

Controlling Road Icing in Krasnoyarsk Region by N. P. Obratsov.
RUSSIAN, per, Bor'ba s Naledami na Zheleznym i Avtomobil'nykh Dorogakh, No 7, 1966, pp 17-23.
ACSI J-6559
FSTC-HT-23-560-68

Experience in the Control of Glaciers on the Taishet-Lena Railway, by V. I. Korzh.
RUSSIAN, per, Bor'ba s Naledami na Zheleznym i Avtomobil'nykh Dorogakh Transport, No 7, 1966, pp 23-28.
ACSI J-6557
FSTC-HT-23-571-68

More Scientific Planning Needed in Construction, by V. Izmaylov, 7 pp.
RUSSIAN, per, Ekonomika Sovetskoy Ukrainy, Kiev, No 12, 1968, pp 21-27.
JPRS 47979

Construction Goals in Near Future Outlined, by A. Reponko, 10 pp.
RUSSIAN, per, Ekonomika Stroitel'stva, Moscow, No 2, 1969, pp 3-8.
JPRS 47979

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Improved Five-Day-Week Utilization of Construction Machinery, by B. Gusakov, L. Manakov, 6 pp.
RUSSIAN, per, Ekonomika Stroitel'stva, Moscow, No 2, 1969, pp 29-32.
JPRS 47979

System of Normatives and Construction Administration Analyzed, by B. Vaynshteyn, 8 pp.
RUSSIAN, per, Ekonomika Stroitel'stva, Moscow, No 2, 1969, pp 51-54.
JPRS 47979

Capital Returns in Interkolkhoz Construction Organizations, by Ye. Yaremchuk, 6 pp.
RUSSIAN, per, Ekonomika Stroitel'stva, Moscow, No 2, 1969, pp 55-57.
JPRS 47979

Standardized Principles needed in Combines, by A. Kil'inskiy, 5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, no 12, Mar 1969, p 11.
JPRS 47995

The Possibility of Simulating Cavitation Phenomena in Testing Centrifugal Pumps on Gases, by N. S. Yershov, 13 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavodov. Aviatsionnaya Tekhnika, No 4, 1967, pp 7-37.
AIR/FTD/MT-23-1093-68

Discharge Coefficient for Organosilicon Liquids During Discharge Through Small Openings, by L. Yu. Mal'ts, Yu. G. Murashev, 7 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Energetika, No 11, 1967, pp 99-103.
AIR/FTD/MT-23-1054-68

Ways to Exploit Engineering Research Proposed, by A. I. Zimin, 7 pp.
RUSSIAN, rpt, Kuznechno-shtampovochnoye Proizvodstvo, Moscow, Feb 1969, pp 1-3.
JPRS 47995

Adhesives in Machine Construction, by M. G. Dranovskiy, 5 pp.
RUSSIAN, per, Mashinostroitel', No 12, 1967, pp 15-15.
AIR/FTD/MT-24-507-68

Design of a Pressure Transducer for the Measurement of Pressing Forces, by A. I. Grishkov, A. N. Chernov, 8 pp.
RUSSIAN, per, Moscow. Tsentral'nyy Nauchno-Issledovatel'skiy Institut Chernoy Metallurgii. Sbornik Trudov, No 53, 1967, pp 90-94.
AIR/FTD/MT-23-771-68

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Kazakhstan Industrial Repair Service Described, by I. Feoktistov, 7 pp.
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana, Moscow, No 12, 1968, pp 35-38.
JPRS 48110

Certain Problems of Hygienic and Technical Safety Involving Work in Therapeutic Chambers, by N. N. Shchupakov.
RUSSIAN, rpt, Nauchnyye Raboty Institutov Okhrany Truda VTsSPS, 1967.
*ACSI J-6943
ID 2204003969

Major Motor Vehicle Production Trends Analyzed, by A. Tarasov, 5 pp.
RUSSIAN, per, Medel'ya, Moscow, No 9, 2 Mar 1969, p 4.
JPRS 48024

Annual Soviet Oil Output Passes 300 Million Tons, by V. D. Shasin, 6 pp.
RUSSIAN, per, Leftyanik, Moscow, no 3, 1969, pp 1-3.
JPRS 48110

Pipeline Builders Face Challenge of Far North, by V. Konstantinov, G. Kozlov, 5 pp.
RUSSIAN, per, Ogonek, Moscow, no 7, Feb 1969, p 9.
JPRS 48068

The 43rd Voyage of "Vityaz" in the Central Pacific, by P. L. Bezrukov.
RUSSIAN, per, Okeanologiya, No 1, 1969, pp 193-199.
*ACSI J-6952
ID 2204004569

Production Development Fund Shown as Key Factor, by L. Rotshteyn, 12 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 3, Mar 1969, pp 27-34.
JPRS 48039

Product Quality Determination Described, by A. Jensen, 11 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 3, Mar 1969, pp 47-54.
JPRS 48039

Bottlenecks in Urals Road Construction Discussed, by Danilov, 5 pp.
RUSSIAN, np, Pravda, Moscow, 19 Mar 1969, p 2.
JPRS 47923

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Containerisation Needed to Expedite Freight Traffic, by Yu. Laz'man, 5 pp.
RUSSIAN, np, Travoye, Moscow, 1 Apr 1969, p 3.
JPRS 48012

Reducing the Drag of Fishing Vessels by Means of Bulb-like Headpieces Attached to the Bow, by Yu. V. Gorshenin.
RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 30-32.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Efficient Arrangement of the Power Plant of Fishing Vessels with Electric Trawl Winches, by Ye. A. Shenintsev.
RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 35-36.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Cable of New Design for BNRTs, by G. R. Baybakov.
RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 41-42.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Catching Crabs with Pots, by V. K. Kharichkov
RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 43-45.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

New Equipment for Mechanizing Fishing Operations and Pond fish Culture, by N. I. Borisov.
RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 47-50.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Modernizing the Operation of Kuibyshev Fish-Processing Plant, by I. L. Volodchenko
RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 53-55.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Processing and Utilization of Shark Fins, by V. S. Gordyevskaya.
RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3, 1969, pp 59-60.
*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Poland Exports Sugar Plant Machinery, 5 pp.
RUSSIAN, per, Sakharnaya Promyshlennost', Moscow, No 3, 1969, pp 59-61.
JPRS 48027

Assembly and Welding of Ship Hulls, by V. D. Matskevich.
RUSSIAN, bk, Sborka i Svarka Korpusov Sudov, pp 61-64, 368-393.
*Dept of Navy NIC

Shchelino Experiment Extended to Textile Mill, by V. Zorcinov, 13 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Moscow, Feb 1969, pp 43-45.
JPRS 48111

Improving the Belorussian Railroad System, by Ye. Yushkevich, 6 pp.
RUSSIAN, np, Sovetskaya Belorussiya, Minsk, 20 Mar 1969, p 2.
JPRS 47983

Greater Efficiency Needed at New Glass Plants, by M. I. Berezhevskaya, G. N. Ustinova, 7 pp.
RUSSIAN, per, Steklo i Keramika, Moscow, No 3, 1969, pp 37-50.
JPRS 48027

Strength of Ships Sailing in Ice, by Yu. N. Popov, O. V. Padiayev, 228 pp.
RUSSIAN, bk, Strength of Ships Sailing in Ice, 1967, pp 1-223.
ABR/NSIC/HT-23-96-68

Capital Construction Must be Used More Effectively, by V. Korol', 5 pp.
RUSSIAN, np, Stroitel'naya Gazeta, Moscow, 30 Mar 1969, p 3.
JPRS 48121

Motor Vehicle Plant Building Will be Accelerated, by N. Potapov, 5 pp.
RUSSIAN, np, Stroitel'naya Gazeta, Moscow, 4 Apr 1969, p 2.
JPRS 48024

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Building Materials Industry in 1969 Reviewed,
7 pp.
RUSSIAN, per, Stroitel'nyye Materialy, Moscow,
No 3, 1969, pp 2-4.
JPRS 48121

Construction of Gravel, Crushed Stone and
Soil-Aggregate Pavements and Subgrades.
RUSSIAN, per, Stroitel'stvo Aerodromov,
1968, pp 237-245.
DIA LN 594-69

Construction of Asphaltic Concrete Pave-
ments.
RUSSIAN, per, Stroitel'stvo Aerodromov,
1968, pp 247-266.
DIA LN 594-69

Construction of Cement Concrete Pavements.
RUSSIAN, per, Stroitel'stvo Aerodromov,
1968, pp 273-312.
DIA LN 594-69

Construction of Precast and Prefabricated
Collapsible Pavements and Ice Airfields.
RUSSIAN, per, Stroitel'stvo Aerodromov,
1968, pp 321-352.
DIA LN 594-69

Light Structural Elements Used in Uzbekistan,
by N. L. Vaninskiy, Ye. An. Rabinovich, 11 pp.
RUSSIAN, per, Stroitel'stvo i Arkhitektura
Uzbekistana, Tashkent, No 1, 1969, pp 15-19.
JPRS 48121

Level of Construction Mechanization Evaluated,
by N. C. Trakhtenberg, 7 pp.
RUSSIAN, per, Stroitel'stvo i Arkhitektura
Uzbekistana, Tashkent, No 1, 1969, pp 25-27.
JPRS 48121

A Small Steel Stern Trawler, by
Kh. A. Leval'd.
RUSSIAN, per, Sudostroyeniye, No 7,
1967, pp 7-10.
Dept of Navy NIC Trans No 2814(a)

Auto-passenger Breaker Ferry, by
A. I. Krakovskaya, P. I. Tsyganov.
RUSSIAN, per, Sudostroyeniye, No 9,
1968, pp 3-5.
Dept of Navy NIC Trans No 2820(a)

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Characteristics of Modern Lumber Carriers,
by B. N. Zakharov.
RUSSIAN, per, Sudostroyeniye, No 2, 1969,
pp 3-7.
*Dept of Navy NIC

Marine Bionics, by R. F. Zhukov.
RUSSIAN, per, Sudostroyeniye, No 3, 1969,
p 77.
*ACSI J-6951
ID 2204004469

Technical Progress in Coal Industry Described,
by A. V. Kokukin, 11 pp.
RUSSIAN, per, Ugol, Moscow, No 3, 1969, pp 20-26.
JPRS 47956

Technique of Designing Automation Systems, (Vol 1
of 2), by K. A. Mironov, F. G. Khatsyanov, et al
703 pp.
RUSSIAN, bk, Tekhnika Proyektirovaniya Sistem
Avtonatizatsii; Spravochnyye Materialy, 1966,
pp 1-369.
AIR/FTD/HT-23-303-68

Approximate Calculations of Engine Cost
in the Initial Stages of Planning, by
D. Ye. Starik.
RUSSIAN, per, Trudy Soveshch. Planirovaniya
i Povysheniye Effektivnosti Aviats Proiz,
No 168, 1967, pp 225-242.
NASA TT F-12,123

Machine Building Industry to Raise 1969 Output,
by K. K. Vinogradov, 7 pp.
RUSSIAN, per, Vestnik Mashinostroyeniya, Moscow,
No 2, 1969, pp 3-5.
JPRS 47995

Decrees Issued to Expedite Heavy Equipment Out-
put, by A. G. Umyagin, 6 pp.
RUSSIAN, per, Vestnik Mashinostroyeniya, Moscow,
No 2, 1969, pp 5-7.
JPRS 47995

Uncompleted Construction Projects Inventorized,
11 pp.
RUSSIAN, per, Vestnik Statistiki, Moscow, No 3,
1969, pp 87-91.
JPRS 48012

A Fire Steam Paraformol Chamber OPK-2, by
B. N. Rudenko.
RUSSIAN, per, Veterinariya, No 6, 1962.
ARM/FTC/HT-23-371-68

The preparation of Frozen Goods for Transportation.
RUSSIAN, per, Zheleznodorozhnyy Transport,
No 3, 1969, pp 22-24.
DIA LN 1123-69

Container Trains.
RUSSIAN, per, Zheleznodorozhnyy Transport,
No 3, 1969, pp 27-28.
DIA LN 1123-69

Specialists Examine Future Highway Problems,
16 pp.
RUSSIAN, per, Zhanye-Sila, Kaunas, No 2,
1969, pp 2-5.
JPRS 48024

Device for Determining Engine Power (Without
Brakes), by N. S. Zhdanovskiy.
RUSSIAN, Patent No 211,124.
ACSI J-6510
FSTC-HT-23-1064-68

Advances Noted in Manufacture of Building
Materials, by Marin Radulov, 6 pp.
BULGARIAN, np, Ikonomicheski Zhivot, Sofia, 3
Apr 1969, p 3.
JPRS 48028

Passenger Automobile Production Discussed,
by Z. Skoda, 7 pp.
CZECH, np, Hospodarske Noviny, Prague,
4 Apr 1969, p 6.
JPRS 48048

Declining Gate for Direct Filling of the
River Locks on the Elbe River in the USSR,
17 pp.
CZECH, per, Inzenyrske Stavby, No 7, 1966,
pp 317-324.
DIA LN 1046-69

Mechanization Used in the Construction of
the Vah River Development Canals. 5 pp.
CZECH, per, Inzenyrske Stavby, No 10,
1967, pp 155-156.
DIA LN 1049-69

Maneuvering Forklift Trucks Under Diffi-
cult Conditions.
CZECH, per, Technicka Prace, No 3, 1969,
pp 33-36.
*ACSI J-6910
*FSTC-HT-23-587-69

Problems of the Obecnice u Pribrami Dam.
21 pp.
CZECH, per, Vodni Hospodarstvi, No 1,
1969, pp 13-21.
DIA LN 1047-69

Charts for the Determination of the Risk of
Damage to the Structures, by C. Manuzio.
FRENCH, per, Ann Inst Tech Batiment Trav Publics,
No 22(254), 1969, pp 249-257.
*AEC/ORNL-Tr-2135

Utilization of the Numerical Calculation of the
Reduced Models for the Study of Constructions,
by E. Absi.
FRENCH, per, Ann Inst Tech Batiment Trav Publics,
22(254), 1969, pp 261-285.
*AEC/ORNL-Tr-2134

Problems of Exciter Maintenance, by J. Isaac, et al.
FRENCH, per, Bull d'Inf des Centrales Electriques,
No 60, Apr 1968, pp 5-15.
CEGB-Tr 5075

A New River Service System for the Port
of Dunkirk.
FRENCH, per, Construction, No 2, 1968,
pp 55-60.
DIA LN 586-69

Development of the Moselle to Handle Rhine
Traffic.
FRENCH, per, Construction, No 2, 1968
p 68.
DIA LN 586-69

The Saint-Louis-Arzviller Crossfall.
FRENCH, per, Construction, No 2, 1968,
pp 69, 75.
DIA LN 586-69

Inland Waterway Transportation: A Difficult
Change. 10 pp.
FRENCH, per, Les Dossiers de l'Entreprise,
No 9, Feb 1969, pp 33-37.
DIA LN 845-69

The New Regulation for Shipbuilding. 6 pp.
FRENCH, per, Navires et Chantiers de la
Marine, No 215, Apr 1968, pp 262-263.
DIA LN 732-69

Rock Removal in the Loire-Maritime. 10 pp.
FRENCH, per, Naviers, Ports et Chantiers,
No 225, Oct 1968, pp 767-770.
DIA LN 699-69

A Communication from Mr. De Mas Latric on
Naval Construction.
FRENCH, per, Navires, Ports et Chantiers,
No 226, Nov 1968, pp 213-214.
DIA LN 960-69

French Shipyards.
FRENCH, per, Navires, Ports et Chantiers,
No 224, Jan 1969, pp 64-67.
DIA LN 632-69

A European Community Directive on Oil Tanker
Tonnage Measurements.
FRENCH, per, Revue de la Navigation In-
terieure, No 16, Sept 1968.
DIA LN 587-69

Research Symposium of Diesel Engines.
FRENCH, per, Revue de la Navigation In-
terieure, No 16, Sept 1968.
DIA LN 587-69

A German Project for a Barge-Carrying
Ship.
FRENCH, per, Revue de la Navigation In-
terieure, No 16, Sept 1968, p 597.
DIA LN 587-69

Reconstruction, Renovation and Moderniza-
tion of the French River Basin. 25 pp.
FRENCH, rpt, Revue de la Navigation Inter-
ieure et Rhénane, 10 June 1967, pp 362-370.
DIA LN 789-69

Technical Direction of Naval Construction, 12 pp.
FRENCH, per, L'Usine Nouvelle, No 12, 20 Mar 1969.
DIA LN 1050-69

Tunnel Work During Electrification of Railroad,
by J. Spang, 23 pp.
GERMAN, per, Bautechnik, Vol 41, 1964, pp 118-124.
AEC/ORNL-Tr-2080

Safety of Nuclear Power Stations, by Hans Gruemm,
25 pp.
GERMAN, per, Elektrotech Maschinenbau, Vol 85,
1968, pp 225-235
AEC/ANL-Tr-712

Conveyor Technics at the "Inrybprom 68"
International Exhibition for the Fish-
Processing Industry, Leningrad, by
A. Kosser.
GERMAN, per, Hebezeuge und Fördermittel,
No 1, 1969, pp 23-24.
ACSI J-6515
FSTC-HT-23-208-69

VTA Forklift Trucks, by G. Kotte.
GERMAN, per, Hebezeuge und Fördermittel,
No 1, 1969, pp 25-26.
ACSI J-6514
FSTC-HT-23-207-69

Results of Experimental Construction Pro-
ject "Bremen Highway" Dresden.
GERMAN, per, The Highway, Vol 8, No 12.
Army Topographic Command
TE3, S86

Continuous Measurements of the SO₂ Content and the
Dew-Point Range in Oil-Fired Steam Generators, by
H. Wahnschaffe.
GERMAN, per, Mitt VGB, Vol 48, June 1968,
pp 193-199.
CEGB-Tr 5066

Practical Experiences in the Chemical Cleaning
of a Supercritical Boiler, by H. Kohle and
R. Richter.
GERMAN, per, Mitt VGB, August, 1968,
pp 291-295.
CEGB-Tr 5103

Studies of Vibrations on Turbine Blades of
Exhaust-Driven Turbochargers, by
Hartmut Ludewig.
GERMAN, per, MTZ, No 10, 1968, pp 408-414.
ACSI J-6376
FSTC-HT-23-1060-68

RRU-2: Soviet Testing Device for Automatic
Underwater Breathing Equipment.
GERMAN, per, Poseidon, No 5, 1969,
pp 227-228.
*ACSI J-6944
ID 2204004669

Planning and Realization of Large Cross-Section
Tunnel Constructions, by H. U. Herrmann, 27 pp.
GERMAN, per, Schweiz Bauztg, Vol 82, 1964,
pp 873-881.
AEC/ORNL-Tr-2076

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Trends in Large Diesel Engine Production Shown,
by J. Hermann, 9 pp.
GERMAN, per, Seewirtschaft, Leipzig, Vol 1, No 3,
Mar 1969, pp 188-191.
JPRS 48028

New Ship's Communications Equipment Described,
7 pp.
GERMAN, per, Seewirtschaft, Leipzig, Mar 1969,
pp 212-214.
JPRS 48028

GDR Ship Line Joins India-Pakistan Conferences,
by H. Werner, 6 pp.
GERMAN, per, Seewirtschaft, Leipzig, Mar 1969,
pp 222-224.
JPRS 48028

Ship Technique. 16 pp.
GERMAN, per, Shiffbautechnik, Feb 1968,
pp 60-62.
DIA LN 1141-69

The Causes for the Leaning Position of
the Tower of Pisa. 11 pp.
GERMAN, rpt, Sonderabdruck aus Derbaui-
genieur, 1934, pp 199-201.
DIA LN 930-69

The Barbara Bridge Over the Danube, by
Franz Masanz.
GERMAN, per, Der Stahlbau, Vol 28, No 8,
1959, pp 212-222.
Dept of Navy APL/JHU T-2263

The Construction of Railroad Tunnels in Theory,
by Hans Potthast, 29 pp.
GERMAN, per, Tiefbau, No 6, 1964, pp 1003-1011.
AEC/ORNL-Tr-2074

A New Procedure for Purifying Industrial
Waste Water, by L. Leisegang.
GERMAN, per, Wasser Luft und Betrieb,
Vol 12, No 3, 1968, pp 136-140.
*Dept of Navy NIC

Emphasis on Multi-Shift Work Continues, by
Sonja Walligora, 19 pp.
GERMAN, per, Die Wirtschaft, East Berlin, 27 Feb
1969, pp 16-17.
JPRS 48028

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Containerized Traffic and Inland Water
Routes Shipping.
GERMAN, per, Zeit fur Binnenschiffahrt,
No 3, 1969, pp 73-76.
DIA LN 853-69

Liquidified Petroleum-Gas-Propelled Fork-
Lift Trucks, by Karoly Szarvas.
HUNGARIAN, per, Anyagmozgatas-Csomagolas,
No 1, Jan-Feb 1969, pp 10-11.
*ACSI J-6912
*FSTC-HT-23-587-69

Freight Car Maintenance - Methods of the
Future.
HUNGARIAN, per, Vasut, No 11, 1968,
pp 13-15.
DIA LN 1031-69

New Highway Code. 16 pp.
POLISH, per, Motoryzacja, No 7, 1968,
pp 219-225.
DIA LN 824-69

New Highway Code - Part II.
POLISH, per, Motoryzacja, No 10, 1968,
pp 252-255.
DIA LN 891-69

The Most Common Hazards, Defects and Damage
Affecting Packaging Transported to, and
Stored in, India, by Zdzislaw Kostro.
POLISH, per, Opakowanie, No 5, 1967, pp 1-6.
*ACSI J-6507

Special and Specialized Trucks.
POLISH, per, Przegląd Komunikacyjny, No 21,
1968, pp 471-476.
DIA LN 890-69

New Scientific Research Ships for the USSR
Hydrometeorological Service, by
M. Thierry.
POLISH, per, Shipbuilding, No 12, 1968,
pp 415-419.
NAV/NIC/TRAN-2794-69

Port Operations of Vessels.
PORTUGUESE, per, Portos e Navios, No 114,
Feb 1969, pp 20-25.
DIA LN 929-69

Some Means of Increasing Highway Safety.
RUMANIAN, per, Revista Transporturilor,
No 1, 1969, pp 10-13.
DIA LN 936-69

Scientific
Mechanical, Industrial, Civil & Marine
Engineering (Contd)

Considerations on the Performance Under Traffic of the Improvement Works on the Timisoara-Arad National Highway.
ROMANIAN, per, Revista Transportutilor, No 1, 1969, pp 21-31.
DIA LN 936-69

Ship, Diesel Engine Construction Expanded, by Ljubo Stipanic, 10 pp.
SERBO-CROATIAN, per, Pomorstvo, Rijeka, Feb 1969, pp 53-56.
JPRS 48056

Heavy Construction Technique and Experience at the Service of Latin America. 28 pp.
SPANISH, per, Boletin de la C.I.E.R., No 15, Nov 1968,
DIA LN 806-69

Cuban Naval Nomenclature of Hull Parts Listed, by Miguel Leal, 8 pp.
SPANISH, per, Mar y Pesca, Havana, Mar 1969, pp 29-33.
JPRS 48126

Methods & Equipment

On the Theory of Photographic Cameras for Observation of Artificial Earth Satellites, by M. Liygant. 25 pp.
RUSSIAN, per, AN ESTSSR. Tartu. Astrofizicheskoy Observatorii. Publikatsii Tartu, Vol 35, No 4, 1966, pp 1-34.
AIR/FTD/HT-23-588-68

Application of Small Aerial Cameras to the Compilation of 1:25,000 Scale Topographic Maps, by V. Ye. Permitin, A. S. Sudakov.
RUSSIAN, per, Geodeziya i Kartografiya, No 7, 1968, pp 46-52.
ARM/FSTC/HT-23-671-68

New Methods of Prospecting Placer Gold Deposits, by A. S. Vlasov, S. G. Shelnin. 10 pp.
RUSSIAN, per, Razvedka i Okhrana Nedr, No 4, 1964 pp 7-13.
CFSH TT 68-50627

Scientific
Methods & Equipment (Contd)

Balances and Dynamometers Used at the ONERA Modane Test Center, by Pierre Broussaud.
FRENCH, rpt, ONERA -NT-122.
NASA TT F-12,115

Calculation of a Set of Photographic Observations Made by an Artificial Satellite, by Fontaine.
FRENCH, rpt, Paper Presented at the Joint Symposium of the Commission of the New Adjustment of European Triangulation and the Commission of the European Satellite Triangulation Net, Paris, 24-28 Feb 1969.
*ACIC TC-1547

Compositions for Photographic Development. FRENCH, Patent No 1,235,785.
Dept of Commerce
Patent Office

Carbon Monoxide Detector, by Simon Milhovitch, 5 pp.
FRENCH, patent, 1,374,529, 1964.
AEC/ANL-Tr-737-69

On the Application of Different Reference Blocks for the Adjustment of Ultrasonic Echo Equipment, by E. Mundry.
GERMAN, per, Materialpruefung, 5(8), 1963, pp 298-306.
*AEC/ORNL-Tr-2139

On the Effect of Partially Permeable Interfaces in Ultrasonic Testing. Part II: Model Tests and Applicability, by E. Mundry.
GERMAN, per, Materialpruefung, 9(4), 1967, pp 120-130.
*AEC/ORNL-Tr-2140

A Time Analyzer Using Binary Scalers, by Henichi Hasegawa, et al.
JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 10, 1968, pp 313-318.
*AEC/NSJ-Tr-150

Scientific
Missile Technology

U.S.: The Great Rocket Debates. 5 pp.
RUSSIAN, per, Izvestiya, 15 Apr 1969.
DIA LN 1025-69

Intercontinental Ballistic Missile Inter-
ception Problem: from the United States'
point of View. 19 pp.
FRENCH, per, Doc-Air-Espace, No 113, Nov
1968, pp 23-34.
DIA LN 850-69

Navigation, Communications, Detection &
Countermeasures

Propagation of Radiowaves in Space Communi-
cation, by N. A. Armand.
RUSSIAN, bk, 1969.
*Dept of Navy NIC

Radio Relay Lines. 150 pp.
RUSSIAN, per, Radioreleynye Liniy, 1967.
DIA LN 655-69

Radio Electronics and Problems of Artificial
Earth Satellites, by A. I. Berg.
RUSSIAN, bk, Radiotekhnika i Elektronika
i ikh Tekhnicheskoy Priimeneniye, 1956,
pp 121-126.
NASA TT F-12, 199

An Algorithm for the Sequential Processing
of Radar Measurements, by
Ye. V. Yakshevich.
RUSSIAN, per, Trudy Ts. NIIMF, No 83,
1967, pp 58-63.
Dept of Navy APL/JHU CLB-3 T-580

The Accuracy of Linear Automatic Tracking
Systems, by P. A. Barankov.
RUSSIAN, per, Vestnik Mosk Univ, Ser I,
Mat i Mekh, No 2, 1968, pp 63-71.
Dept of Navy APL/JHU CLB-3 T-578

To Improve Navigation on the Saratov
Reservoir. 5 pp.
RUSSIAN, per, Vodnyy Transport, No 2,
1969, pp 45.
DIA LN 1056-69

Transistorized Numerical Correlator, by
R. S. Agaverdiyev. 9 pp.
RUSSIAN, per, Za Tekhnicheskii Progress, No 2,
1968, pp 11-14.
AIR/FTD/HT-23-1267-68

Scientific
Navigation, Communications, Detection &
Countermeasures (Contd)

Assuring Radio Communications During Jamming,
by L. Georgiev, 10 pp.
BULGARIAN, rpt, Armeyaki Preled, Sofia, Feb 1969,
pp 110-115.
JPRS 48014

Introduction of a New System in the
Navigation of the Danube River. 10 pp.
BULGARIAN, per, Koraborstroyeniye Kora-
bonlavene, Nov 1968, pp 8-11.
DIA LN 1057-69

Problems Connected with the Navigability
of the Ohre River. 8 pp.
CZECH, per, Vodni Hospodarstvi, No 6,
1965, pp 276-278.
DIA LN 1038-69

Experiences in the Improvement of the
Nitra and Zitava Rivers. 12 pp.
CZECH, per, Vodni Hospodarstvi, No 5,
1968, pp 197-210.
DIA LN 1039-69

Link in the Supply of World News: Radio
Kootwijk.
DUTCH, per, Aangetekend, No 2, 15 Jan
1969, pp 2,5,6,7.
DIA LN 1128-69

Radio Line Helsinki-Turku in Use.
FINNISH, per, Lennattaja, No 10, 1968,
p 32.
DIA LN 989-69

From the Teleunion Field.
FINNISH, per, Lennattaja, No 10 1968,
p 35.
DIA LN 989-69

The Canalized Neckar has Been Opened to
Navigation Between Stuttgart and the New
Port of Plochingen.
FRENCH, per, Revue de la Navigation In-
tericure, No 16, Sept 1968, pp 574-580.
DIA LN 587-69

The New COMM-NAV-600 System.
GERMAN, per, Becker Flugfunk Berichtet,
No 1, 1968.
ACSI J-6538
FSTC-HT-23-510-68

Scientific
Navigation, Communications, Detection &
Countermeasures (Contd)

Inland Waterway Navigation. 12 pp.
ITALIAN, per, Transporti Pubblici, No 9,
1968, pp 989-995.
DIA LN 844-69

The Broadcasting Stations of Portugal (5).
PORTUGUESE, per, Electricidade, No 55,
Dec 1968, pp 348, 359.
DIA LN 926-69

The Broadcasting Stations of Portugal (4).
PORTUGUESE, per, Electricidade, No 56,
Dec 1968, pp 422-425.
DIA LN 926-69

Navigation in the Interior.
PORTUGUESE, per, Portos e Navios, No 114,
Feb 1969, pp 30.
DIA LN 929-69

Cantv-A Modern Telephone Communications
Systems Developed Throughout the Country.
SPANISH, np, Elite, 16 March 1968,
pp 83-87.
DIA LN 710-69

Nuclear Sciences & Technology

Absorption Rod Operation in High-Tempera-
ture Reactors, by I. Ya. Yemel'yanov,
R. V. Grebennikov.
RUSSIAN, per, Atomnaya Energiya, Vol 22,
No 5, 1967, pp 367-371.
Dept of Navy NIC 2843(a)

Nuclear Electric Power Plant with Two
440 MW Reactor Power Units, by
Stekol'nikov.
RUSSIAN, per, Atomnaya Energiya, Vol 25,
No 5, 1968, pp 408-416.
*Dept of Navy NIC

Dependence of the Energy Lifetime of the Plasma
on the Discharge Parameters in Tokamak-3, by
Ye. P. Gorbunov.
RUSSIAN, rpt, IAE-1681.
*AEC-MATT-Tr-89

Scientific
Nuclear Science & Technology (Contd)

Attenuation of High Energy μ -Mesons in Shielding
Material, by B. S. Sychev, A. P. Cherevatenko,
5 pp.
RUSSIAN, rpt, JINR-P-2354, Dubna, 1965.
AEC/ORNL-Tr-1197

Study of Electron-Photon Showers Produced by
Quanta with Energies of 100, 200, 500 and 2000
MeV in Liquid Xenon, by Ye. Slovinskiy, 12 pp.
RUSSIAN, rpt, JINR-P1-3919.
AEC/ORNL-Tr-3072-69

Scheme of Calculation of Intranuclear Cascades,
by V. S. Barashenkov.
RUSSIAN, rpt, JINR-P2-4065, 1968.
*AEC/ORNL-Tr-2130

Range and Ionization Losses of Proton Energy in
Different Materials, by I. M. Vasilevskiy,
I. I. Karpov, et al., 25 pp.
RUSSIAN, rpt, JINR-P1-4081, 1968
AEC/ANL-Tr-724-69

Motion of Particles in the "Adgezator", by
I. N. Ivanov, M. L. Iovnovich, et al, 25 pp.
RUSSIAN, per, JINR-P9-4132, Nov 1968.
AEC/UCRL-Tr-1390-69

Stability of an Electron-Ion Ring, by
A. G. Bonch-Osmolovskiy, I. N. Ivanov, et al,
12 pp.
RUSSIAN, rpt, JINR-P9-4138, Nov 1968.
AEC-UCRL-Tr-1392-69

Assistants of the Atom.
RUSSIAN, np, Krasnaya Zvezda, 8 Jan 1969.
Dept of Navy NIC Trans No 2819

Energy Levels of Highly Energized Atoms,
by P. P. Pavinskiy.
RUSSIAN, per, Vestnik Leningrad Univ,
Seriya Fiz i Khim, Vol 23, No 22, 1968,
pp 11-19.
*NASA TT F-12,408

On Electrodynamics of a Gyrotropic Medium,
by A. A. Kolomenskiy.
RUSSIAN, per, Zh Eksperimental'noy i
Teoreticheskoy Fiziki, Vol 24, No 2,
1953, pp 167-176.
NAS/GSFC/ST-EDN-10782-68

Fundamental Relations between Transfer of Energy
per Unit of Length Absorbed Dose, Kerma and
Exposure. Application to Changes of Medium, by
Henri Joffre, Lucien Pages, 39 pp.
FRENCH, rpt, CEA-R 3424, Feb 1968.
AEC/ORNL-Tr-1555-69

Scientific
Nuclear Science & Technology (Contd)

Problem of the Radiation Load by Incorporation,
by L. A. Konig, 11 pp.
GERMAN, per, Atompraxis, Vol 14, 1968, pp 467-470.
AEC/ANL-Tr-717-69

On the Theory of Swelling, by M. August, 15 pp.
GERMAN, per, Kernenergie, No 11, 1968, pp 186-190.
AEC/ANL-Tr-736-69

Deposition of Radioactive Fallout in Niigata City
Japan (Report 1). Radioactive Contamination of
Rain, Snow and Atmospheric Dust Observed in
1960 to 1962, by Ryuichi Sugai, et al.
JAPANESE, per, Niigata Igakkai Zasshi, Vol 81,
No 11, 1967, pp 589-593.
*AEC/NSJ-Tr-148

Deposition of Radioactive Fallout in Niigata
City, Japan (Report 3). Radioactive Contamination
of Rain, Snow and Atmospheric Dust Observed in
1965 to 1966, by Yukio Takizawa, et al.
JAPANESE, per, Niigata Igakkai Zasshi, Vol 81,
No 12, 1967, pp 664-667.
*AEC/NSJ-Tr-149

Physics

Aerodynamic Heating of the Lifting Bodies,
by G. I. Maykapar.
RUSSIAN, rpt, AIAA 5th Annual Meeting,
Philadelphia, 21-24 Oct 1968.
NAS/GSFC/ST-AD-HT-10767-68
Available CFSTI

Application of Nuclear Magnetic Resonance and
Infrared Spectroscopy to the Study of the Structure
of Crystal Hydrates of Lanthanum Molybdate and
Tungstate, by A. M. Golub, K. S. Aganiyazov,
et al. 8 pp.
RUSSIAN, per, AN UKR SSR. Teoreticheskaya i
Eksperimental'naya Khimiya, Vol 3, No 4, 1967,
pp 494-497.
AIR/FTD/HT-23-1347-68

A Contactless Method of Measuring the Temperature
of Moving Bodies Having Small Surfaces, by
S. I. Skripnik. 11 pp.
RUSSIAN, per, AN UKR SSR. Teplo Fizicheskiye
Fizicheskiye Svolstva Veshchestv, 1966,
pp 127-136.
AIR/FTD/HT-24-443-68

Scientific
Physics (Contd)

Arsenazo III Methods of Photometric Determination
of Actinide Elements, by S. B. Savvin. 170 pp.
RUSSIAN, bk, Arsenazo III (Metody Potometricheskogo
Opredeleniya Redokh i Aktinidnykh Elementov),
pp 1-256.
AIR/FTD/HT-23-67-68

Temperature Fields of TVELs with Liquid
Metal Cooling, by V. I. Subbotin,
P. A. Ushakov.
RUSSIAN, per, Atomnaya Energiya, Vol 22,
No 5, 1967, pp 372-378.
Dept of Navy NIC 2845(b)

On the Derivation of the Equation of the
Dynamics of Steam Content in Steam Genera-
ting Channels, by Plyutinskiy.
RUSSIAN, per, Atomnaya Energiya, Vol 25,
No 6, 1968, pp 474-479.
*Dept of Navy NIC

Thermal Regime of a Small Current in a
Section of a Water-transmitting Structure,
by T. V. Potatuyeva.
RUSSIAN, per, Borba s Naledami na Zheleznnykh
i Avtomobilnykh Dorogakh Transport, No 7,
1966, pp 97-100.
ACSI J-6553
FSTC-HT-23-686-68

Second Experiment on the Investigation of
Ion-Molecular Reaction Constants Directly
in the Ionosphere, by A. D. Danilov,
V. K. Semenov.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 183,
No 2, 1968, pp 326-328.
NAS/GSFC/ST-AM-AI-10786-68

Structure of Noncolliding Shock Waves and
Dissipation of Strong Variables of Magnetic Fields
in Plasma, by M. V. Babykin, G. Ye. Smolkin.
19 pp.
RUSSIAN, rpt, Doklady Konferentsiya po Issledo-
vaniyam v Oblasti Fiziki Plazmy i Upravlyayemykh
Termoyademykh Reaktsiy, 1968, pp 1-22.
AIR/FTD/HT-24-448-68

Magnetic Hydrodynamics of Flow in MHD Ducts,
by A. T. Pakhimov, R. R. Ulinich, 11 pp.
RUSSIAN, per, Electricity from Fuel, Vienna, Vol 1,
IAEA, 1966, pp 333-341.
JIRS 48041

Calculation of the Boundary Layer at the Electrode of a Plane Arc Generator, by A. Ye. Yakubenko, 10 pp.
RUSSIAN, per, Electricity from Arcs, Vienna, Vol 1, IACA, 1966, pp 465-472.
JPRS 48041

Some Problems of Diffusion, by R. L. Fogelson, 10 pp.
RUSSIAN, per, Fiz Metal Metalloved, Vol 25, 1966, AEC/UCRL-Tr-1384

Plasma Flow Past a Two-Dimensional Magnetic Dipole, by G. G. Managadze, I. M. Podgornyy.
RUSSIAN, per, Geomagnetizm i Aeronomiya, Vol 8, No 3, 1968, pp 545-548.
NAS/GSFC/ST-PP-EXP-10742-68
P910267868-V
Available CFSTI

High-Velocity Hydrodynamics, No 4, by I. L. Rozovskiy. 158 pp.
RUSSIAN, bk, Gidrodinamika Bol'shikh Skorostey, 1968.
NAS/NASA/TT F-577 69

Heat Exchange in the Channel Containing Tightly Packed Bundle of Pipes or Rods, by V. K. Koshkin, Ye. K. Kalinin.
RUSSIAN, per, High Temperature Physics, Vol 5, No 2, 1967, pp 317-321.
Dept of Navy NIC Trans No 2810

Steady State Temperature Field During Transpiration Cooling, by V. I. Voronin, A. N. Glushakov. 10 pp.
RUSSIAN, per, Inzhenerno-Fizicheskii Zhurnal, Vol 13, No 6, 1967, pp 921-927.
AIR/FTD/HT-23-972-68

Criterion for Determining the "Boundary" of Continuum Flow in a Freely Expanding Jet.
RUSSIAN, per, Inzhenerno-Fiz Zh, Vol 16, No 1, 1969, pp 9-14.
*NASA TT F-12,423

A Procedure Which Simplifies the Bubnov-Galerkin Method for Solving Boundary Value Problems, by V. P. Shmakov. 13 pp.
RUSSIAN, per, Inzhenernyi Zhurnal. Mekhanika Tverdogo Tela, No 5, 1967, pp 129-136.
AIR/FTD/HT-23-1052-68

Equations of the Two-Dimensional Problem of the Varying-Strength of Varying-Moduli Theory of Elasticity, by S. A. Ambartsunyan. 22 pp.
RUSSIAN, per, Izvestiya AN ARSSR. Mekhanika, Vol 19, No 2, 1966, pp 3-19.
AIR/FTD/HT-23-1156-68

Natural Frequencies of a Plate With a Time-Variable Modulus of Elasticity, by V. Ts. Gnuni. 5 pp.
RUSSIAN, per, Izvestiya AN ARSSR. Mekhanika, Vol 20, No 4, 1967, pp 3-5.
AIR/FTD/HT-23-1081-68

Structure of Turbulent Flow in a Tube, by B. G. Vager.
RUSSIAN, per, Izv Ak Nauk SSSR, Mekh Zhidk i Gaza, Jul-Aug 1968, pp 60-92.
NASA TT F-12,128

The Coefficients of Angular Correlation of Dipole and Quadrupole Gamma Transitions, by G. A. Lobov. 6 pp.
RUSSIAN, per, Izv Akad Nauk SSSR, Seriya Fiz, Vol 32, No 5, 1968, pp 886-891.
AEC/BNL-Tr-246-68

Diffraction Effects During the Passage of Plane Shock Waves Through a Channel-Diaphragm, by A. V. Bondarenko.
RUSSIAN, per, Izv AN SSSR, Mekh Zhidk Gaza, No 5, 1968, pp 174-179.
NASA TT F-12,119

Vibrations and Stability of an Elliptical Shell, by B. I. Slepov.
RUSSIAN, per, Izv AN SSSR, Otd Tekh Nauk, Mekh i Mash, No 3, 1964, pp 144-146.
NASA TT F-12,155

Experimental Investigation of the Energy Balance of the Discharge Interval During the Generation of Jets by the Erosion of Electrodes, by A. V. Nikolayev, Yu. I. Gaganov. 9 pp.
RUSSIAN, per, Izvestiya Sibirskoye Otdeleniye, Seriya Tekhnicheskikh, No 1, 1967, pp 120-125.
AIR/FTD/HT-24-514-68

The Computation of Losses in the Impeller of a Centrifugal Compressor, by S. N. Shkarbul'. 14 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Energetika, No 7, 1967, pp 48-55.
AIR/FTD/HT-23-1053-68

On the Possibility of Generation and Reception of Gravitational Rays, by V.R. Nagibarov, Yu. Kh. Kopyllem. 11 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Fizika, No 9, 1967, pp 66-72.
AIR/FTD/HT-24-396-68

The Thermal Expansion of Ionic Crystals, by G. A. Krestov. 6 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Khimiya i Khimicheskaya Tekhnologiya, Vol 9, No 4, 1966, pp 558-562.
AIR/FTD/HT-23-821-68

Amplitudes of the Steady Flutter of Clamped Panels, by B. P. Makarov.
RUSSIAN, per, Izv VUZ Mash, No 5, 1961, pp 11-25.
NASA TT F-12,315

Polarisation Experiments to Test T-and CPT-Invariance in Nucleon-Nucleon and Nucleon-Antinucleon Scattering, by S. M. Bilenskii, L. I. Lapidus, 16 pp.
RUSSIAN, rpt, JINR-P2-3716.
AEC/CERN-Tr-68-9

Certain Peculiarities in the Distribution of Plasma Concentration and of the Field of Alfvén Waves in the Earth's Magnetosphere, by Yu. A. Kopytenko, O. M. Raspopov.
RUSSIAN, per, Kosmicheskoye Issled, Vol 6, No 2, 1968, pp 612-616.
NAS/GSFC/ST-PF-GM-10747-68
P910268168-V
Available CFSTI

On the Longitudinal Electric Field in the Magnetosphere at Quasimaxwellian Distribution of Charged Particles, by M. V. Samokhin.
RUSSIAN, per, Kosmicheskoye Issled, Vol 6, No 4, 1968, pp 604-610.
NAS/GSFC/ST-PF-GM-10752
P910267368-V
Available CFSTI

On the Nature of Steady Short-Period Oscillations of the Earth's Magnetic Field, (Pc3 and Pc4), by Yu. A. Kopytenko, O. M. Raspopov.
RUSSIAN, per, Kosmicheskoye Issled, Vol 6, No 4, 1968, pp 617-623.
NAS/GSFC/ST-GM-PF-10750-68
P910267268-V
Available CFSTI

Assistants of the Atom, by V. Gerasimov.
RUSSIAN, np, Krasnaya Zvezda, 8 Jan 1969.
NAV/NIC/TRAN-2819-69

On the Possibility of Automization of the Determination of Readiness of Articles From Their Color, by I. Ya. Bereznyaya, G. Ya. Buslovich, et al. 6 pp.
RUSSIAN, per, Leningrad. Universitet. Kafedra Vychislitel'noy Matematiki i Vychislitel'nyy Tsentr. Vychislitel'naya Tekhnika i Voprosy Programirovaniya, No 4, 1965, pp 128-133.
AIR/FTD/HT-23-70-68

A Turbulent MHD Boundary Layer in a Transverse Magnetic Field, by I. P. Ginzburg, L. I. Skurin. 17 pp.
RUSSIAN, per, Leningrad. Universitet. Uchenyye Zapiski, No 338, 1968, pp 59-74.
AIR/FTD/HT-23-03-69

One-Dimensional Flow of a Magnetized Fluid, by Ye. I. Yantovskiy.
RUSSIAN, per, Magnitnaya Gidrodinamika, Vol 4, Oct-Dec 1968, pp 3-9.
*NASA TT F-12,404

Theory of Non-equilibrium Low-temperature Plasma, by L. M. Biberman.
RUSSIAN, bk, Magnitogidrodinamicheskii Metod Polucheniye Elektroenergiy, 1968, pp 209-263.
*NASA TT F-12,436

The Statistical Theory of Many Particles, by D. A. Kirzhnits.
RUSSIAN, per, Nekot Vopr Teor Fiz, Vol 16, 1961, pp 3-49.
NASA TT F-12,157

Enlargement of Periodic Table Proposed; Properties and Applications of Positronium Discussed, by V. I. Gol'danskiy, 17 pp.
RUSSIAN, per, Fizika, Moscow, No 2, Feb 1969, pp 19-27.
JPRS 48064

Physics of Atomic Collisions.
RUSSIAN, per, Proceedings of the P. N. Lebedev Physics Institute, Vol 51, 1970.
CONSULTANTS BUREAU/PLENUM PRESS

Quantum Electronics. II.
RUSSIAN, per, Proceedings of the P. N. Lebedev Physics Institute, Vol 52, 1970.
CONSULTANTS BUREAU/PLENUM PRESS

Investigations in Nuclear Physics.
RUSSIAN, per, Proceedings of the P. N. Lebedev Physics Institute, Vol 53, 1970.
CONSULTANTS BUREAU/PLENUM PRESS

Photoproduced Mesons and Photonuclear Reactions and Methods of Investigation of Synchrotrons.
RUSSIAN, per, Proceedings of the P. N. Lebedev Physics Institute, Vol 54, 1970.
CONSULTANTS BUREAU/PLENUM PRESS

Optical Properties of Metals' Intermolecular Interaction.
RUSSIAN, per, Proceedings of the P. N. Lebedev Physics Institute, Vol 55, 1970.
CONSULTANTS BUREAU/PLENUM PRESS

Physical Processes in Lasers.
RUSSIAN, per, Proceedings of the P. N. Lebedev
Physics Institute, Vol 56, 1970.
CONSULTANTS BUREAU/PLENUM PRESS

Theory of Interaction of Elementary Particles at
High Energies.
RUSSIAN, per, Proceedings of the P. N. Lebedev
Physics Institute, Vol 57, 1970.
CONSULTANTS BUREAU/PLENUM PRESS

Investigations on Non-Linear Optics and Hyper-
acoustics.
RUSSIAN, per, Proceedings of the P. N. Lebedev
Physics Institute, Vol 58, 1970.
CONSULTANTS BUREAU/PLENUM PRESS

Study of the Hydrodynamics and Mass Trans-
fer of a Horizontal Pulse Column, by
V. M. Vdovenko, S. M. Kulikov.
RUSSIAN, per, Radiokhimiya, Vol 8, No 5,
1966, pp 525-535.
NAV/NIC/TRAN-2796(B)-09

Stress Distribution Around Holes, by
G. D. Savin.
RUSSIAN, bk, Raspredeleniya Napryazheniy
Okolo Otvorsty, 1968, 888 pp.
*NASA TT F-607

Scattering, Reactions and Decay in Nonrelativistic
Quantum Mechanics, by A. I. Baz', Ya. B. Zel'dovich,
231 pp.
RUSSIAN, bk, Passeyanie, Reaktsii i Raspady v
Nerelativistskoi Kvantovoi Mekhanike, 1966.
*NASA TT F-510
CPSTI TT 68-50309

The Problem of Hypersonic Flow Over a
Flat Plate with a Sharp Leading Edge,
by G. M. Poyedinstev.
RUSSIAN, per, Samoletostroyeniye i Tekhnika
Vozdushnogo Flota, No 12, 1967, pp 9-15.
*Dept of Navy APL/JHU J-1299

Effect of X-ray Irradiation on the Kinetics
of Thermal Decay of Barium Azide, by
V. V. Sviridov.
RUSSIAN, rpt, Sgoraniya i Smesobrazovaniya
v Dizelyakh M. AN SSSR, 1960, pp 113-129.
*Dept of Navy NIC

Enthalpy and Heat Capacity of Scandium Sesquioxide
at High Temperature, by D. Sh. Tsagareishvili.
RUSSIAN, per, Soobshch Akad Nauk Gruzinskoy SSSR,
Tiflis, Vol 49, 1968, pp 175-180.
*AEC

Combustion of Solids in a Pulse Stream,
by V. S. Severyanin.
RUSSIAN, per, Teploenergetika, No 1,
1969, pp 6-8.
*NASA TT F-12,451

Experimental Research on the Coefficients
of Electro-Conductivity and Thermal Con-
ductivity of Plasma in Air, by
Ye. I. Asinovskiy.
RUSSIAN, per, Teplofizika Vysokikh Tem-
peratur, No 2, Mar-Apr 1969, pp 217-222.
*NASA TT F-12,416

Means for Graphic Interpolation of the
Results of Computations of Chemical
Nonequilibrium Flows in Nozzles, by
V. M. Khaylov.
RUSSIAN, per, Teplofiz Vysokikh Temperatur,
No 2, Mar-Apr 1969, pp 284-287.
*NASA TT F-12,357

Turbulent Boundary Layer in the Initial
Section of a Tube Under Conditions of
Nonisothermicity, by A. I. Leont'yev.
RUSSIAN, per, Teplofiz Vysokikh Temperatur,
No 2, Mar-Apr 1969, pp 276-283.
*NASA TT F-12,356

Experimental Investigation of Distribution
Parameters in Single-Phase and Double-
Phase Subsonic Plasma Flows, by
N. S. Surov.
RUSSIAN, per, Teplofiz Vysokikh Temperatur,
No 2, Mar-Apr 1969, pp 304-312.
*NASA TT F-12,363

Experimental Research on the Condensation
Process in a Supersonic Flow, by
G. A. Mukhachev.
RUSSIAN, per, Teplofiz Vysokikh Temperatur,
No 2, Mar-Apr 1969, pp 318-326.
*NASA TT F-12,386

Research on the Flow of Moist Vapor in
Axisymmetric Laval Nozzles within a
Broad Range of Degrees of Moisture, by
M. Ye. Deych.
RUSSIAN, per, Teplofiz Vysokikh Temperatur,
No 2, Mar-Apr 1969, pp 327-333.
*NASA TT F-12,418

Microwave Investigation of Relaxation Pheno-
mena in Impact Heated Argon Plasma, by
Yu. S. Lobastov.
RUSSIAN, per, Teplofiz Vysokikh Temperatur,
No 2, Mar-Apr 1969, pp 358-361.
*NASA TT F-12,403

Scientific
Physics (Contd)

Experimental Determination of the Pressure of Saturated Lithium Vapor, by V. M. Anisimov.
RUSSIAN, per, Teplofiz Vysokikh Temperatur No 2, Mar-Apr 1969, pp 371-373.
*NASA TT F-12,393

Mass Exchange during Condensation of Cesium Vapor from a Moving Mixture with Argon, by I. L. Mostinskiy.
RUSSIAN, per, Teplofiz Vysokikh Temperatur No 2, Mar-Apr 1969, pp 378-380.
*NASA TT F-12,394

Thermodynamics of Vapor Liquid Flow, by M. D. Vaisman.
RUSSIAN, per, Termodinamika Parozhidkostnykh Potokov, 1967, 272 pp.
*NASA TT F-612

Kinetics of Metal Failure Under Cyclical Loads, by T. A. Lebedev, T. K. Marinets, et al. 17 pp.
RUSSIAN, per, Trudy Leningrad. Politehnicheskii Institut, No 282, 1967, pp 33-42.
AIR/FTD/MT-24-366-68

On Nonlinear Oscillations of Friction Systems With a One-way Link, by O. A. Toropov. 7 pp.
RUSSIAN, per, Trudy Novocheerkassk. Politehnicheskii Institut, Vol 163, 1966, pp 155-159.
AIR/FTD/MT-24-438-68

Hydrogenation of Natural and Synthetic CIS - 1,4-Polyisoprene, by A. I. Yakubchik, B. I. Tikhomirov, 8 pp.
RUSSIAN, per, Vestnik Leningrad Univ, Ser Fiz Khim, No 4, 1961, pp 135-138.
AEC/UCRL-Tr-10320-69

The Calculation of the Interaction of a Supersonic Gas Jet and an Oncoming Stream of Ideal Compressible Fluid, by V. V. Golubeva.
RUSSIAN, per, Vestnik Mosk Univ, Ser I, Mat i Mekh, No 6, 1968, pp 71-75.
*Dept of Navy APL/JHU J-1292

Measurement of Polarization of Low-Intensity X-Rays, by A. A. Sanin.
RUSSIAN, per, Vestnik Mosk Univ, Ser 3, Fiz Astron, No 4, 1967, pp 105-108.
NASA TT F-12,195

Unsteady-State Convective Heat Exchange and Hydrodynamics in Channels, by Ye. K. Kalinin. 16 pp.
RUSSIAN, per, Vestsi. AN BSSR. Seriya Fizika-Tekhnichnykh Navuk, No 2, 1967, pp 77-86.
AIR/FTD/MT-24-412-68

Scientific
Physics (Contd)

Table for Neutron Activation, by F. Baumgartner.
GERMAN, per, Kerntechnik, Vol 3, August 1961, pp 356-369.
BISI 7199

Calculation of the Torque Curve and the Approach Law for Polycrystalline Ferromagnetic Samples with Hexagonal Anisotropy and Crystal Orientation, by K. A. Hempel.
GERMAN, per, Z Angew Phys, Vol 23, No 3, 1967, pp 186-189.
OAGB-Tr 211

Spectral Theory of Gas-Magnetic Isotropic Turbulence, by S. A. Kaplan.
RUSSIAN, per, Zh Eksp Teor Fiz, No 27, 1954, pp 699-.
*AEC

A Pyrotechnically Excited Quasi-Continuous Laser, by A. I. Bodretsova, A. A. Kaminskiy.
RUSSIAN, per, Zhurnal Prikl Spekt, Vol 6, No 2, 1967, pp 254-256.
JHU/APL/TRANS-2160-68

An Investigation of Thermodiffusion in Gases With the Aid of Infrared Absorption Spectra, by N. A. Borisevich, G. A. Zaleskaya. 10 pp.
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 5, No 3, 1966, pp 355-359.
AIR/FTD/MT-23-737-68

Impact of Ionization and the Tunneling Effect During Electroluminescence of Zinc Sulfide, by L. A. Kosyachenko.
RUSSIAN, per, Zhurnal Prikl Spekt, Vol 9, Nov 1968, pp 830-836.
*NASA TT F-12,405

Investigation of the Wake Behind a Body Flying at Supersonic Speed, by Yu. O. Panov, O. I. Shvets'. 15 pp.
UKRAINIAN, rpt, Kiyev. Universitet. Zbirnyk Naukovykh Prats' Aspirantiv. Fiziko-Matematychni Nauky, 1963, pp 155-165.
AIR/FTD/MT-23-723-68

Measurement of High-Frequency Field Strength in a Plasma via the Stark Effect. II., by Ye. V. Lifshits', S. S. Krivulia, et al, 13 pp.
UKRAINIAN, per, Uk Fiz Zh, No 8, 1963, pp 1328-1334.
AEC/UCRL-Tr-1388-69

Scientific
Physics (Contd)

Investigation of Rhenium and Molybdenum Diffusion in Tungsten and in Tungsten Alloys, by L. N. Larikov, V. M. Tyshkevych, et al. 8 pp. UKRAINIAN, per, AN UKRSSR. Ukrayins'kyi Fizychnyy Zhurnal, Vol 12, No 6, 1967, pp 983-987. AIR/FTD/HT-23-768-68

New Method for Determining Ruby Laser Generation Losses, by V. Y. Kravchenko, S. G. Odulov, et al. 10 pp. UKRAINIAN, per, Ukrayins'kyi Fizychnyy Zhurnal, Vol 12, No 11, 1967, pp 1819-1825. AIR/FTD/HT-23-763-68

Oscillations of Scattering Amplitude and Restrictions on Its High-Energy Behavior, by Yu. M. Lomsadze. UKRAINIAN, per, Ukrainskiy Fiz Zhurnal, Vol 14, No 1, 1969, pp 30-37. *NASA TT F-12,390

Calculation of a Volt-Ampere Characteristic of a Helium Projector, by V. A. Nazarenko. UKRAINIAN, per, Ukrainskiy Fiz Zhurnal, Vol 14, No 1, 1969, pp 72-74. *NASA TT F-12,391

Effect of Impurities on the Thermoelectric Properties of Anisotropic Materials, by L. I. Anatychuk. UKRAINIAN, per, Ukrainskiy Fiz Zhurnal, Vol 14, No 1, 1969, pp 151-157. *NASA TT F-12,392

The Influence of an Electromagnetic Field, Created by External Waves, on the Density Distribution of Plasma, by V. V. Demchenko. UKRAINIAN, per, Ukrainskiy Fiz Zhurnal, Vol 14, No 2, 1969, pp 209-212. *NASA TT F-12,395

Fluctuation and Scattering Processes of Slow Neutrons and Electromagnetic Waves in Paramagnets in a Strong Magnetic Field, by I. A. Akhiezer. UKRAINIAN, per, Ukrainskiy Fiz Zhurnal, Vol 14, No 2, 1969, pp 216-226. *NASA TT F-12,396

Thermodynamic Theory of the Gravitational Effect in Binary Mixtures, by Yu. P. Krasnyy. UKRAINIAN, per, Ukrainskiy Fiz Zhurnal, Vol 14, No 2, 1969, pp 257-261. *NASA TT F-12,397

Scientific
Physics (Contd)

Excitation of a Gyrotropic Plasma Waveguide, by V. A. Buts. UKRAINIAN, per, Ukrainskiy Fiz Zhurnal, Vol 14, No 2, 1969, pp 270-275. *NASA TT F-12,398

Holographic Reconstruction of Spatial Distribution of a Laser Light Field, by M. S. Soskin. UKRAINIAN, per, Ukrainskiy Fiz Zhurnal, Vol 14, No 2, 1969, pp 303-306. *NASA TT F-12,399

Discussion of Echo, by K. J. Sun. 7 pp. CHINESE, per, K'o Hsueh Hua Pao, No 1, 1966, pp 4-5. AIR/FTD/HT-23-747-68

Shock Wave Behavior During its Interaction With a Boundary Layer in Transonic and Shock-Tube Flows, by R. Dvorak. 6 pp. CZECH, per, Strojnický Casopis, No 2, 1965, pp 225-229. AIR/FTD/HT-23-1279-68

The Electric Arc as a Source of Hot Particles, by M. Vidlicka. CZECH, per, Vedecký Úhel Ústav Res Rep, No 5, 1968. NLL Ref: 8313.4 (5651)

Application of Photoelasticity to Three-Dimensional Stress Problems, by F. Arav. DUTCH, per, Ingenieur, Vol 80, No 10, 1968, pp 25-35. NLL Ref: 8313.4 (5677)

Hypersonic Aerodynamic Flow Around Slender Circular Cones at High Incidence, Part 1B, by R. Brun. FRENCH, rpt, 1968, 27 pp. *NASA TT F-12,429

Growth of Metallic Crystals by Thermal Decomposition of Halides in the Gas Phase, by Jacques Gillardeau, 23 pp. FRENCH, rpt, CEA-Bib No 93, Sept 1967. AEC/ORNL/Tr-1888-69

Activation Analysis of Oxygen and Nitrogen in Solids. Application to the Study of Surface Reactions, by L. Berry, 25 pp. FRENCH, rpt, Cea 116, April, 1968. CEGB-Tr S100D

Approximate Analytic Study of the Asymptotic Behavior of the Entropy Layer Developing Around a Blunt Cone, by Fabien Sannes, Jean-Pierre Gilly.
FRENCH, per, Comptes Rendus, Vol 266-A, 1968, pp 843-845.
*Dept of Navy APL/JHU J-1291

Low-Temperature Luminescence of Crystalline Benzophenone, by Y. Rousset, 7 pp.
FRENCH, per, Comptes Rendus, Ser A, B, Vol 266, June 1968, pp 1600-1603.
AEC/UCRL/Tr-10332-69

The Impossibility of Allowing for the Conservation of Impulse Energy of a Variation Principle in the Electrodynamics of Wheeler and Feynman, by A. Concord.
FRENCH, per, Comptes Rendus, Ser A-B, Vol 267, No 22, 25 Nov 1968, pp 857-860
*NASA TT F-12,444

Alloy Formation Between Low and High-Melting Metals by Volatile Metal Halide Reduction and Elucidation of the Structure of these Alloys, by Th. Heumann, H. Venker, 49 pp.
FRENCH, rpt, EURATOM, Brussels, July 1968.
AEC/ORNL/Tr-3009-69

Expressions of Energy and Impulse of an Electromagnetic Field Characteristic of an Electron in Motion, by B. Kwal.
FRENCH, per, Journal de Physique de la Radium, Vol 10, Mar 1949, pp 103-104.
*NASA TT F-12,410

Atmospheric Refraction and Reflection of Bangs Towards the Ground, by C. Thery.
FRENCH, rpt, Paper Presented at the AGARD Propulsion and Energetics Panel Meeting at St. Louis, France.
*NASA TT F-12,443

Focalization in Short Non-linear Waves, Application to Ballistic Noise of Focalization, by L.-P. Guiraud.
FRENCH, rpt, Paper Presented at the AGARD Propulsion and Energetics Panel Meeting at St. Louis, France.
*NASA TT F-12,442

Effect of Incidence and Reynolds Number of Hypersonic Flow Past a Circular Cone, by J. Valensi.
FRENCH, per, La Recherche Aerospatiale, No 128, 1969, pp 17-31.
*NASA TT F-12,401

Determination, by Analog Simulator, of the Cylinder Wake Potential in a Collisionless Plasma Hypersonic Flow, by G. Fournier.
FRENCH, per, La Recherche Aerospatiale, No 128, 1969, pp 65-66.
*NASA TT F-12,402

Consideration of Velocity Peaks in Different Transient Flows, by St. N. Savulescu, 20 pp.
FRENCH, per, Revue Roumaine Des Sciences Techniques. Serie de Mechanique Appliquee, Vol 11, No 5, 1966, pp 1211-1227.
AIR/FTD/MT-23-1166-68

Harmonic Oscillatory Motion of a Wing-Conic Fuselage System in a Supersonic Flow, by E. Carafoli, D. Mateescu, 14 pp.
FRENCH, per, Revue Roumaine Des Sciences Techniques. Serie de Mechanique Appliquee, Vol 11, No 5, 1966, pp 1229-1239.
AIR/FTD/MT-23-1167-68

Gas Dynamic Phenomena During the Dark Phase of Wire Explosions and Their Importance for Reignition, by Wilhelm Tiemann.
GERMAN, rpt, Ph.D. Thesis, 1968, 92 pp.
*NASA TT F-12,430

The Effects of radiation and Method of Attachment on the Accuracy of Thermocouples Used for Surface Temperature Measurement, by H. Bouissou.
GERMAN, per, Ann Phys, No 7, 1962, pp 555-544.
NLL Ref: S207 (1526)

Generalizations of the Donnan Distribution and of the Nernst-Planck Flow Equations within the Framework of the Thermodynamics of Irreversible Processes, by Gunther Albrecht-Buhler.
GERMAN, per, Biophysik, Vol 4, 1968, pp 289-295.
*Dept of Navy APL/JHU J-1300

Vibrational Criterion for a Pipe Under Conditions of Transverse Incident Flow, Part 2, by H. K. M. Andritzky and R. Gregorig.
GERMAN, per, Chemie Ing Technik, Vol 40, May 1968, pp 483-488.
CEGB-Tr 5079

Vibrational Criteria for a Pipe under Conditions of Transverse Incident Flow. Part 3: Experiments on Vibration in Bundled Tubes, by A. Konig and P. Gregorig.
GERMAN, per, Chemie Ing Technik, Vol 40, 1968, pp 645-650.
CEGB-Tr 5063

Calculation of the Sound Field of a Circular Piston Membrane, by H. Stenzel.
GERMAN, per, Elektrische Nachrichten-Techn., Vol 12, No 1, 1935, pp 16-30.
Dept of Navy APL/JHU T-2264

Results of Thermal Cleaning of Condensers, by G. Gneipel.
GERMAN, per, Energietechnik, Vol 18, No 1, 1968, pp 31-33.
NLL Ref: 9022.09 (5015)

Application of the Collision Theory for the Calculation of Reactivity Values, by E. A. Fischer, 12 pp.
GERMAN, rpt, IAR-SNEAK 1, Notiz 147, Mar 1968, AEC/ANL/Tr-716-69

Swelling of Uranium Alloys Under Irradiation, by J. Lehmann, et al.
GERMAN, per, J. of Nucl Materials, Vol 26, May 1968, pp 238-240.
CEGB-Tr 4981

Study of the Swelling of Uranium Alloys Under Irradiation by J. Lehmann.
GERMAN, per, J. of Nucl Materials, Vol 27, 1968, pp 285-309.
CEGB-Tr 5125

The Effect of Mechanical Treatment on the Reactivity of Solids, by Gerhard Naeser, Werner Scholz.
GERMAN, per, Kolloid-Zeit, Vol 156, No 1, 1958, pp 1-8.
Dept of Navy NIC Trans No 2829

Synthetic Gemstones in Modern Physics, by K. Alexander Muller.
GERMAN, per, Naturwissenschaftliche Rundschau, Vol 19, No 4, 1966, pp 147-52.
*AFCLR

Determination of the Plastic Stress-Strain Curve in Torsion Experiments on Solid Cylindrical Specimens and the Behavior of Polycrystalline Copper on Very High Plastic Shearing Deformation, by H. G. Grewe, E. Kappler, 34 pp.
GERMAN, per, Phy Status Solidi, No 6, 1964, pp 339-354
AEC/UCRL-Tr-10318

The Plasticity of Al-Zn-Alloys (I), by H. Haberkorn, 24 pp.
GERMAN, per, Phys Status Solidi, Vol 15, 1966, AEC/IS-Tr-79-69

Critical Shear Stress of Alkali Halides Doped with Divalent Cations, Part 1- Non-Agglomerated Associations of Cations with Vacancies by, W. Frank.
German, per, Phys Stat Sol, Vol 29, 1968, pp 391-402.
CEGB-Tr 5123D

A Two-Bladed Active Rudder, by F. Gutsche. 15 pp
GERMAN, per, Schiffbautechnik, No 12, 1966, pp 673-677.
AIR/FID/IR-23-691-68

Crack Propagation Under Dynamic Loading, by G. Schott.
GERMAN, per, Wissenschaftliche Zeit, Vol 17, No 4, 1968, pp 1023-1026.
*NASA TT F-12,406

Investigations of Mass Spectra of Hydrogen Cluster Ions with a Momentum Analyzer of the Magnetic Sector Type, by K. Buchheit, W. Henkes.
GERMAN, per, Zeit fur Ang Phys, Vol 24, No 4, 1968, pp 191-196.
NLL Ref: 9021.7 (16)

An Anomalous Temperature Dependence of the Threshold in a Quasi-Cw Ruby Laser, by G. Zeidler.
GERMAN, per, Zeit fur Naturforsch, Vol 22a, 1967, pp 566-570.
NLL Ref: 9021.7 (24)

Experimental Studies of Electron-Photon Cascades in Lead-Scintillator Systems for Primary Energies of Between 100 and 440 MeV, by Klaus-Peter Beuermann, Gerd Wibberenz, 22 pp.
GERMAN, per, Z Physik, Vol 206(3), 1967, pp 247-265.
AEC/ORNL-Tr-1892-69

An Ion Source for Intense Beams of Negative Heavy Ions, by G. Hortig.
GERMAN, per, Z Phys, Vol 210, 1968, pp 312-313.
*AEC

Scientific
Physics (Contd)

Solubility of Solids in Compressed Gases, by E. U. Franck.
GERMAN, per, Zeit Phys Chem, Vol 6, 1956, pp 345-355.
NLL Ref: 9022.09 (4902)

The Phase Contrast Method in Microscopic Observation, by F. Zernike.
GERMAN, per, Zeit fur Technische Physik, Vol 16, No 1, 1935, pp 454-457.
Dept of Navy APL/JHU T-2265

Outflow of Solid-gas Fluidized Systems Through Small Holes, by L. Massimilla.
ITALIAN, per, Ricerca Scientifica, No 5, 1959, pp 1030-.
NLL Ref: 9091.9F (Springfield Trans 197)

On the Universal Crystallographic Computation Program System II - the 5020 Universal Crystallographic Computation System, by Tosio Sakuri.
JAPANESE, rpt, Collected Papers of the Institute of Physical and Chemical Research Papers,
*AFCRL

Techniques of Growing Single Crystals (I). JAPANESE, per, Oyo Butsuri, Vol 36, No 2, 1967, pp 125-128.
*AFCRL

The Preparation and Properties of SiC Tunnel Diodes, by A. Imai.
JAPANESE, per, Oyo Butsuri, Vol 37, No 5, 1968, pp 450-456.
*AFCRL

Techniques of Growing Single Crystals (II), by Tsuguo Fukuda.
JAPANESE, per, Oyo Butsuri, Vol 37, No 5, 1968, pp 457-460.
*AFCRL

Error Probability and Power Spectrum of PCM/PM Signals with Small Phase Deviation, by Nobuhiro Nakahashi.
JAPANESE, per, Radio Research Laboratories Review, Vol 14, July 1968, pp 451-458.
*NASA TT F-12,388

Scientific
Physics (Contd)

Crystal Growth of Spinel in the System MgO: Al₂O₃-Al₂O₃ by the Flame Fusion Method, by Kikuo Nakano.
JAPANESE, per, Yogyo Kyokai-shi, Vol 76, No 872, 1968, pp 123-130.
*AFCRL

Action of the Cavity Wall for the Synthesis of SiC Single Crystals by the Sublimation Method, by Yoshizo Inomata.
JAPANESE, per, Yogyo Kyokai-shi, Vol 76, No 873, 1968, pp 137-143.
*AFCRL

Observations on the Growth Process of Alkali Halide Single Crystals, by Toru Matsushita.
JAPANESE, per, Yogyo Kyokai-shi, Vol 76, No 874, 1968, pp 198-203.
*AFCRL

Effect of the Growth Rate on the Structure and Stacking Disorder of SiC Crystals in the Cavity of Lely's Procedure, by Y. Inomata.
JAPANESE, per, Yogyo Kyokai-shi, Vol 76, No 876, 1968, pp 268-276.
*AFCRL

Relations Between Growth Temperature and the Structure of SiC Crystals Grown by the Sublimation Method, by Y. Inomata.
JAPANESE, per, Yogyo Kyokai-shi, Vol 76, No 877, 1968, pp 313-319.
*AFCRL

Insertion Reactions of Isonitriles, by Takeo Saegusa.
JAPANESE, per, Yuki Gosei Kagaku Ryokaihi, Vol 26, 1968, pp 862-873.
*NASA TT F-12,411

Evolution of the Turbulent Wakes Behind Inlet Guide Vane, by J. Elsner. 9 pp.
POLISH, per, Lodz. Politechnika. Katedra Cieplnych Maszyn Przeplywowych. Ciepne Maszyny Przeplywowe, No 1, 1967, pp 213-220.
AIR/FTD/HT-23-870-68

Estimation of Energy Dissipated in the Process of Plastic Deformation of Certain Metals, by J. Klepaczko. 15 pp.
POLISH, per, Rozprawy Inzynierskie, Vol 15, No 2, 1967, pp 185-195.
AIR/FTD/HT-23-769-68

Scientific
Physics (Contd)

Rumanian Achievements in Ultrasonics, by
M. Grumazescu, 9 pp.
RUMANIAN, per, Progresele Stiintei, Bu.arest,
Feb 1969, pp 49-53.
JPRS 48052

Propulsion & Fuels

Start-Up Conditions of the K-200-130-1 Turbine
After 30-34 Hours Shut-Down, by I. T. Bepalyi
and V. I. Khakhin.
RUSSIAN, per, Energomashinostroyeniye, Vol 13,
Nov 1967, pp 25-27.
CEGB-Tr 4862

Selection of the Optimal (u/c ad) Ratio in the
Cooled Stages of High Temperature Gas Turbines,
by V. I. Lokay. 17 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy. Aviatsionnaya Tekhnika, No 40,
1967, pp 123-133.
AIR/FTD/HT-23-1055-68

Approximate Calculation of the Critical
Attachment and Separation Pressures of
the Turbulent Boundary Layer in Super-
sonic Flow, by L. V. Gogish.
RUSSIAN, per, Izv AN SSSR, Mekh Zhidk
Gaza, No 4, 1968, pp 103-108.
NASA TT F-12,132

Flows in Jets Expelled from Underexpanded
Nozzles, by V. N. Gusev, T. V. Klimova.
RUSSIAN, per, Izv AN SSSR, Mekh Zhidk
Gaza, No 4, 1968, pp 121-125.
NASA TT F-12,131

Investigation of the Ejecting Action of a
Turbulent Jet by the Electrodynamic Simu-
lation Method, by G. T. Aldoshiv,
G. V. Gindin.
RUSSIAN, per, Izv VUZ Aviats Tekh, No 1,
1968, pp 141-145.
NASA TT F-12,136

An Experimental Investigation of the Cooling Air
Flow in the Channel Under the Operating Vane
Flanges of Gas Turbine Rotors, by Ye. P. Dyban,
N. G. Shpet. 12 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy. Energetika, No 1, 1968, pp 63-69.
AIR/FTD/HT-23-858-68

Scientific
Propulsion & Fuels (Contd)

Estimation of the Maximum Possible Pressure in an
Oxygen-Hydrogen Engine, by M. V. Dobrovolskiy.
5 pp.
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh
Zavedeniy. Mashinostroyeniye, No 5, 1968,
pp 100-103.
AIR/FTD/HT-23-1116-68

An Experimental Investigation of Pressure Distri-
bution on the End of a Cooled Blade, by
V. M. Kapinos, A. F. Slitenko. 10 pp.
RUSSIAN, per, Kharkov. Politehnicheskii
Institut. Energeticheskoye Mashinostroyeniye,
No 5, 1967, pp 128-134.
AIR/FTD/MT-24-398-68

Short Reference Book on Fuels, Technical Facilities,
and Depots, by K. F. Kushnirenko, 215 pp.
RUSSIAN, bk, Military Press of the Ministry of
Defense of the USSR, 1968.
ARM/FSTC/HT-23-682-68

Fuel and Power Projections for Decade Detailed,
6 pp.
RUSSIAN, per, Nauchno-Tekhnicheskoye Obshchestvo
SSSR, Moscow, No 2, 1969, pp 1-2.
JPRS 47998

Fundamentals of Theory and Calculation of Liquid-
Propellant Rocket Engines. Volumes I-III, by
A. P. Vasil'yev, V. M. Kudryavtsev. 871 pp.
RUSSIAN, bk, Osnovy Teorii i Rascheta Zhidkostnykh
Raketnykh Dvigatelay, 1967, Vol 1, -- 1-284,
Vol 2, -- 285-588, Vol 3, -- pp 589-871.
Air-FTD/MT-24-253-68

Basic Theory of Wet Steam Turbines, by
I. I. Kirilov.
RUSSIAN, bk, Osnovy Teorii Vlazhnoparovykh
Turbin, 1968.
*NASA TT F-611

Effect of Stabilizer Geometry and Flow Velocity
on Vibration Combustion, by S. A. Abrukov,
B. N. Gun'ko, et al. 6 pp.
RUSSIAN, rpt, Trudy Leningrad. Tsentral'nyy
Nauchno-Issledovatel'skiy i Proektno-Konstruk-
torskiy Kottloturbinnyy Institut, No 64, 1965,
pp 46-48.
AIR/FTD/MT-23-1107-68

Two-Phase Flow in Turbines and Reactors
Nozzles, by V. D. Venediktov.
RUSSIAN, bk, Turbiny i Reaktivnyye Sopla
na Dvukhfaznykh Potokakh, 1969.
*NASA TT F-613

Scientific
Propulsion & Fuels (Contd)

Method for Estimating the Noise of a Turbojet According to Its Thermopropulsion Magnitude, by R. Hoch.
FRENCH, rpt, Paper Presented at the AGARD Propulsion and Energetics Panel Meeting at St. Louis, France.
*NASA TT F-12,440

Fuels and Products of Combustion. Temperature of Combustion. Loss of Sensible Heat. by G. Beauseigneur.
FRENCH, per, Rev Gen Thermique, Vol 6, Nov 1967, pp 1435-1444.
CEGB-Tr 4830

The High Performance Free-Jet Air-Blast Circuit Breaker, by K. Kriechbaum.
GERMAN, per, E. T. Z. -A., Vol 88, 28 Apr 1967, pp 213-217.
CEGB-Tr 4724

Plans for Greater Crude Oil Processing Given, by Jerzy Tautman, 8 pp.
POLISH, np, Zycie Gospodarcze, Warsaw, 13 Apr 1969, p 3.
JPRS 48056

Space Technology

Automatic Rendezvous in Space, by V. Legostayev, B. Raushenbakh. 28 pp.
RUSSIAN, rpt, Congress of the International Astronautical Federation (IAF) 19th. New York, 1968, pp 1-24.
AIR/FTD/HT-23-1346-68

Dynamics of Automatic Stations' Descent in Planetary Atmospheres as Means of Measurement Data Control, by A. M. Obukhov, G. S. Golitsyn.
RUSSIAN, per, Kosmicheskoye Issledovaniya, Vol 7, No 1, 1969, pp 150-155.
NAS/GSFC/ST-PA-GD-10833-69
Available from CFSTI

New Page of Space Annals. Press Conference on the Flight of Spaceships "Soyuz-4" and "Soyuz-5".
RUSSIAN, np, Pravda, NO 25, 25 Jan 1969.
NAS/GSFC/HL-PR-10803-69

Scientific
Space Technology (Contd)

Optimization of Trajectories, by Pierre Contensou.
FRENCH, per, Tech et Sci Aeron et Spatiales, No 6, 1955, pp 505-513.
NASA TT F-12,302

Space Travel, by Leonard Michael Fenning.
GERMAN, rpt, Reprint W 68-30.
NASA TT F-12,105

On the Performance of a Ram Rocket with Supersonic Combustion, by Vittorio Fiorini.
ITALIAN, per, Revista di Ingegneria, No 1, 1968, pp 8-16.
Dept of Navy APL/JHU T-2262

Miscellaneous

Anniversary Scientific Conference of Miigaik and Tsnigaik, by L. A. Bogomolov.
RUSSIAN, per, Geodeziya i Kartografiya, No 1, 1968, pp 73-78.
ARM/FSTC/HT-23-770-68

Water Supply. Sewer System. Light and Heat. Gasification. From Horses to Modern Electric Transportation. Two Hundred and Thirty-six Routes. The Fastest and Most Comfortable. Roads, Quays and Bridges. Cleanliness and Neatness of Our Streets. Gardens and Parks.
RUSSIAN, rpt, Gorodskoye Khozyaystvo Stroitel'stvo Leningradag, 1967, pp 149-297.
DIA LN 701-69

Light Diving Operations, by I. V. Merenov.
RUSSIAN, bk, Legkovodolaznoye Delo, 1965, pp 1-221.
Dept of Navy NIC 2836

Lectures and Scientific Discussions at WMO Sessions, by S. M. Seleznev. 7 pp.
RUSSIAN, per, Meteorologiya i Gidrologiya, No 3, 1969, pp 112-114.
JPRS 48190

Conferences, Meetings, Seminars. 8 pp.
RUSSIAN, per, Meteorologiya i Gidrologiya, No 3, 1969, pp 120-122.
JPRS 48190

Scientific Information 5, 116 pp.
RUSSIAN, bk, Nauchnyye Informatsiy, 1967.
DIA LN 727-69

Scientific Institutes experiment with economic,
material incentives, by A. Antonov, 5 pp.
RUSSIAN, np, Pravda, Moscow, 8 Jan 1969, p 2.
JPRS 48062

Rules for the All-Union Public Reviews
of the Fulfilment of the Plans for
Applying the Advances of Science and
Technology to the Industry and Improving
Production Quality to Lenin's 100th
Birthday.

RUSSIAN, per, Rybnoe Khoz, Vol 45, No 3,
1969, pp 90-92.

*Dept of Interior
Bureau of Commercial Fisheries
Branch of Foreign Fisheries

Under the Northern and Southern Lights.

8 pp.
RUSSIAN, per, Soviet Warrior, No 2, 1969,
p 22.
DIA LN 1051-69

Guns are Falling from the Sky. 7 pp.
RUSSIAN, per, Starshina Serzhant, No 11,
1966, pp 18-19.
DIA LN 1085-69

The Sweep Has Been Laid.
RUSSIAN, per, Starshina Serzhant, No 1,
1969.
DIA LN 1060-69

Philosophical (Ideological) Seminar, by
V. I. Lebedev, T. A. Kazakevich.
RUSSIAN, per, Trudy Leningrad Univ, Ser
Geologiya i Geografiya, No 18, 1968
Army Topographic Command
Q4, V58

Attach to IR 1901 0204 68, by G. V. Zimina.
RUSSIAN, rpt, Voyennoye Izdatelstvo
Ministerstva Oborony SSSR, 1967,
pp 470-501.
*Dept of Navy NIC

We Carry Our Land in Our Souls. 5 pp.
BULGARIAN, per, Bulgarski Voin, Aug 1968,
pp 16-17.
DIA LN 968-69

National Geographic Congress Convened in Sofia,
by D. Lonchev, M. Daneva, 11 pp.
BULGARIAN, per, Spisanie na Bulgarskata Akademiya
na Naukite, Sofia, Vol 8, No 3, Dec 1968, pp 64-
73.
JPRS 47960

Basic Indexes. 19 pp.
CZECH, rpt, Statisticka Rocenka CSSR,
1968, pp 36-37, 57, 74-75, 365-366, 599.
DIA LN 894-69

Service Extended.
DUTCH, per, Aangetekend, No 2, 15 Jan
1969, pp 2,5,6,7.
DIA LN 1128-69

In the District of Amsterdam: 250,000.
DUTCH, np, Aangetekend, 12 Feb 1969,
pp 6-7.
DIA LN 932-69

The Central Chamber of Commerce: to the
Ministry of Communications and General
Works.
FINISH, per, Lennattaja, No 11, 1968,
p 3.
DIA LN 990-69

News from Abroad. 8 pp.
FRENCH, per, Naviers, Ports et Chantiers,
Feb 1969, pp 164-165.
DIA LN 1002-69

XI Maritime Storekeeping Congress - Gren-
oble.
FRENCH, per, Revue de la Navigation In-
terieure, No 16, Sept 1968.
DIA LN 587-69

North-South Axis: An Undertaking of Inter-
est to Europe. 8 pp.
FRENCH, per, La Revue des Transports et
de la Distribution, Sept 1968, pp 372-375.
DIA LN 843-69

The Autonomous Port of Rouen.
FRENCH, per, Technique de l'eau et de
l'Assainissement, No 255, Mar 1968,
pp 47-50.
DIA LN 786-69

Scientific
Miscellaneous (Contd)

The Extension of the Fluvial Activities of the A.T.E.C. 7 pp.
FRENCH, per, La Vie de Rail d'Outre-Mer, No 160, July 1967, pp 10-11.
DIA LN 784-69

Central African Republic. 15 pp.
FRENCH, per, La Vie de Rail d'Outre-Mer, No 173, Aug 1968, pp 20-23.
DIA LN 790-69

Our Street.
GERMAN, per, Armee Rundschau, No 3, Mar 1969, pp 52-54.
DIA LN 974-69

Lieutenant Colonel K. Erhart and Press Photographer M. Uhlenhut as Guests of the Gunsmith of Suhl.
GERMAN, per, Armee Rundschau, No 3, Mar 1969, pp 82-85.
DIA LN 974-69

The Water Corner. 8 pp.
GERMAN, per, Binnenschiffahrts-Nachrichte No 47, Nov 23, 1968, pp 724-726.
DIA LN 582-69

From Germany - Analyses - Information - Commentaries. 10 pp.
GERMAN, per, Flug Revue and Flugwelt International, Mar 1969, pp 12-14.
DIA LN 937-69

Selected Articles. 28 pp.
GERMAN, per, International Wirtschaft, No 19, 10 May 1968; No 49, 6 Dec 1968.
DIA LN 670-69

The ALPAC Report, Parts II, III and IV, by F. Krollmann.
GERMAN, per, Der Sprachmittler, No 1, 1968, pp 2-9; No 2, 1968, pp 43-49; No 3, 1968, pp 80-88.
*ACSI J-6867
ID 2204002869

Technology and Its Cadres, by G. Schilling.
GERMAN, per, Die Technik, No 12, 1967, pp 741-745.
Dept of Navy NIC trans No 2804

Scientific
Miscellaneous (Contd)

The Vitava (Moldau) Cascade. 6 pp.
GERMAN, per, Wasserwirtschaft-Wassertechnik, No 4, 1967, pp 139-140.
DIA LN 1151-69

Short News, by Lapkiado Vallalat.
HUNGARIAN, per, Vasut, No 11, 1968,
DIA LN 1031-69

Hungarian Transport Policy Exhibition at the Transport Museum.
HUNGARIAN, per, Vasut, No 11, 1968, pp 1-3.
DIA LN 1032-69

Encl to IR 2 253 0069 68.
JAPANESE, bk, No 7, 1967.
*Dept of Navy NIC

Main Highway Engineering R&D Center.
POLISH, per, Inzynieriai Budownictwo, No 5, 1968, pp 178-182.
DIA LN 802-69

Technical Requisites for Permitting Vehicles to Use Public Roads. 10 pp.
POLISH, per, motoryzacja, No 12, 1968, pp 309-312.
DIA LN 826-69

DOKP Lublin. DOKP Warsaw. DOKP Gdansk. DOKP Wroclaw. 14 pp.
POLISH, per, Przegląd Kolejowy Przewozowy, No 1, 1969, pp 2-9.
DIA LN 935-69

Santos - The Great Brazilian Traffic Station and Watcher Over the Products - Reports 'Present' at the Summons to a Great Brazil.
PORTUGUESE, per, O Jornal, Supplement, Mar 1969, pp 18-19.
DIA LN 1064-69

Ports and Waterways.
PORTUGUESE, per, O Jornal, Supplement, Mar 1969, pp 34-35.
DIA LN 1064-69

1961-1967 Community Investments in Science. by Milan Rajacic, 29 pp.
SERBO-CROATIAN, per, Ekonomsko Tehnicki .regled, Zagreb, Jan 1969, pp 60-63.
JPRS 48078

Scientific
Miscellaneous (Contd)

Scientific Council for Petroleum Founded. 15 pp.
SERBO-CROATIAN, per, Nafta, Zagreb, No 3, Mar
1969, pp 133-137.
JPRS 48014

Special Issue: Rapel Regional Electrical
Integration Commission Bulletin. 8 pp.
SPANISH, per, Boletin de la C.I.E.R.,
No 11, July 1968, pp 1-7.
DIA LN 812-69

Research Activity.
SWEDISH, per, Artilleri Tidskrift, No 97,
1968, pp 117-119.
DIA LN 693-69

INFORMATION RECEIVED DURING
JUNE
ON COVER-TO-COVER TRANSLATIONS

Acta Physiologica Polonica, Vol 19, No 4, 1968.
CFSTI TT 68-50008/4

Biokhimiya, Vol 33, No 5, Part 2, Sept-Oct 1968.
CB

Acta Polonica Pharmaceutica, Vol 25, No 5, 1968.
CFSTI TT 68-50003/5

Byulleten Eksperimental'noy Biologiy i Meditsiny,
Vol 63, No 1, 1967.
CB

Archivum Immunologiae et Therapiae Experimentalis,
Vol 17, No 1, 1969.
CFSTI TT 69-50006/1

Byulleten Eksperimental'noy Biologiy i Meditsiny,
Vol 63, No 2, 1967.
CB

Arhiv Bioloskih Nauka, Vol 18, No 3-4, 1966.
CFSTI TT 66-59008/3-4

Byulleten Eksperimental'noy Biologiy i Meditsiny,
Vol 63, No 3, 1967.
CB

Astrofizika, Vol 3, No 3, 1967.
The Faraday Press

Byulleten Eksperimental'noy Biologiy i Meditsiny,
Vol 65, No 4, 1968.
CB

Avtomatika i Telemekhanika, No 11, 1968.
CB

Byulleten Eksperimental'noy Biologiy i Meditsiny,
Vol 65, No 5, 1968.
CB

Avtomatika i Telemekhanika, No 12, 1968.
CB

Byulleten Eksperimental'noy Biologiy i Meditsiny,
Vol 65, No 6, 1968.
CB

Biophysika, Vol 13, No 3, 1968.
The Pergamon Press

Byulleten Eksperimental'noy Biologiy i Meditsiny,
Vol 66, No 7, 1968.
CB

Biokhimiya, Vol 33, No 4, Pt 2, July-Aug, 1968.
CB

Biokhimiya, Vol 33, No 5, Pt 1, Sept-Oct, 1968.
CB

Byulleten Eksperimental'noy Biologiy i Meditsiny,
Vol 66, No 8, 1968.
CB

Byulleten Eksperimental'noy Biologii i Meditsiny,
Vol 66, No 9, 1968.
CB

Geologiya Nefti i Gaza, Vol 8, No 1, 1964.
Petroleum Geology

Byulleten Eksperimental'noy Biologii i Meditsiny,
Vol 66, No 10, 1968.
CB

Geomagnetizm i Aeronomiya, Vol 8, No 6, 1968.
The American Geophysical Union

Byulleten Izobret, Sept, 1968 - Sec I - Chemical
Sec II - Electrical
Sec III - Mech & Gen

Izvestiya Akademiy Nauk SSSR, Atmosfery i
Okeanologicheskiy, Vol 4, No 12, 1968.
The American Geophysical Union

Derwent Publications

Byulleten Izobret, November 1968 - Sec I - Chemical
Sec II - Electrical
Sec III - Mech & Gen

Izvestiya Akademiy Nauk SSSR, Fizika Zemli, No 11,
1968.
The American Geophysical Union

Derwent Publications

Denshi Tsushin Gakkai Ronbunshi, Vol 51, No 7, 1968.
IEEE

Izvestiya Akademiy Nauk SSSR, Seriya Fizicheskaya,
Vol 32 No 5, 1968.
Columbia Technical Translations

Doklady Akademiy Nauk SSSR, Vol 183, No 1-3,
November 1968.
The American Institute of Physics
Vol 13, No 11, May 1969

Izvestiya Akademiy Nauk SSSR, Seriya Fizicheskaya,
Vol 32, No 6, 1968.
CTT

Doklady Akademiy Nauk SSSR, Chemistry, Vol 183,
No 1-3, November 1968.
CB

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya,
No 1, 1967.
CB

Doklady Ak Nauk SSSR, Earth Science Section, Vol 182,
No 1-6, Sept-Oct 1968.
American Geological Institute

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya,
No 2, 1967.
CB

Doklady Akademiy Nauk SSSR, Mathematical Section,
Vol 184, No 1-6, 1969.
Am Math Soc
Vol 10, No 1, Jan-Feb 1969

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya,
No 3, 1967.
CB

Fizika Tverdogo Tela, Vol 10, No 11, 1968.
The Am Inst of Phys
Vol 10, No 11, May, 1969.

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya,
No 4, 1967.
CB

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya,
No 5, 1967.
CB

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya, Kosmicheskaya Biologiya i Meditsina, Vol 2, No 3, 1968.
No 6, 1967. JPRS 46456
CB

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya, Kosmicheskaya Biologiya i Meditsina, Vol 2, No 4, 1968.
No 7, 1967. JPRS 46930
CB

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya, Kosmicheskaya Biologiya i Meditsina, Vol 2, No 6, 1968.
No 8, 1967. JPRS 47582
CB

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya, Kosmicheskaya Biologiya i Meditsina, Vol 3, No 1, 1969.
No 9, 1967. JPRS 48042
CB

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya, Kristallografiya, Vol 13, No 5, Sept-Oct 1968.
No 10, 1967. The American Institute of Physics
CB Vol 13, No 5, Mar-Apr 1969

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya, Larus, No 15, 1961.
No 11, 1967. CFSTI TT 67-58043
CB

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya, Lijecnicki Vjesnik, Vol 90, No 7, 1968.
No 12, 1967. CFSTI TT 68-50051/7
CB

Izvestiya Akademiy Nauk SSSR, Seriya Khimicheskaya, Medycyna Doswiadczalna i Mikrobiologia, Vol 20,
No 12, 1967. No 4, 1968.
CB CFSTI TT 68-50004/4

Izvestiya VUZ. Fizika, Vol 9, No 1, Jan-Feb, 1966. Meteorologiya i Gidrologiya, No 8, 1968.
The Faraday Press JPRS 46817

Izvestiya VUZ. Fizika, Vol 9, No 2, March-April, 1966. Meteorologiya i Gidrologiya, No 9, 1968.
The Faraday Press JPRS 47001

Kosmicheskaya Biologiya i Meditsina, Vol 2, No 2, 1968. Meteorologiya i Gidrologiya, No 10, 1968.
JPRS 45798 JPRS 47160

Meteorologiya i Gidrologiya, No 11, 1968.
JPRS 47374

Meteorologiya i Gidrologiya, No 12, 1968.
JPRS 47653

Meteorologiya i Gidrologiya, No 1, 1969.
JPRS 47769

Meteorologiya i Gidrologiya, No 2, 1969.
JPRS 48087

Meteorologiya i Gidrologiya, No 3, 1969.
JPRS 48190

Nukleonika, Vol 13, No 1, 1968.
CFSTI TT 68-50011/1
AEC-tr-6931/1 UC-34

Okeanologiya, Vol 8, No 5, 1968.
The American Geophysical Union

Optika i Spektroskopiya, Vol 25, No 5, Nov, 1968.
The Optical Society of America

Pochvovedeniye, No 1, 1968.
The Soil Science Society of America

Pochvovedeniye, No 2, 1968.
The Soil Science Society of America

Pochvovedeniye, No 3, 1968.
The Soil Science Society of America

Pochvovedeniye, No 4, 1968.
The Soil Science Society of America

Pochvovedeniye, No 5, 1968.
The Soil Science Society of America

Pochvovedeniye, No 6, 1968.
The Soil Science Society of America

Pochvovedeniye, No 7, 1968.
The Soil Science Society of America

Pochvovedeniye, No 8, 1968.
The Soil Science Society of America

Polskie Archiwum Medycyny Wewnetrznej. Vol 40,
No 3 (3), 1968.
CISTI TT 69-50007/2
Vol 8, No 1, 1969

Radiotekhnika i Elektronika, No 11, 1968.
IEEE

Sovetskoye Zdravookhraneniye, No 8, 1968.
JPRS 46847

Sovetskoye Zdravookhraneniye, No 9, 1968.
JPRS 46888

Sovetskoye Zdravookhraneniye, No 10, 1968.
JPRS 46973

Sovetskoye Zdravookhraneniye, No 11, 1968.
JPRS 47328

Sovetskoye Zdravookhraneniye, No 12, 1968.
JPRS 47554

Sovetskoye Zdravookhraneniye, No 1, 1969.
JPRS 47691

Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil,
No 6, 1969.
*ACSI J-6900

Sovetskoye Zdravookhraneniye, No 2, 1969.
JPRS 48071

Ukrainskiy Fizicheskiy Zhurnal, Vol 12, No 12, 1967.
CFSTI TT 67-51421/12
AEC-tr-6869/12

Staub, Vol 28, No 7, 1968.
CFSTI TT 68-50448/7

Vestnik Akademiy Meditsinskikh Nauk SSSR, Vol 22,
No 12, 1967.
JPRS 44555

Staub, Vol 28, No 8, 1968.
CFSTI TT 68-50448/8

Vestnik Akademiy Meditsinskikh Nauk SSSR, Vol 23,
No 8, 1968.
JPRS 46627

Tekhnika i Vooruzheniye, No 7, 1968.
ACSI J-6903

Tekhnika i Vooruzheniye, No 3, 1969.
ACSI J-6622

Vestnik Akademiy Meditsinskikh Nauk SSSR, Vol 23,
No 10, 1968.
JPRS 46961

Tekhnika i Vooruzheniye, No 6, 1969.
*ACSI J-6899

Vestnik Akademiy Meditsinskikh Nauk SSSR, Vol 23,
No 11, 1968.
JPRS 47212

Tsvetnye Metally, Vol 40, No 9, 1967.
Primary Sources
Vol 8, No 9, 1967.

Vestnik Akademiy Meditsinskikh Nauk SSSR, Vol 23,
No 12, 1968.
JPRS 47477

Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil,
No 11, 1968.
ACSI J-6157

Vestnik Akademiy Meditsinskikh Nauk SSSR, Vol 24,
No 1, 1969.
JPRS 47569

Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil,
No 4, 1969.
*ACSI J-6798

Vestnik Akademiy Meditsinskikh Nauk SSSR, Vol 24,
No 2, 1969.
JPRS 47840

Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil,
No 5, 1969.
*ACSI J-6868

Vestnik Akademiy Meditsinskikh Nauk SSSR, Vol 24,
No 3, 1969.
JPRS 48038

Vestnik Akademiy Meditsinskiy Nauk SSSR, Vol 24,
No 4, 1969.
JPRS 48124

Vestnik Protivovozdushnoy Oborony, No 5, 1969.
*ACSI J-6869

Vestnik Akademiy Nauk SSSR, Vol 38, No 6, 1968.
JPRS 46557

Vestnik Protivovozdushnoy Oborony, No 6, 1969.
*ACSI J-6903

Vestnik Akademiy Nauk SSSR, Vol 38, No 7, 1968.
JPRS 46769

Vestnik Protivovozdushnoy Oborony, No 7, 1969.
*ACSI J-6741

Vestnik Akademiy Nauk SSSR, Vol 38, No 8, 1968.
JPRS 46944

Vestnik Svyazi, Vol 28, No 8, 1968.
JPRS 46833

Vestnik Akademiy Nauk SSSR, Vol 38, No 9, 1968.
JPRS 47062

Vestnik Svyazi, Vol 28, No 9, 1968.
JPRS 46924

Vestnik Akademiy Nauk SSSR, Vol 38, No 10, 1968.
JPRS 47295

Vestnik Svyazi, Vol 28, No 10, 1968.
JPRS 47561

Vestnik Akademiy Nauk SSSR, Vol 38, No 11, 1968.
JPRS 47294

Vestnik Svyazi, Vol 28, No 11, 1968.
JPRS 47314

Vestnik Akademiy Nauk SSSR, Vol 38, No 12, 1968.
JPRS 47507

Vestnik Svyazi, Vol 28, No 12, 1968.
JPRS 47640

Vestnik Akademiy Nauk SSSR, Vol 39, No 1, 1969.
JPRS 47761

Vestnik Svyazi, Vol 29, No 1, 1969.
JPRS 47986

Vestnik Akademiy Nauk SSSR, Vol 39, No 2, 1969.
JPRS 47987

Voyenno Meditsinskiy Zhurnal, No 12, 1968.
ACSI J-6196

Vestnik Akademiy Nauk SSSR, Vol 39, No 3, 1969.
JPRS 48129

Voyenno-Meditsinskiy Zhurnal, No 5, 1969.
*ACSI J-6901

Voyenno-Meditsinskiy Zhurnal, No 6, 1969.
*ACSI J-6902

Voyennyy Vestnik, No 7, 1968.
ACSI J-5990

Zhurnal Obshchey Khimiy, Vol 38, No 11, 1968.
CB

Voyennyy Vestnik, No 5, 1969.
*ACSI J-6904

Zhurnal Prikladnoy Khimiy, Vol 41, No 10, 1968.
CB

Voyennyy Vestnik, No 6, 1969.
*ACSI L-6905

Zhurnal Prikladnoy Khimiy, Vol 41, No 11, 1968.
CB

Yadernaya Fizika, Vol 7, No 6, June 1968.
Am Inst Phys
Vol 7, No 6, Dec 1968

Zhurnal Tekhnicheskoy Fiziki, Vol 38, No 11, 1969.
The American Institute of Physics
Vol 13, No 11, May 1969

Zavodskaya Laboratoriya, Vol 34, No 10, 1968.
CB

Zavodskaya Laboratoriya, Vol 34, No 11, 1968.
CB

Zhurnal Analiticheskoy Khimiy, Vol 23, No 9, 1968.
CB

Zhurnal Analiticheskoy Khimiy, Vol 23, No 10, 1968.
CB

Zhurnal Eksperimental'noy Teoreticheskoy Fiziki
JETP Pis'ma Redaktsiyu, Vol 9, No 5, 5 March, 1969.
The Am Inst of Phys

Zhurnal Eksperimental'noy Teoreticheskoy Fiziki
JETP Pis'ma Redaktsiyu, Vol 9, No 6, 20 March 1969.
The Am Inst of Phys

Zhurnal Obshchey Khimiy, Vol 38, No 10, 1968.
CB

ACTA PHYSIOLOGICA POLONICA
Vol 19, No 4, 1968

SESSION I

	Page
W. Korczewski, A. Huszczuk: New Data on the Mechanisms Controlling the Respiratory System	420
L. Szatdyn: Electric Control of the Respiratory Rhythm	430
M. Szereda-Przesinszewska: Pulmonary Stretch Receptors, Motoneurons of the Vagus and Phrenic Nerves in Constriction of the Airways	433
K. Kiczka: Respiratory Center	438
K. Kiczka, W. Sławińska: Some Mechanisms of Respiration Escape	439
R. Sochański: Electrical Reactivation of the Respiratory and Vasomotor Center in Asphyctic Animals	441
J. Łyszczorz: Physical Properties of the Lungs and Their Contribution to the Regulation of the Respiratory Cycle	441
J. Łyszczorz: Role of Hyperventilation in Anoxic Hypoxia	446

SESSION II

W. Wcisło: Pulmonary Circulation in the Light of Hemodynamic Studies	450
W. Wcisło, W. Pawlik and J. Biernat: Respiratory and Circulatory Effects of a Temporary Brain Ischaemia in Animals during Physical Effort	461
E. Telesz, W. Obdulowicz, A. Barylak and W. Wcisło: Forced Cardiac Output and Pulmonary Ventilation in Relation to Lean Body Mass	466
R. Kordecki: Tracheo-bronchial Reflexes and their Influence on Respiration and Circulatory System	471
K. Rożkowski, R. Kordecki and H. Reutt: Role of the Carotid Sinus in Hemodynamic and Respiratory Changes as Produced by Ethyl Alcohol	477
A. Przybylski: Chemo- and Pressoreceptor Impulsation. (Some Observations)	482
K. Kiczka, H. Kuleszo, W. Sławińska and K. Kopystecki: Circulatory Changes during Respiration Inhibition and Respiration Escape	487
W. Klementowski and K. Rożkowski: Sensitivity Differences of Parietal and Visceral Pleura in Light of Reflex Hemodynamic Reactions	490
M. Głogowska: Adrenaline Model of Lung Edema — Evaluation of Its Usefulness in Physiological Investigations	497
H. Dzięwanowski, A. Patowa: Modification of Apparatus for Isolated Lung of Delaunoi's Type	500
K. Skolasińska, M. Augustyniak and H. Olechnowicz: Mechanism of the Reflex Bradycardia during Acute General Anoxia	505

MAY, 27, 1967

SESSION III

E. Kopystecki: Application of Electronic Apparatus for Investigations on the Respiratory System	506
W. Goszcz, K. Motyka and B. Jelonek: Application of Computers in Functional Examinations of the Circulatory and Respiratory System	515

(Contd.)

Available From CFSFI TT 68-50008/4

ACTA PHYSIOLOGICA POLONICA
Vol 19, No 4, 1968

H. Gromysz: Recording of Respiratory Neurons Activity of the Medulla by Means of Glass Ultramicroelectrodes	521
B. Kamiński and T. Strzałkowska: Anesthesia and Respiration	523
B. Kamiński, W. Karczewski and J. Górzyński: Influence of Certain Inhalation Anesthetics on the Function of Pulmonary Stretch-receptors	533
J. Kącki, J. Preybisz and J. Siedlecki: Arterial Blood Gases in Patients with the Respiratory Control Excluded during Controlled Respiration	538
K. Moluk, W. Goszcz and H. Jelonek: Response of the Cardio-Pulmonary System to the Graded Work Load in Healthy Subjects and in Patients Exposed to the Silica Dust	541
J. Malarecki, I. Wojcieszek: Respiratory System Responses in the Course of Work Performed in Conditions of Acute Hypoxia	546
H. Kirschner: Factors Limiting Maximal Oxygen Uptake During Exercise at Simulated Altitude of 4000 m	546
E. Ziobro, J. Zwoliński and M. Goleme: Influence of a Vertical, Head Down Position on Respiration in Man	551
Z. Barysiel: Influence of Phenothiazine Derivates on Reflex Hyperventilation during Physical Exercise in Rabbits	554

Available From CFSFI TF 68-50008/4

L. Berezowski, B. Lubimowski: Synthesis and Transformations of 1-Ethoxycarbonylmethyl-4-hydroxyquinazoline and Some of Its Derivatives . . .	478
M. Mott: Syntheses in the Guinaldine Group. II. ω -Aminopolymethyleneamides of Chloro-4-hydroxyquinoidic Acids . . .	483
C. Gmernańska-Haftek, W. Wiśniewski: Synthesis of 4-(Tetra-O-acetyl-D-glucopyranosyl)-3-thiosemicarbazones of Aromatic Hydroxyaldehydes . . .	490
L. Ryłski, L. Seńczukowa, G. Dubicka: Synthesis of Some Esters of 2-Phenyl-2-(2'-phenethylamino)-acetic Acid. Part II. . .	498
Z. Zakrzewski, S. Rączkowska, M. Iwaszkiewicz, W. Lewenstein: Selective Preparation of Semicarbazones of Steroid Ketones . . .	500
J. Cieślak, I. Bułko: Semisynthetic Penicillins. VI. Relationships between Structure of the Side Chain and Resistance to Penicillinase . . .	503
J. Cieślak, W. Sobiechowski, D. Stęczyńska: Semisynthetic Penicillins. VII. Some Properties of 6-(α -isonitrosoacylamido)-penicillanic Acids . . .	508
I. Grabowska: Study of the Degradation of Diethylaminoethyl Acetylsalicylate Hydrochloride . . .	513
M. Kostolowska, L. Królczyński, Z. Kuźniak: Study on Solubility of Detreomycin and on Stability of Its Solutions . . .	518
B. Chodkowska-Granicka, L. Królczyński: Effect of Tensides on Certain Properties of Tablets. Part III. Effect of Tensides on Dissolving Rate of the Active Substance of Tablets . . .	528
H. Bukowiecki, R. Figurski: Comparative Investigation on Anatomy of the Shoots of <i>Salix rosmarinifolia</i> L. and Other Species of the Genus <i>Salix</i> L. from Kampinos Forest . . .	532

SCIENTIFIC COMMUNICATIONS

S. Bielecki, A. Bielecki: Formation of 2-Piperidone from 2-Aminopyridine . . .	540
T. Cieszyński: Specific Color Reaction of N_1 -Carboxybenzyl- N_2 -phthalazinehydrazine Hydrochloride . . .	541

Available From CFSH TT 68-50003/5

ARCHIVUM DOCKINOLOGIAE ET THERAPIAE EXPERIMENTALIS
Vol 17, No 1, 1969

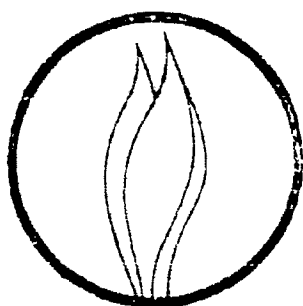
	Page
KAZIMIERZ DUX and HENRYK SKURZAK: Demonstration of Antibodies in Rats in Response to Xenogenic Grafts of Ehrlich Ascites Tumor by the Fluorescent Antibody Technique	1
JACEK HIALASO: The Influence of Passive Immunization on Primary and Secondary Response	8
JADWIGA LABOSZ: The Influence of the Autonomic Nervous System on Phagocytosis: IV. Changes Caused by Stimulation of the Sympathetic System with Cobefrin	18
ROMAN LUTYŃSKI: Studies on the Agglutination of Fowl Red Blood Cells by the Hemagglutinin of Coxsackie A7 Virus	27
ELŻBIETA WOLNA and MARIA LONDOŹSKA: Purification of Antibodies against Newcastle Disease Virus (NDV) from Chicken Egg Yolk and Serum	35
WŁADYSŁAW BARTOSZEWICZ, ADAM MICHAŁOWSKI and JAN KOZUBOWSKI: Electron-Microscopic Studies on Human Lymphocytes in Specifically and Nonspecifically Stimulated Cultures	41
BOGUMILA ORLOWSKA, MARIAN MORDANSKI, TADEUSZ KRZYWY and ALICJA TKACZOWA: Taxonomic Studies on the Strain <i>Streptomyces thermoviolaceus</i> Wr-141	54
TADEUSZ KRZYWY, MARIAN MORDANSKI, BOGUMILA ORLOWSKA and ALICJA TKACZOWA: Isolation and Some Properties of the Antibiotic Produced by <i>Streptomyces thermoviolaceus</i> var. Wr-141	63
TADEUSZ MICHAŁ LACHOWICZ, ZBIGNIEW KOTYLAK, JAN KOŁODYŃSKI and ZDZISŁAWA ŚNIEGOCKA: New Types of Respiratory Deficient Mutants in <i>Saccharomyces Cerevisiae</i> . II. Physiology and Genetics of a Series of Segregational Mutants Induced by Ultraviolet Irradiation or Nitrous Acid Treatment	72
CZESŁAW RADZIKOWSKI, ANDRZEJ LEDÓCHOWSKI, MARIA HRABOWSKA, BARBARA HOROWSKA, BARBARA STEFAŃSKA, JERZY KONOPA, and ELŻBIETA MORAWSKA: A Search for Antitumor Compounds. V. Biologic Studies. Antitumor Properties of 41 New Acridine Derivatives	86
CZESŁAW RADZIKOWSKI, ANDRZEJ LEDÓCHOWSKI, MARIA HRABOWSKA, BARBARA STEFAŃSKA, BARBARA HOROWSKA, JERZY KONOPA, ELŻBIETA MORAWSKA and MARIA URBAŃSKA: A Search for Antitumor Compounds. VI. Biologic Studies. Antitumor Properties of 29 New Acridine Derivatives of Groups XVII—XVIII	99
MARIA HRABOWSKA and JAN TRĄSKA: The Influence of Prolonged Administration of α -Allyl-Allophanylphenyl- γ -Valerolactone (T.) on Behavior and Bioelectric Brain Activity in Cats	111
ALICJA PELCZARSKA: On the Central Action of Some Oxindole Compounds	118
TADEUSZ JAKÓBIEC: Studies on Derivatives of Phenyltetrahydrofuran-2-carboxylic Acids. II. Derivatives of γ -phenyltetrahydrofuran-2- γ -carboxylic Acid and 3-hydroxy-3-phenylpropane-1,3-dicarboxylic Acid	125
ALEKSANDER BUDZISZEWSKI: The Use of Ion Exchange for the Quantitative Assay of Mixtures of Citrate and Citric Acid	149

Available From CFSH TT 69-50006/1

ARHIV BIOLOŠKIH NAUKA
Vol 18, No 3-4, 1966

	Page
Mirjana Nešković and D. Burnett:	
Identification of Tryptophan and Indoleacetic Acid in Pea Shoot Extracts	3
C. Radenović and M. Penčić:	
Study of Potassium Distribution in Different Phases of Plant Cells by Simultaneous Measurement of Bioelectric Potential and Potassium Ion Activity	11
V. Pantić, M. Pavlović and M. Kosanović:	
Study of Thyroids Transplanted to the Chorionicallantoic Membrane of the Chick Embryo	19
Z. Pocrnjić:	
Thermal Adaptation, Temperature Coefficient and the "Surface Law" in the Oxygen Metabolism of the Alpine Neotenic and Metamorphosed Newt	29
M. Todorović and J. Ivanović:	
Trophic Microdifferentiation in <i>Muroidea</i> at the Enzymic Level (Amylase)	39
M. Mikel:	
Ectoparasite Fauna on <i>Mus musculus hortulanus</i> Nordmann	47
D. Stevanović and Z. Gradojević:	
Faunal Population of the Compact Soil Layer in the Community <i>Querceto-carpinetum serbicum</i> (Fruska Gora)	55
D. Gašić:	
Experimental Study of Soil Phosphorus Variations Resulting From the Interaction of Wheat and Corn Cockle	61
B. Ivanović:	
The Development of <i>Pachychilox pictum</i> Under Natural Conditions	75
M. Janković:	
Benthic Fauna of the Groznica Reservoir	85
D. Filipović:	
Limnological Characteristics of the Lisinski Potok Source Area on Kopaonik Mountain	95
Bibliography	109
Supplement: Short Communications	161

Available From CPSTI TT 66-59008/3-4



Astrophysics

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Contents

Volume 3, Number 3 · Fall 1967

Editorial Board

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	Russian page	English page
Some Nonlinear Problems in the Theory of Radiation Transfer Within Spectral Lines. V. Yu. Terebizh	281	129
Asymptotic Formulas for the X and Y Functions in the Theory of Multiple Scattering of Radiation Within a Line. D. I. Nagirner	293	133
Generalized Newtonian Theory of Gravitation. G. S. Saakyan and M. A. Mnatsakanyan	311	140
Polychromatic Scattering in a One-Dimensional Medium. N. B. Engibaryan	325	145
Magnetohydrodynamics of Interstellar Gas-Dust Medium. E. Ya. Gidalevich	331	148
Time-Dependent Diffusion of Radiation in an Inhomogeneous Medium. I. N. Minin	345	154
Spectrophotometric Study of β CrB. Z. N. Chumak	351	156
Variability of the Envelope of the Wolf-Rayet Eclipsing Binary CQ Cephei = HD 214419. A. A. Guseinzade	359	160
Analysis of the Hydrogen Lines of the Peculiar Stars α^2 CVn and γ Lyr. Yu. V. Glagolevskii and K. I. Kozlova	367	165
Spectroscopic Study of P Cygni. L. S. Luud	379	172
Spectrophotometry of F Stars. II. Atmospheres of 41 Cyg and ν Her. T. A. Kipper	397	185
Dwarfs in Some Close Groups of Galaxies. E. V. Evyagina	411	194
Brief Communications		
Irregular Galaxies of the Type of M 82. G. M. Tovmasyan	427	203

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November, 1968

CONTENTS

	Engl./Russ.
CONTINUOUS CONTROL SYSTEMS	
Method of Approximate Synthesis of Optimal Control—V. Z. Bukreev	1725 5
Spectral Analysis of Linear Systems with Variable Parameters on Finite Nonstationary Time Intervals—V. V. Semenov and V. V. Solodovnikov	1733 14
Method of Semi-Invariants in Problems of Nonlinear Filtering of Multidimensional Markovian Processes—M. L. Dashevskii	1742 24
Application of the Method of Moments to an Investigation of the Accuracy of Dynamic Systems that are Subjected to Random Perturbations in the Form of Polynomials with Random Parameters—I. E. Kazakov and N. I. Slovtsov	1748 30
Checking the Hypothesis of the Normality of the One-Dimensional Distribution Law of a Stationary Random Process—V. P. Chuberkis	1755 37
DISCRETE SYSTEMS	
On the Simulation of Gaussian Random Sequences in Digital Computers—P. P. Akimov, Yu. M. Gorodetski, and S. I. Shukur'yan	1763 45
Lower Bound for the Optimal Risk in Dual Control Problems for Multiplicative Objects Over Finite Time Intervals—Ya. A. Kogan	1769 51
ADAPTIVE SYSTEMS	
Search Methods for Adjusting Controlled Models in Problems of Determining the Parameters of Objects—K. B. Norkin	1779 61
LARGE-SCALE SYSTEMS	
Methods for the Solution of Extremal Problems of Combinatorial Type (Review)—V. N. Burkov and S. E. Lovetskii	1785 68
Sequence of Operations in the Fabrication of Complex Parts—É. M. Livshits	1807 94
AUTOMATA	
Automation for the Solution of an Empirical Problem in a Markov Switched Medium—A. M. Gersht and V. L. Stefanyuk	1809 96
Realization of Finite Automata by Shift Registers—V. V. Devyatkov	1820 108
TECHNICAL MEANS	
Threshold Elements with Multiaperture Magnetic Cores—M. A. Rozenblat	1829 119
Choice of the Nonlinearity in a Controllable Oscillator Securing Invariance of the Pass Band with Respect to the Signal—D. E. Polonnikov	1836 128
COMPUTING TECHNIQUES IN AUTOMATIC CONTROL	
Choice of an Optimal Set of Subroutines in a Centralized Monitoring System—É. L. Iskovich and É. A. Trakhtengerts	1842 134
Problem of Diagnosis of Combinational Switching Devices—V. R. Gorovoi	1855 149
Approximation of Functions of Two Variables by the Sum of Functions of Linear Combinations of the Arguments—T. E. Bogatkina and V. A. Dozorov	1861 156

(Contd.)

Available From Consultants Bureau

AVTOMATIKA I TELEMEXHANIKA
No 11, 1968

CONTENTS

(continued)

Engl./Russ.

INDUSTRIAL APPLICATIONS OF AUTOMATION

Mathematical Model and Algorithm for Optimal Control of Styrene Production—L. G. Pliskin and T. G. Rzaev	1864 160
Control Algorithm of a Complex Mass Servicing System—L. P. Romashkin	1875 172

TECHNICAL NOTES

Problem in Synthesis of an Optimal System for Controlling a Linear Object when the Controller Structure is Partially Specified—E. I. Shapiro and N. M. Shehelkanovtsev	1881 180
Sufficient Conditions for Boundedness of the Moments of Solutions of Linear Stochastic Systems —S. M. Meerkov	1887 186
DC Magnetic Suspension—V. I. Ivanov, S. N. Ikonnikov, and M. I. Krasil'nikova	1890 189

LETTERS TO THE EDITOR

To the Journal "Avtomatika i Telemekhanika"—D. M. Berkovich, S. I. Bernshtein, A. A. Voronov, A. Ya. Lerner, M. V. Meerov, B. N. Naumov, B. N. Petrov, N. S. Raibman, and Ya. Z. Tsypkin	1894* 192

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to have taken place reasonably soon thereafter.

Available From Consultants Bureau

A translation of *Avtomatika i Telemekhanika*

December, 1968

Engl./Russ.

(Contd)

- 120 -

(continued)

	Engl./Russ.
Estimates of Reliability Criteria by the Method of Stochastic Approximation—Yu. L. Muromtsev . . .	2009 134
Use of Photothyristors in Relaxation Oscillator Circuits for Detection of Radiation —V. F. Zolotarev and A. M. Fantich	2013 138
Problem of Analytic Construction of Regulators—V. B. Larin and V. N. Sunuev	2017 142
The Use of the Stochastic-Approximation Method when the Possibility Arises of Errors of the "Miss" Type—Yu. L. Rozov and I. B. Chelpanov	2021 146
INDEX	
Author Index, Numbers 1-12, 1968	2027
Tables of Contents, Numbers 1-12, 1968	2031

The Russian press date (podpisano k pechatl) of this issue was 11/26/1968.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available from Consultants Bureau

Molecular biophysics

- A. B. RUBIN and A. S. FOKHT: Investigation of the thermodynamic properties of certain model open systems 462
- G. I. LUKHTINSKIY, A. P. PIVOVAROV, P. KH. BOMBIZHANOY, E. G. ROZANTSEV and N. B. SASHINA: Investigation of the dynamic structure of proteins and enzymes by methods of specific luminescent and paramagnetic labelling 474
- Yu. A. KRUGLYAK, M. K. PULATOVA, YE. V. MOZDOR, YE. N. SUD'BINA, V. G. PASOYAN and L. P. KAYUSHIN: Study of the electron structure of radicals of γ -irradiated glycine and tyrosine and their photo-induced reactions 480
- A. N. PISAREVSKII, D. M. SPITROVSKII, S. N. CHERENKEVICH, V. T. ANDRIANOV and N. V. SOSHINA: Luminescent properties of DNA and DNP at room temperature 494
- G. G. KOMISSAROV and Yu. S. SHUMOV: Study of the photovoltaic effect in films of β -carotene 503
- S. L. AKSENTSEV, S. D. NISENBAUM and S. V. KONEV: Dependence of the prolonged afterglow of proteins on the secondary structure of the molecules 513
- E. A. BURShteIN: Quenching of fluorescence of proteins - I. Principles of method. Solutions of tryptophan, tyrosine and denatured proteins 520
- Ye. B. BURILAKOVA and Ye. M. MOLOCHKINA: Change in the anti-oxidative activity of mouse liver lipids on induction of hepatoma with α -aminoazotoluene 532

Cell biophysics

- I. B. FEDOROVICH and M. A. OSTROVSKII: Character and distribution of ATP-ase activity in a suspension of the external segments of photoreceptors and in a rhodopsin extract 539
- L. M. VORON'YEVA and A. A. KRASNOVSKII: Bleaching of pigment forms on formation of chlorophyll in greening etiolated leaves 547
- V. P. GOLIKOV, A. D. ZLATOPOL'SKII and A. E. KALMANSON: Study by the EPR method of free radical products formed under the action of ultraviolet in suspensions of bacteriophage and also in solutions of phage DNA and phage protein at 77°K 555
- A. F. VANIN and E. K. RUUGE: Determination of the relaxation parameters of paramagnetic centres in biological specimens by the method of continuous saturation of the EPR signals and from the traversal effects 564
- V. N. KARNAUKHOV, YE. V. MEL'NIKOVA, V. A. SVOREN' and R. T. FIN: Comparative microspectral investigations of the central nervous system of the mollusc 570

Biophysics of complex systems. Mathematical models

- Ya. P. CHEROTAREV: Modelling of the process of conduction of excitation in cardiac muscle 577
- V. V. SMOLYANINOV: Omission of pulses in an elementary fibre model 587
- L. A. MAKSIMENKO: Mathematical modelling of the control mechanisms acting at the entry of the reflex arc of the spinal cord 599
- E. M. VAISBORD and G. SH. ROMENShteIN: I. Qualitative models of disturbances in behaviour 609

Letters to the Editor

- I. I. SAPEZHINSKII and V. A. VOLOSHIN: Chemiluminescence accompanying the photooxidation of tryptophan 617
- A. N. SUS and V. V. BEREZIN: Measurement of the true value of the dielectric constant of biological specimens over the range of low radio frequencies 620
- V. P. STRIGUTSKII and Yu. K. NIKOL'SKII: EPR spectra of seed germinating in heavy and ordinary water 621
- I. G. STOYANOVA, I. F. ANASKIN and M. D. SHPAGINA: Mean internal potential of biological and organic micro objects measured in the electron interference microscope 623
- G. YE. BERLOVSKAYA and V. S. KORYTNYI: Role of polarization processes near electrodes on the measurement of the electrical conductivity of biological specimens 627
- N. V. BIRYUKOVA, A. D. MOROZKIN and V. O. SHPIKITER: Polyelectrolyte effect in fibroinogen of the lappet moth 632
- K. A. STEPANOV: Shortening of the frog sciatic nerve on stimulation 634
- B. N. VEPRINTSEV, S. I. ROZANOV and O. P. YURCHENKO: Effect of temperature on the fixation time of memory traces on "learning" by the decapitated insect 636

(Contd.)

Available From Pergamon Press

BIOFIZIKA
Vol 13, No 3, 1968

YA. A. AL'TMAN and A. M. MARKOVICH: Neurons - detectors of the direction of movement of a sound source	639
G. A. ARUTYUNYAN, V. S. GURFINKEL' and M. L. MIRSKII: Investigation of aiming at a target	642
G. G. DEMIRCHIOGLYAN and KII. O. NADAPETTYAN: Early receptor potential of the retina	646
Current affairs	
S. V. LEVIN, K. A. GOL'FAND and YE. A. SHAPIRO: Dependence of the rate of penetration of neutral red into the cell on the sorption capacity of its diffusion obstacles	649
N. YE. ZIL'BERMAN: Current-voltage characteristic of the membrane in non-gradient concentration conditions and its mathematical description	653
Z. KH. KHASHAYEV and YE. A. LIBERMAN: Effect of aminazin and Tofranil on the frequency of miniature potentials	658
L. N. PISAREVA: Properties of K^{+} - and Na^{+} -activated ATP-ase of the guinea-pig renal cortex	661
A. A. VERENINOV: Dependence of the sodium efflux from muscle fibres on the concentration of sodium in the medium and the difference in the electric potentials between cell and medium	666
N. K. MONAKHOV and A. A. LEV: Morphological and functional heterogeneity of the membranes of mitochondria	670
V. A. GOTLIN, E. P. BUZMINSKII and A. A. LEV: Nature of the cationic specificity of bimolecular phospholipid membranes with valinomycin introduced into them	675
I. M. VASILETS, E. F. DERRACHEV and S. A. NEIFAKH: Energy sources for transport function of the plasmatic membrane	680
YE. P. ZDRODOVSKAYA, YE. A. LOTOSH and A. I. PODLESNAYA: Hereditary defect of the membranes of the muscle cell	688
P. O. KOSTYUK: International conference on intracellular glass microelectrodes, Montreal	690

Available From Pergamon Press

BIOCHEMISTRY

A translation of *Biokhimiya*

Volume 33, Number 4, Part 2

July-August, 1968

CONTENTS

	Engl./Russ.
Reactions of Native Dextrans of Different Structures with Concanavalin A - M. E. Preobrazhenskaya and E. L. Rozenfel'd	641 784
Extraction, Purification, and Properties of Acetyl-Coenzyme A Synthetase from Rabbit Heart - E. V. Sharkova	648 792
An Investigation of the Phosphorus Compounds in the Mitochondria of <i>Neurospora crassa</i> - I. A. Krashennnikov, I. S. Kulaev, G. I. Konoshenko, and V. I. Biryuzova	654 800
Changes in the Enzymes of Lysosomes during Protein Deficiency - A. A. Pokrovskii and V. A. Tutel'yan	662 809
Effect of Salts on the Hydrolysis of Acetylcholine by Cholinesterase at Different pH Values - A. P. Brestkin and T. A. Fruentova	669 817
The Study of Histones from Dormant and Germinating Wheat Germs - L. V. Gofshtein	673 823
Some Data on Heterogeneity and Specificity of the Structure of Transfer RNA in Microorganisms - L. O. Dynga, G. N. Zaitseva, A. S. Zubatov, E. A. Karnaukhova, and A. N. Belozerskii	679 831
Hybrid Protein-Chondroitin-Keratosulfate Complex - S. M. Bychkov and V. N. Kharlamova	686 840
Seryl Pyrophosphate in a Phosphotransferase Reaction Catalyzed by Alkaline Phosphatase from <i>Escherichia coli</i> - S. M. Avaeva, N. V. Ras'kova, and M. M. Botvink	692 847
A Lipomobilizing Fraction of Bovine Somatotrophic Hormone - Yu. M. Keda, E. A. Kolli, F. Yu. Ryshka, A. L. Sinitsyna, and A. S. Khokhlov	696 852
Properties of the Complex Proteolytic Enzymes of <i>Streptomyces griseus</i> - Yu. A. Rassulin and E. D. Kaverzneva	700 857
Oxidative Phosphorylation and Transport of Ca^{2+} in the Mitochondria from Rat Muscles in the Normal State and in Experimentally Induced Local Tetanus - T. Yu. Lipetskaya	708 867
Study of the Acid-Soluble Nucleotides and Nucleic Acids of the Fruiting Bodies of the Fungus <i>Lentinus tigrinus</i> under Different Morphogenetic Conditions - M. S. Kritskii and T. A. Belozerskaya	714 874
Changes in the Protein and Nucleic Acid Content of the Pancreas during Secretion - I. B. Bukhvalov	722 884
Cytochromes of <i>Micrococcus lysodeikticus</i> - M. A. Lukyanova and S. D. Tapykova	726 888
BRIEF COMMUNICATIONS	
Effect of Phosphoimidazole Compounds on ATPase Activity of Myosin - N. P. Meshkova and L. B. Akieva	731 895
Enzymic Synthesis of Cytidine-5'-Monophosphate Choline in Extracts of Rat Thymus - S. A. Silaeva and S. S. Debov	734 899

The Russian press date (podpisano k pechati) of this issue was 8/9/1968. Publication therefore did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

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BIOCHEMISTRY

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Volume 33, Number 5, Part 1

September-October, 1968

CONTENTS

	Engl./Russ.
Model Compounds with a Nucleotide-Peptide Linkage of the Phosphoester Type - B.A. Yuodka, E.P. Savel'ev, Z.A. Shabarova, and M.A. Prokof'ev.....	737 907
Kinetics of the Action of the Enzyme Decapsulating <i>Bacillus anthracis</i> - N. Tsanev.....	744 916
Application of Thin-Layer Chromatography in the Comparative Evaluation of Changes in Proteins - V.B. Lazurkina and S.A. Kibardin.....	749 922
Investigation of Photochemical Reactions of Chlorophyll Biosynthesis - F.A. Litvin and O.B. Belyaev.....	754 928
Qualitative and Quantitative Composition of Phospholipids of Whole Dog Blood under Normal Conditions - K. G. Karagezyan.....	760 937
Effects of Hypoxia on Activity of Glucose-6-Phosphate Dehydrogenase, Hexokinase, and Lactate Dehydrogenase in Rat Erythrocytes - L.N. Simanovskii, M.N. Pertseva, and N.M. Livshits.....	764 942
Conversion of ϵ -Aminocaproic Acid by Bacterial Decomposition of Caprolactam - R.P. Naumova and I.S. Belov.....	768 946
Effect of Free Thymidine and DNA on Survival of Irradiated Animals and Excretion of Deoxyuridine, Thymidine, and β -Aminoisobutyric Acid - V.K. Mazurik, L.E. Bryksina, and V.K. Podgorodnichenko.....	774 953
Hydrolysis of Phospholipids and Formation of Free Fatty Acids in Isolated Chloroplasts - Yu.G. Molotkovskii.....	780 961
Postirradiation Changes in DNA Catabolism in Rats and the Mechanisms of Thimidinuria - O.Ya. Tereshchenko.....	787 969
Mechanism of Methemoglobin Formation - A.E. Gromov and V.V. Sokolovskii ..	792 976
Change in the Transport of Proteins from the Microsomes to the Mitochondria during Acute Radiation Sickness - A.P. Galkin, E.V. Piskareva, A.G. Dyachenko, I.F. Paskevich, and I.N. Todorov.....	796 981
Phosphorylation of Thiamine in White Rats of Different Ages - A.Ya. Rozanov, L.F. D'yachenko, and L.M. Karpov.....	807 993
Streptomycin-Induced Modification of Mulberry Silkworm Sericins - L.M. Galimova, B.M. Mednikov, and V.A. Noskov.....	812 999

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BIOCHEMISTRY

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CONTENTS

Engl./Russ.

A Simple Method for the Preparation of C^{14} -Labelled Adenosine-5'-Phosphates Using the Yeast Enzyme Preparation—S. N. Zagiebel'nyl, V. L. Knorre, T. S. Lomakina, V. I. Sirotyuk, and L. I. Chirkova	817	1004
Isolation, Purification, and Properties of the Carboxypeptidase (Kininase) of Human and Rabbit Blood Serum—S. S. Trapeznikova and T. S. Pashkina	825	1012
Purification of a Hypothalamic Factor Stimulating Release from the Hypophysis of Luteinizing Hormone—G. G. Vasova and L. M. Glnodman	834	1023
Properties of Trypsin and Chymotrypsin in Dioxane-Water Mixtures—V. V. Mosolov, P. V. Afanas'ev, M. S. Dolgikh, and E. V. Lushnikova	839	1030
Acid-Soluble Nucleotides and Nucleotide Peptides of Bacteria under the Action of Inhibitors of Protein Synthesis—M. F. Khanina	846	1039
Localization of ATPase in the Membranes of <i>Micrococcus lysodeikticus</i> —I. M. Simakova, M. A. Lukyanova, V. I. Biryuzova, and N. S. Gel'man	852	1047
Various Derivatives of Thiamine and a Summary Evaluation of the Mechanisms of Proteinization of the Vitamin from Its Excretion in Urine—M. E. Ostrovskii, G. A. Dosta, and E. A. Gritsenko	858	1053
Kinetics of Hydrolysis of the Phenyl Analog of Acetylcholine under the Action of Horse Serum Choline Esterase and Bovine Erythrocyte Acetylcholine Esterase—A. P. Brestkin, I. L. Brik, and N. E. Teplov	863	1059
Reaggregation of Structural Protein of Outer Membranes of Mitochondria—A. F. Poglazov, V. V. Mesyanzhinov, and B. F. Poglazov	871	1069
Ribosomes from Chloroplasts and Cytoplasm of the Unicellular Green Alga <i>Chlamydomonas globosa</i> —M. V. Pakhomova, G. N. Zaitseva, and S. Yu. Stepanenko	876	1074
Immunization-Induced Changes in RNA Synthesis—S. I. Gorodetskii and A. E. Gurevich	883	1080
Certain Properties of Prothrombin after Chromatography on DEAE-Cellulose—I. P. Baskova, M. Z. Zaleskii, and S. M. Strukova	889	1087
Comparative Sensitivity of Mouse-Liver Serine Oxymethyl Transferase to Carbonyl Reagents and Reduction in Its Activity during B6-Avitaminosis—Yu. V. Bukin and A. V. Sergeev	894	1092
Effect of Thiol Reagents on the Activity of Yeast Hexokinase—G. V. Titova	903	1102
Induced Formation of Asparagine and Glutamine Synthetase in <i>Pseudomonas</i> sp.—L. P. Evseev and A. Ya. Nikolaev	907	1106

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BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

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CONTENTS

Engl./Russ.

PHYSIOLOGY

Nervous Regulation of the Tone of the Coronary Vessels—M. A. Kondratovich and M. M. Povzhitkov	1	3
Changes in the Action Potentials of the Cervical Sympathetic Trunk and Superior Cervical Sympathetic Ganglion of the Guinea Pig in Ontogenesis—M. A. Elshina	5	7
State of the Potassium and Sulfhydryl Groups in the Spinal Motor Neurons of the Frog during Reflex Excitation—T. V. Aleinikova, N. B. Taurina, and B. Ya. Sheigam	8	10
Presence of a Fibrin-Stabilizing Factor in Erythrocytes—V. P. Baluda, Zh. N. Rukazenkova, and S. S. Khnychev	11	13
Inhibition of the Action of Exophthalmic Factor by Anahormone—E. E. Limanova, L. N. Bulovskaya, and V. M. Dikhanan	14	16
Lung Volumes in Temporary Residents at High Altitudes—K. Yu. Akhmedov	16	18

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Edema of the Lungs in Albino Rats and Rabbits after Injection of Aconitine into the Hypothalamus—Ya. A. Lazaris, I. A. Serebrovskaya, L. Z. Tel', and Z. E. Bavel'skii	19	22
Prevention of Death of Rats from Radiation Sickness by Screening Part of the Bone Marrow during Irradiation—N. F. Gronskaya	23	27
The Action of Thyroid Extract on Cholesterol Metabolism in Alimentary Atherosclerosis Associated with Experimental Liver Damage—L. A. Myasnikov, N. M. Lobova, and V. A. Kassil'	26	31
Effect of Some Vitamins of the B Group on the Course of Virus Hepatitis in Albino Mice—P. D. Starshov	30	35
Early Stages of Experimental Allergic Polyneuritis. Pathomorphological and Immunological Characteristics—O. A. Karasik and V. F. Melnikova	32	37

BIOCHEMISTRY AND BIOPHYSICS

Some Conditions for Spectrophotometric Determination of Succinate Dehydrogenase and Cytochrome Oxidase Activity in the Mitochondria of the Brain—G. P. Gulidova and I. N. Sorokina	35	41
Cholinesterase and Monoamine Oxidase Activity of Ischemic and Nonischemic Portions of the Heart in the Acute Stage of Myocardial Infarction—K. M. Khalimova	39	44
Heme Transfer from Fetal Hemoglobin in the Presence of Sodium Hydrosulfite—T. V. Stepanova	43	48
Effect of Chlorpropamide on the Tissue Respiration of the Liver in Experimental Toxic Hepatitis—N. Kh. Abdullaev	45	50

(Contd.)

Available From Consultants Bureau

CONTENTS

~~RUSSIAN JOURNAL OF PHYSIOLOGY~~
Vol. 61, No. 1, 1967

	Eng.	Russ.
Effect of Intragastric Injection of Oxygen on Some Metabolic Indices in Acute Experimental Toxic Hepatitis—V. I. Uspenski	44	53
MICROBIOLOGY AND IMMUNOLOGY		
Metabolic Pool of Free Nucleotides of the Bacterial Cell—M. F. Khanina	51	56
Propagation of Toxoplasma in the Peritoneal Mesothelial Cells—M. A. Lidina and D. N. Zasukhin	55	61
Anti-erythrocyte Autoantibodies in Animals Immunized with Heterogenic Sera—L. S. Lozovskaya	59	63
EXPERIMENTAL BIOLOGY		
Changes in the Number of Oocytes in the Transplanted Ovary—M. I. Sergienko	62	68
Effect of the Anode of an Intermittent Direct Current on Reparative Regeneration of Skeletal Muscle—L. P. Tyurikova and N. I. Lassi	65	71
Cell Composition of the Anterior Lobe of the Pituitary with Raised and Lowered Levels of Estrogens in the Body—V. I. Romanov	68	75
Participation of the Epithelium of the Rete Testis in the Reparative Regeneration of the Testis in Guinea Pigs—S. S. Raitsina	70	77
Structure of the Regenerating Liver after Resection in Rats of Different Ages—V. F. Sudorova	74	81
Effect of X-Ray Irradiation of Rats on the Ninth Day of Pregnancy on Development of the Embryos and Placentas—A. P. Nikonov	77	85
MORPHOLOGY AND PATHOMORPHOLOGY		
Morphology of the Postmortem Changes in the Nervous Apparatus of the Arch of the Aorta—E. B. Khaisman	80	89
Myelination of the Preganglionic Fibers of the Cervical Sympathetic Trunks in Rabbits in Postnatal Ontogenesis—A. G. Kadantseva	83	93
Morphological Changes in the Mucous Membrane of the Small Intestine Following Administration of ACTH and Hydrocortisone—L. K. Leonova	86	96
METHODS		
Method of Estimating Small Doses of 3,4-Benzopyrene in the Skin of Mice—L. A. Andrianov	89	100
Use of the Biopsy Method for Studying the Blood Capillaries of the Mammary Gland—A. V. Gostev	92	103

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BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

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CONTENTS

	Engl	Russ
PHYSIOLOGY		
Aggregated Bioelectrical Responses of the Muscle Mechanoreceptors to Vibrations of Various Parameters - V. D. Shubchinskii	97	3
Electromyographic Effects of Stimulation of the Motor Points of the Cerebral Cortex in Dogs after Hemisection of the Spinal Cord - S. N. Ivanova	101	7
Function of the Phasic and Tonic Systems of the Oculomotor Apparatus in Post-Rotatory and Optokinetic Nystagmus - D. P. Matyushkin	105	12
The Corneal Temperature as an Index of Intensity of the Circulation in the Anterior Segment of the Eye - L. M. Lychovskii	109	16
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
Reproduction of Atherosclerosis in Rabbits by Limitation of Mobility - V. V. Tyavokin	112	19
Permeability and Blood Filling of the Lungs in Some Types of Experimental Pulmonary Edema - Ya. A. Lazaris, I. A. Serebrovskaya, Z. E. Bavel'skii, and G. M. Fliseeva	115	23
Increased Biological Activity of Extracts of the Hypothalamus in the Early Stages after Exposure to Ionizing Radiation - N. P. Smirnova and L. A. Andrianova	117	25
Some Mechanisms of the Changes in Kidney Function during Convulsions - A. A. Lebedev	120	28
Course of Experimental Peptone Shock Following Preliminary Administration of DOCA - A. N. Nurmukhambetov	123	31
Effect of BCG Vaccine on the Outcome of Irradiation of Rats γ -Rays from Co^{60} - Yu. I. Moskalev, N. N. Klemparskaya, and I. K. Petrovich	126	35
Experimental Allergic Enterocolitis - A. M. Nogaller and G. A. Trubnikov	129	38
Action of Typhoid Endotoxin on the Circulating Basophils in Rabbits' Blood - V. I. Goncharova and N. D. Krylova	132	41
Study of the Virulence and Toxicity of Enteropathogenic Strains of <i>Escherichia coli</i> on Adrenalectomized Animals - R. T. Krivososova	137	45
BIOCHEMISTRY AND BIOPHYSICS		
Lipolytic Activity of the Lungs and Liver after Fat Loading - M. Kh. Voinova	139	47
Effect of Glutamic Acid on Respiration and Oxidative Phosphorylation in the Mitochondria of the Liver in Normal and Hypoxic Conditions - A. A. Genkin and N. A. Glotov	142	50
Postnatal Changes in the Phases of Respiration and Oxidative Phosphorylation in the Cerebral Hemispheres of Animals - G. A. Uzbekov	145	52
Changes in the Mineral Metabolism after Primary and Repeated Bone Trauma - B. E. Movshev	147	54 (Contd)

Available From Consultants Bureau

PHARMACOLOGY

Increase in Plasma Fibrin Clot Elasticity in vivo and in vitro Due to Menadione Sodium Bisulfite - I. I. Matusis and L. M. Bronshtein	150	57
Experimental Investigation of the Antituberculous Activity of Chlorpromazine - V. S. Libenson and V. I. Braude	154	61
Action of Reserpine on the Digestive Tract of Experimental Animals - V. Smejkal	157	64

MICROBIOLOGY AND IMMUNOLOGY

Electron-Microscopic Study of Lysosomes of Macrophages with Different Phagocytic Activity - V. V. Rogovin	159	66
Antigenic Spectrum of Water-Soluble Liver Proteins from Patients Dying from Epidemic Hepatitis in the Stage of Acute Atrophy - Z. A. Gorkina	163	71
Effect of Hypoxia on the Development of Immunomorphological Reactions in Lymphoid Organs - A. S. Kaplanskii and G. N. Durnova	165	72
Use of a Model of Experimental Pneumonia for the Comparative Study of the Pathogenicity of <i>Mycoplasma pneumoniae</i> - S. V. Prozorovskii, E. M. Vikhnovich, G. Ya. Kagan, R. S. Ureizin, and E. V. Ryzhkov	168	76
Stimulation of Phagocytosis in vitro by the Action of a Phytoagglutinin Obtained from the Seeds of <i>Phaseolus vulgaris</i> - M. T. Tsoneva-Maneva and E. G. Boshnakova	172	80
Study of the Species-Specific Serum Antigen of Stable Human Cell Lines - V. T. Kakpakov and V. T. Timofeev	175	83

ONCOLOGY

Metastasization of Induced and Transplanted Tumors in Rats Following Immunization with Homologous and Heterologous Antigens - I. N. Maiskii and Yu. S. Krivoshein	178	86
Antigenic Properties of Human Tumor and Embryonic Tissues - N. N. Kosyakov and V. S. Korosteleva	182	89
Some Details Concerning the Ascites Form of Walker's Carcinosarcoma (Short Communication) - L. L. Khundanov, S. S. Feigel'man, and G. V. Suvorova	186	93
Importance of Protein Thiol Groups for the Appearance of Pathological Mitoses in Tumor Cells - I. A. Alov, M. E. Aspiz, and L. E. Rybak	187	94

EXPERIMENTAL BIOLOGY

24-Hour Periodicity of Mitotic Division in the Thyroid and Parathyroid Glands of Rats and Mice - Yu. A. Romanov and R. A. Gibadulin	191	98
Nervous Component in the Mechanism of Action of Radioprotective Substances - R. B. Strelkov and L. P. Kosichenko	194	101

MORPHOLOGY AND PATHOMORPHOLOGY

Morphological Changes in the Nervous System during Exposure to Vibration - V. V. Semenova-Tyan-Shanskaya and N. I. Karpova	197	105
Experimental Replacement of the Epithelium of the Uterus by Stratified Squamous Epithelium - N. I. Vol'fson	201	109
Histochemical Investigation of the Succinate Dehydrogenase Activity in the Small Intestine of Animals Exposed to Ionizing Radiation - A. V. Strelina	205	113
Morphological Changes in the Liver Caused by Sr^{90} - G. A. Lebedeva	210	118

METHODS

Table for Electrocardiographic Analysis in the Dog - A. M. Malygin	214	122
Apparatus for Measuring Dispersion of the Electroencephalogram - E. Ya. Voitinskii and V. A. Pryanishnikov	216	123

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CONTENTS

Engl./Russ.

PHYSIOLOGY

Relationship between the Duration of Depression of the Principal Cortical Rhythms and the Latent Period of the Motor Reaction in Man—M. P. Ivanova	219	3
Role of Antidromic Influences in the Peripheral Interaction between Tactile Receptors—A. I. Esakov and T. M. Dmitrieva	223	7
Analysis of the Transmission of Excitation from Nerve to Muscle in Curarized Dogs at Different Age Periods—V. P. Praznikov	227	11
Electrical Activity of the Caudal Mesenteric Ganglion in Waking Conditions—A. D. Nozdrachev	230	15
Comparative Study of the Effect of Decerebration, Hexobarbital, and Ether on the Constant Polarization Potentials of the Cat's Brain—M. Kh. Starobinets	234	19
Magnitude of the Membrane Potential of the Skeletal Muscles of Dogs at Different Age Periods—S. S. Solomatin	237	22
Constant Polarization Potentials and Adsorbent Properties of the Salivary Gland after Division and Stimulation of the Lingual and Sympathetic Nerves in the Rabbit—É. V. Tsegel'nitskaya	240	25

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Mechanism of Coronary Thrombosis Produced by Neurogenic Action on Animals with Experimental Atherosclerosis—I. K. Shkhvatsabaya and V. G. Ananchenko	242	28
Relationships between Changes in the Oxygen Tension and the Regional Blood Flow in the Tissues in Acute Hypoxia—M. I. Gurevich and S. A. Bershtein	245	31
Mechanism of Development of Hypercoagulation in Acute Blood Loss—L. G. Voronyanskaya, A. V. Zav'yalov, and B. I. Kuznik	248	35
Facilitation of the Spino-Cervical Tract under the Influence of Impulses from a Focus of Inflammation—N. N. Samko and L. N. Smolin	251	38
Effect of Destruction of Certain Hypothalamic Structures on the Course of Anaphylactic Shock—E. A. Korneva and B. I. Padegimas	254	41
Changes in Excitability of the Interoceptors of the Small Intestine in Anaphylaxis (Results of an Electrophysiological Investigation)—V. A. Lebedeva, B. I. Padegimas, and Yu. L. Pines	257	44
Effect of Burns on Permeability of the Vaso-Tissue Barriers of Some Organs of Rats after Whole-Body γ -ray Irradiation in a Sublethal Dose—É. P. Stepanov	261	48
Sensitivity of Mice Irradiated with X-rays to Acute Hypoxia—I. A. Shelkovnikov	265	52
Adrenalin, Noradrenalin, Dopamine, and Dopa in the Blood and Other Tissues of Albino Rats Following Head Injury—É. Sh. Matlina and T. B. Rakhmanova	268	55

(Contd.)

Available From Consultants Bureau

CONTENTS

(continued)

BYULLETEN EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 63, No 3, 1967

Engl./Russ.

BIOCHEMISTRY AND BIOPHYSICS

Changes in Carbohydrate-Phosphorus Metabolism in the Brain Following Severe Mechanical Trauma—I. R. Petrov and B. I. Krivoruchko	270	58
Role of the Bile-Forming Function of the Liver in Methionine Metabolism—K. S. Zamyckina and L. V. Kryukova	272	60
Detection of Catecholamines in the Bile—A. I. Krotov, V. I. Tkach, and M. G. Khovanskaya	275	64
Cytophotometric Measurement of the Content of DNA in Nuclei of Lymphocytes from the Cortex and Medulla of the Thymus—V. G. Skopichev	277	66
Biochemical and Histochemical Changes in Mucopolysaccharides during Healing of an Experimental Fracture—V. P. Modyaev and N. N. Timonina	279	68
Glycogen Content in Leukocytes from Peripheral Blood of Pancreatectomized Dogs—Z. V. Urazaeva and N. I. Yalovaya	282	72

PHARMACOLOGY

Effect of Neurotropic Drugs on the Early Signs of Neurogenic Trophic Disturbances in the Stomach Wall—I. S. Zavodskaya and A. A. Manina	285	75
Effect of Strophanthin on the Development of Acute Myocardial Ischemia as Shown by Luminescence-Histochemical Methods—E. A. Veselova and V. S. Kondrat'ev	288	78
Principal Pharmacological Properties of Some 2-Substituted Tryptamines—R. U. Ostrovskaya	291	82

MICROBIOLOGY AND IMMUNOLOGY

Detection of Toxic Substances in Killed Cultures of Pneumococci Using Adrenalectomized Mice (Short Communication)—S. A. Anatolii	295	87
Comparative Serologic Characteristics of Rheumatic Fever and Rheumatoid Arthritis—A. M. Smirnova and I. E. Lesyuis	297	89
Common Antigen to Human Heart Tissue and the Streptococcus—N. M. Mazina	300	92

EXPERIMENTAL BIOLOGY

Nucleic Acid Synthesis and Mitotic Activity during Development of Compensatory Hypertrophy of the Lung in Rats—L. K. Romanova, E. M. Leikina, and K. K. Antipova	305	96
A Morphological and Histochemical Study of Human Diploid Cells—S. Ya. Zalkind, N. V. Borisoglebskaya, and R. I. Rapoport	307	100

ONCOLOGY

Effect of Partial Hepatectomy of Metastasization of Walker-256 Carcinoma in Parabiont Rats—L. L. Khundanov and I. N. Maiskii	310	104
Effect of Ovariectomy on Life Span and Incidence of Mammary Gland Tumors in Irradiated Rats—Yu. I. Moskalev, V. N. Strel'tsova, and L. F. Romanova	313	107
Detection of a Common Cancer Antigen in Some Human Tumors of Different Localization—V. Ya. Rogal'skii	316	110

MORPHOLOGY AND PATHOMORPHOLOGY

Histochemistry of Placental Carbohydrates in Pregnant Albino Rats with Hyperinsulinemia—S. V. Mironovskii	318	113
Histological Investigation of the Experimentally Autotransplanted Lung—I. K. Esipova, Yu. I. Denisov-Nikol'skii, O. Ya. Kaufman, and Yu. Ya. Rabinovich	320	115

METHODS

Electrometric Method of Continuous Recording of the Volume Velocity of the Blood Flow and Changes in the Total Volume of Blood in the Human Lungs—B. I. Mazhbich	324	118
New Method of Implanting Electrodes into the Leg Muscles for Recording the Electromyogram during Voluntary Movements in Rats—A. A. Oganisyan and A. M. Mamedova	328	122
A Modification of Golgi's Method using Sodium Tungstate—A. M. Antonova	330	123

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CONTENTS

Engl./Russ.

PHYSIOLOGY

Mechanism of Reciprocal Interaction between Tactile Receptors of the Skin —A. I. Esakov and T. M. Dmitrieva	357	3
Spino-Bulbo-Spinal Response in Unanesthetized Rats—V. N. Semagin	360	7
Slow Potentials and Contractile Activity of the Uterus—G. M. Pronina	364	11
Changes in Membrane Potential of Smooth Muscles of the Rabbit Aorta during Depolarization by Potassium Chloride and Sulfate—M. I. Gurevich, D. A. Golov, and N. G. Kochemasova	366	13
Influence of Cardiac Nerves on Coronary Vascular Tone—G. N. Aronova and I. N. Kiryushina	370	16
Hemodynamic Changes in Man during Flight—A. Z. Kotenko and L. A. Fel'dman	373	20
Avoidance Reaction of Animals to Radiation Fields—N. G. Darenskaya and G. M. Pravdina	376	23

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Functional State of the Anticlotting System in Some Forms of Experimental Disturbance of Lipid Metabolism—B. A. Kudryashov, G. G. Bazaz'yan, M. M. Nikitina, and N. P. Sytina	380	28
Contractile Function of the Heart Muscle in Experimental Myocardial Infarction —G. I. Markovskaya	383	31
Effect of Adrenalectomy and Corticosteroids on Electrical Activity of the Caudal Mesenteric Sympathetic Ganglion—A. D. Nozdrachev	386	35
Relationship between Disturbances of Axoplasm Transport and Changes in Function of Single Medullated Nerve Fibers in Tetanus—V. V. Mikhailov, O. G. Astaf'eva, and I. L. Shvarts	390	40
Changes in Histamine Concentration in Blood and Organs of Rats with Experimental Pneumococcal Infection—Z. A. Popenenkova and M. G. Romanovskaya	393	43
Role of Bile in Disturbances of Phosphorus Metabolism in Obstructive Jaundice —R. S. Rubinov	395	45
Cytotoxic Action of Spleen Cells of Unirradiated and Irradiated Rabbits —N. N. Klemparskaya and V. V. Shikhodyrov	398	48
Effect of Radiosensitivity of the Organism on Vestibular Function Changes after Exposure to Ionizing Radiation—Yu. V. Farber and L. A. Tabakova	401	51

BIOCHEMISTRY AND BIOPHYSICS

Definition of Endogenous Amino-Acid Imbalance in Choline-Protein Deficiency —N. T. Usacheva, G. N. Milova, and A. A. Pokrovskii	403	54 (Contd)

Available From Consultants Bureau

Tissue Lipolytic Enzyme Activity of Some Internal Organs during Treatment of Experimental Atherosclerosis with Phepracet (IEM-366)—V. B. Isachenko and V. A. Matveeva	406	57
PHARMACOLOGY		
Action of Some Pharmacological Agents on Receptors of the Lungs—S. F. Maksimenko	408	60
Effect of Central Cholinolytics on Latent Period of the Flexor Reflex and Cortical Motor Response in Rabbits—M. A. Pogodin	411	63
Effect of Iprazid on Experimental Myocardial Infarction—N. K. Popova, M. D. Shmerling, L. V. Slozhenikina, and E. A. Zhuk	413	66
Effect of ACTH, Corticosteroids, and Sex Hormones on the Blood Clotting System—R. D. Seifulla and A. I. Maiskii	415	67
MICROBIOLOGY AND IMMUNOLOGY		
Effect of Cx-Reactive Protein on Immunologic Reactivity of Rabbits of Different Ages—I. B. Fryazina	418	71
Virological Study of Embryonic Cells of Guinea Pigs and Golden Hamsters Infected with Rous Virus (Carr-Zil'ber and Schmidt-Rupin Strains)—D. M. Martirosyan and V. Ya. Shevlyagin	421	73
Removal of F'-lac ⁺ Factor from <i>Escherichia coli</i> K-12 Cells by Means of Acridine Orange—V. I. Orlovskii	424	76
ONCOLOGY		
Growth and Metastazization of Tumors Induced in the Spleen—E. V. Sokolova	426	79
Effect of Single and Fractionated Irradiation on Onset of Precancerous and Early Neoplastic Processes in Mouse Ovaries—A. V. Gubareva	430	83
Acid Phosphatase Activity and Phagocytic Power of Cells of the Reticulo-Endothelial System in Mice with Experimental Tumors—G. N. Durnova	432	85
Effect of Subcutaneous Transplantation of Sarcoma SSK on Autoproteolytic Activity of Rats' Blood—A. N. Sorinov, V. Ya. Shats, and V. A. Filov	435	88
Comparative Quantitative Study of the Antileukemic Activity of Hexaphosphamide, Certain Antileukemic Preparations, and X-Rays—E. I. Khomchenovskii	437	90
Abdominal Adhesions and Tumor Growth—R. A. Troitskii	441	93
EXPERIMENTAL BIOLOGY		
Differences between Methods of Regeneration—V. N. Zamaraev	444	98
Action of Humoral Factors Controlling Cell Division during the First Hours of Liver Regeneration—S. I. Telepneva	446	100
Relationship between Regeneration of the Adrenal Cortex and Character of the Operation—G. P. Krasnoshchekov	449	103
Rejection of Autografts Caused by Sensitization by Certain Bacterial Antigens—Yu. N. Zubzhitskii and R. P. Ogurtsov	453	107
MORPHOLOGY AND PATHOMORPHOLOGY		
Hypertrophy of Liver Cells and Their Nuclei in the Regenerating Liver of Rats of Different Ages—Z. A. Ryabinina	457	111
Action of Hyaluronidase on Experimental Pleural Adhesion Formation—G. V. Khitrina	461	115
METHODS		
Continuous Local Myotonography in Man—I. P. Blokhin	464	118
Implantation of Nonpolarizing Electrodes for Recording Very Slow Potentials of the Gastro-Intestinal Tract under Chronic Experimental Conditions—M. A. Sobakin and D. P. Todorov	466	120
		(Contd)

Available From Consultants Bureau

BYULLETEN EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 65, No 4, 1968

CONTENTS

(continued)

Engl./Russ.

Comparison of the Results of Investigation of Intestinal Movements by the X-ray and Window Methods—M. M. Popov, P. V. Vlasov, and M. A. Kir'yakov	469	122
NECROLOGY		
A. A. Solov'ev	472	125

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BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

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May, 1968

CONTENT

Engl./Russ.

PHYSIOLOGY

Effect of Stimulation of Different Parts of the Brain Stem on Reflex Activity of a Group of Spinal Cord Extensor Motoneurons—Yu. D. Ignatov	473	3
Role of the Corpus Callosum in Transmission of Strychnine Excitation from the Cortex of One Hemisphere to the Other—V. M. Mosidze, R. S. Rizhinashvili, and Z. Sh. Kevanishvili	477	7
Recovery Cycle of Recruiting Potentials in the Cortex of <i>Emys orbicularis</i> —M. G. Belekova	481	11
Electrotonic Potentials of Primary Vagus Nerve Endings and the Hering-Breuer Inhibitory Reflex—Z. N. Sergeeva and S. I. Frankshtein	485	15
Regulation of the Cerebral Circulation in Kittens—N. N. Benua and G. P. Lesnyak	487	18
Changes in Arterial Pressure of Dogs in Ontogenesis—G. A. Antonova	490	21
Formation of a Factor Inhibiting Erythropoiesis in Mountaineers after Descending from High Altitudes—A. G. Velichko and S. Yu. Shekhter	493	24
Influence of the Intact Erythrocytes on the Thrombolytic Activity of Plasma—I. Ya. Ashkinazi	496	27

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Effect of Bradykinin and Histamine on Capillary Permeability—P. Ya. Gaponyuk and V. I. Oivin	499	31
Arterial Tone during Prolonged Hypotension Caused by Blood Loss—V. B. Koziner	502	34
Role of Autointoxication in Genesis of Hepatorenal Insufficiency in Thermal Burns—I. K. Koryakina and R. V. Nedoshivina	506	38
Protecting the Central Nervous System of Antenatally Irradiated Rats against Radiation—I. A. Piontkovskii and M. B. Gol'dberg	509	41
Effect of Enteral Vaccination on Radioresistance of Mice—L. I. Murav'eva	511	44
Intestinal Secretion and Enzymic Activity of Intestinal Juice and Blood of Dogs after Resection of the Small Intestine—Yu. N. Kolesnikov and V. A. Protzenko	514	47
Gall Bladder Function in Salmonella Carriers—G. P. Kondratenko and E. Z. Polyak	516	49
Cold Receptors of the Skin in Patients with Chronic Tonsillitis—L. M. Kurilova and R. M. Khanamiryan	518	51
Permeability of the Placental Barrier to Hemolytic Staphylococci and Trypan Blue—Z. F. Surovtseva	521	53
Effect of Antihistamine Drugs on Disease in Rats Caused by Adjuvant of the Freund Type—V. I. Sidorkin and S. I. Khariampovich	523	56

(Contd)

Available From Consultants Bureau

BIOCHEMISTRY AND BIOPHYSICS

Plasma Enzyme Activity in Rats with Various Types of Acute Toxic Hepatitis -A. A. Pokrovskii, A. I. Archakov, A. M. Gerasimov, I. I. Karuzina, and M. I. Sorokina	526	60
Dynamics of Urinary Excretion of 5-Hydroxyindole-3-acetic Acid by Rats Developing Primary and Secondary Avitaminosis K-N. G. Bogdanov	529	64
Effect of Stelazine on the Nucleic Acid Content in Brain Tissue-S. P. Filippov and S. V. Zakharov	531	66
Changes in Permeability of the Placenta to I ¹³¹ during Pregnancy-G. M. Egorova	533	68

PHARMACOLOGY

Effect of Trimethylammonium Iodide and Trimethylamine Hydrochloride on Postganglionic Sympathetic Nerve Fibers-O. M. Avakyan and A. A. Kalitrikyan.	535	71
Comparison of Muscarine-like and Nicotine-like Cholinopotentiating Activity of Neostigmine and Eserine-V. B. Prozorovskii and Z. A. Kashtanova	538	74
Effect of Hexamethonium on Pulmonary Circulation and Bronchial Tone -R. M. Zaslavskaya	540	76
Effect of Specific Inhibitors of Acetylcholine Synthesis on Action of Cholinomimetic Pharmacological Agents-S. M. Tregubov	542	79
Synergism of Guanidine and the Muscle-Relaxant Paramylon on Neuromuscular Synapses -A. I. Podlesnaya	545	82
Effect of Chlorpromazine on Distribution and Concentration of Nucleic Acids and Proteins in Structural Elements of the Rabbit Retina-F. A. Romashenkov and L. M. Gershtein	547	84

MICROBIOLOGY AND IMMUNOLOGY

Effect of Aflatoxin on Dynamics of Antibody Formation-Kh. L. Galikeev, O. R. Raipov, and R. A. Manyasheva	550	88
Sensitivity of Tissue Cultures of Various Species to Toxin of <i>Clostridium oedematiens</i> -S. A. Shamraeva and Z. A. Pyleva	552	91

EXPERIMENTAL BIOLOGY

Diurnal Rhythm of RNA and Glycogen in Fasting Animals-G. D. Gabin, N. A. Pospelova, and V. S. Vlasova	555	94
Diurnal Rhythm of Mitotic Division of Chicken Thymus Lymphocytes-Yu. P. Khussar	558	97
Regeneration of Gastric Muscle Tissue under Various Experimental Conditions -N. I. Terzhbitskaya	560	99
Effect of Disturbances of Uterine Innervation in Pregnant Rats on Susceptibility of Embryos to Hyperthermia and Myleran-I. L. Kurdovanidze	563	102
Postnatal Development of the Pancreas in Albino Rats-V. F. Sidorova and A. G. Babaeva	566	105
Ontogenetic Determinance of Reaction of Interrenal Gland to Irradiation-G. A. Tkacheva.	570	109

MORPHOLOGY AND PATHOMORPHOLOGY

Succinate Dehydrogenase and Alkaline Phosphatase Activity in Experimental Mycoses of the Brain-R. A. Aravitskii	573	114
Effect of Virus SV 40 on Cultures of Green Guenon Lung Cells-V. Ya. Karmysheva, G. I. Avgustinovich, and M. P. Chumakov	577	119

METHODS

Combined Analysis of Electroencephalographic Data by Multiple Analyzer and Electronic Computer (Halfwave Analysis Method)-V. M. Anan'ev and V. A. Nazarov	581	123 (Contd)

Available From Consultants Bureau

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 65, No 5, 1968

CONTENTS

(continued)

Engl./Russ.

Mathematical Analysis of Electroencephalograms by the MN-7 Analog Computer --V. F. Cherkasov, I. A. Lednev, V. M. Tarasov, G. S. Proimin, and V. S. Nesterenko.	585	127
Analysis of Some Methods of Determining Free Ribonucleotides in Animal Tissues --G. V. Voskoboinikov.	587	129
A Universal Fish-Holding Stand --L. A. Nazarov and A. G. Komiyagin.	589	131

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BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

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Volume 65, Number 6

June, 1968

CONTENTS

Engl./Russ.

PHYSIOLOGY

Possibility of Defensive Conditioning in Waking Rabbits in Acute Experiments -V. B. Shvyrkov	593	3
Functional Organization of Central Visual Neuronal Systems in Frogs during Strychnine Activity-O. G. Chorayan and V. F. Kravchenko	597	8
Effect of Prolonged Stimulation of Afferent Fibers on Changes in Efferent Biopotentials in Frogs-Yu. A. Darinskii	599	10
Effect of Stimulation of Ileocecal Interoceptors on Movements of Large Intestine -N. M. Vorob'eva	601	13
Nervous Regulation of Gall Bladder Movements-P. K. Klimov and A. D. Nozdachev	604	16
Cholinesterase and Pseudocholinesterase Activity in Blood of Rats during Ontogenesis -B. S. Musin	607	19
Corticosteroid Pathways from Adrenals to Liver-M. R. Sapin, E. N. Gerasimova, and É. N. Dadiani	610	22
Effect of Noradrenalin, Acetylcholine, Lidase, and Rutamine on Intravascular Life Span of Granulocytes-Z. G. Filyushina	613	26
Nature of the Phase Syndrome of Cardiac Hyperdynamia-V. M. Pokrovskii	616	29
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
Electrophysiological Investigation of Changes in Cortical Activity of Rabbits after Whole-Body Exposure to Ionizing Radiation-V. M. Anan'ev, A. M. Kogan, and V. A. Nazarov	619	32
Changes in the Human Blood Clotting System Caused by Prolonged Hypokinesia -L. M. Filatova and O. D. Anashkin	623	36
Hypertensive and Hypercholesteremic Reactions in Experimental Cerebral Ischemia -L. A. Myasnikov and V. V. Suchkov	626	39
Changes in Cardio-Inhibitory Effect of Vagal Stimulation in Experimental Disturbance of Adrenal Function-É. N. Berger and V. A. Bolyarskaya	628	41
Effect of Age on Development of Experimental Atherosclerosis in Castrated Rabbits -I. D. Nasledova	630	42
Effect of Previous Ultraviolet Irradiation on Stabilizing Properties of the Blood and Their Relationship to Protein Complexes in Experimental Atherosclerosis -S. Ya. Guz and G. V. Kobozev	633	46
Changes in Ascorbic Acid Content in Adrenals of Rats with Experimental Sleep Deprivation-O. D. Kushmanova and V. V. Yaglov	637	50
Bile-Secreting Function of the Liver before and after Partial Hepatectomy in Albino Rats -N. P. Skakun and M. A. Garbaretz	640	52

(Contd)

Available From Consultants Bureau

BIOCHEMISTRY AND BIOPHYSICS

Changes in Total Phospholipid Phosphorus Content of Whole Blood Entering and Leaving the Brain after Intracisternal Injection of γ-Aminobutyric Acid -K. G. Karagezyan and O. M. Amirkhanyan	642	55
Investigation of β-Fetoprotein by Chromatography on Sephadex G-200 Dextran Gel -S. S. Vasiletskii	646	57

PHARMACOLOGY

Effect of Arecoline on Single Hippocampal Neurons -Yu. F. Pastukhov and R. Yu. Il'yuchenok	647	60
Effect of Nembutal on Arterial Pressure Responses Evoked by Stimulation of the Hypothalamus, Medulla, and Lateral Horns of the Spinal Cord -V. A. Tsyrlin	649	62
Effect of an Antithyroid Agent (Ammonium Perchlorate) on Adrenal Cortical Function -N. N. Litvinov, V. I. Govorchenko, and B. G. Lyapkov	653	65

ONCOLOGY

Changes in Mechanisms of Influence of the Hypothalamus on Tumor Development -Yu. N. Bordyushkov	655	68
Sustained Drug Resistance of a Transplantable Strain of Rat Leukemia (Erythromyelosis) to Paraphenacyl -E. I. Khomchenovskii	658	71

EXPERIMENTAL BIOLOGY

Comparison of Healing of Full-Thickness Wounds in Newborn and Sexually Mature Rats -E. A. Efimov	661	75
Dynamics of Glycogen Content in Epithelial Anlagen of Organs at the Second Month of Human Embryonic Development -Yu. N. Shapovalov, A. I. Brusilovskii, and B. V. Trotsenko	664	78
Biological Determination of Antidiuretic Activity in Tissues of the Human Embryonic Hypothalamus, Pituitary, and Human Placenta -S. E. Levina and E. A. Ivanova ..	667	81
Activity of Certain Phosphatases in the Normal and Regenerating Liver of Pregnant Rats -N. Ya. Kovalenko	669	83
Effect of Time of Myleran Administration on Diurnal Mitotic Rhythm of Epithelium of the Rat Small Intestine -M. T. Gololobova	673	87
Organ Specificity of Action of Humoral Factor -A. G. Babaeva and R. R. Tiel'ka	676	90

MORPHOLOGY AND PATHOMORPHOLOGY

Effect of Maternal Nitrobenzene Poisoning on Morphology and Histochemistry of Hemochorial Placentas of Albino Rats -S. S. Kazanina	679	93
Morphological Changes Produced in Animal Organs by Prolonged Hypodynamia and Subsequent Physical Exertion -V. N. Vinogradov, V. G. Petrukhin, and I. V. Fedorov	682	96
The Nature of Kurlov's Corpuscles -E. D. Gol'dberg and D. I. Gol'dberg	685	100
Lesions of the Gastro-Intestinal Mucous Membrane in Experimental Lead Poisoning -N. A. Nilova and A. A. Mambeeva	688	104
Histochemical Changes in the Mucous Membrane of the Gastro-Intestinal Tract of Albino Rats Deprived of Water -V. A. Kalishuk, E. E. Filyushina, I. I. Lazovskaya, and V. V. Vinogradov	691	106
Recovery of Peripheral Nerves after Prolonged Fractional X-Ray Irradiation -V. I. Evsyukov	694	109

METHODS

Photoelectric Recording of Pulse Volume of the Coronary Artery in Chronic Experiments -V. B. Zakharzhevskii, A. O. Olesk, and V. N. Storchkov	697	113

(Contd)

Available From Consultants Bureau

BYULLETEN EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 55, No 6, 1968

CONTENTS

(continued)

Engl./Russ.

Method of Calculating the Mean Depth of Respiration from Spirograms - P. F. Tokarev, Yu. I. Petunin, and B. N. Karasev	701	116
Use of an Immunosorbent for Preparing Tissue Antibodies - B. P. Surinov, K. P. Kashkin, D. N. Bochkova, and V. G. Lorents	703	118
A Polyurocystograph - A. M. Gasparyan and A. G. Shapkin	706	121
Objective Photometry as a Method of Assessing Allergic Changes in Leukocytes - Yu. P. Avanesov and V. B. Gervazieva	708	123

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Volume 66, Number 7

July, 1968

CONTENTS

	Engl./Russ.
50 Years of Soviet Health Care	711 3
PHYSIOLOGY	
Reciprocal Influences on Work of Single Motoneurons during Controlled Locomotion —F. V. Severin, G. N. Orlovskii, and M. L. Shik	713 5
Functional Properties of "Reticular" Neurons of the Frog Medulla—L. D. Karpenko and O. G. Chorayan	717 9
Changes in Stimulation Strength—Duration Curve of Cerebral Motor Centers in Postnatal Ontogenesis—D. P. Matyushkin	720 12
Distribution of Noradrenalin in the Subcortex of Dogs at Various Age Periods —V. D. Rozanova and N. A. Khodorova	724 16
Relationship between Functions of Parts of the Dog's Heart and Biochemical and Ultrastructural Properties of the Mitochondria—L. A. Kopteva and V. I. Biryuzova	727 19
Effect of Serotonin on Cardiac Activity—K. N. Tkachenko	730 22
Effect of Hyperoxia on the Circulation of Anesthetized and Unanesthetized Dogs —N. K. Savel'ev and Yu. M. Smirnov	734 27
Effect of Stimulation of Efferent Fibers of the Splanchnic Nerves on Renal Tubular Activity—V. F. Lysov	736 29
Increased Lactic Acid Production by Resting Skeletal Muscles during Vasodilator Sympathetic Influences—N. A. Len'kova, I. M. Rodionov, and O. A. Studitskaya	739 32
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY	
Changes in the Phonocardiogram and Structure of the Cardiac Cycle in Dogs with Streptococcal Tonsillitis—M. E. Kvitsnitskii	742 35
Effect of on Mechanism of Transmission of Excitation in Ganglia of Autonomic Nervous System—A. V. Mtskhvetadze and Yu. P. Pushkarev	744 37
Effect of and Hypothermia on Development and Course of Acute Pulmonary Edema in Animals Anesthetized with Ether—N. G. Trinyak	748 40
Changes in Contact Digestion in the Small Intestine of Rats after Whole-Body X-Ray Irradiation—G. A. Bulbuk	750 42
Changes in Periodic Gastric Motor Activity after Division of the Intestine at Various Levels—G. I. Isakhanov	753 45
Motor Activity of the Gastro-Intestinal Tract in Dogs with Experimental Renal Hypertension—A. P. Mukhina	757 49

(Contd)

Available From Consultants Bureau

BIOCHEMISTRY AND BIOPHYSICS

Effect of Nikethamide on Content of Pyridine Nucleotides in Rabbit Heart Muscle —N. O. Stepanyan and L. A. Tseitlin	759	51
Experimental Data on Biochemical Disturbances in Tetanus—I. M. Markelov, G. N. Tsybulyak, and T. N. Krokholeva	761	53
Relaxant Action of Sarcoplasmic Reticulum under Normal Conditions and in Experimental Local Tetanus—T. Yu. Lipskaya	764	56
Tyrosine and Tryptophan Metabolism in the Liver of Albino Rats after Trauma —Nguen Ngok Lan and Zh. I. Akopyan	767	59
Effect of Irradiation on Metabolism of Desoxynucleosides and Role of Hormonal Factors in Changes in Their Tissue and Urine Levels—T. A. Fedorova, V. K. Mazurik, M. A. Lomova, M. M. Skurikhina, E. M. Belyaeva, and Yu. P. Vinetskii	770	61
Radioprotective Action of ATP in Experiments on Mice—V. D. Rogozkin and E. I. Marinenko	772	64

PHARMACOLOGY

Biological Activity of Chlorophyllin Sodium—A. N. Borisenko	775	68
Some Aspects of the Pharmacology of Onosma—A. P. Larin and N. N. Aleutskii	778	70
Effect of Anti-inflammatory Drugs on Central Effects of Barbiturates—Yu. S. Grosman, A. S. Zaks, and L. G. Zil'bermint	780	72
Effect of Leptazol, Troxidone, and Phenytoin on Postsynaptic Potentials of Motoneurons during Suprasegmental Stimulation—A. I. Shapovalov and E. B. Arushanyan	782	74
Effect of Prolonged Administration of Pyrazolone Derivatives Together with Prednisolone on Renal Tubular Function—V. I. Ratnikov	787	79
Action of 2-Methylnaphthoquinone on Elements of the Frog Nerve-Muscle Preparation —G. I. Poletaev	789	81

MICROBIOLOGY AND IMMUNOLOGY

Behavior of F-lac ⁺ Factor in Cells of <i>Escherichia coli</i> 200 PS after X-Ray Irradiation —V. I. Orlovskii	792	86
Induction of Immunologic Tolerance in Adult Mice by Repeated Injection of Allogenic Spleen Cells—I. N. Golovistikov	794	88
Immunohistochemical Investigation of Antitoxic Immunity of Mice in Hypoxia —A. S. Kaplanskii, G. N. Durnova, and G. M. Kopylova	796	90
Protective Properties of Immune Tissues (Short Communication)—I. M. Glezer and I. Ya. Geitman	798	92

EXPERIMENTAL BIOLOGY

Changes in Mitotic Activity of the Uterine Epithelium in Mice Produced by Small Doses of Dienestrol—V. M. Budik and R. A. Kargina-Terent'eva	799	94
Changes in Pharyngeal Epithelium when Cultivated in Vivo—Yu. P. Semchenko	802	97

MORPHOLOGY AND PATHOMORPHOLOGY

Effect of Closed Head Injuries on Development of the Vascular System of the Brain —E. N. Kosmarskaya and N. G. Palenova	806	101
Histochemical Study of the Action of Actinomycin 2703 on RNA Metabolism of Spinal Motoneurons during Increased Function—Yu. Ya. Geinisman, V. N. Mats, L. S. Rozanova, and F. Z. Meerson	809	104
Effect of Vitamin A Content of the Diet on Hair Structure—Yu. A. Runikhin and N. N. Prost'yakova	812	107

METHODS

Measurements of the Coronary Blood Flow by a Radioisotope Dilution Method in Chronic Experiments on Monkeys—Yu. M. Repin	814	110

(Contd)

Available From Consultants Bureau

BYULLETEN EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 66, No 7, 1968

CONTENTS

(continued)

Engl./Russ.

A Regional Perfusion Pump with Automatic Pressure Stabilization in the Main Artery of the Organ—A. A. Moibenko, L. A. Grabovskii, and P. P. Stoletnik	817	113
Method of Detecting Fatty Acids in Nerve Fibers—K. K. Sergeev	821	116

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BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

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Volume 66, Number 8

August, 1968

CONTENTS

Engl./Russ.

PHYSIOLOGY

Role of Tonic Activity of the Respiratory Muscles in Regulation of Human Respiration - E. N. Domontovich and I. A. Panchenko	823	3
Spike Activity of Depression Structures of the Hypothalamus during Vascular Reflexes - O. V. Verzilova and L. N. Kondrat'eva	826	6
Characteristics of Action Potentials of Skeletal Muscle Fibers during Postnatal Ontogenesis of Dogs - S. S. Solomatin	829	9
Effect of Hypothermia on Summation of Excitation in the Central Apparatus of the Unconditioned Reflex - V. A. Smotrov	832	12
Changes in Cardiac Activity under High Emotional Stress - R. I. Pastukhina and M. P. Vikhrieva	835	14
Effect of Hemodynamic and other Factors on the Rheoencephalogram (REG) during Regional Perfusion of the Head - E. N. Lerner, V. N. Shtok, V. F. Portnoi, and V. A. Chernyak	837	16

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Autoimmune Reactions in Experimental Necrobiotic Lesions of the Myocardium - E. P. Semenov, L. A. Semenova, and Yu. G. Tsellarius	840	20
Incorporation of S^{35} Methionine into Proteins of Heart Muscle and Certain Organs in Experimental Neurogenic-Autoallergic Myocardial Infarction - I. P. Gerelyuk	843	23
Postdenervation Atrophy of the Myocardium - E. Barta and E. Sapakova	846	26
Immunologic and Biochemical Investigation of Cardiac and Aortic Tissues of Dogs with Experimental Atherosclerosis - D. G. Grigor'yan, N. A. Nazarenko, Z. A. Sokolova, A. A. Perelaznyi, and S. Kh. Kubli	849	29
Immunofluorescence and Serologic Investigation of Early Reactions to Injection of BCG and H_3R_v Mycobacteria - M. M. Averbakh, N. V. Gogebashvili, V. I. Litvinov, and R. Yu. Romanova	853	33
Acid-Base Balance in Venous and Arterial Blood in Blood Transfusion Shock - I. L. Vinogradova, M. L. Garfunkel', V. A. Agranenko, and A. A. Safarova	856	37
Effect of Impulsation from an Inflammatory Focus on Reciprocal Inhibition - N. N. Ul'yanina	858	39
Effect of Prolonged Action of Cold on Periodic Movements and Evacuatory Function of the Stomach in Dogs - O. K. Sidorenkov	860	41
Role of Changes in Mineral Metabolism in Structural Bone Disturbances in Experimental Polycythemia - K. S. Ternovoi	862	44

BIOCHEMISTRY AND BIOPHYSICS

Role of the Hypothalamus in Disturbances of Protein Metabolism after Burns - T. L. Zaets, V. B. Golovchinskii, and L. I. Muzykant	865	48

Available From Consultants Bureau

(Contd)

Changes in Content of Ascorbic Acid and Nucleic Acids Produced by Benzene and Formaldehyde—N. N. Pushkina, V. A. Gofmekler, and G. N. Klevtsova	868	51
Composition of Mucopolysaccharides in the Cornea during Neurogenic Disorders—B. S. Kasavina and M. I. Vinetskaya	871	53
Absorption of Ionized and Complex-Bound Copper in the Stomach and Small Intestine—I. S. Merkulova, V. R. Soroka, and N. Z. Rudenko	874	56
Physico-Chemical State of Sr^{90} in Contents of the Gastro-Intestinal Tract—E. I. Frolova, Z. V. Dubrovina, Z. A. Bakhareva, and N. I. Burov	876	59
PHARMACOLOGY		
Action of Serotonin on D-Receptors of Smooth Muscles—I. I. Abramets, I. V. Komissarov, and I. M. Samoilovich	879	62
Effect of Adiphenine on Pituitary Gonadotropic Function—É. P. Bekhtereva	883	66
MICROBIOLOGY AND IMMUNOLOGY		
Localization of Cells Synthesizing Specific and Nonspecific Globulins in Lymph Glands—K. A. Lebedev	887	70
Immuno-electrophoretic Investigation of Urinary Proteins—K. P. Kashkin and Yu. S. Kulish	891	74
Effect of 6-Thioguanine on Immunologic Reactivity of Animals to Foreign Erythrocytes—V. V. Solov'ev, L. N. Fontalin, and L. A. Pevnitskii	895	78
Antitoxic and Pyrogenic Properties of Rabbit Polymorphs—V. E. Pigarevskii, G. I. Il'in, and A. V. Sorokin	898	81
Complementary Nature of Receptor Structures of Bacteriophages and Sensitive Bacterial Cells—V. I. Ioffe, K. M. Rozental', and A. A. Totolyan	901	85
ONCOLOGY		
Attempt to Detect Fowl Leukemia Virus in Living Virus Vaccines Prepared in Eggs—N. P. Leshchinskaya, N. A. Ivanova, and A. A. Smorodintsev	904	89
Immunologic Reactions in Animals with Tumors—R. D. Antonyuk	908	93
Osmotic Resistance and Glucose-6-Phosphate Dehydrogenase and Glutathione Reductase Activity of Erythrocytes in Patients with Leukemias and Anemias—I. S. Luganova and I. F. Seits	912	97
EXPERIMENTAL BIOLOGY		
Vital Fixation of Dye by Tissues and Diurnal Physiological Rhythm—G. D. Gubin	914	100
Changes in Content of Sulfhydryl Groups in Organs of Albino Rats and Mice during Reparative Regeneration of Skeletal Muscles—V. S. Nikitin and G. A. Shafranskaya	917	103
Autoradiographic Study of the Effect of Newcastle Disease Virus on the Mitotic Cycle of Cells—P. V. Glan	919	105
EXPERIMENTAL GENETICS		
Induction of Reverse Mutations in a Thymine-Dependent Strain of <i>Escherichia coli</i> and Study of Doror Ability of the Revertants—G. N. Krivosheina	922	109
MORPHOLOGY AND PATHOMORPHOLOGY		
Electron-Histochemical Investigation of Cholinesterase in the Neuromuscular Synapse of Rats—O. M. Pozdnyakov	924	112
Morphology of Experimental Myocardial Infarction Treated by Various Surgical Methods—E. F. Lushnikov, I. A. Iskrenko, and I. F. Rodina	928	116

(Contd)

Available From Consultants Bureau

CONTENTS

(continued)

BYULLETEN EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 66, No 8, 1968

Engl./Russ.

METHODS

A New Method of Recording Contractions of Lymphatic Hearts—G. Ya. Makevnin and N. V. Pelipenko	932	121
Measurement and Recording of Arterial Pressure, Pulse, and Respiration of Rate during Chronic Experiments—R. M. Lyubimova-Gerasimova	934	122

The Russian press date (podpisano k pechati) of this issue was 7/10/1968.
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BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 66, Number 9

September, 1968

CONTENTS

Engl./Russ.

PHYSIOLOGY

Duration of Phases of the Cardiac Cycle in Rabbits - V. K. Sel'tser	939	3
Changes in Viscoelastic Properties of Arteries in Healthy Persons between 20 and 40 Years of Age - V. V. Rozenblat and B. M. Stolbun	942	6
Investigation of Efferent Impulses in Postganglionic Sympathetic Fibers during Exposure to Superhigh-Frequency Electromagnetic Fields - M. I. Yakovleva ...	945	9
Movements of the Small Intestine during Stimulation of Duodenal Receptors - N. M. Vorob'eva	947	11

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

The Hepatic Circulation in Traumatic Shock - S. A. Seleznev, A. M. Granov, and N. V. Sinitsyn	949	14
Contractile Function of the Myocardium in Compensatory Hyperfunction of the Heart Following Alloxan Diabetes - K. M. Karlyev and V. I. Kapel'ko	954	18
Changes in Function and Structural Adaptation of the Heart and Lungs in Disturbances of the Coronary and Pulmonary Circulation - E. P. Mel'man, Yu. A. Maksimuk, and M. G. Shevchuk	957	21
Trophic Changes in the Myocardium Following Spinal and Vagus Deafferentation of the Heart - Z. I. Sobieva, G. V. Chernysheva, A. A. Gurvich, and V. F. Ereemeev	961	25
Mechanism of Development of Hypercoagulation and Hyperfibrinolysis in Acute Hypoxia - B. I. Kuznik and V. P. Mishchenko	965	29
Reflex Excitability of Human Spinal Motoneurons during Temporary Ischemic "Deafferentation" - Ya. M. Kots	968	32
Participation of Posterior Hypothalamic Centers in the Mechanism of Rejection of Recent Skin Homografts - V. V. Mikhailov and V. Ya. Solov'eva	973	37
Effect of Sera with Brain Antibodies on Penetration of a Therapeutic Substance into Rat Brain Tissue - N. I. Kuznetsova and I. N. Sorokina	977	42

PHARMACOLOGY

Changes in Cortical Unit Activity during Inhalation of Various Concentrations of Ether - E. K. Aganyants	980	45
Onset of Vomiting after Microinjections of Serotonin into the Hypothalamus, Septum, and Amygdala of Cats Receiving Imipramine - V. A. Vakhring, L. Kh. Allikmets, and I. P. Lapin	983	48
Effect of Imidazole and Carnosine on Duration of Myoneural Block Created by Competitive and Depolarizing Agents - A. A. Boldyrev	986	51
Role of Afferent Impulses in the Mechanism of Autonomic Responses to Aconitine and Veratrine - Yu. G. Bobkov	990	55

(Contd)

Available From Consultants Bureau

Experimental Investigation of Kanamycin Circulation between Mother and Fetus - L. E. Gol'dberg and N. G. Il'yushina	994 59
MICROBIOLOGY AND IMMUNOLOGY	
Nature of the Adsorption Reaction of Erythrocytes Conjugated with Soluble Proteins - A. V. Isolatova	997 63
Role of Individual Hypothalamic Structures in Certain Immunobiological Processes - V. A. Shekoyan	1000 66
Inhibition of Gel-Diffusion Reaction if Antigens Are Placed in Neighboring Wells - B. É. Chechik	1003 69
Presence of a Specific Antigenic Factor in the Duodenal Contents of Dogs with Experimental Pancreatic Necrosis - E. R. Cherkezova-Kinova	1005 71
Antigenic Properties of Cotton and Walnut Pollen - M. M. Khakberdyev and K. A. Ivanushkina	1009 76
ONCOLOGY	
Virus Leukemia (Reticulosarcomatosis) of Mice Induced by Human Leukemic Material - V. M. Bergol'ts	1011 78
Effect of Various Methods of Administration of Antitumor Serum on Mitotic Activity and DNA Content in Tumor Cells - S. V. Sukhorukikh	1014 81
Effect of the High-Molecular-Weight Component of the Nutrient Medium on Growth of Cultures of NK/Ly Ascites Tumor Cells - V. P. Nefedov	1016 83
Excretion of Pseudouridine in the Urine of Tumor-Bearing Rats before and after Whole-Body Irradiation - N. A. Fedorov, M. Ya. Bogomazov, N. N. Kotov, and V. V. Pak	1019 86
Effect of Crude and Tar-Free Naphthalan on Development of Sarcoma M-1 in Rats - S. A. Gulieva	1021 88
EXPERIMENTAL BIOLOGY	
Restoration of Cell Division in Tissue Cultures after Cooling - V. V. Portugalov, F. V. Sushkov, and V. B. Starikova	1023 90
Effect of Estrogen Level in the Body on Staining Properties of Nucleic Acids of the Uterine Epithelium - V. M. Budik	1026 93
Seasonal Rhythm of Mitoses in Cells of the Retina and Lenticular Epithelium of <i>Rana temporaria</i> L. - A. I. Farberov, Z. A. Sokolova, and V. V. Popov ...	1030 96
Effect of Feeding Time and Lighting Conditions on Circadian Periodicity in Number of Binuclear Cells and Mitoses in the Rat Liver - A. A. Zhirnova ...	1032 99
Comparison of Circadian Periodicity of Mitotic Activity in Organs of Albino Rats of Both Sexes - R. I. Bogatova-Nikanorova	1034 101
MORPHOLOGY AND PATHOMORPHOLOGY	
Autoradiographic and Electron-Microscopic Investigation of Dark Cells of the Liver - L. D. Krymskii, B. V. Vtyurin, K. V. Botsmanov, A. K. Badikova, and K. I. Dzarakhokhov	1037 105
Development of Nonspecific Thalamic Nuclei Derived from the Ventral Thalamus in Rabbits - T. I. Belova	1040 108
Effect of Radial Acceleration on the Terminal Blood Vessels - V. G. Kupriyanov, V. G. Petrukhin, and N. G. Dimitrov	1044 113
METHODS	
Method of Determining Displacement of the Cardiac Electrical Dipoles Based on Extinction of Potentials - L. I. Titomir	1048 117

(Contd)

Available From Consultants Bureau

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 66, No 9, 1968

CONTENTS

(continued)

Engl./Russ.

Method of Studying Vestibular Function in Rats - I. I. Voinova	1052	121
Rapid Method of Determining γ -Aminobutyrate - α -Ketoglutarate Transaminase Activity - V. Yu. Vasiliev and V. P. Eremin	1055	123

The Russian press date (podpisano k pechati) of this issue was 8/21/1968.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 66, Number 10

October, 1968

CONTENTS

Engl./Russ.

PHYSIOLOGY

Postnatal Development of Inborn Rhythmic Movements of Rabbits after Removal of the Superior Cervical Sympathetic Ganglia - L. N. Deryabin.	1057	3
Analysis of Central Serotonergic Structures of the Glossomandibular Reflex - E. V. Tetenchuk and A. P. Gilev.	1061	7
Changes in Membrane Potential of Myometrial Cells in Response to Stretching - R. S. Orlov and A. T. Ketkin.	1064	10
Effect of Pancreatectomy and of Cholinacetylase Inhibitors on Posttetanic Potentiation of Neuromuscular Transmission - P. Kh. Sharapova.	1066	12
Effect of Increased Pressure in the Upper Respiratory Passages of Dogs on Blood Pressure in the Right Ventricle - V. L. Popkov and I. N. Chernyakov.	1068	14
Mechanism of the Increase in Venous Outflow from Skeletal Muscles during Intraarterial Injection of Hypertonic Solutions - I. K. Akopdzhanova and L. A. Vil'de.	1070	16
Dynamics of Permeability of the Blood-Labyrinth Barrier for Radioactive Phosphorus - B. M. Sagalovich and M. V. Senyukov.	1073	18

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Reaction of the Hematopoietic System to Blood Loss in the Late Period after Recovery from Acute Radiation Sickness - N. I. Shmeleva.	1076	21
Protein and RNA Synthesis in the Rabbit Liver after Blood Loss - E. F. Barmina.	1078	23
Changes in Optical Density of Mitochondria of the Rat Liver and Heart in Neurogenic Degeneration - O. M. Zabrodin and L. S. Semenova.	1081	26
Comparison of Indices of Protein Metabolism with Pathological Changes in the Liver Tissue after Experimental Administration of Diphtheria Toxin - A. V. Utyumova-Malova, A. V. Afanas'eva, and M. S. Brumshtein.	1084	29
The Etiology of "Urovskaya" (Kashin - Bek's) Disease - N. I. Muchkin.	1086	31

BIOCHEMISTRY AND BIOPHYSICS

Immunochemical Investigation of Group Differences in Human Fetal Sera - Yu. S. Tatarinov and V. N. Masyukevich.	1089	34
Blood and Liver Glutathione Levels in Rabbits with Experimental Cholesterol Atherosclerosis - G. S. Ol'shanskii.	1091	36
Effect of Thyroxin on Lipolytic Activity and Glyceride Glycerol Content in the Liver of Albino Rats - K. K. Kheidemanis and R. Ya. Lazdane.	1094	39
Effect of Oxygen Inhalation on Respiration and Oxidative Phosphorylation of the Liver Mitochondria of Irradiated Animals - E. F. Shamrai, L. A. Baran, N. Ya. Dzyubko, and L. G. Sudarikova.	1096	41
Content of Ammonia and Amides in the Brain during Hibernation - É. Z. Émirbekov.	1099	44

(Contd)

Available From Consultants Bureau

Effect of Carbamate Pesticides on Nucleic Acid Metabolism in the Rat Liver and Spleen - I. A. Anina	1101	46
PHARMACOLOGY		
Effect of Leptazol on Interneuron Activity of the Spinal Cord - É. B. Arushanyan, A. V. Zav'yalov, and P. V. Mel'nichuk	1104	49
Role of Noradrenalin in the Mechanism of Action of Psychotropic Drugs - N. B. Vysotskaya, P. A. Sharov, and T. M. Shugina	1109	54
Antiarrhythmic Properties of Some Indolalkylamines - L. S. Rogova and A. P. Gilev.	1113	58
Effect of Dehydrocholic Acid on Diuresis - E. B. Berkhin	1115	60
Effect of Neurotropic Substances with Central Action on Conditioned-Reflex Hypersecretion of ACTH - V. E. Ryzhenkov	1118	62
MICROBIOLOGY AND IMMUNOLOGY		
Role of Disintegrating Agents in Virus Reproduction - T. Ya. Dubrovina, R. Ya. Polyak, G. P. Zhilova, N. L. Sena, and A. A. Smorodintsev	1120	64
ONCOLOGY		
Liberation of Ribonucleic Acid from Cells of Ehrlich's Carcinoma - V. G. Vinter.	1124	68
Mechanism of the Leukemogenic Action of Sex Hormones - N. A. Grigorovich	1127	71
EXPERIMENTAL BIOLOGY		
Transplantation of the Anterior Lobe of the Pituitary - E. P. Volodina	1130	75
Immunodepressive Properties of Antilymphocytic Sera - V. I. Govallo and G. A. Kosmiadi	1133	77
Regenerative Power of the Stomach Tissues in Acute Radiation Sickness - N. V. Stankevich	1136	80
Epithelial Growth of the Prostate Implanted by Lazarenko's Method - A. G. Ginovker	1140	84
Histochemical and Structural Characteristics of Growth and Conversion of Cartilage Tissues Cultivated in Vivo - G. S. Solov'ev	1144	88
Action of Actinomycin on Proliferating Epithelium of the Duodenal Crypts in Mice - I. D. Belyaeva	1148	2
Incorporation of Labeled Thymidine into Mouse Liver Cells after Preliminary Adminis- tration of Cortisone - T. A. Zaletaeva and Z. I. Sukhova	1151	95
Effect of Changes in Catecholamine Metabolism on Growth Rate of Young Rats - A. B. Elantsev	1153	97
MORPHOLOGY AND PATHOMORPHOLOGY		
Development of Nonspecific Thalamic Nuclei Derived from the Dorsal Thalamus in Rabbits - T. I. Belova	1156	100
Ontogenetic Development of Structural Organization of the Olfactory Analyzer - V. I. Pilipenko	1160	105
Topography of Changes in Brain Neuroglia of Albino Mice during Starvation - I. S. Khusainova	1163	109
Effect of Decoction of Linseed (<i>Linum usitatissimum</i> L.) on Morphological and Functional Changes in Pancreatic Cells in Latent Alloxan Diabetes - G. N. Voronin and Z. P. Kasumova	1166	112
Dynamics of Morphological Changes in the Adrenal Cortex after Whooping Cough Vaccination - F. L. Leites, M. I. Semashko, and N. S. Zakharova	1169	115
Morphological Changes in Rabbits Produced by Prolonged Administration of Trypsin - S. S. Feigel'man, I. N. Maiskii, and S. V. Kagramanov	1173	119
METHODS		
Radiometric Method of Determination of Glucose-6-Phosphatase Activity - G. I. Meerov and Yu. P. Ryzhkova	1176	123

The Russian press date (podpisano k pechatu) of this issue was 9/12/1968.
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ELECTRONICS AND COMMUNICATIONS IN JAPAN

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1968

VOLUME 51

NUMBER 7

CONTENTS

Page

PART A

Wire Communication, Switching Practice, Transmission Lines, Electroacoustics,
Ultrasonics and Network Theory

CONTRIBUTED PAPERS

Toshio Ashida and Kenichi Sawamoto: Integrated Ultrasonic Delay Lines Utilizing Cylindrical Mode of Wave Propagation	1
Akira Miura, Shoji Kobayashi, Rikio Sato and Kunichi Nagata: Blockless Echo Suppressor.	10
Sadahiko Yamamoto, Kuniyuki Sawai and Kiyoyasu Itakura: A Note on Nonuniform Distributed-Constant Networks	19
Genya Kishi and Takuro Kida: Conservation Operators in N-Port Networks	28
Shigeo Tsujii and Hiroyuki Kasai: An Algebraic Method of Computing the Power Spectra of Coded Pulse Trains	36

SHORT NOTES

Shoji Shinoda: Finding All Possible Directed Trees of a Directed Graph	45
Shoji Shinoda: On Hamilton Circuits of a Directed Graph.	46
Tetsuo Ikeda and Risaburo Sato: An Equivalent Circuit of the Single-Winding Transformer	47

PART B

Radio Communication, Antennas, Wave Propagation, Microwaves, Millimeter Waves,
Quantum Devices, Electron Devices and Television

CONTRIBUTED PAPERS

Tomoo Fujioka: Three-Dimensional Effects of Potential Minimum on Electron Beam Noise	49
Tokuya Itakura: Single Anomaly of Electromagnetic Waves Diffracted by Infinitely Extended Plane Gratings	58
Toshio Hosono, Takashi Hinata and Kohachi Yuda: Reflection of Electromagnetic Waves at the Boundary Surface between Media Moving Relative to Each Other and Parallel to Both the Boundary Plane of Incidence	66
Yoshiaki Saito and Takeo Abe: Analysis of an Up-Converter Using a Varactor.	73
Tsutomu Maeda and Sunao Morisada: Design and Performance of Aluminum Elliptical Waveguide	81
Ikuko Wada: Plasma Impedance and Its Equivalent Circuit.	89
Hironari Kusakabe, Satoshi Uenoyama and Tomiji Shimizu: System and Method to Predict Times of the Closest Approach and to Identify Satellites	93
Sachihiro Toyota and Toshio Makimoto: Esaki-Diode Reflection Amplifier Using Rectangular Waveguide.	98
Yosinao Aoki: Microwave Holograms and Their Optical Reconstruction	107

SHORT NOTES

Noriaki Ishida and Fujio Ishihara: On Envelopes of PM Pulses Affected by Band Limitation	115
Kiyoshi Shirahata, Daiji Taketomi and Koushi Ogiso: Design Technique for Wideband Tunnel Diode Amplifier	116

(Contd)

Available From The Institute of Electrical and Electronics Engineers

PART C

Electronic Computers, Information Theory, Automatic Control, Electronic
Materials and Components, Instrumentation and Pattern Recognition

CONTRIBUTED PAPERS

Norihiko Morinaga, Toshihiko Namekawa and Kenji Aoyagi: Response of Detectors for Two Noise-Modulated Waves and Background Noise	119
Yoshinori Uesaka: Theory of Construction of Nonlinear Discriminant Function.	128
Teruo Fukumura, Yasuyoshi Inagaki and Makoto Ito: A Method of Detecting Hazards in NAND Logical Networks	138
Atsuyuki Suzuki, Shoichi Noguchi and Juro Oizumi: A Consideration on the Structure of Multistage Logical Networks.	148
Kunihiko Fukushima: Feature Extraction by Multi-Layered Network of Analog Threshold Elements	158
Takashi Furuya and Yozi Suganuma: Reliability of Electrodeposited Cylindrical Permalloy Films	167
Ryoji Ohba: Some Properties of Mutually Connected Threshold Elements	172

SHORT NOTES

Shin-ichi Hanaki: A Binary Code for Detecting Superposition.	179

CONTRIBUTORS TO THIS ISSUE	181

Available From The Institute of Electrical and Electronics Engineers

DOKLADY, EARTH SCIENCE SECTIONS

Translation from *Doklady Akademii Nauk SSSR* include nine sections published in the original journal as follows:

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EARTH SCIENCE SECTIONS

Vol. 182	(Russian original dated	June
Nos. 1-6	(September-October 1968)	1969

CONTENTS

Page

GEOPHYSICS

RECONSTRUCTION OF SEA FLOOR RELIEF FOR PLACES WITHOUT DEPTH-MEASUREMENT DATA BY THE METHOD OF LEAST SQUARES, by I. M. Belousov, A. I. Ioffe and V. P. Smilga	1
INVESTIGATION OF DECIMETER RADIO-WAVE PROPAGATION IN VENUS' ATMOSPHERE BY MEANS OF THE AUTOMATIC INTER-PLANETARY STATION "VENERA 4", by M. A. Kolosov, O. I. Yakovlev and A. I. Yefimov	4
PHYSICAL PRINCIPLES AND EXPLORATION POTENTIAL OF THE EXCHANGED TRANSDUCENT-WAVE METHOD ON VERTICAL SEISMIC PROFILING DATA, by R. M. Gal'perina	5
COMPOSITION AND ELASTIC PARAMETERS OF THE UPPER MANTLE, by N. Ye. Galdin	7
ROLE OF HEAT ADVECTION BY SEA CURRENTS IN THE LARGE-SCALE INTERACTION OF THE OCEAN AND ATMOSPHERE, by V. G. Kort	11
DIMENSIONS OF THE SUBPOLAR MAGNETOSPHERE DETERMINED FROM GEOMAGNETIC MICROPULSATION GROUND OBSERVATIONS, by V. A. Troitskaya, R. V. Shchepetnov and A. V. Gul'yel'mi	14

GEOLOGY

THE DISCOVERY OF BRYOZOANS OF THE GENUS DYSCRITELLA IN THE DEVONIAN OF GORNYI ALTAI, by K. N. Volkova	17
TECTONIC POSITION OF ULTRABASIC ALKALIC ROCKS IN THE MAYMECHA-KOTUY PROVINCE, by L. S. Yegorov, V. M. Rudyachenok and N. P. Surina	19

(Contd)

DOKLADY AKADEMIE NAUK SSSR, EARTH SCIENCE SECTION
Vol 182, No 1-6, Sept-Oct 1968

	Page
MODE OF ORIGIN OF STYLOLITES IN ROCKS OF DIFFERENT COMPOSITION, by F. P. Krendelov	22
LAYERED BASIC INTRUSIONS OF THE ALTAI-SAYAN FOLD ZONE, by V. M. Nemitsovich	25
RECOGNITION OF THE SAKHABOR (LATE ARCHEAN) DEPOSITS OF THE ALDAN SHIELD, by S. V. Nuzhnov, V. A. Kudryavtsev and R. N. Akhmetov	27
MORE INFORMATION ABOUT THE AGE OF SUB-SYRT SAND, by A. A. Svitoch	29
EXTENT AND AGE OF THE RESIDUUM IN WESTERN CISCAUCASIA, by A. G. Chernyakhovskiy	33
ROLE OF DYNAMOMETAMORPHIC SHEARING IN THE GENESIS OF SCHIST WALL ROCK AT THE UCHALY PYRITE DEPOSIT, SOUTHERN URALS, by S. V. Chesnokov and I. A. Burikova	36
MORE INFORMATION ON THE AGE OF VOLCANIC FORMATIONS IN THE WEST OKHOTSK REGION, by Ye. B. Bel'onenov and Ye. L. Lebedev	39
ORIGIN OF QUARTZ-SILLIMANITE IN INCLUSIONS IN BIOTITE GNEISS OF THE LOWER PROTEROZOIC UDOKAN SERIES (OLEKMA-VITIM HIGHLANDS), by G. B. Gimmel'farb, Yu. T. Nikolayev and L. B. Belonozhko	42
MORE INFORMATION ON THE AGE OF THE LOWER PALEOGENE IN THE NEMEBETA BASIN, MONGOLIA, by Dembereliyn Dashzeveg	45
STRATIGRAPHIC SUBDIVISION OF MIN'YAR-UK DEPOSITS OF THE URALS BY MICRO- PHYTOLITHS, by V. Ye. Zabrodin	47
VERTICAL MOVEMENTS OF THE ATLANTIC CONTINENTAL SHELF IN POSTGLACIAL TIME, by A. V. Il'in	50
A DISCOVERY OF FOSSIL SOILS IN THE PERMIAN TRIASSIC, by V. I. Chalyshev	53
ORGANIC MATTER IN DOLERITE FROM THE TUNGUSKA TEST HOLE, by L. S. Belyayeva	56
MORE INFORMATION ON THE GEOLOGY OF MONERON ISLAND (NORTHEAST OF THE SEA OF JAPAN), by V. F. Yerokhov, L. S. Zhidkova, A. U. Litvinenko, I. M. Siryk and V. N. Shilov	59
MORE INFORMATION ON THE UPPER CRETACEOUS STRATIGRAPHY OF THE SOUTHERN SAHARA, by A. V. Ivannikov, V. P. Klochko and Yu. G. Gatinskiy	62
RELATIONSHIPS BETWEEN CRYSTALLINE SCHIST, GREEN SCHIST AND PHYLITE IN THE SIMS BAY DISTRICT, EASTERN TAYMYR, by L. V. Makhlayev and I. P. Zabitvaka	65
FIRST FIND OF LOWER FRASNIAN (SHCHIGROVO) FAUNA IN THE DEVONIAN OF THE DNIEPER-DONETS DEPRESSION, by R. M. Pistrak, A. I. Lyashenko, Ye. I. Pashkevich and A. D. Britchenko	67
TYPES OF GEOSYNCLINAL BASALT MAGMAS IN KAMCHATKA, by V. K. Rotman and B. A. Markovskiy	70
BIOSTRATIGRAPHIC SUBSTANTIATION OF THE ARTINSKIAN-KUNGURLAN BOUNDARY IN THE URALS, by Ye. A. Guseva, I. P. Grozdilova and V. P. Gorskiy	73
MESOZOIC STRATIGRAPHY OF THE UKRAINIAN SHIELD, by A. V. Ivannikov and V. V. Permyakov	75
STRATIGRAPHIC DISTRIBUTION OF GIVETIAN AND UPPER DEVONIAN RUGOSE CORALS IN CENTRAL KAZAKHSTAN, by A. A. Kaplan	78
MODE OF ACCUMULATION OF MIOCENE TITANIUM-ZIRCONIUM PLACERS IN THE DNIEPER-DONETS DEPRESSION, by I. N. Remizov and M. G. Berger	81
PROBABLE SEDIMENTARY COUNTERPARTS OF AMPHIBOLITE, by Academician A. V. Sidorenko, V. A. Tenyakov, O. V. Gorbachev, K. A. Zhuk-Pochekutov and O. M. Rozen	84
PHASE TRANSITIONS AND THE MAGMA GENESIS PROBLEM, by M. V. Avdulov and V. K. Semenchenko	86
YOUNGEST VOLCANOPLUTONIC GRANITOID ASSOCIATION OF THE GREATER CAUCASUS BASED ON POTASSIUM-ARGON DATING, by M. M. Arakelyants, A. M. Borsuk and L. L. Shanin	88
MORE INFORMATION ON THE LOWER CRETACEOUS IN THE NORTHWEST CENTRAL SIBERIAN PLATEAU, by Ye. Ye. Dyuzhikova, R. T. Konenkova, V. V. Rogozhin and I. S. Ryabkova	91
CAMBRIAN-PRECAMBRIAN BOUNDARY IN THE KOSO GOL REGION (MNR), by A. V. Il'in and I. T. Zhuravleva	93
MORE INFORMATION ON THE LOWER DEVONIAN OF THE WEST SIDE OF THE NORTH- ERN URALS, by I. S. Stepanov, G. N. Sychkin and Yu. N. Shestakov	95
A UNIQUE PALEOGENE SECTION IN THE TUKBAY DRILLHOLE (CASPIAN DEPRESSION), by M. M. Charygin, Yu. M. Vasil'yev and N. B. Gibshman	97
SIBAY STRATOVOLCANO, SOUTHERN URALS, by V. S. Sharfman	98
MORE INFORMATION ABOUT THE TECTONICS OF KARPINSKIY RIDGE, by G. M. Avanis'yan	100

(Contd)

Available from American Geological Institute

	Page
A FIND OF TREMATOCIAN GRAPTOLITES IN THE KENDYKTAS SUITE (KENDYKTAS RANGE, SOUTHERN KAZAKHSTAN), by A. B. Bakirov, M. B. Zima, V. G. Korolev and P. P. Misyas.	103
ELEMENTS OF STRUCTURAL ZONING OF THE TAYMYR FOLD REGION, by R. V. Bylinskiy and G. I. Stepanov.	106
A CHECK ON GEOLOGIC ESTIMATES OF THE AGE OF OLD COASTAL FORMATIONS OF THE BALTIC SEA USING C ¹⁴ , by A. L. Devirts, N. G. Markova and L. R. Serebryanny.	108
SOME ASPECTS OF THE UPPER TRIASSIC STRATIGRAPHY OF THE BUREYA-AMGUN INTERFLUVE, by T. M. Okuneva.	111
ORIGIN OF PLACERS IN REGIONS OF QUATERNARY GLACIATION (ON THE WEST SIDE OF THE CENTRAL AND NORTHERN URALS), by I. S. Stepanov.	113
MINERALOGY	
MECHANISM OF DEVELOPMENT OF FACES ON MAGNETITE CRYSTALS FORMED IN METASOMATISM AND RECRYSTALLIZATION, by T. A. Velikoborets.	116
A FIND OF ONOFRITE, A SELENIFEROUS SPECIES OF BLACK MERCURY SULFIDE, IN MERCURY ORE OF THE ALTAI-SAYAN REGION, by V. I. Vasil'yev and Yu. G. Lavrent'yev.	119
BAYERITE FROM THE BAUXITE HORIZON OF THE MIDDLE DNEPER REGION, by D. P. Khorosheva.	123
EXPERIMENTAL SYNTHESIS OF GARNIERITE, by N. A. Kozyrin, G. N. Bezrukov, Yu. V. Gusev'nikov and L. T. Litvin.	126
STRUCTURE OF DISLOCATION CENTERS ON FACE 0001 OF NATURAL QUARTZ CRYSTALS, by K. I. Chepizhnyy.	130
SHOCK COMPRESSION OF ZrSiO ₄ AND METAMICT DECAY, by N. L. Dobretsov, I. L. Dobretsova, Academician V. S. Sobolev and V. I. Mali.	134
SOGDIANTE, A NEW MINERAL, by V. D. Dumatov, A. F. Yermolov, Z. T. Katayeva, L. A. Khoroshilova and K. P. Yanulov.	137
FIRST FIND OF ILIMAUSSITE IN THE USSR, by M. N. Sokolova, N. I. Organova, M. Ye. Kazakova and Ye. S. Rudnitskaya.	139
THE POSITION OF TITANIUM IN CLINOPYROXENE, by V. S. Shkodzinskiy.	142
SYNTHESIS OF FIBROUS AMPHIBOLE BY HYDROTHERMAL RECRYSTALLIZATION OF OLIVINE, by E. N. Korytkova, A. D. Fedoseyev and T. A. Makarova.	145
MINERALS NOW BEING FORMED IN TECHNICAL INSTALLATIONS AT PAUZHETKA, KAMCHATKA, by L. M. Lebedev and L. M. Gorkhova.	148
A NEW NATURAL BORATE, VIMSITE, by D. P. Shashkin, M. A. Simonov, N. I. Chernova, S. V. Malinko, T. I. Stolyarova and Academician N. V. Belov.	151
PETROGRAPHY	
PATTERNS OF VARIATION IN THE CLOSENESS OF LINKS AND RELATIONSHIPS BETWEEN THE CONTENTS OF COMPONENTS IN ZONED ORE BODIES, by V. F. Myagkov.	154
STATISTICAL PROCESSING OF SILICATE ANALYSES FOR THE UPPER PONOY ALKALIC GRANITE AND ITS HOST ROCKS (KOLA PENINSULA), by V. A. Ozhogin.	156
ZIRCON OF THE UPPER PONOY ALKALIC GRANITE, KOLA PENINSULA, AS AN INDICATOR OF ITS ORIGIN, by V. A. Ozhogin.	159
A NEW TYPE OF WALL-ROCK ALTERATION AT THE KOMMUNAR GOLD FIELD, by A. F. Korobeynikov.	162
CHEMICAL PROPERTIES OF GRANITES OF THE VOLCANIC AND PLUTONIC ASSOCIATIONS, by D. S. Shteynberg and G. B. Fershtater.	165
POLYLITHIONITE FROM GRANTOIDS OF THE ULKAN PLUTON AND ITS MODE OF ORIGIN, Yu. N. Gamaleya.	168
DIFFERENTIATION OF MATTER IN THE STAGE OF DISPERSIVE METASOMATISM, by V. A. Malashin.	171
LITHOLOGY	
A MANGANESE ORE OCCURRENCE IN MIDDLE PALEOZOIC VOLCANICS AND SEDIMENTS OF THE NORTHERN MUGODZHARS, by A. A. Gavrilov.	175
POST SEDIMENTATION ARGILLIZATION IN PALEOZOIC CLASTIC DEPOSITS OF THE SOUTHERN URALS AND NORTHERN MUGODZHARS, by A. A. Gavrilov and V. A. Aleksandrova.	178

(Condt)

Available from American Geological Institute

DOKLADY AKADEMIE NAUK SSSR, EARTH SCIENCE SECTION
Vol 182, No 1-6, Sept-Oct 1968
GEOCHEMISTRY

Page

ISOTOPIC COMPOSITION OF CARBON FROM BITUMENS IN IGNEOUS AND META-MORPHIC ROCKS, by E.M. Galimov and I.A. Petersiliye	181
FORMS OF DISSOLVED IRON IN HYDROTHERMAL SOLUTIONS, by A.S. Kalinin and S.A. Kashnik	183
THE MECHANISM OF OIL FORMATION, by O.A. Radchenko	186
ORGANIC SUBSTANCES IN THE THERMAL WATER OF SOUTHERN KAMCHATKA, by V.M. Shvets and Yu.B. Seletskiy	188
SEDIMENTATION AND FREE HYDROGEN, by V.I. Molchanov	192
COMPOSITION OF RARE EARTHS IN KIMBERLITE MINERALS, by R.A. Nekrasova and V.V. Gamyayina	195
REMOVAL OF GALLIUM DURING THE FORMATION OF RECENT AND QUATERNARY BASIC ROCK RESIDUUM, by N.A. Lisitsyna and G.V. Motuzova	199
INFORMATION ON GEOCHEMISTRY OF ALUMINUM IN RESIDUUM OF WET SUBTROPICS OF WESTERN TRANSCAUCASIA, by A.G. Chernyakhovskiy	202
ARGON-POTASSIUM RATIOS OF RESIDUUM, by A.Ya. Krylov, N.A. Lisitsyna, Yu.I. Silin and Ya.M. Tsovlun	205
HYPOGENE MOLYBDENUM DISPERSION HALO IN THE SHAKHTAMA ORE FIELD, by L.V. Tauson. Corresponding Member, USSR Academy of Sciences. S.G. Petrovskaya and B.P. Sanin	209
BEHAVIOR OF Rb, Ba AND Sr DURING THE FORMATION OF GRANOPHYRIC GRANITOIDES (WEST AND NORTHWEST BAIKAL REGIONS), by K.V. Flerova, T.A. Kuz'mina and T.V. Yegorova	211
THE REGIONAL GEOCHEMISTRY OF STRONTIUM IN CRUSTAL ROCKS, by A.L. Aleksandrov	214
PALEONTOLOGY	
EARLY DEVONIAN MONOGRAPTIDS FOUND FOR THE FIRST TIME IN THE BORSHCHOV HORIZON, PODOLIA, by T.N. Koren'	217
CONODONTS OF THE GENUS ICRIDUS BRANSON ET MEHL., 1938, FROM THE BORSHCHOV AND CHORTKOV HORIZONS, PODOLIA, by T.V. Mashova	220
GRAPTOLITES OF THE SILURIAN-DEVONIAN BOUNDARY BEDS IN THE USSR (AND A DESCRIPTION OF ZOSTEROPHYLLUM LANGI OBUT SP. N.), by A.M. Obut	224
IDENTIFICATION OF THE GENUS PTYCHOCERAS D'ORBIGNY, by V.L. Yegoyan	228
PISTILLIPOLLENITES MCGREGORII ROUSE, 1962 POLLEN IN THE EOCENE OF YAKUTIA, by I.A. Kul'kova	231
OCEANOGRAPHY	
CONDITION OF FORAMINIFERA IN WATER, GROUND AND INTESTINES OF MUD EATERS, by Kh.M. Saidova	233
ZOOPLANKTON BIOMASS DISTRIBUTION IN THE OCEAN SURFACE LAYER, by V.G. Bogorov. Corresponding Member, USSR Academy of Sciences, M.Y. Vinogradov, N.M. Voronina, I.P. Kanayeva and I.A. Suyetova	235

Available from American Geological Institute

SOVIET MATHEMATICS

Доклады Академии Наук СССР
Tom 184 Nos. 1-6, 1969

Vol. 10, No. 1

January-February, 1969

TABLE OF CONTENTS

	Russian page nos.	Page
Borok, V. M. Theorems of Phragmén-Lindelöf type for solutions of certain differential equations in an infinite layer	(9-11)	i
Budak, B. M.; Vin'oli, A. and Gaponenko, Ju. L. On a method of regularizing the extremal problem for a continuous convex functional	(12-15)	4
Džafarov, A. A constructive characterization of a class of square-integrable functions on a sphere	(16-19)	8
Il'in, V. A. The principle of localization for almost all of the sequence of partial sums of Fourier series in a fundamental system of functions	(20-23)	13
Korobov, A. A. Cohomology of algebras with unit	(24-27)	17
Koršunov, A. D. An estimate from above of the length of the shortest homogeneous trials for determining the final state of almost all automata	(28-29)	21
Lerer, L. E. On the stability of bases in locally convex spaces	(30-33)	24
Medvedev, N. V. Conditions for the existence of bounded solutions of differential equations in a Banach space	(34-37)	29
Parovičenko, I. I. Topological equivalents of the Tihonov theorem	(38-39)	33
Pohožaev, S. I. Normal solvability of nonlinear equations	(40-43)	35
Retah, V. S. On the dual of a subspace of a countable inductive limit	(44-46)	39
Suprunenko, D. A. On the theory of solvable linear groups	(47-50)	42
Veličenko, V. V. On the invariance of dynamical systems	(263-266)	47
Djubin, G. N. A set of games on the unit square with unique solution	(267-269)	51
Krasovskii, Ju. P. Properties of Green's function and generalized solutions of elliptic boundary value problems	(270-273)	54
Kuznecov, Ju. A. On the theory of iteration processes	(274-277)	59
Mil'man, V. D. and Tumarkin, Ju. B. Properties of sequences in locally convex spaces	(278-281)	63
Perel'muter, G. I. On a conjecture of Williams	(282-284)	67
Pšeničnyĭ, B. N. The structure of differential games	(285-287)	70
Ryškov, S. S. A two-dimensional ζ -function with a real parameter	(288-291)	73
Timan, T. A. Singular integral transformations in weight spaces L_p	(292-295)	78
Tonkov, E. L. On a periodic equation of second order	(296-299)	83
Toponogov, V. A. Extremal theorems for Riemannian spaces of curvature bounded from above	(300-302)	88
Tynjanskii, N. T. General concave-convex games	(303-306)	91
Vaindiner, A. I. On an estimate for the remainder term of a generalized Fourier series for a differentiable function of two variables	(511-513)	95
Vladimirskii, Ju. N. Φ -operators in locally convex spaces	(514-517)	99
Gusjatnikov, P. B. and Nikol'skii, M. S. Optimality of pursuit time	(518-521)	103

(Contd)

Available from American Mathematical Society
Vol 10, No 1, Jan-Feb 1969

	Russian page nos.	Page
Dubinskiĭ, Ju. A. <i>Boundary-value problems for elliptico-parabolic equations</i>	(522-525)	107
Zabreĭko, P. P.; Kolesov, Ju. S. and Krasnosel'skiĭ, M. A. <i>Implicit functions and the Bogoljubov-Krylov averaging principle</i>	(526-529)	111
Zarubin, A. G. <i>On a class of nonlinear operator equations</i>	(530-533)	115
Krasovskiĭ, Ju. P. <i>Growth estimates for derivatives of solutions of homogeneous elliptic equations near the boundary</i>	(534-537)	120
Ledovskaja, I. B. <i>Bogoljubov-Krylov higher approximations for solutions bounded on the whole axis</i>	(538-541)	125
Medvedev, N. V. <i>Periodic solutions of differential equations in a Banach space</i>	(542-545)	129
Molčan, G. M. and Golosov, Ju. I. <i>Gaussian stationary processes with asymptotic power spectrum</i>	(546-549)	134
Nikol'skiĭ, N. K. and Pavlov, B. S. <i>Eigenvector bases, characteristic functions and interpolation problems in Hardy's H^2-space</i>	(550-553)	138
Panič, O. I. <i>Equivalent regularization of boundary value problems by means of potential</i>	(554-557)	142
Rivilis, A. A. <i>Homogeneous locally symmetric regions in a conformal space</i>	(558-561)	147
Arhangel'skiĭ, A. V. <i>Approximation of the theory of dyadic bicomplexa</i>	(767-770)	151
Gončarskiĭ, A. V. and Jagola, A. G. <i>Uniform approximation of monotonic solutions of noncorrect problems</i>	(771-773)	155
Gorbačuk, V. I. and Gorbačuk, M. L. <i>Expansion in eigenfunctions of a second-order differential equation with operator coefficients</i>	(774-777)	158
Nikol'skiĭ, N. K. and Pavlov, B. S. <i>Bases of eigenvectors of completely non-unitary contractions</i>	(778-781)	163
Sterin, B. <i>Elliptic problems of Sobolev type for submanifolds with point singularities</i>	(782-785)	167
Černikov, S. N. <i>Infinite nonabelian groups with minimality conditions for non-invariant abelian subgroups</i>	(786-789)	172
Gudiev, A. H. <i>The Dirichlet problem for equations with coefficients belonging to spaces with a mixed norm</i>	(1023-1026)	176
Kondrat'ev, V. A. and Èidel'man, S. D. <i>Some properties of positive solutions of evolutionary hypoelliptic equations</i>	(1027-1030)	180
Petrenko, V. P. <i>Growth of meromorphic functions of finite lower order</i>	(1031-1033)	184
Rofe-Beketov, F. S. <i>Selfadjoint extensions of differential operators in a space of vector-functions</i>	(1034-1037)	188
Rublev, V. S. <i>A special class of finite-dimensional subspaces of a Banach space</i>	(1038-1040)	193
Rybalov, Ju. V. <i>Embedding theorems for functions defined in unbounded regions and their application to the spectral theory of elliptic selfadjoint operators</i>	(1041-1043)	197
Ul'janov, P. L. <i>Embedding theorems and best approximations</i>	(1044-1047)	201
Fainleĭb, A. S. <i>A limit theorem for the number of classes of purely radical quadratic forms with negative determinant</i>	(1048-1049)	206
Filippov, V. V. <i>A bicomplexum with noncoinciding inductive dimensionalities</i>	(1050-1053)	208
Halilov, Z. I. and Panaĭti, B. N. <i>Minimization of a quadratic functional generated by a linear operator in normed spaces</i>	(1054-1056)	212

(Contd)

Available from American Mathematical Society
Vol 10, No 1, Jan-Feb 1969

DOKLADY AKADEMII NAUK SSSR, MATHEMATICAL SECTION
Vol 184, No 1-6, 1969

	Russian page nos.	Page
Šapkin, A. F. <i>Function-class optimal methods of computing eigenvalues of a Fredholm integral operator</i>	(1057-1060)	215
Bedak, B. M. and Moskal, M. Z. <i>On the classical solution of the Stefan multi-dimensional problem</i>	(1263-1266)	219
Vasil'ev, F. P. <i>Optimality conditions for some classes of systems not solved with respect to the derivative</i>	(1267-1270)	224
Golosov, Ju. I. and Tempelman, A. A. <i>On equivalence of measures corresponding to Gaussian vector-valued functions</i>	(1271-1274)	228
Kanovič, M. I. and Petri, N. V. <i>Some theorems on the complexity of normal algorithms and computations</i>	(1275-1276)	233
Kruškal, S. L. <i>An approximation theorem for analytic functions, with applications</i>	(1277-1280)	235
Lerner, M. E. <i>An extremal property of solutions of a class of hyperbolic equations</i>	(1281-1283)	239
Liskovec, V. A. <i>On a recurrence method of counting graphs with labelled vertices</i>	(1284-1287)	242
Lifanov, I. K. <i>On the large inductive dimension</i>	(1288-1291)	247
Ostrouhov, D. A. <i>Estimation of the complexity of normal algorithms</i>	(1292-1293)	251
Rubinov, A. M. <i>Effective trajectories of a dynamical model of production</i>	(1294-1297)	254
Čoban, M. M. <i>Mappings of metric spaces</i>	(1298-1300)	258
Partial table of contents for the next issue (Vol. 10, no. 2, March-April, 1969) Russian original		
Tom 185, nos. 1-5		260-a

CORRECTIONS

The following correction is translated from p. 510 of Tom 184:

A. Iglikov, *Axisymmetric flows with free boundary*, Vol. 9 (1968), no. 2, 442-445 (Russian Tom 179, 772-774).

On page 443, line 14, the definition of the norm should read:

$$\| \omega \|_{\alpha} = \| \omega \| + \sup_{\tau_1 \neq \tau_2} \frac{|\omega(\tau_1) - \omega(\tau_2)|}{|\tau_1 - \tau_2|^{\alpha}}.$$

The author has called attention to the following misprints:

Z. I. Kozlova, *The structure of the fundamental classes of sets in topological spaces of weight τ* , Vol. 9 (1968), no. 5, 1273-1275 (Russian Tom 182, 1268-1270).

On page 1275, line 7, $(\omega)A-$, $(\omega)CA-$, $(\omega)C-$ should be $(\omega_{\nu})A-$, $(\omega_{\nu})CA-$, $(\omega_{\nu})C-$
 line 9, $(\omega)A-$, $(\omega)CA-$, should be $(\omega_{\nu})A-$, $(\omega_{\nu})CA-$.

The following correction should be made in the English translation:

M. M. Kipnis, *A property of propositional formulas*, Vol. 8 (1967), no. 3, 620-621.

On page 621, line 3, the lemma should begin as follows:

Lemma. *For any p. r. f.-l ϕ and any propositional formulas P_1 and P_2 there cannot fail to exist a number s such that:*

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DOKLADY PHYSICAL CHEMISTRY

A translation of the Physical Chemistry Section of *Doklady Akademii Nauk SSSR*

Volume 183, Numbers 1-3

November, 1968

CONTENTS

Engl./Russ.

Observation of a Direct Genetic Link between Spherulithic and Orientational Supramolecular Order—V. G. Baranov, K. A. Gasparyan, and S. Ya. Frenkel'	799	137
Density of Zinc and Cadmium Arsenides in the Solid and Liquid States and Their Volume Change on Melting—V. M. Glazov and M. Kasymova	803	141
The Homogeneous Chemical Equilibrium $N_2O_4 = 2NO_2$ in Dilute Solutions in Carbon Dioxide in the Vicinity of Its Critical Point—L. R. Krichevskii, Yu. V. Tsekhanskaya, and L. N. Rozhnovskaya	805	144
Energy Band Structure and the Nature of the Chemical Bonds in Group IV Elements—A. A. Levin	810	148
Study of the Hydrolysis and Hydrolytic Polymerization of Zirconium and Hafnium Sulfates by the Paper Chromatographic Method—A. M. Chekmarev, G. A. Yagodin, and L. M. Vladimirova	812	150
Investigation of Some Clathrate Hydrates by NMR—B. L. Afanas'ev, V. L. Kvividze, and G. G. Malenkov	816	360
Gamma-Resonance Spectra of Coordination Compounds of Sn(II)—V. I. Gol'danskii, V. V. Khrapov, V. Ya. Rochev, T. N. Sumarokova, and D. É. Surpina	820	364
Sulfate Ion Exchange between Radioactive Crystals and Saturated Solution of $BaSO_4$ —V. V. Gromov and Vikt. L. Spitsyn	824	368
Limiting Concentration of Dioxolan in a Model Reaction of Dioxolan with Methylal—V. V. Ivanov, R. D. Sabirova, M. A. Markevich, Zh. G. Aleksanyan, and N. S. Enikolopyan	827	371
Electron Microscope Study of Deformation in Tension of Type SKF-26 Rubber—V. A. Kargin, Z. Ya. Berestneva, V. G. Kalashnikova, and N. A. Slovokhotova	830	374
Mechanism of the Radiolysis of Aqueous Solutions of Ribose—N. K. Kocherkov, L. I. Kudryashov, M. A. Chlenov, V. A. Sharpatyi, M. T. Nadzhimiddinova, I. V. Nikitin, and N. M. Émanué'	833	376
Formation of a Reaction Front in Inhibited Oxidation of a Solid Substance—L. A. Lobachev, Z. L. Kaganova, and Yu. A. Shlyapnikov	836	379
Theory of Acoustic Coagulation of Aerosols—E. P. Mednikov	839	382
Mechanism of Ionic-Molecular Reactions—V. K. Potapov	843	386
Study of Frozen Solutions Containing Paramagnetic Ions and Hydrogen Atoms by Electron Spin Echo—A. M. Raitsimring, K. M. Salikhov, G. M. Zhidomirov, and Yu. D. Tsvetkov	846	389
Dependence of the Effectiveness of Radiation Cross Linking on the Degree of Crystallinity of Polyolefins—A. G. Sirota, B. G. Fedotov, E. P. Ryabikov, A. L. Gol'denberg, P. A. Il'chenko, and O. K. Kharitonova	850	393
Polymerization of 1,3-Dioxolan in the Presence of Water—E. L. Berman, E. B. Lyudvig, V. A. Ponomarenko, and S. S. Medvedev	854	614

(Contd)

Available from Consultants Bureau

CONTENTS

(continued)

Engl./Russ.

Retention of Oriented Polymer Structures when the Inner Plies of Two-Ply Fibers and Films are Melted—A. V. Vlasov, L. L. Malakhova, L. P. Mil'kova, N. V. Mikhailov, B. L. Tserlin, and M. V. Shabiygin	858	618
An Infrared Spectroscopic Investigation of the Mode of Adsorption of Methanol and Ethanol on MgO—L. S. Ignat'ev and V. N. Filimonov	861	521
Investigation of the Kinetics of the Primary Crystallization Process in Silicon Solid Solutions in Modified and Unmodified Silumin—G. M. Kuznetsov and V. A. Rotenberg	864	625
Interaction of a Shock Wave with a Film of Viscous Liquid—S. A. Lesnyak, M. A. Nazarov, Ya. K. Troshin, and K. L. Shchelkin	866	628
Determination of the Instability Constant of Cerium (IV) Ethylenediaminetetraacetate—E. A. Malinina, L. L. Martynenko, N. L. Pechyrova, and Vikt. I. Spitsyn	970	632
The Skeletal Combined State and the Quantitative Relationships of Macromolecular Mechanics—G. A. Patrikeev	874	636
Thermal Polymerization of Compounds of the s-Triazine Series with Ring Opening—Ya. M. Paushkin, A. F. Lunin, and V. R. Mkrtychan	878	640
Adsorption of Propylene and Oxygen Mixtures on Copper Oxides—É. V. Rozhkova, S. V. Gerei, and Ya. B. Gorokhovatskii	882	644

The Russian press dates (podpisano k pechatl) of the first and last issues covered in this issue of the translation were, respectively, 10/15/68 and 11/6/68. Publication of the material translated in this issue therefore is known to have occurred not prior to the earlier of these dates, but must be assumed to have taken place at intervals starting reasonably soon after this date and ending shortly after the later date.

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Soviet Physics DOKLADY

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Vol. 13, No. 11, pp. 1081-1182

May, 1969

CONTENTS

		PAGE	RUSS. ISSUE	RUSS. PAGE
AERODYNAMICS				
Sonic Flow of Viscous Heat-Conducting Gas around Bodies of Revolution. <u>G. M. Shefter</u>	(T)	1081	3	531
CRYSTALLOGRAPHY				
Study of Artificial Miargyrite (AgSbS_2) by the Nuclear Quadrupole Resonance Method. <u>S. N. Nenasheva, I. N. Pen'kov, and I. A. Safin</u> . .	(E)	1085	1	90
Conditions for the Formation of Rhombohedral (3R) Molybdenite. <u>R. W. Boyle</u>	(T)	1089	2	332
The Eutectic Structure of Muscular and Connective Tissues. <u>P. S. Vadilo</u> .	(T)	1091	3	584
CYBERNETICS AND CONTROL THEORY				
On the Theory of Necessary Optimality Conditions Governing Special Controls. <u>R. Gabasov</u>	(T)	1094	2	300
Adaptive Systems with Multistep Goal Conditions. <u>V. A. Yakubovich</u> . . .	(T)	1096	2	303
FLUID MECHANICS				
Statistical Dynamics of a Turbulent Incompressible Fluid. <u>F. P. Ulinich</u> .	(T)	1100	3	535
Equations and Boundary-Value Problems in the Theory of Two-Phase Filtration Flow in a Porous Medium. <u>V. L. Danilov,</u> <u>A. N. Konovalov, and S. I. Yakuba</u>	(T)	1102	2	307
Differential Equations of Filtration of Gas-Condensate Systems Accounting for Condensation and Sorption. <u>A. Kh. Mirzadzhanzade,</u> <u>Z. M. Akhmedov, and B. Khydyrkuliev</u>	(T)	1105	3	538
MATHEMATICAL PHYSICS				
A Class of Representations of Canonical Commutation Relations in Quantum Field Theory. <u>O. I. Zav'yalov and V. N. Sushko</u>	(T)	1107	1	56
On the Stability of Motion within a Finite Interval of Time. <u>K. A. Abgaryan</u>	(T)	1110	3	527
PHYSICS				
Angular Relationships in the Energy Spectra of Secondary Ions Scattered by a Single Crystal. <u>U. A. Arifov and A. A. Aliev</u>	(E/T)	1113	1	60 (Cont'd)

Available from the American Institute of Physics
Vol 13, No 11, May 1969

DOKLADY AKADEMII NAUK SSSR, PHYSICS SECTION
Vol 183, No 1-3, Nov 1968

	PAGE	RUSS. ISSUE	RUSS. PAGE
The L _{II} and L _{III} X-Ray Emission Bands and the Structure of the 3d Band of Copper. <u>M. A. Blokhin and V. F. Volik</u>	(T/E) 1116	1	64
Universal Relation between the Absorption and Luminescence Spectra of Semiconductors at High Pumping Intensities. <u>V. P. Grtkovskii and B. I. Stepanov</u>	(T) 1119	1	67
The Role of Mercury in Inducing an Anomalous Photoconductivity of Amorphous Selenium. <u>M. I. Korsunskii, A. D. Volchek, K. S. Garger, and V. V. Klimenko</u>	(E) 1122	1	71
"Quasisisotropic" Approximation to Geometrical Optics. <u>Yu. A. Kravtsov</u>	(T) 1125	1	74
Turbulent Heating of a Plasma in a Torus. <u>S. D. Panchenko, B. A. Demidov, N. I. Elagin, and N. F. Perepelkin</u>	(T/E) 1128	1	77
Hopping Transport in a Disordered Lattice. <u>M. I. Klinger</u>	(T) 1131	2	311
Townsend Ionization Coefficient for He When Indirect Ionization is Taken into Account. <u>É. D. Lozanskii</u>	(T) 1134	2	315
Quasistationary States in a Conical Potential Well. <u>E. E. Nikitin</u>	(T) 1137	2	319
Integral Intensities in the IR Vibrational Absorption Spectra of Cyclic Polydimethylsiloxanes. <u>I. F. Kovalev, V. A. Arhuzova, L. A. Ozolin, and M. G. Voronkov</u>	(E) 1140	3	544
Current Oscillations Stimulated by an External Acoustic Signal in CdS Crystals. <u>V. K. Komar' and B. L. Timan</u>	(E) 1144	3	548
Solution of the Schrödinger Equation for Many-Particle Systems. <u>A. P. Machil'skii</u>	(T) 1145	3	550
A Molecular Ion Gas Laser. <u>B. M. Smirnov</u>	(T) 1148	3	554
Electromagnetic Form Factors for Nucleons in the Quasiindependent Quark Model. <u>V. P. Shelest</u>	(T) 1151	3	558
TECHNICAL PHYSICS			
Effect of Surface-Active Substances on the Origin of Contact Fatigue Cracks. <u>K. B. Katsov and G. V. Karpenko</u>	(E) 1154	1	80
Admixtures to Semiconductors with Stoichiometric Vacancies. <u>V. M. Koshkin, L. V. Atrashchenko, and Yu. A. Freiman</u>	(T/E) 1156	1	83
Absorption of Nitrogen from a Plasma by Liquid Metal. <u>V. I. Lakomskii and G. F. Torkhov</u>	(E) 1159	1	87
Certain Regularities in the Effect of Laser Beams on Pure Metals. <u>A. I. Akinov and L. I. Mirkin</u>	(E) 1162	3	562
Operational Details of a Three-Stage High-Pressure Apparatus. <u>L. F. Vereshchagin, A. A. Semerchan, N. N. Kuzin, and Yu. A. Sadkov</u>	(E) 1165	3	565
Collapse of Cavities Formed by Electrical Discharge in Liquid. <u>S. P. Kozyrev</u>	(E) 1168	3	568
Effect of Electrical Current on a Cavitating Vortex Street behind a Cylinder and Its Drag. <u>Yu. N. Paukov, M. K. Bologa, and K. K. Shal'nev</u>	(E) 1171	3	572
Nonmetallic Inclusions and the Strength of Steel. <u>V. M. Finkel', O. P. Elesina, and V. A. Zraichenko</u>	(E/T) 1174	3	576
THEORY OF ELASTICITY			
Initial Thermostructural Stresses in Two-Dimensional Media. <u>S. D. Volkov, V. P. Stavrov, V. Ya. Dolgikh, and V. M. Mendel'son</u>	(T) 1177	1	53
Supersonic Flutter of Sandwich Plates. <u>A. I. Smirnov</u>	(T) 1179	3	540

Available from the American Institute of Physics
Vol 13, No 11, May 1969

ФИЗИКА ТВЕРДОГО ТЕЛА EDITORIAL BOARD

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Vol. 10, No. 11, pp. 2537-2792

May, 1969

CONTENTS

	PAGE	RUSS. PAGE
Neutron-Diffraction Investigation of the Spin Ordering in a Hexagonal Y-Type Ferrite under High Hydrostatic Pressures. R. A. Sizov, É. L. Bokhenkov, and V. A. Sizov	(E) 2537	3205
Effect of Charged Additions on the Plasticity of Semiconducting A ^{III} B ^V Compounds. V. B. Osvenskii, O. G. Stolyarov, and M. G. Mil'vidskii . . .	(E) 2540	3208
Changes in the Spectrum of Magnetoelastic Signals Due to an Adiabatic Application of a Magnetic Field Pulse. V. I. Uchastkin, Yu. A. Taratorin, V. A. Krasil'nikov, and K. V. Goncharov	(E) 2544	3215
Temperature Dependence and Mechanisms of Radiative Creation of Electronic Color Centers in KCl and KCl-Ag Crystals. S. M. Muradov and M. A. Elango	(E) 2548	3218
Theory of Nuclear Magnetic Resonance Susceptibility of Paramagnetic Substances. E. A. Turov and M. I. Kurkin	(T) 2551	3222
Relation between the Magnetic Dipole and Electric Quadrupole Interactions of the Nuclei in Metallic Aluminum. K. S. Saikin, O. A. Andreeva, Yu. L. Popov, F. I. Bashirov, and R. A. Dautov	(E) 2558	3233
Optical Dichroism of Absorption Bands and Structure of Certain Hole Centers in MeF ₂ -RE Crystals. V. A. Arkhangel'skaya and M. N. Kiseleva	(E) 2563	3239
Short-Range Order in Y-Ca-Fe-V Garnets. G. A. Matveev and V. P. Polyakov	(E) 2566	3243
Isotope Effects on the Lattice Thermal Conductivity and Thermal emf of Tellurium. V. S. Oskotskii, A. M. Pogarskii, I. N. Timchenko, and S. S. Shalyt	(E) 2569	3247
Electron Paramagnetic Resonance Spectrum of Mn ²⁺ Ions in Ferroelectric LiNbO ₃ . M. P. Petrov	(E/T) 2574	3254
Phonon Heating in a Semiconductor in a Strong Electric Field and a Quantizing Magnetic Field and Its Effect on the Electrical Conductivity. L. É. Gurevich and T. M. Gasymov	(E) 2577	3258
Theory of Relaxation Processes in Ferromagnets Containing Impurities. E. A. Turov and Yu. N. Skryabin	(T) 2586	3271
Matrix Displacements of the Hyperfine-Structure Constant of Stabilized Manganese Atoms. P. G. Baranov and R. A. Zhitnikov	(T/E) 2592	3279
Origin of Dislocation Subboundaries in NaCl Single Crystals Grown from the Melt. V. V. Antonova and L. G. Éidel'man	(E/T) 2599	3288
Available From The American Institute of Physics Vol 10, No 11, May, 1969		(Contd.)

FIZIKA TVERDOGO TELOA
Vol 10, No 11, 1968

		PAGE	RUSS. PAGE
Lifetime of a Spin Wave with Minimal Energy. V. L. Ginzburg and M. I. Kaganov.	(T)	2603	3293
Behavior of Ferroelectrics and Antiferromagnets in a Rapidly Oscillating Magnetic Field. A. I. Akhiezer and S. V. Peletminskii.	(T)	2609	3301
Geometry of Exchange Bonds in Bismuth-Calcium-Vanadium-Iron Garnet. E. L. Dukhovskaya and Yu. G. Saksunov.	(E)	2613	3308
Temperature Dependence of the High-Frequency Band Width of Crystal and Local Vibrations. A. A. Klochikhin, T. I. Maksimova, and A. I. Stekhanov.	(E/T)	2617	3312
Coupled Magnetoelastic Waves in Ferromagnetic Substances with Allowance for Hyperfine Interaction. A. I. Timofeyev and E. A. Turov.	(T)	2625	3322
Surmounting of the Elastic Field of Point Defects during the Slip of Dislocations. V. M. Chernov and V. L. Indenbom.	(T)	2632	3331
Quadrupole and Second-Order Effects in the Electron-Nuclear-Double- Resonance Spectra of F-Centers in KCl Due to Interactions with a K^{41} Isotope. N. P. Baran, M. F. Deigen, V. Ya. Zevin, and M. A. Ruban.	(E/T)	2640	3342
Effects Associated with a Defect-Enriched Layer near a Boundary or in a Thin Film of a Nonmetallic Crystal. M. A. Krivoglas.	(T)	2645	3348
Radical-Recombination Luminescence of Boron Nitride. G. A. Lubyanskii, V. V. Styrov, and V. A. Sokolov.	(E)	2653	3359
Magnetic Moments of Shallow Acceptor Centers in Semiconductors Having Degenerate Bands. E. I. Butikov.	(T)	2657	3364
Effective Fields in Crystals Having the Perovskite, Pyrochlore, and Rutile Structures. S. N. Koikov and M. N. Rozova.	(T)	2661	3369
Effect of Charged Defects on the Breakdown of Thin Dielectrics. V. F. Korzo and G. A. Lyashchenko.	(E)	2665	3374
Phase Transitions in $AVBYC_{VI}$ Ferroelectric Semiconductors. T. A. Pikka and V. M. Fridkin.	(E)	2668	3378
Nonlinear Effects in a Ferrite for Parallel Pumping. L. V. Kitaev.	(T)	2673	3385
Determination of Certain Dynamic Characteristics of Cubic and Orthorhombic $MClO_4$ -Type Crystal Lattices from Data on Infrared Spectra. E. K. Galanov and I. A. Brodekii.	(E/T)	2678	3392
Role of Dislocations in Impact Polarization of Alkali-Halide Crystals. Yu. N. Tyunyaev, A. A. Urusovskaya, V. N. Mineev, and A. G. Ivanov.	(E)	2683	3399
The Effect of a Small Transverse Magnetic Field on Helical Waves in Solid-State Plasma. Yu. I. Tsipivka and G. F. Karavaev.	(T)	2689	3406
BRIEF COMMUNICATIONS			
Temperature Dependence of the Electron Bombardment Effects on the Electronic and Physical Properties of Semiconducting Thin Films. L. I. Ivankiv, B. M. Palyukh, and Z. V. Solyanik.	(E/T)	2694	3412
Changes in the Dielectric Properties of Copper Diffused Zinc Sulfide Crystals. V. M. Korsun' and A. M. Nemchenko.	(E)	2696	3414
Preparation and Properties of Cadmium Hafnate. L. N. Aver'yanova, I. N. Belyaev, Yu. I. Gol'tsov, L. A. Solov'ev, R. I. Spinko, and O. I. Prokopalo.	(E)	2698	3416
The Appearance of a Second Conductivity Zone of GaSb in the Shubnikov-De Haas Effect. D. V. Mashovets, R. V. Parfen'ev, and V. S. Vekshina.	(E/T)	2700	3417
Elastic Moduli of CdSb. L. I. Anatychuk, V. D. Iskra, I. M. Rarenko, and B. M. Sharlai.	(E)	2702	3419
The Effect of Paramagnetic Centers on the NMR Spectra of Polymers Having Conjugated Bonds and Their Complexes. A. I. Makiakov, K. A. Gol'dammer, V. I. Shepelev, and B. G. Tarasov.	(E)	2704	3421

(Contd.)

Available From The American Institute of Physics
Vol 10, No 11, May, 1969

ФИЗИКА ТВЕРДОГО ТЕЛА
Vol 10, No 11, 1968

		RUSS.
	PAGE	PAGE
Band Form for F-Center Absorption of Light in an External Field. <u>Yu. E. Perlin and E. Yu. Perlin</u>	(T) 2706	3423
Microwave Dielectric Dispersion of the Ferroelectric and Paraelectric Phases of Barium Titanate. <u>Yu. M. Poplavko, V. G. Tsyalov, and V. I. Molchanov</u> ..	(E) 2708	3425
Microwave Properties of VC-7 Film Varistors. <u>Yu. K. Barsukov and T. N. Verbitskaya</u>	(E/T) 2711	3428
Decreased Lattice Thermal Conductivity of Ge, Si, and Their Solid Solutions. <u>A. V. Ioffe</u>	(E) 2713	3430
Effect of Temperature and Ion Bombardment on the Angular Dependences of the Secondary-Electron Emission from a Germanium Single Crystal. <u>I. A. Abroyan and A. I. Titov</u>	(E) 2716	3432
The Formation of F Centers during the Decay of X-Ray Excited States in Ionic Crystals. <u>M. A. Elango</u>	(T/E) 2718	3434
Theory of the Shadow Effect. <u>V. A. Ryabov</u>	(T) 2720	3436
EPR Spectrum of Ti^{2+} in SrF_2 and Cu^{2+} in CdF_2 . <u>M. M. Zaripov, V. S. Kropotov, L. D. Livanova, and V. G. Stepanov</u>	(E) 2722	3438
Thermal Expansion of Tellurium. <u>S. I. Novikova</u>	(E) 2723	3439
Estimating the Dimensions of the Känzig Regions from Data Relating to the Anomalous Part of the Specific Heat of Ferroelectric Phase Transformations. <u>B. N. Rolov</u>	(E) 2725	3441
The Nonlinear Theory of Frequency Conversion in Ferrites. <u>B. A. Murmuzhev and V. V. Tarasenko</u>	(T/E) 2727	3443
Observation of Spatially Phased and Out-of-Phase Oscillations of an Electron-Hole Plasma in a Semiconductor. <u>M. I. Iglitsyn, É. G. Pel', L. Ya. Pervova, and V. I. Fistul'</u>	(E) 2730	3446
Lattice Model Estimates of the Conditions of Ferroelectric Transition in Perovskite-Type Crystals. <u>G. A. Efremov and S. N. Koikov</u>	(T) 2732	3449
Nuclear Magnetic Resonance of ^{57}Fe in Local Fields of Ferrite Garnets. <u>A. P. Pavgurt and M. P. Petrov</u>	(E/T) 2734	3451
Mössbauer-Effect Study of Reactor Irradiation of Tin Monoxide. <u>S. I. Bondarevskii and P. P. Seregin</u>	(E) 2736	3454
Amplification of Acoustic Noise in a Piezosemiconductor. <u>V. I. Baibakov</u>	(E/T) 2738	3456
Thermo- and Photochemical Reactions in Colored NaBr Crystals. <u>V. V. Udod</u> ..	(E) 2741	3458
Longitudinal Optical Vibrations in the Spectrum of NaCl Single Crystals. <u>A. I. Stekhanov, Yu. F. Markov, and P. L. Smolyanskii</u>	(E) 2744	3461
Interaction of Holes and Impurity Complexes in Potassium Iodide Crystals. <u>Ya. N. Pershits and M. G. Pinsk</u>	(E) 2746	3463
Quantum Photoemission Yield of Cadmium Selenide and Cadmium Sulfide Layers. <u>V. K. Adamchuk and Yu. A. Serebryakov</u>	(E/T) 2749	3466
Absorption of Barium on the (110) Face of a Tungsten Single Crystal. <u>V. K. Medvedev</u>	(E) 2752	3469
EPR Studies of Mn^{2+} in Some II-VI Mixed Crystals. <u>V. M. Maevskii, I. N. Geifman, and N. I. Vitrikhovskii</u>	(E) 2754	3471
Computation of the Characteristic Temperature of Naphthalene by Use of Atom-Atom Potentials. <u>A. I. Kitaigorodskii and É. I. Mukhtarov</u>	(T) 2757	3474
Nature of Nonequivalent Cr^{3+} -Ion Sites in $LaAlO_3$. <u>A. V. Stafeev, M. P. Votinov, B. P. Berkovskii, and V. M. Luzhkov</u>	(E) 2759	3476
Cross-Relaxation in Corundum Crystals Containing Both Iron and Titanium Impurities. <u>Yu. K. Golub', L. S. Kornienko, and B. Yu. Porozov</u>	(E) 2760	3477
Interaction of Light Quanta with Metals. <u>O. P. Korovin</u>	(T) 2762	3479
Determination of the Elastic Constants of Gallium by Measurement of X-Ray Diffuse Scattering. <u>V. P. Glagoleva, A. P. Zvyagina, and Fung Van Tkhom</u> ..	(E) 2764	3480

(Contd.)

Available From The American Institute of Physics
Vol 10, No 11, May, 1968

FIZIKA TVERDOGO TELA
Vol 10, No 11, 1969

		RUSS.
	PAGE	PAGE
Amplification of Lamb Waves in CdS. <u>I. Ya. Kuchero</u> and <u>I. V. Ostrovskii</u>	(E) 2767	3483
The Two Charged States of Tin Impurity in Ag, Au, and Cu. <u>V. V. Chekin</u> and <u>A. P. Vinnikov</u>	(E/T) 2770	3486
Scattering of Light by Spin-Ordering Fluctuations Close to the Néel Point in Antiferromagnetic KNiF_3 . <u>Z. M. Khashkhozhev</u> , <u>R. V. Pisarev</u> , and <u>G. A. Smolenskii</u>	(E) 2772	3487
Visualization of Color Centers in Alkali-Halide Crystals. <u>G. I. Distler</u> , <u>V. N. Lebedeva</u> , and <u>V. V. Moskvina</u>	(E) 2774	3489
Coagulation of F Centers in Electrolytically Colored KCl Crystals. <u>V. V. Udod</u> .	(E) 2777	3492
Magnetostriction of $\text{Zn}_2\text{Ba}_2\text{Fe}_{12}\text{O}_{22}$. <u>S. P. Kuntsevich</u> , <u>Yu. A. Mamalul</u> , and <u>A. S. Mil'ner</u>	(E/T) 2780	3496
Study of the Deformation of Polycrystalline Beryllium during Compression. <u>V. A. Finkel'</u> and <u>I. I. Papiro</u>	(E) 2782	3497
Nuclear Magnetic Resonance in a Ferroelectric Single Crystal of Lithium Tantalate. <u>Yu. V. Vladimirtsev</u> , <u>V. A. Golenishchev-Kutuzov</u> , <u>U. Kh. Kopyllem</u> , <u>N. A. Shamukov</u> , and <u>V. V. Chkalova</u>	(E/T) 2784	3500
Magnetoelectric Effect and Electromagnetic Waves in Crystals. <u>V. N. Lyubimov</u> and <u>L. Ya. Karpov</u>	(T) 2787	3502
Changes in the Spectrum of the Quasi-Harmonic Signal in Ferrodielectrics. <u>V. I. Uchastkina</u>	(T/E) 2789	3504

Available From The American Institute of Physics
Vol 10, No 11, May, 1969

GEOLOGIYA NEFTI I GAZA
Vol 8, No 1, 1964

1. New centers of oil and gas production in West Siberia and South Mangyshlak p. 1
2. Megion oil field and oil-gas prospects of the Nizhne-Vartovskoye dome.
N. F. Beresnev and L. I. Rovnin p. 4
3. Punga natural gas field in the Tyumen region.
L. I. Rovnin p. 9
4. Main problems of prospecting the Markovo oil field in Eastern Siberia.
A. A. Trofimuk et al. p. 13
5. Composition of oils of the area of east-west trend of the River Ob.
V. F. Nikonov p. 18
6. Main results of geological exploration and tasks of regional investigations in the North Caucasus.
M. S. Burshtar et al. p. 22
7. Oil-gas prospects of the Samur part of Dagestan and Azerbaydzhan.
A. G. Aliyev et al. p. 29
8. Problem of systematic distribution of oil and gas pools in the Mesozoic sediments of the Western Cis-Caucasus.
A. A. Shimanskiy p. 34
9. Thermodynamic basis for the systematic distribution of Upper Cretaceous oil pools in the Checheno-Ingush ASSR.
A. N. Reznikov p. 40
10. Use of luminescence analysis of lateral samples for evaluation of oil productivity of reservoirs of Western Bashkiria.
V. V. Masyukov and A. Sh. Galyavich p. 43
11. Oil-gas prospects of the Azerbaydzhan part between the Kura and Iori Rivers.
S. A. Astvatsaturov p. 47
12. Geology and oil-gas prospects of the eastern part of the Issuk-Kul depression.
F. Ye. Sinitsyn and N. M. Sardonnikov p. 51
13. Tectonics of the Paleogene-Mesozoic sediments of the Kirovabad oil-gas region according to geophysical data.
I. O. Tsimel'zon p. 57
14. Calculation of initial oil reserves with a water drive using the elastic characteristics of the stratum.
V. M. Dobrynin p. 62

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GEOMAGNETIZM I AERONOMIYA

Vol 8, No 6, 1968

	English Page	Russian Page
V. P. Sazonovskiy and A. Ye. Antonova: Topology of the Drift Shells of Particles in the Magnetosphere	799	955
I. V. Kovalevskiy: Character of the Interplanetary Medium During Decreasing Solar Activity (September-October 1962), According to Mariner 2 Data	800	958
I. V. Kovalevskiy: Characteristic Propagation Velocities of Weak Disturbances in the Interplanetary Medium and Mach Numbers During the Period of Decreasing Solar Activity	801	1003
I. V. Dorman and L. I. Dorman: Cosmic Rays and the Dynamics of the Solar Wind. II	812	1008
V. V. Vas'kov: Radio Wave Scattering in an Inhomogeneous Ionosphere	818	1014
M. B. Vinogradova: Some Characteristics of the Field of Radio Waves upon Diffraction on a Regular Phase Screen	824	1021
V. D. Gurev, Yu. V. Berezin and I. A. Biryulin: Polarization of Scattered Electromagnetic Waves	827	1023
Yu. M. Nikolayev: Transformation of the Electric Field during the Propagation and Transition of an Acoustic Wave into Plasma Waves	832	1031
A. Muradov and M. N. Fatkhullin: Estimates of the Vertical Transport Velocity of Charged Particles in the Topside Ionosphere	839	1039
N. K. Osipov, N. B. Pivovarov and V. G. Pivovarov: Determination of the Parameters of Electron Fluxes in Polar Regions from Synchronous Photometric and Biometric Observations	841	1042
F. Jiricka: Characteristics of Whistlers in Central Europe during a Solar Activity Minimum	843	1044
G. V. Starkov and Ya. I. Feldshteyn: Influence of the Ring Current on the Position of the Auroral Oval	854	1056
V. A. Krasnopolskiy: Analysis of Cosmos-92 Airglow Observations	859	1060
G. I. Kolomyitseva and L. O. Tyurmina: An Experiment in the Use of Satellite Data for the Study of Secular Variations	863	1068
M. I. Rudvikin and O. Shumakov: Contribution to the Theory of Polar Storms	867	1072
V. A. Troitskaya, K. G. Kleymenova, O. M. Raspopov, L. A. Geller, V. K. Roldugin, J. Vigneron, Zh. Karchevskiy, and J. Loran: Relationship Between Irregular Geomagnetic Field Pulsations and the Pulsations of Auroras and of VLF Emission	872	1078
Ye. N. Itze: Separation of the Normal Geomagnetic Field by the Moving Average Method on Profiles of Finite Length	875	1083
G. V. Alekseyev, M. M. Ivanov and A. Ya. Rothshteyn: Use of the Vertical and Solar Components for the Exact Measurement of Magnetic Declination from a Moving Object	880	1089
V. N. Bobrov: Quartz Z-Magnetometer	884	1094
BRIEF COMMUNICATIONS		
K. G. Ivanov: Deformation as the Reason for Large-Scale Magnetic Field Variations in Interplanetary Plasma Flows	887	1095
A. K. Yukhimuk and M. Ye. Kats: Acceleration of Charged Particles in Interplanetary Space	889	1100
S. N. Vernov, A. N. Charakhch'yan, Yu. I. Stozhkov, and T. N. Charakhch'yan: Cosmic-Ray Measurements in the Stratosphere over the Arctic and Antarctica	891	1102
A. V. Gurevich and A. B. Shvartsburg: Nonlinear Resonance for Modulated Radio Waves in a Plasma (Ionosphere)	893	1104
B. S. Shapiro and I. A. Freyzon: Geometric Parameters and Temperature of the F ₂ -Layer During the IGY and IQSY	895	1105
A. D. Vazarghapov and O. V. Chernyshev: Analytical Description of the Space-Time Variations of I ₀ F ₂	897	1108
V. M. Shashun'kina and B. S. Shapiro: Influence of Aeronomie Parameters on the Ionospheric Effect of an SC Magnetic Storm	899	1110
O. V. Chernyshev: I ₀ F ₂ Distribution Curves	902	1114
V. N. Pogrebnoy: Some Characteristics of the Equatorial Ionosphere Observed on the Schooner Zarya	903	1115
K. M. Kosikov: Sporadic E-Layer	904	1116
A. N. Zaytsev: Variability of S _q Variations	905	1117
V. N. Pogrebnoy: Variability of S _q Variations in the Solar Activity Cycle	906	1118
A. N. Zaytsev and Ya. I. Feldshteyn: Reference Field Level in the Computation of S _q Variations	908	1120
T. N. Panov: 11-year Geomagnetic Activity Cycle, According to the Data of Sverdlovsk Magnetic Observatory for 1943-1966	910	1123
R. M. Galkin: Separation of the Space and Time Variations of the Magnetic Field, According to Observations on Drifting Stations	912	1125
V. N. Lugovenko and V. P. Portnova: Energy Spectrum of the Anomalous Magnetic Field	914	1127
Alphabetical Index by Subject	917	-
Alphabetical Index by Author	936	1130

Available From The American Geophysical Union

IZVESTIYA AKADEMII NAUK SSSR, ATMOSPHERY I OKEANOLOGICHESKIY

Vol 4, No 12, 1968

	Page	
	English	Russian
A.G. GORELIK AND L.N. UGLOVA, Radar Characteristics of Angels	709	1235
V.B. GLASKO AND YU.M. TIMOFEEYEV, Possibilities of the Regularization Method in Solving the Problem of Atmospheric Thermal Sounding	713	1243
A.I. IVANOV, G.SIL. LIVSHITS, V.YE. PAVLOV, AND YA.A. TEYFEL (TEUFEL), Polarization of Daytime Skylight and Atmospheric Aerosol	719	1254
D.G. RZHEPLINSKIY AND V.B. SHITOKMAN (STOCKMANN), An Investigation of Circulation about Oceanic Islands Using Numerical Experimentation	723	1261
B.A. TAREYEV, Nongeostrophic Disturbances and Baroclinic Instability in Two-Layered Oceanic Flow	730	1275
L.M. FOMIN, The Spectral Density of Distribution of Drift Current Velocity in the Ocean ..	735	1285
L.M. BREKHOVSKIKH, Some Problems of Oceanic Acoustics	739	1291
V.A. TIMOFEEYEVA AND G.G. NEUYMIN, Theoretical and Experimental Work on Marine Optics in the Soviet Union	747	1305
SHORT COMMUNICATIONS		
V.N. IVANOV AND A.YE. ORDANOVICH, Relation of the Stability Parameters in the Atmospheric Boundary Layer to the Rayleigh Number	758	1324
V.I. KLYATSKIN, The Space-Time Spectrum of Microfluctuations of the Pressure Field ..	760	1327
G.S. KARABASHIEV AND A.N. SOLOV'YEV, A Towable Meter for Measuring the Concentration of Luminescent Dyes in the Sea	763	1331
Alphabetical Index by Subject, 1968	765	—
Alphabetical Index by Author, 1968	774	1334

Available From The American Geophysical Union

IZVESTIYA AKADEMIY NAUK SSSR, FIZIKA ZEMLI
No 11, 1968

	Page	
	English	Russian
V. A. MAGNITSKIY, On the Temperature and Composition of the Lower Mantle of the Earth . .	657	3-9
A. A. MOVCHAN, The Equations of Motion of Elastic Bodies Subjected to Large Initial Stresses	661	10-19
B. A. PETRUSHEVSKIY, N. V. KONDORSKAYA AND N. V. SHEBALIN, The Earthquake of December 10, 1967, in the Western Deccan (India)	667	20-28
T. G. IVANOVA AND YU. I. VASIL'YEV, Longitudinal Wave Attenuation in the Weathered Layer	672	29-45
A. V. NIKOLAYEV, A Contribution to the Theory of Numerical Representation of Seismic Signals	682	46-52
A. N. PGLONSKIY, The Approximate Calculation of an Anomaly ΔZ or Δg Below the Observation Surface in a Volume which Surrounds Disturbing Masses	686	53-62
YU. A. TARAKANOV AND L. G. IVANKIN, Measuring the Vertical Gravity Gradient by the Motion of a Torsion Balance	691	62-66
YU. A. TARAKANOV AND L. G. IVANKIN, A Disturbance-Resistant Group of Torsion Balances	694	67-70
SCIENTIFIC COMMUNICATIONS		
YU. P. NEPROCHNOV, L. N. RYKUNOV AND V. V. SEDOV, An Experiment Using Self-Contained Ocean-Bottom Seismographs for Deep-Sea Seismic Sounding	696	71-77
E. G. BULAKH, An Algorithm for Minimizing a Function of Many Variables in the Solution of Inverse Problems in Gravimetry	701	78-81
G. S. MARKOV AND YE. N. POPOV, Tests at Sea of Gal-Type Gravimeters on Surface Vessels	703	82-87
V. N. DMITRIYEV AND YE. V. ZAKHAROV, The Resolution-Power of Inductive Methods of Electric Geophysical Exploration	707	88-93
D. S. DAYEV, An Electromagnetic Field Source in High-Frequency Measurements in a Borehole	710	94-95
A. S. KUMPAN, B. SH. RUSINOV AND L. YE. SHOLPO, Results of Paleomagnetic Studies in Central Kazakhstan	712	96-103
E. K. YAKUBAYLIK, The Viscous Magnetization of Magnetite in Rotating Magnetic Fields . .	718	104-106
REVIEWS		
A. I. RYBIN, Review of isostatic Anomalies of the Gravitational Force and Some Problems of Their Geological Interpretation, By M. Ye. Artem'yev (Science, 1966)	720	107-109
LOSSES TO SCIENCE		
Grigoriy Il'ich Garevich (1907-1968)	723	110-111

Available From The American Geophysical Union

IZVESTIYA AKADEMIY NAUK SSSR, SERIYA FIZICHESKAYA
Vol 32, No 5, 1968

Transactions of the Eighteenth Annual Conference on Nuclear Spectroscopy
and Nuclear Structure

(To be continued in Vol. 32, Nos. 10 & 12)

	Page	Orig. Trans.
Concerning decay of ^{170}Lu . Part II - V.A.Balalaev, B.S.Dzhelepov, A.I.Medvedev, V.E.Ter-Nersesyants, I.F.Uchevatkin & S.A.Shestopalova	730	671
Values of the Fermi matrix elements and isospin purity - G.E.Kraft & Yu.V.Naumov	744	684
Concerning the decay scheme of ^{158}Ho - A.A.Aburaev, J.Vrzal, K.Ya.Gromov, Zh.T.Zhelev, V.G.Kalinnikov, J.Liptak, Li Sang Kyn, F.N.Mukhtasimov, U.K.Nazarov & J.Urbanets	749	688
Decay of ^{159}Ho - A.A.Aburaev, Zh.T.Zhelev, V.G.Kalinnikov, J.Liptak, F.Molnar, U.K.Nazarov & J.Urbanets	764	703
Internal-conversion electrons following the decay of ^{124}Sb - E.P.Grigor'ev, A.V.Zolotavin, V.O.Sergeev & M.I.Sovtsov	733	711
New data on the decay scheme of ^{159}Er - A.A.Aburaev, Zh.T.Zhelev, V.G.Kalinnikov, U.K.Nazarov & J.Urbanets	781	718
Decay of ^{151}Gd - E.P.Grigor'ev, A.V.Zolotavin, V.O.Sergeev, M.I.Sovtsov, J.Vrzal, N.A.Lebedev, J.Liptak, J.Urbanets, P.P.Dmitriev, N.N.Krasnov & Yu.G.Sevast'yanov	786	723
Excitation of levels of the "semimagic" nucleus ^{140}Ce in decay of ^{140}Pr - L.N.Abesalashvili, K.Ya.Gromov, Zh.T.Zhelev, V.G.Kalinnikov, J.Liptak, U.K.Nazarov & J.Urbanets	793	730
Gamma-ray spectra of $^{93,93\text{m}}\text{Tc}$ and $^{94,94\text{m}}\text{Tc}$ - G.S.Katykhin, M.K.Nikitin, Yu.N.Podkopaev, J.Vrzal & J.Liptak	802	739
Lifetimes of low-lying states of ^{133}Cs and ^{149}Sm - F.A.Akilov, E.E.Berlovich, V.V.Lukashevich & V.M.Romanov	808	744
Asymmetry in the distribution of polarized 20 MeV protons elastically and inelastically scattered from ^{24}Mg , ^{25}Mg , ^{26}Mg , ^{27}Al and ^{28}Si - A.G.Blair, P.A.Vaganov, C.Glashausser, J.Goudergues, R.M.Lombard, B.Mayer, R.de Swiniarski & J.Thirion	813	750
Pair-conversion study of high-energy transitions in ^{72}Ge - B.N.Belyaev, S.S.Vasilenko, V.S.Gvozdev, V.N.Grigor'ev, A.I.Egorov & A.G.Sergeev	825	761
EO transitions and the structure of O^+ excitations in deformed nuclei - A.A.Kuliev & N.I.Pyatov	831	767
Concerning the magnetic properties of rotational levels of odd-odd deformed nuclei - G.F.Dranitsyna, V.M.Mikhailov & L.K.Peker	841	776
Symmetry of the wave functions of deformed nuclei under time reversal and change in the sign of K - V.M.Mikhailov	849	784
Matrix elements for single-particle radiative $E\lambda$ and $M\lambda$ transitions in deformed nuclei in the j K representation for the Nilsson and Saxon-Woods potentials - M.E.Voikhan'skii	859	795

(Contd)

Available From Columbia Technical Translations

IZVESTIYA AKADEMII NAUK SSSR, SERIYA FIZICHESKAYA
Vol 32, No 5, 1968

On the equilibrium deformations of the ground and excited states of strongly deformed nuclei - D.A.Arsen'ev, L.A.Malov, V.V.Pashkevich & V.G.Solov'ev	866	802
Calculation of the average field levels of nuclei using a nonlocal potential - V.E.Kalechits, L.P.Rapoport & I.S.Batkin	878	813
Angular correlation coefficients for dipole and quadrupole gamma transitions - G.A.Lobov	886	821
On the possible existence of quasirotational bands in ^{114}Cd and ^{200}Hg - L.K.Peker & M.E.Voikhanskii	892	826
Concerning the existence of rotational bands in ^{115}In and other odd-A indium isotopes - L.K.Peker	896	829
Quasirotational bands in odd-A "spherical" nuclei - L.K.Peker	899	831
Thin silicon dE/dx detectors with high energy resolution - V.V.Avdeichikov, V.I.Bogatin & O.V.Lozhkin	903	834
Effects of time-analyser sensitivity on errors of life-time measurements for short-lived nuclear states - E.E.Berlovich & V.V.Lukashevich	906	837

Available From Columbia Technical Translations

TABLE OF CONTENTS

Page
Orig. Trans.

Transactions of the Sixth All-Union Conference on Electron Microscopy
(To be continued)

Transmission electron microscopes - P.A.Stoyanov	906	845
The EM-8 electron microscope - V.N.Vertsner, Yu.M.Voronin, M.G.Ivanov, V.F.Kurkin, V.G.Nikiforova & Yu.N.Rusanov	917	854
The EM-11 and EM-9 electron microscopes - S.G.Baburova, V.N.Vertsner, Yu.M.Voronin, G.N.Guseva, M.G.Ivanov, V.F.Kurkin, V.G.Nikiforova, Yu.N.Rusanov, V.M.Shornikov & Yu.F.Shchetnev	920	856
The use of slow electrons in a transmission electron microscope - V.N.Vertsner & Yu.F.Shchetnev	923	858
An electron-microscope objectives of superconducting material - P.A.Stoyanov, T.V.Artemova, E.V.Susov & A.A.Talashov	928	863
Evaluation of the electron optical characteristics of cryogenic electron microscope objective solenoids - G.V.Der-Shvarts & I.S.Makarova	932	866
Simulation of flux functions and design of magnetic circuits of axially symmetric electron microscope lenses - G.V.Der-Shvarts	937	871
A scanning electron microscope and x-ray microanalyzer - D.V.Petisov, Yu.M.Kushnir, S.A.Ditsman, G.V.Der-Shvarts, E.B.Postnikov, B.I.Pochtarev, K.K.Raspletin, G.Ya.Yurchenko, S.V.Bezlepkin, A.I.Samoilov, S.S.Stepanov, R.P.Gurova, F.U.Spektor & O.K.Parshina	942	875
On the theory of the contrast in a scanning-electron-microscope image of a p-n junction - G.V.Saparin, G.V.Spivak, N.N.Sedov & L.F.Komolova	947	879
Use of a scanning electron microprobe device to investigate p-n junctions in semiconductors - S.A.Ditsman, T.A.Kupriyanova, O.D.Kropotova & A.G.Glazunov	953	885
The E-8 high-vacuum electron-beam apparatus - A.N.Kabanov, G.A.Mikhailovskii, N.I.Panteleev & I.P.Selazhev	956	887
On the contrast of the scanning-electron-microscope images of magnetic microfields - G.V.Spivak, G.V.Saparin, N.N.Sedov & L.F.Komolova	962	891
Observation of magnetic microfields with a scanning electron micro- scope at primary electron energies of the order of 30 keV - G.V.Saparin, G.V.Spivak, G.T.Sbezhev & I.F.Pesotskii	967	896
Electron optics of an emission microscope with a magnetic field at the cathode - V.G.Dyukov, A.N.Nevzorov, N.N.Sedov & G.V.Spivak	972	900
Contrast of microfield images in an emission electron microscope and calculation of the imaged microfields from the contrast - N.N.Sedov, G.V.Spivak, V.G.Dyukov & A.N.Nevzorov	978	906
Geometric optics of an electron mirror microscope with a two- electrode immersion objective - A.E.Luk'yanov, G.V.Spivak, N.N.Sedov & V.I.Petrov	987	915
Calculation of electric microfields from their images in an electron mirror microscope - N.N.Sedov, A.E.Luk'yanov & G.V.Spivak	996	923

(Contd)

Available from Columbia Technical Translations

IZVESTIYA AKADEMII NAUK SSSR, SERIYA FIZICHESKAYA
Vol 32, No 6, 1968

Formation of images of magnetic microfields of arbitrary configuration in an electron mirror microscope - N.N.Sedov, G.V.Spivak, V.I.Petrov, A.E.Luk'yanov & E.I.Rau	1005	932
Multibeam interference of electrons achieved by splitting the electron wave front - I.F.Anaskin, I.G.Stoyanova & M.D.Shpagina	1016	941
Determination of the incoherent component of the wave function of the electrons forming an electron microscope image - I.G.Stoyanova & I.F.Anaskin	1022	947
Investigation of the spherical aberration of quadrupole lenses - T.Ya.Fishkova, L.A.Baranova & S.Ya.Yavor	1028	951
Possibilities of correcting the spherical aberration of quadrupole lenses - L.P.Ovsiyannikova, V.N.Chechulin & S.Ya.Yavor	1031	956
Electron optical studies of W - Mo alloys - V.M.Puspurs, G.V.Spivak & B.B.Shishkin	1035	960
On increasing the image contrast of electron microscopes - A.E.Luk'yanov, G.V.Spivak, R.S.Gvozdozer, V.G.Dyukov & N.N.Sedov	1039	964
Real structure, reactivity, and long-range action of crystal surfaces - G.I.Distler	1044	969
Structure of epitaxial CdS films obtained by cathode sputtering - V.M.Efremenkova & V.E.Yurasova	1056	981
Electron-microscope study of dislocation structures produced in zinc by deformation with ultrasound - N.A.Tyapunina & G.M.Zinenkova	1064	988
Interaction of dislocations with grain boundaries - V.P.Severdenko, E.I.Tochitskii & L.I.Gurskii	1067	991
Electron-microscope study of films obtained by the action of an electron beam on monomers - E.M.Dubinina, G.P.Netishenskaya & G.M.Karaseva	1071	996
Investigation of the structures of thin dielectric films obtained by cathode sputtering of single-phase and multiphase materials - A.I.Krokhina, N.G.Sizikova, L.D.Ivanova, N.V.Vasil'eva & N.S.Dobrokonskaya	1075	999
Electron-optical study of the structure of tantalum films produced by cathode sputtering - U.S.Urazaliyev, R.D.Ivanov & B.D.Galkin	1082	1006
Measurement of the temperature of electron-microscope objects - G.I.S.Zhdanov & V.N.Vertsner	1087	1010
Mechanism of the formation of hydrocarbon contaminants on electron-bombarded objects - G.I.S.Zhdanov & V.N.Vertsner	1091	1015

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Number 1

January, 1967

CONTENTS

	Engl./Russ.
Valentin Alekseevich Kargin (On His Sixtieth Birthday)	1 3
Konstantin Titovich Poroshin (On His Sixtieth Birthday).	2 5
 INORGANIC AND ANALYTICAL CHEMISTRY	
Existence of $ZR=O$ and $HR=O$ Multiple Bonds in Solutions of Complex Zirconyl and Hafnyl Salts — I. P. Lipatova and E. I. Semenova.	3 6
 PHYSICAL CHEMISTRY	
Dipole Moments and the Structure of Certain Polycyclic Derivatives of Hexachlorocyclopenta- diene — B. A. Arbuzov, A. N. Vereshchagin, and E. S. Batyeva.	7 10
Study of the Structure and Reactivity of Nitrogen-Containing Derivatives of Carbonyl Compounds. Communication 16. Polarographic Study of Nicotinic Acid Hydrazide and Certain Nicotinoylhydrazones — Yu. P. Kitaev and G. K. Budnikov	14 17
Rate Constants and Mechanism of Reactions of Oxygen Atoms with Ethanol and Propionalde- hyde — L. I. Avramenko, R. V. Kolesnikova, and G. I. Savinova	19 22
Theory of Thermal Ignition. Communication 3. Principles of the Transition from Spontaneous Combustion to Ignition in Systems with an Autocatalytic Mechanism of Decomposition — V. G. Abramov, V. T. Gontkovskaya, and A. G. Merzhanov.	23 26
Investigation of the Reaction of Isotopic Exchange of Hydrogen of Alkyl-Substituted Cyclo- pentadienylmanganesetricarbonyls in Acid Media — A. N. Nesmeyanov, D. N. Kursanov, V. N. Setkina, N. V. Kislyakova, N. S. Kolonova, I. B. Zlotina, and K. N. Anisimov	26 30
Mobility of Hydrogen Atoms in the Methyl Group of Methyl Ketones of the Cene Series — N. V. Kislyakova, V. N. Setkina, and D. N. Kursanov.	30 34
Isotopic Exchange of Cyclohexane with Deuterium over Atomized Metallic Catalysts — A. A. Balandin, B. S. Gudkov, and R. M. Fedorovich	34 38
Investigation of the Mechanism of the Dehydration of Butanol-2 over Fluorinated Aluminum Oxide Using Radiocarbon C^{14} — G. V. Isagulyants, Yu. I. Derbentsev, and A. A. Balandin .	37 42
Investigation of the Dehydration of Pentanol-1 and Cyclohexanol in the Presence of Zirconium Phosphate — V. Z. Sharf, A. S. Nekrasov, L. P. Nemkova, and L. Kh. Freidlin	41 46
Investigation of the Dehydrogenating Activity of Polyarylenequinones — A. A. Berlin, B. I. Liogon'kii, A. V. Ragimov, and A. I. Smol'chenko	44 50
Polymers with a System of Conjugation. Communication 58. On the Polymerization of Phenoxyacetylene and Properties of Polymers Based on It — A. A. Berlin, M. I. Cherkashin, and I. P. Chernysheva	49 55
Dissociation Constants of Certain Nitroalkanes in Aqueous Ethanol — A. I. Ivanov, V. I. Slovetskii, S. A. Shevelov, A. A. Fainzil'berg, and S. S. Novikov	55 61
Some Tetrazolo-[1,5-b]- and s-Triazolo-[4,3-b]-pyridazines and Their IR Spectral Characteristics — I. B. Jundina, Yu. N. Sheinker, and I. Ya. Postovskii	60 66

(Contd)

Available From Consultants Bureau

ORGANIC AND BIOLOGICAL CHEMISTRY

Some Polyfluorinated Enynes — I. L. Knuzyants and E. Ya. Pervova	64	71
ω -Phenylperfluoro- α -olefins and ω -Phenylperfluoroalkanoic Acids — I. L. Knuzyants and V. V. Tokina	68	74
Addition of Alkylhydroaluminums to Conjugated Dienic Hydrocarbons — L. I. Zakharkin and L. A. Ovina	72	78
Mercuric Chloroacetate — F. K. Velichko, L. A. Nikonova, and G. K. Semin	78	84
Reactions of Aromatic Aldehydes with Trialkylsilanes in Presence of Metal Chlorides — E. Glushkova and N. P. Kharitonov	81	88
Alkyl Di(trichloro-t-alkyl) Phosphites — V. K. Khairullin and V. N. Eliseenkov	87	94
Preparation of Trichloro-t-alkyl N-Alkyl-P-arylphosphonamidites and S-Alkyl O-(Trichloro-t- alkyl) Arylphosphonothioites — V. K. Khairullin, M. A. Kuryleva, and T. I. Sovchuk	92	99
Corticosteroid Analogs. Communication 16. Interconversion of Isomeric 1-Acetyl-2-methyl- 1,2-cyclohexanediols — A. A. Akhrem and A. M. Moiseenkov	96	103
Corticosteroid Analogs. Communication 17. Reaction of 1-Acetyl-1,2-epoxy-2-methylcyclo- hexane with Carbazic Ester — A. A. Akhrem, A. M. Moiseenkov, A. V. Kamernitskii, and V. A. Dubrovskii	102	109
Transformed Steroids. Communication 8. Mechanism of the Stereospecific cis Opening of the Epoxide Ring of 16 α ,17 α -Epoxy-3 β -hydroxypregn-5-en-20-one — A. A. Akhrem, A. V. Kamernitskii, V. A. Dubrovskii, and A. M. Moiseenkov	107	115 ^a
Reduction of 6-Methoxy-1-indanone with Alkali Metals in Liquid Ammonia — K. K. Pivnitskii and I. V. Torgov	113	122
Stereochemistry of Cyclic Compounds. Communication 68. Stereochemistry of the Bromina- tion of cis-3-Methyl-4-cyclohexene-cis-1,2-dicarboxylic Acid — A. S. Onishchenko, A. L. Shabanov, and V. F. Kucherov	118	127
Chemistry of Acetals. Communication 18. Reactions of Acetals with Compounds Containing a Mobile Hydrogen Atom — S. S. Yufit, Zh. A. Krasnaya, T. S. Levchenko, and V. F. Kucherov	123	132
Effect of the Character of the N-Substituent in 4-Piperidones on the Stereochemistry of Phenyllithium Synthesis — É. A. Mistryukov and N. I. Aronova	128	138
Effect of Substituents on the Configuration of cis-Octahydro-4H-1-pyridin-4-ones and cis- Octahydro-1-pyridin-4-ols — É. A. Mistryukov and N. I. Aronova	133	143
Addition of Dichlorocarbene to Vinyl Ethers — M. F. Shostakovskii, A. A. Nikiforov, and V. V. Keiko	138	149
Reactions of Diols and Epoxides. Communication 11. Synthesis of 3,3-Dialkyl(or Aryl)oxe- tanes — N. I. Shuikin, M. Bartok, and B. Kozma	142	153
Synthesis of Polyesters and Poly(ester-amides) with Three-Dimensional Molecular Structures — K. A. Andrianov, N. I. Tsomaya, and L. M. Khananashvili	146	158
Reactions of 1,1-Disubstituted Hydrazines with Derivatives of α,β -Unsaturated Acids. Communication 5. Preparation of 1,1-Dimethyl-2-pyrazolinium-3-olates from 1,1- Dimethylhydrazine Hydrochloride — N. P. Zapevalova, L. A. Ovsyannikova, and T. A. Sokolova	149	162

BRIEF COMMUNICATIONS

Structural Changes in Synthetic Sodium Zeolites of the Chabazite-Gmelinite Group — É. É. Senderov and T. N. Shishakova	151	165
Synthesis of Di- and Tri-Substituted Ferrocenes Via Mono- and Di-(N,N-dimethylamino- methyl)-ethylferrocenes — A. N. Nesmeyanov, É. G. Perevalova, and L. S. Shilovtseva	154	167
Rate of Bromination as a Function of the Structure of Crotonic Acid Derivatives — K. M. Aleev and S. N. Ushakov	157	170
Mono- and Di-(N,N-dimethylaminomethyl)-methylferrocenes — A. N. Nesmeyanov, É. G. Perevalova, L. S. Shilovtseva, and A. A. Ponomarenko	159	171

(Contd.)

Available From Consultants Bureau

Engl./Russ.

Dibenzenechromium and Its Homologs as Catalysts for Some Reduction Reactions — D. D. Mozzhukhin, B. G. Gribov, G. A. Tychin, A. S. Strizhkova, and M. L. Khidekel'	163	175
Mechanism of the 1,3-Dipolar Cycloaddition of Nitron Ethers — V. A. Tartakovskii, A. A. Onishchenko, and S. S. Novikov	166	177
Absorption Spectra of Some Free Radicals of the Diphenylnitrogen Oxide Series — M. N. Volktrub, É. G. Rozantsev, and L. A. Skripko	169	179
Synthesis of Phosphorous Triazetidine and Esters of Phosphorazetidic Acids — N. P. Grechkin and R. N. Khamitov	172	182
Possibility of Using Kovac Indices in Gas-Chromatographic Analysis on Polar Phases — R. V. Golovnya and V. P. Uralets	176	185
Synthesis of Tertiary Alkoxy- and Alkylthioenediynic Alcohols — A. N. Volkov, A. V. Bogdanova, and L. A. Vladimirova	178	186
Pulse Radiolysis of Aqueous Solutions of Sulfuric Acid — A. K. Pikaev and V. I. Zolotarevskii	181	188
The Radiolysis of Aqueous Sulfuric Acid Solutions of Methyl Alcohol — G. K. Sibirskaya and A. K. Pikaev	183	190
Production of Trimethylchlorogermane, Methylbromogermanes, and Propyltrichlorogermane by Direct Synthesis — G. Ya. Zueva, N. V. Luk'yankina, and V. A. Ponomarenko	186	192
Melting of Potassium Peroxide — A. B. Tsentsiper and T. I. Rogozhnikova	189	195
New Reaction of Tetranitromethane — K. V. Altukhov, V. A. Tartakovskii, V. V. Perekalin, and S. S. Novikov	192	197
Thermal Desorption of Alcohols and Ethers from the Surface of Aluminum Oxide — V. I. Yakerson, L. I. Lafer, and A. M. Rubinshtein	195	200
Thermal Desorption of Substances from a Homogeneous Surface — V. I. Yakerson and V. Ya. Danyushevskii	197	202
Thermal Desorption of Substances from an Inhomogeneous Surface — V. I. Yakerson	199	204
Kinetic Isotope Effects in Reactions of Isotopic Exchange of the Hydrogen of Ferrocene with Acid and Base — F. S. Yakushin, V. N. Setkina, E. A. Yakovleva, A. I. Shatenshtein, and D. N. Kursanov	202	206
Synthesis of Certain Substituted Triphenylcarbinols — I. L. Kotlyarevskii and N. I. Popova	205	208
Interaction of Dialkylphosphites with Diacetone Alcohol — N. I. Rizpolozhenskii and F. S. Mukhametov	208	210
Isomerization of 2,4-Dimethyl-2-heptynyne-6-ol-4 and (1',1',5'-Trimethylcyclohexene-5'-yl- 6')-3-methyl-1-hexenyne-5-ol-3 — K. N. Anisimov, N. E. Kolobova, and G. K. Magomedov	211	212
Peculiarities of the Bromination of 4-Hydroxy-3,5-di-tert-butylacetophenone — A. A. Volod'kin, V. V. Ershov, and N. V. Portnykh	214	215
Ethylenimides of Arylphosphorous and Thiophosphoric Acids — N. A. Buina, I. A. Nuretdinov, and N. P. Grechkin	216	217
LETTERS TO THE EDITOR		
Isomerization of the Carbon Skeleton in the Thermal Decomposition of Aluminates — L. A. Savina and L. I. Zakharkin	220	221
Determination of pK _a of Hydrocarbons — I. P. Beletskaya, É. I. Fedin, L. A. Fedorov, B. A. Kvasov, and O. A. Reutov	221	221
Quinones as Components of the Catalytic System of the Hydrogenation Reaction — R. B. Ivanova and M. L. Khidekel'	222	222
"Cobaloximes" — Models of Vitamin B ₁₂ — as Catalysts of the Transfer of Activated Hydro- gen — E. N. Sal'nikova and M. L. Khidekel'	223	223
Isomerism of Complexes of Iron with a Cyclopentadienyl Ligand — A. N. Nesmeyanov and Yu. A. Chapovskii	224	223

(Contd)

Available From Consultants Bureau

N-Terminal Fragment of Pepsin — E. A. Vakhitova, V. I. Ostoslavskaya, V. F. Krivtsov, and V. M. Stepanov.....	225	224
Polymer Vat Dye — Polyindigo — A. A. Berlin, B. I. Liogon'kii, and A. N. Zelenetskii	226	225
Interaction of Di-n-Butylstannane with Tri-n-Butylethynyltin — A. N. Neameyanov and A. E. Borisov	227	226
Interaction of Trialkylphosphites with o-Hydroxybenzyl Alcohol and 2-Methoxymethyl-6- Methylphenol — B. E. Ivanov and A. B. Ageeva	228	226

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CONTENTS

Engl./Russ.

INORGANIC AND ANALYTICAL CHEMISTRY

- Investigation of Peroxyhydrates and Hydrates of Rubidium and Cesium Carbonates.
Communication 4. Thermal Stability of the Peroxyhydrates $Rb_2CO_3 \cdot 3H_2O_2$,
 $Cs_2CO_3 \cdot 3H_2O$, and $Rb_2CO_3 \cdot 6H_2O_2$ —T. A. Dobrynina and B. S. Dzyatkevich 229 235

PHYSICAL CHEMISTRY

- Electrophilic Substitution of the Aromatic Carbon Atom. Communication 3. Protolysis
of Phenylmercury Bromide in Dioxane with Various Water Contents
—I. P. Beletskaya, A. E. Myshkin, and O. A. Reutov 232 238
- Electrophilic Substitution at the Aromatic Carbon Atom. Communication 4. Protolysis
of Phenylmercury Bromide by Phosphoric and Chloroacetic Acids in Aqueous
Dioxane—I. P. Beletskaya, A. E. Myshkin, and O. A. Reutov 239 245
- Hydrolysis of Organic Pyrophosphates. Communication 1. Kinetics of the Acid Hydrolysis
of N,N'-Tetramethyl-N",N"-Tetraethyltetraamidopyrophosphate—V. E. Bel'skii
and M. V. Efremova 243 249
- Rate Constants of Reactions of Oxygen Atoms with n-Octane and cis- and trans-Butenes-2
—L. I. Avramenko, R. V. Kolesnikova, and G. I. Savinova 247 253
- Reactions of the HO_2 Radical. Communication 2. Rate Constants of Reactions of HO_2 with
Ethylene and Isobutylene—L. I. Avramenko, L. M. Evlashkina, and R. V. Kolesnikova 252 259
- Volume Effects of Activation in Certain Reactions of Aromatic Substitution
—N. I. Prokhorova, R. S. El'yanov, and M. G. Gonikberg 256 263
- Supplementary Adsorption Interactions in Gas-Liquid Chromatography—B. G. Belen'kii,
A. G. Vitenberg, L. D. Turkova, and N. N. Chernyshkov 262 269
- Mass Spectrometric Investigation of Carbohydrates. Communication 4. Mass Spectra
of 2,3,4-Tri-O-methyl- β -methyl-L-arabopyranoside and Its Deuteromethylated
Analog—O. S. Chizhov, B. M. Zolotarev, and N. K. Kochetkov 269 277
- Mass Spectrometric Investigation of Carbohydrates. Communication 5. Mass Spectra
of 2,3,5-Tri-O-methyl- α,β -methyl-L-arabofuranoside and Its Deuteroanalogs
—O. S. Chizhov and N. F. Madudina 274 284
- Structure and Reactivity of Nitrogen-Containing Derivatives of Carbonyl Compounds.
Communication 16. Investigation of Certain Azomethine Compounds by the Method
of Oscillographic Polarography—Yu. P. Kitaev, G. K. Budnikov, V. A. Mikhailov,
and T. V. Treoepol'skaya 281 292
- Catalytic Activity of Molybdenum Ore—V. V. Patrikeev, N. P. Sokolova, A. A. Balandin,
and Z. M. Skul'skaya 285 297
- Hydrogenation of Tetrahydrodioxo(dihydroanthrylene)tritycene on Nickel and Palladium
Catalysts—E. I. Klabunovskii, R. Yu. Mamedzade, and A. A. Balandin 288 300
(Contd.)

Available From Consultants Bureau

	Engl./Russ.
Synthesis and Polarographic Reduction of Dihydrodioxodibenzonaphthotriptycene - R. Yu. Mamedzade, E. I. Klabunovskii, L. V. Antik, A. A. Balandin, and M. V. Gorelik.	293 306
Investigation of the Selectivity and Stereospecificity in the Hydrogenation of Butyne-2- diol-1,4 on Skeletal Palladium, Nickel, and Cobalt Catalysts- L. Kh. Freidin, N. F. Zhukovaya, and E. F. Litvin.	297 310
Fractionation of Chlorinated Lignins- N. N. Shorygina, O. P. Grushnikov, and V. D. Tyshina.	304 317
ORGANIC AND BIOLOGICAL CHEMISTRY	
Additions of Dichloromethylvinylsilane and of Unsaturated Organic Compounds to Pentamethyldisiloxane and to 3H-Heptamethyltrisiloxane- K. A. Andrianov, V. I. Sidorov, and L. M. Khananashvili.	307 321
Synthesis of Organosilicon Compounds Containing Cyclopentyl, Cyclopentenyl, and Cyclopentadienyl Groups- V. F. Mironov, N. G. Maksimova, and V. V. Nepomnina.	313 329
Preparation of Some Derivatives of 3-Mercaptopropionic Acid, Cystamine, and Cysteamine and Study of Their Radiation Protection Properties - G. M. Airapetyan, P. G. Zherebchenko, V. M. Bystrova, Z. V. Benevolenskaya, N. D. Kuleshova, M. G. Lin'kova, O. V. Kil'disheva, and I. L. Knunyants.	317 334
Reactions of Fluoro Olefins with Hydrogen Sulfide- A. V. Fokin, A. A. Skladnev, Yu. N. Studnev, and L. L. Knunyants.	324 341
Reaction of Octafluoroisobutene with Dimethylformamide- Yu. A. Cheburkov and I. L. Knunyants.	328 346
New Organophosphorus Complexing Agents. Communication 3. [Oxybis(ethyleneimino- isopropylidene)]diphosphonic Acid and [Iminobis(ethyleneiminoisopropylidene)]- diphosphonic Acid- T. Y. Medved', M. V. Rudomino, E. A. Mironova, V. S. Balabukha, and M. I. Kabachnik.	332 351
Some New Forms of the Arbuzov Rearrangement. Communication 20. cis-trans Isomerism of 3-Phosphonocrotonic Triester- V. A. Kukhtin, Yu. Yu. Samitov, and K. M. Kirillova.	337 356
Phosphorus-Containing Polymers. Communication 1. Polyamides from 3,3'-(Phenyl- phosphinylidene)dipropionic Acid and 3,3'-(Phenylphosphinylidene)bispropylamine - G. M. Vinokurova and I. A. Aleksandrova.	343 362
Glycopeptides. Communication 15. Hydrolytic Stability of the Ester Link in O-Glycyl Derivatives of Monosaccharides- N. K. Kochetkov, V. A. Derevitskaya, and L. M. Likhoshershtov.	347 367
Transformations of Lignin in Nitration in Nonaqueous Media- N. N. Shorygina, L. L. Sergeeva, and B. V. Lopatin.	351 372
Chemistry of Polyenic and Polyynic Compounds. Communication 19. Synthesis of Branched Unsaturated Acids- M. V. Mavrov and V. F. Kucherov.	357 379
Cyclization of Isoprenoid Compounds. Communication 17. Effect of the Character of the Substitution at the Terminal Double Bond on the Stereospecificity of the Initiation of the Cyclization Reaction- I. G. Mursakulov, A. V. Semenovskii, and V. A. Smit.	362 384
Reactions of 2-Alkoxyacroleins. Communication 1. 2-Ethoxyacrolein in Polar-Addition Reactions- M. F. Shostakovskii, N. A. Keiko, and A. Kh. Filippova.	368 392
Mannich Bases Derived from p-Diethynylbenzene- I. L. Kotlyarevskii, É. K. Andrievskaya, and L. B. Fisher.	373 397
BRIEF COMMUNICATIONS	
Isomerization of 1-Acetyl-4-tert-butylcyclohexanediols-1,2- A. A. Akhrem and V. N. Dobrynin.	378 405 (Contd)
Available From Consultants Bureau	

	Engl./Russ.
Thermal Aalkylation of Perchlorocyclopentadiene with Toluene—R. Kh. Freidlina, A. B. Belyavskii, and F. K. Velichko	381 407
Reduction of 4-Hydroxy-3,5-di-tert-butylphenylalkyl Ketones with Lithium Aluminum Hydride—A. A. Volod'kin, V. V. Ershov, and N. V. Portnykh	384 409
Dipole Moments of Certain Organosilicon Compounds—I. Yu. Kokoreva, Ya. K. Syrkin, T. L. Krasnova, and E. A. Chernyshev	387 411
Reduction of 1-Alkoxy- and 1-Aryloxy-2,2-dichlorocyclopropanes—A. A. Retinskii and S. M. Shostakovskii	389 413
Unsymmetrical Secondary and Tertiary Phosphines and Their Derivatives —G. M. Vinokurova and Kh. Kh. Nagaeva	391 414
Formation of Ozonides of the Alkaline-Earth Metals by the Reaction of Ozone with the Hydroxides—I. I. Vol'nov, S. A. Tokareva, V. N. Belevskii, and G. P. Pilipenko	393 416
Main Products and Nature of the Decomposition of π -Allyl-carbonyl Complexes of Iron —A. N. Nesmeyanov, I. I. Kritskaya, R. V. Kudryavtsev, and Yu. I. Lyakhovetskii	396 418
Synthesis of Esters of Oxocaprylic Acids—I. F. Bel'skii, V. M. Shostakovskii, Z. K. Vol'nova, S. I. Ishchenko, and V. G. Glukhovtsev	399 420
Decomposition of Phosphatidylethanolamine with Phospholipase C from Clostridium Perfringens—É. V. Dyatlovitskaya, V. I. Volkova, M. V. Isolatovskaya, and L. D. Bergel'son	402 422
Reaction of α -Aminoethers with Triethyl Phosphite—B. E. Ivanov and S. S. Krokhina	405 424
Synthesis of Organosulfur Compounds Containing Trichlorovinyl Groups —R. G. Petrova and R. Kh. Freidlina	408 426
Electron Paramagnetic Resonance of the Dianion Radicals Obtained in the Electro- chemical Reduction of Some Polynitro Compounds—A. I. Prokof'ev and S. P. Solodovnikov	410 428
Diethyl- β -Dialkylcarbamoyl-ethyl)-phosphine Oxides—V. K. Khairullin, A. N. Pudovik, and T. I. Sobchuk	413 430
Thermal Transformations of Ethylenimines—S. V. Zotova, G. V. Loza, and M. Yu. Lukina	415 432
Thermal Isomerization of 1-Methylcyclopentadiene—V. A. Mironov, T. M. Fadeeva, A. U. Stepanyants, and A. A. Akhrem	418 434
Diethylenimides of Phosphonous Acids and Their Properties—I. A. Nuretdinov and N. P. Grechkin	421 436
2,2-Dimethylethylenimides of Phosphoramidous Acids—I. A. Nuretdinov and N. P. Grechkin	424 439
Tetracyclopentadienyizirconium — E. M. Brainina and G. G. Dvoryantseva	427 442
Mannich Bases of Ethynylphenol Derivatives—M. I. Bardamova, R. N. Myasnikova, and I. L. Kotlyarevskii	429 443
Oxidative Dearylation of Triphenylamine Derivatives—A. V. Grib	432 446
Some Transformations of the Anion Radical of Phenylbenzene—K. A. Bilevich, L. I. Zakharkin, and O. Yu. Okhlobystin	435 448
Interaction of Penta- and Decafluorobenzophenones with Hydrazine and Its Derivatives —T. N. Gerasimova, T. N. Vasilevskaya, V. A. Barkhash, and N. N. Vorozhtsov Jr.	438 450
Influence of Ortho-Substituents on the Equilibrium Transformation of Quinonediazides to Hydroxyphenyldiazonium Salts—G. A. Nikiforov, L. G. Plekhanova, and V. V. Ershov	441 452
Interaction of Acetylene with Organic Disulfides—M. F. Shostakovskii, B. A. Trofimov, A. S. Atavin, S. V. Amosova, and É. I. Kositsyna	444 454
Photolysis of Aryl Bromides and Aryl Chlorides in Benzene—M. A. Chel'tsova and G. I. Nikishin	447 456

(Contd)

Available From Consultants Bureau

CONTENTS

(continued)

IZVESTIYA AKADEMII NAUK SSSR, SERIYA KHIMICHESKAYA

No 2, 1967

Engl./Russ.

Amino Derivatives of Mono- and Diethynyldiarylalkanes - S. I. Shergina, A. G. Badashkeeva, A. S. Zanina, and I. L. Kotlyarevskii, ...	449	458
Basicity of Ketones of the Cyclopentadienyltricarbonylmetal Series - S. P. Gubin, K. N. Anisimov, I. P. Shepilov, I. B. Zlotina, and N. E. Kolobova	451	460
Conversion of Neobarenes into Anions of Neodicarbaundecaboranes (13) - L. I. Zakharkin and V. N. Kalinin.	454	462
Derivatives of Diferrocenylmethane - A. N. Nesmeyanov, É. G. Perevalova, L. I. Leont'eva, and O. F. Filippov	457	464
Method for the Synthesis of Monoarylacetylenes - M. S. Shvartsberg, A. N. Kozhevnikova, and I. L. Kotlyarevskii	460	466
LETTERS TO THE EDITOR		
Rearrangements of Six-Membered Organocyclosiloxanes into Eight-Membered and Higher Organocyclosiloxanes - K. A. Andrianov, A. A. Zhdanov, B. D. Lavrukhin, M. M. Levitskii, É. I. Fedin, and S. E. Yakushkina	462	468
Nucleophilic Conjugated Fluoronitrosation of Fluoroolefins - B. L. Dyatkin, E. P. Mochalina, and I. L. Knunyants	463	469
Behavior of Polycyclic Aromatic Hydrocarbons under Conditions of Plastic Deformation at High Pressures - M. G. Gonikberg, A. A. Petrov, and G. P. Shakhovskoi	464	470
The First Case of the N-Glycosidation of the Silver Salt of Uracil - I. A. Mikhailopulo, V. I. Gunar, and S. I. Zav'yalov.	465	470
Kinetics and Mechanism of the Decomposition of Mannich Bases - V. M. Belikov, Yu. N. Belokon', M. M. Dolgaya, and N. S. Martinkova	466	471
Carboboration of Nitriles with Triallylboron - Yu. N. Bubnov and B. M. Mikhailov	467	472
Nucleophilic Substitution Reactions in the Barene and Neobarene Systems - L. I. Zakharkin and V. N. Kalinin	468	473
N-Ethyleneiminotrimethylstannane - R. G. Kostyanovskii and A. K. Prokof'ev	469	473
The Question of the Isotope-Radical Exchange Reaction of Carbon - G. V. Isagulyani, Yu. I. Derbentsev, and A. A. Balandin	470	474

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Number 3

March, 1967

CONTENTS

Engl./Russ.

Nikolai Petrovich Sazhin (On His 60th Birthday)	471	483
Konstantin Vladimirovich Chibisov (On His 70th Birthday)	472	485
INORGANIC AND ANALYTICAL CHEMISTRY		
Synthesis of Fluorine-Containing Borazanes and Borazenes — Vikt. I. Spitsyn, I. D. Kolli, R. A. Rodionov, and Yu. D. Ivakin	473	487
Homologous Dependence of the Indices of Retention of Primary n-Aliphatic Amines in Gas Chromatographic Analysis — R. R. Golovnya, G. A. Mironov, and I. L. Zhuravleva	477	492
PHYSICAL CHEMISTRY		
Catalytic Properties of Titanium, Zirconium, and Hafnium Dioxides in Reactions of Dehydro- genation and Dehydration — I. P. Konenko, A. A. Tolstopyatova, and A. A. Balandin	481	496
Principles in the Successive Catalytic Conversions of Furan Derivatives during Their Hydro- genation — A. A. Balandin and A. A. Ponomarev	487	503
Orienting Influence of Silver Crystals upon the Growth of Surface Oxides — N. A. Shishakov and R. I. Nazarova	496	512
Reactions of Nitrogen Atoms. Communication 6. Rate Constant and Mechanism of the Elementary Reaction of Nitrogen Atoms with Carbon Dioxide — L. I. Avramenko and V. M. Krasnen'kov	501	516
Mechanism of the Oxidation of Glyceraldehyde by Molecular Oxygen — L. M. Andronov and Z. K. Maizus	504	519
Thermochemical and Kinetic Investigation of N,N-Dimethylnitrosoamine — B. L. Korsunskii, V. I. Pepekin, Yu. A. Lebedev, and A. Ya. Apin	509	525
Kinetics of the Decomposition of 3,3-Dinitrobutanol-2 in Water under the Action of Bases — Yu. N. Belokon' and V. M. Belikov	512	528
Interaction of Triethyl Phosphite with Isopropyl Iodide and tert-Butyl Chloride at High Pressures — M. G. Gonikberg and I. Z. Fainshtein	516	533
Mass Spectrometric Investigation of Carbohydrates. Communication 6. Mass Spectra of 2,3,4,6-Tetra-O-methyl- β -methyl-D-galactopyranoside and Its Deuteromethylated Analog — N. K. Kochetkov, O. S. Chizhov, and B. M. Zolotarev	520	537
Mass Spectrometric Investigation of Carbohydrates. Communication 7. Mass Spectra of 2,3,4-Tri-O-methyl- β -methyl-D-fucoside and Its Deuteromethylated Analog — N. K. Kochetkov, O. S. Chizhov, B. M. Zolotarev, and V. Sh. Sheinker	526	543
Infrared Spectra and Structure of Polyazines — T. A. Sidorov, L. I. Komarova, Yu. V. Korshak, and B. E. Davydov	531	548
Study of the Structure and Reactivity of Nitrogen-Containing Derivatives of Carbonyl Com- pounds. Communication 18. Polarographic Investigation of Certain Isonicotinoylhydra- zones — Yu. P. Kitaev and G. K. Budnikov	535	554

(Contd.)

Available From Consultants Bureau

Study of the Structure and Reactivity of Nitrogen-Containing Derivatives of Carbonyl Compounds. Communication 19. Polarographic Investigation of Isonicotinoylhydrazones of Aromatic Aldehydes — Yu. P. Kitaev and G. K. Budnikov	542	562
Synthesis and Polarographic Reduction of Tetrahydrodioxodibenzoanthrylenetriptycene — L. V. Antik, R. Y. Mamedzade, E. I. Klabunovskii, and A. A. Balandin.	548	568
Some Peculiarities of the Polytherms of the Surface Tension of Water and Aqueous Solutions — A. N. Kirgintsev and L. N. Efanov	551	671
ORGANIC AND BIOLOGICAL CHEMISTRY		
Proportions of Isomers in the Cyanation of Methyl-, Ethyl-, and Phenyl-ferrocenes — A. N. Nesmeyanov, L. P. Yur'eva, and E. G. Perevalova	557	578
Organozinc Compounds of the R_2Zn Class — N. I. Sheverdina, I. E. Paleeva, N. A. Zaitseva, L. V. Abramova, V. S. Yakovleva, and K. A. Kocheshkov.	561	582
Organozinc Compounds of the $RZnR'$ and $ArZnAr'$ Classes — N. I. Sheverdina, I. E. Paleeva, and K. A. Kocheshkov.	565	587
Synthesis of Poly(phosphine Oxides) — M. I. Kabachnik, T. Ya. Medved', Yu. M. Polikarpov, and K. S. Yudina	568	591
Phosphorus-Containing Polymers. Communication 2. Mixed Polyamides Based on Phosphine Oxides — G. M. Vinokurova, B. Ya. Teitel'baum, I. A. Aleksandrova, and T. A. Yagfarova.	573	596
O-(Pentachlorophenyl) Phosphorodichloridothioate and Derived Amidic Esters — D. Kh. Yarmukhametova and I. V. Cheplanova	579	602
Synthesis and Properties of 2,3-Epoxypropyl Esters of Phosphorus Acids. Communication 1. Synthesis of Cyclic Alkylene 2,3-Epoxypropyl Phosphites — L. V. Stepashkina and N. I. Rizpolozhenskii	584	607
Reactions of Hexafluoropropene with Methanol at Atmospheric Pressure — M. D. Bargamova, Yu. A. Cheburkov, B. L. Dyatkin, P. V. Petrovskii, and I. L. Knunyants	588	611
Reactions of Polyfluoro Ketones with Aromatic Compounds — B. R. Livshits, I. A. D'yachenko, V. P. Pali, and N. P. Gambaryan	591	614
Some Sulfur Analogs of Ethylene Glycol and Diethylene Glycol in the Vinylation Reaction — S. V. Amosova, A. S. Atavin, and B. A. Trofimov	596	619
Steroid Analogs without the B Ring. Communication 1. Synthesis of 3-Ethyl-4-(p-methoxyphenyl)-2-methyl-3-cyclohexene-1-carboxylic Acid — A. A. Akhrem, Yu. A. Titov, and I. S. Levina	601	624
Chemistry of Acetals. Communication 21. Condensation of Dialdehyde Monoacetals with Nitro Compounds — L. A. Yanovskaya, R. N. Stepanova, and V. F. Kucherov	605	628
β -Dicarbonyl Compounds. Communication 26. Chemical Properties and Biological Activity of Enamines Derived from β -Dicarbonyl Compounds — G. V. Kondrat'eva, V. I. Gunar, L. F. Ovechkina, S. I. Zav'yalov, and A. I. Krotov	609	633
Alkylation of Tetrahydrofuran with Alkenes and Unsaturated Ethers — N. I. Shuikin and B. L. Lebedev.	615	639
Alkylation of Tetrahydropyran — N. I. Shuikin, B. L. Lebedev, and I. P. Yakovlev.	619	644
Free-Radical Addition of Alcohols and Acids to 10-Undecenoic Esters, 10-Undecen-1-ol, and 10-Undecenyl Acetate — D. Lefort, V. D. Vorob'ev, G. V. Somov, and G. I. Nikishin.	623	648
Unsaturated Amines. Communication 1. Isomerization of Aliphatic Schiff Compounds — G. Ya. Kondrat'eva and Yu. S. Dol'skaya.	628	654
Highly Unsaturated Polymers. Communication 21. Acetylenic Phenols — M. I. Bardamova, I. L. Kotlyarevskii, T. G. Shishmakova, and Z. P. Trotsenko.	632	658
Highly Unsaturated Polymers. Communication 20. Poly(azoarylenes) from Branched Diamines — M. P. Terpigova, I. L. Kotlyarevskii, A. A. Mityushova, and M. F. Bashkurov	636	662

(Contd)

Available From Consultants Bureau

Polymerization of Alkyl Vinyl Ethers in Presence of the Sulfuric Acid - Aluminum Sulfate Complex - A. P. Alinaev and A. M. Khomutov	642	667
BRIEF COMMUNICATIONS		
Surface Tension of Aqueous Solutions of Salts Close to the Temperature of Transition of the Solution to the Supersaturated State - A. N. Kirgintsev and L. N. Efanov.	646	671
Synthesis and Structure of 1-Oxo-1-chlorophospholenes - B. A. Arbuzov, O. A. Vizel', Yu. Yu. Samitov, and Yu. F. Tarenko.	648	672
Fluoroalkylation of Vinylidene Chloride - L. S. German and I. L. Knunyants	650	675
Condensation of Formaldehyde with Olefins in Anhydrous Hydrogen Fluoride - L. S. German, and I. L. Knunyants	653	677
Synthesis of Certain Bis(ethynyloxy)arenes - A. S. Zanina, I. L. Kotlyarevskii, and V. S. Stepochkin.	655	679
Reaction of Diazomethane with Triferrocenyl- and Diferrocenyl(phenyl)carbonium Salts - A. N. Nesmeyanov, E. G. Perevalova, L. I. Leont'eva, and Yu. A. Ustynyuk.	657	681
Preparation of Crystalline Hypophosphorous Acid - K. V. Nikonorov and E. A. Gurylev	659	683
Peculiarities of the Dienone-Phenol Transformations of Di-tert-butylspirocyclo-dienones under the Influence of Acid Agents - I. S. Belostotskaya, V. I. Volod'kina, A. A. Volod'kin, and V. V. Ershov	660	684
Use of a Moving Sorbent for the Concentration of Heavy Impurities - V. R. Alishoev, V. G. Berezkin, and V. P. Pakhomov	663	686
Heat of Adsorption of Benzene and Cyclohexane on Zeolites NaY and CaY - A. L. Klyachko-Gurvich, A. T. Khudiev, and A. M. Rubinshtein	665	687
Reaction of Trialkylethynylsilanes with Mercaptans and Thioacetic Acid - N. V. Komarov, O. G. Yarosh, and G. A. Kalabin	668	690
Bromination and Iodination of Trialkylethynylsilanes - M. F. Shostakovskii, V. N. Komarov, and O. G. Yarosh	672	693
Reaction of Ferricinium Salts with Fatty Acid Anhydrides - A. N. Nesmeyanov, E. G. Perevalova, and L. N. Yur'eva	675	694
Some Reactions of 1-Methyl-2-halomagnesiomethylbenzenes - L. I. Zakharkin and A. V. Grebennikov	677	696
Thermal Transformations of Cyclohexa-1,3-diene and Cyclohexa-1,4-diene - V. A. Mironov and A. A. Akhrem.	680	698
A Study of the Fusibility Diagram of the KO_2 - K_2CO_3 System - A. B. Tsentsiper and T. I. Rogozhnikova	682	700
Correlation of the Frequencies and Intensities of the Infrared Bands of the Diazonium Group of Aromatic Diazonium Compounds with Substituent Constants - L. A. Kazitsyna, L. D. Ashkinadze, and O. A. Reutov.	685	702
Action of Trialkyl Phosphites on 10-Bromoanthrone and Methylenanthrone - B. A. Arbuzov, V. M. Zorostrova, and N. D. Ibragimova	687	704
Influence of Solvents on the Direction of the Addition of Mercury Salts of Trinitromethane to Unsaturated Compounds - V. A. Tartakovskii, L. A. Nikonova, and S. S. Novikov.	690	706
Reaction of Pentafluorobenzonitrile with Hydroxylamine - G. S. Shchegoleva, V. A. Varkhash, and N. N. Vorozhtsov, Jr.	692	708
LETTERS TO THE EDITOR		
Rearrangement of 16 α , 17 α -Epoxypregn-5-ene-3 β , 20 α -diol 3, 20-Diacetate on Reaction with Methylmagnesium Iodide - A. A. Akhrem and T. V. Ilyukhina.	694	710
2, 2-Bis(trifluoromethyl)aziridine - I. L. Knunyants and Yu. V. Zeifman	695	711
Question of the Transmission of Electronic Influences in Systems with a β -Arrangement of Oxygen Atoms - B. A. Trofimov, A. S. Atavin, M. F. Shostakovskii, and I. S. Emel'yanov	696	711

(contd)

Available From Consultants Bureau

	Engl./Russ.
Acyl Migration in the Series of cis-1-Acetylcyclohexanediol-1,2 — A. A. Akhrem and A. M. Moiseenkov	697 712
Synthesis of Copolymers with a System of Conjugated Aromatic and Olefinic Double Bonds in the Basic Chain of the Macromolecule — Yu. G. Kryazhev, E. F. Semenova, and M. I. Cherkashin.	698 713
Chymotrypsin Hydrolysis of Acetylphenylalanine p-Nitroanilide — E. V. Ramenskii, Yu. I. Khargin, M. M. Botvinik, and E. D. Kaverzneva.	699 713
CHRONICLES	
General Meeting of the Division of General and Technical Chemistry of the Academy of Sciences of the USSR, Dedicated to the Memory of Academicians A. A. Grinberg and I. I. Chernyaev.	700 714

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Number 4

April, 1967

CONTENTS

Engl./Russ.

INORGANIC AND ANALYTICAL CHEMISTRY

Investigation of Peroxyhydrates and Hydrates of Rubidium and Cesium Carbonates.

Communication 5. Physicochemical Investigation of the Binary Systems Rb_2CO_3 -

H_2O and Cs_2CO_3 - H_2O — T. A. Dobrynina and B. S. Dzyatkevich 703 723

PHYSICAL CHEMISTRY

Exchange of Functional Groups in the Series of Organotin Compounds — N. N. Zemlyanskii,

I. P. Goldshtein, E. N. Gur'yanova, O. P. Syutkina, E. M. Panov, N. N. Slovokhotova,
and K. A. Kocheshkov 707 728

Influence of Surface-Active Substances on the Evaporation of Fine Water Drops

— L. F. Leonov and P. S. Prokhorov 713 735

Ion-Exchange Sorption of Quaternary Ammonium Bases on Sulfo-Resins of Various

Structures — G. V. Samsonov and B. V. Moskvichev 719 742

Heterocyclic Polyesters. Communication 85. Influence of Polydispersion and the Structure

of the Unit on the Strength Indices of Polyarylates — V. V. Korshak,
S. V. Vinogradova, V. A. Pankratov, S. A. Pavlova, and G. I. Timofeeva 723 747

Influence of the Medium on the Kinetics of the O-Nitration of Methanol — A. P. Genich

and L. V. Kustova 728 752

Spectra and Molecular Structure of Nitric Acid in Solutions. Communication 3. Complex

Formation with Carboxylic Acids — A. P. Genich, L. T. Eremenko,
and L. A. Nikitina 733 757

Decomposition of Isopropanol, Dehydrogenation of Tetralin, and Dehydration of Trimethyl-

carbinol on Molybdenum Oxides — V. A. Naumov, A. A. Bajandin, A. A. Tolstopyatova,
and E. F. Korytnyi 736 761

Determination of the Bond Energies of Organogens to the Surface of Europium Oxide

— A. A. Bajandin, A. A. Tolstopyatova, and V. A. Naumov 741 767

Catalytic Hydrocondensation of Carbon Monoxide with Olefins and Their Hydropolymeriza-

tion under the Action of Carbon Monoxide and Hydrogen. Communication 44. On the
Reduction of Carbon Monoxide in the Hydropolymerization of Ethylene — N. I. Ershov,

Ya. T. Éidus, and I. V. Guseva 745 772

Formation of Radicals in the Photodestruction of Polypropylene — Yu. A. Ershov and

Yu. V. Gak 750 778

Reaction of Ammonization with Alkyl Halides as a Method of Determining the Configuration

and Conformation of Piperidine Bases — É. A. Mistryukov and N. I. Aronova 755 783

Basicity of Amines of the Piperidine Series and Dependence of the Basicity upon Steric

and Polar Factors — É. A. Mistryukov and N. I. Aronova 760 789
(Contd)

Available From Consultants Bureau

CONTENTS

(continued)

IZVESTIYA AKADEMIY NAUK SSSR, SERIYA KHIMICHESKAYA
No 4, 1967

	Engl./Russ.
Geminal Systems. Communication 7. Basicity of Amines >El-C-N< for Elements of Group IV — A. K. Prokof'ev, V. P. Nechiporenko, and R. G. Kostyanovskii	765 794
Study of the Interactions in Salts of Organic Sulfonic Acids by the Method of Infrared Spectroscopy — K. K. Kalin'sh, B. G. Belen'kii, and G. V. Samsonov	772 802
ORGANIC AND BIOLOGICAL CHEMISTRY	
Reaction Opposite to Disproportionation and Transesterification in the Series of Monocyclopentadienyl Derivatives of Titanium — A. N. Nesmeyanov, O. V. Nogina, N. A. Lazareva, and V. A. Dubovitskii	777 808
Reactivity of Diphenylstibine — A. N. Nesmeyanov, A. E. Borisov, and N. V. Novikova . .	783 815
Synthesis of Alkylaromatic Chlorohydrocarbons, Containing the Trichlorovinyl Group — G. I. Nikishin and M. I. Dyusenov	787 819
Esters of Thioacids of Trivalent Phosphorus. Communication 2. Chlorides of Alkylthioethylphosphinous Acid — V. D. Akamsin and N. I. Ryzpolozhenskii	793 825
Reaction of Perfluoroisobutylene with Sodium Nitrite in Dimethylformamide — Yu. A. Cheburkov and I. L. Knunyants	797 829
Some Properties of Halides of Fluorinated Acids — Yu. A. Cheburkov and M. D. Bargamova	801 833
Synthesis of a Protected Tetrapeptide without Isolation of the Intermediate Compounds — L. A. Lyublinskaya and V. G. Debabov	807 840
Unsaturated Acids and Macrocyclic Lactones. Communication 20. Synthesis of Catalpic and Calendic Acids — L. D. Bergel'son, V. D. Solodovnik, and M. M. Shemyakin . .	810 943
Transformed Steroids. Communication 9. Reaction of $16\alpha,17\alpha$ -Epoxy- 3β -hydroxy- 16β -methylpregn-5-en-20-one with Ethyl Carbazate — A. A. Akhrem, V. A. Dubrovskii, A. V. Kamernitskii, and T. F. Solov'eva	816 850
Steroid Analogs without Ring B. Communication 2. D-Homoestrone Derivatives without Ring B — A. A. Akhrem, Yu. A. Titov, and Z. A. Kravchenko	820 855
Catalytic Activity of Mercury Salts in Certain Electrophilic Reactions of Diketone — S. I. Zavyalov, I. A. Mikhailopulo, V. I. Gunar, and L. F. Ovechkina	824 859
Optically Active Alkoxy- and Alkylchlorosilanes as Starting Compounds for the Preparation of Stereospecific Silica Gels and Silicon-Containing Polymers — E. I. Klabunovskii and L. M. Volkova	828 863
Chemistry of Polyene and Polyacetylene Compounds. Communication 21. Synthesis of Some Types of Vinylpolyacetylenic Acids — A. R. Derzhinskii, M. V. Mavrov, and V. F. Kucherov	831 866
Chemistry of Polyene and Polyacetylene Compounds. Communication 22. General Method for the Synthesis of Mono- and Dicarboxylic Acids of the Polyacetylenic Series — A. R. Derzhinskii, M. V. Mavrov, and V. F. Kucherov	837 872
Reversibility of the Condensation of Orthoformic Esters with Nitro Compounds — N. A. Tikhonova, K. K. Babievskii, and V. M. Belikov	842 877
Mechanisms of Carbon Formation in the Decomposition of Acetic and Formic Acids on Silica Gel — A. P. Rudenko, A. A. Balandin, A. N. Astanina, and S. Ya. Kurganova . .	845 881
Alkylation of Phenols with Bifunctional Compounds. Communication 17. Halosalkylation of Cresols with 1,3-Dibromopropane and 1,5-Dichloropentane — E. A. Viktorova, N. I. Shuikin, and E. A. Karakhanov	852 888
Alkylation of Phenols with Bifunctional Compounds. Communication 18. Alkenylation of m-Cresol and Its Methyl Ether with Allyl Halides — E. A. Viktorova, N. I. Shuikin, N. N. Tsitsugina, and V. G. Blinova	855 891
Heterochain Polyesters. Communication 84. Mixed Block Polyesters Derived from Penton, Dihydric Phenols, and Aromatic Carbonyl Chlorides — S. V. Vinogradova, V. V. Korshak, G. Sh. Papava, and P. D. Tsiskarishvili	859 895

(Contd)

Available From Consultants Bureau

	Engl./Russ.
Highly Unsaturated Polymers. Communication 22. Directed Synthesis of Oligomers Possessing the Properties of Solubility, Infusibility, Thermal Stability, and High Electric Resistance — I. L. Kotlyarevskii, A. S. Zanina, and N. M. Gusenkova	864 900
Acetylenic Alcohols and Amines of the Diphenyl Oxide Series — M. S. Shvartsbert, I. L. Kotlyarevskii, G. I. Volgina, and Z. P. Trotsenko	868 905
BRIEF COMMUNICATIONS	
Reaction of Diorganodichlorosilanes with Resorcinol — K. A. Andrianov, A. V. Varlamov, L. M. Khananashvili, N. P. Gashnikova, and M. A. Strashnykh	872 909
Synthesis of Some Homoserine Derivatives — N. B. Kaz'mina, L. P. Parshina, O. V. Kil'disheva, and I. L. Knunyants	875 911
Synthesis of Stereoisomeric Substituted 1,3,2-Oxazaphospholanes — N. V. Kaz'mina and I. L. Knunyants	878 913
Orienting Effect of the Carboxylate Group in the System of Cyclopentadienylmanganese Tricarbonyl — D. N. Kursanov, V. N. Setkina, N. V. Kislyakova, E. I. Fedin, and N. E. Kolobova	881 915
Synthesis and Thermal Transformations of Bicyclo-[3,1,0]-hexene-2 and Bicyclo-[4,1,0]-heptene-3 — V. A. Mironov, T. M. Fadeeva, O. M. Nefedov, N. N. Novitskaya, and A. A. Akhrem	883 916
Reaction of Fluoroketones with Vinyl Ethers — N. P. Gambaryan, L. A. Simonyan, and P. V. Petrovskii	886 918
EPR Spectra of Anion Radicals of α,α -Azoisobutyronitrile and the Diethyl Ester of Azoacetic Acid — A. I. Prokof'ev and S. P. Solodovnikov	889 921
Kinetics of the Alkaline Hydrolysis of Bis(chloromethyl)phosphinic Esters — V. E. Bel'skii, M. V. Efremova, and I. M. Shermergor	891 923
Synthesis of the R-Form of α -Phosphatidyl- α -alanylglycerin and Investigation of the Configuration of Bacterial Lipoamino Acids — Yul. G. Molotkovskii and L. D. Bergel'son	893 925
New Method for Synthesizing Optically Active Diglycerides — Yul. G. Molotkovskii, L. F. Mikulina, and L. D. Bergel'son	895 927
Nitrophenyl Esters of Cyclophosphinic Acids — B. A. Arbuzov, A. O. Vizel', and M. A. Zvereva	897 929
Opening of the Three-Membered Ring in 4,6-Di-tert-butylspiro[2,5]octa-3,6-dien-5-one under the Action of Magnesium Halides — V. V. Ershov, I. S. Belostotskaya, and A. A. Volod'kin	899 930
Basicity of Tertiary Butylarylamines — É. G. Rozantsev and F. M. Egidis	901 932
Investigation of the Rearrangement of Radicals in the Telomerization of Ethylene with Acetone — M. Ya. Khorlina and R. Kh. Freidlina	903 933
Cyanation of a Ruthenocinium Salt — A. N. Nesmeyanov, A. A. Lubovich, L. P. Yur'eva, S. P. Gubin, and E. G. Perevalova	906 935
Action of Halogens and Hydrogen Halides on 1-Vinylarene — L. I. Zakharkin and V. N. Kalinin	908 937
New Method of Synthesizing N-Alkoxy carbonylalkylphosphoramidites — N. P. Grechkin and L. K. Nikonorova	911 939
Reaction of Triethyl Phosphite with Hydrochlorides of Ketonic Mannich Bases — B. E. Ivanov, V. F. Zheltukhin, and V. G. Sofronova	913 940
Cleavage of the Si-O Bond in 1,3-Dioxo-2-silacyclanes and their Oligomers under the Action of Vinyl ethynylmagnesium Bromide — M. F. Shostakovskii, A. S. Atavin, E. P. Vyalykh, and B. A. Trofimov	916 943
Integral Intensities of the Carbonyl Bands in the IR Spectra of Heteroannularyl Substituted Esters of Ferrocenecarboxylic Acid — G. G. Dvoryantseva, M. I. Struchkova, Yu. N. Sheinker, K. I. Grandberg, and S. P. Gubin	919 945

(Contd)

Available From Consultants Bureau

	Engl./Russ.
α -Bromoalkyl 4-hydroxy-3,5-di-tert-butylphenyl Ketones — A. A. Volod'kin, N. V. Portnykh, and V. V. Ershov	921 947
Preparation of Tetracyclohexyl (methylenediphosphine) Dioxide — M. I. Kabachnik, L. P. Zhuravleva, M. G. Suleimanova, Yu. M. Polikarpov, and T. Ya. Medved'	923 949
Reaction of Some Alkyl Alkylphosphonochloridites with Acrylic Acid — V. K. Khairullin, M. A. Vasyanina, and A. N. Pudovik	925 950
LETTERS TO THE EDITOR	
Synthesis of Nitrilecyclopentadienyltricarbonylmanganese and Nitrilecyclopentadienyltri- carbonylrhenium — A. N. Nesmeyanov, N. E. Kolobova, K. N. Anisimov, and Yu. V. Makarov	928 953
The Use of Pentafluorophenyl Esters in the Synthesis of Peptides and Polypeptides with a Regular Structure — V. A. Shibaev, T. P. Chuvaeva, and K. T. Poroshin	929 954
Car-4-ene Oxide — B. A. Arbuzov and A. R. Vil'chinskaya	930 954
Degree of Dissociation of Diphenyliodonium Salts in Water and Methanol — O. A. Ptitsyna, G. G. Lyatiev, V. N. Krishchenko, and O. A. Reutov	931 955
Cyclopentadienyl Derivatives of the Transition Metals as Catalysts for the Reaction of Alkylmagnesium Halides with Alkyl Halides — L. I. Zakharkin	932 956
The Hydride Mobility of the Hydrogen in Hydrogen Sulfide — M. I. Kalinkin, Z. N. Parnes, and D. N. Kursanov	933 956
A Complex of Rhodium with Molecular Nitrogen — L. Yu. Ukhin, Yu. A. Shvetsov, and M. L. Khidelkel'	934 957
CHRONICLES	
General Meeting of the Division of General and Technical Chemistry of the Academy of Sciences of the USSR	935 958
Annual General Meeting of the Division of General and Technical Chemistry of the Academy of Sciences of the USSR	937 959
Annual General Meeting of the Division of Biochemistry, Biophysics, and the Chemistry of Physiologically Active Compounds of the Academy of Sciences of the USSR	941 961

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Number 5

May, 1967

CONTENTS

Engl./Russ.

Georgii Konstantinovich Borekov (On the Occasion of His 60th Birthday)	943	971
INORGANIC AND ANALYTICAL CHEMISTRY		
Interaction of Potassium Ozonide with Water Vapor and Carbon Dioxide — T. P. Firsova, A. N. Molodkina, T. G. Morozova, and I. V. Aksenova	944	973
PHYSICAL CHEMISTRY		
Investigation of the Dielectric Properties of Water Adsorbed by Zeolites. Communication 6. Investigations of the Kinetics of the Change in the Dielectric Properties of Hydrated Zeolites — B. A. Glazun, M. M. Dubinin, and I. V. Zhilenkov.	947	977
Study of the Nature of Low-Temperature Relaxation in Zeolites — B. A. Glazun, I. V. Zhilenkov, and M. M. Dubinin.	952	982
Comparison of the Dielectric Properties of Normal and Heavy Water, Adsorbed on Zeolites — B. A. Glazun, M. M. Dubinin, and I. V. Zhilenkov.	956	987
Reactions of Replacement of a Mercury Atom Bonded to a Saturated Carbon Atom by Halogen. Communication 9. Study of the Influence of the Solvent on the Rate of the Reaction of Benzyl Mercury Chloride with Iodine — I. P. Beletskaya, T. P. Fetisova, and O. A. Reutov.	960	990
On the Problem of Calculating the Rate Constants of Elementary Reactions. Communication 1. On Some Patterns in the Values of the Pre-exponential Factors and Activation Energies — L. I. Avramenko and R. V. Kolesnikova.	965	996
Calculation of a Nine-Membered Analog of Pyrrole and Cyclononatetrazenylpyridinium Ylides by the Molecular Orbital Method — D. A. Bochvar, N. P. Gambaryan, and A. V. Tutkevich.	971	1004
On the Polarographic Reduction of Dihydrodioxotriptycene and Dihydrodioxodibenzotriptycene in Dimethylformamide — R. Yu. Mamedzade, E. I. Klabunovskii, and A. A. Balandin.	976	1009
On the Chromatographic Analysis of Mixtures of Stereoisomeric Menthols and Menthones — L. F. Godunova, E. I. Klabunovskii, and A. A. Balandin.	979	1013
On the Catalytic Hydrocondensation of Carbon Monoxide with Olefins and Their Hydropolymerization under the Action of Carbon Monoxide and Hydrogen. Communication 45. Investigation of Products of the Hydropolymerization of Ethylene — A. L. Lapidus, T. F. Bulanova, N. S. Sergeeva, and Ya. T. Éidus	983	1016
Synthesis and Structure of Phenylmercury Derivatives of 4-Arylsulfonylaminopyridines — D. N. Kravtsov and A. N. Nesmeyanov.	990	1024
On the Structure of Aliphatic Organometallic Compounds of Zinc and Cadmium — A. N. Rodionov, I. E. Paleeva, D. N. Shigorin, N. L. Sheverdina, and K. A. Kocheshkov	996	1031

(Contd)

Available From Consultants Bureau

Differentiated Utilization of the Surface of Aluminum Oxide in the Production of Complex and Mixed Catalysts. Communication 1. Aluminosilicate Catalysts — F. É. Engline, V. É. Vasserberg, and A. A. Balandin	1001	1036
On Prospects for the Use of High Pressure in Organic Synthesis — B. S. Éli'yanov and M. G. Gonikberg	1007	1044
Dipole Moments and Structure of Adducts of α -Haloacrylonitriles with Certain Cyclic Dienes — A. N. Vereshchagin, L. I. Shchukina, and B. A. Arbizov	1013	1051
Reactivity of Nitrocompounds. Communication 6. Mechanism of the Hydration of α -Nitro-crotonic Ester — V. M. Belikov and Yu. N. Belokon'	1017	1054
ORGANIC AND BIOLOGICAL CHEMISTRY		
Perfluoro(α -amino carboxylic acids) and Their Derivatives — R. A. Bekker, B. L. Dyatkin, and I. L. Knunyants	1022	1060
Synthesis and Properties of Some N-Phenylsilylamines and of 1,1,3-Trimethyl-1,3,3-tri-phenyldisilazine — K. A. Andrianov, A. M. Kononov, B. D. Lavrukhin, and N. N. Makárova	1027	1056
Hydrolysis of Higher Dialkyldichlorosilanes — K. A. Andrianov and B. A. Izmailov	1031	1070
Organozinc Compounds of the RZnX Class — N. I. Sheverdina, I. E. Paleeva, L. V. Abramova, V. S. Yakovleva, and L. A. Kocheshkov	1038	1077
Organocadmium Compounds of the Ar ₂ Cd, RCdR', and ArCdAr' Classes — I. E. Paleeva, N. I. Sheverdina, E. D. Delinskaya, and K. A. Kocheshkov	1043	1083
Synthesis of Substituted Benzylphosphonic Acids. Communication 2. Reactions of Phenolic Mannich Bases with Triethyl Phosphite — B. E. Ivanov and L. A. Valitova	1047	1087
Synthesis of Substituted Benzylphosphonic Acids. Communication 3. Reactions of Phenolic Mannich Bases with Dialkyl Hydrogen Phosphites — B. E. Ivanov and L. A. Valitova	1050	1090
Reaction between Triethylaluminum and Benzoyl Peroxide — E. B. Milovskaya, E. I. Pokrovskii, and E. F. Fedorova	1053	1093
Steroid Analogs without the B Ring. Communication 3. Synthesis of 3-Acetyl-4-p-methoxy-phenyl-2-methyl-5-cyclohexene-1-carboxylic Acid and Its Derivatives — A. A. Akhrem, Yu. A. Titov, I. S. Levina, and L. E. Kulikova	1058	1098
Chemistry of Acetals. Communication 22. Condensation of 2,4-Pentanedione and 1,3-Cyclohexanedione with Acetals — Zh. A. Krasnaya, S. S. Yufit, and V. F. Kucherov	1063	1104
Hydrogenated 1,3-Indandiones in the Michael Reaction — T. A. Severina, L. N. Ivanova, and V. F. Kucherov	1069	1111
Free-Radical Reaction of Alcohols with Dimethyl Maleate — G. I. Nikishin and V. D. Vorob'ev	1074	1116
Catalytic Dehydrocyclization of n-Hexane over a Platinum-Alumina Catalyst with the Impulse Regime — Yu. V. Fomichev, I. V. Gostinskaya, and B. A. Kazanskii	1079	1121
Preparation of 2,5-Norbornadiene by the Condensation of Cyclopentadiene with Acetylene without the Use of a Phlegmatizer — M. A. Pryanishnikova, G. V. Golovkin, A. F. Platé, I. F. Kononov, and V. V. Zarutskii	1085	1127
Thermal Polymerization of p-Allylphenyl Phenyl Ether — M. G. Rudenko and S. M. Yaroshevskaia	1088	1130
BRIEF COMMUNICATIONS		
Dissociation Constants of Fluorine-Containing Aliphatic Amines — A. V. Podol'skii, L. S. German, and I. L. Knunyants	1092	1134
Hydroxyaminomethylation of Aromatic Hydrocarbons — L. S. German, A. V. Podol'skii, and I. L. Knunyants	1094	1135
Determination of the Steric Configuration of Organic Compounds with the Aid of Stable Iminoxyls — É. G. Rozantsev and L. A. Krinitskaya	1096	1137
Protodemercuration of Heteroannular Mercury Derivatives of Haloferrocenes — A. N. Nesmeyanov, A. G. Kozlovskii, S. P. Bubín, I. G. Chernov, and É. G. Perevalova	1099	1139
Bimetallic Derivatives of Ethylene — A. N. Nesmeyanov, A. E. Borisov, and Chi-Hua Wan	1101	1141
O-Nitration of Primary and Secondary Unsaturated and α -Epoxy Alcohols — L. T. Eremenko and A. M. Korolev	1104	1142

(Contd.)

Available From Consultants Bureau

Cyclization of Dehydronerolidol Acetate - a Route for the Synthesis of Cyclic Isoprenoids - A. V. Semenovskii, V. A. Smit, T. N. Chernova, and V. F. Kucherov	1107	1144
Isomerization of Diethoxyphosphorylalkene Oxides - B. A. Arbusov, N. A. Poleshaeva, and V. S. Vinogradova	1110	1146
Preparation of Neohexane - I. A. Balashov, E. A. Timofeeva, and N. I. Shulkin	1112	1148
The Additional Band in the Ultraviolet Spectra of Carbonyl-Containing Ferrocenes - S. P. Gubin, K. I. Grandberg, and I. P. Shepilov	1114	1149
Displacement of Hexenes from Boron Trihexyls - E. A. Timofeeva, G. A. Lutsenko, and N. I. Shulkin	1117	1152
Alkylation of Thiophene with Isobutylene - N. I. Shulkin and B. L. Lebedev	1120	1154
Dienone-Phenol Transformations in the Reaction of 4,6-Di-tert-butylspiro[2.5]-3,6-octadien- 5-one with Organomagnesium Compounds - I. S. Belostotskaya, A. A. Volod'kin, and V. V. Ershov	1122	1155
Methylchlorophenylcyclosilazanes - K. A. Andrianov and G. V. Kotrelev	1125	1158
Reaction of Tetraphenylmethylenediphosphine with Aromatic Azides - V. A. Gilyarov, V. Yu. Kovtun, and M. I. Kabachnik	1127	1159
Phosphorylated Chloral Polyacetals and Some of Their Derivatives - L. A. Antokhina and P. I. Alimov	1130	1161
Reaction of Some Organoboron Compounds with Radical-Forming Substances - N. V. Kruglova	1132	1163
Dependence of the Activity of Native and Gamma-Irradiated Lysozyme on the pH - V. I. Maksimov, V. I. Osipov, and E. D. Kaverzneva	1134	1165
On the Reaction of Chloromethylated Polystyrene with Triethyl Phosphite - S. R. Rafikov, G. N. Chelnokova, and G. M. Dzhilkibaeva	1137	1167
Synthesis of α,β -Dimethyl-p-phenoxytyrene - M. G. Rudenko and I. G. Turyanchik	1139	1169
On the Isomerization of β -Ethyldecals - E. M. Terent'eva and A. N. Kisilinskii	1140	1169
LETTERS TO THE EDITOR		
Inversion of the Stereospecificity of the Action of π -Allyl Systems under the Influence of Electron Acceptor Compounds - O. K. Sharaev, A. V. Alferov, E. I. Tinyakova, and B. A. Dolgoplosk'	1141	1170
Oxidation of Alkyl Derivatives of Arenecyclopentadienyliron - A. N. Nesmeyanov, N. A. Vol'kenau, and E. I. Sirotkina	1142	1170
Diaryl tin Diacylates - K. A. Kocheshkov, V. G. Gol'der, E. M. Panov, N. N. Zemlyanskii, and O. P. Syutkina	1143	1171

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CONTENTS

	Engl./Russ.
Nikolai Nikolaevich Vorozhtsov, Jr. (On the Occasion of His 60th Birthday).....	1145 1179
Igor' Vasil'evich Petryanov-Sokolov (On the Occasion of His 60th Birthday)	1146 1181
INORGANIC AND ANALYTICAL CHEMISTRY	
On the Mechanism of the Formation of Ozonides of the Alkali Metals — I. I. Vol'nov, V. N. Chamova, and E. I. Latysheva	1147 1183
Diol Lipids. Communication 3. Identification and Quantitative Determination of Diols and Triols by the Method of Gas Chromatography — V. A. Vaver, A. N. Ushakov, and L. D. Bergel'son.....	1151 1187
PHYSICAL CHEMISTRY	
Dielectric Behavior of Water Adsorbed on Zeolites in Various Ion-Exchange Forms — B. A. Glazun, M. M. Dubinin, I. V. Zhilenkov, and M. F. Rakityanskaya.....	1156 1193
Investigation of the Rate of Transport of Adsorbed Gases in the Grains of Activated Charcoal — D. P. Gerasimov and A. S. Ponomarev	1159 1197
Frontal Concentration of Relatively Nonadsorbed Impurities — V. G. Berezkin and V. S. Zayakov	1164 1202
Nature of the Secondary Processes in the Filtration of Aerosols. Communication 2. Pre- liminary Data of a Study of Capillary Phenomena in Filters — V. A. Kolganov and L. V. Radushkevich	1169 1208
Effective Charges of Atoms and Oxidative Reactions — S. S. Batsanov	1175 1214
Determination of the Rate of Radical Formation in the Decomposition of the Initiator Azo- bisobutyronitrile in Reactions of Oxidation of Hydrocarbons in the Presence of the Inhibitor Hydroquinone — V. F. Tsepalov and E. M. Kotsyuba	1181 1220
Inductive Interaction of Weak Dipoles in Saturated Hydrocarbons and Their Derivatives — A. N. Vereshchagin and S. G. Vul'fson.....	1186 1226
Calculating the Influence of Substituents upon the Dissociation Constants of Carboxylic Acids — A. N. Vereshchagin and S. G. Vul'fson.....	1190 1231
Hydrolysis of Organic Pyrophosphates. Communication 2. Kinetics of the Hydrolysis of Pyrophos and Tetraethyl Pyrophosphate — V. E. Bel'skii, M. V. Efremova, and Z. V. Lustina	1196 1236
Mass Spectrometry of Steroid Systems. Communication 13. cis-trans-Isomerism in the Series of Estrane and D-Homoestrane — V. L. Sadovskaya, N. S. Vul'fson, and V. I. Zaretskii	1199 1240
Investigation of the Physicochemical and Chromatographic Properties of Modified Aluminum Oxide — A. T. Sytyashenko, V. G. Berezkin, and L. N. Klement'evskaya	1207 1250

(Contd)

Available From Consultants Bureau

On the Catalytic Hydrocondensation of Carbon Monoxide with Olefins and Their Hydropolymerization under the Action of Carbon Monoxide and Hydrogen. Communication 46. Influence of the Composition of the Initial Mixture on the Reduction of Carbon Monoxide in the Hydropolymerization of Ethylene — Ya. T. Édikun, N. I. Ershov, and N. V. Guseva	1214	1257
ORGANIC AND BIOLOGICAL CHEMISTRY		
Organocadmium Compounds of the RCdX Class — I. E. Paleeva, N. I. Sheverdina, and K. A. Kocheshkov	1219	1263
Synthesis of Bicyclic Organosilicon Compounds with an Ethylene Bridge between the Rings — K. A. Andrianov, A. I. Petrashko, L. Z. Asnovich, and N. P. Gashnikova	1223	1267
Reactions of Hydride Silanes with Substituted Acetylenes in Presence of Iron Carbonyls — N. A. Kuz'mina, E. Ts. Chukovskaya, and R. Kh. Freidina	1227	1272
Derivatives of Phosphorus Acids and 2-Chloro-2-propen-1-ol — B. A. Arbuzov, V. M. Zorostrova, N. D. Ibragimova, I. D. Neklesova, B. L. Mazur, M. A. Kudrina, N. V. Egorova, and I. S. Iraldova	1233	1278
Reactions of Mannich Bases with Triethyl Phosphite. Communication 1. Reactions in Presence of Acetic Acid — B. E. Ivanov, V. F. Zheltukhin, and T. G. Vavilova	1239	1285
Fluorine-Containing β-Sultones. Communication 18. Derivatives of Difluorosulfoacetic Acid — G. A. Sokol'skii and I. L. Knunyants	1243	1289
Fluorine-Containing β-Sultones. Communication 19. Reactivity of Derivatives of Trifluorovinyl Hydrogen Sulfate — G. A. Sokol'skii, M. A. Belaventsev, and I. L. Knunyants	1248	1294
Reaction of 2,3-Epoxypropene with Methanol in Presence of Sodium Methoxide — B. A. Arbuzov, Z. G. Isaeva, and I. S. Andreeva	1252	1299
Triterpenoid Saponins. Communication 21. Structure of Clematoside C — A. Ya. Khorlin, V. Ya. Chirva, and N. K. Kochetkov	1258	1306
Monosaccharides. Communication 12. Reaction of Methyl 2,3-O-Isopropylidene-α-L-rhamnopyranoside with Triphenyl Phosphite Methiodide — K. S. Adamyants, N. K. Kochetkov, and A. I. Usov	1262	1311
Corticosteroid Analogs. Communication 18. Synthesis and Configurations of the Stereoisomeric 1-Acetyl-4-<i>t</i>-butyl-1,2-epoxycyclohexanes — A. A. Akhrem, I. D. Vladimirova, and V. N. Dobrynin	1266	1316
Corticosteroid Analogs. Communication 19. Stereochemistry of the Acid Hydrolysis of the Stereoisomeric 1-Acetyl-4-<i>t</i>-butyl-1,2-epoxycyclohexanes — A. A. Akhrem and V. N. Dobrynin	1272	1322
Cyclization of Isoprenoid Compounds. Communication 15. Stereochemistry of Addition at a Terminal 2,3-Double Bond — I. G. Mursakulov, A. V. Semenovskii, V. A. Smit, and V. F. Kucherov	1277	1328
Chemistry of Polyenic and Polyynic Compounds. Communication 23. Synthesis of Some Unsymmetrically α,ω-Disubstituted Polyenes — L. A. Yanovskaya, R. N. Stepanova, and V. F. Kucherov	1282	1334
BRIEF COMMUNICATIONS		
The Influence of Electron-Acceptors on the Photoconductivity of Polymeric Semiconductors — A. A. Berlin, I. A. Drabkin, L. D. Rozenshtein, M. I. Cherkashin, M. G. Chausser, and P. P. Kisilitsa	1286	1339
Nuclear Magnetic Resonance Spectra of Mixtures of 2-Monohydroperfluoroisobutane and Triethylamine — S. T. Kocharyan, P. V. Petrovskii, E. M. Rokhlin, Yu. A. Cheburkov, É. I. Fedin, and I. L. Knunyants	1289	1342
The Synthesis of Some N-Dichloromethylenephosphoramidates ("N-Phosphorylisonitrile Dichlorides") — P. I. Alimov and M. P. Alimov	1292	1344
Synthesis of Some Derivatives of bis (N,N-Dialkylaminomethyl)phosphinic Acids — M. K. Il'ina and I. M. Shermergorn	1294	1346
Some Reactions of Diethyl N-Alkyl-N-hydroxymethylphosphoramidates — O. N. Fedorova and P. I. Alimov	1296	1348

(Contd)

Methods of Obtaining Ultrathin Sections of Highly Dispersed Materials for Electron Microscopy — M. I. Dashevskii and A. M. Rubinshtein	1298	1350
Reaction of Nitroform with Vinylacetic Acid — I. T. Eremanko and V. I. Grigori	1301	1351
The O-Nitration of Tertiary Unsaturated Alcohols and α -Epoxyalcohols — I. T. Eremanko and A. M. Korolev	1303	1351
Influence of the Degree of Exchange of the Cation in Type Y Zeolites on the Heat of Adsorption of Benzene and Cyclohexane — A. L. Klaychko-Gurvich, A. T. Khudiev, Ya. I. Isakov, and A. M. Rubinshtein	1305	1355
Synthesis and Some Reactions of Mercapto Derivatives of Barenes — L. I. Zakharkin and G. G. Zhigareva	1308	1358
Proton Magnetic Resonance Spectra and Distribution of Electron Density in Iodobenzene and Iodobenzene Dichloride — V. S. Petrosyan and C. A. Reutov	1311	1361
Reactions of Cyclopentadienylmanganesetricarbonyl Ketones with Phosphorus Trichloride and Pentachloride and with Dialkyl Phosphites — A. N. Nesmeyanov, N. E. Kolobova, I. B. Zlotina, and K. N. Anisimov	1313	1362
On the Nature of the Adsorption and Heats of Adsorption in the System Water — Aluminum Oxide According to the Data of Gas-Adsorption Chromatography — V. I. Yakerson	1316	1364
Thermal Desorption of Water from the Surface of Aluminum Oxide — V. I. Yakerson and A. M. Rubinshtein	1319	1367
Cleavage of C-C Bond in Amides of Barenecarboxylic Acids under the Influence of Sodium Amide — L. I. Zakharkin and L. S. Podvisotskaya	1322	1369
Spectroscopic Study of the Mutual Effect of Atomic Groups, Connected through Different Types of Bridges — P. P. Shorygin and B. V. Lopatin	1325	1371
1-Substituted 4,6-Di-tert-butylspiro[2.5]-3,6-octadien-5-ones — A. A. Volod'kin, I. S. Belostotskaya, and V. V. Ershov	1328	1374
Synthesis of Barenecarboxylic and Neobarenecarboxylic Acids — L. I. Zakharkin and A. V. Grebennikov	1331	1376
Infrared Spectra of Some Organotin Oxygen-Containing Compounds of the Acetylene Series — N. I. Shergina, N. I. Golovanova, R. G. Mirskov, and V. M. Vlasov	1334	1378
Synthesis of 2,2-bis(Alkylthio)propyl Vinyl Ethers — M. F. Shostakovskii, A. S. Atavin, A. I. Mikhaleva, N. P. Vasil'ev, and L. P. Dmitrieva	1337	1380
Synthesis of Methylphenylsilsesquioxanes — K. A. Andrianov and N. N. Makarova	1339	1381
Synthesis of 1,4-Diketol-7-alkanols and Their Cyclization to Dihydrofuran Ketones — I. F. Belskii and Z. K. Vol'nova	1342	1383
Synthesis of Conformational Inhibitors of Pyridoxal Enzymes — E. S. Severin, N. V. Gnuchev, and R. M. Khomutov	1345	1386
Synthesis of Orotic Aldehyde and Acid from 6-Methyluracil — I. A. Mikhailopulo, V. I. Gunar, and S. I. Zav'yalov	1348	1388
Bound Water in Paramagnetic Organic Compounds — A. A. Berlin, Kh. M. Gafurov, A. A. Agzamkhodzhaev, and L. T. Zhuraviev	1350	1390
Peculiarities in the Reduction of α -Bromoalkyl 4-Hydroxy-3,5-di-tert-butylphenyl Ketones with Lithium Aluminum Hydride — A. A. Volod'kin, N. V. Portnykh, and V. V. Ershov	1352	1391
LETTERS TO THE EDITOR		
Chemiluminescence when a Steady Concentration of Free Radicals is Established in Solutions of Molecules with Conjugated Bonds — A. F. Guk, A. N. Karpukhin, P. P. Kisilitsa, M. I. Cherkashin, and V. F. Tsepalov	1355	1394
Reactions of SnCl_4 and PhSnCl_3 with Sodium Salts of Carbonyls and Cyclopentadienylcarbonyls of Metals of Groups VI, VII, and VIII — A. N. Nesmeyanov, K. N. Anisimov, N. E. Kolobova, and V. N. Khandozhko	1356	1395
On the Enolization of Certain Monocarbonyl Fluorocompounds — Yu. A. Cheburkov, Yu. E. Aronov, P. V. Petrovskii, N. N. Shapat'ko, and I. L. Knunyants	1357	1395

(Contd)

Available From Consultants Bureau

On the Reaction of Triethyl Phosphite with Diethylaminoacetonitrile — B. E. Ivanov and V. F. Zhelnukhin	1358	1396
Complexes of Alkylperfluoroisobutenyl Ethers with Trialkylamines — S. T. Kocharyan, E. M. Rokhlin, and I. L. Knunyants	1359	1397
Production of Peptides and Arylthioesters of N-Acylamino Acids Using Arylsulfonyl Chlorides — Yu. V. Mitin, G. P. Vlasov, and G. I. Snelykh	1360	1397
Reaction of Diazoacetic Esters with Acetone Dimethylhydrazone — I. E. Dolgii, A. P. Meshcheryakov, and I. P. Yakovlev	1361	1398
The Absence of Amide Resonance in Acetophosphides — R. G. Kostyanovskii, V. V. Yakshia, and S. L. Zimont	1362	1398
On the Proton Mobility of Hydrogen Atoms in the Methylene Group of Tetraphenylmethylenediphosphine Dioxide — V. N. Setkina, T. Ya. Medved', and M. I. Kabachnik	1363	1399
On the Free-Radical Telomerization of the Methyl Ether of Dimethylvinylethynylcarbinol — Yu. G. Kryazhev and R. G. Sultangareev	1364	1400
Aminolysis of α -Methyl- α -chloro- β -propiolthiolactone — A. M. Orlov, N. D. Kuleshova, and I. L. Knunyants	1365	1400
OBITUARY		
Vladislav Vladislavovich Voevodskii	1366	1401

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CONTENTS

Engl./Russ.

INORGANIC AND ANALYTICAL CHEMISTRY

- Investigation of the Nature of the Interaction of Lithium Peroxide with Ozone — I. I. Vol'nev,
S. A. Tokareva, V. N. Belevskii, and V. I. Klimanov. 1369 1411
- Reaction of Tetrafluoroborates of the Alkali Metals with Solutions of Hydrogen Fluoride
— A. A. Opalovskii, T. D. Fedotova, I. I. Tychinskaya, V. P. Shaburova, and
M. N. Nescherenko. 1372 1414

PHYSICAL CHEMISTRY

- Kinetics of the Reduction of Trivalent Manganese by Caproic Acid — V. M. Gol'dberg and
L. K. Obukhova. 1376 1419
- The Use of Grafted Radiation Chemical Polymerization for the Modification of Carriers
and Adsorbents in Gas Chromatography — V. G. Berezkin, Yu. A. Kolbanovskii,
É. A. Kyazimov, and V. P. Pakhomov. 1381 1424
- Reaction of Peroxide Radicals with Co^{II} Acetylacetonate — V. P. Shcheredin and E. T. Denisov. 1385 1428
- On the Luminescence Accompanying the Crystallization of Organic Substances
— G. P. Safonov, V. Ya. Shlyapintokh, and S. G. Éntelis. 1388 1432
- On the Mechanism of the Side Reactions in the Dehydrocyclization of n-Octane — V. L. Polinin,
M. I. Rozengart, and B. A. Kazanskii. 1391 1435
- Reactivity of Nitro-Compounds. Communication 5. Kinetics of the Decomposition of
1-Phenyl-2-nitroethanol in Alkaline Medium — V. N. Leibzon, V. M. Belikov, and
L. M. Kozlov. 1395 1439
- Kinetics of the Decomposition of α -Nitro- α -methyl- β -hydroxybutyric Ester in Dimethyl-
formamide at 25° — V. M. Belikov and Yu. N. Belokon. 1400 1445
- Kinetics of the Thermal Decomposition of N,N-Diethylnitroamine and N-Nitropiperidine
— B. L. Korsunskii, F. I. Dubovitskii, and E. A. Shurygin. 1405 1452
- Hydrolysis of Organic Pyrophosphates. Communication 3. Influence of the Solvent on the
Kinetics of the Hydrolysis of Pyrophos — V. E. Bel'skii, M. V. Efremova, and
Z. V. Lustina. 1408 1455
- Inductive Interaction of Weak Dipoles in Unsaturated and Aromatic Hydrocarbons and Their
Derivatives — A. N. Vereshchagin, S. G. Vul'fson, and R. P. Arshinova. 1412 1459
- Spectra and Structure of Salts of Acylamidophosphates — E. I. Matrosov, V. A. Gilyarov,
and M. I. Kabachnik. 1417 1465
- On the Catalytic Hydrocondensation of Carbon Monoxide with Olefins and Their Hydropoly-
merization under the Action of Carbon Monoxide and Hydrogen. Communication 47.
On the Reduction of Carbon Monoxide in the Hydropolymerization of Ethylene and Its
Homologs — N. I. Ershov, I. V. Guseva, and Ya. T. Éichus. 1422 1470

(Contd.)

Available From Consultants Bureau

ORGANIC AND BIOLOGICAL CHEMISTRY

Organoboron Compounds. Communication 168. Synthesis and Some Transformations of Triclotylboron — B. M. Mikhailov and V. F. Pozdnev.....	1428	1477
Synthesis of Optically Active Methylmenthoxychlorosilanes and Menthyl Esters of Methylchlorosilylpropionic and Methylchlorosilylisobutyric Acids — K. A. Andrianov, A. A. Mamedov, L. M. Volkova, and E. I. Klabunovskii.....	1432	1481
Effect of Steric Factors on the Reaction of Arylmercury Hydroxides with N-Acids. Communication 1. Phenylmercury Derivatives of Nitroanilines, Amides, and Nitrophenylhydrazones — D. N. Kravtsov and A. N. Nesmeyanov.....	1436	1487
Reaction of Trialkyl Phosphites with o-Hydroxybenzyl Alcohol and Its Derivatives — A. B. Ageeva and B. E. Ivanov.....	1443	1494
Reaction of Esters of Hypophosphorous Acid with bis(Diethylamino)methane and Diethylaminomethyl Ethyl Ether — B. E. Ivanov and L. A. Kudryavtseva.....	1447	1498
Effect of Heteroatoms on the Complex-Forming Properties of Phosphorylated Polyamine Derivatives — M. I. Kabachnik, T. Ya. Medved, N. M. Dyatlova, M. N. Rusina, and M. V. Rudomino.....	1450	1501
Organophosphorus Derivatives of 2-Chlorophenothiazine — D. Kh. Yarmukhametova, B. V. Kudryavtsev, and V. S. Buzlama.....	1455	1506
Mixed Amideesters of Pentachlorophenylthiophosphoric Acid — D. Kh. Yarmukhametova and I. V. Cheplanova.....	1459	1511
Reaction of Tetrafluorodehydrobenzene with Aromatic Hydrocarbons and Their Derivatives — I. N. Vorozhtsov, N. G. Ivanova, and V. A. Barkhash.....	1462	1514
Reaction of α,ω -Diiodo- and α,β -Dichloro- ω -iodoperfluoroalkanes with Some Aromatic Compounds — I. I. Knunyants, V. V. Shokina, P. M. Krasuskaya, and S. P. Khrlakyan.....	1467	1520
Fluorinated β -Sultones. Communication 20. The Mechanism of Formation of α -Sulfonyl-carboxylic Acid Derivatives — C. A. Sokol'skii, M. A. Belaventsev, and I. L. Knunyants.....	1471	1524
Synthesis of O-Glycosides of Serine — V. A. Derevitskaya and M. G. Vafina.....	1475	1528
Some Properties of Serine O-Glycosides — N. K. Kochetkov, M. G. Vafina, and V. A. Derevitskaya.....	1481	1535
Analogues of Corticosteroids. Communication 20. Acetolysis of Stereoisomeric Epoxides of 1-Acetyl-4- <i>t</i> -butylcyclohexene-1 — A. A. Akhrem and V. N. Dobrynin.....	1486	1540
Transformed Steroids. Communication 10. Wagner-Meerwein Rearrangement in the Reaction of Fluorine-Containing Reagents with 5 α ,6 α :17 ξ ,20 ξ -Diepoxypregnane-3 β ,21-diol Diacetates Epimeric at C ₁₇ — A. A. Akhrem, I. G. Reshetova, and T. A. Ushakova.....	1491	1546
The Synthesis and Reactions of Hexahydrodioxotetrazobenzoanthrylentriptycene — L. V. Antik, E. I. Klabunovskii, A. A. Balandin, and B. V. Lopatin.....	1497	1552
The Chemistry of Polyenic and Polyacetylenic Compounds. Communication 23. Some Features of the Intramolecular Cyclization of Vinylacetylene Derivatives — M. V. Mavrov and V. F. Kucherov.....	1503	1559
Cyclization of Isoprenoid Compounds. Communication 16. Cyclization of Geranyl Acetone with Deuteriosulfuric Acid — V. A. Smit and V. F. Kucherov.....	1509	1566
Cyclization of Isoprenoid Compounds. Part 19. A New Method of Initiating the Cyclization of Isoprenoids — M. Z. Krimer, V. A. Smit, and A. V. Semenovskii.....	1514	1573
The Chemistry of Polyenes and Polyacetylenes. Communication 20. Mechanism of the Hydration Reactions of Unsymmetrical Diacetylenes — I. I. Nazarova, B. P. Gusev, and V. F. Kucherov.....	1520	1580
A Study of the Induced Interactions of Cyclanes, Cyclanones, and Cyclanols (C ₄ -C ₆) with Olefins — L. Kh. Freidlin, N. M. Nazarova, and D. L. Badalova.....	1524	1585

BRIEF COMMUNICATIONS

On the Stabilities of Mercaptoalkylvinyl Ethers — V. A. Trofimov, A. S. Atavin, A. V. Gusev, M. F. Shostakovskii, and N. I. Golovanova.....	1629	1691

(Contd)

Available From Consultants Bureau

Synthesis and Ultraviolet Spectra of Substituted Aminomethylenequinones — A. A. Voldkin, O. A. Pan'shin, G. D. Ostanets-Sveshnikova, and V. V. Ershov	1531	1592
On the Reaction of Derivatives of bis(Chloromethyl) phosphonic Acid with Potassium Iodide — E. Kh. Mukhametzhanova, A. R. Panteleeva, and I. M. Shermergorn	1535	1597
Identification of Some Polynitramines from the Infrared Absorption Spectra — Yu. A. Pankrushev, V. A. Shlyapochnikov, S. S. Novikov, A. A. Dudinskaya, and N. V. Makarov	1537	1598
On the Reaction of Diethylanilido Phosphate with 2-Diethylaminomethyl-6-methylphenol — B. E. Ivanov, A. B. Ageeva, and S. V. Pasmayuk	1539	1600
On the Reaction of Some Arylalkoxychlorophosphines with Acrylamide — V. K. Khairullin, M. A. Vasyanina, and A. N. Pudovik	1541	1603
Synthesis and Properties of 2,2,2-Trimethoxy-3,5-diphenyl-3,4-diazaoxa-4-phospholene — B. A. Arbuzov, N. A. Polezhaeva, V. S. Vinogradova, and Yu. Yu. Samitov	1543	1605
Synthesis and Addition Reactions of Aryl Tetraethylphosphorodiamidites — N. A. Byina, I. A. Nuretdinov, and N. P. Grechkin	1545	1606
The Reaction of Tert-butyl Hydroperoxide with the Bromine Anion — E. T. Denisov	1548	1608
A Possible Mechanism of the Formation of Ion-Radicals in Alkaline Solutions of Chloranil — D. Sh. Burbaev, L. M. Raikhan, G. V. Fomin, and L. A. Blyumenfel'd	1551	1610
Reactivity of Halomethylated Copolymers of Styrene and Divinylbenzene — V. A. Davankov, S. V. Rogozhin, V. V. Korshak, and M. P. Tsurupa	1554	1612
Thermolysis of the O-Methyl Ether of Trinitromethane — V. A. Tartovskii, S. L. Ioffe, O. P. Shitov, S. S. Smagin, and I. E. Chelenov	1556	1614
Diferrocenyl- and Diferrocenylphenyl-Acetonitriles — É. G. Perevalova, L. I. Leont'eva, and M. D. Reshetova	1559	1617
An Investigation of the Direction of the Alkylation of Furan with Isobutene — N. I. Shuikin, B. L. Lebedev, V. G. Nikol'skii, O. A. Korytina, A. V. Kessenikh, and E. P. Prokof'ev	1561	1618
Investigation of the Acylation of Phenols in the Presence of Organic Bases by Proton Magnetic Resonance — S. V. Vinogradova, V. A. Vasnev, É. I. Fedin, and V. V. Korshak	1564	1620
Synthesis of trans-5-(p-Hydroxyphenyl)-4-aminoisoxazolid-3-one — an Inhibitor of the Enzymic Transformation of Tyrosine — R. M. Khomutov, E. S. Severin, and N. N. Gulyaev	1567	1622
Addition of Acetaldehyde to 1-Heptene Initiated by Catalytic Oxidation — G. I. Nikishin, M. G. Vinogradov, and R. V. Kereselidze	1570	1624
The So-Called "Swamping Catalyst Effect" — L. I. Velen'kii, G. P. Gromova, and Ya. L. Gol'dfarb	1573	1627
LETTERS TO THE EDITOR		
Structure of Peptides of a Tryptic Hydrolyzate of Pepsin — V. M. Stepanov, R. A. Matveeva, and V. S. Krivtsov	1574	1628
Replacement of the Hydrogen Atoms of Nicheleene — G. V. Bykova and V. N. Setkina	1575	1628
B-Alkyl-1,2-dicarbaldehydodecaboranes(12) — B. M. Mikhailov and T. V. Topapova	1576	1629
Correlation of the Electronegativity and Chemical Shift in the PMR Spectra of Metal Derivatives of the Elements of Group VB — R. G. Kostyanovskii, I. I. Chervin, V. V. Yakshin, and A. U. Stepanyants	1577	1629
Colored Inhibitors of Pepsin — V. M. Stepanov, L. S. Lobareva, and N. I. Mal'tsev	1578	1630
On O-Acyl Derivatives of Trinitromethane — S. A. Shevelev, V. I. Erashko, B. G. Sankov, and A. A. Fainzil'berg	1579	1630
Decomposition of Diphenyliodonium Salts in the Presence of Aniline — O. A. Reutov, O. A. Ptitsyna, and G. G. Lyatiev	1580	1631
Azidomercuration — V. I. Sokolov and O. A. Reutov	1581	1632
Stereospecific Polymerization of Butadiene in the Presence of Transition Metal Halides — I. Ya. Ostrovskaya, K. L. Makovetskii, B. A. Dolgoplosk, and E. I. Tinyakova	1582	1632

(Contd)

Available From Consultants Bureau

On the Use of Polyfluoroaromatic Compounds in the Fischer Reaction — T. D. Petrova, V. P. Mamaev, and G. G. Yakobson.	1583	1633
Isomerization of 1,1-Dimethyl-2-isopropylidencyclopropane — G. A. Khotimskaya, E. A. Gvozdeva, G. M. Andrianova, and M. Yu. Lukina.	1584	1633
Use of β -Pyridol Esters and Their Nitro Derivatives in the Synthesis of Peptides and Polypeptides with Regular Structure — V. A. Shibnev, K. M. Dyumaev, T. P. Chuvseva, L. D. Smirnov, and K. T. Poroshin.	1585	1634

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Number 8

August, 1967

CONTENTS

Engl./Russ.

Nikolai Mikhailovich Zhavoronkov (On His 60th Birthday) 1587 1643

INORGANIC AND ANALYTICAL CHEMISTRY

Diol Lipids. Communication 4. Preparative Gas Chromatographic Separation of Polyhydric
Alcohols Contained in Neutral Lipids — V. A. Vaver, A. N. Ushakov, and L. D. Bergel'son 1588 1645

Analysis of Silicates — B. P. Konstantinov and O. V. Oshurkova 1591 1648

PHYSICAL CHEMISTRY

Adsorption in Micropores. Communication 1. Theoretical Concepts — B. P. Bering,
E. G. Zhukovskaya, B. Kh. Rakhmukov, and V. V. Serpinski 1597 1656

Adsorption in Micropores. Communication 2. Experimental Adsorption Isotheres
— B. P. Bering, E. G. Zhukovskaya, B. Kh. Rakhmukov, and V. V. Serpinski 1602 1662

On the Electrochemical Hydrogenation of Aromatic Aldehydes and Ketones
— S. G. Mairanovskii and V. N. Pavlov 1607 1669

Polarographic Kinetic Currents, Limited by the Rate of Reaction of β -Bromo-Substituted
Carboxylic Acids with the Mercury of the Electrode — S. G. Mairanovskii and
A. D. Filonova-Krasnova 1611 1673

Galvanic Coatings on Titanium Alloys. Communication 1. The Role of Hydrogen in Pro-
cesses of Preparation of the Base under the Coating — R. M. Sageeva and S. I. Berezina 1617 1680

Galvanic Coatings on Titanium Alloys. Communication 2. The Interaction of Titanium with
Hydrogen in Cathodic Polarization in Acid and Alkaline Solutions — S. I. Berezina and
R. M. Sageeva 1622 1685

Influence of Nonspecific Solvation in the Oxidation of Methyl Ethyl Ketone — G. E. Zaikov 1628 1692

Cyclic Unsaturated Compounds. Communication 18. On the Mechanism of Endo-exo-iso-
merization of the Adduct of Diene Synthesis of Cyclopentadiene with Maleic Anhydride
— V. A. Mironov, T. M. Fadeeva, A. U. Stepanyants, and A. A. Akhrem 1633 1697

Genesis of Ni-ZnO Catalysts and Influence of Conditions of Production on the Properties of
the Initial Mixed Oxides of Nickel and Zinc — A. M. Rubinshtein, A. V. Sagalovich,
A. L. Klyachko-Gurvich, A. A. Slinkin, G. A. Ashavskaya, and N. V. Mel'nikova 1639 1703

Catalytic Hydrocondensation of Carbon Monoxide with Olefins and Their Hydropolymerization
under the Action of Carbon Monoxide and Hydrogen. Communication 48. Activity of
Cobalt-Aluminum Hydroxide Catalyst in the Hydropolymerization of Ethylene
— Ya. T. Éidus and I. V. Guseva 1645 1710

Differential Utilization of the Surface of Aluminum Oxide in the Production of Complex and
Mixed Catalysts. Communication 2. ZnO-Al₂O₃ Catalysts — F. É. Énglina,
V. É. Vasserberg, and A. A. Balandin 1649 1714

Reactivity of Nitrocompounds. Communication 8. Kinetics and Mechanism of the Decomposi-
tion of Mannich Bases — V. M. Belikov, Yu. N. Belokon', M. M. Dolgaya, and N. S. Martinkova 1655 1721

(Contd)

Available From Consultants Bureau

Kinetics of the Extraction of Nickel with 8-Hydroxyquinoline — V. A. Bodnya and I. P. Alimarin	1660	1726
Steric Hindrances in the Process of Addition of Hydrogen to α -, β -, and γ -Vinylpyridines — N. M. Nazarova, L. Kh. Freidlin, and I. G. Rozhdestvenskaya	1666	1732
Kinetics of the Telomerization of Propylene by Carbon Tetrachloride — B. A. Englin, B. N. Osipov, and R. Kh. Freidlina	1670	1736
The Effect of Spatial Factors on the Reaction of Arylmercuric Hydroxides with N-Acids. Communication 2. Phenylmercuric Derivatives of Sulfamides, Cyclic Amides, and Some Heterocyclics — D. N. Kravtsov and A. N. Nesmeyanov	1674	1741
The Synthesis and Structure of Phenylmercuric Derivatives of Thioamides and Some of Their Analogues — D. N. Kravtsov and A. N. Nesmeyanov	1679	1747
Fluorine-Containing β -Sultones. XXI. Derivatives of α -Fluorosulfonyltetrafluoropropionic Acid — L. N. Ragulin, P. P. Ropalo, G. A. Sokol'skii, and I. L. Knunyants	1685	1754
bis(Trifluoromethyl)ketene. IX. Dimerization under the Action of Weak Bases and Reaction with Triethyl Phosphite — Yu. B. Aronov, Yu. A. Cheburkov, and I. L. Knunyants	1689	1758
The Reaction of Chloromethylalkoxysilanes with Aminoethoxyalkyl Silanes — A. A. Zhdanov, V. I. Pakhomov, and I. A. Arkhipov	1696	1768
The Nitration of Spruce Wood Lignin by Kirschner's Method — O. P. Grushnikov and N. N. Shorygina	1703	1774
Nitration of the Guaiacyl Ether of α -Veratrylglycol with Nitric Acid — N. P. Mikhailov, N. N. Shorygina, and B. V. Lopatin	1709	1781
The Reaction of Nitrogen Dioxide with Cellulose Nitrates — V. S. Ivanova, Z. I. Kuznetsova, and E. G. Ivanova	1713	1786
The Possibility of Simulation of Biotin Biogenesis — S. I. Zav'yalov, M. P. Unanyan, G. V. Kondrat'eva, and V. V. Filippov	1718	1792
New Method of Synthesis of Biologically Important Derivatives of Pelargonic Acid — M. P. Unanyan, L. P. Vinogradova, V. V. Filippov, and S. I. Zav'yalov	1722	1796
Transformed Steroids. Communication 11. Reaction of 16 β ,17 β -Epoxy- Δ^5 -isopregnen-3 β - ol-20-one with Carbethoxyhydrazine in Acid Medium — A. A. Akhrem, A. V. Skorova, and A. V. Kamernitskii	1725	1800
Transformed Steroids. Communication 12. Investigation of the Reaction of 16 β ,17 β -Epoxy- Δ^5 -isopregnen-3 β -ol-20-one and Its Acetate with Hydrazine Acetate — A. A. Akhrem, A. V. Kamernitskii, and A. V. Skorova	1731	1807
New Stereospecific Method for the Synthesis of Uracil N-Nucleosides — I. A. Mikhailopulo, V. I. Gunar, and S. I. Zav'yalov	1735	1811
Sterically Hindered 3-Hydroxypyridines. Communication 6. Aminomethylation of 2-Alkyl- 3-hydroxypyridines — L. D. Smirnov, S. L. Orlova, V. P. Lezina, and K. M. Dyumaev	1740	1816
Hydroxylamine Derivatives. Communication 9. Synthesis of Some O-Substituted Hydroxyl- amines — R. M. Khomutov, E. S. Severin, N. V. Gnuchev, and T. Ya. Derevyanko	1743	1820
Hydroxylamine Derivatives. Communication 10. Synthesis of Esters of Aminocarbohydrox- amic Acids — R. M. Khomutov, E. S. Severin, G. K. Kovaleva, and N. V. Gnuchev	1746	1823
Synthesis of Diamines and Diamino Ethers — I. A. Chekulaeva, V. A. Ponomarenko, G. V. Talypina, and I. B. Bystrova	1752	1829
Dinitramines in Mannich Condensations. Communication 1. Condensation of Ethylenedini- tramine with Aliphatic Diamines — S. S. Novikov, A. A. Dudinskaya, N. V. Makarov, and L. I. Khmel'nitskii	1755	1833
Dinitramines in Mannich Condensations. Communication 2. Condensation of Ethylenedini- tramine with Primary Monoamines — N. V. Makarov, A. A. Dudinskaya, S. S. Novikov, and L. I. Khmel'nitskii	1759	1837
Dinitramines in Mannich Condensations. Communication 3. Condensation of Dinitramines with Alkylenediamines and Formaldehyde — S. S. Novikov, A. A. Dudinskaya, N. V. Makarov, and L. I. Khmel'nitskii	1761	1839 (Contd)

Available From Consultants Bureau

CONTENTS

(continued)

IZVESTIYA AKADEMII NAUK SSSR, SERIYA KHIMICHESKAYA
No 8, 1967

Engl./Russ.

Catalytic Method for the Preparation of Vinyl Ethyl Sulfone from 2-Hydroxyethyl Ethyl Sulfone — V. Z. Sharf, E. N. Prilezhaeva, L. Kh. Freidlin, A. V. Sviridova, and R. Ya. Tolchinskaya	1765	1843
BRIEF COMMUNICATIONS		
Reactions of 2-Monohydroperfluoroisobutane and α -Hydrohexafluoroisobutyric Esters with Water in the Presence of Triethylamine — S. T. Kocharyan, E. M. Rokhlin, and I. L. Knunyants	1768	1847
Condensation of 2-Monohydroperfluoroisobutane with Compounds Containing Activated Triple Bonds — S. T. Kocharyan, E. M. Rokhlin, and I. L. Knunyants	1771	1849
Reaction of Hydroxymethylphosphonic Acids and Their Esters with Isocyanates — B. E. Ivanov and T. I. Karpova	1774	1851
Reaction of Organomagnesium Compounds with Substituted 2,6-Di-tert-butylmethylenquinones — G. A. Ostapets-Sveshnikova, A. A. Volod'kin, and V. V. Ershov	1777	1853
Exchange of Structural Groups between Ethanol and Sodium Ethoxide — V. D. Nefedov, N. P. Kharitonov, and B. P. Nechaev	1780	1855
Structure of Gmelinite — G. M. Fedorova and T. N. Shishakova	1782	1856
A Physicochemical Study of the Ternary System $\text{CsOH}-\text{H}_2\text{O}_2-\text{H}_2\text{O}$ — T. A. Dobrynina, N. A. Akhapiina, and A. M. Chernyshova	1785	1858
Adsorption of <i>n</i> -Hexenes and <i>n</i> -Hexane on Synthetic Zeolites — G. S. Petryaeva, N. V. Kel'tsev, and E. A. Timofeeva	1787	1860
Preparation of Ethyl Esters of α -Hydroxyacids and Gas Chromatography of the Esters and α -Hydroxynitriles — V. M. Velikov, S. V. Vitt, E. V. Braude, and N. A. Mordochkina	1790	1862
Mobility of Oxygen and Catalytic Properties of Rare Earth Oxides with Respect to Oxidation of Hydrogen — G. V. Antoshin, Kh. M. Minachev, and R. V. Dmitriev	1793	1864
Metalation of Methoxy- and 1,1'-Dimethoxyferrocenes — A. N. Nesmeyanov, T. V. Baukova, and K. I. Grandberg	1796	1867
Preparation of Acyl Alkyl Acetals of Chloral — K. V. Nikonorov, É. A. Gurylev, and F. F. Mertsalova	1799	1869
Preparation of Phosphorylated Acetals of Chloral — K. V. Nikonorov and É. A. Gurylev	1802	1872
Ultraviolet Spectra of α,β -Unsaturated γ,δ -Epoxy carbonyl Compounds — L. A. Yanovskaya, B. I. Kozyrkin, and V. F. Kucherov	1804	1873
Kinetics of the Reaction of KO_2 with LiCl — A. B. Tsentsiper and Z. I. Kuznetsova	1806	1874
LETTERS TO THE EDITOR		
Reaction of Tetrafluorohydrazine with the Perfluoro-tert-butyl Anion — B. L. Dyatkin, K. N. Makarov, R. A. Bekker, and I. L. Knunyants	1808	1877
Replacement of the Iodine in B-Iodobarenes and P-Iodobarenes by Hydrogen under the Action of Alkali Metals in Liquid Ammonia — L. I. Zakharkin, V. N. Kalinin, and A. P. Snyakin	1809	1878
Reaction of Triethyl Phosphite with β -Acetoxyethyl Methyl Ketone — B. E. Ivanov and V. F. Zheltukhin	1810	1878
Influence of Solvents on the Direction of the Reactions of Vinylacetylene with Nucleophilic Reagents — E. N. Prilezhaeva, V. N. Petrov, and G. S. Vasil'ev	1811	1879
Synthesis of Compounds Containing the Ge-Co Bond — A. N. Nesmeyanov, K. N. Anisimov, N. E. Kolobova, and V. N. Khandozhko	1812	1879
Synthesis of Organobimetallic Compounds Containing the Ge-Mo and Ge-W Bonds — A. N. Nesmeyanov, K. N. Anisimov, N. E. Kolobova, and M. Ya. Zakharova	1813	1880
Exchange of Phosphoryl Oxygen — Ya. A. Levin, E. K. Trutneva, S. K. Moiseenko, and R. A. Komlev	1814	1881
Mass-Spectrometric Behavior of Aromatic Azo Compounds — N. S. Vul'fson, V. A. Puchkov, and Yu. S. Nekrasov	1815	1881
Formation of $(e^-)_2$ Centers in the Radiolysis of Aqueous Alkaline "Glasses" — O. F. Khodzhaev, B. G. Ershov, and A. K. Pikaev	1816	1882

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Number 9

September, 1967

CONTENTS

Engl./Russ.

- Aleksandr Erminingel'dovich Arbuzov (Birthday Tribute) 1817 1891
Academician Aleksandr Erminingel'dovich Arbuzov (On His 90th Birthday)—M. I. Kabachnik. 1819 1893

PHYSICAL CHEMISTRY

- Study of the Structure and Reactivity of Nitrogen-Containing Derivatives of Carbonyl Compounds. Communication 24. Raman Spectra and Structure of Phenylhydrazones — A. E. Arbuzov, Yu. P. Kitaev, R. R. Shagidullin, and L. E. Petrova 1822 1897
Study of the Structure and Reactivity of Nitrogen-Containing Derivatives of Carbonyl Compounds. Communication 25. On the Reduction of Arylhydrazones on a Dropping Mercury Electrode — Yu. P. Kitaev and T. V. Troepol'skaya 1828 1903
Study of the Structure and Reactivity of Nitrogen-Containing Derivatives of Carbonyl Compounds. Communication 26. Polarographic Reduction of Arylhydrazones of Methylglyoxal and the Ethyl Ester of Diketobutyric Acid — Yu. P. Kitaev, G. K. Budnikov, and L. I. Maslova 1835 1911
Para-Amino-Substituted Diazonium Compounds and Acid-Base Equilibrium of Aryldiazonium Cations — L. A. Kazitsyna, A. V. Upadysheva, A. A. Stepanova, O. A. Korytina, and O. A. Reutov 1841 1917
Spectra of Aryldiazonium Chlorides and the Structure of Diazonium Cations—L. A. Kazitsyna, N. B. Dzeglenco, A. V. Upadysheva, V. V. Mishchenko, and O. A. Reutov 1848 1925
Anticholinesterase Properties of O-Ethyl-S-(β -aryloxyethyl)methylthiophosphonates — A. P. Brestkin, I. L. Brik, N. N. Godovikov, M. I. Kabachnik, and N. E. Teplov 1854 1932
Electron Microscopic and X-ray Diffraction Investigation of the Process of Formation of Nickel Hydroxide during Precipitation — A. M. Rubinshtein, M. I. Dashevskii, V. I. Yakerson, L. A. Gorskaya, and D. P. Shashkin 1858 1936
Study of the Isotopic Exchange of Deuterium with Hydrogen in Benzene under Conditions of Its Hydrogenation on Nickel — N. E. Zlotina and B. S. Gudkov 1862 1940
Kinetics of Reactions of Stable Radicals with Various Spin Densities on the Reaction Center — A. M. Vasserman and A. L. Buchachenko 1869 1947
Polarography of N-Benzoyllactams — G. A. Tsagareli, A. M. Shkrob, and A. B. Ershler ... 1873 1952
Synthesis and Investigation of Certain Properties of Polytolane — P. P. Kisilitsa, M. I. Cherkashin, and A. A. Berlin 1879 1959

ORGANIC AND BIOLOGICAL CHEMISTRY

- Synthesis and Properties of Some Thiophosphonohydrazines — A. E. Arbuzov, S. Yu. Baigil'dina, F. G. Valitova, and R. R. Shagidullin 1885 1966
Synthesis of Esters of Phosphonic Acids, Containing Heterocyclic Radicals. Communication 9. Reaction of Benzylidenerbodanines with Trialkyl Phosphites and Dialkylphosphorous Acids — B. A. Arbuzov, V. M. Zorostrova, and N. D. Ibragimova 1890 1972
(Contd)

Available From Consultants Bureau

Esters of Trivalent Phosphorus Thioacids. Communication 3. Preparation and Properties of Alkylthioethylphosphonous Chlorides — V. D. Akamsin and N. I. Rizpolozhenskii...	1894	1978
Esters of Trivalent Phosphorus Thioacids. Communication 4. Esters of Diethylamidoethylthiophosphonous Acid — V. D. Akamsin and N. I. Rizpolozhenskii	1900	1983
Esters of Trivalent Phosphorus Thioacids. Communication 5. New Method for the Preparation of Esters of Thiophosphonous Acids — V. D. Akamsin and N. I. Rizpolozhenskii	1904	1987
Some Properties of 4,5-Carboalkoxy-(2-diethylamino)-1,3,2-dioxaphospholanes — N. P. Grechkin and L. N. Grishina	1907	1990
Reaction of Ester-Amides of Trivalent Phosphorus Acids with Phenolic Mannich Bases — B. E. Ivanov, A. B. Ageeva, and R. R. Shagidullin	1911	1994
Relation between Chemical Structure, Fungicidal Properties and Toxicity toward Warm-Blooded Animals of Some Organic Arsenic Compounds — I. D. Neklesova, N. V. Egorova, and M. A. Kudrina	1915	1998
Synthesis and Properties of Glycidyl Esters of Phosphorus Acids. Communication 2. Reaction of Glycidyl Esters of Phosphorous Acid with Epichlorohydrin and p-Benzoquinone — N. I. Rizpolozhenskii, L. V. Stepashkina, and R. R. Shagidullin	1922	2006
Synthesis and Properties of Glycidyl Esters of Phosphorus Acids. Communication 3. Reaction of Monoglycidyl Esters of Phosphorus Acids with Hydrogen Chloride and Acid Chlorides — N. I. Rizpolozhenskii, L. V. Stepashkina, and R. R. Shagidullin	1928	2013
Fluorine-Containing β -Sulfones. Communication 22. The Mechanism of Formation of Polyfluoroalkenylsulfuric Acid Derivatives — G. A. Sokol'skii, M. A. Belaventsev, and I. L. Knunyants	1935	2020
Fluorine-Containing β -Sulfones. Communication 23. Reactivity of β -Pyrosulfones — G. A. Sokol'skii, M. A. Belaventsev, L. I. Raglin, and I. L. Knunyants	1939	2024
Steroid Analogs without Ring B. Communication 5. Structural Modifications and Stereochemical Derivatives of 2-Methyl-3-acetyl-4-anisylcyclohexane-1-carboxylic Acid — A. A. Akhrem, I. S. Levina, and Yu. A. Titov	1944	2030
Analogs of Steroidal Compounds Lacking Ring B. Communication 6. Reduction of Analogs of Dolsynolic Acid with an Open B Ring — A. A. Akhrem, I. S. Levina, and Yu. A. Titov	1948	2034
Analogs of Corticosteroids. Communication 24. Acyl Migration in the cis-1-Acetylcyclohexane-1,2-diol Series — A. A. Akhrem, A. M. Moiseenkov, Yu. D. Kaznacheev, A. U. Stepanyants, and V. F. Bystrov	1952	2039
Unsaturated Amines. Communication 2. Catalytic Isomerization of N-Alkylallylamines — G. Ya. Kondrat'eva and Yu. S. Dol'skaya	1958	2045
Certain Azomethines of the Thiophene Series and Their Sodium Borohydride Reduction Products — B. P. Fedorov, G. I. Gorushkina, and Ya. L. Gol'dfarb	1962	2049
Free-Radical Addition of N-Acetyl Amines to Unsaturated Compounds — G. I. Nikishin, R. I. Mustafaev, and V. N. Gramenitskaya	1969	2056
Synthesis and Properties of Certain Photostabilizers in the 2,4-Dihydroxybenzophenone Series — L. P. Bugakova, P. I. Levin, E. G. Rozantsev, and Z. B. Chelnokova	1974	2061
Quasiradical Block Copolymerization of Polyarylacetylenes with Maleic Anhydride — B. G. Zadontsev, M. I. Cherkashin, and A. A. Berlin	1977	2065
BRIEF COMMUNICATIONS		
The Infrared Spectra of Some Chlorine-Containing Ethylene Compounds — N. I. Shergina, N. N. Chipanina, A. N. Mirskova, and A. S. Atavin	1982	2071
Fusibility Diagram of the System KO_2 -KOH — A. B. Tsentsiper, T. I. Rogozhnikova, and V. M. Bakulina	1985	2073
Effect of the Organic Radical on the Reactivity of Complexes Containing an Iron-Carbon σ -Bond — A. N. Nesmeyanov and Yu. A. Chapovskii	1988	2075
Alkylation of Carborane Grignard Reagents — L. I. Zakharkin, A. V. Grebennikov, and A. V. Kazantsev	1991	2077

.(Contd.)

Available From Consultants Bureau

Reactions of Carborane Grignard Reagents with Carbonyl Compounds — L. I. Zakharkin, A. V. Grebennikov, A. V. Kazantsev, and A. I. I'vov	1994	2079
"Positive" Character of the Halogen Atom in C-Haloneobarenes — L. I. Zakharkin, V. N. Kalinin, and G. G. Zhigareva	1997	2081
The Alkylation of Aromatic Compounds Accompanying the Demercuration of Organomercury Salts — I. P. Beletskaya, I. S. Morozova, and O. A. Reutov	2000	2083
Cleavage of the Tin-Carbon Bond in Organotin Derivatives of Barenes under the Action of Nucleophilic Reagents — V. I. Bregadze and O. Yu. Okhlobystin	2002	2084
α -Hydroperfluoroisopropylisocyanate — D. P. Del'tsova, M. P. Krasuskaya, N. P. Gambaryan, and I. L. Knunyants	2005	2086
Reaction of Triethyl Phosphite with β -Substituted Nitriles — B. E. Ivanov and V. F. Zheltukhin	2008	2089
The Surface-Tension Equation for a Ternary Ideal Solution — V. B. Lazarev	2010	2090
Relationship between the Photoelectric and Surface Properties of Lead-Sodium Alloys — V. B. Lazarev and Yu. A. Malov	2012	2091
On the Addition of Chlorine to Tropilidene — A. L. Liberman, M. A. Pryanishnikova, and G. V. Golovkin	2014	2093
The Synthesis of Organogermanium Polymers with Acetylenic Groups in the Chain — L. K. Luneva, L. A. Kondratenko, A. M. Sladkov, and V. V. Korshak	2017	2095
On the Reaction of Methyl Dichlorophosphine with Acrylamide — V. K. Khairullin, R. M. Kondrat'eva, and A. N. Pudovik	2019	2097
Some Laws Governing Epoxidation of Vinylorganosiloxanes — L. V. Nozdrina, Ya. I. Mindlin, and K. A. Andrianov	2022	2100
On the Reductive Desulfuration of 4- and 5-Nitro-2-thiophenecarboxylic Acid — B. P. Fabrichnyi, S. E. Zurabyan, I. F. Shalavina, and Ya. L. Gol'dfarb	2025	2102
Diene Condensation of Vinyl Acrylate with Hexachlorocyclopentadiene — M. F. Shostakovskii, L. I. Komarova, and A. Kh. Filippova	2028	2104
Synthesis of Secondary-Tertiary Acetylenic δ -Glycols — T. A. Favorskaya, A. S. Medvedeva, V. M. Vlasov, and G. G. Chichkareva	2031	2107
Catalytic Transformations of 1-Furyl-2-oxa-4-butanol — N. I. Shuikin, I. F. Bel'skii, and S. N. Khar'kov	2034	2109
The Catalytic Effect of Formic Ester on the Dieckmann Reaction — M. P. Unanyan and S. I. Zav'yakov	2037	2112
The Influence of an Alkaline Treatment of the Carrier on Residence Times in Gas Chromatography — R. V. Golovnya, I. L. Zhuravleva, and G. A. Mironov	2038	2113
The Nitrate Groups of Lignin — L. L. Sergeeva, N. N. Shorygina, and B. V. Lopatin	2040	2114
The Selective Chlorination of Organohydridesilanes — N. S. Nametkin, T. I. Chernysheva, and O. V. Kuz'min	2043	2117
New Tin-Containing Unsaturated Glycol Ethers — M. F. Shostakovskii, A. S. Atavin, E. P. Vyalykh, B. A. Trofimov, and R. D. Yakubov	2045	2118
Obtention of Dialkylamides and Ethyleneamides of Glycolphosphoric Acids and Some of Their Properties — N. N. Grechkin and L. N. Grishina	2047	2120
On the Infrared Spectra of Unsaturated Sulfides — G. D. Gal'pern, L. R. Barykina, and E. N. Karaulova	2050	2123
bis(Trifluoromethyl)ketene Dimer (Correction) — Yu. A. Cheburkov, M. D. Bargamova, and I. L. Knunyants	2052	2124
LETTERS TO THE EDITOR		
The Dual Character of the Effect of Alcohols on the Process of Polymerization of Propylene on Complex Catalysts — S. M. Mezhevikskii, Yu. V. Kissin, and N. M. Chirkov	2054	2126
Effect of Solvents on Proton Magnetic Resonance Spectra of Dimethylmercury — V. S. Petrosyan, B. P. Bepalov, and O. A. Reutov	2055	2127

(Contd.)

Available From Consultants Bureau

Proton Magnetic Resonance Spectra of Dimethylphenyl Derivatives of the Group V Elements — R. G. Kostyanovskii, V. V. Yakshin, I. I. Chervin, and S. L. Zimont.	2056	2128
A Dimeric bis-(Dimethylglyoximate) Complex of Rhodium (III) — S. A. Shchepinov. E. N. Sal'nikova, and M. L. Khidkei'.	2057	2128
Methylphosphonic Acid Tetramethyldiamide as a Solvent — Yu. I. Ranneva, I. S. Temnova, E. S. Petrov, A. I. Shatenshtein, E. N. Tevetkov, and M. I. Kabachnik	2058	2129
Stereospecific Polymerisation of Butadiene under the influence of π -Allyl Derivatives of Transition Metals Containing Other Electronegative Groups Instead of a Halogen — B. A. Dolgoplosk, I. A. Oreshkin, E. I. Tinyakova, and V. A. Yakovlev.	2059	2130

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BULLETIN OF THE ACADEMY OF SCIENCES OF THE USSR

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Number 10

October, 1967

CONTENTS

Engl./Russ.

This Issue Dedicated to the 50th Anniversary of the Great October Revolution.	2061 2139
INORGANIC AND ANALYTICAL CHEMISTRY	
Complex Formation of Palladium (II) with α -Furyldioxime and 1,2-Cyclohexanedionedioxime in Halide and Thiocyanate Media - V. I. Shlenskaya, T. I. Tikhvinskaya, A. A. Biryukov, and I. P. Alimarin	2063 2141
On the Adsorption Properties of Carbon Adsorbents. Communication 9. Investigation of the Equilibrium Adsorption of Benzene Vapors in the Micropores of Activated Charcoals within a Broad Range of Temperatures, Including the Supercritical Region - A. Zukal, M. M. Dubinin, and O. Kadleta	2069 2148
Electrostatic Potential and Lattice Sums of Type A Zeolites - V. A. Bakaev and M. M. Dubinin	2075 2156
Formation and Properties of the Hydrogen Form of Mordenite. Communication 1. Investigation of the Production of the Hydrogen Form of Synthetic Mordenite, the Accompanying Process of Dealumination, and the Ion Exchange Properties of Zeolite - I. M. Belen'kaya, M. M. Dubinin, and I. I. Krishtofor	2082 2164
Structure of the Electrode-Solution Interface in the Presence of Organic Solutions Adsorbed in Two Different Positions	2088 2171
The Modified State of Water and Other Liquids - B. V. Deragin, N. V. Churaev, N. N. Fedyakin, M. V. Talaev, and I. G. Ershova	2095 2178
Comparison of the Interactions of Potassium and Other Free Radicals with Cobalt Complexes in Aqueous Alcohol Solutions - V. P. Shantarovich, V. I. Gol'danskii, Yu. N. Molin, V. P. Perminov, and T. I. Skubnevskaya	2103 2188
Reactions with Electron Transfer. Communication 3. Interaction of the Dipotassium Salt of the Cyclooctatetraene Dianion with Nitrobenzene and with Nitrosobenzene - D. N. Kursanov, Z. V. Todres, Yu. I. Lyakovetskii, and Z. G. Dremina	2111 2197
d_{π} - p_{π} Conjugation in Sn-O and Sn-S Bonds of Organotin Compounds - I. P. Gol'dshteyn, E. N. Gur'yanova, N. N. Zemlyanskii, O. P. Syutkina, E. M. Panov, and K. A. Kocheshkov	2115 2201
The Problem of Nucleophilic Promotion in Reactions of Electrophilic Substitution of Aromatic Heteroorganic Compounds - A. L. Kurtis, I. P. Beletskaya, and O. A. Reutov	2120 2207
Role of the Solvent in the Reaction of Nucleophilic Thylation of Conjugated Molecules Containing a Triple Bond - E. N. Prilezhaeva, G. S. Vasil'ev, and V. N. Petrov	2128 2217
Polar Effects in the Telomerization of Propylene and Ethylene by Carbon Tetrachloride - B. A. Englin, B. N. Osipov, R. Kh. Freidlina	2133 2223
Influence of N-Alkyl Substituents upon the Rate of Decomposition of Mannich Bases - M. M. Dolgaya, Yu. N. Belokon', N. S. Martinkova, and V. M. Belikov	2143 2234

(Contd)

Available From Consultants Bureau

IR Spectra of Phenylgermanium and Halogermanium Derivatives of Manganese Carbonyl - A. N. Nesmeyano, G. G. Dvoryantseva, T. N. Uliyanova, N. E. Kolobova, K. N. Anisimov, and A. B. Antonova	2149	2241
Infrared Spectra of Catalysts and Adsorbed Molecules. Communication 4. Dimethyl Ether on the Surface of Aluminum Oxide - V. I. Yakerson, L. I. Lafer, V. Ya. Danyushevskii, and A. M. Rubinshtein	2154	2246
Electron Paramagnetic Resonance Spectra of Irradiated Frozen Aqueous Solutions. Communication. 7. Aqueous Solutions of Formate - O. F. Khodzhaev, B. G. Ershov, and A. K. Pikaev	2160	2253
Peculiarities of Certain Catalytic Reactions under Conditions of a Pulsed System - O. V. Bragin, A. L. Liberman, A. V. Preobrazhenskii, and B. A. Kazanskii, ...	2166	2260
Thermally Stable Soluble Polyimides - V. V. Korshak, S. V. Vinogradova, Ya. S. Vygodskii, S. A. Pavlova, and L. V. Boiko	2172	2267
ORGANIC AND BIOLOGICAL CHEMISTRY		
Organosiloxycyclosilazanes - K. A. Andrianov, G. V. Kotrelev, B. D. Lavrukhin, and L. N. Orobinskaya	2179	2275
Structure and Properties of the Products of the Reactions of Trialkylphosphites and Dialkylphosphorous Acids with Ethylidenacetone and Ethylideneacetoacetic Ester - B. A. Arbuzov, N. A. Polezhaeva, and V. S. Vinogradova, ...	2185	2281
Organoboron Compounds. Communication 172. Allylboron-Acetylene Condensation Leading to Compounds of the 3-Borabicyclo[3.3.1]Nonane Series - B. M. Mikhailov, Yu. N. Bubnov, and S. I. Frolov	2193	2290
Reaction of Perfluoronitrosoalkanes with Esters of Phosphorus Acid - B. L. Dyaikin, E. P. Mochalina, Yu. S. Konstantinov, S. R. Sterlin, and I. L. Knunyants	2200	2297
Pure Iminoxyl Biradicals, Containing Silicon and Sulfur Atoms - E. G. Rozantsev, G. F. Pavelko, A. L. Buchachenko, and M. B. Neiman	2208	2306
Isomerization of Neobarenes to Barenes - L. I. Zakharkin, V. N. Kalinin, and L. S. Podvisotskaya	2212	2310
Selective Methods for the Cleavage of Polysaccharide Chains. Communication 1. Cleavage of the Amide of L-Menthyl- α -D-glucuronic Acid - N. K. Kochetkov, O. S. Chizhov, and A. F. Sviridov	2218	2316
Chemistry of Lipides. Communication 8. Synthesis of S- α -L-Phosphatidyl- γ -alanil-glycerol - Yul. G. Molotkovskii and L. D. Bergel'son	2222	2321
Synthesis of Active Esters of Tripeptides Containing N ^C -Tosyl-L-lysine and Their Polymerization - V. A. Shibnev, V. S. Grechishko, and K. T. Poroshin	2228	2327
Transformed Steroids. Communication 13. Rearrangement of 21,21-Dibromo-17 β -hydroxy-4-pregnene-3,20-Dione Acetate into Isomeric 17 β -Hydroxy-20 α -oxo-4-pregnen-21-oic Acids - A. A. Akhrem and T. K. Ustin'yuk	2232	2331
Analogs of Corticosteroids. Communication 25. Acyl Migration in the cis-1-Acetylcyclohexane-1,2-diol System in the Hydrolysis of Diesters - A. A. Akhrem, A. M. Moiseenkov, and Yu. D. Kaznacheev	2237	2336
Thermal and Photochemical Decomposition of 2,6-Ditert-butyl-p-benzoquinone Diazide - G. A. Nikiforov and V. V. Ershov	2241	2341
Mechanisms of Nucleophilic Additions to Mono-Substituted Diacetylenes - B. P. Gusev, E. A. El'perina, and V. F. Kucherov	2245	2345
Chemical Conversions of α -Alkoxyacroleins. Communication II. Synthesis and Properties of α -Methoxyacrolein - M. F. Shostakovskii, N. A. Keiko, A. P. Chichkarev, and A. Kh. Filipova	2250	2351
Formation of Polyconjugated Systems by Dehydrogenation of Polymers by Quinones - N. N. Stefanovskaya, I. F. Gavrilenko, I. N. Markevich, V. L. Shmonina, E. I. Tinyakova, and B. A. Dolgoplosk	2254	2355

(Contd)

Available From Consultants Bureau

LETTERS TO THE EDITOR

Fragmentation of Heteroorganic Group V Compounds upon Electron Impact - R. G. Kostyanovskii and V. V. Yakshin	2261 2363
Synthesis of Organometallic Compounds Containing a Fe-Si Bond - A. N. Nesmeyanov, K. N. Anisimov, N. E. Kolobova, and V. V. Skriplkin	2262 2364
Formation of Beryllium Peroxide BeO_2 and Magnesium Hyperperoxide $Mg(O_2)_2$ - I. I. Vol'nov, S. A. Tokareva, E. I. Latysheva, and V. I. Klimanov	2263 2365
Mechanism of the Isomeric Transformation of Hydroxyhexamethylbenzoonium Ions - V. G. Shubin, V. P. Chzhu, A. I. Rezvudin, A. A. Tabatskaya, and V. A. Koptug	2264 2365
Rearrangement of Alkoxyperfluoroisobutylene to the Acid Fluoride of α -Alkylhexafluoro- isobutyric Acid - S. I. Kocharyan, E. M. Rokhlin, I. D. Rubin, P. V. Petrovskii, E. I. Fedin, and I. L. Khunyan	2265 2366
Reactions of Disodio-(1)-2,3-Dicarbonyl with Organoboron Compounds - T. P. Potapova and B. M. Mikhailov	2266 2367

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BULLETIN OF THE ACADEMY OF SCIENCES OF THE USSR

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Number 11

November, 1967

CONTENTS

Engl./Russ.

PHYSICAL CHEMISTRY

- Correlation of the Nuclear Quadrupole Resonance Frequencies of Cl^{35} of Dihydrochlorides of Certain Phosphorus Acids with the σ_p Constants of Substituents on the Phosphorus Atom — E. N. Tsvetkov, G. K. Semin, T. A. Babushkina, D. I. Lobanov, and M. I. Kabachnik 2267 2375
- Electrochemical Study of σ -Bonds in π -Complexes of Transition Metals. Communication 2. Polarographic Reduction of π - $\text{C}_3\text{H}_5\text{Fe}(\text{CO})_2$ - σ -R and Related Compounds — L. I. Denisovich, S. P. Gubin, and Yu. A. Chapovskii 2271 2378
- Polarographic Investigation of the System Fe^{3+} - H_2O_2 - H_2SO_4 — Yu. S. Milyavskii and S. A. Sinyakova 2276 2384
- Mechanism of the Secondary Azo-combination of Monoazo-derivatives of Chromotropic Acid, Taken in the Form of Cyclic Salts — S. V. Savin, É. L. Kuzin, L. A. Gribov, and V. P. Deckova 2280 2389
- Calculation of the Activation Energies of Reactions of Peroxide and Alkoxy Radicals — E. T. Denisov 2286 2396
- Particular Constants of Chain Transfer in the Telomerization of Ethylene and Propylene by Carbon Tetrachloride in the Presence of Aromatic and Hydroxyl-Containing Solvents — B. A. Englin, B. N. Osipov, L. L. Ermakov, and R. Kh. Freidlina 2289 2399
- On the Mechanism of Certain Transformations of Secondary Amines in the Presence of Noble Metals of Group VIII — O. V. Bragin, A. V. Preobrazhenskii, and A. L. Liberman 2296 2406
- Investigations in the Field of Mass Spectrometry of Amino Acid Derivatives. Communication 4. On the Reproducibility of the Mass Spectra of Phenyl- and Methylthiohydantoins of Amino Acids — A. M. Zyakun, V. M. Stepanov, N. S. Vul'fson, and V. A. Puchkov 2300 2410
- Diol Lipids. Communication 6. Mass Spectrometric Investigation of Diols and Triols — N. S. Vul'fson, L. S. Golovkina, V. A. Vaver, N. V. Prokazova, and L. D. Bergel'son 2304 2415
- Study of the Intermolecular Interactions in Salts of Phenolsulfonic Acids by the Method of Infrared Spectroscopy — K. K. Kalin'sh and B. G. Belen'kii 2307 2418
- Infrared Spectra of Catalysts and Adsorbed Molecules. Communication 5. Methanol on the Surface of Aluminum Oxide — L. I. Lafer, V. I. Yakerson, and A. M. Rubinshtein 2312 2424
- Infrared Spectra of Functionally Substituted Oxides — L. A. Yanovskaya, B. I. Kozyrkin, G. A. Kogan, and V. F. Kucherov 2319 2432
- Investigation of Solutions of Polybenzoxazoles — L. V. Boiko, V. V. Korshak, and S. A. Pavlova 2322 2435
- Thermal Decomposition of Ozone — E. I. Intezarova and V. N. Kondrat'ev 2326 2440
- Copolymerization of Vinyl Acetate with 1,1-Dichloropropene-1 at Atmospheric and High Pressures — V. M. Zhulin, N. V. Klimentova, A. P. Suprun, M. G. Gonikberg, and V. V. Korshak 2332 2447

(Contd)

Available From Consultants Bureau

On the Production of Highly Conducting Polymers Based on Para-diethynylbenzene — M. I. Cherkashin, P. P. Kisilitsa, and A. A. Berlin	2335	2450
On the Thermal Destruction of Polyphenylacetylene — P. P. Kisilitsa, M. I. Cherkashin, and A. A. Berlin	2338	2453
Fluorine-Containing β -Sultones. Communication 24. Trifluorovinylfluorosulfate — M. A. Belaventzev, G. A. Sokol'skii, and I. L. Knunyants	2344	2461
Organosilicon Iminoxyl Polyradicals — G. F. Pavelko and É. G. Rozantsev	2348	2466
Reaction of Organomagnesium Compounds with 2,4,6-Tri-tert-butylphenoxyl — V. V. Ershov, A. A. Volod'kin, and M. V. Tarkhanova	2352	2470
Telomerization of Ethylene with Esters of Dichloroacetic and Trichloroacetic Acids — R. Kh. Freidlina, E. Ts. Chukovskaya, and A. B. Terent'ev	2355	2474
Reactions of Alkane Acids and Their Derivatives with 1-Alkenes, Initiated by Tertiary Butyl Hydroperoxide — G. I. Nikishin, Yu. N. Ogibin, and I. A. Palanuer	2360	2478
Monosaccharides. Communication 13. Synthesis of 4-Amino-4-desoxy Sugars — B. A. Dmitriev and N. K. Kochetkov	2365	2483
Monosaccharides. Communication 14. Synthesis of Derivatives of 3-Amino-2,3-didesoxy- sugars — B. A. Dmitriev, N. É. Bairamova, A. A. Kost, and K. K. Kochetkov	2371	2491
Chemistry of Lipids. Communication 9. Synthesis of R- α -L-Phosphatidyl- γ -L-alanyl- glycerol and Comparison of the Synthetic O-Alanyl Esters of Phosphatidylglycerol with the Natural Lipoamino Acid from Clostridium Welchii — Yul. G. Molotkovskii and L. D. Bergel'son	2377	2498
Addition of Hydrogen Sulfide and Mercaptans to β , β -Dimethylvinyl Vinyl Ketone — N. P. Volynskii and A. B. Urin	2383	2504
Dimethylaminomethylation of Some Compounds of the Furan Series — Ya. L. Gol'dfarb, A. P. Yakubov, and L. I. Belen'kii	2387	2509
Cleavage of the Tetrahydrofuran Ring by Acid Halides and Acid Anhydrides — R. M. Ispiryay, L. I. Belen'kii, and Ya. L. Gol'dfarb	2391	2513
Nitronium Esters in Reactions of 1,3-Addition. Communication 1. Reaction of O-Methyl Ester of Phenylnitromethane with Grignard Reagents — S. L. Ioffe, O. P. Shitov, I. E. Chlenov, A. A. Medvedeva, V. A. Tartakovskii, and S. S. Novikov	2399	2522
Synthesis of Vinyl Esters of Unsaturated Acids — M. F. Shostakovskii, L. I. Komarova, A. Kh. Filippova, and G. V. Ratovskii	2403	2526
Transformations of (Chloromethyl)silacycloalkanes under the Influence of Aluminum Chloride — N. S. Nametkin, V. M. Vdovin, K. S. Pushchevaya, and A. N. Egorochkin	2406	2530
Transformation of Polymethylenesilanes under the Influence of Aluminum Chloride — N. S. Nametkin, V. M. Vdovin, and K. S. Pushchevaya	2413	2537
BRIEF COMMUNICATIONS		
Hafnium Chelates — É. M. Brainina and E. I. Mortikova	2418	2543
On the Reaction of α , ω -Dichlorodimethylsiloxanes with n-Butylamine — K. A. Andrianov, V. N. Talanov, L. M. Khananashvili, Yudit Gelen, and N. P. Gashnikova	2421	2546
Isomerization of Tetrahydrofurfuryl Ethers of 1,2-Glycols — N. I. Shuikin, S. N. Khar'kov, and I. F. Bel'skii	2424	2548
Kinetics of the Hydrolysis of Tri- and Diethyl Phosphite — V. E. Bel'skii and G. Z. Motygullin	2427	2551
A New Rearrangement of Phenylpropargyl Aldehyde — L. A. Yanovskaya, Kh. Shakhidayatov, and V. F. Kucherov	2429	2553
Synthesis of β -Isopropylthioethyl Esters of Some Thio Acids of Trivalent Arsenic — N. A. Chadaeva, G. Kh. Kamai, and K. A. Mamakov	2431	2554
Automatic Coulometric Determination of the Moisture Content of Gases and the Hydrogen Content of Organic Substances — G. F. Anisimova, V. A. Klimova, I. A. Lavrov, and E. P. Krylova	2434	2556
Reaction of Sodium Trimethylsilylacetylide with Silicon-Containing Ketones — N. V. Komarov, V. K. Roman, O. G. Yarosh, and L. V. Balashchenko	2437	2558

(Contd.)

Available From Consultants Bureau

	Engl./Russ.
Refractivity Characteristics of Basic Metal Ozonides — V. I. Sokol and M. S. Dobrolyubova .	2440 2561
Dehydration of Octahydrates of Calcium, Strontium, and Barium Peroxides — A. B. Tsentsiper and R. P. Vasil'eva.	2442 2563
The Reaction of Calcium Hydroxide with Hydrogen Peroxide Vapor — A. B. Tsentsiper and R. P. Vasil'eva	2445 2565
Some Reactions of Perfluoroalkyl Isocyanates — D. P. Del'tsova, M. P. Krasuskaya, and I. L. Knunyants	2448 2567
A Physicochemical Study of the Ternary System $\text{KOH}-\text{H}_2\text{O}_2-\text{H}_2\text{O}$ — T. A. Dobrynina, N. A. Akhapiina, and A. M. Chernyshova	2451 2569
A New Method of Synthesizing 3'(2')-O-Aminoacylnucleosides and Nucleotides — B. P. Gottikh, A. A. Kraevskii, P. P. Purygin, T. L. Tsilevich, Z. S. Belova, and L. N. Rudzite.	2453 2571
Synthesis of Heteroannular Mercury Derivatives of Acetoxy- and Methoxyferrocene — A. S. Nesmeyanov and A. G. Kozlovskii.	2456 2574
Ethynylsilanes in an Organosodium Synthesis — M. F. Shostakovskii, N. V. Komarov, and O. G. Yarosh	2458 2576
Nucleophilic Substitution in a Series of Barenes and Neobarenes — L. I. Zakharkin and V. N. Kalinin	2460 2577
Effect of Organic Admixtures on the Magnetic Properties of Chemically Reduced Nickel — A. A. Slinkin, T. N. Khoperiya, and T. V. Pantsulaya.	2463 2579
LETTERS TO THE EDITOR	
New Synthesis of Hexafluoroacetone N-Fluorimine — B. L. Dyatkin, K. N. Mararov, and I. L. Knunyants	2466 2582
Reactions of Perfluoroalkyl Anions with Sulfur — S. R. Sterlin, B. L. Dyatkin, and I. L. Knunyants	2467 2583
Activation of Stereospecific Polymerization of Butadiene by Means of Electron-Accepting Chlorine Compounds — O. K. Sharaev, A. V. Alferov, E. I. Tinyakova, and B. A. Dolgoplosk	2468 2583
Reversal of the Stereospecificity of π -Crotyl Nickel Iodide in Butadiene Polymerization by Means of Electron-Acceptor Compounds — O. K. Sharaev, A. V. Alferov, E. I. Tinyakova, and B. A. Dolgoplosk	2469 2584
On the Reaction of N-Butyllithium on the Selenides of a Series of Thiophenes — Ya. L. Gol'dfarb, V. P. Litvinov, and A. N. Sukiasyan	2470 2585
Synthesis of B-Aminobarenes through Dicarbadodecaborane (14) Dianions — L. I. Zakharkin and V. N. Kalinin	2471 2585
Organoboron Compounds Containing δ -Bromobutyl Groups — B. M. Mikhailov and L. S. Vasil'ev	2472 2586
Complex Sulfate of Uranium and Potassium — V. F. Peretrukhin, N. N. Krot, and A. D. Gel'man	2473 2586
CHRONICLE	
General Assemblies of the Departments of the Chemical-Technological and Biological Sciences Sections of the Academy of Sciences of the USSR.	2474 2588

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Number 12

December, 1967

CONTENTS

Engl./Russ.

INORGANIC AND ANALYTICAL CHEMISTRY

- Micro-Determination of Water with Fischer Reagent, Prepared in N,N'-Dimethylformamide
in Place of Methanol — V. A. Klimova, F. B. Sherman, and A. M. L'vov. 2477 2599

PHYSICAL CHEMISTRY

- Adsorption of Mixtures of Hydrogen Sulfide and Propane on NaX Zeolite — B. P. Bering,
V. V. Serpinski, and S. I. Surinova 2480 2603
- On the Temperature Dependence of the Coefficient of Adsorption Selectivity — B. P. Bering,
V. V. Serpinski, and S. I. Surinova 2487 2611
- Investigation of the Selectivity of Platinum Catalysts on Various Carriers in the Reaction of
Hydrogenolysis of Methylcyclopentane — V. V. Voronin, Kh. M. Minachev, and
I. I. Levitskii. 2492 2616
- Influence of the Nature of the Solvent upon the Reaction of Catalytic Decomposition of
Diazacetate in the Presence of an Olefin — V. A. Tsitokhesev and I. S. Lishanskii . . . 2496 2620
- On the Influence of the Phenyl Group of Propenylbenzene on the Rate of Hydrogenation of a
Double Bond Conjugated with It — L. Kh. Freidlin, N. M. Nazarova, and
M. A. Abduraimova. 2500 2624
- Investigation of the 2,2,6,6-Tetramethyl-4-oxo-1-piperidyl Radical by the Method of Electron
Paramagnetic Resonance — V. D. Sholle, É. C. Rozantsev, A. I. Prokof'ev, and
S. P. Solodovnikov 2504 2628
- Electrophysical Properties of Polyamines with Acetylenic Groups — V. V. Korshak,
T. M. Khrenkova, A. G. Shabanova, Z. S. Smutkina, A. M. Sladkov, and V. I. Kasatochkin . 2507 2632
- Infrared Absorption Spectra of Certain bis- and tris-Phenylazophenols — R. M. Aseeva,
I. V. Gudvilovich, and A. A. Berlin 2510 2635

ORGANIC AND BIOLOGICAL CHEMISTRY

- C-Ketovinylation. Communication 2. β -Ketovinylation in the Ferrocene Series
— A. N. Nesmeyanov, M. I. Rybinskaya, L. M. Korneva, and M. P. Kumpolova 2516 2642
- C-Ketovinylation. Communication 3. β -Ketovinylation in the Cyclopentadienide Anion
— A. N. Nesmeyanov, M. I. Rybinskaya, and L. M. Korneva 2523 2649
- Study of the Reaction of Organomagnesium and Organolithium Compounds with Carbonyl
Derivatives of Barenes and Neobarenes — A. I. L'vov and L. I. Zakharkin 2527 2653
- Some Reactions of Trifluoropyruvic Ester with Nucleophilic Reagents — I. L. Knunyants,
N. P. Gambaryan, and V. V. Tyuleneva. 2536 2662
- Synthesis and Spectroscopic Study of Chloromethyl Derivatives of Silanes and Siloxanes
— K. A. Andrianov, V. M. Emel'yanov, A. Yu. Rabkina, L. A. Leites, and
B. D. Lavrukhin 2540 2666

(Contd)

Available From Consultants Bureau

Hydrolytic Polycondensation of Methyl- β -D,4-epoxycyclohexyl)-ethyldiethoxysilane — G. P. Bochkareva, K. A. Andrianov, and M. A. Golubenko.	2547	2673
Rearrangement of Organosilicon Mercaptals — M. F. Shostakovskii, N. V. Komarov, N. N. Vlasova, and F. P. L'vova	2552	2678
Dipole Lipids. Communication 5. Microacetylation of Diols and Triols for Gas-Chroma- tographic Analysis — V. A. Vaver, V. V. Dorogov, and L. D. Bergel'son	2555	2681
New Modification of the Orthoester Method for the Synthesis of Glycosides, and the Synthesis of β -Gentiobiose Octaacetate via an Intermediate Isomeric Orthoester — A. F. Bochkov, V. I. Snyatkova, and N. K. Kochetkov	2558	2684
Monosaccharides. XV. A New Synthesis of a Ziridine Derivatives of Sugars — B. A. Dmitriev, N. E. Bairamova, and N. K. Kochetkov	2564	2691
The Reaction of 2,3-Epoxybutyraldehyde with α -Aminoisobutyronitrile and Its N-Alkyl and N,N-Dialkyl Derivatives — L. A. Yanovskaya, B. I. Kozyrkin, and V. F. Kucherov	2569	2698
Reaction of 2,6-Di-tert-butyl-p-benzoquinone Diazide with Alkyl and Aryl Magnesium Halides — G. A. Nikiforov, A. A. Efremenko, and V. V. Ershov	2574	2702
Reaction of bis-(Trinitromethyl)mercury Amines and Their N-Halogenated Derivatives — V. I. Erashko, S. A. Shevelev, and A. A. Fainzil'berg	2579	2708
The Free-Radical Reaction of the Methyl Ester and Nitrile of 3-Methoxypropionic Acid with Alk-1-enes — Yu. N. Ogibin, L. M. Il'ina, and G. I. Nikishin	2582	2711
Catalytic Hydrogenation of Polychloroalkenes Containing a $\text{CCl}_2\text{C}=\text{CH}_2$ or $\text{CCl}_2=\text{CCH}_2\text{Cl}$ Group — T. A. Kost and R. Kh. Freidlina	2586	2715
Catalytic Dehydration of $\text{C}_5\text{--C}_6$ Acetylene Alcohols — V. Z. Sharf, L. Kh. Freidlin, and A. A. Nazaryan	2590	2719
Structural Features of Cleavage of Nonsymmetrically Substituted 1,3-Dioxolanes by the Grignard Reagent — B. A. Trofimov, A. S. Atavin, S. E. Orlova, E. I. Kositsina, and V. V. Keiko	2596	2727
The Effect of Additions of Certain Oxides of Rare and Rare-Earth Elements on the Activities of Cobalt Catalysts in the Synthesis of Hydrocarbons from Carbon Monoxide and Hydrogen — T. F. Bulanova, Ya. T. Eidus, and N. S. Sergeeva	2601	2733
BRIEF COMMUNICATIONS		
Synthesis of Peroxide Compounds of Calcium, Strontium, and Barium in Hydrogen Peroxide Vapor — A. B. Tsentsiper and R. P. Vasil'eva.	2604	2738
Solubility of Rubidium Ozonide in Liquid Ammonia — A. B. Tsentsiper and M. S. Dobrolyubova.	2607	2740
The Aminomethylation of 2-Nitro-3-hydroxypyridine — L. D. Smirnov, T. P. Kartasheva, V. P. Lezina, and K. M. Dyumaev	2609	2742
Unsymmetrical Diamides of O-Pentachlorophenylthiophosphoric Acid — D. Kh. Yarmukhametova and I. V. Cheplanov.	2612	2744
Determination of the Basicity of Ferrocenylcarbinol — A. N. Nesmeyanov, M. D. Reshetova, and E. G. Perevalova	2614	2746
Solvolysis of 1-C ¹⁴ -n-Propyl Tosylate — T. N. Shatkina, A. N. Lovtsova, and A. Reutov	2616	2748
Synthesis of Aryl Fluorides by Decomposition of Aryldiazonium Hexafluorogermanates — L. G. Makarova and I. V. Polovnyanyuk	2618	2750
Nitration of 2-Alkyl-, 6-Alkyl-, and 2,6-Dialkyl-3-hydroxypyridines — L. D. Smirnov, S. L. Orlova, V. P. Lezina, T. P. Kartasheva, and K. M. Dyumaev	2621	2752
Investigation of Analogs of Conformational Inhibitors of Pyridoxal Enzymes by the Dipole Moment Method — E. N. Gur'yanova, E. S. Severin, N. V. Gnuchev, and R. M. Khomutov	2624	2754
On the Alkylation of Toluene by Propylene — M. P. Terpugova, N. A. Svetlichnaya, R. Z. Sagdeev, and I. L. Kotlyarevskii	2627	2757
Aromatic Organogallium Compounds of the Ar_2GaX and ArGaX_2 Types — I. M. Viktorova, N. I. Sheverdina, and K. A. Kocheshkov	2629	2760

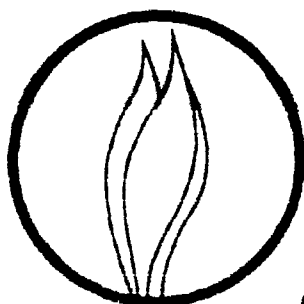
(Contd)

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A General Titrimetric Micro Method for the Determination of Water by the Fischer Reagent — V. A. Klimova, F. B. Sherman, and A. M. L'vov	2631	2761
Ambiguous Reactivity of Hydroxyperoxide Radicals in Reactions with Aromatic Amines — V. V. Kharitonov and E. T. Denisov	2634	2764
Mass Spectrometry of the Intermediates of the Complete Synthesis of Estrogens — V. L. Sadovskaya, N. S. Vul'fson, and V. I. Zaretskii	2637	2767
The Reaction of the Potassium Salt of Trinitromethane with Acetyl Chloride and Acetone — B. G. Sankov, V. I. Erashko, S. A. Shevelev, and A. A. Painsil'berg	2640	2769
Determination of Slight Contamination by D-Amino Acids in Natural Amino Acids — S. V. Vitt, M. B. Saporovskaya, and V. M. Belikov	2642	2771
Synthesis of ϵ -Caprolactams and Their Reduction to Azacycloheptanes — L. Ya. Barkovskaya, V. M. Shostakovskii, and I. F. Bel'skii	2644	2773
Synthesis of Functionally-Substituted Bromoalkenes — M. V. Mavrov, E. S. Voskanyan, and V. P. Kucharov	2646	2774
High-Temperature Reactions of Trichloroethylene with Toluene and with Methanol — G. I. Nikishin and M. I. Dyusenov	2649	2777
LETTERS TO THE EDITOR		
Formation of Polymers with a System of Conjugation in the Interaction of Lithium with Chloro-Derivatives of Hydrocarbons — Yu. G. Kryazhev and V. B. Petrinska	2651	2779
Activation of Pepsinogen by the Proteinases <i>Aspergillus Oryzae</i> — V. M. Stepanov and E. A. Tumokhina	2652	2780
Radical Synthesis of 1,1,1,6,6,6-Hexanitrohexane — L. T. Eremanko, F. Ya. Natsibullin, and G. N. Nesterenko	2653	2780
Electrophilic Epoxidation of Perfluoroolefins — G. G. Belen'kii, L. S. German, and I. L. Knunyants	2654	2780
The Semisandwich Nature of Homogeneous Hydrogenation Catalysts — V. A. Avilov, O. N. Eremanko, and M. L. Khibekel'	2655	2781
Reaction of Chlorophosphites with α -Etheroamines — B. E. Ivanov and S. S. Krokhina	2656	2782
The Reaction of 1-Butyn-4-ol with Isobutyraldehyde — M. F. Shostakovskii, T. A. Favorskaya, A. S. Medvedeva, L. P. Safronova, and V. M. Viazov	2657	2782
Investigation of Mercaptoaldehydes of the Thiophene and Furan Series by the Method of NMR — V. S. Bogdanov, M. A. Kalik, Ya. L. Danyushevskii, and Ya. L. Gol'dfarb	2658	2783
Mass Spectra of Negative Ions of Heteroorganic Compounds of Group IVB — R. B. Kostyanovskii	2659	2784
The Carboxyl Group of Aspartic Acid in the Active Center of Pepsin — V. M. Stepanov and T. I. Vaganova	2660	2785
INDEX		
Author Index, Numbers 1-12, 1967	2663	
Table of Contents, Numbers 1-12, ...	2673	

The Russian press date (podpisano k pechatii) of this issue was 12/13/1967.
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Contents Volume 9, Number 1 January-February 1966

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Calculation of the Bond Energy and Elastic Moduli of Magnesium.

E. A. Bogomol'skaya and V. F. Konusov 5 1

Use of Ultrasonic Measurements in the Study of Molecular

Interactions in Liquids. B. B. Kudryavtsev and G. A. 12 5

Samgina.

Transients in Switching a Diode With a Thin Base. V. I. Gaman

and S. A. Zaidman. 18 9

Development of Dipole-Dipole Intermolecular Forces in the

Vibration Spectra of Organic Compounds. III. Line 21 11

Width. A. V. Sechkarev.

Correlation Analysis of Photomicrographs of Cloud Droplets.

S. S. Khmelevtsov and G. S. Grishanov 26 15

Microhardness and Defectiveness of Solid-Solution Crystals

of Alkali Halide Compounds of the System KCl-KBr. 29 17

M. N. Treskina and L. F. Dolgikh.

Optimum Impurity Distribution Across the Thickness of a

Thermoelement. E. V. Teodorovich 33 20

Ionization in Collisions Between Slow Atoms. L. I. Podlubnyi

. 37 23

Longitudinal Relaxation Time of Aligned Atoms.

N. G. Preobrazhenskii, S. V. Senina, and A. V. Senina 42 26

Absorption and Luminescence Spectra of Pr^{3+} in CaWO_4

Monocrystals. I. B. Aizenberg, F. Z. Gilyanov, and 48 29

A. L. Stolov.

Effect of Finite Nuclear Size and the Screening Factor in

the Theory of $E0$ Conversion and "Structural" Internal 54 34

Conversion Coefficients. L. A. Borisoglebskii and G. V.

Growth Rate of a Crystal Dissipating Latent Heat of Crystallization

by Radiation. V. V. Salomatov. 60 38

The Present State of the Radiopolarization Method of Stream

Investigation. V. N. Rudakov and A. I. Lebedev 63 40

(continued)

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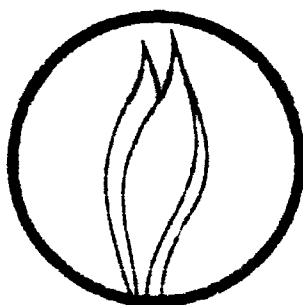
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84 FIFTH AVENUE, NEW YORK, N. Y. 10011

	Russian page	English page
The Variational Principle in Dual Relativistic Electrodynamics. V. I. Voronkov and A. E. Levashov	68	43
The Equivalent Circuit of a Powder Electroluminescent Capacitor. K. Sh. Enikeeva	75	47
Neutrino-Electron Scattering in the Theory Involving the W-Meson. Yu. G. Pavlenko and Yu. P. Ivanov	81	51
Effects of X-Rays on the Electrical Conductivity of Liquid Organic Photoconductors. Yu. A. Kopylov and T. N. Trofimova	85	53
The Energy Spectrum of Electrons in a Crystal. VIII. Characters of Weighted Corepresentations. N. V. Kudryavtseva and V. A. Chaldyshev	93	57
On the Problem of an Inhomogeneous Sphere Placed in a Homogeneous Alternating Magnetic Field. M. N. Bobrova	101	61
Quantum-Mechanical Molecular Orbital Calculations. Theory of Generalized Combined Orbitals. V. G. Plotnikov	107	64
The Method of Simple Calculations. III. Origin of the Low-Frequency Raman Lines of Monosubstituted Naphthalenes. A. V. Sechkarev and N. I. Dvorovenko	111	66
A Study of the Cathode Emission and the Discharge Parameters of Luminescent Tubes. E. T. Kucherenko and Z. P. Koroleva	116	69
On the Connection Between the Strength and Conditions of Preparation of Copper and Aluminum Vacuum Condensates. L. S. Palatnik, A. I. Il'inakii, G. V. Fedorov, and V. S. D'yachenko	122	73
Determination of the Spin Hamiltonian Constants for Electron Spin Resonance at Energy Level Crossing Points. A. N. Kozlova	129	78
The Effect of Crystal Structure on the Photoelectric Properties of Thin Cadmium Sulfide Layers. K. V. Shalimova, L. P. Pavlov, and I. A. Karetnikov	132	80
The Effect of the Conditions of Preparing Thin Zinc Telluride Films on Their Electrical Properties. K. V. Shalimova, I. Spynulesku, and N. V. Pirogova	136	83
Investigation of the Piezoelectric Constants of Polycrystalline Ferroelectrics of the Barium Titanate Type. M. M. Nekrasov and A. V. Samoilov	142	87
The Formation of a Low-Melting Interlayer Which Initiates the Contact Melting of Alkali Halide Crystals. G. F. Valderov and V. Ya. Zienko	149	91
Ordering Processes and Activation Energy in Ni ₃ Fe-Based Ternary Alloys. N. A. Koneva, A. D. Korotaev, and M. A. P'ishanina	154	94
A Nonideal Bose Gas at Finite Temperatures. V. I. Klyatskin	163	100
Effect of Quenching Temperature on Magnetization and Cation Distribution in Magnesium Based UHF Ferrites. E. L. Bartashevskii, F. I. Kolomoitsev, and D. S. Sivtsev	171	105
Brief Communications		
Theory of the Pseudopotential. A. S. Poplavnoi	180	111
Distribution of Photosensitivity in Selenium Specimens Having Anomalous Photoconductivity. G. D. Mokhov, V. N. Barykina, and V. A. Bazakutsa	182	112
Systematics of α -Decay Energies and the α -Stability of Nuclei. N. N. Kolesnikov and A. P. Krylova	183	113
The Effect of Constant and Alternating Magnetizing Fields on the Hysteresis Loop of Permalloy Ferrites. L. I. Koshkin and Yu. P. Strygin	186	116
The Generation of Dislocations in the Region of an Indenter Impression and a Scratch in KBr Crystals. N. A. Toropov and Yu. P. Udalov	187	117
Storage of a Light Sum in LiH Phosphor. B. V. Shul'gin, F. F. Gavrilov, and V. V. Sazykin	189	119
The Effect of γ -Radiation on the Microhardness of Silicon. M. A. Krivov, G. I. Potakhova, and L. P. Rybkina	190	120
Internal Stress Fields in Deformed Silicon Iron Crystals. V. F. Novikov and D. D. Mishin	191	121
The Mechanism of Steel Surface Destruction by Free-Striking Abrasive Grains. V. N. Kashcheev	193	122

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Soviet Physics Journal

The Faraday Press
cover-to-cover translation of *Izvestiya VUZ. Fizika*

Contents

Volume 9 Number 2 March-April 1966

Editorial Board

Izvestiya VUZ. Fizika

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Effect of Dipole-Dipole Intermolecular Forces on the Vibrational Spectra of Organic Compounds. IV. Studies of Raman linewidths of monosubstituted benzene in the low-frequency region. A. V. Sechkarev and N. I. Dvorovenko	7	1
The Diffraction of Electromagnetic Waves at a Surface Impedance Discontinuity in a Coaxial Waveguide. M. S. Bobrovnikov	11	4
A Semiclassical Theory of the Laser. A. K. Popov	16	7
Interaction of Light Hypernuclei with Nuclei. N. N. Kolesnikov and R. V. Vedrinskii	26	12
Systematics of Beta-Decay Energies and the Properties of the Nuclear Energy Surface. N. N. Kolesnikov and A. P. Krylova	31	18
Effect of Heat Treatment Conditions on the Conductivity of Magnesium Base, SHF-Ferrites. E. L. Bartashevskii and P. I. Kolomoitsev	43	25
Temperature Dependence of the Piezoelectric Effect in Selenium Rectifier Elements. A. V. Shibaeva	51	30
The Theory of Equilibrium Antiphase Boundaries in Ordered Solid Solutions of the AuCu ₃ Type. L. E. Popov, E. V. Kozlov, and N. S. Golosov	55	33
Some Regularities in the Physical Properties of the Transition Metals. G. V. Samsonov and V. N. Paderno	64	38
Voltage Transient Duration in a P-N Junction at High Injection Levels. Yu. V. Lisyuk	68	42
Effect of Nonlinearity of the Elastic Force on the Motion in a Parametrically Excited System. V. I. Lavashkin and A. S. Petrov	72	45
Austenite Hardening during Forward and Reverse Martensitic Transformation. V. G. Gorbach and E. A. Ismailov	78	49
Properties of Nonautonomous Classical Systems and Quantum Mechanics. Ya. S. Mavrychev	83	52

(continued)

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IZVESTIYA VUZ. FIZIKA
Vol 9, No 2, March-April, 1966

	Russian page	English page
Magnetic Neutron Counters. U. Kh. Kopylov and B. M. Khabibullin	87	85
The Electrostriction of Dielectrics. A. S. Bogdanovich, N. P. Kalabukhov, M. M. Nekrasov, Yu. A. Sikorskii, and V. G. Chepurenskiy	92	58
Decomposition of the Solid Solution of Germanium in Aluminum in the Al-4% Ge Alloy. M. I. Zakharova and Yu. A. Tuman'yan	98	63
Temperature Studies of Co-Ferrite Magnetostriction. V. V. Zubov	103	67
Thermal Expansion of Ni ₃ Al-Ni ₃ Nb Alloys. M. P. Arbutov and V. G. Chuprina	106	70
Electron Scattering by a Short-Range Potential in a Constant Homogeneous Magnetic Field. I. M. Ternov, V. G. Bagrov, and R. A. Rzaev	111	74
Analysis of Transition Processes in Semiconductor Diodes Using Charge Formula. V. I. Gaman	119	79
On the Motion of a Charged Particle in a Helical Magnetic Field. M. M. Khapaev	123	81
The Theory of Universal Weak Interactions and Intermediate Bosons. V. I. Kushtan	128	84
Electrical Properties of Polycrystalline Films of Zinc Selenide, Cubic Modification. K. V. Shalimova, I. Dima, and N. V. Pirogova	133	87
Dielectric Polarization of Bismuth Titanate, Bi ₂ O ₃ · 3TiO ₂ . A. N. Gal'kin and A. M. Kashtanova	137	90
Effect of the Microstructure Parameters of Moisture Droplet Clouds and Mists on their Spectral Transparency in the 0.5 to 14.0 μ Wavelength Range. V. E. Zuev and S. D. Tvorogov	143	95
Brief Communications		
Temperature Autostabilization of BaTiO ₃ -SnO ₂ Ferroelectric Ceramics. O. K. Zhukov and S. D. Milovidova	151	101
Free Energy and Lattice Energy in Real Ionic Crystals. A. A. Vorob'ev	153	102
Effects of Gamma Radiation on the Electrical Properties of Single Crystals. E. K. Zavadovskaya and V. A. Chernyshev	155	103
Temperature Changes in the Internal Friction of Alkali-Halide Crystals. A. A. Botaki	157	106
Hall Effect in Circular Specimens. V. L. Kon'kov	159	107
Hall Effect in Two-Layer Semiconductor Specimens. V. L. Kon'kov	161	108
The Effect of Ultraviolet Light on the Quantum Yield of the Internal Photoelectric Effect in AgBr Single Crystals. K. N. Loskutov	163	109
Tangential Force and Surface Microstructure in High-Speed Polishing. G. D. Polozatkin, G. S. Igonin, and I. A. Solomein	164	110
Electrical Properties of Ti ₂ Te ₃ . F. I. Akhmedova and L. E. Piragas	167	111
Measurement of the Thermal Characteristics of Ferrites. E. P. Naiden and G. A. Red'kin	168	112
Some Experiments with Centimeter Waves. B. Sh. Perkal'skii and V. L. Larin	170	113
A Method of Deriving the Law of Universal Gravitation from Kepler's Laws. Yu. K. Gulak	171	114
Kinetics of Natural Aging of Al-Cu and Al-Cu-Mg Alloys. Yu. I. Paskal' and K. V. Savitskii	173	115
The Method of Iteration in Multiple Scattering. A. G. Borovoi	175	117
The Temperature Dependence of Resistance of Sintered ZrO ₂ with an Admixture of Cu ₂ O. N. A. Derebrya	177	118

Available From The Faraday Press

SPACE BIOLOGY AND MEDICINE

Vol. 2, No. 2, 1968

-USSR-

Following is a complete translation of the Russian-language periodical Kosmicheskaya Biologiya i Meditsina (English version above), Vol. 2, No. 2, Moscow, 1968, Meditsina Publishing House, pages 1-93. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
Radiation Danger During Long Space Flights and Radiobiological Research (Ye. I. Vorob'yev, et al.).....	3	1
Some Results of a Medical-Biological Experiment on the Biological Satellite <u>Kosmos 110</u> (V. V. Parin, et al.).....	7	6
Quantitative Evaluation of the Cardiovascular System in Animals During Long-Term Orbital Flight (Yu. G. Nefedov, et al.).....	14	17
Feeding Test Animals During Space Flights (K. V. Smirnov, et al.).....	23	28

(Contd)

Available from JPRS 45798

CONTENTS (Cont'd)

	<u>Page</u>	
	Source	Report
Functional State of the Blood Coagulation System in Dogs After a 22-Day Flight on the <u>Kosmos 110</u> Artificial Earth Satellite (O. D. Anashkin).....	26	33
Effect of High Oxygen Concentrations on the Animal Body (N. A. Agadzhanian, et al.).....	30	40
Clinical and Morphological Characteristics of Hemodynamic Peculiarities in the Eye Vascular System of Test Animals Exposed to Accelerations (E. S. Kotova, et al.).....	38	52
A Method for Extracting Metabolites From <u>Chlorella</u> Culture Media (V. V. Shaydorova, et al.).....	43	61
Urea Decomposition by Urease (M. I. Belyakova, et al.).....	48	68
Quantitative and Qualitative Distribution of Bone Marrow in Adult Dogs (P. A. Korzhuyev, et al.).....	51	73
A Miniature Telemetric Device for Electro-myogram Transmission (T. S. Chernyakova, et al.).....	55	80
Effect of Long-Term Hypokinesia on the Human Body and The Hypokinetic Component of Weightlessness (L. I. Makurin).....	59	85
Variation in the Dynamics of Performance of Some Human Physiological Systems During Prolonged Confinement in a Small Chamber (B. A. Dushkov, et al.).....	64	92
Noise Immunity in Human Psychic Activity (V. V. Suvorova, et al.).....	70	102

(Contd)

Available from JPRS 45798

CONTENTS (Cont'd)

	<u>Page</u>	
	Source	Report
Role of the Vestibular Analyzer in Man's Spatial Orientation During Weightlessness in Aircraft Flights (V. I. Lebedev, et al.).....	76	112
Space Medicine and Biology Problems Dis- cussed at the Eighteenth Congress of the International Astronautical Federation (N. A. Agadzharan).....	80	117
Work of the Section on Aviation and Space Medicine of the Moscow Physiological Society in 1967 (I. M. Khazen, et al.).....	84	126
The Possibility of Survival of Terrestrial Organisms Under "Martian" Conditions (A Review of the Foreign Literature) (V. L. Levin, et al.).....	87	131
Plenary Session of the Section on Aviation and Space Medicine of the Moscow Physio- logical Society Dedicated to the Fiftieth Anniversary of the October Revolution (G. A. Davydov).....	90	138

Available from JPRS 45798

SPACE BIOLOGY AND MEDICINE

Vol. 2, No. 3, 1968

-USSR-

Following is a complete translation of the Russian-language periodical Kosmicheskaya Biologiya i Meditsina (English version above), Vol. 2, No. 3, Moscow, 1968, Meditsina Publishing House, pages 1-94. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
Psychomotor Reactions in Monkeys During Flights in a Ballistic Curve (R. Grandpierre).....	3	1
Effect of Amobarbital Sodium and the Somatotrophic Syndrome on Mice During Prolonged Hypokinesia (L. A. Kravchuk, et al.).....	7	8
Effect of Hyperoxia on the Heart and Lungs of White Rats (A. R. Mansurov, et al.).....	12	16
Stabilization of the Concentration of Mineral Nutrition Elements in a Medium During Prolonged Chlorella Cultivation With Recovery of the Medium (Ye. K. Lebedeva, et al.).....	16	22
Study of the Oxidative-Catalytic Method for Mineralization of Wastes in a Closed Ecological System (S. V. Chizhov, et al.).....	23	32

(Contd)

Available from JPRS 46456

KOSMICHESKAYA BIOLOGIYA I MEDITSINA
Vol 2, No 3, 1968

Contents (Cont'd)

	<u>Page</u>
Source	Report
Mathematical Model of a Life Support System (V. A. Darg, et al.).....	28 40
Dynamics of Orthostatic Tolerance of Athletes After Forty-Day Hypokinesia (A. V. Korobkov, et al.).....	33 48
Dynamics of Daily Diuresis, Creatinine Excretion and Mean Thickness of the Fatty Skin Layer in Athletes Subjected to Prolonged Hypokinesia (A. A. Korobova, et al.).....	40 58
Effect of Prolonged Bedrest on Muscle Tone and Proprioceptive Reflexes in Man (M. A. Cherepakhin).....	43 64
Effect of Hypokinesia on Human Circulation (V. S. Georgiyevskiy, et al.).....	48 73
Neurological Changes in Healthy Subjects Induced by Two-Month Hypokinesia (Yu. N. Furakhin, et al.).....	51 79
Arterial Tone in Relation to Restricted Muscular Activity (N. Ye. Panferova, et al.).....	56 86
The Concept "Personality and Environment" in Experimental Space Psychoneurology (O. N. Kuznetsov).....	62 96
Mechanisms of the Effect of Strong Light Stimuli on the Optic Analyzer (V. I. Snostak).....	70 111
Human Limits of Tolerance to Infrared Radiation During Local Irradiation (I. I. Dedenko, et al.).....	73 117
Effect of Plant Diets, Including the Biomass of Unicellular Algae, on the Balance and Excretion of Mineral Elements (Ye. I. Pokrovskaya, et al.).....	78 124 (Contd)

Available from JPRS 46456

KOSMICHESKAYA BIOLOGIYA I MEDITSINA
Vol 2, No 3, 1968

Contents (Cont'd)

	<u>Page</u>	
	<u>Source</u>	<u>Report</u>
Evaporation Under Low Atmospheric Pressure Conditions (I. N. Chernyakov, et al.).....	81	129
Variation Pulsograms and Indices of the Function of External Respiration During Exposure of Man to Acute Hypoxia (I. R. Kalinichenko, et al.).....	87	137
Review of Handbook on Space Biology and Medicine (G. I. Gurvich).....	91	143
Book Review: Psychophysiology of Work on Spaceships (Ye. S. Zav'yalov).....	93	147
Available from JPRS 46456		

SPACE BIOLOGY AND MEDICINE

Vol. 2, No. 4, 1968

-USSR-

Following is a complete translation of the Russian-language periodical *Kosmicheskaya Biologiya i Meditsina* (English version above), Vol. 2, No. 4, Moscow, 1968, Meditsina Publishing House, pages 3-93. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
Fifty Years of Soviet Public Health and the Development of Soviet Aviation and Space Medicine (A. I. Burnazyan, et al.).....	3	1
Determination of the Limits of Human Tolerance to Thermal Stresses Review of the Literature (Ye. I. Kuznets, et al.).....	11	14
Change in the Content of Dry Mat- ter, Sugars and Ascorbic Acid in Plants After Exposure of Their Seeds to Spaceflight Factors (I. V. Nikitina, et al.).....	18	26 (Contd)

Available from JPRS 46930

CONTENTS (Cont'd)

	<u>Page</u>
	Source Report
Changes in Enzymatic Activity of Cellular and Subcellular Structures in Response to Accelerations (A. S. Barer, et al.).....	21 32
Significance of Typological Peculiarities of the Nervous System in Animal Sensitivity to Accelerations (N. N. Uglova).....	26 41
Effect of Transverse Accelerations on Secretory Activity in the Gastrointestinal Tract of Dogs (K. V. Smirnov, et al.).....	29 47
Effect of Two-Week Hypokinesia on the Cardiovascular Responses of Dogs During Orthostatic Tests and Exposure to Transverse Accelerations (B. F. Asymaolov and A. D. Voskresenskiy).....	33 55
Animal Tolerance to Impact Accelerations as Evaluated Using Enzymatic Blood Tests (Ye. Ye. Simonov and V. A. Korzhen'yants).....	38 64
Glycolysis Rate and Lactic Acid Content in the Myocardium of Rats During Their Adaptation to Hypoxia (I. V. Khavkina).....	41 71
Comparative Toxicological Characteristics of Regenerable Carbon Dioxide Absorbers (K. K. Sidorov, et al.).....	44 76
Application of Heat Treatment in an Inert Gas Medium for Upgrading Elastic Foam Polyurethane for Reducing the Emanation of Gaseous Toxic Products (V. D. Yablochkin and A.M.Popov).....	49 85 (Contd)

Available from JPRS 46930

KOSMICHESKAYA BIOLOGIYA I MEDITSINA
Vol 2, No 4, 1968

<u>CONTENTS (Cont'd)</u>	<u>Page</u>	
	Source	Report
Characteristics of Thermal Mineraliza- tion of Biocomplex Wastes in Re- stricted Spaces (B. G. Gusarov, et al.).....	51	89
Principles of Medical Control During Long-Term Spaceflights (V. V. Parin, et al.).....	57	99
Some Neurological Problems in Space Medicine (A. G. Panov and V. S. Lobzin).....	59	103
Unidirectional Changes in the Human Oxygen Balance Caused by Bed Confinement and Restriction to an Isolation Chamber (L. R. Iseyev and B. S. Katkovskiy).....	67	117
Dynamics of Elimination of Some Metabolic Products by Subjects Wearing Insulated Suits (S. M. Gorodinskiy, et al.).....	72	125
Systems for Processing Physiological Data in Space Research (A. P. Kalinovskiy).....	76	132
Daily Dynamics of Some Physiological Functions and Human Work Capacity in Isolation (A. N. Litsov).....	83	142
Review of a New Book on Space Physiology (F. P. Kosmolinskiy).....	87	149
Sleep Under Spaceflight Conditions (T. N. Krupina and V. I. Myasnikov).....	91	157
Available from JPRS 46930		

SPACE BIOLOGY AND MEDICINE

Vol. 2, No. 6, 1968

-USSR-

Following is a complete translation of the Russian-language periodical Kosmicheskaya Biologiya i Meditsina (English version above), Vol. 2, No. 6, Moscow, 1968, Meditsina Publishing House, pages 3-96. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
Catastrophe in the Apollo Spaceship Cabin and Measures for Increasing Prevention of Fires and Explosions During Space Flights (I. M. Abduragimov and S. A. Yantovskiy).....	3	1
Physicochemical Synthesis of Monosaccharides from the Products of Human Vital Functions (Yu. Ye. Sinyak).....	9	9
Combined Effect of Spaceflight Factors on the "Kosmos-110" Artificial Earth Satellite on Plants (D. F. Gertsuskiy et al.).....	17	21
		(Contd)

Available from JPRS 47582

KOSMICHESKAYA BIOLOGIYA I MEDITSINA
Vol 2, No 6, 1968

CONTENTS (Cont'd)

	<u>Page</u>	
	Source	Report
Impairment of Cell Division in Bone Marrow of Rats Irradiated by 50-MeV Protons (R. D. Govorun).....	21	29
Effect of a Simulated Martian Environment on Certain Enzymes (Ye. V. Belikova, et al.).....	25	36
Immunological and Histochemical Study of Reactivity of Mice Exposed to a Hyperoxic Atmosphere (A. S. Kaplanskiy, et al.).....	31	46
Effect of High Oxygen Concentrations on Conditioned Reflex Activity and Bioelectric Activity of Some Cortical Regions and Subcortical Formations in Rabbits (N. A. Agadzhanian, et al.).....	35	53
Effect of Diets Containing Unicellular Algae on Metabolism Recovery in Protein-Deficient White Rats (N. S. Klyushkina, et al.).....	42	63
Theoretical Approaches to the Selection of Physiological Parameters for Medical Monitoring During Manned Space Flight (Yu. G. Nefedov, et al.).....	47	71
Coordination Structure of Man's Voluntary Movements of Different Complexity on a Keplerian Flight Trajectory (I. F. Cnekirda).....	55	85
Effect of Age, Occupation and Physical Training on Human Tolerance to Long-Term Accelerations (P. M. Suvorov).....	62	96
Time Perception During Brief Weightlessness (V. I. Lebedev, et al.).....	67	104
Human Tolerance to Accelerations at Reduced Barometric Pressure (A. S. Barer, et al.).....	71	111
Some Indices of State of the Cardiovascular System in Healthy Persons (M. L. Kolomiyeveskiy).....	77	120
		(Contd)

Available from JPRS 47582

KOSMICHESKAYA BIOLOGIYA I MEDITSINA
Vol 2, No 6, 1968

CONTENTS (Cont'd)

	<u>Page</u>	
	Source	Report
Changes in Myocardial Repolarization in Healthy Persons During Restriction of Motor Activity (B. A. Korolev).....	81	127
Symposium on Motion Sickness (A. I. Onufrash).....	85	135

Available from JPRS 47582

SPACE BIOLOGY AND MEDICINE

Vol. 3, No. 1, 1969

- USSR -

Following is a complete translation of the Russian-language periodical Kosmicheskaya Biologiya i Meditsina (English version above), Vol. 3, No. 1, Moscow, 1969, Meditsina Publishing House, pages 3-110. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
Scientific Work on the Motor Regime as an Important Basis for the Psychophysiological Training of a Cosmonaut (A. V. Korobkov).....	3	1
Year-Long Medical and Engineering Experiment in a Ground Life- Support System (A. I. Burnazyan et al.).....	9	11
Problems in Space Pharmacology (V. V. Parin et al.).....	20	27

(Contd)

Available from JPRS 48042

CONTENTS (Cont'd)

	<u>Page</u>	
	Source	Report
Circadian Rhythms and Their Importance for Space Biology and Medicine (G. K. Mikushkin).....	32	48
Hypothalamic Neurosecretion and Suprarenal Conditions of Rats Under High-Mountain Conditions (E. S. Gul'yants and V. I. Gonikman).....	40	61
Changes in Striated Muscle Fibers of Mice Under Restrained Condi- tions (V. V. Portugalov and K. D. Rokhlenko).....	45	70
Effect of Long-Term Physical Re- striction of an Animal on Some Body Functions (A. B. Kogan et al.).....	52	80
Changes in Calcium Metabolism in Rats During Hypokinesia (B. B. Yegorov et al.).....	55	85
Possibility of Using Sweet Potatoes as a Basic Source of Carbohydrates in Human Nutrition During Space- flights (V. P. Dadykin and T. I. Nikishanova).....	59	92
Production of Chlorella Biomass with a Higher Content of Sulfur Containing Amino Acids and Evalua- tion of its Nutritive Value (N. N. Verzilin et al.).....	63	100
Bactericidal Effect of Silvered Activated Charcoals and Ion- Exchange Resins (S. V. Chizhov et al.).....	68	109
		(Contd)

Available from JPRS 48042

KOSMICHESKAYA BIOLOGIYA I MEDITSINA
Vol 3, No 1, 1969

CONTENTS (Cont'd)

	<u>Page</u>	
		Source Report
Decompression Problems in Space Medicine (I. M. Khazen).....	72	117
Effect of High-Mountain Acclimat- ization of Body Tolerance to Ex- posure to Environmental Factors (P. I. Yegorov et al.).....	80	131
Characteristics of Human Metabolism During 120-Day Nutrition with Dehydrated Diets (V. P. Bychkov).....	84	139
Effect of Hypokinesia, Acceleration and Reduced Nutrition on the State of the Blood-Coagulation System in Man (O. D. Anashkin).....	89	143
Blood Circulation in Cerebral and Surface Vessels of the Human Head Under the Influence of Accelerations (A. S. Barer and V. B. Zubavin).....	95	157
Gas Chromatographic Determination of Volatile Substances Containing Oxygen in Fluid Biological Media (Yu. V. Pepelyayev et al.).....	99	165
Effect of Simultaneous Exposure to Hypoxic Hypoxia and High Ambient Temperature on Human Heat Exchange (A. N. Azhayev).....	104	175
Eleventh Annual COSPAR Session (Yu. G. Grigor'yev et al.).....	107	180

Available from JPRS 48042

KRISTALLOGRAFIYA
EDITORIAL BOARD
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Soviet Physics CRYSTALLOGRAPHY

A Translation of "Kristallografiya"

(Russian Original Vol. 13, No. 5, pp. 751-952, September-October, 1968)

Vol. 13, No. 5, pp. 663-832

March-April, 1969

CONTENTS

		PAGE	RUSS. PAGE
Calculation of Collimation Distortion in Small Angle X-Ray Scattering. Correction for Slit Height. <u>B. A. Fedorov</u>	(T)	663	763
Calculation of Collimation Distortion in Small Angle X-Ray Scattering. A Computer Program for Verifying the Theory. <u>B. A. Fedorov</u> , <u>N. A. Andreeva</u> , <u>L. A. Volkova</u> , and <u>L. A. Voronin</u>	(T/E)	668	770
The Logical Selection of Reflections for the Determination of Cell Parameters in Hexagonal and Tetragonal Crystals. <u>V. V. Zubenko</u>	(T)	673	776
Crystal Structure of the Compound $Nb_2Cr_3Si_5$ (The Theta Phase of the Niobium-Chromium-Silicon System). <u>P. I. Kripyakevich</u> , <u>Ya. P. Yarmolyuk</u> , and <u>E. I. Gladyshevskii</u>	(E)	677	781
The Crystal and Molecular Structure of Hexaiodobenzene. <u>T. L. Khotsyanova</u> and <u>V. I. Smirnova</u>	(E)	682	787
X-Ray and Electron Diffraction Investigations of the Atomic Structure of Ferroelectric $KNbO_3$. <u>Yu. Ya. Tomashpol'skii</u> and <u>Yu. N. Venevtsev</u> . . .	(E)	685	791
Structure and Properties of Copper Selenide Thin Films. <u>R. N. Kurdyumova</u> . Crystal Structure Determination by Electron Diffraction of the Hexagonal β'' Phase in the Cu-Te System. <u>R. V. Baranova</u>	(E)	689	796
The Origin of Satellites in the Reciprocal Lattice of Cymrite. <u>V. A. Drits</u> and <u>A. A. Kashaev</u>	(E/T)	690	803
Position of Protons and Diffusion of Water Molecules in Apophyllite. <u>V. F. Ivlev</u> , <u>N. I. Zavarzina</u> , and <u>S. P. Gabuda</u>	(E)	700	809
Optical Investigations of Crystals of Solid Solutions of Triglycine Sulfate with Isomorphous Compounds. <u>B. Brezina</u> , <u>E. K. Galanov</u> , <u>N. R. Ivanov</u> , <u>L. D. Kislovskii</u> , and <u>L. A. Shuvalov</u>	(E)	705	815
Anomalous Behavior of the Permittivity of RbDP Crystals below the Curie Point. <u>Z. Malek</u> , <u>L. A. Shuvalov</u> , <u>I. Fiala</u> , and <u>Ya. Shtraiblova</u>	(E)	710	821
The Effect of Alloying Additions on the Creep of Gallium Arsenide Single Crystals. <u>V. B. Osvenskii</u> , <u>M. G. Mil'vidskii</u> , and <u>O. G. Stolyarov</u>	(E)	713	825
Kinetics of the Etching of Dislocations in Sodium Chloride Crystals. <u>G. K. Baranova</u> and <u>E. M. Nadgornyi</u>	(E)	718	931
The Nature and Properties of Color Centers Formed during the Plastic Deformation of Irradiated KCl Crystals. <u>I. A. El-Shanshoury</u>	(E)	722	836
		728	842

(Contd)

Available from the American Institute of Physics
Vol 13, No 5, Mar-Apr 1969

	PAGE	RUSS. PAGE
Determining the Activation Energy of Formation of Smoky Centers in Synthetic Quartz Containing Aluminum. <u>M. I. Sanoilevich, L. I. Tsinober, V. E. Khadzi, and M. V. Lelekova.</u>	(E) 734	850
Formation of Na(K) Germanates and Zinc Germanates under Hydrothermal Conditions. <u>I. P. Kuz'mina.</u>	(E) 737	854
Crystallization of Cadmium Tungstate in the $CdWO_4$-LiCl-H₂O System. <u>L. N. Dem'yanets.</u>	(E) 741	859
The Distribution of Traces of Neodymium and Chromium in Yttrium Aluminum Garnet Crystals Grown from High-Temperature Solutions. <u>V. A. Timofeeva, N. I. Luk'yanova, I. N. Guseva, and V. V. Lider.</u>	(E) 747	866
Impurity Distribution during the Crystallization of KI and KF. <u>G. A. Andreev</u> Kinetics and Mechanism of the Growth of Gallium Crystals. <u>V. T. Borisov, I. N. Golikov, and Yu. E. Matveev.</u>	(E) 752	872
Crystallization of Metals and Alloys in the Suspended State. <u>A. A. Fogel', T. A. Sidorova, Z. A. Guts, M. M. Mezdrogina, and I. V. Korkin.</u>	(E) 756	876
BRIEF COMMUNICATIONS		
Calculating the Tensor of the Derivative of the Characteristic Temperature with Respect to the Deformations for Naphthalene. <u>A. I. Kitaigorodskii and É. I. Mukhtarov.</u>	(T) 766	889
Application of Sign Relationships in a Study of the Crystal Structure of Liroconite. <u>R. V. Kolesova, G. P. Zhavoronko and E. G. Fesenko.</u>	(T) 768	890
Electron Diffraction Investigation of Sodium Fluoride. <u>A. F. Margolina and A. G. Buntar'.</u>	(E) 770	892
Determination of the Mean-Square Amplitudes of the Displacements of the Atoms of the Separate Sublattices in Ferrites with the Spinel and Garnet Structures. <u>D. M. Mazo.</u>	(E) 773	895
Optical Constants of SbSI Single Crystals. <u>E. I. Gerzanich, I. A. Bryzgalov, A. D. Rakcheev, and V. A. Lyakhovitskaya.</u>	(E) 776	898
Laser Action in Cubic $5NaF \cdot 9YF_3 - Nd^{3+}$ Crystals. <u>Kh. S. Bagdasarov, A. A. Kaminskii, and B. P. Sobolev.</u>	(E) 779	900
Temperature Range for Existence of Metastable Phases in a Potassium Ferrocyanide Crystal. <u>V. A. Koptsik, A. Ya. Krasnikova, and B. A. Strukov.</u>	(E) 781	901
Low-Frequency Dispersion of $BaTiO_3$ Single Crystals in a Strong Electric Field. <u>E. V. Sinyakov and E. F. Dudnik.</u>	(E) 783	903
Crystallographic Data For Hydrated Lanthanide Chlorides. <u>V. I. Ivanov.</u>	(E) 786	905
Influence of an Electric Field on Plastic Flow of Rock-Salt Crystals. <u>N. V. Zagoruiko and E. D. Shchukin.</u>	(E) 789	908
X-Ray Diffraction Investigation of Defects in Triglycin Sulfate Crystals. <u>V. F. Miuskov, V. P. Konstantinova, and A. I. Gusev.</u>	(E) 791	909
Solubility of Hydrosodalite in Aqueous Solutions of NaOH in the Range 200-300°C. <u>L. N. Dem'yanets, E. N. Fmel'yanova, and O. K. Mel'nikov.</u>	(E) 795	913
The Growth and Optical Properties of $Bi_{12}SiO_{20}$ Single Crystals. <u>A. I. Safonov, S. A. Baryshev, T. I. Nikiforova, G. N. Antonov, and S. A. Fedulov.</u>	(E) 797	914
A Technique for Growing Multilayer Epitaxial Systems. <u>A. V. Kovda.</u>	(E) 798	915
Thermal Factors in the Growth of Epitaxial Semiconductor Layers from the Melt. <u>Yu. B. Bolkhovityanov.</u>	(T) 801	918
Crystallization Kinetics of Zincite under Hydrothermal Conditions. <u>I. P. Kuz'mina.</u>	(E) 803	926
Influence of Certain Impurities in the Reagents on the Growth of Potassium Chloride Crystals. <u>Yu. O. Punin and T. G. Petrov.</u>	(E) 806	922

(Contd)

Available from the American Institute of Physics
Vol 13, No 5, Mar-Apr 1969

KRISTALLOGRAFIYA
Vol 13, No 5, Sept-Oct 1968

			RUSS.
		PAGE	PAGE
The Growth of Single Crystals of Ammonia. <u>A. I. Prokhvatilov</u>	(E)	808	924
REVIEWS			
The Range of Generalized Crystallography. <u>J. D. Bernal and C. H. Carlisle</u> . .	(R)	811	927

Available from the American Institute of Physics
Vol 13, No 5, Mar-Apr 1969

LARUS
No 15, 1961

	Page
Ljubica Stromar:	
Bird Banding in '960. I. Results of the Bird Banding Carried out by the Ornithological Department of the Biology Institute of Zagreb University, 14th Report; 2. Foreign Recoveries Made in Yugoslavia, 9th Report	5
Radivoje Jovetić:	
The Life of the White Stork, <i>Ciconia ciconia</i> , in Macedonia	23
László Szlivka:	
A Study of the Avifauna of Obedska Bara and its Environs. A Contribution to the Study of the Avifauna of Vojvodina	77
Dragutin Ruđer:	
A Supplement to the Study of the Avifauna of the Lower Neretva	103
Jože Jošt:	
Great Spotted Cuckoo, <i>Clamator glandarius</i> , in Hercegovina	107
Antun Cvitanić:	
Pine Bunting, <i>Emberiza leucocephala</i> , in Yugoslavia	109
Jozsef Mikuska:	
A Ruddy Shelduck, <i>Casearca ferruginea</i> , in Vojvodina	111
František Balát:	
Remarks on the Vocal Performance of Some Bulgarian Birds	113
Hans Stadler:	
The Voice of <i>Sylvia sarda</i>	117
Helmut Dehmüt:	
Springtime Ornithologic Observations on the Island of Krk	119
	(Contd)
Available From CFSTI TT 67-58043	

LARUS
No 15, 1961

Antun Cvitančić:	
Ornithological Notes from Middle Dalmatia	125
Ivan Tutman:	
Ornithological Notes from the Environs of Zavalá	151
Dragutin Rucner:	
Contribution to the Study of Hybrids of the Family <i>Anatidae</i> Found in Yugoslavia	155
Antun Cvitančić:	
Bill Anomalies Observed in the Split Area	167
Dragutin Samardžić:	
Contribution to the Study of the Biology of the Jay, <i>Garrulus</i> <i>glandarius</i> , in the Banja Luka Area	171
Notes:	
Ornithological Notes from the Dinara and Sator-Planina Mountains — This Year's Drought and Game — Waxwing, <i>Bombycilla garrulus</i> , in Croatia in Early 1962 — A Swallow, <i>Hirundo rustica</i> , Nest on a Window-pane — Collared Turtle Doves, <i>Streptopelia decaocto</i> , Nesting in an Attic and on a Verandah — Constant Clutch Size in a Starling's (<i>Sturnus</i> <i>vulgaris</i>) Nest — Woodcocks (<i>Scolopax rusticola</i>) Nesting in Vojvodina — Death of a Hedge Sparrow (<i>Prunella modularis</i>) on a Thistle — Blind Sand Martins (<i>Riparia riparia</i>) — Red- backed Shrike (<i>Lanius collurio</i>) Nesting on the Ground — The Olivaceous Warbler (<i>Hippolais pallida</i>) is No Longer a Nester in Bačka Topola and Mali Idjoš — A Collared Turtle Dove (<i>Streptopelia decaocto</i>) Nest on a TV Antenna — Reap- pearance of the Ortolan Bunting (<i>Emberiza hortulana</i>) on Fruška Gora Mountain — Lengthened Seasons and their Effects on the Migration of Birds in the Environs of Split — Observations on the Wall Creeper (<i>Tichodroma muraria</i>) in Zagreb — The White Stork (<i>Ciconia ciconia</i>) is Becoming Scarce on Ludaško Jezero Lake — A Kestrel (<i>Falco tinnun-</i> <i>culus</i>) Fishing — Nesters and Strays on the Ponds in the Immediate Vicinity of the Pakračka Poljana Breeding-grounds — The Distribution of the Collared Turtle Dove (<i>Streptopelia</i> <i>decaocto</i>) in Slavonia	177

Available From CFSTI TT 67-58043

LIJEČNICKI VJESNIK
Vol 90, No 7, 1968

	Page
<i>E. Hauptmann:</i>	
The Principles of Modern Medical Education	1
<i>Z. Maretić and B. Vrtar:</i>	
Mycetismus in Istria	8
<i>A. Uglešić:</i>	
A Contribution to Diagnosis of Incipient Congestive Heart Failure Using Venous Pressure	17
<i>Z. Horvat:</i>	
Peripheral Blood LE Cells in Systemic Lupus Erythematosus . . .	23
<i>A. Sabolić and V. Nutrizio:</i>	
The Incomplete Pulmonary Infarct	30
<i>Z. Brala, M. Stulhofer, H. Fabijanić and I. Palčić:</i>	
Endovenous Electrocoagulation in the Surgical Treatment of Lower Limb Varicosities	38
<i>J. Krmpotić-Nemanić, A. Budak-Morović, P. Keros and M. Pečina:</i>	
The Need to Introduce Medical Undergraduates to Research Work .	42

Available from CFSTI TT 68-50051/7

MEDYCYNĄ DOŚWIADCZALNĄ I MIKROBIOLOGIĄ
Vol 20, No 4, 1968

A. Ganczarski, J. Mikucki, J. Szarapińska-Kwaszewska, Z. Krzemieński: Studies on the activity of aminotransferases in the synthesis of aspartic acid in <i>Staphylococcus aureus</i> sensitive and resistant to antibiotics .	331
Z. Sporyńska, F. Rabczyńska: Application of passive hemagglutination method for the determination of diphtheria and tetanus antibodies. II. Applicability of hemagglutination test for investigation of immunogenic properties of toxoids	337
D. Rymkiewicz: Studies on type F <i>Clostridium botulinum</i> . III. Antigenic and immunogenic properties of the toxoid	348
J. Mierzejewski: The effect of botulinum toxin on phagocytic activity of leukocytes	355
E. Szulkin, K. Krawczyński: Laboratory evaluation of the properties of various BCG substrains used for vaccine production	363
M. Gniazdowski, B. Filipowicz: Investigations on the composition of ribonucleic acids isolated from growing and mature yeasts	372
E. Mikołajczyk, C. Frygja: The evaluation of passive hemagglutination test in serological diagnosis of typhus fever	377
B. Marw: Studies on the reactivation in the <i>Poxvirus</i> group. II. Multiplicity reactivation of vaccinia virus	387
L. Jabłoński, D. Grzybek: The effect of temperature on the variability of ECHO 6 virus	394
I. Polna, R. Chodryński: Viability and growth of various cell cultures stored at low temperature	402

Available From CFSTI TT 68-50004/4

METEOROLOGY AND HYDROLOGY

No 8, 1968

- USSR -

This publication comprises the translation (with the exception of five articles) of the Russian-language periodical Metecrologiya i gidrologiya (English version above), No 8, Moscow, Hydrometeorological Press, August 1968, pages 3-122. Author's name and original source page accompany each article.

CONTENTS	Page	
	Source	Report
Institute of Experimental Meteorology	3	1
Calculation of Ground-level Turbulent Flows According to Synoptic Information	10	12
Objective Method of Analog Selection With Composite Kinematic Maps of Natural Synoptic Periods by Means of Electronic Computers	20	25
The Problem of Wind Conditions in the Global Boundary Atmospheric Layer	29	36
Statistical Analysis of Distribution of Precipitation Over an Area	34	43
Errors in Measuring Precipitation According to Data of a Dense Rain-gage Network	39	49
Accuracy of Determination of Pressure on Synoptic Maps by Interpolation Between Isobars	46	59 (Contd)

Available from JPRS 46817

	Source	Page Report
Ice Jams and the Problem of Their Control	52	67
Movement of Large Rock Fragments in Ravines	61	81
Regularities of Water and Ice Motion in a Wide Rectangular River Bed During General Ice Movement	69	94
Secondary Refraction of Sea Waves	76	104
Investigation of Bottom Ground in Coastal Waters Before a River Estuary by Geophysical Methods (on the Example of the Kura River)	84	115
Agrometeorological Indices of Citrus Tree Distribution in Abkhaziya	90	124
Information Briefs		
Agrohydrological Service and Land Reclamation	99	136
On the Problem of Route Surveys of Soil Moisture Reserves	100	138
Instruments, Observations, Processing		
Results of Adoption of the M-63 Anemorhumbometer at the Meteorological Station Network	102	142
Unusual Hydrometeorological Phenomena In February-May 1968	109	151
Book Reviews and Bibliography		
G. I. Marchuk: Numerical Methods in Weather Forecasting	112	156
Current Events		
In the Main Hydrometeorological Service Administration	115	161
In the Hydrometeorological Service Institutions	116	165

(Contd)

Available from JPRS 46817

METEOROLOGIYA I GIDROLOGIYA
№ 8, 1968

	<u>Pages</u>	
	<u>Source</u>	<u>Report</u>
Conferences, Meetings, Seminars	117	167
At the World Meteorological Center	119	174
In the World Meteorological Organization	120	176
International Hydrological Decade	120	179
Letter to the Editors	122	181

Available from JPRS 46817

METEOROLOGY AND HYDROLOGY

No 9, 1968

- USSR -

This publication comprises the translation (with the exception of six articles) of the Russian-language periodical Meteorologiya i Gidrologiya (English version above), No 9, Moscow, Hydrometeorological Press, September 1968, pages 3-126. Author's name and original source page accompany each article.

CONTENTS	Source	Page Report
Classification of Cloud and Earth surface TV Image Types Received From "Meteor" Experimental System Satellites	3	1
On the Problem of Wind-field Mesostructure in Jet Streams	11	11
Attack on Cumulus Clouds by Man-made Vertical Ascending Currents	22	27
Numerical Forecast of Mean 10-day Ground-level Temperature Values Using Weather-satellite Data	28	34
Generalized Mathematical Description of Threshold Visual Functions of the Eye and Determination of Luminous Object Visibility Range	38	48
Water Balance Calculations for the Future Levels of the Caspian Sea	45	58
		(Contd)

Available from JPRS47001

METEOROLOGIYA I GIDROLOGIYA
No 9, 1968

	Page	
	Source	Report
Application of Invariant-grouped Method to Solution of Problem of Non-Homogeneous Ocean Current Determination	53	71
Power Losses in Interaction of Sections of Current With Different Roughness	63	84
Soil Moisture Measurement by Cadmium Neutron Ratio	68	92
Aftereffects of Frost on Final Crop Producti- vity	75	103
Information Briefs		
Application of Normal Distribution Law in Objective Analysis of Fronts According to Ground-level Data	93	119
Spring Rearrangement of Circulation in the Stratosphere in 1958	96	124
Simplified Method of Hail-process Forecasting	98	128
Using the Dew Point in Calculating the Forest Combustibility Index	102	135
Hydrometeorology Abroad		
Research on Meteorological Field Structure and Station Network Rationalization in Socialist States	105	140
Book Reviews and Bibliography		
Ten Years of the Series of Works on the Study of the Earth	108	146
Letter to the Editors	111	155
Current Events		
In the Main Hydrometeorological Service Administration	115	158
		(Contd)

Available from JPRS 47001

METEOROLOGIYA I GIDROLOGIYA
No 9, 1968

	Source	Page Report
In Hydrometeorological Service Institutions	116	160
Conferences, Meetings, Seminars	119	168
Abroad	121	171
Forecast of the Weather and Agrometeorological Conditions for the Autumn of 1968	124	174

Available from JPRS 47001

METEOROLOGY AND HYDROLOGY

No 10, 1968

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This publication comprises the translation (with the exception of eight items) of the Russian-language periodical Meteorologiya i Gidrologiya (English version above), No 10, Moscow, Hydrometeorological Press, October 1965, pages 2-119. Author's name and original source page accompany each article.

CONTENTS	Page	
	Source	Report
World Center of Collection, Processing, Storage, and Distribution of Hydrometeorological Data	3	1
Year-to-Year Variability of Monthly Air Temperatures and Its Dependence on the Observation Period	13	16
A numerical System for Wind Field Forecasting	22	29
System for Calculating Vertical Air Velocities With Allowance for Front Formation	31	42
Results of Steam-Fog Control Experiments in Kola Bay in Winter of 1966-1967	39	53
Vertical Temperature Gradient in Cyclones and Anticyclones and Its Relationship With the Direction of Movement of Cyclones and Anticyclones in the First Two Stages of Development	44	61 (Contd)

Available from JPRS 47160

METEOROLOGIYA I GIDROLOGIYA
No 10, 1968

	Source	Page Report
The Problem of the Thunderstorm Theory of Atmospheric Electricity	50	69
Expansion of Yearly Variations of the Ice Cover on the Northern Seas Into Natural Orthogonal Time Functions	56	78
Precalculation of the High-Water Volume of a Large River According to Small-River Discharge Data	65	91
Some Problems of Economic Effectiveness of the Use of Ice Forecasts in Marine Navigation	71	100
A Study of Oceans' Radiation Regime	77	109
Information Briefs		
Experiment in Measuring Underground River Discharge	90	118
Use of the Method of Least Squares for Processing Data of Standard Level Observations in Tidal Seas	93	123
Instruments, Observations Processing		
Feasibility of Combined Determination of Radiation Properties of Materials	96	129
Reviews and Consultations		
Investigation of the "Weather Forecast and Physics of Atmospheric Properties" Problem in USSR in 1967	105	137
Book Reviews and Bibliography		
Yu. V. Istoshin; Marine Hydrometry	110	146
G. F. Khil'mi: Principles of the Physics of the Biosphere	111	150

(Contd)

Available from JPRS 47160

METEOROLOGIYA I GIDROLOGIYA
No 10, 1968

	<u>Pages</u>	
	Source	Report
Current Events		
In the Main Hydrometeorological Service Administration	116	158
In the Hydrometeorological Service Institutions	116	159
Conferences, Meetings, Seminars	116	160
At the World Meteorological Center	119	168
Available from JPRS 47160		

METEOROLOGY AND HYDROLOGY

No 11, 1968

- USSR -

This publication comprises the translation (with the exception of four articles) of the Russian-language periodical Meteorologiya i Gidrologiya (English version above), No 11, Moscow, Hydrometeorological Press, June 1968, pages 3-126. Author's name and original source page accompany each article.

CONTENTS	Page	
	Source	Report
On the Origin of Ice Ages	3	1
Weather Forecasting and the Problem of Image Identification in Cybernetics	13	16
Analysis of Cloudiness According to Infrared Photographs of the Earth From Satellites of the "Meteor" Experimental System	21	29
Requirements for Accuracy and Frequency of Hydrometeorological Information	40	55
Use of Vorticity, Deformation, and Divergence Equations in Wind Forecasting	46	64
Vertical Structure in Thermal Regime of the Atmosphere	54	74
Simplified Radar Method of Hail-source Indication	63	88
		(Contd)

Available from JPRS 47374

METEOROLOGIYA I GIDROLOGIYA
No 11, 1968

	<u>1968</u>	
	Source	Page
Thunderstorm Intensity in Tadzhikistan Mountain Regions According to Instrumental Observation Data	69	97
Construction of an Optimum Mathematical Model of Rainfall-Runoff Formation by Means of an Electronic Simulating Computer	73	103
Some Features of Interannual Changes of Aral Sea Level (Eustatic, Denivellation Sea-Level Increments)	81	113
Asynchronism of Sugar-Beet Yields	89	124
Instruments, Observations Processing		
Investigation of Horizontal and Vertical Wind- Pulsation Spectra Measured Simultaneously From an Airplane	97	136
Reviews and Consultations		
Some Results of Works on Investigation of High Layers of the Atmosphere Carried Out in the Central Aerological Observatory in 1967	105	145
Radioactivity and Investigation of Atmospheric Processes	107	152
Book Reviews and Bibliography		
G. F. Prikhod'ko: Artificial Precipitation From Convective Clouds	110	155
The Largest Glaciers of Central Asia: the Fedchenko and Zeravshanskiy Glaciers	112	169
Program for the Course: Satellite Meteorology	113	168
Current Events		
In the Main Hydrometeorological Service Admi- nistration	116	171

Available from JPRS 47374

METEOROLOGY AND HYDROLOGY

No 12, 1968

- USSR -

This publication comprises the translation (with the exception of 11 articles) of the Russian-language periodical Meteorologiya i Gidrologiya (English version above), No 12, Moscow, Gidrometeoizdat Press, December 1968, pages 3-128. Author's name and original source page accompany each article.

CONTENTS	Page	
	Source	Report
Dynamics of Vertical Motion in the Atmosphere	3	1
Hydrodynamic Model of a Large-scale Atmospheric Vortex	14	15
Biennial Cyclicity in the Troposphere of Temperate Latitudes of the Northern Hemisphere	24	27
Pseudoadiabatic Model of Steady Precipitation in Short-range Weather Forecasting	33	40
Routine Forecasting of the Meteorological Field for 48 Hours Using Complete Equations	41	51
Synoptico-statistical Method for Diagnosing and Predicting Turbulence in a Clear Sky	45	56
Information Briefs		
On the Problem of the Analysis of Atmospheric Processes in the Region of Kamchatka Peninsula and the Area of Waters Washing It by Means of Satellite Data	67	71

(Contd)

Available from JPRS 47653

METEOROLOGIYA I GIDROLOGIYA
NO 12, 1968

	<u>Page</u>	
	Source	Report
Some Structural Features of Lower Atmospheric Layers During High Wind Velocities	70	78
Instruments, Observations, Processing		
Time Precision Improvement in Measurement of Flow Elements With BPV-2 and BPV-2r Automatic Recorders	80	84
Discussion of Cloud Photography Technique	85	94
Hydrometeorology Abroad		
Vietnamese Meteorologists in the Struggle	108	101
Book Reviews and Bibliography		
Manual on Hydrological Work in Oceans and Seas	110	105
Current Events		
In the Main Hydrometeorological Service Administration	115	108
In the Hydrometeorological Service Institu- tions	116	111
Conferences, Meetings, Seminars	116	113
At the World Meteorological Center	118	117
Available from JPRS 47653		

JPRS: 47,769

2 April 1969

4 APR
1969

METEOROLOGY AND HYDROLOGY

No. 1, January 1969

- USSR -

This publication comprises the translation (with the exception of 15 articles) of the Russian-language periodical Meteorologiya i Gidrologiya (English version above), No. 1, January 1969, pages 3-126. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
Energy Sources in Meso- and Microscale Turbulent Motions in Free Atmosphere	3	1
Predictability of Synoptic Processes	14	15
Structure of Meridional and Zonal Circulation in Stratosphere and Mesosphere	21	25
On the Problem of Calculation of Integral Character- istics of the Planetary Boundary Layer	30	38
Certain Questions in the Problem of Forced Con- vection in the Boundary Layer of the Atmosphere .	36	45
On the Problem of Coordination of Geopotential- and Wind Fields	42	52
Forecasting Wind in the 12-24 km Layer	49	62
The Problem of Stratospheric Moisture Content	59	75 (Contd)

Available from JPRS 47769

МЕТЕОРОЛОГИЯ И ГИДРОЛОГИЯ
№ 1, 1969

Page
Source Report

Book Reviews and Bibliography:

I. V. Khanevskaya: Temperature Regime of the Free Atmosphere Over the Northern Hemisphere	113	86

Current Events:

In the Main Hydrometeorological Service Administration	116	92

In the Hydrometeorological Service Institutions	116	93

Conferences, Meetings, Seminars	117	96

At the World Meteorological Center	120	100

International Hydrological Decade	121	103

Forecast of the Weather and Agrometeorological Conditions for the Winter of 1968/1969	125	105

Available from JPRS 47769

METEOROLOGY AND HYDROLOGY

No 2, 1969

- USSR -

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CONTENTS

	<u>Page</u>	
	Source	Report
Hydrodynamic Research on General Atmospheric Circulation: Some Results and Problems (S.A. Mashkovich)	3	1
Methods for Introducing Correction for Influence of Atmospheric Layer in Underlying Surface Temperature Determination From Satellites (K.A. Kondrat'yev)	15	21
On Numerical Forecasting of Geopotential and Wind (Z.I. Tskvitinadze)	37	34
Combined Use of Radar- and Satellite Observations in Analyzing Meso- and Macroscale Cloud Systems (Ye. M. Sal'man et al.)	44	43
Results of Comparison of Radar- and Gage Measurements of the Amount of Rain (L.M. Volynets, et al.)	91	52
Instruments, Observations, Processing		
The Laser Anemometer (Ye. P. Gersht)	102	62 (Contd)

Available From JPRS 48087

METEOROLOGIYA I GIDROLOGIYA
No 2, 1969

	<u>Page</u>	
Hydrometeorology Abroad	Source	Report
On the Method of Forecasting Temperature Totals for the Growth Period, Proposed by F.F. Davitaya (K. Khurshkovich, M. Gyurova)	107	68
Forecasting the Winter Wheat Yield (R. Ye. Kibardin)	111	72
Current Events		
At the Hydrometeorological Service Institutions (G.I. Matveychuk)	114	76
Conferences, Meetings, Seminars	115	79
Antarctic Diary (A.V. Nudel'man)	117	85

Available From JPRS 48087

METEOROLOGY AND HYDROLOGY

No 3, 1969

- USSR -

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CONTENTS

	<u>Page</u>	
	Source	Report
Automatic Control of Current Meteorological Information (L.S. Gandin)	3	1
Evaluation of Radiosonde Data Accuracy in the Aerological Station System of the Soviet Union (O.V. Marfenko)	14	17
Planetary Development of Blocking Processes (G.M. Tauber)	22	28
On the Effect of Microturbulent Exchange on the Stability of the Boundary of the Atmosphere (M.I. Ruzin)	31	40
Experiment in Recognizing Pressure Formations by Statistical Structure of Radiation Temperature Fields Obtained from Satellites (E.Ye. Tolstikov)	40	53
		(Contd)

Available From JPRS 48190

Calculation of Significance of Multiple Correlation Coefficient and Selection of Optimum Number of Predictors (O.V. Batyreva)	49	66

INFORMATION BRIEFS

Orders of Forces of Inertia and Pressure Gradient in the Ground Layer of Latitudes Next to the Equator (Yu.A. Romanov, N.A. Romanova)	94	78
Wind-Velocity Profiles During Glazed- Frost and Hoarfrost Phenomena (V.G. Glukhov)	96	83
Some Results of Measurements of Temperature- Field Characteristics in the Lower 300-Meter Layer of the Atmosphere (N.L. Byzova, E.Ye. Vyal'tseva)	99	89

INSTRUMENTS, OBSERVATIONS, PROCESSING

Radar Measurements of Wind in the Mesosphere (S.V. Pakhomov)	103	96

REVIEWS AND CONSULTATIONS

Lectures and Scientific Discussions at WMO Sessions (S.M. Seleznev)	112	107

CURRENT EVENTS

Konstantin Adol'fovich Semendyayev (M.R. Shura-Bura)	117	114
In the Main Hydrometeorological Service Administration (V.N. Zakharov)	118	117
In the Hydrometeorological Service Institutions	119	119
Conferences, Meetings, Seminars	120	122
Antarctic Diary (A.V. Nudel'man)	123	130
At the World Meteorological Organization (N.V. Petrenko)	123	132

Available From JPRS 48190

NUCLEONICA
Vol. 17, No. 1, 1968

E. L. Feinberg — Remarks on Fireball Lifetime	2
Dmitri S. Chernavskii — The Role of Fireballs in a Recent Theory of Strong Inelastic Interactions at High Energies	6
K. Zalewski — An Analysis of the Uncorrelated Jet Model	10
Z. Chyliński — Analysis of Measurement in Macro and Microphysics	23
J. Gawin, J. Hibner, A. Zawadzki, R. Maze, J. Wdowczyk — Fluctuations in the Longitudinal and Lateral Development of E.A.S. and Their Influence upon the Spectrum of the Ratio of the Muon to Electron Component Density	29
A. Bialas, O. Czyżewski — Infinite Regge Recurrences and High Momentum-Transfer Inelastic πp Collisions	37
T. Coghén — Certain Effects Predicted by the Fireball Model on the Assumption of Planck's Momentum Spectrum	41
Z. Czachowska, A. Jurak, A. Linscheid — Analysis of Azimuthal Angular Distributions of Secondaries from Interactions of Cosmic Ray Particles with Emulsion Nuclei	54
K. Rybicki — Very Low Multiplicity Jets in the TeV Region and Their Interpretation in Terms of Nucleon Isobars	60
W. Wolter — High-Energy Nuclear Interactions with Low-Energy Transfer into Soft Component	65
J. Gierula, S. Krzywdziński — Energy Estimation in Collisions of Very High-Energy Pions with Nuclei of Photographic Emulsion	76
A. Oleś — Recherche d'une Structure Antiferromagnetique dans U_2O_3	83
J. A. Czubek — Natural Selective Gamma Logging. A New Log of Direct Uranium Determination	86
A. Michalik, T. Praxmayer, K. Przewłocki — A Radiometric Method of Determining Spatial Distribution of Density of Closed Media	104
C. Bobrowski, J. Masalski — A Neutron Tube for Fast-Neutron Generation	112
T. Dąbek, K. Korbel — The Keyed Stabilizing System for a Single-Channel Gamma-Ray Spectrometer	123

Available From CFSTI TT 68-50011/1
AEC-tr-6931/1 UC-34

	Page	
	English	Russian
L.A. Zerkovich, I. P. Bezrukov, V.G. Bogorov, S.V. Brukevich, A.D. Debrovolskiy, V.P. Zerkovich, V.G. Kort, A.P. Lisitsin, T.S. Rass, Yu.A. Romanov, V.S. Samoylenko, G.M. Tauber, G.B. Udintsev and V.L. Tsurikov: The Scientific Basis of the 10-Year Global Oceanic Research Program.	625	779
S.G. Panfilova: Seasonal Variations of Sea Surface Temperature of the Pacific Ocean	639	801
V.V. Leont'yeva: Some Properties of the Lower Convective Layer in Pacific Ocean Trenches.	644	807
I.I. Zhyubikas: Hydrological and Hydrochemical Conditions in Tide Pools on the East Murman Coast.	650	814
Ye.A. Romankevich: Organic Carbon and Nitrogen Deposits in Recent and Quaternary Sediments of the Pacific Ocean	658	825
Z.Z. Finenko and L.A. Lanskaya: Content of Pigments in Laboratory-Grown Marine Planktonic Algae	673	839
R.Ya. Knaps: Calculation of the amount of littorally drifted sand.	680	848
Yu.D. Shuyskiy: Dynamics of the Beach of the Kiliya Arm of the Danube Delta	687	858
N.S. Skornyakova and P.F. Andrushchenko: Iron-Manganese Nodules from the Central Part of the South Pacific	692	865
A.G. Timonin: Distribution of Chaetognaths in the Southern Ocean.	702	878
Yu.A. Rudvakov: Bioluminescence Potential and Its Relation to Concentration of Luminescent Plankton	710	888
S.K. Klumov: Transfer and Resettlement of Sea Otters to Reestablish Their Former Area and Increase Their Population.	715	895
V.V. Krylov: Relation Between Wet Formalin Weight of Copepods and Copepod Body-Length	723	906
Methods and Instruments		
M.P. Maksimova and A.M. Chernyakova: Oxygen Solubility in Sea Water.	728	912
L.I. Belyayev and Ye.I. Ovsyanny: Boron Determination in Sea Water by Means of Ion Exchange	734	920
V.V. Zdorovenin, V.D. Pudov, and O.G. Sorokhtin: Experience in the Use of the "Minsk-2" Computer for Processing Seismic Information.	739	927
Discussion		
S.V. Mikhaylov: Are There Borers in the Caspian?	742	930
Information		
I.B. Andreyeva and Yu.Yu. Zhitkovskiy: New Observations of the Deep Scattering Layers.	743	931
Foreign News		
B.I. Silkin: Aerial Surveying of a Tropical Hurricane	745	933
B.I. Silkin: A Better Navigational System for Oceanographic Work	745	933
B.I. Silkin: Investigation of Interaction Between Ocean and Atmosphere	745	933
Commission on Physical Oceanography of the International Association of the Physical Sciences of the Ocean.	746	934

Available from the American Geophysical Union

OPTIKA I SPEKTROSKOPIYA

VOL. XXV, NO. 5

NOVEMBER 1968

CONTENTS

(Numbers in parentheses are original Russian page numbers.
These Russian page numbers are also quoted at the head of each paper.)

Calculation of Sodium and Potassium Atoms by the Hartree-Fok Method with Complete Self-Consistency	Kh. V. Gezalov and A. V. Ivanov	355 (629)
Semiempirical Calculation of the Excitation and Ionization Energies of Isoelectronic Atoms and Ions. II	T. N. Rekasheva and M. G. Vozelov	357 (633)
Correlation Spectroscopy of Optical Radiations	V. V. Artemyev	358 (635)
Oscillator Strengths of the Isoelectronic Series of Zinc	V. A. Zlates	361 (641)
The Broadening of the Spectral Lines of Non-Hydrogen-Like Ions	V. A. Alekseev and E. A. Yukov	363 (645)
Application of Coulomb Green's Function to the Calculation of the Interaction of a Hydrogen Atom with the Field of a Light Wave in Second-Order Perturbation Theory	S. I. Vetchinkin and S. V. Khristenko	365 (650)
The Influence of Intermolecular Electric Fields on the Probabilities of Dipole Transitions	L. I. Grechikhin	368 (655)
Magneto-optics of an Electron Gas	O. Ya. Savchenko	370 (658)
Measurement of the Time Behavior of Temperature in a Plasma-Beam Discharge	E. F. Lifshits, O. F. Kovpik and E. A. Kornukov	373 (664)
Relaxation Method for Determining the Nature of Continuum in Nonequilibrium Arc Discharges	V. Ya. Aleksandrov, D. B. Gorevich, and I. V. Podmoshenskii	376 (674)
On the Intensity of Emission Continuum of the Negative Nitrogen Atom	A. A. Konkov, V. M. Nikolzev, and Yu. A. Platinin	380 (679)
Coefficient of Continuous Absorption of Hydrogen-Carbon Plasma at 40 000°K and 76 Atm	S. N. Delov, N. N. Ogurtsova, and I. V. Podmoshenskii	383 (684)
Quasiline Phosphorescence Spectra of Halogenated Naphthalenes in Paraffins at 55°K. I. Naphthalene, α -fluoronaphthalene, α -fluoronaphthalene-D ₇ , β -fluoronaphthalene-D ₇ , and α -chloronaphthalene	Kh. I. Mamedov, I. K. Nasibov, and E. N. Niyazova	386 (689)
Determination of T-T* Absorption Spectra by Means of Two-Quantum Photosensitized Reactions	T. S. Zhuravlyeva	389 (696)
Fluorescence of Benzene Solutions of Rare Earth Complexes with Tenoyltrifluoro-acetone and Rhodamine-C	L. I. Kononenko and M. A. Tishchenko	392 (701)
Optical Electronic Transitions between Local and Zone States in Impurity Centers	N. N. Kristofel and G. S. Zavt	395 (705)
Gudden-Pohl Effect and Sensitizing of Manganese in Zinc Sulfide Phosphors	A. G. Goldman and I. L. Romanenko	399 (713)
Theory of Lasers with an Ancillary Mirror. I	V. I. Perel and I. V. Rogova	401 (716)
Stimulated Luminescence of Dyes in the 720-920 nm Region	L. D. Derkacheva, A. I. Krymova, A. F. Vompe, and I. I. Levkoev	404 (723)
Laser Action in Solutions of Organic Luminophors in the 400-650 nm Range	V. D. Kotzubanov, Yu. V. Nabokin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya	406 (727)
The Effect of Radiation Parameters of a Laser on the Efficiency of Frequency Doubling in a KDP Crystal	M. P. Vanyukov, V. D. Volosov, and M. I. Rashchektaeva	410 (735)
Optical Method for Eliminating the Apparatus Function of a Spectral Instrument	V. A. Zubov	412 (738)

Available From The Optical Society of America

(Contd)

OPTIKA I SPEKTROSKOPIYA
Vol 25, No 5, November, 1968

Specular Reflection from a Mat Surface with Coarse Microtopography	V. K. Polyanskii, L. V. Kovalskii, and T. I. Milovidova	415	(744)
Reproduction of Contrast by an Optical System in the Case of Imaging of Two Lines Darker than the Surrounding Field and the Resolution Limit as a Function of Several Factors	L. P. Moroz and Z. O. Kirilyuk	417	(746)
 SHORT COMMUNICATIONS			
Pressure Dependence of the Line Width of the $3s_2-3p_4$ Transition of Neon	M. A. Gubin, A. I. Popov, and E. D. Protchenko	421	(756)
Calculation of the Diffraction Distribution of Irradiance from an Incoherently Illuminated Disk	P. F. Parshin	422	(757)
Application of the Extended Method of Calculation to the Theoretical Determination of the Fine Structure of Atom and Ion Terms in the $1s^2s^2p^N$ Configuration	V. A. Kaminskas and A. P. Yutsis	423	(759)
Suppression of Phase-Difference Fluctuations in Interferometric Measurements	Yu. G. Kozlov	424	(761)
Some Features of Raman Scattering in Powdered p-Nitroaniline and Related Compounds	Ya. S. Bobovich and A. V. Bortkevich	426	(763)
A Study of Vibrational Processes in Molecules with Different Symmetries but Similar Masses and Structures	O. V. Flalkovskaya and A. V. Nefedov	428	(766)
The Effect of Intramolecular Interactions on the $C\equiv C$ Absorption Band Intensity in the Infrared Spectra of Some Acetylene Derivatives with Conjugated Bonds	E. A. Gastilovich, D. I. Shigorin, K. V. Zhukova, T. D. Burnashova, and N. V. Komarova	429	(769)
Stark Structure of the $5d^1$ Configuration of the Cerium C_{4v} -Center in Crystals of the MeF_3 Type	N. V. Starostin and V. K. Zakharov	431	(771)
Calculation of the Optimum Shape of Light Flux Modulation	Yu. V. Batalov and V. F. Nesteruk	432	(773)
On One Consequence of the Reciprocity Theorem in Holography	Yu. N. Denisjuk and M. M. Parkhomenko	433	(775)
The Luminescence of KI-AgI	N. I. Ivanova and I. V. Nedzvetskaya	434	(776)
The Infrared Spectra of Deuteroderivatives of N-Monosubstituted Amides in Dilute Solution	N. A. Sharonova and V. N. Nikitina	436	(779)

Available From The Optical Society of America

POCHVOVEDENIYE

Ya. V. Peyve (Editor-in-Chief), I. P. Gerasimov, N. L. Gorbunov, K. P. Gorshenin,
V. V. Yegorov, S. V. Zonn (Assistant Editor), N. P. Karpinskiy, N. A. Kachinskiy,
V. M. Klechkovskiy, V. A. Kovda, M. M. Kononova, N. K. Krupskiy, F. A. Letunov,
S. N. Ryzhov (Assistant Editor), A. V. Sokolov, V. P. Sotnikov,
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No. 1, January 1968

Translation printed: December 1968

	Page	Russian • Page
SOME CONCLUSIONS DERIVED FROM THE PRACTICE OF MELIORATION OF PEAT-BOG SOILS, by S. G. Skoroparov	1	3
<u>GENESIS AND GEOGRAPHY OF SOILS</u>		
MIXED CHARACTER OF SOILS UNDER A BROADLEAF-SPRUCE FOREST, by L. O. Karpachevskiy, N. K. Kiseleva, and S. I. Popova	7	10
DESCRIPTION OF THE VERY COMPACT SOILS OF CUBA, by V. F. Val'kov	23	25
<u>SOIL PHYSICS AND HYDROLOGY</u>		
MOISTURE RELATIONSHIPS IN DARK BROWN SOILS UNDER DIFFERENT TYPES OF WALNUT FORESTS IN FERGANA, by N. S. Lebedinova	30	32
SOIL MOISTURE CONDITIONS UNDER WINTER WHEAT PRECEDED BY DIFFERENT CROPS IN FIELDS BETWEEN SHELTERBELTS IN THE SOUTHERN UKRAINE, by N. M. Miloserdov	39	42
MOISTURE ACCUMULATION IN SOILS OF DIFFERENT FOREST-STEPPE COMPLEXES (KURSK OBLAST) AS AN INDEX FOR GROUPING THEM ACCORDING TO AGRICULTURAL PRODUCTIVITY, by M. I. Fishman	49	51
<u>BIOCHEMISTRY AND BIOLOGY OF SOILS</u>		
AROMATIC COMPOUNDS AS COMPONENTS OF HUMIC ACIDS, by A. N. Shvrina, M. D. Rydalevskaya, and I. A. Tereshenkova	62	65
ALGAE AS PRODUCERS OF SOIL ORGANIC MATTER, by E. A. Shtina	67	71
DEVELOPMENT OF BACTERIA ON MEDIA WITH ADSORBENTS AT DIFFERENT pH VALUES, by L. L. Velikanov and D. G. Zvyagintsev	71	75
		(Contd)

Available From The Soil Science Society of America

POCHVOVEDENIYE

No 1, 1968

	Page	Russian Page
CYCLE OF ASH ELEMENTS AND NITROGEN IN THE SHRUBBY TUNDRAS OF THE NORTHEASTERN KOLA PENINSULA, by K. N. Manakov.....	75	80
<u>SCIENTIFIC COMMUNICATIONS</u>		
MAGNETIC SUSCEPTIBILITY OF THE PRINCIPAL SOIL IN THE UDMURT ASSR, by A. A. Lukshin, T. I. Rumyantseva, and V. P. Kovrigo.....	88	93
MELIORATIVE LEVELING OF IRRIGATED LANDS WITH COMPLEX SOILS, by N. Ye. Varlamov.....	93	98
DETERMINATION OF THE DEPENDENCE OF SOIL-MOISTURE STORAGE ON GROUNDWATER DEPTH, by A. I. Golovanov and O. Palasios.....	97	101
RAPID DETERMINATION OF SOIL MOISTURE BY THE GRAVIMETRIC METHOD, by N. M. Bakayev and S. N. Popkov.....	101	106
INFLUENCE OF TERMITE ACTIVITY ON THE DEVELOPMENT OF LATERITE SOIL, by V. M. Yakushev.....	109	113
PHOTOGRAPHY OF SOIL PROFILES, by L. I. Koval'skiy.....	112	115
<u>REVIEWS</u>		
NEW SOIL MAP OF EUROPE, by I. P. Gerasimov.....	115	118
<u>CHRONICLE</u>		
RESULTS OF INVESTIGATIONS ON ORGANIC MATTER IN THE SOIL, PRESENTED AT THE MEETINGS OF COMMISSIONS II AND IV OF THE INTERNATIONAL SOCIETY OF SOIL SCIENCE (Great Britain, Aberdeen, 1966), by K. V. D'yakonova.....	122	124
ALL-UNION CONFERENCE ON THE MELIORATION OF SALINE SOILS, by E. A. Kornbljum, Yu. A. Slavnyy, S. F. Smirnova, et al.....	127	128
ON THE SEVENTY-FIFTH ANNIVERSARY OF THE KAMENNAYA STEPPE AREA, by I. B. Godunov.....	132	132
BIBLIOGRAPHY.....	135	135

Available From The Soil Science Society of America

SOVIET SOIL SCIENCE

POCHVOVEDENIYE

Pochvovedeniye Editorial Board

Ya. V. Peyve (Editor-in-Chief), I. P. Gerasimov, N. I. Gorbunov, K. P. Gorshenin,
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No. 2, February 1968

Translation printed December 1968

	Page	Russian Page
DEVELOPMENT AND INTERNATIONAL IMPORTANCE OF SOVIET SOIL SCIENCE, by E. Ewald	143	3
<u>GENESIS AND GEOGRAPHY OF SOILS</u>		
APPLICATION OF SPECTROPHOTOMETRIC COEFFICIENTS TO THE STUDY OF SOIL-FORMING PROCESSES, by I. I. Karmanov.	152	13
TOPOGRAPHY AND MAKEUP OF SOILS AND SOIL MATERIALS IN THE HILLOCKY SANDS OF THE MIDDLE DON, by N. S. Zyuz' ...	166	29
BURIED SOILS UNDER BRONZE AGE KURGANS ON THE RUSSIAN PLAIN, by P. V. Madanov, L. M. Voykin, and M. I. Balyanin.	171	35
TUAREG SOILS OF GREAT KABYLIA IN ALGERIA, by S. P. Lomov	179	43
<u>SOIL MELIORATION</u>		
MINERALIZATION OF IRRIGATION WATER AND THE MELIORATIVE STATE OF THE IRRIGATED AREA, by V. V. Koshkin and G. G. Zeman	188	52
GROUNDWATER REGIME OF THE IZOBIL'NOYE AREA OF THE PRAVO-YEGORLYK IRRIGATION SYSTEM, by G. S. Solopov.	192	57
<u>SOIL PHYSICS</u>		
PHYSICAL AND WATER-PHYSICAL PROPERTIES OF THE SOILS OF THE CRIMEAN YAYLAS, by L. F. Kaplyuk.	204	72
EFFECT OF DIFFERENT DEPTHS OF PLOWING ON THE AERATION OF A LEACHED CHERNOZEM-SMOLNITSA, by V. Galeva and R. Dilkova.	215	82
<u>SOIL CHEMISTRY</u>		
LEACHING OF STRONTIUM-90 FROM SOME SOILS AND SOIL-FORMING MATERIALS, by I. A. Koloskov, V. V. Pisarev, and Z. L. Sinitsyna	219	87

(Contd)

Available From The Soil Science Society of America

POCHVOVEDENIYE

No 2, 1968

	Page	Russian Page
CONTENT AND DISTRIBUTION OF MINOR ELEMENTS IN THE SOILS OF THE DRY TROPICAL ZONE OF BURMA, by A.I. Obukhov	224	93
<u>SOIL BIOCHEMISTRY</u>		
STUDY OF THE RATE OF DECOMPOSITION AND CONVERSION PROCESSES OF ORGANIC MATTER TAGGED WITH C ¹⁴ IN THE SOIL, by B. A. Neuntylov and N. V. Khavkina.	234	103
ENZYME ACTIVITY OF CERTAIN SOILS OF THE MIDDLE TAIGA, by T. A. Stenina	240	109
<u>MINERALOGY OF SOILS</u>		
MINERALOGIC COMPOSITION OF CERTAIN SAND AND LOAMY SAND SOILS OF THE CENTRAL CHEFNOZEM REGION, by P. G. Aderikhin, I. P. Chigirintsev, V. I. Voronin, P. G. Gubanov, and V. M. Shibanov	245	114
CLAY MINERALS IN THE FOREST BROWN SOILS OF GEORGIA, by B. P. Gradosov and T. F. Urushadze	254	124
<u>SOIL EROSION</u>		
DATA ON THE EROSION ACTION OF WATER DROPS, by G. I. Shvebs . .	262	133
SOME CHEMICAL AND PHYSICAL PROPERTIES OF ERODED SOILS IN THE LITHUANIAN SSR, by O. A. Visotskis	268	141
<u>SCIENTIFIC COMMUNICATIONS</u>		
USE OF A DYNAMIC HEAT-CAPACITY MOISTURE METER IN SOIL SCIENCE, by B. S. Zalivadnyy	277	149
EQUATIONS OF GAPON AND NIKOL'SKIY FOR THE ION-EXCHANGE ISOTHERM, by M. B. Minkin and T. P. Dukhnina	287	158
<u>CHRONICLE</u>		
SERGEY IVANOVICH SOKOLOV (ON HIS 70TH BIRTHDAY AND THE COMPLETION OF 45 YEARS OF SCIENTIFIC AND PEDAGOGICAL ACTIVITY)	291	163
BIBLIOGRAPHY	293	165

Available From The Soil Science Society of America

SOVIET SOIL SCIENCE

POCHVOVEDENIYE

Pochvovedeniye Editorial Board

Ya. V. Peyve (Editor-in-Chief), I. P. Gerasimov, N. I. Gorbunov, K. P. Gorshenin,
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S. N. Ryzhov (Assistant Editor), A. V. Sokolov, V. P. Sotnikov,
I. N. Skrynnikova (Executive Secretary)

No. 3, March 1968

Translation printed: January 1969

	Page	Russian Page
<u>GENESIS AND GEOGRAPHY OF SOILS</u>		
IMPORTANCE OF SOIL INTERPRETATION IN THE COMPILATION AND CORRECTION OF LARGE-SCALE SOIL MAPS, by V. A. Kalnina	305	3
SOME PROBLEMS OF "UNDERWATER SOIL FORMATION" AND THE USE OF SHALLOW-WATER AREAS, by S. A. Vladychenskiy	310	9
REDDISH CINNAMON-BROWN SOILS OF SOUTHERN KAZAKHSTAN, by A. A. Sokolov and A. B. Kurmangaliyev.	319	19
NEW FORMATIONS IN FINE-TEXTURED HYDROMORPHIC SOD- PODZOLIC SOILS AND THEIR IMPORTANCE FOR IDENTIFICATION PURPOSES, by A. K. Ogleznev	327	27
<u>SOIL PHYSICS AND MELIORATION</u>		
RADIOISOTOPIC INVESTIGATION OF THE CONVECTION AND DIFFUSION OF SALTS IN STRATIFIED SOILS WITH A MOISTURE GRADIENT, by M. K. Mel'nikova, Kh. Zamanmurad, and A. S. Frid	340	40
RADICAL IMPROVEMENT OF SLOPING ERODED PASTURES IN THE SUBZONE OF LIGHT CHESTNUT SOILS, by A. M. Byalyy and L. S. Kal'yanov	349	51
EFFECT OF CULTIVATION ON THE PHYSICOCHEMICAL PROP- ERTIES AND BIOLOGICAL ACTIVITY OF PEAT-BOG SOILS, by V. N. Pereverzev and E. A. Golovko	359	60
<u>SOIL CHEMISTRY AND BIOCHEMISTRY</u>		
RELATIONSHIP BETWEEN SODIUM ION ACTIVITY IN SOIL AND ITS MOISTURE CONTENT, by N. K. Krupskiy, A. M. Aleksandrova, and Yu. I. Lapkina	368	70
		(Contd)

Available From The Soil Science Society of America

POCHVOVEDENIYE
No 3, 1968

	Page	Russian Page
NATURE OF HUMUS IN THE DRY STEPPE SOILS OF THE CENTRAL YERGENI AND NORTHWESTERN PART OF THE CASPIAN LOWLAND, by N. A. Titova	377	80
ACTIVITY OF SOME ENZYMES IN CENTRAL TIEN-SHAN SOILS, by E. G. Vukhrer and K. T. Shamshiyeva	390	94
<u>SOIL FERTILITY</u>		
AVAILABLE PHOSPHORUS IN CHERNOZEM OF THE AZOV REGION, by S. F. Bondarenko	396	100
HETEROGENEITY OF ARABLE LAYER FERTILITY IN FINE-TEXTURED SOILS OF THE DNIESTER RIVER VALLEY, by S. A. Chobanu and I. B. Revut	402	107
<u>SCIENTIFIC COMMUNICATIONS</u>		
ERRORS MADE IN DETERMINING ADSORPTION CAPACITY OF CATIONS BY SOILS, SEDIMENTS IN BODIES OF WATER, AND MINERALS, by N. I. Gorbunov and Ye. D. Zaytseva	412	117
"SOIL-FORMING ROCK" AND "SUBSOIL", by P. N. Chizhikov	415	120
REASONS FOR THE EFFECTIVENESS OF POTASSIUM FERTILIZERS ON IRRIGATED SOILS SUBJECTED TO SALINIZATION, by M. Z. Kazyev and T. R. Khamrayev	420	124
<u>CHRONICLE</u>		
SCIENTIFIC-TECHNICAL CONFERENCE ON MELIORATION OF SOLONETZES, by I. G. Tsyurupa	426	130
SYMPOSIUM ON HUMUS AND PLANTS (PRAGUE, CZECHOSLOVAK SOVIET SOCIALIST REPUBLIC, SEPTEMBER 18-24, 1967), by M. M. Kononova	429	132
SOME PROBLEMS IN THE TRAINING OF SOIL SCIENTISTS AND AGRICULTURAL CHEMISTS, by F. Ya. Gavril'yuk	434	137
ALEKSEY VASIL'YEVICH NIKOLAYEV (ON THE OCCASION OF HIS SEVENTIETH BIRTHDAY)	435	139
Bibliography	437	140

Available From The Soil Science Society of America

SOVIET SOIL SCIENCE

POCHVOVEDENIYE

Pochvovedeniye Editorial Board

Ya. V. Peyve (Editor-in-Chief), L. P. Gerasimov, N. I. Gorbunov, K. P. Gorshenin,
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V. M. Klechkovskiy, V. A. Korda, M. M. Kononova, N. K. Krupskiy, P. A. Letunov,
S. N. Ryzhov (Assistant Editor), A. V. Sokolov, V. P. Botnikov,
I. N. Sarynalkova (Executive Secretary)

No. 4, April 1968

Translation printed: February 1969

	Page	Russian Page
ALL-UNION SOCIETY OF SOIL SCIENTISTS AND ITS ROLE IN THE DEVELOPMENT OF SOVIET SOIL SCIENCE, by I. P. Gerasimov and S. V. Zonn	449	3
<u>SOIL GENESIS AND GEOGRAPHY</u>		
PRINCIPLES OF SOIL-GEOGRAPHIC DIVISION IN KAZAKHSTAN, by S. I. Sokolov	459	15
GENESIS OF THE SOILS OF CENTRAL ASIA IN RELATION TO HYDRO- THERMAL CONDITIONS, by I. N. Stepanov	465	20
CHARACTERISTICS OF THE MICROMORPHOLOGICAL STRUCTURE OF THE PSEUDOPODZOLIC SOILS OF TRANS-CARPATHIA, 'by L. K. Tselishcheva	475	31
AEOLIAN MIGRATION OF SALTS AND ITS POSSIBLE GEOCHEMICAL AND SOIL-FORMING IMPORTANCE, by A. F. Tsygankenko	482	38
USE OF CORRELATIONAL ANALYSIS IN WORKING WITH MAPS, by Ye. A. Dmitriyev.	487	44
<u>SOIL MELIORATION</u>		
STUDY OF THE INTERACTION BETWEEN SULFUROUS ACID AND SODIUM CARBONATE SOLONCHAKS, by M. G. Manvelyan, G. O. Grigoryan, Ye. S. Melik-Israyelyan, and R. V. Grigoryan	497	55
CHANGE IN THE WATER-PHYSICAL PROPERTIES OF CHERNOZEMS DURING IRRIGATION, by A. V. Kirillina.	503	61
<u>SOIL EROSION</u>		
INFLUENCE OF VEGETATION ON THE WATER-PERMEABILITY OF SOILS IN RELATION TO EROSION PROCESSES, by A. M. Burykin.	509	68
NATURAL RESTORATION OF SOIL FERTILITY ON TERRACES OF MOUNTAIN SLOPES, by K. S. Botman	518	77
		(Contd)

Available From The Soil Science Society of America

POCHVOVEDENIYE
No 4, 1968

	Page	Russian Page
<u>SOIL MINERALOGY</u>		
EXCHANGE CONSTANTS OF CESIUM FOR SODIUM ON CLAY MINERALS, by V. M. Rukovskiy and M. M. Senyavin	525	84
ATTEMPT TO CALCULATE THE CRYSTAL LATTICE ENERGY OF SOIL MINERALS by V. R. Volobuyev	529	89
CHEMICAL-MINERALOGICAL COMPOSITION AND PROPERTIES OF SOD-PODZOLIC SOILS DEVELOPED ON PARENT ROCKS OF DIFFERENT TEXTURES, by Ye. M. Labenets	534	94
<u>REVIEW</u>		
SOILS OF RUMANIA WITH A LOCATOR IN COLORS CONST. D. CHIRITA, CONST. PAUNESCU AND D. TEACL. (SOLURILE ROMANIEI CU UN DETERMINATOR IN CULORI. EDITURA GRO-SILVICA. BUCRESTI, 1967), by S. V. Zonn	544	105
<u>CHRONICLES</u>		
SESSION OF THE FIRST COMMITTEE OF THE ALL-UNION SOCIETY OF SOIL SCIENTISTS, by M. A. Glazovskaya	546	107
ACADEMICIAN NIKOLAY C. CERNESCU (1904-1967), by N. Floresa ..	550	110
DENIS VASIL'YEVICH KHAN (1907-1967), by V. V. Dolmchayev Soil Institute	554	114
Bibliography	555	115

Available From The Soil Science Society of America

SOVIET SOIL SCIENCE

POCHVOVEDENIYE

Pochvovedeniye Editorial Board:

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S. N. Ryzhov (Assistant Editor), A. V. Sokolov, V. P. Sotnikov,
I. N. Skrynnikova (Executive Secretary)

No. 5, May 1968

Translation printed: February 1969

	Page	Russian Page
SOME PROBLEMS OF SOIL SCIENCE IN THE LIGHT OF AGRICULTURAL NEEDS, by V. P. Sotnikov	569	3
THE CREATIVITY OF K. D. GLINKA, by Yu. A. Liverovskiy	572	7
<u>GENESIS AND GEOGRAPHY OF SOILS</u>		
PERMANENT INVESTIGATIONS OF SOILS, by N. A. Nogina	580	17
PRESENT AND RELICT PROPERTIES OF WEST SIBERIAN LOWLAND SOILS, by K. A. Ufimtseva	586	24
GLEYS PROCESSES IN SOILS OF THE TISSA RIVER LOWLAND AND TRANSCARPATIAN PIEDMONT, by V. I. Kanivets and A. A. Obratsova	595	34
WEATHERING OF KAMCHATKAN VOLCANIC ASH, by N. I. Belousova and V. D. Tonkonogov	603	43
<u>AGRICULTURAL CHEMISTRY</u>		
SIGNIFICANCE OF AGROCHEMICAL PROPERTIES IN EVALUATION OF SOIL FERTILITY, by I. S. Lupinovich, T. N. Kulakovskaya, I. M. Bogdevich, and L. P. Detkovskaya	613	55
<u>SOIL MELIORATION</u>		
WATER CONSUMPTION OF AGRICULTURAL CROPS ON MELIORATED SOILS OF THE SOLONETZIC COMPLEX, by A. F. Bol'shakov and V. Ya. Metelev	620	63
VERTICAL MOVEMENT OF GROUND AND CAPILLARY WATER WITH NONSTEADY PERCOLATION ON IRRIGATED LANDS, by N. N. Ostrovskaya	625	69
<u>SOIL BIOCHEMISTRY</u>		
CHANGES IN HUMUS DURING CULTIVATION OF SOD-PODZOLIC SOILS, by B. A. Nikitin	631	76
FRACTIONATION OF WATER-SOLUBLE ORGANIC MATTER IN CHERNOZEMS USING COLUMN CHROMATOGRAPHY, B. G. Mursakov	636	81 (Contd)

Available From The Soil Science Society of America

POCHVOVEDENIYE

No 5, 1968

		Russian Page
FRACTIONATION OF HUMIC ACIDS IN SOME MOLDAVIAN SOILS BY SEPHADEX FILTRATION, by V. N. Lubin and V. A. Fil'kov.	639	85
COMPOSITION AND PROPERTIES OF HUMUS IN SOME SOILS OF CENTRAL TIEN-SHAN, by V. Ya. Bondareva.	646	93
<u>SCIENTIFIC COMMUNICATIONS</u>		
STUDY OF THE EFFECT OF ACOUSTIC VIBRATIONS ON THE PHYSICOCHEMICAL PROPERTIES OF A SOIL SUSPENSION, by V. Ye. Vladimirov.	654	103
<u>REVIEWS</u>		
NEW INSTRUCTIONS ON SOIL MAPPING, by V. M. Fridland and G. V. Dobrovolskiy.	660	108
YE. A. AFANAS'YEVA: CHERNOZEMS OF THE CENTRAL RUSSIAN UPLAND. Moscow, "Nauka," 1966, by G. I. Dokhman.	663	111
<u>CHRONICLE</u>		
ANNIVERSARY SESSION OF THE CENTRAL COUNCIL OF THE ALL- UNION SOCIETY OF SOIL SCIENTISTS, by N. A. Nogina.	668	115
DEVELOPMENT OF SOIL SCIENCE IN AGRICULTURAL INSTITUTES, by I. S. Kaurichev.	689	116
FOREST SOIL SCIENCE IN THE SERVICE OF FORESTRY, by V. S. Shumakov.	676	121
HUNDRED YEARS SINCE THE BIRTHDAY OF ACADEMICIAN K. D. GLINKA (1867-1967), by N. A. Nogina.	684	128
MARIYA DMITRIYEVNA RYDALEVSKAYA, by V. N. Simakov and I. A. Tereshenkova.	685	129
VENIAMIN BORISOVICH GUSSAK.	687	130
ALEKSANDR IVANOVICH SHEVLYAGIN.	689	132
Bibliography.	690	133

Available From The Soil Science Society of America

SOVIET SOIL SCIENCE

POCHVOVEDENIYE

Pochvovedeniye Editorial Board:

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S. N. Ryzhov (Assistant Editor), A. V. Sokolov, V. P. Sotnikov,
I. N. Stryanikova (Executive Secretary)

No. 6, June 1966

Translation printed: March 1966

	Page	Russian Page
<u>SOIL GENESIS, GEOGRAPHY, AND CLASSIFICATION</u>		
PRESENT-DAY VIEWS ON THE DEVELOPMENT OF THE CONCEPT OF SOIL PRODUCTIVITY LEVEL AND FUTURE PROSPECTS, by S. N. Ryzhov	701	5
GROUPING OF SOILS IN AGRICULTURAL REGIONS OF UZBEKISTAN FOR A STATE LAND ASSESSMENT, by B. V. Gorbunov, N. V. Kimberg, M. I. Kochubey, and S. P. Suchkov	705	10
BROWN FOREST SOILS ON THE GRANITES OF THE CENTRAL URALS, by V. P. Firsova and G. K. Rzhannikova	709	14
CHARACTERISTICS OF SOD-PODZOLIC SOILS DEVELOPED ON DEEP LOESSLIKE LOAMS, by P. P. Rogovoy and Ye. M. Narkevich	719	25
STUDIES OF THE HUMUS OF FOSSIL SOILS AND THEIR IMPORTANCE TO PALEOGEOGRAPHY, by T. D. Morozova and O. A. Chichagova	729	34
GRAY CINNAMON-BROWN SOILS OF THE NORTHEASTERN SYRIAN ARAB REPUBLIC, by S. K. Onishchenko	738	44
<u>SOIL EROSION</u>		
EXPERIMENTAL STUDIES OF CERTAIN AERODYNAMIC PROPERTIES IN SOILS OF THE STEPPE ZONE OF THE UKRAINE, by M. I. Dolgilevich and I. F. Sidorchuk	746	52
<u>SOIL MELIORATION</u>		
CHANGE IN THE PHYSICOBIOCHEMICAL PROPERTIES OF PEAT-BOG SOILS UNDER INFLUENCE OF MELIORATION AND AGRICULTURAL USE, by I. S. Lupinovich	755	63
CHANGE IN THE MELIORATIVE STATE OF LANDS DURING IRRIGATION IN THE SOUTHERN TRANS-VOLGA REGION, by B. A. Zimovets ...	767	76
MELIORATION OF SODIUM CARBONATE SOLONCHAKS BY SULFURIC ACID, by M. G. Manvelyan, G. O. Grigoryan, R. V. Grigoryan, Ye. B. Melik-Izrayelyan, E. N. Vostanyan, and N. M. Gabrielyan ..	775	86 (Contd)

Available From The Soil Science Society of America

POCHVOVEDENIYE
No 6, 1968

	Page	Russian Page
INFILTRATION OF WASTE WATERS INTO LOAMY SOIL DURING YEAR- ROUND IRRIGATION, by A. K. Zaikina	783	94
<u>SOIL CHEMISTRY AND BIOCHEMISTRY</u>		
INFLUENCE OF SOILS AND CLAY MINERALS ON THE ACTIVITY OF GLUCOSE OXIDASE AND INVERTASE, by D. O. Zvyagintsev and L. L. Velikanov	789	100
CARBON DIOXIDE REGIME IN SOILS OF THE KRASNOYARSK FOREST STEPPE, by P. S. Vugakov and Ye. P. Popova	795	106
BORON CONTENT IN VINEYARD SOILS OF THE DZHEBENT RAYON OF DAGESTAN ASSR AND EFFECTIVENESS OF BORON FERTILIZERS, by A. N. Gyuil'akhmedov and Ya. M. Peysakhov	801	111
<u>SOIL PHYSICS</u>		
PATTERN OF SOIL FREEZING AND THAWING IN THE WATERLOGGED FORESTS OF THE NORTHERN TAIGA SUBZONE, by V. F. Izotov . .	807	117
<u>SOIL MINERALOGY</u>		
CHEMICAL AND MINERALOGICAL COMPOSITION OF MEADOW AND MEADOW-CHESTNUT SOILS OF THE GREAT KABARDA, by Yu. E. Kizyakov and Ye. A. Shurygina	814	125
<u>SCIENTIFIC COMMUNICATIONS</u>		
EFFECT OF FOREST BELTS ON THE PHYSICAL PROPERTIES OF THICK CHERNOZEMS, by Yu. A. Ataman'yuk	824	135
SOIL TEMPERATURE IN THE PINE FOREST ZONE IN DIFFERENT SEASONS, by I. N. Yelagin and V. F. Izotov	827	138
RESISTANCE OF SOME SANDY DEPOSITS AND SOILS OF THE MIDDLE DNEPER REGION, by V. I. Slovikovskiy	832	143
A COLORIMETRIC METHOD FOR DETERMINING PHOSPHORUS IN SOILS IN THE PRESENCE OF IRON, by V. A. Gubenko	835	145
DETERMINATION OF ALKALINE-EARTH ELEMENTS BY FLAME PHOTOMETRY, by D. N. Ivanov and G. G. Rusakova	838	148
<u>CHRONICLE</u>		
SCIENTIFIC COUNCIL ON "THEORETICAL PRINCIPLES OF SOIL SCIENCE," by V. P. Kostyuchenko	845	155
FIRST ISSUE OF THE JOURNAL "GEODERMA," by M. M. Kononova . . .	848	157
SIXTIETH BIRTHDAY OF G. A. ALIYEV	849	159
JAN TOMASHEVSKI IN MEMORIAM	851	161
BIBLIOGRAPHY	853	163

Available From The Soil Science Society of America

SOVIET SOIL SCIENCE

POCHVOVEDENIYE

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No. 7, July 1968

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CONTENTS

	Page	Russian Page
<u>SOIL GENESIS AND GEOGRAPHY</u>		
DIFFERENTIATION OF WEATHERING AND SOIL FORMATION PRODUCTS ON THE RUSSIAN PLAIN, by V. A. Kovda, V. D. Vasil'yevskaya, Ye. M. Samoylova, and I. V. Yakushevskaya	867	5
YELLOW-BROWN SOILS OF THE MODERATELY MOIST SUBTROPICS OF AZERBAIJAN, by B. I. Gasanov	879	19
GRAY - CINNAMON-BROWN SOILS OF SOUTHERN KAZAKHSTAN, by A. A. Sokolov and A. B. Kurmangaliyev	890	29
SANDY SOILS OF THE TUNDRA SUBZONE (VORKUTA REGION), by I. B. Arcnegova	902	41
PROCEDURES FOR MODERN LARGE-SCALE SOIL MAPPING, by V. A. Kalnina, E. S. Vorob'yeva, and G. A. Shershukova	905	45
<u>SOIL MELIORATION</u>		
WATER-PHYSICAL PROPERTIES OF COMPLEX SOILS OF THE TRANS- VOLGA REGION IN CONNECTION WITH THEIR IRRIGATION, by A. G. Bondarev	911	51
COMPUTATION OF THE PERMISSIBLE VOLUMES FOR LEVELING IRRIGATED LANDS, by V. M. Ivanov and L. V. Ivanova	913	60
SOME CHARACTERISTICS OF SALINE SOILS IN THE ZONE WHERE GROUNDWATER THINS OUT IN THE SOUTHWESTERN KALMYKIA STEPPE, by V. V. Markov	925	69
<u>SOIL CHEMISTRY AND BIOCHEMISTRY</u>		
DISTRIBUTION AND VARIATION OF THE CONTENT OF MICRO- ELEMENTS IN THE SOILS OF THE RUSSIAN PLAIN, by N. G. Zyrin	933	77
CONTENT OF SOME FISSION PRODUCTS IN FOREST VEGETATION, by L. I. Gedeonov and S. P. Rosyanov	942	88

(Contd)

Available From The Soil Science Society of America

POCHVOVEDENIYE

No 7, 1968

	Page	Russian Page
<u>SOIL PHYSICS</u>		
EXPLANATION OF THE REASONS FOR THE ASYMMETRIC DISTRIBUTION OF WATER PERMEABILITY, by Ye. A. Dmitriyev and A. S. Manucharov	945	91
WATER REGIME OF TYPICAL THICK CHERNOZEM IN THE VARIOUS COMPONENTS OF CROP ROTATIONS, by S. I. Polevshchikov	954	102
MOISTURE REGIME OF ERODED SOILS IN THE LITHUANIAN SSR, by Ye. Val'mene.	963	111
<u>SOIL MINERALOGY</u>		
SILICA TRANSFORMATION DURING THE MINERALIZATION OF PLANT RESIDUES, by R. S. Kutuzova.	970	119
<u>THE IXth INTERNATIONAL CONGRESS OF SOIL SCIENTISTS IN AUSTRALIA</u>		
THE FORTHCOMING INTERNATIONAL CONGRESS OF SOIL SCIENTISTS IN AUSTRALIA, by I. P. Gerasimov.	979	129
PREPARATION FOR THE PARTICIPATION OF SOVIET SOIL SCIENTISTS IN THE 9TH INTERNATIONAL CONGRESS OF SOIL SCIENTISTS (AUSTRALIA, AUGUST 1968), by N. A. Nogina	984	133
DRAFT OF AN INTERNATIONAL SYSTEM OF DESIGNATING THE GENETIC SOIL HORIZONS, by I. P. Gerasimov.	988	137
<u>DISCUSSIONS</u>		
SOIL METAMORPHOSIS AND EVOLUTION OF TYPES OF SOIL FORMATION (DISCUSSION AND CRITIQUE OF V. A. KOVDA'S CONCEPTS ON THE PALEOHYDROMORPHISM OF PRESENT-DAY SOILS), by I. P. Gerasimov.	993	143
<u>SCIENTIFIC COMMUNICATIONS AND METHODS</u>		
AN IMPROVED METHOD FOR DETERMINING THE BULK DENSITY AND MOISTURE CONTENT OF SOILS, by V. A. Alabushev, N. I. Grin'ko, and I. N. Bezruchko.	1003	156
CORRELATION BETWEEN THE VALUES OF THE AVAILABLE POTASSIUM CONTENT OBTAINED BY THE PEYVE, EGNER-RIM, AND MASLOVA METHODS, by P. D. Barbalis and A. Ya. Beynare	1009	161
EFFECT OF SOME SOIL PROPERTIES AND LANDSCAPES ON THE DISTRIBUTION OF HYDROCARBON-OXIDIZING BACTERIA, by I. V. Ivanov	1013	165
AN IMPROVED DEVICE FOR DETERMINING SOIL PERMEABILITY BY THE CONCENTRIC RING METHOD, by G. A. Larionov	1016	168
SOIL SAMPLES FOR MICROBIOLOGICAL ANALYSIS, by P. Kh. Rakhno	1018	170
COMPARISON OF THE RESULTS OF DETERMINING SOIL SALINITY BY THE CONDUCTIVITY AND EVAPORATION METHODS, by V. A. Selivanov.	1021	173
BOOK REVIEWS.	1024	177
BIBLIOGRAPHY.	1026	179

Available From The Soil Science Society of America

SOVIET SOIL SCIENCE

ПОСВОВЕДЕНИЕ

Pochovedeniye Editorial Board

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No. 8, August 1968

Translation printed: April 1969

CONTENTS

	Page	Russian Page
DETERMINATION OF RESERVES OF AVAILABLE PHOSPHATES IN THE SOIL, THEIR COMPOSITION AND MOBILITY, by A. V. Sokolov	1037	5
TRANSFORMATIONS OF ORGANIC MATTER AND THEIR RELATION TO SOIL FERTILITY, by M. M. Kononova	1047	17
<u>GENESIS AND GEOGRAPHY OF SOILS</u>		
USE OF DATA ON THE GROUP AND FRACTIONAL COMPOSITION OF HUMUS FOR SOIL IDENTIFICATION, by V. R. Volobuyev	1056	27
COMPOSITION AND PROPERTIES OF SOD-PEAT SOILS IN MINED PEAT BEDS, by N. N. Bolyahev, S. N. Tyuremnov and L. V. Yakovleva	1078	51
LESSIVÉ SOILS IN DIFFERENT CLIMATIC REGIONS OF EUROPE AND NORTH AMERICA, by G. Royter	1088	62
<u>SOIL BIOCHEMISTRY AND BIOLOGY</u>		
ROLE OF MICROORGANISM METABOLITES IN THE FORMATION OF HUMIC SUBSTANCES, by I. V. Aleksandrova	1096	71
AROMATIC STRUCTURES OF LIGNINS AND THEIR ROLE IN THE FORMATION OF HUMIC ACIDS, by S. M. Manskaya and L. A. Kodina	1102	79
STUDY OF THE ROLE OF WOOD LICE AND EARTHWORMS IN THE HUMIFICATION OF DECOMPOSING WOOD, by B. R. Striganova	1108	85
<u>AGRICULTURAL CHEMISTRY OF SOILS</u>		
COMPOSITION OF THE SOIL SOLUTION AND PHOSPHATE POTENTIAL OF A TYPICAL THICK CHERNOZEM, by I. I. Kobzeva	1113	91
INFLUENCE OF CALCIUM ON POTASSIUM UPTAKE BY PLANTS AND THE POTASSIUM POTENTIAL OF THE SOIL, by O. P. Medvedeva	1120	99
INFLUENCE OF COAL-HUMIC FERTILIZERS ON THE YIELD OF CORN AND SUGAR BEETS ON CHERNOZEMIC SOILS, by Dzh. Kozhekov, M. M. Lazareva, L. P. Abasova, et al.	1128	109 (Contd)

Available From The Soil Science Society of America

POCHVOVEDENIYE
No 8, 1968

	Page	Russian Page
<u>SOIL PHYSICS</u>		
WATER REGIMES IN FINE-TEXTURED GLEYED AND NONGLEYED SOD-PODZOLIC SOILS, by R. R. Zaydel'man	1138	120
EVAPORATION OF SOIL WATER UNDER DROUGHT CONDITIONS, by M. M. Abramova	1151	137
<u>METHODS AND SHORT COMMUNICATIONS</u>		
FORMULA FOR CALCULATING THE FULL MOISTURE CAPACITY OF PEAT-BOG SOILS, by V. N. Pereverzev	1159	145
METHODS OF MEASURING WATER PRESSURE, by I. I. Sudnitsyn and V. D. Skalaban	1162	148
METHODS OF INCREASING THE ACCURACY OF CALCULATION OF MOISTURE RESERVES IN SOILS AND SOIL MATERIALS, by V. K. Chukreyev	1166	152
<u>REVIEWS</u>		
V. F. KUPREVICH AND T. A. SHCHERBAKOVA: SOIL ENZYMOLOGY, Minsk, Izd. "Nauka i Tekhnika," 1966, by A. Sh. Galstyan and M. N. Kononova	1169	155
P. STEFANOVITS: GENESIS AND CLASSIFICATION OF SANDY SOILS IN THE FOREST ZONE, Rostlina Vyroba, Vol. 12, Prague, Cerven, 1966, by A. G. Gayel' and A. N. Malan'in	1171	156
<u>CHRONICLE</u>		
KONSTANTIN PAVLOVICH GORSHENIN (On the Occasion of His 80th Birthday and 55th Year of Scientific and Pedagogical Work)	1173	158
MARIYA MIKHAYLOVNA KONONOVA (On the Occasion of Her 70th Birthday and 43rd Year of Scientific and Public Work)	1175	160
ANDREY VASIL'YEVICH SOKOLOV (On the Occasion of His 70th Birthday and 45th Year of Scientific and Public Work)	1178	162
Bibliography	1182	165

Available From The Soil Science Society of America

	Page
W. Januszewicz, A. Baczo, B. Wociał: Blood renin levels in various types of arterial hypertension. Preliminary communication	1
E. Żera, W. Rydlewska-Sadowska: Electric cardioversion in treatment of atrial fibrillation	8
E. Szczekliki, M. Orlowski, M. Dyczkowska, A. Szczekliki: The late enzymatic test of myocardial infarction	14
S. Łukasik, E. Szczekliki, B. Halawa, M. Róg-Malinowski, W. Łukasikowa: The effect of radon inhalation at Świeradów-spa on the water and electrolyte balance in arterial hypertension	21
C. Czech-Jureczka, E. Nowosielska-Derus: Slippery diet and atherosclerosis	29
M. Machalski: Alimentary chylomicronemia and gastric acidity	35
K. Wysocki, L. Owczarek, S. Górski, A. Kurnatowska: Investigations by the use of radioactive copper (⁶⁴ Cu) in chronic liver diseases	43
J. Janicki, S. Kubicki: Clinical value of the indocyanine green test in the diagnosis of chronic liver diseases	50
H. Ignatowska-Świtalska, T. Wąsowska-Ciszek: The activity of serum ornithine-carbonyl transferase in patients with liver cirrhosis	57
K. Wysocki, J. Hansz, W. Fenrych: Participation of vitamin B ₁₂ in enzymatic regulation. Excretion of methylmalonic acid in vitamin B ₁₂ deficiency	62
S. Maj, S. Pawelski: Pyruvate kinase activity of erythrocytes in hereditary non-spherocytic hemolytic anemias. Preliminary communication	67
L. Łącki, H. Chelkowska: Effect of concentration of solutions of various penicillin G types upon the leukocyte agglutination test	70
S. Chodkowska, K. Piekarniak: <i>Strongyloides Intestinalis</i> infestation as a complication of pulmonary diseases	76
J. Tyrakowska: Attempted use of a new rapid easy method of detecting bacilli of tuberculosis and determination of their drug-sensitivity	82
R. Połec: Effect of intravenous administration of glucose and amino acids on production of urea in dogs after bilateral nephrectomy	89
D. Rowińska: The measurement of intracellular pH of the skeletal muscles in healthy dogs and those with metabolic acidosis	101
S. Jasser, W. Nasilowski: Studies on natural immunological mechanisms in severe experimental burns	110
W. Rudowski, J. Daszyński, E. Kęstrzewska, R. Scharf, Z. Kławe, J. Schier, L. Konopka: Experimental studies on transfusion of blood stored at low temperature. II. Transfusion of blood stored at low temperature to dogs in hemorrhagic shock	116
M. Gruk, J. Skrzypek: Calcium and phosphorus content in blood serum in the early post-operative period in cases of toxic and nontoxic nodular goiter	126
Z. Pawlicka-Domańska: Properdin in the course of pneumonia in infants	133
Z. Pawlicka-Domańska: Properdin in the course of acute diarrhea in infants	140
A. Toloczko, S. Niewiarowski, M. Myśliwiec: Effect of experimental ileus on blood coagulability of peripheral venous and portal blood in dogs	144
J. Hanzlik, W. Tyburczyk: Investigations of the chemical composition of vascular wall. The effect of hydrocortisone on certain collagen fractions of the rat aortic wall	151
W. Askanas, K. Jezierska, J. Mazurczak: Methodological aspects of cerebrospinal fluid immunoelectrophoresis	155
Z. Huber: Characteristics of 430 cases of epilepsy in the light of clinical classification	160
J. Majkowski: Dynamics of the development of bioelectric changes in the brain of epileptics	165
	17*

Available From CFSTI TT 69-50007/1
Vol 8, No 1, 1969

(Contd)

J. Majkowski, M. Bitner-Manicka, R. Wasilewski: Clinico-electroencephalographic correlations in the course of epilepsy	173
D. Markiewicz, J. Dymek: Neuropathological changes in epilepsy with behavior and intellectual disorders	181
B. Wiszczer-Adamczyk, A. Kościuszko: Results of treatment and clinico-electroencephalographic evolution of infantile spasms	193
Z. Falicki, B. Sępa-Kowalik: Psychic disturbances as a result of cardiac arrest	200
Z. Falicki, W. Łysiak: Serum chlorpromazine levels during treatment of schizophrenia. Preliminary report	207
J. Fleszar-Szumigajowa: The perpetrators of arson in forensic-psychiatric material	212
Z. Wyszomirska, A. Siachów, E. Rudzki: The activity of teichoic acid of <i>Staphylococcus aureus</i> in skin tests	220
A. Kosińska, M. Zawadzka: Detection of lesions in small blood vessels of the hands in patients with vibratory disease. Preliminary report	227
B. Łukaszak, J. Wniewski, J. Różański: Capillaroscopic changes in the course of necrobiosis lipoidica	230
L. Lachowicz: Estrogenic hormones in erythrocytes of women in normal and pathological pregnancy	238
L. Lachowicz: Metabolism of erythrocytes in the course of normal and pathological pregnancy	247

Available From CkSTI TT 69-50007/1
Vol 8, No 1, 1969

RADIO ENGINEERING AND ELECTRONIC PHYSICS

RADYOTEKHNIKA I ELEKTRONIKA

NUMBER 11

1968

	Page
A. S. Gurvich: Effect of Absorption on the Fluctuation in Signal Level During Atmospheric Propagation	1687
V. A. Sedin, R. Kh. Tugushev and T. D. Savostina: Determination of the Field of Waveguides of Arbitrary Cross Section by Means of Models With a Quasi-Static Field	1694
B. M. Minkovich: Difference Radiation Patterns for a Round Aperture With Axially Symmetric Amplitude Distributions	1702
O. E. Shushnanov: Quasi-Optical Transmission Line Using Nonideal Compensation Networks	1710
B. A. Panchenko: Interaction Among Radiators in Multi-Element Arrays in the Presence of Fringe Effects	1716
V. A. Teplyakov and V. B. Stepanov: Investigation of an H-Cavity	1724
M. Ye. Il'chenko: Resonance Bending of the Plane of Polarization in a Circular Waveguide With a Ferrite Cavity	1734
M. E. Averbukh and L. V. Vasil'yeva: Double Helix Coaxial Line With Longitudinally Magnetized Ferrite Rod	1741
V. V. Korchagin and M. M. Tenenbaum: Statistical Characteristics of Errors in the Measurement of a Parameter by a Noisy Device With a Discrete Scale	1743
N. S. Nikolayenko: Negative Conductance Converter With Internal Compensation for Parasitic Effects	1749
G. F. Filimonov, Yu. N. Badlevskiy and S. V. Galaktionov: Effect of Stratification on TWT Operation	1754
V. A. Logachev, V. N. Murozov, V. A. Savva and G. M. Strakhovskiy: Properties of a Maser in a Magnetic Field	1764
Ya. L. Shamfarov: The Possibility of Using the Characteristics of Transition Processes for Protecting Masers in Pulsed Radar Installations	1771
P. S. Landa, Ye. G. Lariontsev and G. A. Chernobrovkin: A Study of Some Properties of an Annular Gas Laser by Means of Analog Simulation	1777
A. A. Barybin: Application of the Theory of Coupled Waves to the Problem of the Interaction of Carrier Drift Flows With Acoustic Waves in Piezoelectric Semiconductors	1783
V. F. Korzo, L. A. Ryabova, Ya. S. Savitskaya and G. A. Lyashchenko: The Conductivity of Oriented Layers of Carbon-Doped Zinc Oxide	1789
V. D. Tishchenko: Cathode Sputtering of Silver and Tungsten by Slow Inert Gas Ions ..	1792
L. A. Pospelov: Focusing of Electrons in the Inhomogeneous Drift Field	1798
BRIEF COMMUNICATIONS	
L. M. Maslova: Radiation From a Current-Carrying Filament Located Above an Anisotropic Conducting Plane in a Semi-Infinite Waveguide	1804
Yu. G. Kostychev: The Calculation of Propagation Constants of Gyrotropic Medium Waveguides	1807
V. Ya. Smorgouskiy: Calculation of the Double-Valued Part of the Dispersion Curve a Circular Waveguide with Dielectric Rod	1809

(Contd.)

Available From The Institute of Electrical and Electronics Engineers

	Page
A. A. Dyachenko and O. Ye. Shushpanov: Application of Holograms to the Analysis of Waveguide Beams in Quasi-Optical Transmission Lines	1811
V. I. Bobrinev and I. V. Potapova: Methods of Increasing the Depth of Holograms	1814
M. M. Zheleznyak and V. A. Kashin: Optimization of the Directive Gain of an Antenna Array with an Auxiliary Condition	1816
I. A. Deryugin, P. G. Yemlin and V. I. Sugakov: The Effect of Waveguide Walls on the Magnetostatic Modes Excited Inside a Ferrite Sphere	1818
Ya. D. Shirman and V. N. Golikov: On the Theory of Straying of the Effective Center of Secondary Emission	1821
R. M. Sedletskiy: Integral Equation for Synthesizing Signals According to Ambiguity Functions	1823
S. M. Bashevskiy: Copying a Signal With a Changed Time Scale	1825
M. Ye. Gertsenshteyn and L. G. Solovey: The Noise and Dispersion Matrices of Two Coupled Multi-Terminal Networks	1827
N. Ye. Belov: Calculation of Conductance and Susceptance Introduced into a Cavity by a Tubular Beam Under High Space-Charge Density	1830
B. S. Gavshin, V. M. Lopukhin and B. K. Mitsenko: Feasibility of Decreasing the Noise Figure of an Electron-Beam Parametric Amplifier	1837
V. A. Rozhanskiy and Yu. A. Skomorovskiy: Nonlinear Signal Distortions Under Light Modulation by Means of Electro-Optical Modulators Using Pockel's Effect	1840
Ye. N. Bararov, V. P. Gubin, V. D. Biketov, Ya. A. Yukhvidin and G. M. Khaplanov: Short-Term Frequency Stability of an Rb87 Vapor Maser	1842
Kh. I. Gaprindashvili, Sh. Sh. Gvatua, R. I. Kukharovskiy, V. V. Mumiadze, V. A. Khanevichev, V. V. Chavchanidze, and G. G. Mshvelidze: The Induced Emission of Active Fibers	1844
G. M. Balim: The Analysis of Complex Semiconductor Structures with p-n Junctions	1847
P. S. Kireyev, A. V. Vanyukov, L. I. Kalugina, V. N. Martynov, and V. A. Mikhaylov: A Selective Receiver Based on the Photovoltaic Effect in Cadmium Telluride	1849
L. A. Serebrov and V. L. Shmulevich: A Method of Estimating the Potential of Changing Spots on a Dielectric	1850
L. A. Baranova, T. Ya. Fishkova and S. Ya. Yavor: Some Types of Electrostatic Quadrupole-Octupole Lenses	1854

EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalent is given below.

<u>Soviet Usage</u>	<u>American equivalent</u>
Arch	$\cosh^{-1}$
Arcth	$\coth^{-1}$ (ctnh ⁻¹)
Arsh	$\sinh^{-1}$
Arth	$\tanh^{-1}$
arccos	$\cos^{-1}$ (arc cos)
arctg	$\cot^{-1}$ (arc cot)
arcsin	$\sin^{-1}$ (arc sin)
arctg	$\tan^{-1}$ (arc tan)
ch	cosh
cosec	csc
ctg	cot (ctn)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
tg	tan
th	tanh

SOVIET PUBLIC HEALTH

No. 8, 1968

- USSR -

Following are translations of selected articles from the Russian-language periodical Sovetskoye zdavookhraneniye (English version above), No. 8, Moscow, 1968, pages 3-95. Author's name and original source page accompany each article.

CONTENTS

	Page	Source Report
The Scientific Elaboration of Problems Relating to Public Health Economics -- An Important Social-Hygienic Task	3	1
Concerning the Development of the Network of Therapeutic Institutions (N. I. Malov)	6	6
The Cost of Maintaining and Treating Patients in a Rural Area (S. A. Gustilin)	10	13
Volume of Medical Care for Adolescents (N. A. Gopiyenko).....	15	22
Certain Problems Concerning the Scientific Organization of Labor and Esthetics in a Large Specialized Hospital (N. T. Muzalevskiy).....	20	29 (Contd)

Available from JPRS 46847

SOVETSKOYE ZDRAVOOKHRANENIYE
No 8, 1968

Source Report

Incidence of Eye Trauma Among the Rural Population of Krasnodar Kray (V. F. Groyats).....	24	35
Illness Entailing Temporary Disability Among Railroad Workers, Determined on the Basis of the Number of Patients (P. A. Spiridonov).....	26	39
Work Experience Gained from Certifying Physicians (V. P. Polyakov et al).....	30	40
The Degree of Effectiveness of Specialized Obstetrical Aid to Heart Patients as Compared with Obstetrical Aid in Maternity Homes Belonging to the General Therapeutic Network (G. S. Zhukovskiy).....	33	51
The Work Experience of a Republic Cardio-rheumatological Center (D. D. Abdulpatakhov).....	37	57
The Volume and Nature of the Work of Otorhinolaryngologists in Urban Polyclinics (V. N. Goryacheva).....	39	61
A New Method of Keeping Medical Records (F. I. Sluchevskiy et al).....	44	68
Concerning the Use of the Average Daily Number of Occupied Beds to Characterize the Activity of a Hospital Department (S. V. Yuferev).....	49	78
Work Experience of the Kovno Base Medical School (V. I. Kudrya).....	50	80
Combined Social Hygiene and Clinical Conferences (G. Mazhdrakov et al).....	57	87
The Institute History Museum -- A Center for Educational Work with Students (G. F. Yemel'yanova et al).....	66	93
		(Contd)

Available from JPRS 46847

SOVETSKOYE ZDRAVOOKHRANENIYE

No 8, 1968

Source Report

The History of Internship (E. Yu. Gol'd).	67	97
New Books.....	79	104
Review of Book 'Infectious Disease Control in the USSR (1917-1965)' (V. D. Timalov)	81	106
Review of Book on Longevity (V. A. Nesterov)	82	110
Review of Book 'Essay on the Development of the System for Improving the Qualifica- tions of Physicians in the USSR' (B. H. Khromov).....	84	113
Review of Bibliographic Index on Moldavian Public Health (B. D. Petrov).....	85	118
Review of Book 'Surgical Errors' (S. S. Ivanov).....	86	120
Third All-Union Conference on Medical History (P. I. Kaktysk et al).....	89	125
Machine Diagnosis and Automation in Medicine and Biology (K. L. Mirianashvili).....	92	133
An Expanded Presidium of the Central Scientific-Methods Commission on Sanitary Statistics of the Ministry of Health USSR (Ye. V. Zhuravleva).....	94	137
Medical History Museum (V. I. Georgadze)..	95	140

Available from JPRS 46847

SOVIET PUBLIC HEALTH

No. 9, 1968

- USSR -

Following are translations of selected articles from the Russian-language periodical Sovetskoye zdavookhraneniye (English version above), No. 9, Moscow, 1968, pages 3-95. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
		Source Report
The State of and Tasks Pertaining to the Organization of the Practical Implementation of Research Findings at Scientific Institutions of the Ministry of Health USSR (D. A. Zhdanov).....	3	1
N. I. Pirogov on the Basic Attributes of a Scientist (E. S. Antitenko).....	14	19
A Study of Persons Having No Cases of Illness Entailing Temporary Disability (V. G. Antropova).....	18	27
A Study of Working and Living Conditions of Cerebral Stroke Victims with Vascular Lesions of the Brain (V. P. Kitsenko et al).....	21	31
		(Contd)

Available from JPRS 46888

SOVETSKOYE ZDRAVOOKHRANENIYE
No 9, 1968

	Source	Report
Industrial Traumatism Among Tallin Machine Builders (V. P. Lemarin'ye)...	25	38
Certain Theoretical Questions in Public Health Management (K. G. Gorshukova).	28	43
Calculating the Cost of Polyclinic Care (M. P. Roytman et al).....	32	50
Methods of Determining Labor Expendi- tures in Clinico-Diagnostic Labora- tories (G. Z. Demchenkova).....	35	56
Concerning Organization Forms in the Management of Work on Malaria Pre- vention by the Parasitological Service (N. N. Dukhanina).....	41	66
Concerning Cooperation Between the Medical Post and the Sanatorium- Prophylactorium (I. P. Barskiy).....	44	71
A New Stage in the Development of the Donor System in the Soviet Union (A. N. Filatov et al).....	47	75
The Vuz Library -- An Information Center for Oblast Medical Specialists (A. A. Voskoboy).....	50	81
Internship -- A New Form for Training Physicians (V. A. Minyayev).....	53	85
Experience Derived from Training Physician-Specialists Through Intern- ship (E. A. Zadorozhnyy).....	56	89
Development of the Hungarian Public Health Service Under the Third Five- Year Plan (L. Cherba).....	58	93
Certain Demographic Indicators on the Algerian People's Democratic Republic (P. N. Samykin).....	62	100

(Contd)

Available from JPRS 46888

SOVETSKOYE ZDRAVOOKHRANENIYE
No 9, 1968

	Source Report	
The Training of Medical Personnel in Iraq (I. M. Kozlov).....	63	102
The Use of Communications Devices in Foreign Medical Institutions (V. M. Gorukhin).....	66	107
Review of Book 'Problems in Medical History in Bulgaria and Bulgarian- Russian and Bulgarian-Soviet Medical Ties' (P. D. Petrov).....	83	112
Review of Book 'Questions in the Theory and Method of Planning' (D. P. Belyatskiy).....	84	115
Review of Book 'Experience in Mechanizing Medical Record Keeping in Hospitals' (V. Ya. Mikheykin).....	87	122
Review of Journal 'Public Health in Soviet Estonia' (N. V. El'shteyn).....	88	126
Review of Book 'Public Health Maps in the Atlas of the Development of USSR Economy and Culture' (L. I. Saravayskaya).....	89	129
Review of Book 'Labor Hygiene and Occu- pational Pathology in the Petroleum and Petrochemical Industry' (R. O. Amirov).....	91	134
Abstracts of Two Books Published in 1968	92	136
Tribute to Distinguished Woman Obstetrician (N. Frolova).....	93	138
Leonid Grigor'yevich Lekarev (On His 60th Birthday) (Ye. Protsek).....	94	141

Available from JPRS 46888

SOVIET PUBLIC HEALTH

No. 10, 1968

- USSR -

Following are translations of selected articles from the Russian-language periodical Sovetskoye zdravookhraneniye (English version above), No. 10, Moscow, 1968, pages 3-95. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
A Message to Soviet Public Health Personnel.....	3	1
Decree of the Supreme Soviet USSR "Concerning the State of Medical Care and Measures for Improving the Public Health Service in the USSR"..	4	3
The State of Medical Care and Measures for Improving the USSR Public Health Service (B. V. Petrovskiy).....	6	7
Fiftieth Anniversary of the Meditsina Publishing House (V. I. Mayevskiy)..	21	32
		(Contd)

Available from JPRS 46973

SOVETSKOYE ZDRAVOOKHRANENIYE

No 10, 1968

	Source Report	
Industrial Traumatism Among Tallin Machine Builders (V. P. Lemarin'ye)...	25	38
Certain Theoretical Questions in Public Health Management (K. G. Gorshukova).	28	43
Calculating the Cost of Polyclinic Care (N. P. Roytman et al).....	32	50
Methods of Determining Labor Expendi- tures in Clinico-Diagnostic Labora- tories (G. Z. Demchenkova).....	35	56
Concerning Organization Forms in the Management of Work on Malaria Pre- vention by the Parasitological Service (N. N. Dukhanina).....	41	66
Concerning Cooperation Between the Medical Post and the Sanatorium- Prophylactorium (I. P. Barskiy).....	44	71
A New Stage in the Development of the Donor System in the Soviet Union (A. N. Filatov et al).....	47	75
The Vuz Library -- An Information Center for Oblast Medical Specialists (A. A. Voskoboy).....	50	81
Internship -- A New Form for Training Physicians (V. A. Minyayev).....	53	85
Experience Derived from Training Physician-Specialists Through Intern- ship (B. A. Zadorozhnyy).....	56	89
Development of the Hungarian Public Health Service Under the Third Five- Year Plan (L. Cherba).....	58	93
Certain Demographic Indicators on the Algerian People's Democratic Republic (P. M. Samykin).....	62	100

Available from JPRS 46973

SOVIET PUBLIC HEALTH

No. 11, 1968

Following are translations of selected articles from the Russian-language periodical Sovetskoye zdavookhraneniye (English version above), No. 11, Moscow, 1968, pages 3-88. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source Report	
On Measures for Further Improving the Public Health Service and for the Development of Medical Science in the Nation.....	3	1
Social Problems in Labor Hygiene (N. V. Dogle et al).....	6	6
The Public in the Struggle for Health as an Attainment of the People (R. I. Korel').....	10	12
A Comparative Evaluation of Various Methods of Studying the Health of the Population (V. A. Nesterov et al).....	13	18
Basic Particulars in the Methods and Organization of Research on the Feasibility of Centralized Medical Care of the Rural Population (I. D. Bogatyrev et al).....	18	26

(Contd)

Available from JPRS 47328

SOVETSKOYE ZDRAVOOKHRANENIYE
No 11, 1968

Source Report

Concerning the Organization of the Work of Physicians and Laboratory Assistants in Clinico-Diagnostic Laboratories (G. Z. Demchenkova).....	23	34
Materials Characterizing the Relation- ship Between Coronary Disease and the Mode of Life (A. F. Golubovskiy).....	28	43
Concerning the Scientific Organization of Labor of Physicians in Dermato- Venerological Institutions (A. I. Sul'zhenko).....	31	47
Height and Weight of Newborn Infants in a Rural Area of the Ukraine (L. M. Navrotskaya).....	35	54
A Joint Medical-Engineering Team at an Industrial Enterprise (I. M. Matovskiy et al).....	38	59
Review of Book On 'Modern Theories of Medicine' (B. Ya. Smulevich).....	82	66
Review of Book 'The Social Problems of Medicine' (V. S. Glagolev et al).....	83	69
Review of Book 'Cybernetics and the Soviet Public Health Service' (I. V. Polyakov).....	87	77

Available from JPRS 47328

SOVIET PUBLIC HEALTH

No. 12, 1968

- USSR -

Following are translations of selected articles from the Russian-language periodical Sovetskoye zdavookhraneniye (English version above), No. 12, Moscow, 1968, pages 3-92. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
Problems in the Scientific Organization of Labor and Public Health Management in the USSR (D. D. Venediktov).....	3	1
Philosophy and Natural Science at a New Frontier (P. V. Alekseyev et al).....	9	11
Concerning the Rational Distribution of Students' Classroom and Extracurricular Work (V. Ye. Chaplik).....	15	21
Physical Development of Children of School and Preschool Age in a Rural Locality of the Moldavian SSR (T. S. Krivoruchko et al).....	28	28
		(Contd)

Available from JPRS 47554

SOVETSKOYE ZDRAVOOKHRANENIYE
No 12, 1968

Source Report

Morbidity Among Pupils in the First Through the Eighth Grades (M. S. Meller).....	32	35
Morbidity Among Pupils Attending Schools Teaching a Number of Subjects in a Foreign Language (N. H. Bushanskaya et al).....	37	45
Experience Derived from the Application of Computer Technology in the Work of a Polyclinic (I. M. Repnikov).....	41	51
The Formation of Medicine as an Element in the Productive Forces of Society (R. I. Korel').....	49	56
Aid Rendered to the Practical Public Health Service by the Omsk Medical Institute (V. P. Govorov et al).....	53	63
The Hospital Under the Five-Day Work Week (V. S. Zalmanenok).....	56	69
The Contents of <u>Sovetskoye zdavookhraneniye</u>	82	74

Available from JPRS 47554

SOVIET PUBLIC HEALTH

No. 1, 1969

- USSR -

Following are translations of selected articles from the Russian-language periodical Sovetskoye zdavookhraneniye (English version above), No. 1, Moscow, 1969, pages 3-93. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u> Source Report	
Basic Directions in the Development of the Public Health Service During the Next Five-Year Period (1971-1975) (V. V. Golovtseyev).....	3	1
Preliminary Results of and Experiment Aimed at Expanding the Rights of Heads of Public Health Institutions (I. V. Babanovskiy, et al).....	9	9
Questions Pertaining to the Methods of Managing Public Health Institutions (T. Ilya et al).....	75	15
Public Health Problems in the Kingdom of Nepal (V. I. Filimonov).....	78	19
Arkadiy Mikhaylovich Merkov (On His 70th Birthday) V. A. Nesterov et al).....	92	22

Available from JPRS 47691

SOVIET PUBLIC HEALTH

No. 2, 1969

- USSR -

Following are translations of selected articles from the Russian-language periodical Sovetskoye zdravookhraneniye (English version above), No. 2, Moscow, 1969, pages 3-93. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
On Measures for Increasing the Effectiveness of the Work of Scientific Organizations and for Accelerating the Utilization of Advances of Science and Technology in the National Economy.....	3	1
Work Experience of Scientific Organization Department of Head Institute (L. S. Rozanov)..	14	11
On the Scientific Organization of Labor of Medical Personnel in a Central Rayon Hospital (P. G. Dorosh).....	17	14
The Organization of Communications and Medical Gas Supply Systems in Large Hospitals (A. G. Sychev).....	25	20
		(Contd)

Available From JPRS 48071

SOVETSKOYE ZDRAVOOKHRANENIYE
No 2, 1969

	<u>Page</u>	
	Source	Report
An Important Problem in Rural Public Health (N. V. Bazanov).....	36	25
Organization of Work of Ship Medical Personnel (D. S. Slutsker).....	47	28
Computer Diagnostics in Specialized Public Health Management (Ya. Kebort, et al).....	52	31
Review of Book on Public Health Management in USSR (V. Shabaylov).....	79	35
Concerning a Scientific Session of Moscow Inter- national Courses of Hospital Administrators (V. N. Butrov).....	90	40

Available From JPRS 48071

STAUB
Vol 28, No 8, 1968

Petrausch, D. and G. Schumann. Size Spectrometry of Radioactive Aerosols by Means of Electrostatic Precipitation	1
Paffrath, D. and W. Peters. Investigations at β -Decay Curves of Fission Product Aerosols with Consideration of Fractionation Effects	7
Jacobi, W., J. Eichler, and N. Stolterfoht. Particle Size Spectrometry of Aerosols by Light Scattering in a Laser Beam	15
Einbrodt, H.J., H. Reploh, and H. Kortemme. Lead Deposition in Normal Human Lungs	22
Geisel, W. Calculating the Particle Size Distribution of a Dust by Means of Fractional Separation Efficiency Curves and Total Efficiency Curves	25
Grupinski, L. Measuring the Concentrations of Organic Substance in Waste Gases by Absorption and Infrared Spectrometry	28
Convention Reports:	
Health Problems in the Ceramics Industry	31
Second International Conference on the Biological Effects of Asbestos	33
Mineralogy and the Use of Asbestos, Dust Control and Dust Limits	37
European Symposium on the Effects of Air Pollution	39
Patent Report	40

Available From CPSTI TT 68-50448/8

A. M. Komarov and S. M. Egorov NON-FERROUS METAL PLANTS IN THE 50 YEARS OF SOVIET RULE.....	1	(1)
G. S. Osintsev THE ROAD TO FAME OF THE MEN OF KOL'CHUGINO.....	6	(6)
G. M. Shteingart FROM THE PRE-REVOLUTIONARY ALAGIR SILVER AND LEAD PLANT TO PRESENT DAY "ELEKTROTSTINK".....	12	(11)
V. K. Zakhvatkin, A. Bogdanov, and I. Shipov SOME IMPROVEMENTS IN POLYMETALLIC ORE CONCENTRATION.....	24	(22)
S. I. Popov and L. D. Kulikov DEVELOPMENT OF BULK FLOTATION SCHEMES.....	32	(29)
Yu. I. Fil'shin, N. B. Karataev, K. M. Asanova, and M. A. Kulikova COMBINATIONS OF XANTHOGENATES USED AT THE ZYRIANOVSK F.....	34	(31)
I. M. Plaksin and N. I. Eliseev EFFECT OF NON-SULFIDE MINERALS ON THE KINETICS OF GALENITE FLOTATION FROM SODIUM SULFIDE SOLUTIONS.....	35	(32)
U. Z. Ishmukhametov USE OF FOAM REMOVERS IN THICKENING PROCESSES.....	38	(34)
S. A. Pervushin, N. V. Oudina, A. N. Drozdova, and V. A. Chernav AN IMPROVED METHOD OF ALLOCATING EXPENDITURE IN THE MULTIPLE PROCESSING OF COPPER-NICKEL ORES.....	39	(35)
A. S. Yaroslavtsev and A. F. Saprygin REDUCTION OF COPPER WITH HYDROGEN FROM SULFATE COPPER-ZINC SOLUTIONS.....	45	(40)
Yu. P. Kupryakov, E. A. Samkov, V. S. Chakhotin, and V. G. Shkuro A STUDY OF CONDITIONS FOR INCREASING THE PRODUCTIVITY OF REVERBERATORY FURNACES AND OF METHODS OF REDUCING THE LOSSES OF COPPER WITH DISCARD SLAGS.....	49	(42)
R. Zh. Khobdabergenov, M. P. Smirnov, and B. V. Kolosov DETERMINING THE OPTIMUM CALCIUM-MAGNESIUM RATIO WHEN DEBISMUTHIZING LEAD..	54	(47)
N. A. Stolyarevskii and M. A. Bogdanov INTRODUCTION OF SILICON RECTIFIERS AT THE UKSTISK.....	56	(49)
A. S. Ogienko, P. G. Romankov, and N. B. Rashkovskaya SIMULTANEOUS GRANULATION AND DRYING OF SLURRIES OF FINELY DISPERSED MATERIALS IN A FLUIDIZED BED.....	59	(51)
I. A. Buravoi and T. V. Dracheva SOME PRINCIPLES GOVERNING THE ACID LEACHING OF ZINC CALCINES IN A FLUIDIZED BED.....	64	(54)
P. A. Talalushkin, E. F. Sagimbaev, and T. I. Krasil'nikova ECONOMIC ADVISABILITY OF EXPANDING ZINC POWDER PRODUCTION AT ELECTROLYTIC ZINC PLANTS.....	70	(59)
S. M. Mel'nikov and R. A. Isakova IMPROVING THE TECHNOLOGY OF TREATING MERCURY-BEARING RAW MATERIAL.....	72	(61)
M. K. Vidyasova, A. I. Belyaev, A. V. Valchobov, and T. Khonkhodzhaev FUSIBILITY OF GRYOLITE-ALUMINA MELTS, CONTAINING MgF_2 AND LiF	77	(65)
R. Yu. Zinyuk, V. V. Borzenko, S. M. Baevskaya, and M. N. Smirnov IMPROVING THE PERFORMANCE OF VACUUM CARTRIDGE-TYPE FILTER THICKENERS.....	80	(67)
I. T. Zeleny, V. M. Kravchenko, Yu. N. Mikol'skii, and B. A. Turiyanskii EFFECT OF HEATING ON THE POSITION OF THE ROTATION AXIS OF ROTARY KILNS.....	85	(70)
V. A. Bezvoritnii and A. B. Bezukladnikov CHLORINATION OF A TITANIUM-SILICON CONCENTRATE IN A MELT OF CHLORIDE SALTS.....	88	(72)

Available From Primary Sources
Vol 8, No 9, 1968

(Continued)

TSVETNYE METALLY
Vol 40, No 9, 1968

I. I. Skakovskii and A. M. Tugovskii IMPROVING THE TECHNOLOGY OF TREATING GERMANIUM RAW MATERIAL.....	93 (76)
V. F. Goloveshko, L. N. Sergeev, and Ya. P. Shabashov CALCULATION OF NONRECOVERABLE LOSSES IN BRASS SMELTING.....	94 (77)
A. D. Andreev, L. A. Mikheichev, A. V. Kurdyumov, and I. V. Boshenok ELECTRIC FLUX REFINING OF ALUMINUM ALLOYS.....	97 (79)
S. L. Tsukrov, V. C. Lavydov, and L. S. Egorova DETERMINATION OF COOLING INTENSITY DURING QUENCH HARDENING OF ALUMINUM SHEETS.....	101 (82)
Iu. V. Managin, G. I. Taranenko, and Yu. K. Fedorov CALCULATION OF FORCE PATTERNS IN THE EXTRUSION OF HIGH-MELTING METALS.....	103 (83)
V. T. Kurakov, V. A. Gashenko, and O. V. Raitskii DETERMINATION OF HEAT-DIFFUSIVITY COEFFICIENTS FOR HARD ALLOYS AND FILLERS.....	105 (84)
V. A. Mal'kov and T. N. Koshina PURIFICATION OF WASTE WATER OBTAINED FROM METAL PICKLING.....	108 (86)
READERS DISCUSS THE WORK OF THE JOURNAL, "TSVETNYE METALLY".....	111 (88)
A. N. Ivakin and P. N. Antonov A NEW TUNGSTEN DEPOSIT IN THE EASTERN USSR.....	114 (90)
V. N. Leksin REVIEW OF "FUNDAMENTALS OF TECHNICAL AND ECONOMIC PLANNING FOR NON-FERROUS METALLURGICAL PLANTS," BY I. M. GRATSERSHTEIN AND L. S. KUL'NITSKII.....	117 (92)
1968 BOOKLIST OF "METALLURGIYA" PUBLISHERS.....	120 (96)

Note: Numbers in parentheses represent page numbers in Russian original.

RUSSIAN ABBREVIATIONS IN TEXT

AN SSSR.....	Academy of Sciences, USSR.
CPSU.....	Communist Party, Soviet Union.
Gintsvetmet.....	State Institute of Non-Ferrous Metals.
Gipronikel'.....	State Institute for the Design and Planning of Nickel Establishments.
Giredret.....	State Rare Metals Scientific Research Institute
Gosplan.....	State Planning Committee of the Council of Ministers of the USSR.
GOST.....	All-Union Standard.
Glavsvetmetobrabotka...	Main Administration for the Processing of Non-Ferrous Metals.
IL.....	Foreign Literature Publishing House.
Mekhanobr.....	Scientific Research Institute for the Mechanical Concentration of Minerals.
NTO.....	Scientific and Technical Division.
TsIIN TsM.....	Central Office for Information on Non-Ferrous Metals.
VAMI.....	All-Union Aluminum and Magnesium Institute.
VNIITsvetmet.....	All-Union Scientific Research Institute for Non-Ferrous Metals.
VNIIMETMASH.....	All-Union Scientific Research Institute for Metalworking and Machinery.
VODGEO.....	All-Union Scientific Research Institute for Water Supply, Sewer Systems, Hydrotechnical Structures, and Hydrogeological Engineering.
VUZ.....	Institute of Higher Education.

Available From Primary Sources
Vol 8, No 9, 1968

Table of Contents

G.A. Sirenko and V.I. Khotkevich. SUBSTRUCTURE OF COLD-WORKED CCPPR—NICKEL ALLOYS	1841
V.P. Indykul. THEORY OF HEATING OF RELATIVISTIC PLASMA BY STOCHASTIC FIELDS	1844
L.L. Psechnik and A.A. Ovcharenko. A STUDY OF THE BEHAVIOR OF PLASMA IN A VARIABLE ELECTRIC FIELD. I.	1849
V.G. Koval'chuk. PERTURBATION THEORY FOR THE RETARDED TEMPERATURE GREEN FUNCTIONS. A SYSTEM OF FERMIONS WITH DIRECT INTERACTION	1854
V.G. Koval'chuk. PERTURBATION THEORY FOR THE RETARDED TEMPERATURE GREEN FUNCTIONS. A SYSTEM OF PHONONS IN A CRYSTAL WITH ANHARMONICITY	1863
N.I. Shtepa. RADIAL FOCUSING OF FINE PARTICLES BY TRANSAXIAL ELECTROSTATIC FIELDS	1874
G.V. Fedorov, L.S. Palatnik, Ya.S. Pavlyak, and V.I. Evtushenko. STRUCTURE TRANSITIONS IN COPPER VACUUM CONDENSATES	1881
S.M. Ryabchenko. PARAMAGNETIC RESONANCE OF EXCHANGE-COUPLED Cu^{2+} PAIRS IN $\text{C}(\text{Cl})_2$	1886
V.A. Yamnitskii, E.G. Kopanets, Yu.S. Korda, S.P. Tsytko, and P.M. Zeidlits. UNRAVELLING COMPLEX GAMMA SPECTRA WITH THE DNIENR CONTROL COMPUTER	1889
V.A. Yamnitskii, A.F. Makarov, E.G. Kopanets, Yu.S. Korda, S.P. Tsytko, and P.M. Zeidlits. AUTOMATIC REACTION- YIELD MEASUREMENT ON THE ELECTROSTATIC ACCELERATOR AT THE PHYSICO-TECHNICAL INSTITUTE OF THE UKRAINIAN ACADEMY OF SCIENCES	1900
A.M. Kosevich and I.G. Margvelashvili. RADIATION OF ELECTRO- MAGNETIC AND SOUND WAVES BY A UNIFORMLY MOVING DISLOCATION IN AN IONIC CRYSTAL	1910

(Contd)

Available from CPSTI TT 67-51421/12
AEC-tr-6869/12

UKRAINSKIY FIZICHESKIY ZHURNAL
Vol 12, No 12, 1967

V. P. Romanov and V. A. Solov'ev. CRITICAL DENSITY FLUCTUATIONS AND THEIR EFFECT ON ABSORPTION OF SOUND.	1921
A. G. Mikolaichuk, Ya. I. Dutchak, and D. M. Freik. PREPARATION AND ELECTRICAL PROPERTIES OF B-ZnS FILMS.	1927
L. L. Pasechnik and A. A. Ovcharenko. A STUDY OF THE BEHAVIOR OF PLASMA IN A VARIABLE ELECTRIC FIELD. II.	1931
A. A. Stolyarov. STABILITY TIME OF METASTABLE STATES OF UNAGITATED LIQUIDS.	1936
M. K. Sheinkman and N. E. Korsunskaya. DETERMINATION OF THE CONCENTRATION OF TRAP LEVELS FROM THERMALLY STIMULATED CONDUCTIVITY IN SEMICONDUCTORS.	1940

B R I E F N O T E S

Ya. I. Dutchak, P. V. Panasyuk, and O. P. Stets'kiv. HEAT CONDUCTIVITY OF Pb-Bi ALLOYS IN THE LIQUID STATE.	1950
I. A. Gindin, V. V. Kozinets, Ya. D. Starodubov, and V. I. Khotkevich. RECRYSTALLIZATION OF HIGH-PURITY COPPER AFTER TENSILE DEFORMATION AT LOW TEMPERATURES.	1951
N. I. Butsko, E. G. Moroz, and I. S. Osypishin. INVESTIGATION OF SOME PROPERTIES OF PROUSTITE (Ag_3AsS_3).	1953
P. P. Kirichok, V. V. Zaporozhets, and S. M. Karal'nik. DETECTION OF FERROUS IRON IN FERRITES.	1955
Ya. I. Dutchak and V. Ya. Prokhorenko. STRUCTURE-SENSITIVE THERMO-ELECTRIC PROPERTIES OF LIQUID INDIUM AND GALLIUM.	1957
G. M. Ivanil. ROENTGENOLUMINESCENCE OF NaCl PHOSPHORS AS A FUNCTION OF IRRADIATION TIME.	1960
V. M. Koshkin, B. L. Timan, and L. P. Gal'chinetskii. CRYSTALLO-CHEMICAL AND THERMAL PROPERTIES OF SEMICONDUCTORS WITH STOICHIOMETRIC VACANCIES.	1963
E. Yu. Brailovskii and I. D. Konozenko. THE EFFECT OF GAMMA IRRADIATION ON THE ELECTRICAL PROPERTIES OF p-TYPE GaAs.	1967
G. L. Vysotskii and M. A. Chegoryan. SPIN-SPIN INTERACTION IN THE OPTICAL POTENTIAL AND EXCITATION OF ANALOG STATES IN QUASIELASTIC SCATTERING.	1969

(Cont'd.)

Available from CFSTI 67-51421/12
AEC-tr-6869/12

UKRAINSKIY FIZICHESKIY ZHURNAL
Vol 12, No 12, 1967

L.Ya. Kucherov and V.I. Shiyanovskii. A COMPARATIVE STUDY OF THE KINETICS OF SURFACE AND BULK CONDUCTANCE OF CdS SINGLE CRYSTALS	1971
A.S. Klimenko, A.I. Mal'ko, L.S. Saltykov, and V.I. Chirko. ASYMMETRY IN THE ANGULAR DISTRIBUTION OF THE $Ni^{64}(d, d)Ni^{64}$ REACTION PRODUCTS WITH POLARIZED DEUTERONS	1974
V.S. Prokopenko and N.N. Pucherov. RELATION BETWEEN DIFFERENTIAL CROSS SECTION AND POLARIZATION IN ELAST. SCATTERING OF PROTONS	1976
E.A. Tikhonov and M.T. Shpak. STIMULATED LIGHT RADIATION FROM LIQUID SOLUTIONS OF POLYMETHINE DYES	1978
G.L. Salisra and E.V. Tunashenskii. GENERALIZED EINSTEIN'S DIFFUSION EQUATION FOR ELECTRON DIFFUSIVITY	1981
E.R. Dobrovinskaya, V.M. Dobryak, Ya.A. Zakharin, and N.I. Krainyukov. THE EFFECT OF ISOTHERMAL ANNEALING ON DISLOCATION DENSITY IN SINGLE CRYSTAL CsI AND NaI.	1983
M.P. Rekalov. UNIVERSAL INTERACTION, DEGENERACY OF REGGE POLES, AND RELATIONS BETWEEN HADRON TOTAL CROSS SECTIONS	1985
AUTHOR INDEX TO VOLUME 12.	1989

Available from CFSTI TT 67-51421/12
AEC-tr-6869/12

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 12, December 1967

Following is a complete translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 22, No 12, December 1967, pages 1-79. Author's name and original source page accompany each article.

CONTENTS	Page	
	<u>Source</u>	<u>Report</u>
Address to the Central Committee of the Communist Party of the Soviet Union, Presidium of the Supreme Soviet of the USSR, Council of Ministers of USSR (Address Adopted by the General Meeting of the 25th Anniversary Session of the USSR Academy of Medical Sciences on 3 October 1967)	3	1
Neuroendocrine Disintegration in the Radiation Sickness Syndrome (A.A. Voytkovich)	5	3
Morphological and Functional Changes in the Adrenals Following Internal Irradiation of the Organism (G.A. Zedgenidze et al)	15	21
Functional State of the Hypophyseo-adrenal System and Radioresistance (L.A. Tiunov et al)	18	28
Influence of Dosage Microdistribution Factor on the Effect of Thyroid Irradiation (Yu.A. Klassovskiy)	25	39
Neoplastic Effect of Radioactive Iodine Isotopes (I.Ya. Vasilenko, Yu.A. Klassovskiy)	30	49
Correlation between Adrenocortical and Medullary Reactions to Irradiation (G.A. Tkacheva)	33	56
		(Contd)

Available from JPRS 44555

VESTNIK AKADEMII MEDITSINSKIH NAUK SSSR

No 12, 1967

	<u>Source</u>	<u>Report</u>
Ultrastructure of Neurosecretory Cells in the Rat Supra-optic Nucleus Following Radiation Injury (I.I. Dedov)	38	66
Changes in the Course of Gametogenesis as a Possible Consequence of Radiation-induced Disintegration of the Endocrine System (G.M. Persov)	45	80
Changes in the Testes of Albino Rats Following Single and Chronic Exposure to Small and Moderate Doses of Gamma Rays (S.A. Keyzer, G.A. Lemash)	53	94
Early Thyroid Reaction to Total Body Gamma Irradiation (A.V. Tkachev)	58	103
Experimental Study of Hereditary Muscular Dystrophy (Ye.P. Zdrodovskaya, Ye.A. Lotosh)	61	108
Systematic Alphabetical [Russian] List of Articles Published in 1967 in the Journal, Vestnik of the USSR Academy of Medical Sciences	71	120
Author Index	77	129

Available from JPRS 44555

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 8, August 1968

This publication comprises a translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 23, No 8, August 1968, pages 1-96. Author's name and original source page accompany each article.

CONTENTS	<u>Page</u>	
	Source	Report
The Role of Genetic Induction in Normal and Pathological Processes (R.I. Salganik)	3	1
Prospects for the Development of Genetics of Bacterial Virulence (V.D. Timakov, V.G. Petrovskaya)	11	13
Biochemical and Genetic Aspects of Active Carbohydrate Transport into the Bacterial Cell (V.N. Gershanovich)	19	25
Sex Factor Mutations in Bacteria (A.P. Pekhov)	28	37
Extrachromosomal Heredity in Bacteria (D.G. Kudlay)	34	45
Current Problems of the Study of Human Chromosomal Pathology (Ye.F. Davidenkova)	41	55
Population Aspects in the Study of Human Chromosomal Pathology (N.V. Timofeyev-Rasovskiy, N.P. Bochkov)	51	69
The Problem of Polymorphism in Neurogenetics (I.I. Shtil'bens)	59	80
		(Contd)

Available from JPRS 46627

VESTNIK AKADEMII MEDITSINSKIKH NAUK SSSR
No 8, 1968

	<u>Page</u>	
	Source	Report
The Role of Genetic Research in Development of Dermatology (G.B. Belen'kiy)	63	86
Some of the Biochemical Disturbances Associated with Progressive Muscular Dystrophy (L.O. Badalyan et al.)	73	99
CURRENT EVENTS		
Visiting Session of a Department of the USSR Academy of Medical Sciences Dealing with Problems of Medical Genetics (Ye.F. Davidenkova, N.N. Kolosov)	83	113
Conference on Cytogenetics of Man and Experimental Animals (A.A. Prokof'yeva-Bel'govskaya)	87	122
Immunology of Spermatozoa and Fertilization (From the Pro- ceedings of the International Symposium in Varna on 27- 29 October 1967) (I.N. Mayskiy et al.)	90	128
International Symposium on the Problem of "Control of Gene Function in Microorganisms" (Leicester, England) (K.P. Shakhovskiy)	93	135
Abstracts of Articles Published in this Issue	96	141

Available from JPRS 46627

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 10, October 1968

This publication comprises a translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 23, No 10, October 1968, pages 1-96. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
The Use of Muscle Relaxants in Analgesia on Infants with Congenital Heart Lesions (V.A. Kovanev, F.P. Beloyartsev)	3	1
The Effect of Depolarizing Muscle Relaxants on Oncological Patients (T.M. Darbinyan, L.A. Vaysberg)	15	19
The Effect of Fractional Intravenous Administration of Succinylcholine on Surgical Patients (Ya.M. Khmelevskiy, Ya.M. Kamyshev)	20	26
The Dynamics of Tubocurarine Concentration in Blood Plasma during Total Curarization (V.A. Svetlov)	24	32
Choice of Criteria for Automation of Relaxation (V.S. Gigauri, A.A. Bunyatyan)	34	46
The Hazards and Complications Related to Administration of Muscle Relaxants (V.A. Mikhel'son)	38	53
Changes in Circulation Volume in Neurosurgical Patients during Anesthesia and Surgery (G.A. Ryabov, A.A. Titov)	43	62
The Effect of Urea as a Dehydrating Agent on the Blood Coagulation System during Neurosurgery (G.P. Burgman et al.)	50	73

(Contd)

Available from JPRS 46961

VESTNIK AKADEMII MEDITSINSKIKH NAUK BSSR
No 10, 1968

	<u>Page</u>	
	Source	Report
Anesthesiological Distinctions Related to Aortic Surgery (Yu.S. Yezhov, V.Ye. Porfir'yev)	57	82
Acid-base Equilibrium in Patients with Cancer of the Esophagus and Stomach (Yu.Ye. Berezov et al.)	65	94
Mechanics of Respiration and Acid-base status in Neuroleptic Analgesia (M.G. Natanson et al.)	72	103
Major Causes of Changes in Acid-base Equilibrium during Neurosurgery (L.S. Shcherbakova et al.)	76	115
Pancreas Function in Patients with Myocardial Infarction Associated with Circulatory Insufficiency (V.A.Orlov)	83	122
Blood Serum Proteins in Rats with Experimental UMP-1 Sarcoma (Ye.V. Arzamastsev et al.)	88	129
CURRENT EVENTS		
Cancer Societies in Capitalistic Nations (V.N. Demin)	91	132
Some Data on Cancer of the Cervix Uteri in India (V.N. Demin, S.A. Aleksanyants)	93	136
Abstracts of Articles Published in This Issue	95	141

Available from JPRS 46961

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

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This publication comprises a translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 23, No 11, November 1968, pages 1-95. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
Some Methodological Prerequisites for Definition of the Concept of "Life" (Ye.M. Boltenev)	3	1
The Problem of Integrity of the Organism (M.Ya. Berri)	9	10
Methodological Issues in Molecular Biology and Chemotherapy (V.N. Solov'yev)	19	25
The Concept of Norm in Child Development (A.I. Klitorin)	26	34
The "Essence" Category, and the Problem of Essence of Pathology (R.I. Aleksakhina)	30	41
Methodological Analysis of the Correlation between Structure and Function in the Process of Development of the Child Organism (S. Kolarov)	34	48
Some Problems Dealing with Mathematical Modeling of Pathological Processes (N.S. Bobrov et al.)	39	55 (Contd)

Available from JPRS 47212

	<u>Page</u>	
	Source	Report
Methodological Problems Related to Modeling of Normal and Pathological Psyche (A.A. Bratko et al.)	44	61
The Problem of Emotions in Modern Medicine (G.Kh. Shingarov, L.I. Kulikova)	54	75
Some Methodological Problems in Modern Neurophysiology (R.A. Durinyan)	60	83
Philosophical Evaluation of the Self-Observation Method in Psychology and Medical Disciplines (D.I. Dubrovskiy)	68	95
The Creative Process as a Search for Optimum Control (M.N. Morozov)	76	106

BOOK REVIEWS

Social Conditions, Health and Physical Development of Man, by S.Ya. Chikin (Reviewed by Yu.A. Dobrovol'skiy, N.M. Vasyukov)	90	124
Population and the Study Thereof, by R. Press (reviewed by V.Ya. Mikheykin, D.V. Busygin)	93	130

Available from JPRS 47212

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 12, December 1968

This publication comprises a translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 23, No 12, December 1968, pages 1-96. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
The Problem of Intrasytemic Correlations between Digestive Tract Organs (S.I. Filippovich)	3	1
The Role of the Digestive Tract in Regulation of Lipoid Metabolism (M.S. Martsevich et al.)	11	15
The Significance of Cholepoietic Function of the Liver in Lipoid and Protein Metabolism of the Organism (K.S. Zamyckina)	20	30
Current Ideas on the Direct Involvement of the Gastrointestinal Tract in Metabolism (G.K. Shlygin)	27	41
Some Results of Radiotelemetric Investigation of Digestive Tract Function (Ye.B. Babskiy)	34	53
Physical Phenomena Reflecting Functional and Morphological Distinctions of the Stomach (M.A. Sobakin)	45	68
Problems Dealing with Pharmacological Search and Clinical Investigation of New Drugs (M.D. Mashkovskiy)	52	79
Principles, Objectives, and Conditions of Clinical Tests of Antineoplastic Agents (L.F. Larionov)	58	87
	(Contd)	

Available from JPRS 47477

VESTNIK AKADEMII MEDITSINSKIKH NAUK SSSR
No 12, 1968

	<u>Page</u>	
	<u>Source</u>	<u>Report</u>
Application to Oncology of Radiation Emitted by Optical Quantum Generators (Lasers)(R.Ye. Kavetskiy et al.)	62	93
Thymus Changes Associated with Myasthenia Gravis (A.I. Strukov et al.)	68	100
Immunobiological Properties of Serum in the Presence of Experimental Demyelinating Lesions in Nerve Tissue (T.M. Tsaregorodtseva)	74	112
Cytogenetic Sequelae in Mouse Bone Marrow Cells Following Total Body and Local Irradiation (R.I. Bikkulov, S.V. Grechishkin)	80	120
About Spontaneous Activity (A.I. Yesakov)	83	125
Abstracts of Articles Published in This Issue	88	131
Author Index of Articles Published in 1968 in the Journal Vestnik of the USSR Academy of Medical Sciences	92	136

Available from JPRS 47477

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 1, January 1969

This publication comprises a translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Vol 24, No 1, January 1969, pages 1-96. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>	
	Source	Report
Clinicophysiological and Genetic Aspects in the Study of Intra-uterine Asphyxia of the Fetus (A.P. Nikolayev, V.D. Dyshiovoy)	3	1
Specific Effect of Drugs on the Fetus at Different Periods of Intra-uterine Development (V.I. Bodyazhina et al.)	11	12
Immediate and Long Term Changes in the Brain Associated with Different Forms of Asphyxia (B.N. Klosovskiy, Ye.N. Kosmarskaya)	18	21
Pathogenesis of Complications in Intra-uterine Development during the Placentation Period (N.L. Garmasheva et al.)	26	32
The Effect of Labor on the Fetus and the Neonate (L.S. Persianinov)	33	44
The Significance of Complex Determination of Indices of Cardiac Activity and Respiratory Function of Fetal Blood in Assessing its State (I.V. Il'in)	41	55
Physiology and Pathophysiology of Respiratory Function of Fetal Blood (G.M. Savel'yeva)	48	64 (Contd)

Available from JPRS 47569

VESTNIK AKADEMII MEDITSINSKIKH NAUK SSSR
No 1, 1969

	<u>Page</u>	
	<u>Source</u>	<u>Report</u>
Distinctive Features in Respiratory Function of Fetal Blood in Early Asphyxia and Complicated Course of Pregnancy and Labor (T.V. Chervakova)	53	71
Metabolic Mechanisms of Fetal Adaptation in Different Forms of Hypoxia (N.L. Vasilevskaya)	59	80
Asphyxia of Neonates (Pathogenesis and Treatment) (N.S. Baksheyev, A.S. Lyavinets)	66	91
Prenatal Protection of the Fetus and Prevention of Perinatal Mortality Associated with Extragenital Pathology (A.G. Pap, L.B. Gutman)	76	104
Adrenocortical Function in the Neonatal Period (V.A. Tabolin et al.)	82	113
Urgent Problems dealing with Resuscitation of Neonates (M.A. Petrov-Maslakov)	88	123
Abstracts of Articles Published in this Issue	95	133

Available from JPRS 47569

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 2, February 1969

This publication comprises a translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 24, No 2, February 1969, pages 1-95. Author's name and original source page accompany each article.

CONTENTS

	<u>Page</u>
Development of Gerontology in the USSR (D.F. Chebotarev)	1
Some of the Distinctive Features of the Functional State of the Nervous System as Related to Senescence (N.B. Man'kovskiy, A.Ya. Mints)	14
Mechanisms of Functional Changes in the Central Nervous System Related to Aging (V.V. Frol'kis)	28
Changes in Reactive Properties of Sulfhydryl Protein Groups in the Aging Organism (B.I. Gol'dshteyn, O.K. Khil'ko)	42
Age-related Changes in Content and Metabolism of Proteins of Albino Rat Hepatic Cell Nuclei (R.I. Golubitskaya et al.)	50
Antigenic Properties of Rabbit Connective Tissue at Different Age Periods (P.D. Marchuk et al.)	58
Age-related Distinctions of Development of Atherosclerosis in the Main Segments of the Human Arterial System (G.G. Avtandilov et al.)	66
Clinico-anatomical Characteristics of Coronary Insufficiency in Old Age	76 (Contd)
Available From JPRS 47840	

	<u>Page</u>
Morphological Endocrine Gland Changes in Old Age (O.K. Khmel'nitskiy)	82
The Influence of Age on Enzymatic Activity in Adaptation to Dietary Changes (Ye.V. Parina et al.)	95
The Need for Medical Care for Senior Citizens (Z.G. Revutskaya)	103
The Significance of Coccal Infections in Perinatal Pathology (A.M. Dolgopol'skaya et al.)	114
Some of the Results of Investigation of the Problem of "Pre- natal Prophylaxis of Fetal Pathology and Perinatal Mortality" (M.A. Petrov-Maslakov et al.)	126
Abstracts of Articles Published in this Issue	138

Available From JPRS 47840

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 3, March 1969

This publication comprises a translation of the Russian-language periodical, Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 24, No 3, March 1969, pages 1-95. Author's name and original source page accompany each article.

CONTENTS	<u>Page</u>	
	Source Report	
Scientific and Technical Progress and Objectives of Public Health Services (L.K. Khotsyanov)	3	1
The Mechanism of the Effect of Noise on the Organism (Ye. Ts. Andreyeva-Galanina et al.)	11	12
Results and Future Development of Scientific Research on Industrial Hygiene as Related to Use of Chemistry in the National Economy (Ye. I. Vorontsova, Yu. G. Shirokov)	18	23
Some Problems Dealing with Evaluation of Man's Condition Under the Effect of Extreme Factors Related to Space Flights (V.V. Parin, R.M. Bayevskiy)	25	32
Man's Habitat as Related to the Function of His Thermal Analyzer (V.A. Bezborodov et al.)	30	39
The Influence of Ionized Air on the Functional Mobility of Dermal Cold Receptors (A.A. Minkh, J.N. Malysheva)	35	47
The Influence of De-Ionized Air on the Organism (B.V. Anisimov, L.V. Serova)	40	55
Emergency Situations in Radiation Hygiene (A.V. Terman)	43	59
		(Contd)

Available from JPRS 48038

Contents (Cont'd)

	<u>Page</u>	
	Source	Report
Hygienic Aspect of Prevention of Cardiovascular Pathology (I.I. Belyayev)	48	66
Current Status of the Problem of Water Supply Hygiene (Y.M. Grushko)	57	79
Calcium Metabolism and Nutrition of School Children (A.P. Shitskova)	62	87
The Significance of Physiological Changes in the Organism as the Experimental Basis for Setting Hygienic Standards of Foreign Substances in Food (A.I. Shtenberg, A.D. Igant'yev)	69	98
Neurophysiological Analysis of the Mechanism of Asphyxia at Birth (Ye. L. Golubeva)	75	106

LITERATURE SURVEY

Present Status of the Problem of Specific Antigens of Virusinduced Tumors and Leukemias (V.N. Stepina, R.P. Dirlugyan)	81	113

BOOK REVIEW

Hygienic Research Methods, by A.A. Minkh (Z.K. Mogilevchik)	89	128

CURRENT EVENTS

Scientific Forum of Hygienists on the Problem of "Hygiene in Populated Areas" (A.A. Minkh, Ya M. Grushko)	91	132
Abstracts of Articles Published in this Issue	93	137

Available from JPRS 48038

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 4, April 1969

This publication comprises a translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 24, No 4, April 1969. Author's name and original source page accompany each article.

CONTENTS	Page	
	Source	Report
Schizophrenia and Problems in General Pathology (A.V. Snezhnevskiy)	3	1
Clinical Aspects of Biological Investigation of Schizophrenia (R.A. Nadzharov)	9	9
Investigation of the Plasma Factor in Schizophrenics (C. Frohman)	12	14
The Effect of Blood Serum from Schizophrenic Patients on Some Indices of In Vitro Glucose Transformation (D.V. Lozovskiy et al.)	19	24
Altered Properties of Plasma Protein in Schizophrenics (R. Pennell)	24	34
The Influence of some "Stabilizers" on Permeability of Erythrocyte Membranes in the Presence of Schizophrenia (G. Uzunov et al.)	29	44
Correlation between Some Biological Distinctions of Blood Serum of Schizophrenics and Pathogenesis of the Disease (V.A. Fayvishevskiy)	33	50 (Contd)

Available From JPRS 48124

VESTNIK AKADEMIY MEDITSINSKIKH NAUK SSSR
Vol 24, No 4, 1969

	<u>Page</u>	
	Source	Report
Present Status of Investigations of Dimethoxyphenylethylamine (DMPEA) in Schizophrenia (A. Friedhoff)	37	55
Skeleton Structure of a "Hallucinogenic" Molecule (J.R. Smythies)	41	61
Immuno-neurological Models for Investigation of the Biological Activity of Antibrain Antibodies (B.D. Yankovich, I. Rakich)	44	66
Some Results of Investigation of the Immunological Properties of Encephalic Mitochondria (N.I. Kuznetsova)..	51	77
The Pathogenesis of Schizophrenia (R. Heath)	57	87
Auto-immune Processes in Schizophrenia (S.F. Semenov et al.)	63	96
Correlation between Forms and Symptoms of Schizophrenia and Presence of Brain Antibodies (I.A. Stoimenov)	67	101
Investigation of Delayed Type Immunological Reactions in Schizophrenics (A.Ye. Gosheva et al.)	70	108
Genetic Factors and Schizophrenia (E. Slater)	75	117
Biological Approaches to Investigation of Genetics of Schizophrenia (M.Ye. Vartanyan et al.)	79	126
Evolutional and Genetic Aspect of Schizophrenia (I.V. Shakhantova-Pavlova)	84	134
Results of a Clinical and Biochemical Study of Schizophrenics and Members of Their Families (O. Arnold)	88	142
Correlation between Clinical and Environmental Factors in the Pathogenesis of Schizophrenia in a Series of Monozygotic Twins Discordant for Schizophrenia (W. Pollin et al.)	92	148
Abstracts of Articles Published in this Issue	96	154

Available From JPRS 48124

Vestnik OF THE USSR ACADEMY OF SCIENCES

Vol 38, No 6, 1968

[Following is a complete translation of the Russian-language journal Vestnik Akademii Nauk SSSR (English version above), Moscow, Vol 38, No 6, June 1968, pp 3-143. Original page numbers accompany each article.]

Table of Contents

	<u>Page</u>
TEN YEARS OF WORK OF THE SIBERIAN DEPARTMENT OF THE ACADEMY OF SCIENCES USSR	
M. A. Lavrent'yev. The Growth of Science in Siberia	1
A. A. Trofimuk. Problems of the Geology of Siberia and the Far East	12
A. G. Aganbegyan. A System of Models of Optimization of Long-Term Planning	23
G. K. Borekov. The Development of Chemical Investigations	47
D. K. Belyayev. Some Problems of Genetics	64
A. P. Okladnikov. The Archaeology of Siberia	78
In Memory of L. D. Landau	95
A NEW STAGE IN THE STUDY OF THE MOON	
From "Luna-1" to "Luna-14" (A brief report)	97
Yu. N. Lipkiy. Some Results of Global Examination of the Lunar Surface	102
V. V. Shevchenko. Problems of an Inhabited Base on the Moon (According to Pages of the Foreign Press)	119
INTERNATIONAL SCIENTIFIC RELATIONS	
B. A. Kazanskiy and O. V. Krylov. The Problem of Prediction of Catalytic Action	130
G. Ya. Bey-Biyenko. Toward the Thirteenth International Entomological Congress	137
G. D. Smirnov. Prospects of the Development of Contemporary Morphology (Congress in Berlin)	140
(Contd)	

Available from JPRS 46557

VESTNIK AKADEMII NAUK SSSR
Vol 38, No 6, 1968

Brief Communications	143
SESSIONS, CONFERENCES, AND MEETINGS	
Gor'kiy Days (Jubilee Sessions)	151
Problems of International Plasma and Cosmic Rays (Joint Session of Three Departments of the AS USSR)	157
The Physics of Atomic Nuclei (Conference in Riga). Yu. V. Khol'nov	162
Construction of Systems of Multiply Connected Control (All-Union Conference in Moscow). Ya. M. Bershechanskiy, V. K. Kulibinov, and M. V. Meyerov	165
Discussion of Problems of Strength (Session in Mozhinka). L. K. Keller and L. G. Shcherbakova	167
New Methods of Separating Mixtures (Conference in Moscow). V. N. Kulov	170
Questions of Remote Hybridization (All-Union Conference in Moscow). M. A. Makhalia	172
CHRONICLE AND INFORMATION	
Awardee of the Prize Imeni F. P. Savarenskiy	176
Jubilees of Scientists	177
New Books	179

*

THIRTY-EIGHTH YEAR OF PUBLICATION

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Table of Contents

	<u>Page</u>
IN THE PRESIDIUM OF THE ACADEMY OF SCIENCES USSR	
The Development of Scientific Investigations in the Dagestan Affiliate	1
SCIENTIFIC SURVEYS AND REPORTS	
Nuclear Physics in Allied Sciences and the National Economy. A. I. Laypunskiy	7
The Complex Optimization of the Parameters of Thermal Power Equipment. L. S. Popyrin	17
The Wave Theory of the Kinetics of Chemical Reactions. V. G. Levich	21
In Memory of Academician Pavel Fedorovich Yudin	31
THE STUDY OF INTERPLANETARY PLASMA	
Investigations of Plasma Outside the Earth's Magnetosphere By Means of Space Vehicles. K. I. Gringauz	34
Radioastronomical Investigations of the Circumsolar Plasma. V. V. Vitkevich	42
Modelling the Interaction of the Solar Wind With the Earth's Magnetic Field. I. M. Fedgornyy and G. G. Managadze	50
PROBLEMS IN THE SYNTHESIS OF PHYSIOLOGICALLY ACTIVE SUBSTANCES	
The Connection Between Structure and Biological Function in Peptide Systems. (A New Approach to Study of the Problem). Yu. A. Ovchinnikov	57

(Contd)

Available from JPRS 46769

The Chemistry of Medicinal Substances. A. L. Midzhoyan	Page 08
Some Directions of the Chemistry of Plant Substances. S. Yu. Yunusov	74

QUESTIONS OF THE PHYSIOLOGY OF THE NERVOUS SYSTEM

Electronic Computer Technique in the Study of the Brain (Some Possibilities of the Application of Computers in Electro-physical Experiments). M. N. Livanov	80
Hearing and Biological Sonic Radiation. G. V. Gershuni	90

INTERNATIONAL SCIENTIFIC RELATIONS

Investigation of the Brain and Behavior of Man (Conference in Paris). A. R. Luriya	101
A Japanese-Soviet Economic Symposium. T. S. Khachaturov	105
A Meeting of Soviet and Italian Historians. N. P. Komolova	109

BRIEF COMMUNICATIONS	112

SESSIONS, CONFERENCES AND MEETINGS

The Physics of the Solar Supercorona and Interplanetary Plasma (Conference in Moscow). V. I. Vlasov	100
Problems of Strength and Plasticity (Results of the All-Union Congress on Theoretical and Applied Mechanics). V. V. Sololovskiy	126
Investigations of Compounds of Inert Gases (All-Union Conference in Moscow). V.D. Klimov, V. A. Legasov and V. V. Chayvanov	129
Low-Temperature Plasma in the Processing of Inorganic Substances (Seminar in Kiev)	132
Congress of the All-Union Chemical Society imeni D. I. Mendeleev. O. M. Gunina	135
Use of the Mineral Resources of Gulf Kara-Bogaz-Gol (All-Union Conference in Ashkhabad). I. N. Lepeshkov	137
The Formation of Man and Human Society (Symposium in Moscow). D. A. Kraynov and A. A. Kraynov	138
Problems of Complete Khozraschet (Scientific Conference in Leningrad). A. F. Sokolovskiy and Yu. R. Shishlyannikov	142

MEMORIAL DATES, LECTURES AND MEETINGS

The Sixtieth Anniversary of the Birthday of A. V. Topchiyev	146
The Twenty-Fourth Bakh Lecture	148

CHRONICLE AND INFORMATION

The Fiftieth Anniversary of the Institute of General and Inorganic Chemistry	150

(Contd)

Available from JPRS 46769

VESTNIK AKADEMII NAUK SSSR
Vol 38, No 7, 1968

	<u>Page</u>
Jubilees of Scientists	136
Organization of the All-Union Society of Protozoologists	139
Acceleration of the Publication of Primary Scientific Reports	140
Scientific and Organizational Decisions of the Presidium of the Academy of Sciences USSR	161
CRITICISM AND BIBLIOGRAPHY	
Karl Marx. Mathematical Manuscripts. Reviewed by V. N. Molodshiy	163
Albert Einstein. Collection of Scientific Works. Reviewed by Ye. L. Feynberg	174
NEW BOOKS	179

THIRTY-EIGHTH YEAR OF PUBLICATION

Editorial Board

Academicians M. D. Millionshchikov (Editor-in-Chief), V. P. Glushko, A. A. Imshenetskiy, A. Yu. Ishlinskiy, M. I. Kabachnik, P. L. Kapitsa, M. V. Keldysh, V. A. Kirillin, M. A. Markov, A. N. Nesmeyanov, I. Ye. Tamm, T. S. Khachaturov, V. M. Khvostov, M. B. Khrapchenko and A. L. Yanshin, Corresponding Members of the AS USSR M. I. Agoshkov, V. V. Belousov, V. I. Gol'danskiy and V. L. Kretovich, Doctor of Economic Sciences B. G. Kuznetsov, and Doctor of Biological Sciences G. D. Smirnov (Deputy Editor-in-Chief).

Available from JPRS 46769

	<u>Page</u>
INTERNATIONAL SCIENTIFIC RELATIONS (Brief Reports.)	125
 SESSIONS, CONFERENCES AND MEETINGS	
The Urals and Their Metallogeny (Session in Sverdlovsk). V. I. Smirnov and Ya. G. Ter-Oganesov	137
Investigations of Superconducting Materials (Conference in Moscow). Yu. V. Yefimov	139
Problems of the Rheology of Polymers (Symposium in Moscow). A. Ya. Malkin	142
The Development of Calorimetric Investigations (Conference in Leningrad). K. P. Mishchenko	144
Methods of the Obtaining and Analysis of High-Purity Substances (All-Union Conference in Gor'kiy). N. T. Kuznetsov.	146
The Next Tasks of Soviet Microbiology (All-Union Congress of Microbiologists in Kiev). S. I. Lycheva	149
 CHRONICLE AND INFORMATION	
Jubilees of Scientists	155
Awarding of the Prize imeni A. S. Popov	157
Scientific Organizational Decisions of the Presidium of the AS USSR	158
Gold Medals and Named Prizes of the AS USSR in 1969	159
 CRITICISM AND BIBLIOGRAPHY	
<u>Tectonic Map of Eurasia</u> , reviewed by A. Ye. Mikhaylov	161
<u>The Chemistry of Boron Hydrides</u> , reviewed by A. P. Zhigach	166
<u>New Books</u>	168

THIRTY-EIGHTH YEAR OF PUBLICATION

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Table of Contents

	<u>Page</u>
GENERAL MEETING OF THE ACADEMY OF SCIENCES USSR (Session of 18 June 1968)	
Opening Address of Academician M. V. Keldysh	1
From the History of the Discovery of π - and K-Mesons. C. F. Powell	3
The Evolution of Quantum Theory. I. Ye. Tamm	23
IN THE PRESIDIUM OF THE ACADEMY OF SCIENCES USSR	
Scientific Collaboration of the Socialist Countries. I. N. Kiselev	31
ATMOSPHERIC PHYSICS AND METEOROLOGY	
G. I. Marchuk. Prospects of the Development of Methods of Weather Forecasting	39
A. M. Obukhov. Some Problems of Contemporary Atmospheric Physics	48
Ye. K. Fedorov. The Modification of Meteorological Processes	53
PROBLEMS OF ACOUSTICS	
L. M. Brekhovskikh. Study of the Acoustics of the Ocean	58
L. D. Rozenberg. The Effect of Highly Intensive Ultrasonics on Matter	64
D. S. Shrayber. Ultrasonic Flaw Detection	74
B. D. Tartakovskiy. Vibration Damping	80
SCIENTIFIC SURVEYS AND REPORTS	
A. L. Mints and A. A. Vasil'yev. A Model of a Cybernetic Accelerator	86
R. Kh. Freydlina. News of Telomerization as a Method of Synthesis	96
	(Contd)

Available from JPRS 47062

	<u>Page</u>
V. V. Korshak, A. M. Sladkov, Yu. P. Kudryavtsev, and V. I. Knshtuchkin. The Synthesis and Properties of Linear Modifications of Carbon	102
Yu. I. Novitskiy. The Effect of a Constant Magnetic Field on Plants	106
 INTERNATIONAL SCIENTIFIC RELATIONS	
O. V. Krylov. The Fourth International Congress on Catalysis in Moscow	112
A. L. Kursanov, O. N. Kulayeva and G. Ya. Zhiznevskaya. The Biosynthesis of Protein in Plants (International Symposium in Spain)	119
G. I. Mchedlishvili. The Connection of the Blood Supply With the Metabolism and Functions (International Symposium in Tbilisi)	123
Brief Reports	128
 SESSIONS, CONFERENCES AND MEETINGS	
Problems of Ferroelectricity (All-Union Conference in Riga). L. A. Shuvalov	147
Theory of Automata and Artificial Thinking (Conference in Tashkent). P. P. Koryavov	149
Experimental and Technical Mineralogy and Petrography (All-Union Conference in Novosibirsk). V. A. Zharikov and G. O. Piloyan	151
The Development of Investigations of the Rare Alkali Elements (All-Union Conference in Perm'). V. Ye. Plyushchev	153
The Problem of Polar Influences in Molecules of Chemical Compounds (Conference in Estonia). Z. V. Todres	157
Urgent Problems of National-State Building in the USSR (Scientific Conference in Dushanbe). S. I. Yakubovskaya	161
Study of Problems of Australia and Oceania (All-Union Conference in Moscow). I. M. Meliksetova	164
Methodological Problems of Socialist Expanded Reproduction (All-Union Conference in Moscow). N. N. Tikhomirov	167
Urgent Questions of the Economic Theory and Policy of the Socialist Countries (Scientific Conference in Moscow). G. Ye. Spiridonova	173
 CHRONICLE AND INFORMATION	
Awarding of the Prize imeni L. A. Orbeli	180
Organization of the Institute of Concrete Social Investigations	181
The Development of Scientific Work on Balkan Studies	181
Scientific Organizational Decisions of the Presidium of the Academy of Sciences USSR	182
 CRITICISM AND BIBLIOGRAPHY	
A. N. Terenin. The Photonics of Molecules of Dyes and Related Organic Compounds. Reviewed by Kh. S. Bagdasar'yan	183
NEW BOOKS	186

Vestnik OF THE USSR ACADEMY OF SCIENCES

Vol. 38, No. 10, October 1968

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Table of Contents

	<u>Page</u>
IN THE PRESIDIUM OF THE ACADEMY OF SCIENCES OF THE USSR	
Development of Research in the Area of the Social Sciences	1
Activity of the Zoological Institute	10
In Memory of Frederic Joliot-Curie	16
SCIENTIFIC SURVEYS AND REPORTS	
Advances and Problems In Semiconductor Physics, B. M. Vul	20
IN COMPETITION FOR GOLD MEDALS	
On the Contest for Gold Medal Competition imeni V. V. Dokuchayev	28
Determining the Temperatures of Ancient Seas, R. V. Teys	29
Paths in the Development of Carbohydrate Chemistry, N. K. Kochetkov	34
IN COMPETITION FOR NAME PRIZES	
On a Contest to Compete For the Prize imeni V. I. Vernadskiy	40
Intermetallic Compounds and Hydrides, V. I. Mikheyeva	41
Metalloatrans -- A New Class of Physiologically Active Substances, M. G. Voronkov	50
Paleoliths Discovered in a Cave in Primor'ye, A. P. Okladnikov, N. K. Vereshchagin and N. D. Ovodov	57
	(Contd)

Available from JPRS 47295

NEW METHODS AND INSTRUMENTS FOR RESEARCH IN THE SUBMILLIMETER RANGE

Metrics of Submillimeter Waves, N. A. Irimova	67
The Orotron, F. S. Rasin and B. G. Bogomolov	76

INTERNATIONAL SCIENTIFIC RELATIONS

K. Marx and Modern Social Science, V. A. Vinogradov, T. I. Oyzerman and T. T. Timofeyev	80
Development of the Theory of Elementary Particles, S. M. Bilen'kiy, S. B. Gerasimov and P. S. Isayev	88

IN COMPETITION FOR NAME PRIZES

On a Contest to Compete for the Prize imeni A. N. Bakh	92
Regulation of Protein Synthesis in the Living Cell, G. I. Georgiyev	92
Corticosteroids and Their Role in Water-Salt Metabolism, M. G. Kolpakov	96

CONVENTIONS, CONFERENCES AND MEETINGS

Dynamics of the Minor Bodies of the Solar System	102
Problems of Lithology	104
Metallogeny of Tyan'-Shan'	108
Studies in Engineering Psychology	115
Advances and Problems in Scientific Photography	119
Automatic Analysis of Biological Microstructures and Processes	122
Problems in the History of the Foreign Policy of the USSR	124
Discussion of Problems of the History of the Ancient and Medieval City	126

MEMORABLE DATES

One Hundredth Anniversary of the Discovery of the Polymorphism of Iron, D. K. Chernov	131

NEWS ITEMS AND INFORMATION

Academician B. V. Petrovskiy -- Hero of Socialist Labor	135
Birthdays of Scientists	138
Organization of the Khabarovsk Complex Institute	140
Scientific Organizational Resolutions of the Presidium of the Academy of Sciences of the USSR	141

NEW BOOKS

Physical, Mathematical and Technical Sciences	142
Earth Sciences	142
Chemical Sciences	143
Biological Sciences	144
Social Sciences	145
Erratum	147

Available from JPRS 47295

Vestnik OF THE USSR ACADEMY OF SCIENCES

Vol. 38, No. 11, November 1968

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Table of Contents

	<u>Page</u>
AN OUTSTANDING ACHIEVEMENT OF SOVIET SCIENCE AND ENGINEERING	
The Successful Flight of the Zond-3 Automatic Station	1
G. I. Petrov. A New Victory in the Investigation of the Universe	3
IN THE PRESIDIUM OF THE ACADEMY OF SCIENCES USSR	
Preparations for the 100th Anniversary of Lenin's Birth	6
The Scientific Center of Biological Investigations at Pushchino	8
CONTEMPORARY PROBLEMS OF POWER ENGINEERING	
A. Ye. Sheyndlin. New Paths of the Development of Power Engineering	20
A. P. Aleksandrov. Atomic Power Engineering and Its Role in Technical Progress	27
M. D. Millionshchikov. Fifty Years of the Central Aerohydrodynamics Institute imeni N. Ye. Zhukovskiy	37
SCIENTIFIC SURVEYS AND REPORTS	
I. I. Artobolevskiy, M. D. Genkin and V. I. Sergeyev. The Acoustical Dynamics of Machines	56
A. A. Chernov. The Statistical Kinetics of Crystallization	68
V. A. Troitskaya. Investigations at Magnetically Conjugate Points	77
Ye. S. Borisevich and D. P. Kirnos. Apparatus for Recording Vibrations Caused by Earthquakes	85
A. A. Bayev. Structural Investigation of Ribonucleic Acids	92
INTERNATIONAL SCIENTIFIC RELATIONS	
I. P. Pasechnik. The Identification of Underground Nuclear Explosions (Conference in Sweden)	98
	(Contd.)

Available from JPRS 47294

VESTNIK AKADEMII NAUK SSSR
Vol 38, No 11, 1968

	<u>Page</u>
D. N. Nasledov. Problems of the Physics of Semiconductors (Conference in Moscow)	105
A. I. Gorbanev. The International Laboratory in Wroclaw	109
A. B. Severnyy. Study of Solar Flares (Symposium on Capri)	111
M. K. Rybal'chenko, B. V. Kuborskiy, Yu. V. Miloserdin, Yu. V. Yefimov and Yu. I. Likhachev. Refractory Materials (Seminar in Austria)	115
F. G. Gurvich. Problems in the Planning and Organization of Scientific and Technical Investigations (Symposium of Scientists of the Socialist Countries in Moscow)	122
BRIEF REPORTS	127
In Memory of the Late Academician A. A. Grigor'yev	140
SESSIONS, CONFERENCES AND MEETINGS	
The Physics of Flare Stars (Conference in Leningrad). V. G. Gorbatskiy	142
Problems of Stellar Astronomy (Conference in Riga). R. I. Kiladze	144
Discussion of Questions in the Economic Reform (Conference of Economists in Moscow). Yu. R. Shishlyanikov	146
CHRONICLE AND INFORMATION	
Academician V. A. Ambartsumyan -- A Hero of Socialist Labor	151
Jubilees of Scientists	152
Scientific Organizational Decisions of the Presidium of the AS USSR	159
NEW BOOKS	161

THIRTY-EIGHTH YEAR OF PUBLICATION

Editorial Board

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CONTENTS

	<u>Page</u>
New Laureates of the USSR State Prize. M. V. Keldysh	1
Awarding of the Gold Medal imeni K. E. Tsiolkovskiy to Cosmonaut-Pilot K. E. Beregovoy	8
An Important Stage in the Conquest of Space. V. A. Polyanskiy	9
IN THE PRESIDIUM OF THE ACADEMY OF SCIENCES USSR	
Main Directions of the Scientific Activity of the Karelian Affiliate	15
NATIONAL-ECONOMIC PLANNING AND ECONOMIC SCIENCE	
Problems of the Development of Social Production on the Basis of the Economic Reform. T. S. Khachaturov	21
Some Economic Problems in the Stimulation of Scientific and Technical Progress. G. D. Anisimov	31
Scientific Problems in the Measurement and Planning of Labor Productivity. Ye. I. Kapustin and A. P. Golov	39
Study of the Laws of the Formation of Consumer Demand. I. T. Lashchinskiy	49
SCIENTIFIC SURVEYS AND REPORTS	
A New Method of Obtaining Ultralow Temperatures. B. S. Neganov	60
The Collective Ion Accelerator. V. P. Sarantsev	66
The "Solenoid" Installation for Producing Ultrastrong Magnetic Fields. V. G. Veselago, L. P. Maksimov, and A. M. Prokhorov	71
Possibilities of the Use of Solar Energy. V. A. Baum	78
Hormonal Regulation of Coronary Blood Circulation (New Data on the Neurosecretion of the Hypothalamo-Neurohypophysial System). A. A. Galoyan	84

(Contd)

Available from JPRS 47507

	<u>Page</u>
The Ninetieth Birthday of Academician K. I. Skryabin, the Head of Soviet Helminthologists	93
 INTERNATIONAL SCIENTIFIC RELATIONS	
New Soviet Astronomical Instruments in Chile. L. A. Pansiotov and K. N. Tabastsherna	98
Problems of Contemporary Physics (Symposium in Trieste). A. A. Abrikosov, L. D. Faddeyev, and I. M. Khalatnikov	107
The Congress of Slavists in Prague. D. F. Markov	113
 BRIEF REPORTS	117
In Memory of Academician V. N. Shaposhnikov	132
 SESSIONS, CONFERENCES AND MEETINGS	
Discussion of Problems of Radioastronomy (All-Union Conference in Riga). B. A. Dubinskiy	134
Work on Magnetohydrodynamics (Conference in Riga). V. M. Boldyrev and P. P. Orlov	136
The Chemistry and Physical Chemistry of Physiologically and Optically Active Polymers (Symposium in Riga). B. A. Krentsel'	138
Selling Industrial Chemical Reactors (All-Union Conference in Kiev). Yu. I. Kuznetsov	141
Investigation of Dispersively Strengthened and Fibrous Materials (All-Union Conference in Kiev). A. V. Bobylev and M. K. Rybal'chenko	143
Study of the Desert Territories of Central Asia and Kazakhstan (All-Union Conference in Ashkhabad). Yu. V. Sinadskiy	145
 CHRONICLE AND INFORMATION	
Conferences of Presidents of the Academies of Sciences of the Central Asian Republics	149
Academician P. A. Rebinder -- A Hero of Socialist Labor	150
Jubilee of Academician S. L. Sobolev	152
New Institutes of the Siberian Department of the AS USSR	153
Development of Institutes of the Urals Affiliate of the AS USSR	153
 NEW BOOKS	155
 Available from JPRS 47507	

Vestnik OF THE USSR ACADEMY OF SCIENCES

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<u>Contents</u>	<u>Page</u>
GENERAL MEETING OF THE ACADEMY OF SCIENCES USSR	1
Speech of the President of the Academy of Sciences USSR, Academician M. V. Keldysh	1
New Members of the Academy of Sciences USSR	7
Approval of Leaders of Scientific Institutions of the Academy of Sciences USSR	13
IN THE PRESIDUM OF THE ACADEMY OF SCIENCES USSR	
The Development of Scientific Investigations in the Institute of Water Problems	15
IN PREPARATION FOR THE 100TH ANNIVERSARY OF THE BIRTH OF V. I. LENIN	
Leninism and the Present Day. Ye. M. Zhukov	21
SCIENTIFIC SURVEYS AND REPORTS	
Artificial and Synthetic Food. A. N. Nesmeyanov, V. M. Belikov, S. V. Rogozhin, G. L. Slinimskiy, R. V. Golovnya and V. V. Tolstoguzov	33
The Theory of Semimetals. A. A. Abrikosov	59
Problems of Soil Science and Land Improvement	73
INTERNATIONAL SCIENTIFIC RELATIONS	
New Agreement With the Academy of Sciences of Cuba. O. M. Karpenko	85
Study of the X-Ray Spectra and Electronic Properties of Matter (Symposium in Kiev). I. B. Borovskiy	89
A Congress of Entomologists in Moscow. M. S. Gilyarov	93
The Philosophical Congress in Vienna. M. T. Iovchuk and M. N. Gretskiy	100
A Congress of Anthropologists and Ethnographers in Japan. Yu. V. Bromley	108
The History of Central Asia in the Kushan Epoch (International Conference in Dushanbe). Yu. V. Gankovskiy	115

(Contd)

[

Available from JPRS 47761

	<u>Page</u>
BRIEF REPORTS	120
In Memory of Academician S. N. Bernshteyn	138
SESSIONS, CONFERENCES AND MEETINGS	
The Fiftieth Year of the Czechoslovak State (Scientific Session in Moscow). M. N. Kuz'min	140
Fifty Years Since the Proclamation of Polish Independence (Meeting in Moscow). A. M. Orekhov	141
Cosmic Rays -- New Results and Problems (Conference in Tashkent). G. B. Zhdanov	143
Study of Comets and Meteors (In the Astronomical Council). V. V. Fedynskiy and V. N. Lebedinets	146
News in the Development of Plasma Chemistry (Conference in Moscow). F. B. Vurzel'	148
Investigations of Solutions at High Temperatures and Pressures (Symposium in Novosibirsk). P. A. Kryukov and B. S. Smolyakov	150
Polyurethanes and Tasks in Studying Them (Conference in Kiev). Yu. S. Lipatov	152
Biochemical Aspects of Nitrogen Fixation (The Bakh Colloquium in Moscow). V. I. Lyuvimov	155
Problems of Family Law (Scientific Conference in Moscow). V. S. Tadevosyan	159
CHRONICLE AND INFORMATION	
Jubilees of Scientists	162
Observations of a Total Solar Eclipse	165
Organization of the Institute of Soil Science and Agrochemistry of the Siberian Department, Academy of Sciences USSR	167
A New Institute in the Dagestan Affiliate of the Academy of Sciences USSR	168
The Main Directions of Investigations of the Institute of the International Working-Class Movement of the Academy of Sciences USSR	168
New Journals of the Academy of Sciences USSR	169
Scientific Organizational Decisions of the Presidium of the Academy of Sciences USSR	169
CRITICISM AND BIBLIOGRAPHY	
G. A. Kuznetsova. Natural Coumarins and Furocoumarins. Reviewed by N. K. Abubakirov	170
NEW BOOKS	173

Available from JPRS 47761

Vestnik OF THE USSR ACADEMY OF SCIENCES

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CONTENTS

	<u>Page</u>
An Outstanding New Experiment in Space	1
IN THE PRESIDIUM OF THE ACADEMY OF SCIENCES USSR	
Scientific Activity of the Institute of Physical Chemistry	4
Development of the Scientific Institutions of the Bashkir Affiliate	10
Directions of Investigations of New Institutes of the Humanities (In the Section of Social Sciences of the Presidium of the Academy of Sciences USSR)	15
PROBLEMS OF ASTROPHYSICS	
Galactic Nuclei. V. A. Ambartsumyan	22
The Hot Universe. Ya. V. Zel'dovich	38
SCIENTIFIC SURVEYS AND REPORTS	
Problems in Creating Walking Machines. I. I. Artobolevskiy and N. V. Umnov	47
Liquid Lasers. M. Ye. Zhabotinskiy, N. M. Zhavoronkov, V. G. Lebedev, B. N. Malyshev, Yu. P. Rudnitskiy and G. V. Ellert	57
Experiments on the Detection of Parity Nonconservation in Nuclear Forces. V. M. Lobashov	64
- - -	
Investigations of Uzbek Scientists (On the 25th Anniversary of the Academy of Sciences Uzbek SSR). A. S. Sadykov	72
The Fiftieth Anniversary of the Physicotechnical Institute imeni A. F. Ioffe. V. Ya. Frenkel'	80

(Contd)

Available from JPRS 47987

	<u>Page</u>
INTERNATIONAL SCIENTIFIC RELATIONS	
The Development of Collaboration With Bulgarian Scientists. I. N. Kiselev	87
Brief Reports	92
SESSIONS, CONFERENCES AND MEETINGS	
Problems in the Effective Use of the Achievements of Science and Engineering in the National Economy (General Meeting of the Department of Economics of the Academy of Sciences USSR).	102
Questions of Nonlinear Optics (Symposium in Kiev). F. V. Bunkin	105
Charged Particle Accelerators (All-Union Conference in Moscow). Yu. N. Antonov	107
Thermophysical Properties of Matter at High Temperatures (All-Union Conference in Baku). N. I. Gorbunova	109
The Development of the Science of Control (All-Union Conference in Tbilisi). I. N. Vasil'yev	111
The Problem of Rhenium (All-Union Conference in Moscow). M. A. Tytkina and I. A. Tsyganova	112
The Cell Nucleus and Its Ultrastructure (Symposium in Riga). L. P. Yermolayeva	114
CHRONICLE AND INFORMATION	
Academician N. V. Tsitsin -- A Hero of Socialist Labor	118
Academician V. A. Fok -- A Hero of Socialist Labor	119
Jubilees of Scientists:	120
Awarding of the Prize imeni I. M. Sechenov	122
Awarding of the Prize imeni N. G. Chernyshevskiy	122
Organization of the Institute of Spectroscopy of the AS USSR	123
NEW BOOKS	125

THIRTY-NINTH YEAR OF PUBLICATION

Editorial Board

Academicians M. D. Millionshchikov (Editor-in-Chief), V. P. Glushko, A. A. Imshenetskiy, A. Yu. Ishlinskiy, M. I. Kabachnik, P. L. Kapitsa, M. V. Keldysh, V. A. Kirillin, M. A. Markov, A. N. Nesmeyanov, I. Ye. Tamm, T. S. Khachaturov, V. M. Khvostov, M. B. Khrapchenko and A. L. Yanshin, Corresponding Members of the AS USSR M. I. Agoshkov, V. V. Belousov, V. I. Gol'danskiy and V. L. Kretovich, Doctor of Economic Sciences B. G. Kuznetsov and Doctor of Biological Sciences G. D. Smirnov (deputy Editor-in-Chief)

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CONTENTS

	<u>Page</u>
IN THE PRESIDIUM OF THE ACADEMY OF SCIENCES USSR	
The Development of Scientific Investigations in the Komi Affiliate	1
Awarding of the 1968 Gold Medals imeni V. V. Lomonosov to V. A. Engel'gardt and I. Rusnyak	6
TOWARD THE 100TH ANNIVERSARY OF THE BIRTH OF V. I. LENIN	
Leninism and Some Questions of the Contemporary Ideological Struggle. T. T. Timofeyev	9
Scientific Criticism of Contemporary Bourgeois Ideology (Session of Social Scientists in Leningrad)	17
SOVIET OCEANOLOGICAL INVESTIGATIONS	
Long-Term Problems of Oceanology. A. S. Monin	23
A Summary of Contemporary Knowledge of the Pacific Ocean. M. A. Radzikhovskaya	33
Seismic Profiling of the Bottom of the Black Sea. A. M. Segalovich, O. G. Sorokhtin, G. B. Udintsev and B. V. Shekhvatov	40
Two New Floating Institutes. Ye. M. Suzyumov	45
SCIENTIFIC SURVEYS AND REPORTS	
The Soviet Stratospheric Solar Observatory. V. A. Krat	47
Improvement of Image Quality by Computer. G. G. Vaynshteyn, D. S. Lebedev and L. P. Yaroslavskiy	52
Study of the Magnetic Surface Levels of Electrons in Metals. M. S. Khaykin	57
The Mutagenic Action of Viruses. S. M. Gershenson	64
Science and Demographic Processes (Urgent Problems of Study of the Human Population). D. I. Valentey	69
	(Contd.)

Available From JPRS 48129

	<u>Page</u>
In Memory of Academician Konstantin Valil'yevich Ostrovityanov	81
 INTERNATIONAL SCIENTIFIC RELATIONS	
Rational Use and Conservation of Resources of the Biosphere (Results of a UNESCO Conference in Paris). I. P. Gerasimov	83
The Physics of the Earth's Magnetosphere (Symposium in Washington). S. N. Vernov, K. I. Gringauz, and I. A. Zhulin	91
Economic Mathematical Investigations of Japanese Scientists. G. G. Pirogov and S. S. Shatalin	97
 BRIEF REPORTS	 105
 SESSIONS, CONFERENCES AND MEETINGS	
The Fiftieth Year of the Fundamental Library of the Social Sciences. G. M. Markovskaya	119
Problems of Planetary Astronomy (Symposium in Kiev). L. N. Bondarenko	122
The Physics of Stars, Nebulas and Galaxies (Symposium in Byurakan). M. A. Arakelyan, V. V. Ivanov, and G. M. Tovmasyan	127
The Automation of Physical Investigations (Symposium in Moscow). Yu. M. Kiverin	130
The Chemistry of the Silicones (All-Union Conference in Tbilisi). V. V. Severnyy	133
Complex Formation With a Metal as a Method of Changing the Properties of Molecules (Symposium in Zelenogorsk). Z. V. Todres	134
The Radiational Modification of Polymers (Conference in Obninsk). S. S. Leshchenko	138
Electrical Treatment of Materials (Symposium in Kishinev). B. R. Lazarenko	140
 MEMORABLE DAYS	
The Fourth Fersmanov Lecture	143
The Eighteenth Pryanishnikov Lecture	144
 CHRONICLE AND INFORMATION	
Awarding of the Gold Medal imeni D. N. Pryanishnikov	146
Awarding of the Prize imeni S. V. Lebedev	147
Awarding of the Prize imeni I. M. Gubkin	148
Jubilees of Scientists	149
Jubilee of Leningrad State University	152
Election of New Members of the Academies of Sciences of the Union Republics	153
Formation of the Institute of Chemistry of the AS USSR in Gor'kiy	155
Scientific Organizational Decisions of the Presidium of the AS USSR	156
 NEW BOOKS	 157

Available From JPRS 48129

HERALD OF COMMUNICATIONS

No 8, 1968

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TABLE OF CONTENTS

	<u>Page</u>
Latest Communication Equipment	1
The Key Problems of Present-Day Communication Engineering	4

COMMUNICATION ENGINEERING

Increasing the Operating Reliability of the UGR [Continuously-Energized Standby-Equipment Control] Racks in the Equipment R-600, by B. R. Gol'denberg and A. G. Staryuk	10
A Resonance Self-Tuning Circuit, by V. N. Ul'yanov and N. G. Khitrovo	15
A Detector for Locating the Routes and Faults of the Current Conductors Grounded Over the Entire Length, by G. G. Ogul'chanskiy	19
The Line-Channel Equipment in the 60-Channel Transmission System of the Type ETF (V-60-E), by G. Kleiner	28
	(Contd)

Available from JPRS 46833

VESTNIK SVYAZI
No 6, 1968

COMMUNICATION ENGINEERING ABROAD

Page

The Short-Wave Receiver E724 Made by Telefunken Company (The Federated Republic of Germany), by A. M. Severin	42

COMMUNICATION ECONOMICS

The Economic-Incentive Funds and Their Utilization, by G. I. Khekker	44

INFORMATION

At the Collegium of the Ministry of Communications USSR	56
At the Presidium of the Central Committee of the Communications Workers Trade Union	58
The Confirmation of Honored Titles	65
The Development of Rural Telephone Service is the Order of the Day	67
The Procedure for Collecting Payment for Radio Points	69
Faster Delivery of the Fruit Parcels, by I. M. Dobryy	71
75th Anniversary of Tbilisi City Telephone Exchange, by A. L. Karbelashvili	73
The New Automatic Telephone Offices	75
Abstracts of the Articles Published in the Journal <u>Vestnik Svyazi /Herald of Communications/</u> , No 8	77

Available from JPRS 46833

HERALD OF COMMUNICATIONS

No 9, 1968

Following is a translation of selected articles from the Russian language periodical Vestnik svyazi (Herald of Communications), Vol XXVIII, No 9, published by the Ministry of Communications USSR and the Central Committee of the Communications, Motor Transport and Highway Workers Trade Union, September 1968, Moscow. Note: Original source pages are given in the left-hand margin.

CONTENTS

	<u>Page</u>
The Latest in Communications Equipment	1
Toward More Rapid Development and Better Utilization of Rural Telephone Communications Media	4
What the Participants at the Conference Talked About	11

COMMUNICATIONS ENGINEERING

Equipment for Shielded-Pair Wire Broadcasting (AVEK), by V. V. Ptukha	15
From Experience in Construction of Truss Type Radio Towers, by A. A. Voyevodin	25
A Method for Improving the Operation of Amplifiers in Multichannel Communications Systems, by O. D. Nilov, N. N. Olennikov	31
Modular Installations for Long-Range Communications	38

(Contd)

Available from JPRS 46924

VESTNIK SVIAZI
No 9, 1968

CONTENTS (Continued)

Page

ORGANIZATION AND OPERATION OF COMMUNICATIONS
FACILITIES

Our Concern for Raising Labor Productivity, by K. N. Kharchenko	38
Operational Experience of the Minsk Center for Reception of Newspapers Over Communications Channels, by I. A. Patrikeyev, S. A. Stukach	45
What Has Been Learned from Checking Out the Work of the Central Long-Distance Telephone Office, by Ye. S. Medvedev, V. V. Dobrovatov	49
Introduction of Three-Program Wire-Broadcasting, by V. I. Krutyakov, A. S. Orlov	57
Among Books	60
News Briefs	63

Available from JPRS 46924

HERALD OF COMMUNICATIONS

No 10, 1968

Following is a translation of selected articles from the Russian-language periodical Vestnik svyazi (Herald of Communications), Vol XXVIII, No 10, published by the Ministry of Communications USSR and the Central Committee of the Communications Workers Trade Union, October, 1968, Moscow. Note: Original source pages are given in the left-hand margin. Summaries within brackets are those of the translator.

TABLE OF CONTENTS

	<u>Page</u>
Latest Communication Equipment	1
The Work With Personnel Must Be Improved, by V. N. Lebedev	4
Some Problems of International Cooperation in the Field of Space Communications, by I. Ya. Petrov	9

COMMUNICATION ENGINEERING

The Main Radio-Telegraph Communication Links Using Ionospheric Scattering, by L. Mashbits, V. D. Gavrilina and P. P. Gudkov	14
Errors in Locating the Leaks in the Cable Sheathings, by G. A. Arkhangel'skiy and V. I. Mogil'nyy	29
A Graphic Method of Calculating the Dangerous Effect of the Heavy-Current Lines on the Cable Communication Lines, by A. S. Brisker	37
The Operation of Long Distance Coin-Box Telephones Over the KRR Channels, by V. D. Skripka and V. M. Mytnitskiy	44

(Contd)

Available from JPRS 47561

* * *

For the Future Specialists	46

COMMUNICATION ECONOMICS

Determination of the Periods for the Return of Capital Investments in the Construction of Communications Enterprises, by M. M. Lyubanskiy	47

ORGANIZATION AND OPERATION OF COMMUNICATION
FACILITIES

The Operation of Ultrashort-Wave FM Radio Stations, by V. P. Polyachkov	55
From the Experience of Operating the Radio Station "Dozhd'-2", by I. A. Bayanov	60
At the Presidium of the Central Committee of the Communications Workers Trade Union	62

* * *

Every Telegram Must Be Promptly Delivered	70

INFORMATION

For the Development of Color Television	72
In Honor of the 100th Anniversary of V. I. Lenin's Birth	75
Uninterrupted Communication Service for Rural Areas	76
A New Group of Communications Enterprises and Production and Technical Communications Centers Placed Under the New System of Management	77
To the Readers of the Journal <u>Vestnik Svyazi</u> /Herald of Communications/	79
Among Books	80
The New Automatic Telephone Offices	83
Abstracts of the Articles Published in the Journal <u>Vestnik svyazi</u> /Herald of Communications/, No 10	85

Available from JPRS 47561

HERALD OF COMMUNICATIONS

No 11, 1968

Following is a translation of selected articles from the Russian-language periodical Vestnik svyazi (Herald of Communications), Vol XXVIII, No 11, published by the Ministry of Communications USSR and the Central Committee of the Communications Workers Trade Union, November, 1968, Moscow. Note: Original source pages are given in the left-hand margin. Summaries within brackets are those of the translator.

TABLE OF CONTENTS

	<u>Page</u>
Latest Communication Equipment	1
The Party Committee Directs the Work of Communications Organizations	5
A New Television Center in Belorussia	6
The Third Plenum of the Central Committee of the Communications Trade Union. On the Tasks of Trade-Union Organizations in the Work of Training and Educating the Personnel at the Communications Enterprises	7

COMMUNICATION ENGINEERING

The Changeover of Moscow City Telephone Exchange to the Seven-Digit Numbering System, by O. A. Anufriyeva	18
Control and Monitoring on the Multiprogram Wire Broadcasting Networks of Large Cities, by B. K. Brankovskiy	29

(Contd)

Available from JPRS 47314

VESTNIK SVYAZI
No 11, 1968

	Page
Investigation of the High-Frequency Conductances of the Transistors, by G. D. Grosheva	43
An Electronic Universal Adapter	48
A Combined Automatic-Gain-Control System Without a Second Receiver, by R. F. Kagarmanov	51

COMMUNICATION ECONOMICS

Under the Conditions of Economic Reform, by V. P. Timokhin and A. I. Chesalina	53

ORGANIZATION AND OPERATION OF COMMUNICATION
FACILITIES

New Frontiers in the Development of Communication Facilities	61
Service Without the Days-Off	61

* * *

The Publishing House Svyaz' (Communications) After Half a Century, by B. A. Voronov	61

INFORMATION

Electronics in Italy, by S. G. Vultakh and N. Zakharova	70
The New Automatic Telephone Offices	75

Available from JPRS 47314

HERALD OF COMMUNICATIONS

No 12, 1968

Following is a translation of selected articles from the Russian-language periodical Vestnik svyazi (Herald of Communications), Vol XXVIII, No 12, published by the Ministry of Communications USSR and the Central Committee of the Communications Workers Trade Union, December, 1968, Moscow. Note: Original source pages are given in the left-hand margin. Summaries within brackets are those of the translator.

TABLE OF CONTENTS

	<u>Page</u>
Latest Communication Equipment	1
The Creators of the Television System "Orbita" Are The State Prize Laureates	4
At the Ministry of Communications USSR	4
The Komsomol Initiative	5

COMMUNICATION ENGINEERING

The Automatic Long Distance Telephone System AMTS-1M, by V. A. Godlevskiy, L. A. Berezovich and Ye. N. Uzlov	6
An Automatic Device Providing the Maximum Efficiency of the Final Stage of a Radio Transmitter, by A. S. Pustovoytovskiy and I. Yu. Pashkovskiy	17
Corrosion of Aluminum Sheathings of the Communication Cables and Measures for Its Control, by Z. S. Verina, A. F. Lunev and K. K. Nikol'skiy	28

(Contd)

Available from JPRS 47640

VESTNIK SVYAZI
No 12, 1968

Page

The Standards of International Committee on Frequency Registration, by A. D. Taranenko and Yu. N. Yeremin	33

FOR THE 100TH ANNIVERSARY OF
V. I. LENIN'S BIRTH

A Telegraphers' Competition	40

ADVICE

On Bonus Payment for the Year's Results of the Work of an Enterprise (PTUS) /Production and Technical Communica- tions Administration/, by K. D. Lunin	41

INFORMATION

25th Anniversary of All-Union Communication-Facilities Construction Trust	49
A List of the Main Articles Published in the Journal <u>Vestnik svyazi</u> /Herald of Communications/ During 1968	52
Among Books	62
The New Automatic Telephone Offices	66
Abstracts of the Articles Published in the Journal <u>Vestnik svyazi</u> /Herald of Communications/ No 12	67
Shown by Elektrim	69
Briefly About Things of Interest	73

Available from JPRS 47640

HERALD OF COMMUNICATIONS

No 1, 1969

Following is a translation of selected articles from the Russian-language periodical Vestnik svyazi (Herald of Communications), Vol XXIX, No 2, published by the Ministry of Communications USSR and the Central Committee of the Communications Workers Trade Union, January, 1966, Moscow. Note: Original source pages are given in the left-hand margin. Summaries within brackets are those of the translator.

TABLE OF CONTENTS

	<u>Page</u>
Latest Communication Equipment.....	1
Toward the Momentous Date, by V. N. Lebedev	
The Good Fortune to See and Hear Lenin, by K. A. Kurbatova ..	6

COMMUNICATION ENGINEERING

The Modern Low-Frequency Long Distance Communication Cables for Trunk Lines and Inserts in the Overhead Circuits, by T. M. Sakharova and Yu. N. Medyanovskiy	8
The New Telephone Set TAsT-66, by N. I. Basov and K. A. Fedorovskiy	16
The Causes of Signal Distortions in Single-Band Transmitters and Methods of Measuring them, by A. I. Zudakin.	23
The Transmission of the Television Sound Portion in Communication Lines Using the Artificial Satellites of the Earth, by L. A. Seval'nev and V. M. Tsirlin	34

(Contd)

Available from JPRS 47986

VESTNIK SVYAZI
No 1, 1969

	<u>Page</u>
A Controlled Transformer Designed by B. K. Shchukin, by Ye. I. Borovkov.....	40

ORGANIZATION AND OPERATION OF COMMUNICATION
FACILITIES

Communication Facilities in the Service of the Working People, by P. V. Afanas'yev	45
The Automation of Rural Telephone Service, by P. N. Vinogradov	51
In Honor of the Anniversary of Lenin Komsomol	57
Television in Tayga	63

INFORMATION

The New Communication Facilities	64
The New Automatic Telephone Offices	67
The Arctic is on the Telephone	68
"Gor'kovskiy Svyazist" [Gor'kiy Communications Worker]	68
Soviet Organizations Concern Themselves With the Development of Communications	69
In the 50th Anniversary of VLKSM [All-Union Lenin Young Communist League]	69
Abstracts of the Articles Published in the Journal <u>Vestnik svyazi</u> [Herald of Communications], No 1. 1969	71
Books	73
A New Electronic Teletype	76

Available from JPRS 47986

INDUSTRIAL LABORATORY

A translation of *Zavodskaya Laboratoriya*

Volume 34, Number 10

October, 1968

CONTENTS

Engl./Russ.

METHODS OF CHEMICAL ANALYSIS

Temperature Relationships in Alternating-Current Polarography—L. D. Lifshits	1405	1169
Determination of 0.000n to 0.00n% Zinc in Copper and Antimony by Alternating-Current Polarography—R. G. Patz, N. V. Lukashenkova, E. D. Shuvalova, and T. V. Zaglodina	1410	1173
Use of Radiofrequency Polarograph for Analysis of Semiconducting Alloys Containing Indium and Cadmium—V. V. Senkevich, L. P. Chernega, V. I. Bodyu, and Yu. S. Lyalikov	1413	1176
Microdetermination of Bismuth in Semiconductor Alloys by Anodic Stripping Voltammetry Using a Cathode-Ray Polarograph—I. I. Vataman and E. G. Chikryzova	1416	1178
Polarographic Determination of Copper in Babbitts, Ferrotitanium, and Titanium Alloys with a Tartrate Supporting Electrolyte—I. V. Pyatitskil and R. P. Ruzhanskaya	1420	1182
Spectrophotometric Determination of Microgram Quantities of Vanadium in Anodic Powders—R. B. Golubtsova, S. M. Savvateeva, and A. D. Yaroshenko	1422	1184
Investigation of Amalgamated Electrode for Polarographic Determinations—P. N. Palei, I. S. Sklyarenko, and T. M. Chubukova	1425	1186
Analysis of Mixtures of Natural and Butadienestyrene Rubbers by Pyrolytic Gas Chromatography—V. R. Alishoev, V. G. Berezkin, Z. P. Markovich, E. I. Talalaev, L. V. Simikov, and A. I. Malyshev	1427	1188
Determination of Sulfur in Products of 2-Methyl-5-Vinylpyridine Production—N. K. Loginova, V. G. Baranova, and T. P. Nesterova	1432	1192
Determination of Gases in Manganese Metal and in Iron-Manganese Alloys (Exchange of Experience)—Yu. A. Shul'te, N. A. Gederevich, and V. S. Shitikov	1434	1193
Volatility of Germanium from Hydrochloric Acid Solutions at Room Temperature (Exchange of Experience)—G. I. Gridchina	1435	1194

PHYSICAL METHODS OF INVESTIGATION

Metallographic Methods of Determining the Decarbonized Layer of High-Speed Steel—F. V. Petunina, I. A. Drozdova, and G. N. Sdobnov	1436	1195
Qualitative Analysis of the Local Distribution of Hydrogen in Metals—L. A. Arbuzova, V. A. Danilkin, Ya. A. Imas, V. A. Molchanov, and A. G. Milieshkin	1440	1199
Precise Determination of Lattice Spacing in Electron-Diffraction Analysis—A. T. Pugachev and B. T. Bolko	1443	1201
Rapid Potentiostatic Method for Determining the Tendency of CXh23N28M3D3T Steel toward Intercrystalline Corrosion—A. I. Tsinman, V. S. Kuzub, and N. S. Neiman	1446	1203
Method for Estimating the Equivalent Defect Dimensions in Ultrasound Inspection by Means of Direct Probes—V. M. Anfimov and A. F. Erashov	1450	1207
Differential Depth Sensitivity of γ - γ Densitometers—L. S. Pavlov and L. N. Terekhin	1454	1210
Investigation of the Morphology of Secondary Cementite (Exchange of Experience)—M. F. Evsyukov and M. I. Pritomanova	1456	1212
Technique for Corrosion Tests and Electrochemical Measurements at High Temperatures and Pressures (Exchange of Experience)—V. V. Vasil'ev and N. S. Podobaev	1457	1212

(Contd)

Available From Consultants Bureau

Determining the Granule Size Content of a Filler by a Method of Low-Temperature Oxidation (Exchange of Experience)—G. M. Volkov and T. V. Kotova	1458	1213
Continuous Determination of Electrical Resistance during Heating and Cooling (Exchange of Experience)—Yu. Z. Borkovskii, V. V. Parusov, and S. Z. Nekrasova	1459	1214
Determination of the Real Component of the Conductivity of Ion-Exchange Membranes (Exchange of Experience)—I. A. Tikhomirov, V. T. Doronin, and A. P. Vergun	1460	1215
Procedure and Device for Deforming Hardened High-Speed Steel Grade R18 at Room Temperature (Exchange of Experience)—L. B. Zhitnitskaya	1461	1215
Method of Selecting Mineralizers for Solid-Phase Reactions (Exchange of Experience)—Yu. M. Polezhaev	1462	1216
The 20th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy	1463	1216
MATHEMATICAL METHODS OF INVESTIGATION		
Determination of Regression Curves by the "Tangent Method"—I. V. Olevskaia	1464	1217
Interaction between Two Factors with Empty Squares in the Table of Analysis of Variance—L. A. Solodun	1468	1220
Feasibility of Using the Simplex-Lattice Method for State Diagram Analysis—F. S. Novik	1473	1223
Planning an Experiment in Thin Organic Synthesis—E. V. Markova and M. A. Veksler	1477	1227
Methodological Error of a Method of Determining the Center of a Hole—Yu. L. Polunov	1480	1229
General-Purpose Program for Multiple Regression Analysis—M. I. Lipkin, G. S. Shilova, I. A. Ostrelko, and Yu. N. Progrebnol	1485	1233
Application of Linear Orthogonal Design in an Investigation of the Purification of Naphthalene (Exchange of Experience)—Z. Ya. Gorokhova and M. K. Pakter	1489	1235
METHODS OF TESTING		
Method of Investigating Energy Dissipation in Metals with Repetitive Impact Loading—V. I. Sidnev	1490	1237
Effect of Residual Stresses on the Hardness of Metals—I. N. Tylevich and L. A. Glikman	1493	1239
Improvement of the Accuracy in Dynamic Determinations of Steel Hardness—M. S. Dvornik, V. S. Saprykin, and Yu. I. Slavskii	1497	1242
Microhardness under Small Loads—A. V. Gur'ev and G. V. Malovechko	1502	1246
Analysis of Cracks and Fracture Structure in Glass—S. S. Solntsev and Ya. B. Fridman	1505	1249
INSTRUMENTS AND LABORATORY TECHNIQUES		
Hydraulic Device for Loading Machine Components and Assemblies for Fatigue Tests—E. I. Sofronov	1509	1253
Equipment for Low-Cycle Fatigue Testing of Specimens in Bending with Rotation—V. A. Kagan and Yu. Yu. Slavenas	1512	1255
Device for the Thermal-Fatigue Testing of Discs—E. I. Molchanov and V. P. Trushechkin	1514	1257
Automatic Programmer with Timers—N. N. Krasnov and V. A. Tkachenko	1516	1258
Device for the Investigation of Creep Stress Relaxation and the Dynamic Properties of Polymers—Yu. V. Zelenov and A. G. Novikov	1519	1260
Automatic Device for the Impact Testing of Plastics—N. V. Chepik and B. M. Gershkovich	1522	1262
Apparatus for the Mass-Spectrographic Analysis of the Distribution of Gaseous Impurities in Materials by Probing with a Laser Beam—G. F. Ivanovskii, L. M. Myumkin, S. V. Varnakov, and L. P. Lisovskii	1524	1263
Low-Temperature Attachment to the RKVT-400 Camera—A. A. Bolko and A. S. Ovchinnikov	1527	1266
High-Temperature Torsion Viscometer with Automatic Recording of Readings—Yu. M. Potebnya, R. G. Rikhter, and V. G. Anosov	1529	1267

(Contd)

Available From Consultants Bureau

CONTENTS

(continued)

SAVOENIYA LABORATORIYA
Vol 34, No 10, 1968

Engl./Russ.

BOOK REVIEWS

Experimental Research on the Structural Strength of Mechanical Engineering Materials and Machines
Part-I. V. Kudryavtsev, editor, Reviewed by L. T. Timoshuk 1531 1269

INFORMATION

The Second All-Union Conference on the Planning of Experiments—Yu. P. Adler and
G. S. Preobrazhenskaya 1533 1270
New Book Titles to Appear from the Publishing House "Metallurgiya" in 1969 1534 1274
Books to Appear in the First Quarter of 1970 1540 1279

The Russian press date (podpisano k pechatu) of this issue was 9/8/1968.
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to have taken place reasonably soon thereafter.

Available From Consultants Bureau

INDUSTRIAL LABORATORY

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November, 1968

CONTENTS

Engl./Russ.

METHODS OF CHEMICAL ANALYSIS

Extractive Separation and Determination of Gold, Selenium, and Tellurium—V. M. Tarayan, Zh. M. Arstamyán and D. A. Mikaelyan	1543	1281
Extraction-Photometric Method of Determining Iridium (IV) in the Form of a Tin Bromide Complex with Diantiprylmethane—V. N. Danilova and S. L. Lisichenok	1547	1284
Determination of Iron (III) in Extractive Phosphoric Acid, Pyrophosphoric Acid, and Alkali-Metal Pyrophosphates—T. N. Vladiminskaya, M. L. Chepelevetskii, and A. A. Levshina	1550	1287
Expansion of Instrumental Possibilities of Sinusoidal Alternating Current Polarography—A. V. Zheleztsov and M. R. Vyaselev	1552	1289
Semiautomatic Chronopotentiometric Titration of Acid Mixtures in Nonaqueous Solutions—A. P. Kreshkov and I. I. Kudreiko	1555	1291
Separate Potentiometric Determination of Nitric and Nitrous Acids in a Nonaqueous Medium—V. K. Polovnyak, K. N. Mochalov, R. Sh. Safin, and A. F. Makho'kin	1558	1294
Determination of Sulfuric Acid, Bisulfates, and Sulfates—A. P. Kreshkov and L. B. Kuznetsova	1560	1295
Determination of Zirconium and Hafnium in Niobium Alloys by Ion Exchange—V. E. Bukhtiarov	1562	1297
Determination of Microimpurities by Adsorptive Displacement in a Three-Component Zone—I. M. Vasil'ev, A. A. Zhukhovitskii, and M. L. Sazonov	1564	1298
Extractive-Photometric Determination of Nitrophenols—I. M. Korenman, F. R. Sheyanova, and S. N. Maslennikova	1567	1300
Polarographic Determination of Chlorinated Toluene-p-Sulfonic Acids—L. K. Kutalina and K. G. Berezina	1569	1302
Determination of Phenolic Stabilizers in Polyvinyl Chloride by Means of Anodic Voltamperometry—A. A. Vasil'eva, Yu. V. Vodzinskii, and I. A. Korshunov	1571	1304
Spectrophotometric Determination of Iron in Nonferrous Metals (Exchange of Experience)—A. K. Babko and N. V. Loria	1573	1305
Spectrophotometric Determination of Bismuth in Precipitates and Solutions Containing Silver and Copper (Exchange of Experience)—K. N. Bagdasarov, V. F. Vladimirova, and M. A. Shemyakina	1574	1306
Photocolorimetric Determination of Calcium in Rocks with Arsenazo (Exchange of Experience)—G. E. Lunina	1575	1307
Complexometric Determination of Calcite and Fluorite in a Fluorite Concentrate (Exchange of Experience)—A. P. Voronchikhina and L. S. Sokolkina	1577	1308
Phase Analysis of Reduced Iron Ores (Exchange of Experience)—T. A. Frantsuzova and O. P. Medev	1578	1309
Gasometric Microdetermination of Nitrogen in Boron Nitride (Exchange of Experience)—A. S. Lapteva, E. A. Bondarevskaya, and E. N. Merkulova	1579	1310
Spectrophotometric Determination of Neutral Substances in Wood Tar Products (Exchange of Experience)—V. V. Budylna and Yu. V. Vodzinskii	1580	1311

(Contd)

Available from Consultancy Bureau

METHODS OF SPECTRAL ANALYSIS

Incoherence Error in Photometric Measurements of Weak Spectral Lines—Yu. N. Kuznetsov, G. A. Kuznetsova, and Z. A. Korshikova	1582	1312
Spectrographic Determination of Sulfur, Chlorine, and Bromine in Solutions with Low-Voltage Spark—L. A. Berezin and A. L. Korpushev	1586	1316
Use of Low-Voltage Sliding Spark for Analysis of Thin Films—N. K. Rudnevskii and L. T. Prokof'eva	1590	1319
Spectrophotometric Method for Quantitative Determination of Microconcentrations of Nitrogen in Argon—V. V. Korolev	1592	1320
Determination of sym-Triazine Aminohydroxy Derivatives and NO_3^- Ion Together —V. A. Gal'perin and Ts. N. Roginskaya	1596	1324
Determination of Molybdenum in Powder Samples by X-Ray Fluorescence with a $\text{Te}^{125\text{m}}$ Source (Exchange of Experience)—V. N. Smirnov, M. I. Ushkova, and A. M. Novikov	1599	1326
The X-Ray Analysis of Iron in Tailings Using Isotopic X Radiation from ^{57}Fe and No Crystal (Exchange of Experience)—V. I. Bochenin, V. P. Shastov, and G. V. Shirovskii	1599	1326
Chemical and Spectroscopic Estimation of Large Amounts of Tungsten in Molybdenum (Exchange of Experience)—A. D. Khlystova and N. I. Tarasevich	1600	1327
Determination of Lithium and Gallium in High-Purity Gallium Arsenide (Exchange of Experience) —I. V. Seryakova, V. J. Lebedev, G. A. Verob'eva, and Yu. A. Zolotov	1601	1327

PHYSICAL METHODS OF INVESTIGATION

Small-Angle Electron Diffraction with the UEMV-100 Electron Microscope—E. M. Belavtseva and O. F. Belyaev	1603	1329
Selecting a Category for Automatically Recording Microparticles—A. L. Sobolev, A. V. Ovodova, and A. I. Surakov	1606	1332
Determination of Mean Crystal Size in Clinker—V. V. Timashev, L. M. Sulimenko, and B. S. Al'bats	1609	1334
Determination of Mercury in Ores and By-Products of Ore Treatment Using a Resonance Excitation Reaction—L. P. Starchik, S. Kodiri, O. Abbosov, and Yu. S. Deev	1612	1336
Radioisotope Method for Determining the Density in Sintered Molybdenum Billets—D. N. Lamykin, A. M. Levin, and T. S. Shishkhanov	1615	1339
Investigation of Semiconductor Impurity Distribution by Means of a Continuously Moving Temperature Probe—V. A. Kokoshkin	1617	1341
Measurement of the Potential of Catalyst Powders in Dielectric Media—A. B. Fasman and G. V. Taneeva	1620	1343
Measuring the Propagation Velocity of Ultrasonic Waves by the Phase Method—E. I. Sergeev and L. I. Pavlinov	1623	1346
Simplified Calculation of the Total Transmission Coefficient of Neutral Glasses—D. F. Ronis	1625	1348
Two-Frequency Method of Measuring the Chrysotile-Asbestos Content in Ore—A. D. Brochkovich and V. V. Dzemella	1627	1350

MECHANICAL METHODS OF TESTING

Methods of Testing Thin-Leaf Spring Alloys for Creep—V. A. Fedorovich, A. G. Rakhshadt, and A. G. Karpov	1630	1353
Procedure for Investigating Hot Strength under Impulse Heating Conditions—Yu. A. Kuzema, L. B. Getsov, and V. I. Kovpak	1634	1355
Long-Term Strength Testing of Threaded Joints—A. S. Vol'fon and L. Ya. Liberman	1636	1358
Use of the Hot-Torsion Method to Assess the Quality of Pipe Billets—P. K. Teterin, L. T. Timoshuk, and V. D. Khromov	1638	1360

(Contd.)

Available from Consultants Bureau

Determination of the Relaxation Stability of Wire Specimens—V. G. Chernashkin and Yu. L. Popelyanskii	1640	1361
Determination of Large Strains by the Photoelastic Coating Technique—L. A. Sosnovskii and L. I. Byakov	1642	1363
Study of Static and Dynamic Bending Curves—S. I. Makukhin and I. V. Navrotsky	1646	1366
Effect of Dimensions of an Annular Testpiece on Its Mechanical Characteristics —N. M. Fofanova	1649	1369
Comparison of Tensile Test Results for Flat and Tubular Specimens of Fiberglass-Reinforced Plastics—A. A. Pozdnyakov	1651	1371
INSTRUMENTS AND LABORATORY TECHNIQUES		
Machine for Testing the Stability of Polymer Materials during Vibrations—V. N. Mozhin and N. D. Moskalev	1654	1374
Investigation into High-Temperature Creep in Cyclic Tension and Compression—L. B. Getsov	1656	1375
Device with a Photoelectric Relay for Determining Stress Relaxation—V. P. Dyblenko and I. A. Pivnenko	1658	1377
Device for Determining the Flexural Stresses Caused by One-Sided Moistening—L. O. Lepanskii	1660	1378
Device for Cavitation Testing of Materials in Liquid Oxygen—D. N. Bol'shurkin and Yu. E. Krot	1663	1381
Apparatus for Testing the Viscoelastic Properties of Optically Sensitive Polymers—G. L. Khesin, G. S. Bardanyan, L. G. Musatov, and V. V. Pavlov	1665	1382
Ring Device for Measuring the Velocity of Ultrasonic Waves in Solids—V. S. Postnikov S. A. Gridnev, and V. S. Pavlov	1668	1384
Instruments for Measuring Normal Stresses in Smeltings and Concentrated Polymer Solutions —V. F. Shumskii and A. Ya. Malkin	1673	1389
Device for the Investigation of the Sealing Properties of Alloys by Measuring the Inleakage of Gas through the Specimen—I. V. Gruznykh, V. I. Belov, and V. V. Desnitskii	1677	1392
Electronic Stabilizer of Arc Spectral Tube Anode Current—G. A. Grinev	1679	1393
Method of Preparation of Emitters for X-Ray Spectral Analysis of Powdered Materials —R. A. Kravchenko-Berezhnoi and L. I. Polezhaeva	1683	1396
Tuning of the YaMR-5535 Radiospectrometer to ^{19}F —I. A. Levachev and V. G. Dubinin	1685	1397
Lens Attachment for Investigating IR Absorption of Small-Size Specimens—G. N. Zhizhin, M. A. Moskaleva, and Kh. E. Sterin	1687	1399
An Apparatus for Fatigue Testing under Simultaneous Cyclic Torsion and Tension-Compression (Exchange of Experience)—M. V. Zhukovskii and B. V. Panov	1689	1400
Instruments for Determination of the Elastic Limit of Thin-Sheet Materials at High Temperatures and in Liquid Media (Exchange of Experience)—A. M. Ryabyshev	1690	1401
Apparatus for Performing Prolonged Bending Tests (Exchange of Experience)—O. E. Potashev	1691	1402
Apparatus for Determining the Wear of Samples by an Impression Method (Exchange of Experience)—Yu. L. Smertyak, G. A. Preis, and N. A. Sologub	1692	1402
Use of an Immersion Objective on a PMT-3 Apparatus (Exchange of Experience)—P. M. Mikhalev and B. A. Fel'dman	1693	1403
Instrument for Testing the Resistance to Frost of Polymer Film Materials (Exchange of Experience)—V. I. Popov and V. A. Voskresenskii	1694	1404
Recording Instrument for Registering Small EMF (Exchange of Experience)—V. V. Gerasimov, K. A. Emel'yanov, and L. S. Topchyan	1695	1405
Device for Measuring and Recording Linear Shrinkage of Alloys (Exchange of Experience) —B. S. Didyk	1696	1406

Available from Consultants Bureau

JOURNAL OF ANALYTICAL CHEMISTRY of the USSR

A translation of *Zhurnal Analiticheskoi Khimii*

Volume 23, Number 9

September 1968

CONTENTS

Engl./Russ.

Some Regularities in Complex Formation between the Elements and Organic Reagents of the Arsenazo III Group - A. Muk, S. B. Savvin, and R. F. Prokistsova	1129 1277
8-Mercaptoquinoline (Thiooxine) and Its Derivatives. Communication 43. The Instability Constants of Thiooxine Salts - Yu. A. Bankovskii, L. M. Chera, and A. F. Ievin'sh	1134 1284
Precipitation in the System $\text{In}_2\text{S}_3\text{-Ga}_2\text{S}_3$ - G. I. Malofeev, A. A. Loginov, and N. A. Rudnev	1140 1291
The Dissociation of Thionalide in Aqueous Solution - P. Ya. Yakovlev and R. D. Malinina	1144 1296
Extraction of the Thiocyanate Complexes of the Alkaline Earth Elements - F. P. Gorbenko, E. D. Kuchkina, and M. I. Olevinskii	1148 1301
A Spectrophotometric Study of 3, 4-Dihydroxyazobenzene-2'-carboxylic Acid and Its Gallium Complex - É. R. Oskotskaya and M. Z. Yampol'skii	1153 1307
The Use of Alkyl Phosphoric Acids in Analytical Chemistry. Communication 9. Extraction of Thallium (III) with Di-2-ethylhexyl Phosphoric Acid and Determination of Its Macroamounts in the Products of the Zinc-Cadmium Industry - I. S. Levin and T. F. Rodina	1159 1315
Extraction of Scandium 2-Thenoyltrifluoroacetate - Yu. A. Zolotov, N. V. Shakhova, and I. P. Alimarin	1164 1321
Flame Photometric Determination of the Rare-Earths in Solutions of Their Ethylenediamine-tetraacetate Complexes - N. S. Poluéktov and L. A. Ovchar	1169 1327
The Reaction between Zirconium Ions and Trihydroxyfluorones - V. A. Nazarenko and O. V. Mandzhgaladze	1173 1332
The Formation of Chromium (III) Diethyldithiocarbamate - T. V. Cherkashina and E. I. Petrova	1178 1338
Determination of Molybdenum (VI) on the Basis of the Catalytic Oxidation of Iodide by Hydrogen Peroxide - A. K. Babko, G. S. Lisetskaya, and G. F. Tsarenko	1181 1342
A Spectrophotometric Study of Solutions of the Tungsten (VI) and Molybdenum (VI) Complexes of Pyrocatechol in the Presence of Sodium Ethylenediaminetetraacetate (EDTA) - A. I. Busev and T. A. Sokolova	1186 1348
A Polarographic Determination of Uranium (VI) in the Aqueous Phase after Extracting with Tributyl Phosphate - P. N. Palei, I. S. Sklyarenko, N. I. Gusev, and N. S. Radionova	1192 1355
The Soluble Yellow Complexes of Nickel with Dimethylglyoxime - M. K. Boreiko and I. I. Kalinichenko	1196 1359
A Spectrophotometric Study of Some Triphenylmethane Dyes as Reagents for Determining Microamounts of Iodides and Bromides - L. V. Bunikene and É. I. Ramanauskas	1200 1364
Organic Analysis without Weighing Out Samples by Determining Atomic Ratios. Communication 1. - E. A. Terent'eva, M. V. Fedorova, and T. M. Malolina	1205 1370

(Contd.)

Available From Consultants Bureau

Formaldehyde as a Reagent for the Quantitative Determination of Caprolactam - F. M. Shemyakin and E. N. Zelenina.	1209 1376
The Height Equivalent to a Theoretical Plate and Separation Time in Gas-Liquid Capillary Chromatography (as a Function of Pressure and Column Length) - M. L. Vlodavets	1213 1380
The Extraction of Highly Charged Acidocomplexes. The Behavior of Alkyl Amines during the Extraction of the Manganese (III) Pyrophosphate Complex - I. A. Shevchuk and T. N. Simonova.	121b 1386
Photometric Determination of Small Amounts of Aliphatic Amines by Means of bis-(4-Di- methylaminophenyl)-(1-p-sulfonyl-3-methylpyrazolone-5-yl)-carbinol - V. P. Zhivopistsev, E. A. Selezneva, Z. I. Bragina, and A. P. Lipchina.	1223 1391
A Composite Chromatographic Method for Separating Furfural Autooxidation Products - V. G. Kul'nevich, G. F. Muzychenko, and I. A. Vishnyakova	1227 1396
BRIEF COMMUNICATIONS	
Separation of Sodium from Sea Water by the Frontal Dynamics Method and Its Determination by Isotope Dilution - G. M. Kolosova, M. P. Bogacheva, and Z. A. Barsanova	1232 1403
The Catalytic Wave of Hydroxylamine in the Presence of Niobium (V) and the Possibility of Using It for Determining Niobium - S. I. Sinyakova and I. K. Stepanova	1234 1405
Benzenehydroxamic Acid Benzenesulfonamide as a Reagent for the Photometric Determination of Iron - E. A. Abrazhanova, G. A. Butenko, A. S. Grzhegorzhevskii, and T. Ya. Kalenchenko	1237 1408
Unsubstituted 1,2,4-Triazoline-3-thione as a Reagent for the Photometric Determination of Platinum - A. V. Radushev, A. N. Chechneva, and E. G. Kovalev.	1240 1410
A New Catalytic Reaction for Determining Iridium - L. P. Tikhonova and K. B. Yatsimirskii.	1243 1413
Analysis of Cadmium and Zinc Tellurides and Selenides by AC Polarography - V. G. Tiptsova-Yakovleva and Yu. A. Figel'son	1245 1415
The Possibility of Using a Hollow Cathode in Which the Evaporation and Excitation Zones are Separated from Each Other for Determining Small Amounts of Halogens in Rocks - A. V. Karyakin, E. A. Zakharov, and V. Z. Krasil'shchik	1248 1418
A Reduction Method for Determining Sulfur in Organic Compounds - M. A. Volodina, M. Abdukarimova, and A. P. Terent'ev	1251 1420
Iodochlorometric Determination of Alkylphenols with a Branched Alkyl Chain - O. N. Karpov	1254 1423
Thin-layer Chromatography of Alcohols as Their β -Alkoxypropionitriles - M. M. Buzlanova, V. N. Ul'yanova, and S. I. Obtemperanskaya	1256 1425
CRITICISM AND BIBLIOGRAPHY	
A. P. Kreshkov, L. N. Bykova, and N. A. Kazaryan. Acid-Base Titration in Nonaqueous Solutions - Reviewed by A. I. Busev and P. K. Agasyan.	1258 1427
New Books.	1260 1428
CHRONICLES	
I. S. Mustafin (on His Sixtieth Birthday)	1261 1429
Moscow Seminar on Analytical Chemistry - Reported by K. Korchemnaya	1263 1431
Conference on Optical-Polarization Methods and Instruments - Reported by V. M. Potapov.	1264 1431

The Russian press date (podpisano k pechatl) of this issue was 8/9/1968.
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Available From Consultants Bureau

JOURNAL OF ANALYTICAL CHEMISTRY of the USSR

A translation of *Zhurnal Analiticheskoi Khimii*

Volume 23, Number 10

October, 1968

CONTENTS

	Engl./Russ.
The "Isobestic Points Method" for Establishing Molar Ratios during Complex Formation — A. K. Babko, A. I. Volkova, and T. E. Get'man	1265 1437
A Study of Photometric Conditions in Fluorescent Chemical Analysis. Communication 2. The Effective Long Wavelength Limit and Overall Spectral Width of the Exciting Flux — R. N. Plotnikova and D. P. Shcherbov	1270 1443
A Method for Calculating the Equivalence Point during Potentiometric Titration. Determination of the Concentration of Weak Acid Salts, Bases, and Strong Acids in Very Dilute Solutions — V. V. Bardin and L. A. Kolmakova	1273 1447
Chronoconductometric Methods of Analyzing Multicomponent Mixtures of Acids and Salts — T. A. Khudyakova and A. P. Kreshkov	1279 1454
The Chemistry of the Reactions between Multivalent Elements and Organic Reagents. Communication 12. The Reaction between Scandium and Methyl Thymol Blue — V. P. Antonovich and V. A. Nazarenko	1284 1460
Gallium Complexes of Hydroxyl-Containing Azo Derivatives of H-Acid — T. M. Devyatova and M. Z. Yampol'skii	1291 1468
Extraction Separation of Plutonium by Means of 1-Phenyl-3-methyl-4-benzoylpyrazolone-5 — M. K. Chmutova, P. N. Palei, and Yu. A. Zolotov	1298 1476
Partition Chromatography on Polytetrafluoroethylene-4. The Separation of Microamounts of Bismuth from Nickel — S. K. Kalinin, G. S. Katykhin, M. K. Nikitin, and G. A. Yakovleva	1303 1481
The Extraction of Niobium (V) with Tri-n-butyl Phosphate from Sulfuric Acid Media — N. N. Kuznetsova	1307 1485
The Analytical Chemistry of Protoactinium. Communication 1. Precipitation of Protoactinium with Phenylarsonic Acid — B. F. Myasoedov, E. S. Pal'shin, and N. P. Molochnikova	1312 1491
Coulometric Determination of Ferrous Oxide in Wustite — G. G. Mikhailov, V. A. Kozheurov, Yu. A. Ageev, N. A. Sidorov, and T. V. Alekseenko	1318 1498
Catalytic Determination of Small Amounts of Ruthenium — B. E. Reznik and N. A. Bednyak. Determination of Microamounts of Hydrogen in Gases — V. B. Simin, A. V. Markevich, and S. L. Dobyshin	1322 1502 1325 1506
Determination of Oxygen in Lithium by a Vacuum Distillation Method — É. E. Konovalov, I. B. Dmitrieva, M. N. Arnol'dov, V. P. Emel'yanov, A. V. Milovidova, A. G. Karabash, and M. N. Ivanovskii	1329 1510
An Iodometric Method for Determining Borohydride Ions — R. F. Skoblionok, K. N. Mochalov, and B. G. Berner	1336 1518
New Data on the Theory and Practical Application of β -Reflection (Back Scattering of β -Particles) (Review) — L. M. Boyarshinov	1339 1522

(Contd.)

Available From Consultants Bureau

	Engl./Russ.
Temperature and Salt Effects during the Infrared Determination of Water in Organic Solvents in the Overtone Region — A. V. Karyakin, A. V. Petrov, and O. I. Kondratov . . .	1350 1532
The Use of Differentiating Nonaqueous Solvents for Determining Amine N-Oxides — N. N. Bezinger, G. D. Gal'pern, N. G. Ivanova, and G. A. Semeshkina	1355 1538
Gas-Liquid Chromatography of Pyridine Bases and Derivatives of Pyridine Carboxylic Acids — V. I. Trubnikov, L. M. Malakhova, and E. S. Zhdanovich	1362 1546
Determination of Methyl Furfural and Furfural by Gas-Liquid Chromatography — A. N. Bagaev and Yu. V. Vodzinski	1367 1553
 BRIEF COMMUNICATIONS	
Quantitative Estimation of Interference from Foreign Cations during Spectrophotometric Analysis — V. A. Malevannyi and Yu. L. Lel'chuk	1372 1558
A Flame Photometric Determination of Potassium in Amorphous and Crystalline Boron — O. F. Degtyareva and P. P. Shevchenko	1375 1560
New Reagents for the Photometric Determination of Copper — L. A. Okhanova, L. I. Bol'shakova and S. B. Savvin	1378 1562
Extraction of the Chelate of Thorium with 1-Phenyl-3-methyl-4-benzoylpyrazolone-5 — Z. K. Karalova and Z. I. Pyzhova	1381 1564
The Analytical Chemistry of Thorium. Communication 5. Determination of Small Amounts of Thorium in Rare Earth Preparations — V. F. Luk'yanov and I. V. Nikol'skaya . . .	1384 1567
An Objective Determination of the Sensitivity of Certain Reactions for Determining Ferric Ions — L. P. Adamovich, N. V. Nikolaeva, and A. G. Udod	1386 1569
A Spectrophotometric Study of the Reaction between Rhodium (III) and 1-(2-Thiazolylazo)-resorcinol — A. I. Busev, V. M. Ivanov, and V. G. Gresi'	1388 1570
A Phototurbidimetric Determination of Small Amounts of Phosphoric Acid — N. D. Podobed and M. F. Tyupina	1392 1573
An Indirect Polarographic Determination of Small Amounts of Water in Gases — N. V. Serova, Ya. I. Tur'yan, and G. G. Malorova	1395 1576
Cathodic Polarography of CO_3^{2-} Ions in $\text{NaCl}-\text{CaCl}_2$ Melts — V. Z. Grebenik and K. Ya. Grachev	1398 1579
An Indirect Polarographic Determination of Phosphorus (III) in Phosphite Esters — P. A. Kirpichnikov, N. S. Kolyubakina, K. S. Minsker, N. A. Mukmeneva, and E. G. Chebotareva	1401 1582
Complexometric Methods for the Analysis of Heteroorganosilicon and Heteroorganic Compounds — L. V. Myshlyayeva and T. G. Maksimova	1403 1584
 CRITICISM AND BIBLIOGRAPHY	
A. Ringbom. Les Complexes En Chimie Analytique — Reviewed by N. T. Smolova	1406 1587
G. W. C. Milner and G. Phillips. Coulometry in Analytical Chemistry — Reviewed by P. K. Agasyan	1407 1587
J. Perdijon. L'Analyse Par Activation — Reviewed by B. F. Myasoedov	1409 1589
 CHRONICLES	
Moscow Seminar on Analytical Chemistry — Reported by E. K. Korchemnaya	1410 1591

The Russian press date (podpisano k pechatii) of this issue was 9/27/1968.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

	Page	
	Engl.	Russ.
Investigation of the Domain Structure of a KDP Crystal by Optical Methods. . . T. S. Velickina, O. N. Golubeva, O. A. Shustin, I. A. Yakovlev	153	261
Attenuation of a Magnetosonic Wave in a Turbulent Plasma. G. P. Maksimov, V. P. Smirnov, E. G. Utyugov	155	265
Transport Coefficients of the Plasma in the Tokamak TM-3 Apparatus. G. A. Sobrovskii, N. D. Vinogradova, E. I. Kuznetsov, K. A. Razumova	158	269
Pulsed Parametric Generation in Distributed Systems. A. I. Vesnitskii, L. A. Ostrovskii, V. V. Papko, V. N. Shabanov	160	274
Suppression and Parametric Amplification of Ion Sound in a Plasma. E. M. Barkhudarov, N. A. Kervalishvili, V. P. Kortkhonzhia, N. L. Tsintsadze, O. D. Tskhakaya	163	278
Shaping of Laser Pulses with the Aid of Two-photon Absorption in GaAs. . . . L. M. Lisitsyn	165	282
Breakdown of Liquid and Gaseous Helium by a Laser Beam, and Observation of Stimulated Mandel'shtam-Brillouin Scattering in Liquid Helium. I. I. Abrikosova and O. M. Kochkova	167	285
Singularity of Specific Heat C_p at the Critical Point of Lamination of a Binary Solution. A. V. Voronel' and T. M. Ovodova	169	290
Turning of Magnetic Sublattices and Anomalies of the Cotton-Mouton Effect in Terbium Iron Garnet and in Hematite. R. V. Pisarev, I. G. Sini, and G. A. Smolenskii	172	294
Concerning the Gravitational Moment of the Proton. B. V. Vasil'ev	175	299
Cyclotron Waves in Bismuth. V. S. Edel'man	177	302
Possible Method of Obtaining Ultracold Neutrons by Reflection from Moving Mirrors. A. V. Antonov, D. E. Vul', M. V. Kazarnovskii	180	307
Concerning the Nature of the Cosmic Isotropic X-Radiation. I. L. Rozental' and I. G. Shukalov	183	312
Density of Relict Particles with Zero Rest Mass in the Universe. V. F. Shvartsman	184	315
Behavior of the Diffraction Peak for Particles with Arbitrary Spins. Nguyen Ngok Thuan	187	318
Transversality of Fields of Vector and Axial-vector Mesons and Helicity Symmetries. Ozh. L. Chkareuli	189	321
Possibility of Detecting the W Boson by Means of the Polarization of the Muons from the $W \rightarrow \mu + \nu$ Decay. G. G. Bunatyan, Yu. P. Dobretsov, B. A. Dolgoshein, E. D. Zhizhin, V. G. Kirillov-Ugryumov, Yu. P. Nikitin	192	325

Available From The American Institute of Physics

	Page Eng. Russ.
Features of Specific Heat C_p at the Critical Point of an Azeotropic Mixture. A. V. Voronel', V. G. Gorbunova, N. G. Smakov	195 333
Dependence of the Energy of an Electron-proton Cascade, Produced by Collision of a Nuclear-active Cosmic-ray Particle with a Lead Nucleus, on the Energy of the Interacting Particle. R. A. Nam, S. I. Nikol'skii, V. P. Pavlichenko, V. I. Sokolovskii, V. I. Yakovlev	198 338
Chemical Laser Operating on Branched Chain Reaction of Fluorine with Hydrogen. O. M. Batovskii, G. K. Vasil'ev, E. F. Makarov, V. L. Tal'roze	200 341
Threshold Behavior of the Cross Section for the Excitation of Cs II Resonance Lines in the Process $Cs^+ + He$ S. V. Babashev, V. B. Matveev, V. A. Ankudinov	201 344
Spin Waves Near the Curie Point. G. M. Drabkin, A. I. Okorokov, E. I. Zabidarov, Ya. A. Kasman	204 347
Mossbauer Effect in Indium-gallium Iron Garnet. G. N. Belozerskii, V. N. Gittsovich, A. N. Murin	207 352
Stabilization of Potential Oscillations of a Plasma in a Q-machine by Means of a High-frequency Magnetic Field. A. A. Ivanov, Yu. B. Kazakov, A. N. Luk'yanchuk, V. D. Rusanov, I. Teikhman	210 356
Superconductivity in Systems with Arbitrary Interaction Sign. . . . D. A. Kirzhnits	213 360
Optical Frequency Standard with Nonlinear Absorbing Gas Cell. . . . V. S. Letokhov and V. B. Cnebotayev	215 364
Superconductivity in Quantizing Superconducting Films with a Granulated Metallic Coating. E. A. Pashitskii and P. M. Tomchuk	218 367
Quantum Electronic Spin Acoustic Waves. P. S. Zyryanov, V. I. Okulov, and V. P. Silin	220 371

Available From The American Institute of Physics

JOURNAL OF GENERAL CHEMISTRY of the USSR

A translation of *Zhurnal Obshchei Khimii*

Volume 38, Number 10

October, 1968

CONTENTS

	Engl./Russ.
Comparison of the Specific Heats of Solutions of Sodium Iodide in Water, Methanol, and Acetone at 25° — N. P. Novoselov and K. P. Mishchenko	2065 2129
Phase Equilibria in Hydrogen Chloride—Water—Ether Systems — M. V. Ionin and V. G. Shverina	2072 2137
Solubility Isotherms of the System Nickel Chloride—Thiourea—Water at 30 and 50° — I. G. Druzhinin and L. V. Vidyakina	2075 2140
Phase Diagrams of Ternary Liquid Systems Containing Two Binary Phase Separations with Upper Critical Solution Temperatures. I. Solubility of Liquid Phases in the System Phenylhydrazine—Water—Butyric Acid — V. T. Velichko and E. F. Zhuravlev	2077 2143
Equilibrium of Liquid Phases in the Glycerol—Triethylamine—Nitromethane System — I. K. Mel'nikova and E. F. Zhuravlev	2081 2147
Polarographic Study of the Kinetics of the Reaction between Sodium Sulfite and Potassium Chlorate — N. A. Dobrynin, N. P. Dymarchuk, and K. P. Mishchenko	2084 2151
Mechanism of the Reduction of the Azomethine Group in Aromatic Schiff Bases at a Dropping Mercury Electrode — L. V. Kononenko, V. D. Bezuglyi, and V. N. Dmitrieva	2087 2153
Acid—Amine Systems Investigated in an Indifferent Solvent by the Dielectric Constant Method — Yu. Ya. Borovikov	2093 2160
Mechanism of the Polarographic Reduction of Haloanthraquinones in Various Media — V. D. Bezuglyi, L. Ya. Khelfets, and N. A. Sobina	2097 2164
Investigation of Interaction in Ketone—Methanol—Iodide Systems with the Aid of IR Spectra — B. V. Tronov, L. A. Romanchukova, and A. B. Tronov	2102 2171
IR-Spectroscopic Investigation of Fluorimide and Some of Its Complexes — V. I. Yakutin, S. S. Dubov, A. V. Fokin, Yu. M. Kosyrev, and N. P. Novoselov	2105 2174
Potentiometric and Spectrophotometric Investigation of the Acid Dissociation Constants of 4,4'-Carbonyldipthalic Acid — G. G. Kryukova, Ya. I. Tur'yan, and A. V. Bondarenko	2108 2177
Potentiometric Investigation of Acid-Base Dissociation Constants of Aminoalkyl Esters of α,β -Unsaturated Acids in Aqueous Solution — Ya. I. Tur'yan, G. S. Dokolina, and M. A. Korshunov	2112 2181
Substitution under the Action of Copper Salts. III. Formation of C—S Bonds — V. A. Nefedov	2115 2184
Substitution under the Action of Copper Salts. IV. Formation of C—Se and C—Te Bonds — V. A. Nefedov	2122 2191
Cobalt(II) Internal Complexes of Some 2-Aminovinyl Ketones — V. P. Kurbatov, O. A. Osipov, and K. N. Kovalenko	2124 2194
Solubilities of Manganese Carbonyl and Tricarbonylcyclopentadienylmanganese in Nickel Carbonyl — A. K. Baev	2128 2198
Bisquaternary Ammonium Salts. IV. N,N'-Derivatives of Ethylenediamine — V. P. Denisenko, V. P. Rudi, and T. A. Chimaeva	2132 2203

(Contd)

Available From Consultants Bureau

Complex-Forming Properties of N,N-Ethylenebis[N-o-hydroxyphenylglycine] — V. Ya. Temkina, M. N. Rustina, L. V. Krinitskaya, and R. P. Lastovskii	2136	2207
Interaction of Germanium Tetrachloride with α - and β -Alanines — E. M. Belousova, M. M. Bobrovskaya, and L. A. Dashuk	2141	2213
Chemical Structure of the Antibiotic Albomycin. XXIV. Optical Rotatory Dispersion of Linear and Cyclic Hexapeptides — N. A. Poddubnaya, V. M. Potapov, Ahmed M. el Naggat, V. M. Demyanovich, and L. G. Makevina	2143	2215
Chemical Structure of the Antibiotic Albomycin. XXV. Direct Determination and Study of the Stability of the Hydroxamate Link in the Albomycin Molecule — L. G. Makevina and N. A. Poddubnaya	2149	2221
Chemistry of Polymyxin M. XII. Synthesis of Analogs. Preparation of a Free Heptapeptide Acylated with (+)-6-Methyloctanoic Acid — Ezzeldin Mohamed Saad Salem, N. V. Fedoseeva, and A. B. Silaev	2154	2227
Serine Phosphates and Pyrophosphates. Some Properties of Bisserrine Pyrophosphates — S. M. Awaeva, I. F. Syromyatnikova, and M. M. Botvink	2158	2231
Stagewise Synthesis of Oligonucleotides. I. 5'-O-(1-Alkoxyalkyl) Derivatives of Uridine 3'-Phosphate — É. A. Sedel'nikova and S. M. Zhenodarova	2162	2234
Stagewise Synthesis of Oligonucleotides. II. O-(1-Alkoxyalkyl) Derivatives of Uridine — É. A. Sedel'nikova and S. M. Zhenodarova	2167	2239
Stagewise Synthesis of Oligonucleotides. III. Structural Analysis of 1-Alkoxyalkyl Groups in O-(1-Alkoxyalkyl) Derivatives of Nucleosides and Nucleotides — É. A. Sedel'nikova, O. A. Smolyaninova, and S. M. Zhenodarova	2272	2245
Synthesis of Cysteine-Containing Peptides — T. A. Lukova, A. F. Mironov, G. A. Vasil'eva, R. P. Evstigneeva, and N. A. Preobrazhenskii	2175	2247
Complex Lipids. Synthesis of Mixed 3-(1,2-di-O-Stearoylglycerol) 2-(Glycylalanyl)amino]- ethanol 1-(myo-Inositol) Phosphoric Ester — A. I. Lyutik, A. V. Luk'yanov, E. S. Zhdanovich, and N. A. Preobrazhenskii	2179	2251
Organic Insectofungicides. Synthesis of Some Acylaryl Dialkyl Phosphates and Phosphoro- thionates — M. I. Gunar, T. N. Shumyatskaya, E. B. Mikhalyutina, K. D. Shvetsova-Shilovskaya, and N. N. Mel'nikov	2182	2254
Organic Insectofungicides. Synthesis of P-Alkyl-, P-(Chloroalkyl)-, and P-Aryl-phosphon- amidothioic O-Esters — A. F. Grapov, N. V. Lebedeva, and N. N. Mel'nikov	2187	2260
Reactions of Phenylhydrazides with Phosphorus Trichloride — T. L. Italskaya, N. N. Mel'nikov, and N. I. Shvetsov-Shilovskii	2192	2265
Synthesis and Oxidative Aziridinylation of Acid bis- and Poly-Phosphorous and -Phosphonous Esters — A. I. Zavalishina, S. F. Sorokina, and É. E. Nifant'ev	2197	2271
Organophosphorus Heterocycles. XVIII. Condensation of Ethylene Phosphorochlorodithioate with Some Conjugated Systems — L. S. Kovalev, N. A. Razumova, and A. A. Petrov	2203	2277
Reactions of 1,2-Epoxy-3-haloopropanes with Tervalent Phosphorus Derivatives. II. Reac- tions of 1,2-Epoxy-3-iodopropane with Phosphorous Esters, Ester Amides, and Amides — V. S. Abramov, R. N. Savintseva, and V. E. Ermakov	2207	2281
Some Ter- and Quinque-Valent Phosphorus Compounds Containing the p-Chlorophenyl Group — E. N. Tsvetkov, D. I. Lobanov, and M. I. Kabachnik	2211	2285
Some Dihydrophenarsazine Derivatives Containing Quinquevalent Arsenic — V. I. Gavrilov, B. D. Chernokal'skii, and G. Kh. Kamal	2215	2289
Reactions of Trichlorogermene with Unsaturated Carboxylic Acids — V. F. Mironov, E. M. Berliner, T. K. Gar, and E. A. Rybakov	2218	2292
Synthesis and Characterization of New Unsaturated Organogermanium Compounds — T. L. Tursunbaev, Z. M. Manulkin, and A. N. Tatarenko	2225	2300
Synthesis and Some Reactions of Organosilicon α -Acetylenic Ketones — M. F. Shostakovskii, N. V. Komarov, V. B. Pukhnarevich, and O. G. Yarosh	2228	2303
Synthesis and Some Properties of γ - and ϵ -Ketoalkylsiloxanes — M. F. Shostakovskii, N. V. Komarov, V. K. Roman, and N. I. Golovanova	2234	2309

(Contd.)

Reactions of 1,2-Epoxy-4-vinylcyclohexane with Hydride Silanes — K. A. Andrianov, G. P. Bochkareva, and M. A. Golubenko	2237	2312
Carbofunctional Organosilicon Compounds. V. Reactions of (ω -isocyanatoalkyl)silanes with Organic Compounds Containing an NH Group — N. P. Smetankina and N. I. Miryan.	2240	2315
Synthesis and Reactions of Silicon-Containing Derivatives of Cyclopentadiene. IV. Condensation of Chlorocyclopentadienylsilanes with Hexachlorocyclopentadiene — I. M. Sholomon and M. K. Romantsevich	2243	2317
Nitrogen-Containing Organosilicon Compounds. XII. 2,2'-{[(Trialkylsilyl)alkyl]imino}diethanols and Analogs — É. Lukevits and M. G. Voronkov	2248	2322
Nitrogen-Containing Organosilicon Compounds. XIII. Organosilicon Derivatives of Choline — É. Lukevits and M. G. Voronkov	2251	2325
Hydrolysis of Linear and Cyclic Polymethylsiloxanes — M. G. Voronkov and L. A. Zhagata.	2254	2327
Hydrostylation of Unsaturated Compounds with Dihalide Silanes — G. V. Odabashyan, I. V. Romashkin, V. L. Rogachevskii, and L. Ya. Kirichenko	2258	2331
To the Memory of Valentina Fedorovna Kazimirova — É. D. Venus-Danilova, K. V. Levitskaya, and S. N. Danilov.	2262	2335
LETTERS TO THE EDITOR		
Synthesis of Arginine-Containing Peptides — S. I. Virovets, V. F. Martynov, and M. I. Titov.	2264	2337
Reactions of Fluorine-Containing Carbonyl Compounds with Nitroacetonitrile — V. F. Martynov and V. M. Grebenkina.	2265	2338
Synthesis of α H, α H, ω H, ω H-Fluorinated Alkylene Bischloroformates — B. F. Malichenko and E. V. Shelud'ko	2266	2338
Reactions of 2-Phenylphosphorohydrazidous Esters with Carbonyl Compounds — V. S. Abramov, R. Sh. Chenborisov, and A. P. Kirisova	2267	2339
Synthesis of S-Aryl Phosphorodithioates and Alkyl- and Aryl-Phosphonochlorodithioates — L. N. Shitov and B. M. Gladshtein	2268	2340
Preparation of Neutral Metriol Phosphite from Acid Phosphites — É. E. Nifant'ev and I. M. Petrova.	2269	2341
Reactions of S-Alkyl O,O-Ethylene Phosphorothioates with 1,3-Dienic Hydrocarbons — Zh. L. Evtikhov, N. A. Razumova, and A. A. Petrov	2270	2341
Reactions of Phosphoro-Fluoridous and -Difluoridous Esters with 1,3-Dienic Hydrocarbons — N. A. Razumova, Zh. L. Evtikhov, L. I. Zubtsova, and A. A. Petrov	2271	2342
Preparation of 3-Alkyl-2-halo-1,2,2-oxazaphospholidines — I. V. Martynov, Yu. L. Kruglyak, and S. I. Malekin	2272	2343
Cyclization in the Course of the Homolytic Addition of Dialkyl Hydrogen Phosphites to 1,2-bis(Vinylloxy)ethane — B. A. Trofimov, A. S. Akvin, G. M. Gavrilova, and G. A. Kalabin	2273	2344
Reactions of Phosphonohalidous Esters and Phosphinous Halides with (Trialkylstannyl)acetones — Z. S. Novikova, E. A. Efimova, and I. F. Lutsenko	2274	2345
Hydrogenation of Organophosphorus Compounds Containing Styryl and Phenylethynyl Groups — L. P. Zhuravleva, M. G. Suleimanova, N. N. Kovalyukh, G. K. Fedorova, Ya. P. Shaturskii, and A. V. Kirsanov	2276	2346

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JOURNAL OF GENERAL CHEMISTRY of the USSR

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Volume 38, Number 11

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CONTENTS

Engl./Russ.

Investigation in the Field of α -Substituted α -Aminoacids. XIII. Reactivity of Hydroxy Groups in α -Hydroxy- α -acylaminoacids — G. A. Ravdel, N. A. Krit, L. A. Shchukina, and M. M. Shemyakin	2279 2353
Synthesis of Dipeptide Analogs of Angiotensin II on Polymers — E. P. Semkin, A. P. Smirnova, and L. A. Shchukina	2284 2358
Serylphosphates and Serylpyrophosphates Reaction between N-Benzoyl-O-phosphoserine Methylamide and Hydroxylamines and Methylamine — S. M. Azaeva, V. A. Sklyankina, L. V. Ermolenko, and M. M. Botvinik	2289 2363
Synthesis of Adenylyl-(3' — 5')-uridine-2',3'-cyclophosphate — A. P. Kavunenko and N. S. Tikhomirova-Sidorova	2294 2368
Radiation Chemistry of the Carbohydrates. IX. Formation of Decysugars in the Radiolysis of Aqueous Solutions of Cellobiose and Lactose — N. K. Kochetkov, L. I. Kudryashov, S. M. Yarovaya, É. I. Bortsova, and O. S. Chizhov	2297 2372
Radiation Chemistry of Carbohydrates. X. New Data on the Radiolysis of Aqueous Solutions of Glucosamine and Its Derivatives — L. I. Kudryashov, T. M. Senchenkova, L. I. Nedoborova, and N. K. Kochetkov	2304 2380
Initiation of the Decarboxylation of Tl^{3+} Salts of Carboxylic Acids by Peroxides in UV Light — N. A. Maier, G. P. Korotyshova, and Yu. A. Ol'dekop	2308 2384
Dissociation Constants of Some Mesocyanofarmazans — M. I. Ermakova and N. I. Latosh	2314 2390
Investigation of the Mechanism of the Fittig Reaction — I. P. Gragerov and L. F. Kasukhim	2317 2393
Investigation in the Field of Synthetic Dyes. LXII. The Effect of Polar Substituents on Quinomerochrome Color — S. V. Lepikhova and G. T. Pilyugin	2323 2399
Polarographic Investigation of the Kinetics and Mechanism of the Alkaline Hydrolysis of Aminoesters of α, β -Unsaturated Acids. I — Ya. I. Tur'yan, F. K. Ignatieva, and M. A. Korshunov	2328 2405
Integrated Intensity of Carbonyl Absorption Bands in Chalcones and Their Infrared Spectra Analogues — S. V. Tsukerman, Y. N. Sorov, and V. F. Lavrushin	2333 2411
Diperoxide Esters of Dibasic Aliphatic Acids — S. G. Erigova, A. I. Prisyaginskaya, and S. S. Ivanichev	2338 2416
Polarographic Study of Schiff Bases — Derivatives of o- and p-Hydroxyaniline — N. A. Rozanell'skaya, V. N. Dmitrieva, B. I. Stepanov, and V. D. Bezuglyi	2342 2421
Polarography of Pyrimidines: Some Pyrimidones and Thiopyrimidones — G. K. Budnikov	2350 2431
Caloromethylation of Aromatic Ethers — A. F. Prokof'eva, N. N. Mel'nikov, and I. L. Vladimirova	2355 2436
Studies in the Alloxazine and Isoalloxazine Series. XX. N-Oxides of 7-Aminoalloxazines — V. M. Berezovskii and Zh. I. Aksel'rod	2358 2440 (Contd)

Available from Consultants Bureau

Studies in the Alloxazine and Isoalloxazine Series. XXI. IR Spectra and Tautomerism of the Alloxazines — V. M. Berezovskii, Zh. I. Aksel'rod, T. P. Fetisova, I. M. Kustanovich, and N. A. Polyakova	2366	2449
Studies in the Alloxazine and Isoalloxazine Series. XXII. Directed Synthesis of 6-Chloroalloxazine and Its N-Oxide — L. S. Tul'chinskaya, N. B. Karlstedt, N. A. Polyakova, and V. M. Berezovskii	2374	2457
Electron Transfer in Reactions of Nitroso Compounds — A. N. Medvedev, K. N. Smirnov, S. S. Dubov, and V. A. Ginsburg	2378	2462
Spectra of β -Diketones with Ferrocenyl Substituents — G. A. Domrachev and O. N. Vylegzhanina	2387	2473
Synthesis of Perinaphthindenone Derivatives — N. I. Smetanina, O. E. Shelepin, and Yu. A. Zhdanov	2391	2476
Synthesis and Properties of Triethanolamine Etherates — V. P. Mardynkin and P. N. Gaponik. Reaction of n-Butylselenol with bis(Triethylgermyl) Mercury and Related Compounds — N. S. Vyazankin, I. A. Vostokov, and V. T. Bychkov	2394	2479
Complex Compounds of Titanium and Tin with Alkylamines of Salicylaldehyde — V. P. Sokolov, V. A. Kogan, O. A. Osipov, and M. I. Rummyantseva	2400	2485
Synthesis and Some Properties of Aromatic Dibasic Acid Fluorides — V. S. Naumov, L. B. Sokolov, and A. G. Ushakova	2404	2489
Acyl Chlorides of Polyfluoro-Aromatic Acids in the Friedel-Crafts Reaction — S. A. Anichkina, V. A. Barkhash, and N. N. Vorozhtsov, Jr.	2407	2492
Pentafluorophenyl Isocyanate and Tetrafluoro-m-phenylene Diisocyanate — B. F. Malichenko and V. V. Penchuk	2409	2493
S-Triazines. IX. Study of the Reaction of Fluorocarboxylic Acids with Dicyandiamide — A. V. Davydov, A. I. Finkel'shtein, É. K. Shcherbakov, A. V. Fokin, and Ts. N. Roginskaya	2413	2497
Reaction of Polyfluoroaromatic Compounds with Bifunctional Nucleophilic Reagents in Pyridine — F. I. Abergauz and S. V. Sokolov	2415	2499
Polyfluoro Compounds. II. Preparation of Polyfluoroalkanes by Condensation of Polyfluoronitroso Compounds with Alkyl Hydroxylamines — V. A. Ginsburg, L. L. Martynova, N. F. Privezentseva, and Z. A. Buchek	2418	2502
Aryltrifluoromethylselenones — L. M. Yagupol'skii and V. G. Voloshchuk	2422	2506
N-p-Trifluoromethylphenyl-N'-p-anisylphosphamidines — G. K. Genkina, V. A. Gilyarov, and M. I. Kabachnik	2426	2509
On the Problem of the Reaction between Secondary Chlorophosphines and the Chlorides of α, β -Unsaturated Acids — S. Kh. Nurtdinov, V. S. Tsvunin, T. V. Zykova, and G. Kh. Kamai	2430	2513
Reactions of Complete Esters of Phosphorous Acid with Stannic Chloride — A. N. Pudovik, A. A. Muratova, E. G. Yarkova, and V. N. Marsheva	2434	2517
Phosphorylation of Polyhydric Alcohols by Acetyl Phosphites — I. V. Fursenko, G. T. Bakhvalov, and É. E. Nifant'ev	2439	2522
Reaction of Diethyldithiophosphoric Acid with 1,3-Conjugated Systems Containing a Hetero Atom — A. N. Pudovik and R. A. Cherkasov	2445	2528
Synthesis and Chemical Properties of Alkyl Hydroxyalkyl Phosphites — É. E. Nifant'ev, A. I. Zavalishina, I. S. Nasonovskii, and I. V. Komlev	2448	2532
Phosphorus-Containing Heterocycles. XX. Condensation of Isothiocyanates of Glycol Phosphorous Acids with Diene Hydrocarbons — N. A. Razumova, A. A. Petrov, and Zh. L. Evtikhov	2453	2536
Esters of α, β -Unsaturated Acids with Functional Groups in the Alkoxy Radical. Reaction of Aminoalkyl Acrylates and Methacrylates with Dialkylphosphorous Acids — M. A. Korshunov and R. G. Kuzovleva	2457	2542
	2462	2548

(Contd)

Available from Consultants Bureau

Aminoesters of Thiophosphoric Acids. III. Reaction of Heterocyclic Aminoalcohols with Phosphorus Pentasulfide. Transesterification of Potassium Salts of Aminoesters of Trithiophosphoric Acids — A. P. Gopal and N. I. Zemplianskii	2464	2550
Derivatives of Higher Alkylphosphonic Acids — N. G. Feshchenko, L. F. Irodionova, I. K. Mazepa, and A. V. Kirsanov	2468	2553
Alkylation of Dialkylthiophosphates — A. L. Itskova, R. S. Soifer, Ya. A. Mandel'baum, and N. N. Mel'nikov	2471	2556
The Separation of Some New Nonheterocyclic Tertiary Arsines into the Optically Active Antipodes — Yu. F. Gatilov and L. B. Ionov	2176	2561
Electrical Conductivity of Triphenyl(triphenylhydroxyarsoxy)arsonium Iodide in Acetone and Nitrobenzene in the Presence of Triphenylarsine Oxide — B. D. Chernokal'skii, R. B. Bairamov, R. Z. Zalyatov, and Gil'm Kamai	2480	2565
Synthesis and Transformations of Oxygen-Containing Unsaturated Organic and Organosilicon Compounds. LXIV. Hydrosilylation of 1,1,1-Trichloropent-4-yn-2-ol — I. A. Shikhiev, S. F. Karaev, and Sh. V. Garaeva	2485	2570
Unsaturated Organic Silicon Compounds. XXII. Addition of Secondary Amines to 1,3-Dienic Organosilanes — M. D. Stadnichuk, T. M. Sleta, and A. A. Petrov	2488	2573
Controlled Synthesis of Alkylchlorosilanes by Means of Aluminum Alkyls — L. M. Antipin, V. V. Ponomarev, and V. F. Mironov	2495	2580
Silicon-Containing Acid Amides. IV. Reaction of Sodio Derivative of Ethylacetamide with Methylalkoxy(chloromethyl)silanes — L. K. Maslii and I. L. Dobroserdova	2498	2582
LETTERS TO THE EDITOR		
Reaction of Orthocarboxylic Acid Esters with Diethylphosphoric Acid Amines — V. V. Moskva, A. I. Maikova, and A. I. Razumov	2501	2586
Diacid Chlorides of β,β -Dialkoxyvinylphosphonic Acids — V. V. Moskva, V. M. Ismailov, and A. I. Razumov	2502	2587
Preparation of N-Alkyl-N-alkylsulfoamidoalkylphosphorous Acids — M. G. Gubaidullin ...	2503	2587
Preparation and Properties of Alkylthiophosphorous Acid Phenylhydrazones — V. S. Abramov, R. Sh. Chenborisov, and V. V. Markin	2504	2588
α -Deuteroallenylphosphonic Acid Dichlorides — Yu. A. Kondrat'ev, E. S. Vdovina, Ya. S. Arbisman, V. V. Tarasov, O. G. Strukov, S. S. Dubov, and S. Z. Ivin	2505	2589
Pyrocatechol Esters of γ -Methyl- γ -ethylallenylphosphonic Acid — Yu. A. Kondrat'ev, V. V. Tarasov, N. M. Ivakina, S. Z. Ivin, and V. N. Pastushkov	2506	2590
The CF_3SeO_2 Group — the Most Electron-Acceptor Substituent — L. M. Yagupol'skii, G. P. Syrova, V. G. Voloshchuk, and V. F. Bystrov	2508	2591
Dipotassium-Diphenyl (on the Existence of a Diphenyl Dianion) — M. I. Terekhova, É. S. Petrov, and A. I. Shatenshtein	2509	2592
9,9,10,10-Tetrafluoroacenaphthene and Its Derivatives — L. M. Yagupol'skii, B. V. Kunshenko, and L. A. Alekseeva	2511	2592
General Method of Synthesis of bis-Thiosalicylaldimines of Bivalent Metals — L. P. Clekhnovich, V. P. Kurbatov, O. A. Osipov, L. S. Minkina, and V. I. Minkin ..	2512	2593
On the Synthesis of 2-Desoxysugars by the Wittig Reaction — Yu. A. Zhdanov and V. G. Alekseeva	2513	2594
An Unusual Fission Reaction of Decachlorobarene and Decachloroneobarene with Dimethylsulfide — L. I. Zakharkin and N. A. Ogorodnikova	2514	2595
DISCUSSION		
Synthesis of Methylthiophosphonic Acid Difluoride — A. I. Razumov	2515	2596

The Russian press date (podpisano k pechati) of this issue was 10/30/68.
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Volume 41, Number 10

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CONTENTS

	Engl./Russ.
Analytical Method for Calculating Reaction Processes of Nitric Oxide with Nitric Acid Solutions — L. Ya. Tereshchenko, V. P. Panov, M. E. Pozin and V. V. Zubov	1995 2109
Solubility of Cobalt Ferrite in Nitric Acid — Vlodimezh Vols'ski and Urshulya Poliman'ska	1999 2114
Behavior of Oxygen in the Production of Titanium and Magnesium — R. A. Sandler	2002 2117
Preparation of Monosilicides of Some Rare-Earth Metals by Silicon-Thermal Reduction — L. A. Dvorina	2007 2123
Study of the Oxidized Forms of Nickel Loss in the Residues from the Autoclave Ammoniacal Leaching of Nickel Mattes — S. S. Naboichenko	2011 2127
Effect of the Amount of Alkali Oxides on the Suppression Effect in Glasses of Type $\text{SiO}_2\text{--ZnO--Na}_2\text{O--K}_2\text{O}$ — V. V. Ipat'eva, V. S. Molchanov, and Z. U. Borisova	2018 2134
Reaction of Some Transition Metals with Sodium Silicate Melts — I. B. Ban'kovskaya, A. A. Appen, and M. V. Sazonova	2022 2138
The Effect of Temperature and Time of Heat Treatment on the Chemical Resistance of Titanium Enamels to Acids — V. V. Vargin and B. Z. Pevzner	2028 2145
Quaternary System Composed of Aluminum and Iron (II) Sulfates, Carbamide and Water at 25 and 40° — N. P. Kulikova and I. G. Druzhinin	2032 2149
Density of Melts of System $\text{MgO--FeO--SiO}_2\text{--(Al}_2\text{O}_3, \text{CaO, Na}_2\text{O)}$ — B. A. Bryantsev	2038 2156
Wetting of Molybdenum with Magnesium-Iron-Silicate Melts — B. A. Bryantsev	2041 2159
Determination of Tin Oxide Purity by Means of Gamma Resonance Spectroscopy — A. A. Becker, K. V. Pokholok, An. N. Nesmeyanov and A. M. Babeshkin	2044 2163
Determination of the Composition of Solid Solutions of Calcium Aluminoferrites by a Magnetochemical Method — I. F. Ponomarev, A. N. Grach'yan, P. P. Gaidzhurov and A. P. Kalashnikov	2047 2166
Influence of Polyacrylamide on the Process of Structure-Formation in Dilute Suspensions of Asbestos — T. I. Pogarskaya, E. E. Segalova, T. K. Brutskus, and Z. D. Tulovskaya	2050 2170
Recovering and Separating Tantalum, Niobium, and Titanium by Extraction with Furfural — I. G. Chufarova and N. I. Petunina	2055 2175
Behavior of Anionite AV-17 on Heating in Water and Some Organic Media under Dynamic Conditions — M. A. Shaburov and K. M. Saldadze	2058 2179
Ion Exchange with Zeolite NaA in Saturated CaSO_4 Solution — A. M. Kuznetsov and V. A. Kuznetsov	2062 2183
A Study of the Electron-Exchange Properties of "Zirconium Tungstate" — N. O. Osipova and E. S. Boichinova	2065 2186
Electron-Diffraction Study of the Crystallization of Titanium Dioxide Films Obtained by Deposition from the Gas Phase — U. S. Urazaliev and A. I. Korobov	2070 2191
Corrosion Cracking of 30KhGSA Steel in Aqueous Solutions of H_2S or HCN at Room Temperature — L. N. Lozhkin, B. M. Idel'chik, and V. V. Skorshelleti	2074 2196

(Contd)

Available From Consultants Bureau

	Engl./Russ.
Plating of a Ternary Iron-Chromium-Nickel Alloy from a Chloride Electrolyte — A. L. Rominyan, L. A. Zymner, and N. P. Fedom'ev	2079 2201
Electrochemical Investigation of Crevice Corrosion of Titanium — Yu. S. Ruskol and I. Ya. Klimov	2084 2207
Electrochemical Fluorination of Organic Compounds in Electrolyzers of Various Types — V. Ya. Kazakov, L. A. Savel'ev, R. A. Dzerzhinskaya, E. A. Shishkin, and N. L. Gudimov	2089 2212
Effect of the Anode Material on Electrochemical Fluorination — V. Ya. Kazakov, L. A. Savel'ev, E. A. Shishkin, Ya. N. Voitovich, and N. L. Gudimov	2096 2220
Emulsifying Ability of Surface-Active Substances in the Production of Polyurethane Foams — E. A. Petrov and O. G. Tarakanov	2100 2224
Initiation of the Nucleation of Foam Bubbles in Polyurethanes — E. A. Petrov and O. G. Tarakanov	2104 2228
The Relation between Foam Stability and the Hydration of Ions — V. G. Gleim and V. Ya. Khentov	2109 2233
Effect of Conditions of Removal of Vapors Permeating through a Film and of the Physical Properties of the Components of the Mixture on the Separation Coefficient of Binary Mixtures of Hydrocarbons — A. A. El'bert, Yu. I. Dytnerskii, and N. F. Kononov	2114 2240
The Role of Oxygen in Oxidation by Hypochlorite — I. E. Flis, T. A. Tumanova, and T. T. Grigor	2118 2245
Dephenolization of Water by Means of a Disc-Rotor Pulsation Extractor — L. Boyadzhiev and A. Angelino	2124 2251
Photodestruction of Perchlorovinyl Films — Z. E. Zin'kov and P. M. Bogatyrev	2129 2257
Determination of the Functional Groups in Sulfonic-Acid Phenol-Formaldehyde Ion Exchange Resins — A. A. Vasil'ev and T. S. Tsygankova	2134 2261
New Method of Preparing High Molecular Weight Polymethacrolein under Conditions of Statistical Polymerization — I. V. Andreeva, M. M. Koton, and L. Ya. Madorskaya	2142 2269
Hydroformylation of Olefins in the Presence of Rhodium Carbonyls — V. Yu. Gankin, L. S. Genender, and D. M. Rudkovskii	2148 2275
Hydrate-Cellulose Fibers and Films from Cellulose Solutions in Cadoxen — L. S. Bolotnikova, T. I. Samsonova, S. N. Danilov, and S. Ya. Frenkel'	2153 2281
Chemical Composition of Furfural from Various Plant Materials — A. N. Bagaev	2159 2287
BRIEF COMMUNICATIONS	
Kinetic Method for Determination of Palladium — Yu. N. Kukushkin and R. A. Vlasova	2165 2293
Compounds Based on Organosilicon Polyfumarates — V. P. Lyutyl, N. P. Kharitonov, and O. N. Lyutaya	2167 2296
Partial Pressure of Sodium Chloride Vapor in the System NaCl-SrCl ₂ — V. I. Glazov and I. I. Naryshkin	2170 2297
Electrodeposition of an Iron-Nickel-Chromium Alloy — I. M. Kaiser, O. A. Petrova, and A. I. Vitkin	2173 2300
Oxidation of Aluminum by Water under the Effect of Ultrasound — E. A. Stolyarov	2176 2302
Reactions of Polyvinyl Alcohol with Aliphatic Dicarboxylic Acids in the Presence of Sulfuric Acid — G. A. Smirnov, I. S. Okhrimenko, and L. N. Mashlyakovskii	2178 2304
Properties of Electrolytic Films of Antimonial Indium — A. D. Styrkas	2181 2306
Production of Salts of Di- and Trivalent Metals of Di-(2-ethylhexyl) Ester of Sulfosuccinic Acid — K. O. Averbakh, V. K. Akimov, O. K. Smirnov, G. S. Gol'din, and G. S. Shor	2183 2307
Catalytic Hydroxylation of Styrene — I. N. Bratus, S. I. Orlov, Yu. A. Kireev, and V. G. Voronin	2185 2309
The Use of NMR Methods and Infrared Spectroscopy to Study Thermoreactive Water- Soluble Acrylic Copolymers — Yu. P. Kvasnikov and G. F. Filippychev	2188 2311

(Contd)

Available From Consultants Bureau

(continued)

	Engl./Russ.
Extraction of Germanium by Tri-n-octylamine — A. M. Andrianov and L. M. Aviasovich . .	2191 2313
Physicochemical Characteristics of Some Intermediates in the Production of Isoprene from Isobutene and Formaldehyde — P. V. Kachalova and M. S. Nemtsov	2193 2315
Changes Occurring in a Solution of Nitrocellulose in Butyl Acetate Subjected to Ultrasonic Treatment — V. V. Safonova and N. I. Klenkova	2197 2319
Chlorination of Toluene and 1,2-Dichloroethane in the Presence of Chloral α, α' -Di- hydroxyperoxide — A. I. Shreibert, E. M. Kozlov, and A. P. Khardin	2201 2323
Synthesis of Pyridoxine Hydrochloride — M. V. Balyakina, Z. N. Zhukova, and E. S. Zhdanovich	2203 2324
N-Alkyl-N-alkarboxymethylhexamethylenimmonium Derivatives — F. Yu. Rachinskii, T. G. Potapenko, O. D. Shapilov, V. T. Osipyan, and A. A. Krupenina	2205 2326
The Photochemical Destruction of the Basic Fractions of Cellulose Triacetate — A. P. Paulauskas, R. D. Leparskite, and S. A. Grigalyunene	2208 2329
Synthesis of 5-Bromo- and 5-Chloro-1-naphthoic Acids — G. I. Bystritskii and S. L. Solodov	2212 2332
Several Methods for Preparing Catalysts for Synthesis of 3-Hydroxyhexenoic Acid Polyester — N. G. Polyanskii, G. Ya. Kozova, and Z. B. Kiro	2215 2334
Standard Thermodynamic Functions for Oxides of Some Group V Elements — V. F. Plekhotkin	2218 2337
Liquid-Vapor Phase Equilibrium in the Systems Methyl Isocyanate-Carbon Tetrachloride and Methyl Isocyanate-Toluene at Atmospheric Pressure — V. F. Belugin and Z. N. Kupriyanova	2221 2340
Coupled Vapor-Phase Oxidation of a Naphthalene-o-xylene Mixture — A. Kh. Sharipov, F. A. Mukhtarullina, Yu. V. Kirichenko, A. A. Bolotnyi, I. A. Kazakov, and V. N. Shik	2223 2342
The Gas-Liquid Chromatography of the Products of the Oxidation of Coriander Oil — Yu. A. Akimov and V. G. Voronin	2225 2344
Optimum Ratio of Initial Components in the Synthesis of Polycarbonates in a Melt — E. V. Kremer and B. V. Pemukhov	2228 2347

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November, 1968

CONTENTS

	Engl./Russ.
Nikita Aleksandrovich Toropov (Obituary) — V. P. Barzakovskii	2231 2349
Formation of Cryolites during Acid Treatment of Phosphates — M. E. Pozin, R. Yu. Zinyuk, and I. N. Kupriyanova	2234 2352
Pilot-Plant Production of Highly Pure Nitric Oxide — E. D. Lomadze, A. N. Pilipenko, A. V. Kakabadze, and T. N. Davitashvili	2238 2356
Influence of Fluorides on Formation and Properties of Aluminum Fluoride-Phosphate Glasses — L. N. Urusovskaya	2242 2361
Reaction Sequence in Formation of Barium Metatitanate in an Industrial Rotary Furnace — A. N. Toropov, A. I. Borisenko, D. V. Semiletova, and L. I. Yankovskaya	2247 2368
Influence of Firing of the Original Mix in Hot Casting on Certain Properties of Steatite Products and on the Sintering Range — V. P. Samollov and M. N. Kulygina	2253 2375
Dimethyl Sulfoxide Complexes of Palladium (II) — Yu. N. Kukushkin, R. A. Vlasova, and Yu. L. Pazukhina	2258 2381
Rheological Properties of Asphalt Concrete — A. M. Boguslavskii and L. A. Boguslavskii	2261 2385
Sulfur Refining by Countercurrent Crystallization — G. G. Devyatykh and M. F. Churbanov	2267 2392
Vacuum Separation of the Titanium Reaction Mass Made by Reduction of Chloride Melts with Magnesium — R. A. Sandler	2272 2398
Some Characteristics of the Cathode Process in Electrolysis of Cryolite-Alumina Melts — L. N. Lozhkin and A. P. Popov	2277 2405
Investigation of the Dissolution of Oxide Films on Aluminum — S. Ya. Grilikhes, B. Ya. Zil'berman, and N. P. Fedot'ev	2283 2412
The Character of Anodic Potentiostatic Polarization Curves — Yu. P. Abakumova and N. N. Milyutin	2290 2420
Deminerization and Concentration of Aqueous Solutions by Electrodialysis — N. P. Gnusin, M. V. Pevnitskaya, and V. K. Varentsov	2295 2427
Analysis of Polarization Curves in Modeling of Electric Fields in Electrolytes — N. P. Gnusin and N. P. Poddubnyi	2298 2430
Rapid Determination of Iron in Highly Reduced Active Material in Iron Plates of Alkaline Storage Batteries — F. I. Kukoz, V. I. Makarov, and N. I. Sannikov	2302 2435
Thermodynamics of Formation of Persulfate Ions in Aqueous Solution by the Reaction of $K_2S_2O_8$ with Na_2SO_3 , and of the Hydrolysis of Potassium Persulfate — T. V. Fomina, N. P. Dymarchuk, and K. P. Mishchenko	2307 2440
One of the Forms of the Dependence of the Function Q on the Solution Composition, and Its Use for Calculation of Liquid-Vapor Equilibrium Data for Ternary Systems — V. T. Zharov, A. G. Morachevskii, L. G. Shapil', and T. A. Buevich	2310 2443
Kinetics of Dissolution of Lead in Trichloroacetic Acid Solutions — A. A. Ravdel' and G. A. Chulanova	2316 2451

(Contd.)

Available from Consultants Bureau

(continued)

	Engl./Russ.
Specific Retention Volumes of Argon, Nitrogen, and Oxygen — L. N. Vorozhbitova and T. G. Plachenov	2321 2456
Kinetics of Extraction of the Nonionic Surfactant OP-7 from Aqueous Solutions by Blowing of Dispersed Air — B. N. Khrustalev, V. V. Pushkarev, and E. N. Mikheev	2327 2463
Influence of the Aging Time of the Primary Gel and of the Drying Temperature on the Physicochemical and Ion Exchange Properties of Zirconium Pyrophosphate — V. A. Perevozova and E. S. Boichinova	2334 2472
Investigation of Solvated Adsorption Layers in Electrolyte Foams — V. G. Gleim and V. Ya. Khentov	2337 2475
Influence of the Microporous Structure Parameters on the Dynamic Adsorption Activity of Carbons with Respect to Benzene Vapor — V. P. Semenov and T. G. Plachenov	2344 2484
Investigation of Longitudinal Liquid Mixing in Packed Scrubbers — V. V. Dil'man, Yu. V. Aksel'rod, and T. A. Zhilyaeva	2347 2488
Oxidation of Cyclohexane Homologs by Air in Aqueous Alkali — Yu. N. Borushko-Gorniyak, V. G. Babel', and V. A. Proskuryakov	2352 2494
Chemical Reactions in Saponification of the Polyester of 3-Hydroxyhexanoic Acid — N. G. Polyanskii, N. L. Polyanskaya, and M. N. Volkotraub	2357 2501
Preparation of Thymol by Hydrogenolysis of 2'-Hydroxy-2, 4, 4', 7, 4'-pentamethylflavan — G. E. Svadkovskaya, L. A. Kheifits, and S. I. Virezub	2362 2506
Preparation and Certain Properties of Mono- and Polychloroethylchlorosilanes — G. V. Motsarev, R. V. Dzhagatspanyan, V. R. Rozenberg, S. B. Bardenshtein, V. I. Kolbasov, and T. T. Tarasova	2365 2509
Preparation of Oxides of Higher Alkenes-1 — E. A. Parfenov, G. A. Serebrennikova, and N. A. Preobrazhenskii	2371 2517
Hydrodimerization of an Ester of Phenylglyoxylic Acid — A. P. Tomilov, E. A. Mordvintseva, and E. V. Kryukova	2377 2524
 BRIEF COMMUNICATIONS	
Formation of Lithium Nitride from the Elements at Elevated Temperatures and Pressures — S. A. Kutolin and A. I. Vulikh	2381 2529
Kinetics of Titanium Dissolution in Molten Caustic Soda — I. I. Baram and N. A. Guseva	2383 2531
Activity of Magnesium Chloride in Melts of the System KCl-MgCl ₂ — I. L. Reznikov	2387 2535
Thermal Stability of Ceric and Cerous Selenites — L. Ya. Markovskii and R. A. Safina	2390 2537
Viscosity of Iron-Chromium Nitrate Solutions — V. N. Anokhin, V. A. Chechko, and I. P. Mukhlenov	2393 2540
Potassium Aluminocarbonate and Boehmite of Microfibrous Structure — V. A. Sokol and A. V. Bromberg	2396 2543
The Role of Dissociation in the Organic Phase in Ion Exchange Extraction Processes — V. L. Kheifets, N. P. Kolonina, and L. M. Gindin	2399 2546
Electrolytic Bronzing of Steel Parts and Strip — A. I. Vitkin and L. A. Efremova	2402 2548
Investigation of the Desorption of Benzene Adsorbed on a Zeolite — T. G. Plachenov, A. A. Seballo, and A. N. Shiryayev	2404 2550
Liquid-Vapor Phase Equilibrium in the Dioxolan-Water System — E. L. Cherkasskaya, A. M. Tur, Z. F. Petrenkova, and V. I. Lyubomilov	2407 2553
Kinetics of Adsorption of n-Hexane and Benzene by Molded CaA and NaX Zeolites — D. P. Timofeev and N. I. Alekseeva	2409 2554
Kinetics of Adsorption with Anharmonic Fluctuation of Concentration in the Stream — N. I. Alekseeva and D. P. Timofeev	2411 2557
Increase of the Efficiency of Capillary Columns with the Use of Polar Liquid Phases — A. N. Denisenko, M. P. Ivanova, V. I. Lebedeva, I. N. Agapova, and R. I. Sidorov	2413 2559
Use of Gas-Liquid Chromatography for Analysis of Coriander Oil — Yu. A. Akimov and V. G. Voronin	2415 2561

(Contd.)

(continued)

	Engl./Russ.
Preparation of Phosphorus-Containing PVA Fibers with Water-Repellent Properties — N. M. Volgina, I. M. Sergina, L. A. Vol'f, Yu. K. Kirilenko, S. N. Borisov, E. E. Nifant'ev, N. G. Sviridova, and K. D. Tammik	2417 2563
Influence of the Presence of Metals in the Reaction Medium on the Yield of Diacetonesorbose — M. G. Bogatova and N. G. Zavodchikova	2418 2564
Determination of the Vapor Pressures of the Meta and Para Isomers of Ethylacetophenone — A. S. Khorevskaya and S. Sh. Byk	2420 2566
Chlorination of Carboxylic Acid Anhydrides by Carbon Tetrachloride in Presence of Activated Carbon — V. N. Dubchenko and V. I. Kovalenko	2422 2568
Reaction of Chloromethylated Cross-Linked Polystyrene with Quinoline Bases — V. M. Balakin, O. N. Chupakhin, Z. Yu. Kokoshko, E. I. Kazantsev, T. M. Markacheva, and T. G. Prokop'eva	2425 2570
Isomerization of Δ^2 -Carene in Presence of Activated Clay — I. I. Bardyshev, Zh. F. Loiko, and L. V. Sionskaya	2428 2573
Comparative Assessment of the Sensitivity of Aromatic Sulfonazides to Mechanical and Ther- mal Influences — G. P. Balabanov and Yu. I. Dergunov	2432 2578
Sorption of Boron by Polyvinyl Alcohol Fibers — A. I. Lazareva, M. P. Potiforova, Yu. K. Kirilenko, A. I. Meos, L. A. Vol'f, I. N. Lepeshkov, and E. P. Danilova	2435 2580
Hydroalkoxycarbonylation of Olefins — V. Yu. Gankin, M. G. Kaptse'l'son, and D. M. Rudkovskii	2437 2582
Solubility of Benzoic, Salicylic, Cinnamic, and Phthalic Acids in Certain Mixed Solvents — E. A. Gyunner and T. V. Sergienko	2440 2585
Rectification Relationships in the Low Concentration Region — V. B. Kogan and I. V. Deizenrot	2443 2587

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Vol. 13, No. 11, pp. 1475-1612

May, 1969

	PAGE	RUSS. PAGE
Ball Lightning and Radio Emission from Linear Lightning. P. L. Kapitza.	(T) 1475	1829
Results of an Expedition to Study Radio Emission in the Decimeter Range Accompanying Linear Lightning. E. L. Kosarev, A. B. Vaganov, B. S. Zakirov, L. B. Luganskii, É. A. Narusbek, and V. N. Samosyuk.	(E) 1477	1831
Kinetic Theory of Wave Reflection from a Moving Plasma. A. N. Kondratenko	(T) 1480	1835
Nonlinear Effects near Plasma Resonance in an Inhomogeneous Magnetoactive Plasma. V. V. Demchenko and V. V. Dolgoplov.	(T) 1486	1843
Propagation of High-Amplitude Waves in a Plasma Layer. V. V. Demchenko and V. V. Dolgoplov	(T) 1491	1850
Oscillations of Plasma in a Constant Magnetic and High-Frequency Electric Field. V. I. Domrin.	(T) 1495	1856
Low-Frequency Resonant Electrostatic Oscillations in a Streaming Nonisothermal Plasma. Yu. V. Kubarev and V. A. Kotel'nikov.	(E) 1503	1869
Polarization of a Medium in an Amplitude-Modulated Electromagnetic Field. Z. K. Yankauskas	(T) 1506	1872
An Investigation of Plasma Compression in "Tuman." V. V. Afrosimov, A. B. Berezin, V. E. Golant, I. P. Gladkovskii, V. A. Ipatov, M. G. Kaganskii, S. G. Kalmykov, A. I. Kislyakov, G. M. Malyshev, V. A. Ovsyannikov, L. V. Sokolova, and S. S. Tyul'panov.	(E) 1510	1878
Plasma Diagnostics in "Tuman" with a Fast-Atom Beam. V. V. Afrosimov, I. P. Gladkovskii, and A. I. Kislyakov	(E) 1518	1888
Coupled Lasers. I. V. Rogova	(T) 1525	1897
Determination of the Parameters of Plasma Formed in a Magnetic Field under the Action of Microwaves. I. Steady-State Phenomena. A. I. Anisimov, N. I. Vinogradov, V. E. Golant, S. I. Nanobashvili, and L. P. Pakhomov.	(E) 1529	1902
Determination of the Parameters of Plasma Formed in a Magnetic Field under the Action of Microwaves. II. Time-Dependent Phenomena. A. I. Anisimov, N. I. Vinogradov, V. E. Golant, S. I. Nanobashvili, and L. P. Pakhomov.	(E) 1534	1908

(Contd.)

Available from the American Institute of Physics
Vol 13, No 11, May 1969

ZHURNAL TEKHNIЧЕСКОЙ ФИЗИКИ
Vol 38, No 11, 1968

		PAGE	RUS PAGE
External Characteristics of a Transient High-Pressure Arc Discharge. <u>S. M. Krizhanskii and B. Ya. Temkin</u>	(T)	1540	191
Effect of a Transverse Magnetic Field on a Collisionless Thermionic Converter. <u>A. Ya. Énder</u>	(T)	1546	192
Positive Column in a Medium-Pressure Helium Discharge. I. <u>Yu. B. Golubovskii, Yu. M. Kagan, and R. I. Lyagushchenko</u>	(T)	1553	193
Stability for the Phase Motion of a Relativistic Bunch in a Storage Ring. <u>M. M. Karliner, A. N. Skritskii, and I. A. Shekhtman</u>	(T)	1560	194
Spherical Aberration of a Short Quadrupole Lens Taking Pole-Piece and Electrode Shape into Account. <u>L. P. Ovsyannikova, V. N. Chechulin, and S. Ya. Yavor</u>	(T)	1566	195
Pulsed Heating of Surfaces by Electron Bombardment. <u>Yu. D. Deniskin</u>	(T)	1571	196
Breakdown Mechanism in a Silicon Monoxide Film. <u>G. A. Vorob'ev, V. A. Mukhachev, and A. N. Rudnev</u>	(E)	1575	196
BRIEF COMMUNICATIONS			
Reduction of Reflection Coefficient for Intense Laser Radiation on Solid Surfaces. <u>N. G. Basov, V. A. Boiko, O. N. Krokhin, O. G. Semenov, and G. V. Sklizkov</u>	(E)	1581	197
Electron Energy Distribution in Current Extraction from an Oxide Cathode. <u>M. V. Krasin'kova and B. Ya. Moizhes</u>	(E)	1583	197
Initiation of a Gaseous Discharge by Desorption of Negative Ions from the Cathode Surface. <u>Yu. L. Stankevich and V. G. Kalinin</u>	(E)	1586	197
Effect of Gases on Thermionic Emission from Metals Subject to Deformation. <u>L. P. Rekova and Ya. M. Fogel'</u>	(E)	1588	198
Longitudinal Mode Selection in a He - Ne Laser with a Four-Mirror T-Shaped Resonator. <u>V. Yu. Petrun'kin, M. G. Vysotskii, and R. I. Okunev</u>	(T/E)	1591	198
Stabilization of the Emission Characteristics of Metal Surfaces. <u>N. V. Mileshekina and L. L. Sokol'skaya</u>	(E)	1593	198
Hydrogen as a Buffer Gas in a Submillimeter Water-Vapor Laser. <u>S. F. Dyubko, V. A. Svich, and R. A. Valitov</u>	(E)	1596	198
Optimum Composition Ratio in a He - Ne Ring Laser. <u>Yu. M. Golubev, V. E. Privalov, S. A. Fridrikhov, and V. A. Khodovoi</u>	(E)	1598	199
Possible Mechanism for the Retrograde Motion of a Cathode Spot. <u>L. A. Sena</u>	(T)	1601	199
Probe Diagnostics of Medium-Pressure Plasmas. <u>Yu. B. Golubovskii, Yu. M. Kagan, P. Mikhel', and L. L. Nesterova</u>	(E/T)	1604	199
LETTERS TO THE EDITOR			
Characteristic Electrostatic Oscillations of a Plasmoid. <u>M. L. Levin and R. Z. Muratov</u>	(T)	1606	199
Increased Intensity of Beams of Negative Hydrogen Ions and Atoms from a Pulsed Ion Source. <u>G. I. Dimov and O. Ya. Savchenko</u>	(E)	1609	200

Available from the American Institute of Physics
Vol 13, No 11, May 1969

INDEX TO AUTHORS

This index does not include authors listed in the cover-to-cover tables of contents.

- A -

Abraham, Ladislav	12
Abraham, M.	62
Abreu, Pedro	34
Abrikov, S. A.	100
Absi, E.	85
Acevedo, Hernando	28
Afinogenov, M. P.	81
Agadzhanyan, N. A.	44
Aganiyazov, K. S.	91
Agaverdiyev, R. S.	89
Agapova, A.	4
Aigina, N. P.	56
Akhiyezer, I. A.	96
Akhmetov, M. S.	36
Aknazarov, Z.	4
Aksenenok, G.	6
Aladzhhalova, N. A.	41
Albornoz, Gonzalo	27
Albrecht-Buhler, Gunther	97
Aldoshiv, G. T.	100
Aleksandrov, I. P.	63
Aleksandrov, V. S.	36
Alekseyev, T. I.	67
Alekstenskoy, A. G.	60
Al-Ghadiri, Nihad	20
Almogi, Yosef	19
Alzate, Andres	28
Ambartsumyan, S. A.	92
Amosov, N.	60
Anatychuk, L. I.	96
Andreyeva, Ye. Ts.	38
Andritzky, H. K. M.	97
Androsov, N. S.	38
Anichas, I.	6
Anisimov, V. M.	95
Anon	76
Antonov, A.	102
Appel, H. G.	74
Aramaki, Y.	49
Arav, F.	96
Arkadiyev, D. A.	63
Armand, N. A.	89
Arosemena, Carlos Julio	29
Asinovskiy, Ye. I.	94
Astaiza, Hugo	26
Atayev, Ch.	6
Aubert	47
Augier, Angel	29

August, M.	91
Aveanescu, A.	63
Aver'yanov, K.	54, 64
Aver'yanova, V. N.	55
Avneri, Uri	20
Avramov, Luchezar	11
Ayrapet'yants, Ye. Sh.	42
Azcarraga, A.	37

- B -

Babunashvili, M. K.	59
Babylkin, M. V.	91
Bacvarov, V.	39
Badceyev, Yu. S.	64
Baymov, N. I.	64, 65
Bakulev, I. A.	37
Balandin, I. T.	38
Banoglu, Vedat	34
Baranenkova, T.	8
Barankov, P. A.	89
Barashenkov, V. S.	90
Barnea, Nahum	21
Barta, Z.	69
Bartenev, S.	2
Bartenjew, G. M.	74
Bartoszek, Boleslaw	63
Basanjab, N.	22
Bataa, S.	22
Batyreva, O. V.	80
Bauer, C. O.	72
Baumann, H. G.	73
Baumgartner, F.	95
Baybakov, G. R.	83
Bayevskiy, R. M.	43
Baz', A. I.	94
Beauseigneur, G.	101
Belobzhetskiy, I.	1
Belokrys, L. S.	54
Belopol'skaya, A. R.	37
Belov, P. N.	36
Belyakov, A.	4
Benachenhou, Mourad	33
Benatsky, M.	68
Bencini, P.	59
Benko, B.	69
Benot, Yves	18
Berettyan, Laszlo	10

Berezkhovskaya, M. I.	83	Bozovic, Predrag	11
Berezina, O. N.	42	Brandenstein, H.	63
Bereznaya, I. A.	93	Brandli, H.	81
Berg, A. I.	89	Brandly, E.	61
Berger, Carlos	28	Bratchikov, I. I.	60
Bermant, M. A.	59	Bratchikov, S. G.	65
Bermudez, Morales	25	Braun, H.	72
Bernashev, Yu.	2	Braun, R.	62
Bernhardt, W.	73	Braynes, A. S.	42
Berry, L.	96	Braynes, S. N.	42
Bespalyi, I. T.	100	Bregel', Ye.	5
Besredka	45	Brents, A.	2
Beuermann, Klaus-Peter	98	Breyer, Siegfried,	13
Bezrukov, P. L.	82	Breyev, M.	2
Bezymenskiy, Lev	4	Brotzman, K.	76
Biberman, L. M.	93	Broussaud, Pierre	88
Bierett, G.	75	Brouwer, J. H.	69
Bilenskiy, S. M.	93	Brueckner, Dieter	9
Binet, J. L.	45	Brun, R.	96
Biryukov, V. V.	44	Brusilovskaya, N.	1
Bivas	57	Bublik, B. N.	80
Bjorling, G.	80	Buchheit, K.	98
Blest, Clotario R.	29	Bugayev, Ye.	5
Blökh, Ye. L.	60	Buhler, H.	71
Blondel, A.	70	Bulatov, N. K.	52
Bluvshcheyn, Yu.	7	Bulygin, I. A.	59
Bochkarev, B. N.	55	Bulygina, Ye. A.	67
Bodretsova, A. I.	95	Buravova, S. N.	7
Bogatyrev, I. D.	43	Burgmann, F.	63
Bogolyubov, K.	5	Burgmann, G.	71
Bogomolov, L. A.	101	Burgmann, W.	70
Bogorodskiy, A. F.	34	Burlatskiy, Fedor	22
Bohm, I.	80	Burrell, J.	79
Bollenrath, F.	71	Busa, M.	58
Bonch-Osmolovskiy, A. G.	90	Burtsev, I. I.	35
Bondarenko, A. V.	92	Burylev, B. P.	65
Bondaivenko, L. T.	59	Bushara, I. V.	42
Bordinov, V.	83	Buslovich, G. Ya.	93
Borisevich, N. A.	95	Buts, V. A.	96
Borisov, N. I.	83	Buzanov, I. F.	40
Born, G.	47	Ryalik, O. M.	65
Born, K.	71	Bychenkov, B. D.	44
Borodin, N.	32	Bykova, T. T.	61
Borovikov, A. M.	36	Byshevskiy, A. Sh.	38
Borrass, E.	58	Byzova, N. L.	36
Borrat, Hector	27		
Bors, Gh.	51	- C -	
Bossi, A.	63		
Rothe, R.	75	Canic, J.	51
Boucraut, M.	70	Carafoli, E.	97
Boudouresques, J.	46	Caratan, Branko	12
Boudreault, A.	46	Carrillo, Santiago	16
Bouissou, H.	97	Castellanos, Gonzalo	25
Boyakhchyan, A. B.	41	Celada, J.	70
Bozhilov, Yordan	14	Cerda Gutierrez, Mario	28

Cerny, Josef	9	Davydov, A.	6
Cerveny, E.	67	Davydov, N. I.	35
Cesselin, Ph.	69	de Carvalho, A.	15
Chabou	18	Decurgez, Luis H.	28
Chami, Jean	19	Dedoch, L.	69
Chamouard, A.	70	Defranoux, J. M.	70
Chang Jun	56	Degos, R.	46
Chao Jih-Ping	37	Deh, R.	72
Chassaing, J. P.	57	Dekhtyar, L. I.	59
Chavchanidze, V. V.	40	del Cid, C.	51
Chilpanov, I. B.	35	Demanov, D. A.	81
Chong Chun-pei	21	Demchenko, V. V.	96
Cherevatenko, A. P.	90	Denisov, Ivan Ivanovich	7
Cherkasov, L. M.	66	de Paul, Michel Vincent	30
Chernega, D. F.	65	de Paul, Vincent	31
Chernos, V. I.	43	Depene, R.	47
Chernov, A. N.	82	Deryagin, B. V.	52
Chernyak, A. N.	66	Devillers, Philippe	20
Chernysh, G. I.	65	Deych, M. Ye.	94
Chernyy, A. I.	60	Dhrami, Idriz	11
Chih Ch'en	22	Dietzl, A.	72
Chikhachev, N.	7	Dimitriu, C. Gh.	51
Chirkov, M. K.	60	Dine, Thoma	32
Chkhivadze, V.	6	Dinnik, A. A.	66
Choijamts, S.	22	Diouf, Bara	18
Chow Shiao-Ping	37	Dmitriyev, A. S.	54
Cichowicz, L.	59	Dobrov, G.	60
Cikuli, Zisa	14	Dobrovol'skiy, M. V.	100
Clelia, Rua	24	Dolbish, G. A.	40
Clode, W. H.	46	Dol'nik, V. R.	42
Closca, I.	12	Dombkovskaya, Ye. P.	35
Concort, A.	97	Donchev, D.	102
Contensou, Pierre	101	Dorn, L.	74
Cord, B.	74	Doroshin, A.	3
Corominas, Enrique V.	25, 28	Dowzenko, A.	50
Cosmeanu, C.	79	Dranovskiy, M. G.	82
Cotot, Ion	14	Drinovec, B.	48
Crespo Daga, Joaquin	23	Drumaux, Marc	16
Cristea, Vasile	51	Dubsky, B.	68
Csogor, L.	51	Dufour, H. M.	57
Cyganska, Janina	79	Dunner, P.	71
Czapek, Fredrich	47	Dunskiy, V. P.	32
- D -		Durasova, M. S.	34
da Fonseca, A. C.	79	Durov, A. G.	56
Dalton, Roque	26	Dustin, J. P.	46
Danecker, E.	9	Dvorak, R.	96
Daneva, M.	102	Dvulit, P. D.	54
Danihelka, A.	68	Dyban, Ye. P.	100
Danilin, V. A.	39	Dynkin, Ye. B.	59
Danilov	82	Dzhibladze, G.	8
Danilov, A. D.	91	Dziewonski, K.	54
Dausset, J.	46		
Dauvillier, Alexandre	35		
Davidovich, A.	4		

- E -

Echevarria Murtua, Andres	28
Echterhoff, H.	72
Eckstein, H. -J.	74
Edelmann, B. U.	53
Eder, G.	58
Ehrlich, P.	48
Eichhorn, E.	73
Elofson, O.	58
Elsner, J.	99
Engel, G.	75
Engelmann, C.	53
Etorre, V.	70
Exner, H.	74

- F -

Fabian, Ferenc	22
Faddeyev, O. V.	83
Fadeyev, I.	1
Fadeyev, V. G.	38
Fagerberg, B.	71
Falkenberg, Herman	47
Fallet, Pierre	33
Farkas, J.	74
Fave, J.	31
Fave, Jean	31
Fedorov, V. N.	64
Fedorov, V. S.	52
Fedynskiy, V. V.	34
Fel'dshteyn, Ya. I.	34
Fellcht, K.	76
Fenning, Leonard Michael	101
Feoktistov, I.	82
Ferraro, Romulo A.	24
Ferro, A.	77
Feteanu, Ion	10
Fidelle, Jean-Pierre	70
Fiebig, E.	76
Fiedler, H.	74
Fiorini, Vittorio	101
Firer, A. S.	37
Fischer, E. A.	98
Fischer, F.	75
Fischer, W. A.	71
Fitting, Hans	47
Fliedner, T. M.	48
Foerster	47
Fogelson, R. L.	92
Foltyn, M.	67
Fomenko, L.	4
Fomin, L. M.	55
Fournier, G.	97
Franck, E. U.	99
Frank, M.	53

Frank, W.	98
Franke, Siegfried	13
Frei, Eduardo	27
Fridel, H.	31
Fridman, L. Ya.	66
Fric, W.	62
Frings, W.	70
Fronek, A.	68
Frost, Neculai	12
Fu'ad, Sakinah	20
Fujii, S.	78
Fuks, I. G.	66
Fukuyama, T.	79
Furioli, G.	62
Fyurin, V. N.	42

- G -

Gaganov, Yu. I.	92
Gaydar, L. M.	67
Galich, Manuel	29
Gallardo, R.	51
Gandin, L. S.	35
Ganzen, V. A.	60
Garber, Ye. I.	43
Gashumba, Pierre	18
Gavrilov, R.	1
Gembitskiy, Ye. V.	43
Georgiev, L.	89
Gerasimov, V.	93
Gerganov, V.	13
Gersten, Klaus	31
Gilio, Maris Ester	27
Gillardeau, Jacques	96
Gilly, Jean-Pierre	97
Gindin, G. V.	100
Gingold, N.	51
Ginzburg, I. P.	93
Girolami, A.	49
Glage, W.	72
Glagolev, V.	5
Glizmanenko, D. L.	52
Glowacki, Jerzy	10
Glukhov, V. G.	36
Glushakov, A. N.	92
Gneipel, G.	98
Gnuni, V. Ts.	92
Gogish, L. V.	100
Gogosov, V.	2
Gol'danskiy, V. I.	93
Gol'dshteyn, I. A.	42
Golitsyn, G. S.	101
Golub, A. M.	91
Golubeva, V. V.	95
Gorhunov, Ye. P.	90

Gordyevskaya, V. S.	83	Hayashi, M.	78
Goreglyad, A.	1	Heckert, W.	62
Gorodniy, V.	32	Heilpern, Walter	53
Gorshenin, Yu. V.	83	Heinze, M.	9
Gotev, N.	45	Heitmann, H. G.	53
Grafarend, E.	35	Hellendoorn, E. W.	45
Grafen, H.	77	Hempel, K. A.	95
Granovskaya, R. M.	60	Henichi Hasegawa	88
Grasshoff, H. W.	75	Henkes, W.	98
Grasshoff, W.	76	Hennesen, K.	71
Grebennikov, R. V.	90	Hennicke, H. W.	76
Grebenschikov, A.	8	Hernandez Parker, Luis	27
Gregorig, R.	97	Herrmann, H. U.	86
Gregoris, R.	98	Hesse, J.	74
Grewe, H. G.	98	Heumann, Th.	97
Greym, I. A.	54	Hikoji Yamada	81
Grigorenko, A. S.	66	Hirano, H.	78
Grigor'yev, G. G.	60	Hiroji Mochizuki	77
Grigor'yev, K.	8	Hiroko Hagihara	31
Grishkov, A. I.	82	Hiroyuki Hatano	50
Gritsenko, P. F.	3	Ho Chi Minh	23
Groyeck, J.	68	Ho Yu-wen	21
Gruban, H.	62	Hoch, R.	101
Gruehm, Hans	86	Hoff, H. -G.	75
Grumazescu, M.	100	Hoff, H. H.	73
Grumbach, M.	69	Hofmann, E. E.	75
Gsell, G.	75	Holmberg, Bror	54
Guiraud, L. -P.	97	Holy, M.	69
Gunko, B. N.	100	Homann, K. H.	53
Gunter, E. R.	62	Hong Linh	23
Gurevich, M. A.	67	Hortig, G.	98
Gurevich, S. Ye.	64	Horvath, G.	72
Gusakov, B.	82	Hoyermann, K.	53
Gusev, N.	31	Brivnakova, D.	69
Gusev, V.	3	Hubayqah, Fu'ad	20
Gusev, V. N.	100	Hudomo	27
Gutierrez, Gabriel	28	Hullot, Jean-Bernard	33
Gutierrez Valenzuela, Raul	27	Huml, P.	68
Gutkina, A. V.	43	Russon, G.	69
Gutsche, F.	98	Huynh Thu	24
Guzej, J.	68		

- H -

Haarmann, K.	71	Iacob, Eugen	12
Haastert, H. P.	75	Ibragimov, I. A.	80
Haberkorn, H.	98	Ichitani, M.	50
Halvorson, H. O.	47	Ikoku, S. G.	18
Hamann, J.	87	Ikonnikov, A.	81
Hamrush, Ala	20	Ikuo Anzai	77
Harkort, D.	76	Il'ichev, V. D.	42
Harmel, Claude	16	Illes, Edit	49
Haroske, D.	54	Ilgen, L.	72
Harting, R. M.	63	Il'yin, G. M.	60
Harveng, I.	70	Il'yin, N. S.	54
		Imai, A.	99

- I -

Inomata, Y.	99	Kaymoshnikov, V. I.	44
Iosebidze, D. S.	64	Kazakevich, T. A.	102
Iovnovich, M. L.	90	Kazmin, Yu.	83
Irmisch, H.	71	Kebin, I. G.	6
Isaac, J.	85	Kedrov, B.	5
Ischenko, M.	8	Kellen, T.	73
Ishihara, T.	78	Keller, H.	71
Istvan, V.	77	Kepa, Josef	12
Ito, G.	78	Kesaren, V. S.	38
Ivan'kov, M.	4	Kesarev, V. V.	54
Ivanov, I. N.	90	Khabin, V.	5
Ivanov, P. L.	56	Khafizov, F. I.	60
Ivanova, L. G.	44	Khakhin, V. I.	100
Ivanova, M. N.	41	Khandros, B.	8
Ivanovics, Gyorgy	49	Kharichkov, V. K.	83
Ivchenko, V. V.	2	Khatsyanov, F. G.	84
Iwai, H.	79	Khaylov, V. M.	94
Izmaylov, V.	81	Khelemskiy, N. Z.	32
- J -		Khenin, Yu. N.	35
Jacob, G.	75	Khlebnikov, V. K.	31
Janda, E.	68	Khrgian, Aleksandr K.	36
Jech, J.	68	Khrstov, V. K.	88
Jedwab, J.	35	Khristyanova, L. A.	54
Jeske, Helmut	37	Khudosovtsev, N. M.	3
Joffre, Henri	90	Al-Khuli, Lucfi	20
- K -		Khvostov, V. M.	8
Kachaylov, A. P.	66	Kikuo Nakano	99
Kaiser, G.	61	Kilkinskiy, M.	82
Kalabukhov, N. I.	44	Kilstedt, P. G.	79
Kalashyan, P. L.	41	Kipke, K.	31
Kalaza, F.	79	Kirchmann, G.	73
Kalinin, Ye. K.	92, 95	Kirillov, P. L.	52
Kalinowski, W.	73	Kirilov, I. I.	100
Kalmykov, A. K.	55	Kirzhnits, D. A.	93
Kamensky, R.	68	Kishli, Muhammad	20
Kaminskiy, A. A.	95	Kiss, E.	72
Kanafojski, Cz.	33	Kitov, A.	6
Kapinos, V. M.	100	Klein, S.	51
Kaplan, S. A.	95	Kleinenberg, S. E.	38
Kapovits, A.	31	Klepaczko, J.	99
Kappler, E.	98	Klezath, H.	63
Karakulov, I. K.	43	Klimova, T. V.	100
Karalyun, V.	1	Kling, H. G.	76
Kargapolov, V.	32	Klisenko, G. A.	43
Karpov, I. I.	90	Klupka, Z.	53
Karpukhin, D.	3	Kmalov, G. Kh.	41
Karpukhin, G. I.	44	Knoll, P.	53
Kataura, Y.	78	Ko I-tao	56
Katterfel'd, G. N.	55	Ko Sung-il	22
Kavetskiy, R. Ye.	39	Kobyl'chak, M.	1
Kawazu, A.	27	Kohl, H.	76
		Koch, K. H.	77
		Koch, Lothar	53
		Koch, W.	71
		Kohle, H.	86

Lanzola, F.	49	Lohs, Kh.	48
Lapidus, L. I.	93	Lokay, V. I.	100
Laporte, Rene	24	Lomaya, O. V.	35
Larikov, L. N.	96	Lomonosov, Ye. G.	35
Lask, G. W.	75	Lomsadze, Yu. M.	96
Laskin, M. N.	63	Lonfernini, Bruno	19
Laubin, M.	70	Loske, Karlheinz	76
Lauer, Mirko	27	Losonczi, Karloy	10
Laverlochere, J.	53	Lowenheim, Leopold	81
Lavin Creda, Hernan	29	Lozinskiy, M. G.	64, 65
Lavrinov, G. A.	34	Ludewig, Hartmut	86
Leal, Miguel	88	Luferova, L. A.	40
Le Ba	51	Lukin, Yu.	5
Lebedev, A. N.	35	Lukshina, O. D.	1
Lebedev, T. A.	95	Luk'yanov, A. N.	40
Lebedev, V. I.	102	Lunev, V. V.	64
Le Borgne, E.	57	Lutjering, G.	77
Le Chan Phuong	24	Lutsenko, K. I.	64
Legostayev, V.	101	Lutz, J.	47
Lejska, V.	45	Luzhnov, M. I.	52
Lehmann, J.	98	Lyaporov, N.	6
Lehnert, W.	74	Lykova, L.	40
Leisegang, L.	87		
Leitner, J.	68		
Lemm, H.	71		
Lenart, Lajos	9		
Lencz, I.	63		
Lenze, F. -J.	75		
Leonov, Yu.	8		
Leont'yev, A. I.	94		
Leont'yev, Al.	4		
Leppanen, Harri	57		
Lerche, W.	74		
Leval'd, Kh. A.	84		
Levallois, J. J.	57		
Levina, L. A.	44		
Le Xuan Vu	23		
Leykina, B. M.	60		
Leymonie, C.	70		
Liberman, V. B.	66		
Lifshits, Ye. V.	95		
Lijtenstein, Marcos	27		
Lin Ming	22		
Linchevskiy, B. V.	65		
Lipowsky, H.	73		
Lisanka	16		
Lisitsyn, A. P.	56		
Liunggren, Ye.	41		
Liventsev, N. M.	59		
Liygant, M.	88		
Ljere, M. G.	33		
Lleras Restrepo, Carlos	28		
Lobastov, Yu. S.	94		
Lobov, G. A.	92		
Loginov, V. S.	64		

- M -

Machado, Jesus	26	Mayer, K. E.	76
Machnik, S.	79	Maykapar, G. I.	91
Machu, W.	72	Medvedovic, Zvonimir	11
Madama, G.	63	Medzhidov, B. F.	43
Made, W.	72	Mehilli, Vangjel	11
Mader, K.	58	Mehlig, J. G.	61
Maeno, K.	50	Meizner, J.	81
Magrassi, F.	49	Melikadze, L. D.	64,52
Makarov, B. P.	93	Mel'nichenko, G. P.	65
Makhanev, N. G.	65	Mondsnihan, G.	24
Makhmudov, B. M.	41	Men'shikh, O. F.	59
Malakhov, S. G.	35	Menzies, J. A.	77
Malin, B. V.	60	Merenov, I. V.	101
Malinovska, E.	69	Merina, O.	6
Malov, V. V.	63	Mering, T.	8
Malozemov, V. N.	80	Metchnikoff, E.	45
Mal'ts, L. Yu.	82	Metzger, Joe	16
Malyukina, G. A.	42	Mevskiy, M. V.	43
Mamontov, O. V.	60	Meyer, W. E.	74
Managadze, G. G.	92	Michalik, J.	79
Manakov, L.	82	Mikhaylov, Yu. Ya.	80
Mangin, F.	69	Milhovitch, Simon	88
Manteyfel', B.P.	42	Millas, Hernan	27
Mantsurov, G.	2	Minastireanu, S.	10
Manuzio, C.	85	Mineyev, V.	32
Manyushis, I.	3	Mironenko, P.	3
Marasanova, L. P.	44	Mironov, K. A.	84
Marchal, G.	46	Mironov, V. G.	66
Marcus, Solomon	81	Mishurin, V. M.	43
Marencak, St.	68	Mitropolskiy, A. N.	43
Marfenko, O. V.	35	Miyashita, Kyoichi	77
Margolis, L. Ya.	52	Mizov, Nikolay	11
Marinets, T. K.	95	Moc, Miroslav	12
Markiewicz, Wladyslaw	12	Mocks, L.	61
Markin, B.	1	Mohr, E.	76
Marquardt, H.	47	Moisiu, Vangjel	11
Marrero, Juan	27	Mokhnach, D. P.	34
Martin, Jean	19	Molchanov, A. P.	65
Martin, L.	70	Molina, Gabriel	17
Martynenko, B. K.	34	Monakov, A. V.	40
Masan, Franz	87	Monteiro, E.	51
Maschke, A. P.	25	Montuelle, J.	70
Maslova, N. B.	80	Mordovenko, L. P.	63
Massimilla, L.	99	Morillon, R.	70
Matar, Fuad	21	Moshkov, B. S.	67
Mateescu, D.	97	Moskalev, Yu. I.	40
Matiychenko, Ya.	3	Mostinskiy, I. L.	95
Matskevich, V. D.	83	Motoyama, M.	78
Matsuda, N.	50	Motskyavichyus, A.	7
Matteoli, L.	77	Muco, Myftar	14
Matting, A.	74	Muhr, Karl-Heinz	75
Matuska, K.	69	Mukhachev, G. A.	94
Maybaum, H. R.	72	Mulfinger, H. O.	73
		Muller, K. Alexander	98
		Muller, K. E.	61

Mundry, E.	88
Murashev, Yu. G.	82
Musabev, I. K.	43
Mzhavmadsse	6
Mzhelskaya, L. G.	39

- N -

Nadir, D.	33
Naezer, G.	71
Naezer, Gerhard	98
Nagibarov, V. R.	92
Nahagawa, M.	62
Nakajima, N.	79
Nakamura, M.	78
Nakamura, Masoharu	78
Nakhlov, V. A.	64
Namba, S.	77
Narikashvili, S. P.	44
Narita, K.	79
Narovlianskiy, G. Ya.	35
Naumov, N. P.	42
Navrotskiy, V. V.	55
Nazarenko, V. A.	96
Nazarov, M.	1
Nedeljkovic, L.	66
Nef, J. U.	53
Negreyev, V. F.	52
Negru, Radu	10
Nekrasov, A. M.	2
Nemesh, Dezhe	4
Nepper, M.	70
Nersesov, I. L.	55
Neuenschwander, E.	73
Neumann, F.	73
Newton, Huey P.	26
Nguyen Chung	34
Nguyen Si Que	23
Nguyen Tu Thuan	23
Nguyen Vinh	23
Nguyen Xuan Linh	23
Nhan Dan	34
Nicodemi, W.	77
Nidekker, I. G.	43
Nijalingappa	22
Nikamorov, Yu. I.	40
Nikiforov, I. M.	55
Nikitin, Ye. Ye.	41
Nikitina, L. P.	67
Nikolashkin, A.	2
Nikolayev, A. V.	92
Nikolayuk, V.	32
Niksic, Milorad	33
Nikulin, I. P.	56
Nobuhiro Nakahashi	

Noskov, F. S.	43
Novak, Miroslav	56
Novichenko, P.	1
Novikov, Yu. A.	60
Novitskaya, I. M.	37
Novotel'nov, N. V.	39
Nulry, Nuria	27

- O -

Oberlander, J.	76
Obratzsov, N. P.	81
Obukhov, A. M.	101
Odulov, S. G.	96
Oeters, F.	76
Offret, G.	45
Okazaki, M.	78
Okruszk, Henryk	33
Olberg, M.	58
Oleynik, I.	3
Olivares, G. J.	51
Ongania, Juan Carlos	26
Oren, A.	21
Orlov, R. S.	38
Orlov, Ya.	2
Ortez Colindres,	
Enrique	25
Osamu Matsumoto	78
Ostrovskiy, D.	8
Ototani, T.	78
Ovando Candia,	
Alfredo	26

- P -

Paardekoper, G.	69
Paek Kil-man	22
Pacz, Tubal	29
Pages, Lucien	90
Pail, A. I.	13
Pak Hui-sok	22
Palagachev, N.	2
Palhiano, Aluizio	25
Panov, D. A.	41
Panov, Yu. O.	95
Pardi, Imre	10
Parfenov, A. K.	7
Parish, C. C. M.	61
Parma, V.	67
Parshin, M. Ya.	7
Partuginov, V.	4
Pasechnik, P.	32
Patan, Ion	10
Patlyakevich, N. D.	38
Patterson, W.	72

Pavinskiy, P. P.	90	Potthast, Hans	87
Pavlov, A. A.	56	Povolotskiy, D. Ya.	65
Pavlova, L. P.	41	Poyedinstev, G. M.	94
Pawel, Otto	45	Pozo, Alberto	33
Pechatin, A. A.	38	Praitoni, A.	77
Pellinen, L. P.	58	Prangishvili, I. V.	61
Perin, A.	77	Priester, Eva	16
Permitin, V. Ye.	88	Primo, E.	49
Permogorov, V. I.	39	Prosvetov, M. M.	63
Perrin, Rene	19	Protasov, V. R.	42
Pershin, S. V.	42	Pshenichnov, A. V.	44
Person, B.	73	Pushlenkov, M. F.	52
Peter, Emese	24		
Peters, Olaf	35	- R -	
Petrov, F.	5		
Petrov, Met	13	Rabinovich, Ye. Kh.	84
Petrov, Yu. N.	59	Radulov, Marin	85
Petrovic, Milan C.	11	Rajacic, Milan	103
Petrovski, Sv.	45	Rakhimov, A. T.	91
Pfeffer, W.	46	Rakhomov, S. V.	36
Pham Dinh Son	34	Rakoczi, Istvan	49
Pianka Marc, I. P. A.	30	Rakov, A.	39
Pick, Arnold	46	Rakov, A. A.	8
Pierrard, H.	69	Pamacciotti, A.	77
Pil'kevych, L. A.	62	Ramirez, Isidro	26
Pineda, Isidro	27	Ramsayer, K.	57
Pinner, A.	53	Raspopov, O. M.	93
Pipko, D.	30	Rass, T. S.	41
Pisarenko, G. S.	67	Raushenenbakh, B.	101
Pisarenko, V. F.	55	Razim, C.	73
Pishev, Raycho	11	Rebayn, V. A.	8
Pittorino, G.	49	Reicheneder, K.	58
Platonov, G. M.	64	Reidt, M. J.	69
Plenard, E.	70	Rensch, W.	73
Pleshivtsev, G. A.	59	Repenko, A.	81
Plugge, H. H.	75	Restrepo, Camilo	26
Plyutinskiy	91	Revyakina, N. N.	67
Podgomyy, I. M.	92	Richter, R.	86
Podkovyrkin, A. I.	64	Rlekperova, Yu. A.	52
Podlipalin, Yu. D.	42	Robochev, I.	32
Podvigin, V. G.	32	Roche, R.	69
Pod'yapol'skiy, G. S.	55	Rodova, R. A.	41
Polis, A.	46	Roederer, C.	69
Politikin, F.	2	Roman, Ioan	10
Polozhiy, G. N.	80	Romanenko, A. F.	41
Polyak, R. A.	59	Romanov, A. N.	64
Polyakov, A. A.	41	Romanov, Yu. A.	36,55
Popa, I.	51	Romanova, N. A.	55
Popov, K.	3	Romvary, Jozsef	49
Popov, O. V.	60	Ronco, Theo	22
Popov, Yu. N.	83	Rose, A.	74
Popova, O. M.	42	Roshchin, V. Ye.	65
Poppmeier, W.	70	Rosiers, M. M.	69
Potapov, N.	83	Roslyakov, G. S.	30
Potatuyeva, T. V.	91	Rossi, G.	77
		Rotshteyn, L.	82

Rouiller, C.	46
Rousset, Y.	97
Roux, Wilhelm	47
Royen, P.	53
Rozanova, V.	1
Rozovskiy, I. L.	92
Rudenko, B. N.	84
Rudenko, V. N.	67
Rudneva, N. M.	55
Rueda Gomez, Luis	28
Runge, W.	61
Rupe, H.	53
Russina, Ye. K.	43
Ruzhanskiy, V. I.	80
Ruzickova, Z.	68
Ruzin, M. I.	36
Ryabov, V. R.	64
Rybak, Mieczyslaw	31

- S -

Saarinen, Aarne	15
Sada, M.	13
Saito, M.	62
Sakhnovskiy, G.	3
Salak, A.	68
Samoilovich, G. G.	80
Samokhin, M. V.	93
Sanchez, Hernando	28
Sanchez Lalebret, Rafael	33
Sandhofer, L. H.	75
Sangisharab, Ch.	22
Sanin, A. A.	95
Sannes, Fabien	97
Santamaria, Ramiro	17
Santibanez, Abraham	26
Sapozhnikova, S. A.	36
Saranov, Ye. I.	52
Sarmiento, Luiz Carlos	26
Sarry, Brigitte	77
Savin, G. D.	94
Savulescu, St. N.	97
Savvin, S. B.	91
Sawada, M.	50
Sawicki, A.	62
Scartezini, Antonio Carlos	25
Schaaber, O.	73
Schaff, K.	63
Scharf, R.	50
Schael, R.	76
Schenck, H.	71
Schier, J.	50
Schilling, G.	103
Schilling, Paulo R.	26
Schmid, R.	73

Schmidt, D.	63
Schmidt, F.	72
Schmidt, P.	74
Schoenfeld, Guenter	14
Scholz, Werner	98
Schoth, Otto	9
Schott, G.	98
Schreiner, A.	75
Schubbert, E.	48
Schuele, H.	47
Schuhlein, E.	72
Schumacher, K.	48
Schweizer, E.	48
Schwenk, W.	76
Sdobov, S.	5
Sebestyen, Tibor	48
Segawa, K.	79
Seidaliyev, F. S.	65
Seiffert, Habil Wolfgang	14
Seleznov, S. M.	101
Selivanova, T.	2
Ye. Ye. Selkov	39
Selser, Gregorio	28
Semenov, V. K.	91
Semjonova, L. M.	40
Senghor, Leopold-Sedar	18
Sepold, G.	74
Sepulveda Vergara, Carlos	25,33
Sergeyenko, N. D.	40
Sergeyev, B. S.	65
Sergeyev, V.	3
Sergeyeva, G. I.	66
Setala, Rauno	16
Severyanin, V. S.	94
Seyffarth, P.	74
Sfameni, P.	49
Sgibnev, A.	5
Shabad, A. Ye.	41
Shabanov, Ye.	32
Sharonov, I. V.	41
Sharov, Yu.	8
Shasin, V. D.	82
Shauman, A. M.	60
Shcherbin, P.	7
Shchupakov, N. N.	82
Shekhter, Yu. N.	67
Shelnin, S. G.	88
Shelyapin, A.	5
Shenintsev, Ye. A.	83
Sher, I.	1
Shevchenko, V. L.	44
Shevelev, V. M.	38
Shevin, A. D.	34

Shitanov, F. A.	56	Sos, J.	48
Shigeru Kitahara	78	Soskin, M. S.	96
Shimose, T.	78	Spalenka, M.	54
Shindryayev, A. A.	43	Spang, J.	86
Shkarbul', S. N.	92	Spemann, Hans	47
Shlyapentokh, V.	5	Spira, Leopold	16
Shmakov, V. P.	92	Splittgerber, E.	61
Shofman, L. A.	66	Stahan, Josip	11
Shoji, K.	79	Stakhanova, V. M.	43
Shopov, Vulkan	32	Stammach, R.	73
Shpairo, Yu. Ye.	39	Stanyukovich, K. P.	34
Shpet, N. G.	100	Starik, D. Ye.	84
Shultz, V. L.	21	Starovitt, O. Ye.	56
Shumakov, M. Ye.	42	Stauch, B.	61
Shumenskayte-Kleyzene, D.	3	Stec, R.	79
Shunro Kawagishi	50	Steffens, H.-D.	74
Shuster, B. Yu.	44	Stekol'nikov	90
Shvets, I.	4	Stenzel, H.	98
Shvets', O. I.	95	Stepanov, V. N.	56
Sicha, M.	68	Stepin, A.	5
Sichova, D.	67	Stipanic, Ljubo	88
Sieber, K.	72	Stolze, K.	76
Siefer, W.	72	Storozhyk, V. M.	42
Silayeva, V. I.	36	Strandell, P. O.	74
Silin, V.	3	Strassburg, W.	74
Simkin, G. N.	38, 42, 44	Strazhev, V.	1
Simler, M.	48	Strelkov, G. M.	34
Simon, Emile	18	Stricker, F.	71
Sin Tong-sop	22	Strum, Jaroslav	12
Sinakos, Z.	46	Sturhahn, H. H.	76
Sivachenko, P. M.	59	Subbotin, V. I.	52, 91
Skoda, Z.	85	Sudakov, A. S.	88
Skripnik, S. I.	91	Sugai, Ryuichi	91
Skurin, L. I.	93	Sugano, G.	78
Slaninka, P.	61	Suhajda, O.	77
Slepov, B. I.	92	Sukhanov, A. L.	34
Slitenko, A. F.	100	Sum, K. J.	96
Slivinskiy, V. I.	81	Surov, N. S.	94
Slobodyenyuk, B. K.	44	Surovkin, B. D.	39
Slovinskiy, Ye.	90	Svechinskiy, V. B.	42
Smirnov, G. A.	81	Svinarev, G. A.	63
Smolkin, G. Ye.	91	Sviridov, V. V.	94
Smolyarenko, V. D.	65	Sychev, B. S.	90
Snechkus, Antanas	33	Szakacs, Gyula	62
Sneh, Moshe	20	Szanto, Ladislav	12
Soboleva, S. S.	40	Szarvas, Karoly	87
Sobolevskiy, A. I.	65	Szczeniewski, J.	79
Solana, Guillermo	19		
Solignac, Jean-Louis	31	- T -	
Solov'ev, V. D.	38		
Solov'yev, Yu. P.	1	Tabor, Eli	21
Solt, Katalin	49	Takashi Nakagawa	62
Somogyi, G.	58	Takeo Saegusa	99
Son Chong-hu	22	Takizawa, Yukio	91
Sorbo, Bo	17	Tanaka, H.	54

Yanagov, A. I.	65	Tuvo, F.	49
Yarasev, A.	82	Tylikin, M. A.	65
Yarasev, E. Ye.	44	Tyshkevych, V. M.	96
Yaratuts, Zh.	5	Tyshkevich, S.	6
Yarjan, Robert	9		
Yarman, B.	70	- U -	
Yasber, G. M.	35		
Yaubman, J.	79	Udachin, S.	31
Yaubman, Jerry	101	Ulbricht, Walter	5
Yaus, Bohuslav	13	Ulinich, F. R.	91
Teindl, J.	67	Ultee, J. A.	53
Tenchev, Boris	30	Umyagin, M. G.	84
Lenhaven, U.	73	Ushakov, P. A.	91
Terlaak, D.	75	Ustinova, G. N.	83
Tessier, P.	45		
Thaning, G.	80	- V -	
Thery, C.	97		
Thierry, M.	87	Vager, B. G.	92
Tiemann, Wilhelm	97	Vainshtein, B. K.	38
Tietz, J.	74	Vaisman, M. D.	95
Tikhomirov, B. I.	95	Valenski, J.	97
Timm, Claus	48	Valla!at, Lapkiado	12, 103
Tipko, A.	32	Vaminskiy, N. L.	84
Tishkov, A. V.	8	Vasilevskiy, I. M.	90
Titarenko, A. A.	2	Vasil'yev, A. P.	100
Tobolski, J.	75	Vasil'yev, N. S.	63
Todes, O. M.	52	Vasserman, L. K.	66
Tolochkov, M. I.	6	Vater, M.	76
Tolstikov, Ye. Ye.	36	Vaynshteyn, B.	82
Tomic, Stojan T.	12	Vazquez Candela,	
Tomik, B.	68	Euclides	27
Tornier, Gustav	48	Vdovenko, V. M.	94
Yoropov, O. A.	95	Venediktov, V. D.	100
Torrassa, Atilio	29	Venker, H.	97
Toru Matsushita	99	Veress, Peter	24
Tosio Sakuri	39	Vetiska, A.	68
Toth, K.	48	Vetrov, M.	6
Tovar, Valencia	28	Vial, Elena	26
Toverud, K. U.	50	Viale, G. L.	49
Trakhtenberg, M. O.	84	Vidlicka, M.	96
Tran Dong	23	Vincent, J. D.	45
Tran Hum Ngoan	51	Vincze, Imre	9
Tran Nguyen	34	Vinogradov, K. K.	84
Treffner, W. S.	72	Vinogradov, L. G.	40
Tret'yakov, A. D.	41	Visnyovszky, L.	71
Troitskiy, V.	39	Vladimirova, I. A.	42
Tromel, M.	53	Vladimirova, V. V.	39
Trunin-Donskiy, V. N.	37	Vlasov, A. S.	88
Tsagareishvilli, D. Sh.	94	Vlasov, G. D.	60
Tsuguo Fukuda	99	Vodicka, J.	53
Tsukuda, I.	50	Volchek, B. B.	59
Tsuyoshi Sumada	50	Volkov, N.	1
Tsyganov, P. I.	84	Volodchenko, I. L.	83
Tubiana, M.	45	Volodin, V. M.	41
Tupolev, A. N.	30	Volovchenko, I.	2

von Bogdanov, L.	75	Yantovskiy, Ye. Yu.	59
Vondrasek, O.	67	Yaremchuk, Ye.	82
von Kienlein, M.	73	Yarin, L. P.	30
von Monakow,	47	Yegorov, N.	6
Voromin, L. G.	44	Yegorov, N. I.	54
Voromin, L. L.	44	Yeh Tu-Cheng	56
Voromin, V. I.	92	Yelkin, I. I.	39, 44
Vorontsov, Yu. N.	52	Yel'shteyn, N.	40
Voslenskiy, M. S.	12	Yemel'yanov, I. Ya.	90
Vrtel, J.	69	Yemmerikh, G.	2
Vsekhsvyatskiy, S. K.	35	Yepishev, A.	5
Vu Cong Thao	24	Yeremeyev, V. F.	58
Vu Thi Phan	51	Yermakov, N. V.	43
Vuksanovic, Radoslav	11	Yershin, Sh. A.	30
Vyalov, A. M.	38	Yershov, N. S.	82
Vyal'tseva, Ye. Ye.	36	Yesenov, R.	32
- W -		Yokoi, S.	51
Waehneltdt, Hilson C.	59	Yosebidze, D. S.	52
Wagner, H. G.	53	Yoshida, T.	50
Wahnschaffe, E.	86	Yoshida, Takehiko	78
Walligora, Sonja	87	Yoshizo Inomata	99
Wang Chung-Hao	37	Yu, Chi-lien	56
Wang Hsiao-Ling	56	Yudin, M. I.	36
Weber, O.	58	Yushkevich, Ye.	83
Weckesser, A.	63	- Z -	
Weiss, Gerhard	9	Zaharia, D.	14
Welöycz, J.	9	Zakharov, B. N.	84
Wenzel, W.	73	Zakharov, M. V.	64
Werchau, H.	47	Zaleskaya, G. A.	95
Werner, H.	87	Zalmanova, M.	66
Wertheimer-Baletic, Alica	11	Zamarayev, B. D.	55
Wespi, H. J.	48	Zamyslovsky, Z.	67
Wibberenz, Gerd	98	Zasukhin, D. N.	44
Willstaetter, Richard	53	Zavarine, M. V.	36
Witte, B.	58	Zeidler, G.	98
Wohllenben, K.	72	Zel'dovich, Ya. B.	94
Wolf, H.	81	Zeng Qing-Zun	37
Wolf, P.	53	Zenkovich, V. P.	55
Wrobel, B.	57	Zernike, F.	99
Wscieklica, J.	79	Zhdanovskiy, N. S.	85
Wu-han Ts'e-hui	56	Zhelev, Gospodin	11
- Y -		Zhongolovich, I. D.	55
Yablokov, A. V.	38	Zhukov, R. F.	84
Yakobi, V. Ye.	42	Ziebig, W.	76
Yakshevich, Ye. V.	89	Zimin, A. I.	82
Yakubchik, A. I.	95	Zimina, G. V.	102
Yakubenko, A. Ye.	92	Zitter, H.	72
Yakubovich, V. A.	80	Zittoun, R.	46
Yakushev, A. M.	65	Zlochevskaya, I. V.	39
Yang Ta-Ceng	37	Zomorrodian, H.	57
Yantovskiy, Ye. I.	93	Zotova, L.	2
		Zubarev, V.	6
		Zuev, V. Ye.	36

Zukhovitskiy, S. I.	59
Ivara, I.	52
Zvarova, T. S.	51
Zverykin, A. A.	7

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Washington, D.C. 20505

7 September 2004

Ms. Roberta Schoen
Deputy Director for Operations
Defense Technical Information Center
7725 John J. Kingman Road
Suite 0944
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in dark ink, appearing to read "Sergio N. Alcivar".

Sergio N. Alcivar
Chief, CIA Declassification Center,
Declassification Review and Referral
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)



Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0831939	78-03109A	59	1	2	123	Consolidated Translation Survey Through 31 March 1968	3/31/1968	252	Approved For Release	3/25/2004
AD08333917	78-03109A	59	1	3	124	Consolidated Translation Survey Through 30 April 1968	4/30/1968	223	Approved For Release	3/25/2004
AD0835906	78-03109A	59	1	4	125	Consolidated Translation Survey Through 31 May 1968	5/31/1968	267	Approved For Release	3/25/2004
AD0838252	78-03109A	59	1	5	126	Consolidated Translation Survey Through 30 June 1968	6/30/1968	341	Approved For Release	3/25/2004
AD0839299	78-03109A	59	1	6	127	Consolidated Translation Survey Through 31 July 1968	7/31/1968	354	Approved For Release	3/25/2004
AD0841414	78-03109A	59	1	7	128	Consolidated Translation Survey Through 31 August 1968	8/31/1968	255	Approved For Release	3/25/2004
AD0844244	78-03109A	59	1	8	129	Consolidated Translation Survey Through 30 September 1968	9/30/1968	259	Approved For Release	3/25/2004
AD0845247	78-03109A	60	1	1	130	Consolidated Translation Survey Through 31 October 1968	10/31/1968	252	Approved For Release	3/25/2004
AD0847806	78-03109A	60	1	2	131	Consolidated Translation Survey Through 30 November 1968	11/30/1968	284	Approved For Release	3/25/2004
AD0848152	78-03109A	60	1	3	132	Consolidated Translation Survey Through 31 December 1968	12/31/1968	176	Approved For Release	3/25/2004
AD0848841	78-03109A	60	1	4	133	Consolidated Translation Survey Through 31 January 1969	1/31/1969	188	Approved For Release	3/25/2004
AD0850186	78-03109A	60	1	5	134	Consolidated Translation Survey Through 28 February 1969	2/28/1969	167	Approved For Release	3/25/2004
AD0851748	78-03109A	60	1	6	135	Consolidated Translation Survey Through 31 March 1969	3/1/1969	232	Approved For Release	4/5/2004
AD0853348	78-03109A	60	1	7	136	Consolidated Translation Survey Through 30 April 1969	4/30/1969	262	Approved For Release	3/25/2004
AD0856606	78-03109A	60	1	8	137	Consolidated Translation Survey Through 31 May 1969	5/31/1969	306	Approved For Release	3/25/2004
AD0857706	78-03109A	63	1	1	138	Consolidated Translation Survey Through 30 June 1969	8/22/1969	413	Approved For Release	3/25/2004
AD0858054	78-03109A	63	1	2	139	Consolidated Translation Survey Through 31 July 1969	9/3/1969	185	Approved For Release	3/25/2004
AD0860022	78-03109A	63	1	3	140	Consolidated Translation Survey Through 31 August 1969	10/3/1969	315	Approved For Release	3/25/2004
AD0860905	78-03109A	63	1	4	141	Consolidated Translation Survey Through 30 September 1969	9/30/1969	285	Approved For Release	3/25/2004
AD0861886	78-03109A	63	1	5	142	Consolidated Translation Survey Through 31 October 1969	10/31/1969	269	Approved For Release	3/25/2004
AD0863371	78-03109A	63	1	6	143	Consolidated Translation Survey Through 30 November 1969	11/30/1969	224	Approved For Release	3/25/2004
AD0864516	78-03109A	63	1	7	144	Consolidated Translation Survey Through 31 December 1969	12/31/1969	177	Approved For Release	3/25/2004