

UNCLASSIFIED

AD NUMBER
AD437984
NEW LIMITATION CHANGE
TO Approved for public release, distribution unlimited
FROM Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; Mar 1964. Other requests shall be referred to Central Intelligence Agency, Office of Central Reference, 2430 E. Street, NW, Washington, DC 20505.
AUTHORITY
CIA ltr, 7 Sep 2004

THIS PAGE IS UNCLASSIFIED

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

Best Available Copy

437984

437984

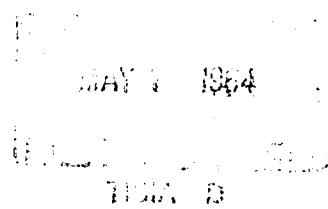
FOR OFFICIAL USE ONLY



CONSOLIDATED TRANSLATION SURVEY

Number 75

For March 1964



OFFICE OF CENTRAL REFERENCE
Foreign Documents Division
CENTRAL INTELLIGENCE AGENCY
2430 E St., N. W., Washington 25, D. C.

FOR OFFICIAL USE ONLY

Best Available Copy

BEST

AVAILABLE

COPY

CONSOLIDATED TRANSLATION SURVEY

FOR MARCH 1964

TABLE OF CONTENTS

	<u>Page</u>
Preface	iii
Requests For Copies	iv
USSR	
Economic	1
Political	11
Military	13
Sociological	15
Eastern Europe	
Economic	17
Political	29
Military	32
Sociological	32
Biographic	34
Western Europe	
Economic	35
Political	35
Military	41
Geographic	42
Sociological	42
Africa	
Economic	43
Political	43
Military	44
Sociological	44
Middle East	
Economic	44
Political	44

	<u>Page</u>
Far East	
Economic	45
Political	50
Military	52
Geographic	53
Sociological	53
Biographic	54
Latin America	
Economic	55
Political	56
Military	56
Sociological	57
World Wide	
Economic	57
Scientific	
Aerospace	58
Agriculture	59
Biological & Medical Sciences	65
Chemistry	100
Earth Sciences & Astronomy	109
Electronics	118
Engineering	120
Fuels and Propulsion	130
Materials & Metallurgy	131
Mathematics & Data Processing	146
Nuclear Science & Technology	149
Physics	155
Miscellaneous	166
Information on Cover-to-Cover Translations	170
Author Index	274

CONSOLIDATED TRANSLATION SURVEY

PREFACE

This survey is prepared monthly by the Foreign Documents Division, Office of Central Reference, CIA, from lists received through the cooperation of US government agencies and includes translations prepared by such agencies, private industry, universities, research institutions, and commercial translation organizations. It is a compilation of foreign documentary 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 on 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.

REQUESTS FOR COPIES

Requests for copies of published projects should be made direct to the designated producing organization.

All requests for items prefixed by "CIA" should be addressed to Office of Central Reference, 2430 E Street, NW, Washington, D.C. 20505

Addresses of producers follow:

ACSI

Department of Army
Assistant Chief of Staff, Intelligence
Intelligence Documents Branch
Washington 25, D.C.

Requests from non-Government sources for
Army documents should be ordered through

Department of Commerce
Office of Technical Services
Washington 25, D.C.

AEC - Atomic Energy Commission (see Department of Commerce)

AERE Harwell Lib

The Librarian
AERE, Ministry of Supply
Harwell, Didcot, Birks
England

AF

Department of Air Force
Collection and Dissemination
Assistant Chief of Staff, Intelligence
ATTN: AFCIN 1B3
Washington 25, D.C.

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: CRMXL

AGI

American Geological Institute
2101 Constitution Avenue, NW
Washington 25, D.C.

AI- Atomics International (see AEC)

AGU

American Geophysical Union
1515 Massachusetts Avenue, NW
Washington 5, D.C.

AID - Aerospace Information Division (see OTS)

AIP

American Institute of Physics
335 East 45th Street
New York 17, New York

Amer Math Soc

American Mathematical Society
190 Hope Street
Providence 6, Rhode Island

Amer Meteorol Soc

The American Meteorological Society
45 Beacon Street
Boston 8, Massachusetts

APL - Applied Physics Laboratory (see Navy)

ATS

Associated Technical Services, Inc.
P.O. Box 271
East Orange, New Jersey 07017

BISI

British Iron and Steel Institute
4 Grosvenor Gardens
London, SW 1, England

BuShips - Bureau of Ships (see Navy)

CB

Consultants Bureau, Incorporated
227 West 17th Street
New York 11, New York

CSIRO

Commonwealth Scientific and Industrial Research Organization
314 Albert Street
East Melbourne, C 2, Victoria
Australia

CSR

The Librarian
Colonial Sugar Refinery Research Laboratories
P.O. Box 39
Roseville, New South Wales, Australia

CTT

Columbia Technical Translations
5 Vermont Avenue
White Plains, New York

DDC

Defense Documentation Center
TISIA-1
Arlington Hall Station
Arlington 12, Virginia

Dept of Com

Department of Commerce
Office of Technical Services
Washington 25, D.C.

Dept of Interior

Department of Interior
Department Library
Foreign Documentation Section
Washington, D.C. 20240

Dutton & Co

E. P. Dutton & Company
300 Park Avenue, South
New York 10, New York

Erica Stux

Erica Stux
584 Moreley Avenue
Akron 20, Ohio

Fisheries Res Bd of Canada

Fisheries Research Board of Canada
Biological Station
Nanaimo, British Columbia

Fisheries Res Bd of Canada

Fisheries Research Board of Canada
Biological Station
St. Andrews, N. B.

Fisheries Res Bd of Canada

Fisheries Research Board of Canada
Publications Office
West Block
Ottawa, Canada

Fisheries Res Bd of Canada

Fisheries Research Board of Canada
Technological Station
P.O. Box 429
Halifax, N.S.

FTD - Foreign Technology Division (see AF)

GB

Association of Special Libraries and
Information Bureau
3 Belgrave Square
London SW 1, England

Geol Soc of Amer

Geological Society of America
Publishing Department
419 West 117 Street
New York 27, New York

HB

Henry Bratcher Technical Translation
P.O. Box 157
Altadena, California

HO - Hydrographics Office (see Navy)

IEEE

Institute of Electrical and Electronics Engineers
Box A, Lenox Hill Station,
New York 21, New York

ISA

Instrument Society of America
313 Sixth Avenue
Pittsburgh 22, Pennsylvania

JPRS

U.S. Department of Commerce
Office of Technical Services
Joint Publications Research Service
Building T-30
Ohio Drive & Independence Avenue, SW
Washington 25, D.C.

K-H

Kresge-Hooker Science Library
Associates
Wayne State University
Detroit 2, Michigan

Maritime Admin

Maritime Administration
Office Services
GAO, 5th and G Streets, NW
Washington, D.C.

Ministry of Agri

Ministry of Agriculture
Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk, England

NASA

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

Natl Bu Stand

National Bureau of Standards
ATTN: Dr Henry Birnbaum
Room 314, South Building
Washington, D.C.

Natl Museum of Canada

National Museum of Canada
Ottawa
Canada

Navy

Department of Navy
Office of Naval Intelligence
Washington 25, D.C.

NIH

National Institutes of Health
Translating Section, Library
Building 10, Room 11N112
Bethesda 14, Maryland

NLL

National Lending Library
for Science & Technology
Boston Spa, Yorkshire, England

NMS - Navy Medical School (see Navy)

P. Noordhoff Ltd.

P. Noordhoff Ltd.
Groningen
Netherlands

NRC/C

National Research Council, Canada
The Library
Sussex Drive
Ottawa 2, Canada

NRL - Naval Research Laboratories (see Navy)

NZDIA

Department of Internal Affairs,
Translation Service,
Wellington, New Zealand

ONI - Office of Naval Intelligence (see Navy)

OSA

Optical Society of America
1155 16th Street, NW
Washington 5, D.C.

OTS

Office of Technical Services
Department of Commerce
Washington 25, D.C.

(Also available through Department of Commerce Field
Offices)

Patent Office

Patent Office
Scientific Library
14th and Constitution Avenue, NW
Washington, D.C.

PP

Pergamon Press
122 East 55th Street
New York 22, New York

PS

Primary Sources
11 Bluecker Street
New York 12, New York

Rand Corp

Rand Corporation
ATTN: Publications Office
1700 Main Street
Santa Monica, California

Redstone Arsenal - (see DDC)

SA

Seizaburo Aoki
1069 Minami Nakadori 2-chome
Fujisawa, Japan

Scripta Technica, Inc.

Scripta Technica Incorporated
1000 Vermont Avenue, NW
Washington 5, D.C.

SLA

SLA Translations Center
The John Crerar Library
86 East Randolph Street
Chicago 1, Illinois

UCRL

University of California Lawrence Radiation Laboratory;
Livermore, California (see AEC)

Univ of Washington

University of Washington
Fisheries and Oceanography Library
Seattle, Washington

USDA

Department of Agriculture
Foreign Agricultural Service
Room 5086
14th and Independence Avenue, NW
Washington 25, D.C.

USRL - United States Research Laboratory (see Navy)

Viking

Viking Press
625 Madison Avenue
New York 22, New York

319th MI Bn - 319th Military Intelligence Battalion
(see ACSI)

519th MI Bn - 519th Military Intelligence Battalion
(see ACSI)

525th MI Gp - 525th Military Intelligence Group
(see ACSI)

TRANSLATIONS REPORTED
FOR MARCH 1964

USSR

Economic

Selected Articles From the Russian Book
Dal'niy Vostok, 1963.

*ACSI I-4248
ID 2204006364

National Economy, by V. V. Leshkevich, (pp 64-116)

Transport, by V. V. Leshkevich, (pp 127-132).

A Brief Description of Krays and Oblast's, by
V. V. Leshkevich, (pp 133-176).

Main Line Postal Communications, by G. K. Gil',
V. N. Matsnev, et al, 75 pp.
RUSSIAN, bk, Magistral'naya Pochtovaya Svyaz SSSR,
Moscow, 1963.

JPRS 23642

Experience in the Construction of the Novosibirskaya
Hydroelectric Power Station, by A. A. Belyakov,
V. V. Ivanov, et al, 16 pp.
RUSSIAN, bk, Opyt Stroitel'stva Novosibirskogo
Gidrouzla, 1962, pp 3-5; 14-20.

ACSI I-3582
ID 2250302

Production Technology of Miniature Gyromotors, by
S. A. Zholdak, 357 pp.
RUSSIAN, bk, Tekhnologiya Izgotovleniya Malogabaritnykh
Giromotorov, 1961, pp 1-267. 9691472-V

FTD-TT-62-859

Reorganization of the Planning of Industrial
Construction, by M. Pan'kov, 6 pp.
RUSSIAN, per, Arkhitektura SSSR, No 11, 1963, pp 1-3.

JPRS 23600

Polymeric Materials Likely to Have a Great Influence
on Architecture and Construction, by M. Garbar, 12 pp.
RUSSIAN, per, Arkhitektura SSSR, No 11, 1963, pp 4-9.

JPRS 23600

Progress in the Creation of a Well Developed Network
of Motor Vehicle Roads, 8 pp.
RUSSIAN, per, Avtomobil Dorogi, No 12, 1963, pp 1, 2.

JPRS 23614

Further Mechanization of Transport-Storage Operations
at the Gor'kiy Automobile Plant, by M. S. Slutsker, 5 pp.
RUSSIAN, per, Avtomobil Prom, No 10, 1963, pp 4-6.

JPRS 23519

Reconstruction of Moscow Motor Vehicle Plant imeni
Likhachev, by P. A. Tsvetkov, 9 pp.
RUSSIAN, per, Avtomobil Prom, No 1, 1964, pp 3-5.

JPRS 23450

USSR
Economic (Contd)

- Electric Oil Equipment Production in Azerbaydzhan, by V. N. Yevzlin, 6 pp.
RUSSIAN, per, Azerbaydzh Neft Khoz, No 12, 1963, pp 45-57. JPRS 23480
- Industrial Production in Azerbaydzhan, by V. Yu. Akhundov, 8 pp.
RUSSIAN, np, Bakin Rabochiy, 10 Jan 1964, p 2. JPRS 23624
- Changes in the Construction Code and Regulations: Industrial Railroad Tracks and Roads, 7 pp.
RUSSIAN, per, Byul Stroitel Tekh, No 11, 1963, pp 7-10. JPRS 23704
- Improving the Organization of Planning Work in Industrial Construction, by N. A. Burmistenko, 9 pp.
RUSSIAN, per, Byul Stroitel Tekh, No 11, 1963, pp 32-35. JPRS 23600
- On Fulfillment of the Plan of Scientific Research Work and Introduction of the Attainments of Science and Technology Into Construction and the Building Materials Industry, by A. T. Brukov, 5 pp.
RUSSIAN, per, Byul Stroitel Tekh, No 11, 1963, pp 38-40. JPRS 23600
- New Control Console to Improve Shon Operation at Khar'kov Electric Machine Building Plant, by I. Ya. Boguslavskiy, Ye. S. Fradkov, 6 pp.
RUSSIAN, per, Byul Tekh Ekon Informatsii, No 12, 1963, pp 65-69. JPRS 23480
- Improve Economic Work of State Bank Establishments, 15 pp.
RUSSIAN, per, Den'gi i Kredit, No 11, 1963, pp 3-14. JPRS 23634
- Selected Articles From the Russian Newspaper Ekon Gazeta.
- 13 Jan 1963, p 32. JPRS 23480
Perm Electrical Equipment Plant Meets Quotas by Strict Observance of Schedules, by A. Levin, 5 pp.
- 23 Nov 1963.
The Role of Chemistry in Trade, by A. Struyev, 6 pp. JPRS 23348
- Aspects of the Development of the Chemical Industry, by A. Struyev, et al, 27 pp, (np 5-9). JPRS 23300

USSR
Economic (Contd)

Selected Articles From the Russian Newspaper
Ekon Gazeta. (Contd)

7 Dec 1963.
Technical Progress and Credit, 5 pp, (p 20). JPRS 23634

How to Commensurate Different Types of Production
in Transport: An Economic Problem, by
Ye. Mukhordykh, 6 pp, (p 31). JPRS 23748

14 Dec 1963.
Chemical Industry in the Donbass, by S. Ivanenko,
5 pp, (p 4). JPRS 23312

Use of Food as Industrial Raw Materials, by
P. Naumenko, 6 pp, (p 5).

Importance of Quality Planning Discussed, 5 pp, (p 6).

21 Dec 1963, p 8. JPRS 23610
Unqualified Chief Economist at the Chernorech'ye
Chemical Plant, by N. Kozlov, 7 pp.

28 Dec 1963, pp 4, 5. JPRS 23600
The Development of the Chemical Industry and
Questions of the Economics of Construction, by
I. Novikov, 8 pp.

4 Jan 1964. JPRS 23454
National Income, 14 pp, (pp 3-9; 11; 12).

Material Incentives at the Rozdol Mining-Chemical
Combine, by V. Bubentsov, 6 pp, (p 7). JPRS 23610

11 Jan 1964, pp 3-5. JPRS 23302
Increase the Effectiveness of Public Production,
by K. Mazurov, 13 pp.

Field Tests of the G1-01 Gas Turbine Locomotive Built
at the Kolomna Plant, by V. P. Demidov, M. Ye. Meylikhov,
7 pp.
RUSSIAN. per. Elektrich i Teplov Tvaga, No 11, 1963,
pp 4-6. JPRS 23748

Mass Electrification is the Basis for Reconstruction
of Railroad Transport, by P. G. Muratov, 13 pp.
RUSSIAN, per, Elektrichestvo, No 1, 1964, pp 1-7. JPRS 23654

Low-Voltage Switching Equipment Exhibit on Display
at VDNKh USSR, by V. I. Nartov, 6 pp.
RUSSIAN, per, Elektrotehnika, No 12, 1963, pp 56, 57. JPRS 23480

USSR

Economic (Contd)

- New Agricultural Technology, by K. P. Marakhtanov,
L. N. Musinov, 8 pp.
RUSSIAN, per, Fizika v Shkole, No 5, 1963, pp 6-18. JPRS 23537
- The New D70 Diesel Engine, by A. Poyda, G. Moiseyev,
6 pp.
RUSSIAN, np, Gudok, 17 Jan 1964, p 3. JPRS 23704
- Development of Chemical Industry in Soviet
Central Asia, by S. Sergiyenko, 5 pp.
RUSSIAN, np, Izvestiya, 14 Nov 1963, p 3. JPRS 23300
- A Progressive Planning Index: An Experiment in
the Tatar ASSR, by F. Tabeyev, 6 pp.
RUSSIAN, np, Izvestiya, 25 Dec 1963, p 3. JPRS 23453
- Twenty-Fifth Anniversary of the UFA Order of Lenin
Oil Refinery, by D. F. Varfolomeyev, 5 pp.
RUSSIAN, per, Khim i Tekh Topliv i Masel, No 12, 1963,
pp 1-4. JPRS 23631
- Selected Articles From the Russian Periodical
Kommunist.
- No 18, Dec 1963, pp 14-26. JPRS 23645
Role of Chemical Industry in the Development of
Production Forces, by N. Baybakov, 15 pp.
- No 1, Jan 1964. JPRS 23262
A Powerful Means for the Uplift of Agricultural
Production, by P. Kolomiytsev, 18 pp.
- No 2, Jan 1964. JPRS 23628
The Economic and Spiritual Community of the Soviet
People, by T. Usubaliyev, 16 pp, (pp 11-22).
- The Rational Distribution of the Chemical Industry,
by N. Alisov, 12 pp, (pp 39-47).
- Several Problems in Improving the Economies of
Backward Kolkhozes, by K. Karpov, 14 pp, (pp 48-57).
- History and Sociology, by P. Fedoseyev, Yu. Frantsev,
19 pp, (pp 61-74).
- Future Prospects of Chemical Industry Development in
Tadzhikistan, by M. Nigmatova, 5 pp.
RUSSIAN, np, Kommunist Tadzhikistana, 30 Nov 1963,
p 2. JPRS 23340
- The Development of the Chemical Industry in the
Central Asian Republics, 10 pp.
RUSSIAN, per, Kommunist Uzbek, No 10, 1963, pp 3-9. JPRS 23624

USSR
Economic (Contd)

- Shortcomings in Air Passenger Service at Leningrad,
by L. Vakhrameyev, N. Vasil'yev, 7 pp.
RUSSIAN, np, Leningrad Pravda, 27 Nov 1963, p 2. JPRS 23748
- Chemical Production in South Kazakhstan, by
I. Kirichenko, 5 pp.
RUSSIAN, np, Lenin Smena, 3 Dec 1963, p 1. JPRS 23312
- New Tractors, by I. N. Serebryakov, S. Ye. Libtsis,
et al, 8 pp.
RUSSIAN, per, Mashinostroyeniye, No 6, Nov, Dec 1963,
pp 80-84. JPRS 23537
- D-543 Universal Single-Bucket Loader, by
G. V. Zabegalov, L. L. Tumashov, 7 pp.
RUSSIAN, per, Mekh Stroitel, No 12, 1963, pp 24, 25. JPRS 23404
- New Machinery and Advanced Production Processes at
Krivoy Rog Metallurgical Plant imeni Lenin, by
N. S. Galatov, 10 pp.
RUSSIAN, per, Metallurg i Gornorud Prom, No 6,
Nov, Dec 1963. JPRS 23617
- Technical and Economic Indices of Metallurgical
Plants in the Ukrainian SSR in 1958 - 1962,
by V. F. Bragin, 9 pp.
RUSSIAN, per, Metallurg i Gornorud Prom, No 6,
Nov, Dec 1963. JPRS 23617
- Dairy Industry's Plans for 1964, 6 pp.
RUSSIAN, per, Molochanaya Prom, No 1, 1964, pp 1-3. JPRS 23494
- Some Problems of Port Development, by A. Polikarpov.
RUSSIAN, per, Morskoy Flot, No 11, 1963. Maritime Admin
- Maritime Transport's Assignment for Remainder of
Seven Year Plan, 6 pp.
RUSSIAN, per, Morskoy Flot, No 12, 1963, pp 1, 2. JPRS 23614
- The Factory Support Point of Science, by
M. Vardanyan, 5 pp.
RUSSIAN, np, Moskov Pravda, 18 Jan 1964, p 3. JPRS 23652
- Perspectives in the Development of the Meat Packing
Industry, by Ye. Birulya, 6 pp.
RUSSIAN, per, Myasnaya Industriya SSSR, No 5,
Sep, Oct 1963, pp 7-11. JPRS 23348
- The Geographic Distribution of Meat Packing Enterprises
and Its Far-Reaching Effect, by G. Paleyev, 5 pp.
RUSSIAN, per, Myasnaya Industriya SSSR, No 5, Sep, Oct
1963, pp 35-37. JPRS 23348

USSR
Economic (Contd)

- Construction Difficulties in the Kazakh Food Industry,
by K. Yedygenov, 5 pp.
RUSSIAN, per, Narod Khoz Kazakh, No 11, 1963, pp 46, 47. JPRS 23494
- Improvements in Machine Building Industry, by
N. Fedotenko, 6 pp.
RUSSIAN, per, Nauch Tekh Obshch SSSR, No 10, 1963,
pp 31-34. JPRS 23497
- The Public Catering Profit Margin Drop, by
V. Royzman, 5 pp.
RUSSIAN, per, Obshch Pitaniye, No 12, 1963, pp 46-48. JPRS 23348
- Causes of Decrease of Effectiveness of Capital
Investments in the Mining Industry of UkSSR, by
M. Kandyba, V. Panasenko, 10 pp.
RUSSIAN, per, Plan Khoz, No 12, 1963, pp 58-62. JPRS 23357
- Problems of the Development of the Socialist
Economic System, 6 pp.
RUSSIAN, per, Plan Khoz, No 1, 1964, pp 92-94. JPRS 23701
- Selected Articles From the Russian Newspaper
Pravda.
- 26 Nov 1963, p 2. JPRS 23300
Chemical Industry in Tul'skaya Oblast, by
O. Chukanov, 5 pp.
- 1 Dec 1963, p 2. JPRS 23340
Progress and Aspects of Large Scale Chemical
Industry Development in the Kuznetsk Basin,
by A. Yeshtokin, 6 pp.
- 8 Dec 1963, pp 2, 3. JPRS 23600
The Large Scale Chemical Industry Crash Projects
of the Construction Industry, by I. Novikov, 8 pp.
- 4 Jan 1964, p 2. JPRS 23610
Plans and Construction Projects of the Chemical
Industry, by N. Kazartsev, 5 pp.
- 5 Jan 1964, p 2. JPRS 23610
Location of Construction Sites for Chemical
Plants, by N. Svetsov, N. Alisov, 6 pp.
- 11 Feb 1964, pp 1-4. JPRS 23310
Concerning the Intensification of Agricultural
Production, by I. P. Volovchenko, 40 pp.
- 17 Feb 1964, p 1. JPRS 23349
The Main Direction, 5 pp.

USSR
Economic (Contd)

Poor Work of the Krivorozhstal' Steel Plant, by
G. Rutkovskiy, N. Tereshchenko, et al, 12 pp.
RUSSIAN, np, Raboch Gazeta, No 5 (2132), 7 Jan 1964, p 2. JPRS 23357

Selected Articles From the Russian Periodical
Rechnoy Transport.

No 8, 1963, pp 36-39. ACSI 1-4150
Methods for Capital Improvement of Navigation
Conditions in the Kama Basin, by N. Popov, 7 pp. ID 2204003764

No 10, 1963. JPRS 23614
Plans for River Transport in 1966-1970, 7 pp,
(pp 1, 2).

A Method of Determining the Cost of Cargo-Handling
Operations, by Ye. Tikhomirova, 8 pp, (pp 19, 20).

No 11, 1963, pp 2, 3. JPRS 23614
Summary of the 1963 River Navigation Season, 8 pp.

No 12, 1963. JPRS 23614
Increased Speed Required in Placing Shore Construction
Projects in Operation, by B. Yegorov, 10 pp, (pp 4-6).

Progress at Gorodets Ship Repair and Machine Repair
Yard, by B. Bobylev, V. Voytsekhovskiy, 8 pp,
(pp 24-26).

River Vessels Go to Sea: A Description of the Project
781 Motorships, by A. Bogdanov, 10 pp, (pp 26-30).

Overall Mechanization is an Important Means for the
Intensification of Agricultural Production, by
A. A. Yezhevskiy, 8 pp.
RUSSIAN, np, Sel'skaya Zhizn', No 35, 11 Feb 1964,
pp 4, 5. JPRS 23773

Selected Articles From the Russian Periodical
Sotsialistich Trud, No 12, 1963. JPRS 23454

Labor Productivity Planning Must Be Equal to
Current Tasks, by I. Denisenko, 10 pp, (pp 22-29).

The Study of the Reasons for Labor Turnover and
Improvement in Labor Organization, by V. Ivanevskiy,
7 pp, (pp 45-50).

Technical Progress in the Chemical Industry and
Material Incentive, by M. Titov, B. Leytman, 6 pp,
(pp 61-64).

USSR
Economic (Contd)

Selected Articles From the Russian Periodical
Sotsialistich Trud, No 12, 1963. (Contd)

JPRS 23454

The Efficiency of Designers Labor Must Be
Increased, by S. Skvirskiy, 7 pp, (pp 65-70).

The Technical Norming of Repairs in Machine
Building, by P. Abram, 5 pp, (pp 101-104).

An Abundance of Foodstuffs Through the Use of
Fertilizers, by A. Kil'chevskiy, D. Petriychuk, 7 pp.
RUSSIAN, np, Sovet Kirgiziya, 31 Dec 1963, p 2.

JPRS 23610

The Development of Industry, Construction, Transportation,
and Communications in Latvia, 8 pp.
RUSSIAN, np, Sovet Litva, 10 Jan 1964, pp 1, 2.

JPRS 23624

Selected Articles From the Russian Periodical
Sovet Torgovlya.

JPRS 23348

No 10, 1963.
Measures for a Further Improvement in Trade, 7 pp,
(pp 1-5).

Commodity Turnover: Price Mark-Down Stimuli, by
Ye. Fonarev, 7 pp, (pp 20-24).

No 11, 1963, pp 15-18.
Toward Better Advertising, by G. Anpilogov, 5 pp.

No 12, 1963, pp 3-9.
An Economic Upsurge Through Chemistry, by
V. Bibishev, 9 pp.

Economic Models of Extensive Use of Chemical
Products in National Economy Being Developed, 5 pp.
RUSSIAN, per, Soviet Economic System: Current
Developments, No 19, JPRS: 23229, 14 Feb 1964, p 4.

JPRS 23354

Standardization and Normalization in Small-Series
Machine Building, by P. G. Shishlakov, 8 pp.
RUSSIAN, per, Standartizatsiya, No 11, 1963, pp 3-6.

JPRS 23332

Suggested Changes in Planning the Production of
Window Glass, by M. A. Plotkina, B. L. Pozin, 6 pp.
RUSSIAN, per, Steklo i Keramika, No 11, 1963, pp 41-44.

JPRS 23600

Let Us Use the Lump Labor Payment System More Widely,
by S. Mitin, 6 pp.
RUSSIAN, per, Stroitel', No 12, 1963, pp 27-29.

JPRS 23454

USSR
Economic (Contd)

- New Dry-Cargo Motorships of the Beloretsk Class,
by A. N. Gurovich, 9 pp.
RUSSIAN, per, Sudostroyeniye, No 11, 1963,
pp 1-5. JPRS 23748
- The Motorship Volgo-Balt, by V. V. Mamarin,
6 pp.
RUSSIAN, per, Sudostroyeniye, No 12, 1963, pp 1-4. JPRS 23614
- Renewed Emphasis on Importance of Welding Technology
in Soviet Technical Progress, 6 pp.
RUSSIAN, per, Svaroch Proiz, No 11, 1963, pp 1, 2. JPRS 23480
- The New Production Unions Arouse Interest, by
V. Ya. Kamenetskiy, 6 pp.
RUSSIAN, per, Tekstil Prom, No 11, 1963,
pp 27-30. JPRS 23348
- Progress in Textile Industry, 5 pp.
RUSSIAN, per, Tekstil Prom, No 12, 1963, pp 1-3. JPRS 23494
- Laying a Railroad Using Reinforced Concrete
Ties, by G. I. Novozhilov, 5 pp.
RUSSIAN, per, Transport Stroitel, No 4, 1963,
pp 5-9. 9691498 ACSI I-3240-B
ID 2244417
- The Assembly of Span Structures of the Bridge
Across the Southern Bug River, by L. G. Kareli,
N. K. Sarychev, et al, 6 pp.
RUSSIAN, per, Transport Stroitel, No 4, 1963,
pp 13-18. 9691498 ACSI I-3240-E
ID 2244417
- Transport Construction Workers Take Stock of
Achievements on Eve of October Anniversary, 7 pp.
RUSSIAN, per, Transport Stroitel, No 11, 1963,
pp 1-3. JPRS 23704
- Difficulties Encountered by Ashkhabad Household
Chemical Plant, by P. Shalayev, 5 pp.
RUSSIAN, np, Turkmen Iskra, 1 Dec 1963, p 2. JPRS 23340
- Evaluating Economic Efficiency of New Designs of
Equipment, by K. I. Klimenko, D. S. L'vov,
9 pp.
RUSSIAN, per, Vest Mashinostroy, No 1, 1963,
pp 79-81. JPRS 23788
- Methods of Computing Labor Productivity in
Industry, by B. Gerasimov, 5 pp.
RUSSIAN, per, Vest Statistiki, No 12, 1963,
pp 30-33. JPRS 23454

USSR
Economic (Contd)

The Main Problems of Scientific Research, by
P. Litvinov.

RUSSIAN, per, Vinodeliye i Vinograd SSSR,
Vol IV, No 211, 1962, pp 1-3.

CSIRO/No 6350

Problems of Foreign Trade in the New Civil Laws
of the USSR, by D. Ramzaytsev, 10 pp.

RUSSIAN, per, Vneshnyaya Torgovlya, No 1, 1964,
pp 44-48.

JPRS 23701

Ways of Increasing the Economic Effectiveness
of Capital Investments, by T. Kachaturov, 6 pp.

RUSSIAN, per, Voprosy Ekon, No 11, 1963,
pp 27-38.

JPRS 23453

Selected Articles From the Russian Periodical
Zheleznodorozhnyy Transport.

Vol XLV, No 2, 1963, pp 83-86.

Container Service on Access Lines, by
M. F. Trikhunkov, 7 pp.

OTS 63-18792

Vol XLV, No 10, 1963.

Technical Advances and Railroad Labor, by
Ya. P. Kartsev, 14 pp, (pp 13-19).

JPRS 23748

The Necessary Measures to Improve Efficiency of
Freight Shipments, by G. S. Raykher, 9 pp,
(pp 20-23).

Vol XLV, No 11, 1963.

For Universal Utilization of Reserves in the
Growth of Labor Productivity, 10 pp, (pp 3-7).

JPRS 23748

Reserves for Raising the Carrying and Traffic
Capacity of a Railroad, by N. S. Konarev,
A. R. Mayboroda, 10 pp, (pp 8-12).

The Use of Chemistry in Transport, by
V. D. Skorokhodov, 6 pp, (pp 17-19).

Future Types of Electric Locomotives, by
P. I. Abroskin, Ye. A. Smykov, et al, 11 pp,
(pp 49-54).

USSR
Economic (Contd)

Reorganization of the Planning of Residential and Civil Construction, by A. Vasil'yev, 10 pp.
RUSSIAN, per, Zhilishchnoye Stroitel, No 11, 1963, pp 1-6.

JPRS 23600

Khrushchev's Virgin Lands Policy -- A French Anti-Communist Analysis, by Claude Harmel, 48 pp.
FRENCH, per, Est & Ouest, Vol XVI, No 316, 1-15 Mar 1964, pp 1-23.

JPRS 23818

Practical Experiences of the Soviet Railroads With Continuous Rail, by V. G. Mamontov, 12 pp.
GERMAN, per, Z der Organisation fuer die Zusammenarbeit der Eisenbahnen, Vol VI, No 6, 1963, pp 4-7.

JPRS 23704

Political

Talks on Political Subjects, by L. F. Il'ichev. (DC-10360)
RUSSIAN, bk, Besedy na Politicheskiye Temy, Moscow, 1964, pp 3-343.

*JPRS

USSR Reaffirms Desire for Peace, by B. Soskin, 6 pp.
RUSSIAN, np, Bakin Rabochiy, 21 Jan 1964, p 2.

JPRS 23314

Soviet Authorities Break Up Illegal Religious Sect, by G. Aksel'rod, 6 pp.
RUSSIAN, np, Kazakh Pravda, 8 Dec 1963, p 4.

JPRS 23325

Selected Articles From the Russian Periodical Kommunist.

No 18, Dec 1963.
Another Soviet Analysis of the Cuban Revolution, by V. Gorbachev, A. Kalinin, 13 pp, (pp 96-105).

JPRS 22923

USSR Sees Hope for Peace as Kennedy-Johnson Policy Bolsters Soviet Detente Efforts, by V. Aleksandrov, 7 pp, (pp 106-110).

USSR

Political (Contd)

Selected Articles From the Russian Periodical
Kommunist. (Contd)

No 1, Jan 1964.

The Material-Technical Basis of Communism and the
Use of Chemistry on Our National Economy, by
V. Bushuyev, 26 pp.

JPRS 23262

Program of the Struggle for Peace and Inter-
national Security, 13 pp.

JPRS 23262

A Soviet Analysis of African Ideological
Development, by I. Potekhin, 12 pp, (pp 104-113).

JPRS 23263

No 2, Jan 1964.

The Lenin Way Toward the Victory of Communism,
11 pp, (pp 3-10).

JPRS 23528

The Marxist-Leninist Approach to the Settle-
ment of Territorial Controversies, by
V. A. Zorin, V. L. Israelyan, 12 pp, (pp 23-31).

International Law and the Problem of Frontiers,
by F. Kozhevnikov, A. Piradov, 9 pp, (pp 32-38).

A Soviet Statement on Strategy and Tactics of
World Communism, by V. Sikorskiy, 11 pp.
RUSSIAN, per, Kommunist Belorussii, No 1, 1964,
pp 41-48.

JPRS 23764

Marxism-Leninism and the Disarmament Problem,
by V. Zorin.
RUSSIAN, per, Mirovaya Ekon i Mezhdunarod Otnosheniya,
No 9, 1963, pp 24-34.

*ACSI I-4289
ID 22040065664

Thoughts of Lenin, by S. Strumilin, 7 pp.
RUSSIAN, np, Pravda, No 19, 19 Jan 1964, p 2.

JPRS 23602

Seven-Year Plan Ahead of Schedule, 5 pp.
RUSSIAN, np, Pravda, 6 Feb 1964, p 1.

JPRS 23175

An Axiomatic Description of the Order and Government
of Words in Certain Types of Sentences, by
M. I. Beletskiy, V. M. Grigoryan, et al, 20 pp.
RUSSIAN, per, Trudy Vysch Tsentra Ak Nauk Arm
SSR i Yerevanskogo Gosudar Univ, No 1, 1963,
pp 71-85.

JPRS 23342

An Annotated List of Dissident Communist Periodicals,
6 pp.
FRENCH, per, Est & Quest, No 312, 1-15 Jan 1964,
pp 15, 16.

JPRS 23263

USSR

Political (Contd)

Upcoming Communist Student UEC Congress Discussed,
6 pp.

FRENCH, per, La Voie Communiste, No 41, Feb 1964,
p 4.

JPRS 23691

Soviet Ambassador Rusakov's Speech, by K. B. Rusakov,
10 pp.

MONGOLIAN, np, Unen, 7 Nov 1963, pp 3, 4.

JPRS 22813

Military

Military Hygiene, by V. A. Spasskiy, V. A. Arkayev,
110 pp.

RUSSIAN, bk, Voyennaya Gigiyena, Moscow, 1962,
pp 3-76; 86-100; 109-168.

ACSI I-2833
ID 2237291

Selected Articles From the Russian Periodical
Kommunist Vooruzhennykh Sil.

No 17, Sep 1963, pp 86-89.

College for Armed Forces Personnel, 7 pp.

JPRS 23377

No 23, Dec 1963, pp 8-16.

Development of Leninist Principles in Military
Organizational Development in the CPSU Program,
by D. Grinishin, F. Sinenko, 12 pp.

JPRS 23377

No 24, Dec 1963, pp 3-7.

Vital Work in the Selection, Placement and
Training of Military Cadres, 7 pp.

JPRS 23522

No 2, Jan 1964, pp 14-23.

War and Politics in the Atomic Age, by
N. Sushko, T. Kondratkov, 13 pp.

JPRS 23522

Selected Articles From the Russian Newspaper
Krasnaya Zvezda.

19 May 1962. 9691528

Should Not One Turn the Shield Into a Sword?,
by S. Savosin, 9 pp.

FTD-TT-63-1129

21 Nov 1963, pp 2, 3.

Physics and New Weapons, by I. Anureyev, 7 pp.

JPRS 23377

USSR

Military (Contd)

Selected Articles From the Russian Newspaper
Krasnaya Zvezda. (Contd)

30 Nov 1963, p 2. For Developing the Military Traditions of the Antiaircraft Rocket Troops, by M. Uvarov, 6 pp.	JPRS 23522
11 Dec 1963, p 3. Conference on Programmed Teaching, by I. Panov, 5 pp.	JPRS 23377
14 Dec 1963, pp 3, 4. Notes From Cosmonaut Flight Logs, by F. Lushnikov, 7 pp.	JPRS 23377
28 Dec 1963. Worthy of Promotion, by N. Gorbachev, 6 pp, (p 3).	JPRS 23443
Moon and Man, by N. Kharitonov, 5 pp, (p 6).	
31 Dec 1963, p 4. New Year Rocket, by N. Mel'nikov, 6 pp.	JPRS 23443
3 Jan 1964, pp 2, 3. Ground Troops in the New Training Year, by A. S. Zhadov, 7 pp.	JPRS 23443
15 Jan 1964, p 5. Unresolved Problems in Military Trade, by A. Borisov, V. Kamenev, 6 pp.	JPRS 23522
18 Jan 1964, p 2. Time and the Commander, by L. Goncharov, 5 pp.	JPRS 23443
28 Jan 1964, pp 2, 3. True Compass of Assimilation of Knowledge and Practical Application, by V. Alekseyev, 7 pp.	JPRS 23522
New Specialist Training Methods, by V. N. Kal'nik, A. G. Leybovich, et al, 9 pp. RUSSIAN, per, <u>Morskoy Sbornik</u> , No 10, 1963, pp 14-20.	JPRS 23377
Application of the Programmed Teaching Method in Training Navy Specialists, by I. R. Freydzon, A. A. Gaziyeu, 8 pp. RUSSIAN, per, <u>Morskoy Sbornik</u> , No 12, 1963, pp 15-19.	JPRS 23377

USSR
Military (Contd)

Amateur Radio Operators and Technical Progress,
by S. Shatilov, 5 pp.
RUSSIAN, per, Radio, No 8, 1963, pp 8, 9. JPRS 23795

Radio Sport in the Spartakiada, by N. Kazanskiy,
5 pp.
RUSSIAN, per, Radio, No 10, 1963, pp 8, 9. JPRS 23795

Constantly Improving Party Direction of Administrative
Organs, by B. Shumilin, 8 pp.
RUSSIAN, per, Sotsialistich Zakonnost', No 8,
1963, pp 16-20. JPRS 23377

Selected Articles From the Russian Periodical
Voyennyye Znaniya. JPRS 23795

No 1, 1963, pp 35, 36.
Public Instructors for Civil Defense, by
N. Velichko, 6 pp.

No 3, 1963, pp 33, 34.
Damage Potential of Chemical Weapons, by
M. Shutov, 6 pp.

No 7, 1963, pp 32-34.
Along the Path of a Nuclear Blast Cloud, by
V. Medvedev, 7 pp.

No 8, 1963, pp 31, 32.
Acting Skillfully at Civil Defense Alarms, by
V. Moskalev, 6 pp.

No 2, 1964, pp 34-36.
Destructive Properties of Nuclear Weapons, by
Ya. Lyandres, 7 pp.

Sociological

City Building and District Planning -- Present
Conditions and Long-Term Development, by
M. O. Khauke, V. A. Shkvarikov, 25 pp.
RUSSIAN, rpt, Gradostroitel'stvo i Rayonnaya
Planirovka -- Sostoyaniye i Perspektivy Razvitiya.
1962, pp 28-40; 47-55; 73; 74; 77-80; 103-110;
123-134; 138-143. ACSI I-3663
ID 2251722

Formation of a Scientific World Outlook and
Atheistic Indoctrination, by L. Il'ichev, 32 pp.
RUSSIAN, per, Kommunist, No 1, 1964. JPRS 23262

USSR

Sociological (Contd)

Communist Morality and General Moral Standards, by
I. Kuz'minkov, 12 pp.

RUSSIAN, per, Kommunist, No 1, 1964, pp 86-95.

JPRS 23262

Experience With Programmed Instruction in
Elementary School, by N. F. Kopeleva, 13 pp.
RUSSIAN, per, Nachal Shkola, Vol XXXI, No 10, 1963,
pp 50-58.

JPRS 23371

First Steps of Experimental Schools, by
A. Yevgen'yeva, 7 pp.

RUSSIAN, per, Narod Obrazovaniye, No 8, 1963,
pp 20-22.

JPRS 23594

The Development of the Cognitive Activity of
Students, by M. Makhmutov, 17 pp.

RUSSIAN, per, Narod Obrazovaniye, No 8, 1963,
pp 29-35.

JPRS 23594

Social Progress and Philosophy, by L. Il'ichev,
15 pp.

RUSSIAN, per, Nauka i Zhizn, No 11, 1963, pp 3-8.

JPRS 23605

To Create Educational Equipment for Industrial
Training, by P. V. Mal'tseva, 6 pp.

RUSSIAN, per, Shkola i Proiz, Vol VII, No 8,
1963, p 41.

JPRS 23374

Developing Youths Interest in Socially Useful
Labor, by A. P. Arkhipov, 9 pp.

RUSSIAN, per, Sovet Pedagogika, No 6, 1963,
pp 43-48.

JPRS 23508

On the Moral Education of Future Teachers, by
A. V. Osokov. 19 pp.

RUSSIAN, per, Sovet Pedagogika, No 6, 1963,
pp 90-102.

JPRS 23508

Teaching Practice of Students in Boarding
Schools, by I. T. Ariskin, 11 pp.

RUSSIAN, per, Sovet Pedagogika, No 6, 1963,
pp 103-109.

JPRS 23508

Soviet Historians Question Chinese Reinterpretation
of Chinese History, by R. V. Vyatkin,
S. L. Tikhvinskiy, 20 pp.

RUSSIAN, per, Voprosy Istorii, No 10, 1963,
pp 3-20.

JPRS 22865

EASTERN EUROPE

Economic

Participation in Production Work - An Important Factor in Increasing Income and Raising the Standard of Living in the Village, by Llazar Lalushi, 10 pp. ALBANIAN, per, Rruga e Partise, Vol X, No 12, 1963, pp 22-30.

JPRS 23322

Our Socialist Agriculture Has All That Is Necessary to Fulfill the Production Plan for 1964 Completely and Ahead of Schedule, by Peti Shamblli, 14 pp. ALBANIAN, np, Bashkini, 6 Feb 1964, pp 2, 3.

JPRS 23598

There Should Be Fresh Vegetables on the Market All Year Round, by Ballkiz Halili, 7 pp. ALBANIAN, np, Zeri i Popullit, Vol XXIII, No 19, 23 Jan 1964, p 3.

JPRS 23487

Instruction on Application of the Directive on Prices, 19 pp. BULGARIAN, per, Durzhaven Vestnik, No 5, 17 Jan 1964, pp 1-5.

JPRS 23368

Important Economic Problems Related to Use of Large Dams in Bulgaria, by Mikhail Vitanov, 9 pp. BULGARIAN, per, Elektroenergiya, No 12, 1963, pp 3-6.

JPRS 23694

Financial Activity of Consumer Cooperatives in 1962, by Ivan Ivanchev, 10 pp. BULGARIAN, per, Finansi i Kredit, No 10, Dec 1963, pp 10-18.

JPRS 23501

Financial Loans to People's Councils and State Enterprises, by N. Vachev, 8 pp. BULGARIAN, per, Finansi i Kredit, No 10, 1963, pp 19-25.

JPRS 23501

The Relationship Between Capital Investments and the Increase in Fixed Assets in Industry, by Sava P. Gevrenov, 18 pp. BULGARIAN, per, Ikonomicheska Misul, No 9, Nov 1963, pp 16-29.

JPRS 23241

The Substance of Non-Divisible Funds in TKZS, by Vasil Todorov, 13 pp. BULGARIAN, per, Ikonomicheska Misul, No 9, Nov 1963, pp 30-40.

JPRS 23323

Consumption of Non-Food Goods in Bulgaria, by Ginka Atanasova, Atanas Dimitrov, 11 pp. BULGARIAN, per, Ikonomicheska Misul, No 9, Nov 1963, pp 89-95.

JPRS 23241

Eastern Europe
Economic (Contd)

Organization and Economics of Planning for Shipbuilding,
by Boncho Mutaftchiev, 9 pp.
BULGARIAN, per, Korabostroene, No 12, 1963,
pp 10-13.

JPRS 23689

Income in the TKZS -- The Basis for Increasing the
Rate of Increased Production, by Krustyu Petrov,
10 pp.
BULGARIAN, per, Otchetnost i Kontrol v Selskoto
Stopanstvo, No 12, 1963, pp 545-551.

JPRS 23812

For the Improvement of Financial and Budgetary
Planning, 8 pp.
BULGARIAN, per, Schetovodstvo i Kontrol, No 8,
1963, pp 3-8.

JPRS 23791

Selected Articles From the Bulgarian Periodical
Trud i Tseni.

Vol V, No 9, Oct 1963.
The Nature of Social Reserves for Personal
Consumption Under Socialism, by N. Belikov,
T. Pachev, 13 pp, (pp 1-13).

JPRS 23557

The Labor of Those Engaged in the Management
of an Industrial Enterprise, by Yordan Bozhilov,
11 pp, (pp 36-45).

Vol V, No 10, Dec 1963.
International Distribution of Labor and Support
Based on One's Own Powers, by Dimitur Kekhayov,
9 pp, (pp 1-10).

JPRS 23457

Perfection of Economic Management and Material
Incentive, by Ivan Mironov, 17 pp, (pp 32-45).

JPRS 23466

Construction of the Kazichane-Yana and Musachevo-Stolnik
Railroad Lines, by Milcho Purvanov, 7 pp.
BULGARIAN, per, Zhelezoputen Transport, Vol XV, No 11,
1963, pp 23-25.

JPRS 23572

Construction Project of Yugoslav Electric Power
Dispatch Center and Automatic Control System, by
Dragutin Obradovic, 29 pp.
CROATIAN, per, Elektroprivreda, Vol XVI, No 10, 1963,
pp 471-483.

JPRS 23774

Work of Nikola Tesla Electrotechnical Institute in
1962, by B. Mitrakovic, S. Despotovic, et al, 26 pp.
CROATIAN, per, Elektroprivreda, Vol XVI, No 10, 1963,
pp 506-519.

JPRS 23774

Eastern Europe
Economic (Contd)

- Financing of Institutions, by Vojislav Kravic, 14 pp.
CROATIAN, per, Finansijske, No 7, 8, 1963, pp 340-350. JPRS 23498
- Liquid Monetary Resources of Economic Organizations in Yugoslavia 1957-1961, by Ljubica Nadljacki, 17 pp.
CROATIAN, per, Finansijske, No 7, 8, 1963, pp 387-399. JPRS 23493
- Changes in the System of Financing Investments With Foreign Credits, by Teodor Starcevic, 10 pp.
CROATIAN, per, Finansijske, No 7, 8, 1963, pp 415-422. JPRS 23493
- Some Problems and Trends in Housing Construction in Serbia in 1963, by Radivoje Mistic, 10 pp.
CROATIAN, per, Izgradnja, Vol XVII, No 12, 1963, pp 7-11. JPRS 23698
- Ferrous Metallurgy in Yugoslavia, 33 pp.
CROATIAN, per, Jugoslovenski Pregled, No 9, 1963, pp 331-339. JPRS 23550
- Characteristics of the Draft of the New Timetable and the Financial Status of the Yugoslav Railroads in the Past Year, by Petar Milosavljevic, 6 pp.
CROATIAN, per, Medunarodni Transport, No 6, 1963, pp 415-419. 9691163 ACSI I-3723
ID 2251749
- A Foreign Trade Zone in the Port of Rijeka, by Vinko Hlaca, 15 pp.
CROATIAN, per, Pomorstvo, Vol XVIII, No 9-11, 1963, pp 301-304. JPRS 23251
- A New Branch of Yugoslav Shipping -- Car Ferries, by Srecko Skopac, 8 pp.
CROATIAN, per, Pomorstvo, Vol XVIII, No 9-11, 1963, pp 321, 322. JPRS 23261
- General Conditions for Delivery of Electric Power, 22 pp.
CROATIAN, per, Sluzbeni List SFRJ, No 2, 8 Jan 1964, pp 19-27. JPRS 23694
- Development of Forestry in the Seven-Year Plan, 1964-1970, by Matija Butkovic, 8 pp.
CROATIAN, per, Sumarski List, Vol LXXXVII, No 11, 12, 1963, pp 415-420. JPRS 23812
- Forestry and Wood Industry in Bulgaria, by Dimitrije Bura, 27 pp.
CROATIAN, per, Sumarski List, Vol LXXXVII, No 11, 12, 1963, pp 460-481. JPRS 23812

Eastern Europe
Economic (Contd)

- Survey of Tax and Fee Regulations Applying to
Agriculture, 10 pp.
CROATIAN, per, Uprava, No 7, 8, 1963, pp 275-284. JPRS 23273
- Legal Problems and General Legal Principles
Involved in Business and Technical Cooperation
With Foreign Firms, by Spase Vorkapic, 12 pp.
CROATIAN, per, Vesnik Jugoslovenski Invesitcione
Banke, No 10, 1963, pp 7-10. JPRS 23437
- Technical Progress in the Distribution of Industry,
by Lubomir Waic, 12 pp.
CZECH, per, Nova Mysl, No.2, 1964, pp 149-158. JPRS 23557
- Feasibility of Using the Balances of the National
Economy in Analyzing the National Economic
Results of Farm Mechanization, by S. Peltramova,
14 pp.
CZECH, per, Statistika a Kontrola, No 12, 1963,
pp 537-547. JPRS 23807
- Regarding the Influence of the Number of Workdays
on the Level and Growth of Labor Productivity, by
J. Kux, 6 pp.
CZECH, per, Statistika a Kontrola, No 12, 1963,
pp 548-551. JPRS 23807
- Special Activities of the Czechoslovak Scientific
Technical Society, 11 pp.
CZECH, per, Technicka Praca, Vol XV, No 10, 1963,
pp 840-845. ACS1 I-3972
ID 2204002364
- Mechanization and Assembly Line Methods in East
German Construction Work, by H. Fritsche, 11 pp.
GERMAN, per, Bauplanung-Bautechnik, No 12, 1963,
pp 573-577. JPRS 23465
- The Annual Report of the LPG Construction Organizations,
by Guenther Steinbach, 5 pp.
GERMAN, per Bauzeitung, No 12, 1963, pp 667, 668. JPRS 23368
- Coming Tasks in the Construction of Dwellings and in
Agricultural Construction, by Herrmann Barth, 7 pp.
GERMAN, per, Bauzeitung, No 1, 1964, pp 2-4. JPRS 23261
- The Most Important Tasks of the Coal Industry in
1964 in Implementation of the New Economic System of
Planning and Control in the National Economy, by
Heinz Lesinski, 9 pp.
GERMAN, per, Bergbautechnik, No 1, 1964, pp 1-3. JPRS 23689

Eastern Europe
Economic (Contd)

The Ranks for Trades and Small-Scale Industry in the Socialist Financial System, 12 pp.

GERMAN, per, Deutsche Finanzwirtschaft, No 1, 1964, pp G1-G5.

JPRS 23807

The Greater Responsibility of Financial Organs in the New System of Planning and Managing the Economy, by Willie Rumpf, 6 pp.

GERMAN, per, Deutsche Finanzwirtschaft, No 3, Feb 1964, pp 2-4.

JPRS 23791

Implementing the New Economic System of Planning and Management of the Economy in the Field of Construction, by Wolfgang Junker, 17 pp.

GERMAN, per, Einheit, No 12, 1963, pp 3-13.

JPRS 23698

Review of East German Transformer Production, by H. Schwar, 7 pp.

GERMAN, per, Elektrie, No 12, 1963, pp 385, 386.

JPRS 23555

The East German Office for Material and Commodity Testing, by D. Menzel, 6 pp.

GERMAN, per, Der Fernmelde-Praktiker, No 11, Dec 1963, pp 265-267.

JPRS 23368

Some Developmental Problems of the Telephone and Teletype System of the East German Postal Service, by H. Aull, 10 pp.

GERMAN, per, Der Fernmelde-Praktiker, Vol IV, No 1, 1964, pp 1-4.

JPRS 23623

The Cooking of Foods, by L. Linke, 10 pp.

GERMAN, per, Die Lebensmittel-Industrie, Vol X, 1963, pp 183-187.

ACSI I-3954
ID 2204000564

Bloc Trade Agreements for 1964, 10 pp.

GERMAN, per, Markt-Informationen, 16, 30 Dec 1963, p 2; 13 Jan 1964, p 3.

JPRS 23793

The Trade Agreement Between East Germany and Denmark for 1964, 5 pp.

GERMAN, per, Markt-Informationen, No 3, 20 Jan 1964, p 10.

JPRS 23452

The Trade Agreement Between East Germany and Italy for 1964, 6 pp.

GERMAN, per, Markt-Informationen, No 3, 20 Jan 1964, pp 10, 11.

JPRS 23452

Excerpts From Jarowinsky Speech at Fifth East German Party Plenum, by Werner Jarowinsky, 17 pp.

GERMAN, np, Neues Deutschland, 7 Feb 1964.

JPRS 23466

Eastern Europe
Economic (Contd)

- Development and Special Problems of Hungarian Foreign Trade Under CEMA, by Oliver von Gajzago, 14 pp.
GERMAN, per, Oesterreichische Osthefte, Vol VI, No 1, 1964, pp 19-29. JPRS 23516
- Uniform International Railroad Passenger Rates and Uniform Air Passenger Rates of the Communist Bloc, 6 pp.
GERMAN, per, Der Operative Dienst, No 1, 1964, pp 13-15. JPRS 23572
- Review and Preview of Railroad Construction Work, by Horst Schandert, 5 pp.
GERMAN, per, Signal und Schiene, Vol VIII, No 1, 1964, pp 3, 4. JPRS 23698
- Basic Concept for the Development of Statistics in the New Economic System of Planning and Management of the Economy, 22 pp.
GERMAN, per, Statistische Praxis, No 12, 1963, pp 329-337. JPRS 23466
- Selected Articles From the German Newspaper Die Wirtschaft.
- No 47, 18 Nov 1963, p 17.
The VVB for Cotton Products Develops a New Wage Form, 6 pp. JPRS 23326
- No 48, 25 Nov 1963, p 21.
Development of Construction, 1963-1964, by Peters, 6 pp. JPRS 23261
- No 52, 23 Dec 1963, pp 5, 6.
Implementation of New Economic System of Planning and Managing the Bezirk-Managed Industry, by Ewald Kurpanek, 12 pp. JPRS 23241
- No 5, 3 Feb 1964, pp 15-17.
New Methods of Product Group Work, by Rudi Georgi, 7 pp. JPRS 23625
- Conference of Politburo Candidate Apel With Economists, 20 pp.
GERMAN, per, Wirtschaftswissenschaft, Vol XII, No 1, 1964, pp 1-16. JPRS 23501
- Participation of Semi-State and Private Industrial Enterprises and of Plants of the Producing Crafts in the Development of the National Economy, by Eberhard Lohse, Siegfried Voigtsberger, 19 pp.
GERMAN, per, Wirtschaftswissenschaft, Vol XII, No 1, 1964, pp 53-68. JPRS 23501

Eastern Europe
Economic (Contd)

East Germany's Economy in 1963, 6 pp.
GERMAN, per, Wochenbericht, No 7, 14 Feb 1964,
pp 27-29.

JPRS 23807

Selected Articles From the German Periodical
Z der Organisation fuer die Zusammenarbeit der
Eisenbahnen OSShD.

Vol VI, No 5, Sep, Oct 1963.
Change Over From Screw Coupling of Railroad Cars
to Automatic Coupling, by Karel FencI, 7 pp,
(pp 4-6).

JPRS 23465

Soviet Bloc Conferences on Diesel Locomotives
and Diesel Buses, 19 pp, (pp 22-29).

Vol VI, No 6, Nov, Dec 1963.
Highway Bridge Construction in East Germany, by
H. Freitag, 10 pp, (pp 19-23).

JPRS 23796

Information on OSShD Committee Work: Eighth
Commission Meeting, 6 pp, (pp 26-28).

Current Status and Future of the Hungarian Forging
Industry, 50 pp.
HUNGARIAN, per, Gep, Vol XV, No 11, 1963, pp 452-464;
No 12, 1963, pp 489-497.

JPRS 23427

The First Price Model Based on a Product System, by
Bela Csikos-Nagy, Sandor Ganczer, et al, 22 pp.
HUNGARIAN, per, Kozgazdasagi Szemle, Vol XI, No 1,
1964, pp 17-35.

JPRS 23807

Computation of the National Income and the Value of
Services, by Karoly Foldes, 14 pp.
HUNGARIAN, per, Kozgazdasagi Szemle, Vol XI, No 1,
1964, pp 36-47.

JPRS 23807

Awards of Premiums to Technical and Administrative
Employees of State Farms and to Workers of Production
Directorates, by Gabor Petohazi, 7 pp.
HUNGARIAN, per, Mezogazdasagi Ertesito, Vol XV, No 4,
22 Jan 1964, pp 54-56.

JPRS 23528

Changes in the Main Statistics of the Foundries in
Recent Years, by Jozsef Lacfalvi, 19 pp.
HUNGARIAN, per, Ontode, Vol XIV, No 12, 1963,
pp 273-279.

JPRS 23555

Eastern Europe
Economic (Contd)

- At the Midway Point of the Five Year Plan, by
Rezso Nyers, 17 pp.
HUNGARIAN, per, Tarsadalmi Szemle, Vol XIX, No 2,
1964, pp 1-16. JPRS 23625
- The Budget and National Plan on the Threshold of
1964, by Stanislaw Majewski, 14 pp.
POLISH, per, Finanse, No 12, 1963, pp 1-10. JPRS 23291
- Criteria of Evaluation and Tools of Analysis of the
Financial Situation, by Mieczyslaw Kucharski, 13 pp.
POLISH, per, Finanse, No 12, 1963, pp 11-20. JPRS 23291
- The Extent of Socialized Enterprise Self-Financing
in Poland, by Jozef Szyrocki, 14 pp.
POLISH, per, Finanse, No 12, 1963, pp 21-31. JPRS 23291
- The Crucial Problems of the 1964 National Economic
Plan, 15 pp.
POLISH, per, Gospodarka Planowa, No 1, 1964, pp 1-6. JPRS 23241
- Industry of CEMA Countries After 1960, by
Andrzej Karpinski, Bogumila Zielinska, 18 pp.
POLISH, per, Gospodarka Planowa, No 1, 1964,
pp 7-15. JPRS 23251
- The Timber and Paper Industries in the Third
Year of the Current Five-Year Plan, by
Aleksander Kiernozycski, 14 pp.
POLISH, per, Gospodarka Planowa, No 2, 1964, pp 1-8. JPRS 23599
- Comparative Purchasing Powers of CEMA Currencies in
Construction, by Maksymilian Pszesnicki, 14 pp.
POLISH, per, Inwestycje i Budownictwo, No 1, 1964,
pp 14-19. JPRS 23516
- The Economic Requirements of Forestry in the Fiscal
Year, by Tadeusz Molenda, 7 pp.
POLISH, per, Las Polski, No 3, 1-15 Feb 1964,
pp 1, 2, 7. JPRS 23464
- The Chemical Industry and the Resolutions of the 14th
Plenum of the Central Committee, by Antoni Radlinski,
11 pp.
POLISH, per, Nowe Drogi, No 2, 1964, pp 3-11. JPRS 23694
- Reserves in Economic Planning, by Stanislaw Kuzinski,
16 pp.
POLISH, per, Nowe Drogi, No 2, 1964, pp 31-43. JPRS 23326

Eastern Europe
Economic (Contd)

Cooperation Among CEMA Countries, by Kazimierz Olszewski,
12 pp.

POLISH, per, Nowe Drogi, No 2, 1964, pp 84-93.

JPRS 23452

Selected Articles From the Polish Periodical
Nowe Rolnictwo.

No 22, 16-30 Nov 1963, pp 31-35; No 23, 1-15 Dec 1963,
pp 39-42.

JPRS 23323

The Status and Projected Development of Horticultural
Production, by Kazimierz Szulc, 21 pp.

No 23, 1-15 Dec 1963, pp 32-37.

JPRS 23323

The Economic Problems of Egg Production, by
Jerzy Szklarzewicz, 12 pp.

No 24, 16-31 Dec 1963, pp 7-10.

JPRS 23457

1963 Export of Agricultural Foodstuffs, by
Mieczyslaw Stepinski, 8 pp.

No 1, 1-15 Jan 1964.

JPRS 23464

Concentration of Equipment in the Agricultural
Circles, by Jan Grysiak, 3 pp, (pp 10-13).

Horticulture Present Situation and Projected
Development, by S. A. Pieniazek, 6 pp, (pp 39-41).

Realization of the Plan of Technical Progress and the
Tasks of the Ministry of Forestry and the Lumber
Industry for 1964, by Tadeusz Molenda, 12 pp.
POLISH, per, Przemysl Drzewny, Vol XIV, No 12, 1963,
pp 5-8.

JPRS 23323

Selected Articles From the Polish Periodical
Wiadomosci Narodowego Banku Polskiego.

No 12, 1963.

JPRS 23557

Certain Market Situation Problems at the End of
1963, by Stanislaw Michalski, 12 pp, (pp 453-456).

Problems of Cooperation Between the Bank and the
Enterprises, by Marek Ludwik Kostowski, 13 pp,
(pp 461-465).

Freezing Investment Limits and Resources, by
Tadeusz Koziejowski, 5 pp, (pp 469, 470).

Eastern Europe
Economic (Contd)

Selected Articles From the Polish Periodical
Wiadomosci Narodowego Banku Polskiego. (Contd)

- No 1, 1964. JPRS 23437
Some Problems Affecting Bank Operations in
1964, by Jerzy Albrecht, 8 pp, (pp 1-4).
- 1964 Role of Banks Concerning Problems of the
Five Year Investment Plan, by Henryk Mindak, 11 pp,
(pp 4-7).
- Problems of Living Costs Investigations, by
Zbigniew Samsel, 13 pp.
POLISH, per, Wiadomosci Statystyczne, No 6, Nov, Dec 1963,
pp 3-7. JPRS 23326
- Investment Reserves, by Albin Plocica, 7 pp.
POLISH, np, Zycie Gospodarcze, No 3, 19 Jan 1964,
pp 1, 4. JPRS 23557
- Plans of the Council for Mutual Economic Assistance,
by Piotr Jaroszewicz, 10 pp.
POLISH, np, Zycie Gospodarcze, No 4, 26 Jan 1964,
pp 1, 6. JPRS 23793
- Concentration of Investment Funds as an Important
Method for Accelerating the Completion of Planned
Projects, by I. L. Ciolan, 10 pp.
RUMANIAN, per, Finante si Credit, No 11, 1963,
pp 25-33. JPRS 23273
- For an Increased Contribution Toward the Fulfillment
of the Investment Plan for 1964, by M. Diamandopol,
6 pp.
RUMANIAN, np, Gazeta Finantelor, No 552, 12 Feb 1964,
pp 1, 4, 5. JPRS 23807
- Tasks of the Textile and Readywear Clothing Industries
in 1964, 6 pp.
RUMANIAN, per, Industria Textila, Vol XIV, No 12,
1963, pp 553-555. JPRS 23644
- Toward New Achievements in the Economic Development of
Rumania, 20 pp.
RUMANIAN, per, Lupta de Clasa, No 1, 1964, pp 12-27. JPRS 23466
- Advanced Technology and Growth of Labor Productivity,
by Sergiu Bulgakoff, 13 pp.
RUMANIAN, per, Probleme Economice, No 12, 1963,
pp 17-29. JPRS 23241

Eastern Europe
Economic (Contd)

- Labor Productivity in the Mining Industry, by
Bujor Almasan, 16 pp.
RUMANIAN, per, Probleme Economice, No 12, 1963,
pp 30-44. JPRS 23483
- Rumania's Place in the World Economy, by
M. Horovitz, 12 pp.
RUMANIAN, per, Probleme Economice, No 12, 1963,
pp 94-103. JPRS 23457
- Production Statistics in the Shipbuilding Industry
of Rumania, by N. Maftel, 5 pp.
RUMANIAN, per, Revista de Statistica, No 11,
1963, pp 66-69. JPRS 23555
- Measures for Extending Advanced Technology in the
Machine-Building Industry in 1964, by V. Actarian,
6 pp.
RUMANIAN, per, Viata, Vol II, No 1 (20), 3 Jan 1964,
p 9. JPRS 23557
- Selected Articles From the Rumanian Newspaper
Viata Economica.
- 3 Jan 1964, p 8. JPRS 23557
Analysis of the State Budget for 1964, by
Radu Manescu, 7 pp.
- 10 Jan 1964, pp 8, 9. JPRS 23483
For Increased Efficiency in the Steel Industry,
Stefan Constantinescu, 6 pp.
- 24 Jan 1964, pp 1, 12. JPRS 23483
More Electric Power Together With More
Rational Power Consumption, by Victor Partenie,
5 pp.
- 31 Jan 1964.
Adoption of New Quality Products by the Machine
Building Industry, by Gheorghe Radoi, 7 pp,
(pp 1, 4). JPRS 23555
- Details on the CEMA Freight Car Pool, by R. Nefru,
Gh. Florescu, 5 pp, (p 5). JPRS 23516
- Concentration. Specialization, Cooperation, and
Combination in Rumanian Industry, by A. Iancu,
15 pp, (pp 7, 9). JPRS 23501

Eastern Europe
Economic (Contd)

- Work on the Optimalization of the Polish Industrial Development Plan, by Yu. Shvyrkov, 5 pp.
RUSSIAN, per, Plan Khoz, No 1, 1964, pp 89-91. JPRS 23527
- The Role of Administrative Organs of Workers Units in the Issuing of Production and Financial Plans, by Momcilo Radosavljevic, 9 pp.
SERBIAN, per, Nova Administracija, Vol XI, No 10, 1963, pp 680-685. JPRS 23466
- New Conditions for the Opening of Current Accounts of Citizens and Non-Cash Disposition of Funds in the Current Account, by Marko Durbabic, 9 pp.
SERBIAN, per, Nova Administracija, Vol XI, No 10, 1963, pp 689-694. JPRS 23466
- Statistics on Schools, Students, and Teachers, 12 pp.
SERBIAN, per, Stanovnistvo, No 2, Apr-Jun 1963, pp 289-299. JPRS 23593
- Selected Articles From the Serbocroatian Periodical Finansijske, Vol XVIII, No 9, 10, 1963. JPRS 23807
- Some Reflections on Proposals to Reform the Tax System in Yugoslavia, by Aleksandar Peric, 17 pp, (pp 456-471).
- Self-Financing by the Population, by Asim Stranjak, 27 pp, (pp 471-494).
- Some Problems in the Granting of Credits, by R. Radovanovic, 9 pp, (pp 494-501).
- Some Problems in the Taxation of the Agricultural Income of Private Farmers, by Milovan Mihailovic, 6 pp, (pp 501-505).
- Production of Packing Material, 14 pp.
SERBOCROATIAN, per, Jugoslovenski Pregled, No 9, 1963, pp 360-364. JPRS 23572
- The River Transportation of Petroleum and Petroleum Products, by Stjepan Djurekovic, 5 pp.
SERBOCROATIAN, per, Nafta, Vol XIV, No 5-7, 1963, pp 191, 192. JPRS 23694
- Statutes of Work Organizations, by Rajko Gligorevic, 28 pp.
SERBOCROATIAN, per, Produktivnost, Vol V, No 11, 1963 pp 829-840. JPRS 23807
- The Development of the Peasant Working Cooperatives SRZ'S, by Novica Mitic, Melanija Jevdjovic, 16 pp.
SERBOCROATIAN, per, Produktivnost, Vol V, No 12, 1963, pp 927-933. JPRS 23783

Eastern Europe
Political

Let Us Develop the Party Report and Election Meetings
at a Higher Level, 9 pp.

ALBANIAN, per, Rruga e Partise, Vol X, No 12, 1963,
pp 3-10.

JPRS 23322

Ideological Work in the Center of Attention in Basic
Organizations, by Adli Dibra, 7 pp.

ALBANIAN, per, Rruga e Partise, Vol X, No 12, 1963,
pp 31-36.

JPRS 23322

Albanians Say Khrushchev Aids NATO's Aggressive Plans,
by Findia Veizi, 8 pp.

ALBANIAN, per, Rruga e Partise, Vol X, No 12, 1963,
pp 43-50.

JPRS 23227

Albanian Delegate Criticizes Revisionism at Warsaw
World Peace Council Meeting, by Dh. S. Shuteriqi, 7 pp.

ALBANIAN, np, Zeri i Popullit, No 310, 28 Dec 1963, p 4.

JPRS 23100

Possibilities, Reality, and Planning in Bulgarian
Social Development, by Khristo Dichev, 17 pp.

BULGARIAN, per, Filosofska Misul, No 6, Nov, Dec 1963,
pp 3-16.

JPRS 23435

Concerning the Form of the Socialist State, by
Vasil Zakhariyev, 5 pp.

BULGARIAN, per, Filosofska Misul, No 6, Nov, Dec 1963,
pp 17-29.

JPRS 23435

Regarding the Process of Eliminating Religion in
Bulgaria, by Nikolay Mizov, 17 pp.

BULGARIAN, per, Filosofska Misul, No 6, Nov, Dec 1963,
pp 30-43.

JPRS 23435

A Year of Ideological Problems, by Dimitur Metodiyeu,
9 pp.

BULGARIAN, per, Literaturen Front, Vol XIX, No 51,
19 Dec 1963, pp 1, 3.

JPRS 23692

Reorganization and Future Improvement of Party
Education, 9 pp.

BULGARIAN, per, Partien Zhivot, No 18, Dec 1963,
pp 3-9.

JPRS 23327

Further Improvement of Party and State Guidance,
by Vasil Arabadzhiev, Dimitur Petkov, et al, 18 pp.

BULGARIAN, per, Partien Zhivot, No 18, Dec 1963,
pp 10-23.

JPRS 23327

Eastern Europe
Political (Contd)

Selected Articles From the Bulgarian Newspaper
Rabotnichesko Delo.

JPRS 23496

30 Jan 1964.

Bulgarian Military Official Lauds Cuba and Castro,
by Dobri Dzhurov, 6 pp.

4 Feb 1964, p 3.

United States Aid a Manifestation of Neo-Colonialism,
by M. Petrov, 5 pp.

11 Feb 1964, p 3.

A Meeting of the Committee for Party and State Control,
6 pp.

21 Feb 1964, p 2.

The Administration of Justice and Communist Morality,
by Ves. Neykov, 5 pp.

Yugoslav Organ Comments on Significance of Chinese-Albanian
Communique, by Dragutin Solajic, 5 pp.

CROATIAN, np, Borba, 12 Jan 1964, p 7.

JPRS 23100

Communique of the Association of Communists of
Yugoslavia and the Italian Communist Party, 21 January,
6 pp.

CROATIAN, np, Komunist, No 351, 23 Jan 1964, pp 1, 2.

JPRS 23227

Communists and Self-Management, by Ivan Laca, 9 pp.

CROATIAN, np, Komunist, No 351, 23 Jan 1964, p 8.

JPRS 23462

Manifestation and Causes of Bureaucratism in Work of
Management Organs of Economic Organizations, by
Ivan Baricevic, 23 pp.

CROATIAN, per, Nasa Stvarnost, Vol XVII, No 11, 12, 1963,
pp 438-463.

JPRS 23435

Yugoslav Interpretation of Neocolonialism in Africa,
by Faik Mehanovic, 10 pp.

CROATIAN, per, Pregled, No 10, 1963, pp 320-325.

JPRS 23462

Yugoslav Communist Perovic Calls for International
Worker Unity Based on Polycentrism and Bilateral
Relations Among Communist Parties, by Punisa Perovic,
17 pp.

CROATIAN, per, Socijalizam, No 1, 1964, pp 44-66.

JPRS 23530

Eastern Europe
Political (Contd)

- The Development of Creative Thinking, by
Frantisek Hajek, Vladimir Mlikovsky, 13 pp.
CZECH, per, Nova Mysl, No 2, 1964, pp 129-138. JPRS 23692
- The Catholic Church and Peaceful Coexistence, by
Vitezslav Gardavsky, 12 pp.
CZECH, per, Nova Mysl, No 2, 1964, pp 169-177. JPRS 23692
- Resolution of the Central Committee of the Communist
Party of Czechoslovakia Regarding Annual Membership
Meetings and the Okres and Kraj Conferences in 1964,
10 pp.
CZECH, per, Zivot Strany, No 24, Dec 1963, pp 1445-1449. JPRS 23692
- Organizational Measures Regarding Preparations for the
Annual Membership Meetings and Okres and Kraj
Conferences, 6 pp.
CZECH, per, Zivot Strany, No 24, Dec 1963, pp 1449-1451. JPRS 23692
- Czechoslovak Intellectuals Head Anti-Stalinist
Resistance, by Zdenek Suda, 9 pp.
FRENCH, per, Est & Ouest, No 311, 16-31 Dec 1963,
pp 5-8. JPRS 23327
- Kadar Discusses Hungarian Political Situation in
Le Monde Interview, by Andre Fontaine, 12 pp.
FRENCH, np, Le Monde, 19 Feb 1964, pp 1, 4. JPRS 23691
- Socialism 1964 the Economic-Political Ideas of the
European Social Democrats, 11 pp.
WEST GERMAN, np, Frankfurter Allgemeine Zeitung,
15 Feb 1964, p 5. JPRS 23474
- Communist Tactics in West Germany, by Hans Schimanski,
15 pp.
WEST GERMAN, per, SBZ Archiv, No 22, 1963, pp 343-346. JPRS 23100
- Social Workers Courts in Wroclaw Wojewodztwo, by
Antoni Banaszak, 15 pp.
POLISH, per, Panstwo i Prawo, Vol XVIII, No 12, 1963,
pp 881-889. JPRS 23692
- The Teaching of Marxism-Leninism in Higher Education,
by I. Totu, I. Gradisteanu, 15 pp.
RUMANIAN, per, Lupta de Clasa, No 1, 1964, pp 28-37. JPRS 23435
- Report on National Economy Development in Slovakia,
18 pp.
RUSSIAN, np, Pravda, 28 Jan 1964. JPRS 23692
- Postulates of Integrational Processes in Culture and
National Cultural Values, by Latinka Perovic, 13 pp.
SERBIAN, per, Socializam, No 1, 1964, pp 88-102. JPRS 23435

Eastern Europe
Military

Bulgarian Labor Service Operational Shortcomings,
by Blagoy Penev, 5 pp.
BULGARIAN, np, Trudovo Delo, No 1, 5 Jan 1964, pp 1, 2. JPRS 23511

Armor Protection and Effect of Antitank Guns, by
Bozo Kovacic, 11 pp. ACSI I-3960
CROATIAN, per, Vojni Glasnik, No 5, 1963, pp 24-35. ID 2204001164

Clothing, Equipment and Rations, 12 pp.
GERMAN, rpt, Handbuch fuer Motorschuetzen, 1963, ACSI I-4172
pp 71-88. ID 2204004264

The Future of Manned Military Aircraft, 13 pp.
GERMAN, per, Flugwelt, No 6, 1963, pp 466-475. Navy Tr 3732
ONI 978

The Statute of the Association of Higher Utility,
the Aeroclub of the Polish People's Republic, 10 pp.
POLISH, per, Skrzydlatą Polska, No 12, 15 Dec 1963, AF 1878001964
OUSAIRA, Poland.

Polish Civil Aviation Construction, by B. Piatkowski,
15 pp.
POLISH, per, Wojskowy Przegląd Lotniczy, No 10, 1963, FTD-TT-63-1105
pp 52-62. 9690911

Seven Men and One Gun, by J. Magnuski, 8 pp. ACSI I-3963
POLISH, np, Zolnierz Polski, No 32, 11 Aug 1963, ID 2204001464
pp 8, 9. 519th MI Bn

Planning of Maintenance, by Gojko Greda, 6 pp. ACSI I-4135
SERBOCROATIAN, per, Vojnotehnicki Glasnik, No 5, 1963, ID 2204002864
pp 333-335. 525th MI Gp

Specialization of Maintenance Plants and the
Introduction of a Standardized Maintenance
System, by Jovo Bogdanovic, 9 pp. ACSI I-4137
SERBOCROATIAN, per, Vojnotehnicki Glasnik, No 9, ID 2204003064
1963, pp 637-644. 525th MI Gp

Sociological

On Understanding and Studying the Realist Tendency in
Drama, by Ismail Hoxha, 7 pp.
ALBANIAN, per, Rruga e Partise, Vol X, No 12, 1963, JPRS 23322
pp 37-42.

The Basic Organizations of the Party-Schools for
Multilateral Communist Education, by Fiqret Shehu, 6 pp.
ALBANIAN, np, Zeri i Popullit, 21 Jan 1964, p 3. JPRS 23322

Eastern Europe
Sociological (Contd)

- New Statute on Scientific Degrees, 17 pp.
BULGARIAN, per, Durzhaven Vestnik, No 1, 3 Jan 1964,
pp 2-5. JPRS 23597
- Development of Bulgarian Standard of Living, by
Stefan Stanev, 10 pp.
BULGARIAN, np, Rabotnichesko Delo, 8 Jan 1964, pp 2, 3. JPRS 23512
- Juvenile Delinquency, by Ninko Samardzija, 17 pp.
CROATIAN, per, Narodna Milicija, No 11, 1963,
pp 62-72. JPRS 23367
- Emigration From Czechoslovakia, 5 pp.
CZECH, per, Statistika a Kontrola, No 12, 1963,
pp 554-556. JPRS 23695
- The System and Benefits of Social Security in
East Germany, 8 pp.
WEST GERMAN, per, SBZ-Archiv, No 23, Dec 1963,
pp 357-359. JPRS 23367
- The Level of Schooling of the Population of Yugoslavia
According to the Figures of the 1961 Census, by
Gorcin Pecelj, 50 pp.
SERBIAN, per, Stanovnistvo, No 2, Apr-Jun 1963,
pp 186-222. JPRS 23593
- The General Law on Schooling, 24 pp.
SERBOCROATIAN, per, Sluzbeni List SFRJ, Vol XX,
No 4, 22 Jan 1964, pp 54-61. JPRS 23695
- Preparations for a Reduction in Working Hours,
by Dragoljub Petrovic, 9 pp.
SERBOCROATIAN, per, Socijalna i Zdravstvena Politika,
Vol XV, No 11, 12, 1963, pp 9-17. JPRS 23695
- The Application of a System of Income in Social
Services, by Velimir Sokolovic, 13 pp.
SERBOCROATIAN, per, Socijalna Politika, Vol XVIII,
No 12, 1963, pp 1152-1161. JPRS 23695
- Determining the Resources to be Granted to Economic
Organizations for Purposes of Participation in the
Implementation of Health Insurance, by S. Hero, 6 pp.
SERBOCROATIAN, per, Socijalna Politika, Vol XVIII,
No 12, 1963, pp 1162-1166. JPRS 23695

Eastern Europe
Biographic

Hungarian Academy of Science Awards Outstanding
Scientists, 10 pp.
HUNGARIAN, per, Akademiai Kozlony, Vol XII, No 17,
20 Dec 1963, pp 151-154.

JPRS 23256

WESTERN EUROPE

Economic

- Draft of Law for Ensuring Traffic, Traffic - Insurance Law, 57 pp.
GERMAN, rpt, Entwurf Eines Gesetzes zur Sicherstellung des Verkehrs, Verkehrssicherungsgesetz, 14 Jan 1964, pp 1-29, Rpt No IV/894. ACSI 1-3662
ID 2251720
- Credit for the Bankrupt Kolkhozes, by
Carl Gustaf Stroehm, 6 pp.
GERMAN, np, Christ und Welt, Vol XVII, No 5, 31 Jan 1964. JPRS 23601
- Reorganization of the Soviet Textile Industry, by
Adolph Leckzyck, 22 pp.
GERMAN, per, Oesterreichische Osthefte, Vol V, No 6, Dec 1963, pp 464-479. JPRS 23494
- Norwegian Socialist People's Party Proposal on
Industrial and Labor Organization, 16 pp.
NORWEGIAN, np, Orientering, Vol XII, No 3, 18 Jan 1964, pp 9, 10. JPRS 23137
- A Decade of Italian Communist Trade Union Activity at
Fiat, by Ugo Pecchioli, 10 pp.
RUSSIAN, per, Kommunist, No 18, Dec 1963, pp 111-118. JPRS 22923

Political

- Two Independent Danish Comments on the Debate, 9 pp.
DANISH, np, Information, 14 Jan 1964, p 1. JPRS 23314
- A Dutch Dissident Reassesses World and Dutch
Political Situation, by Sjef Pieters, 8 pp.
DUTCH, per, De Brug, Vol V, No 10, 25 Jan 1964, pp 6-8. JPRS 23459
- Summary of Hoekstras Speech to the Central Committee
on Leftist Unity, 5 pp.
DUTCH, np, De Waarheid, 28 Jan 1964, pp 1, 3. JPRS 23412
- Theses for Discussion for the 21st CPN Congress:
New Ways to Unity, for Democracy and Progress, 15 pp.
DUTCH, np, De Waarheid, 7 Feb 1964, pp 5, 6. JPRS 23412
- De Groot Outlines New Netherlands Communist Party
Orientation for 21st CPN Congress, 28-30 March 1964,
by Paul de Groot, 8 pp.
DUTCH, np, De Waarheid, 11, 13, 14, 18 Feb 1964,
p 1. JPRS 23579

Western Europe
Political (Contd)

Two French Communist Views of Nuclear War,
Coexistence and Transition to Socialism, by
Auguste Dumeix, 10 pp.
FRENCH, per, Cahiers du Communisme, No 12, 1963,
pp 9-25.

JPRS 22992

French Communist Party Answers Chinese Charges Against
Its Policy on Communist Party in Former French
Colonies, 47 pp.
FRENCH, per, Cahiers du Communisme, No 2, 1964,
pp 3-40.

JPRS 23797

French Communist Editor Discusses China and the
Bomb, by Paul Villon, 12 pp.
FRENCH, per, Democratie Nouvelle, No 12, 1963, pp 77-83.

JPRS 22865

Belgian Communist Jean Blume on Labor Unity, by
Jean Blume, 10 pp.
FRENCH, np, Le Drapeau Rouge, 21 Jan 1964, p 1;
22, 23 Jan 1964, pp 1, 3.

JPRS 23314

Selected Articles From the French Periodical
Est & Quest.

No 311, 16-31 Dec 1963, pp 1-4.
Lazitch Catalogues New Evidence of Dissidence
and CPSU's Dwindling Authority, by Branko Lazitch,
9 pp.

JPRS 22865

No 313, 16-31 Jan 1964, pp 1-5.
Branko Lazitch Gives Chronology of Sino-Soviet
Rift, by Branko Lazitch, 7 pp.

JPRS 23263

No 314, 1-15 Feb 1964.
Anti-Communist French Analysis Sees Center
Left Coalition Opening Way to Communism, by
Georges Albertini, 6 pp, (pp 1-4).

JPRS 23637

Branko Lazitch Tells How Soviets Regained Control
of Australian Communist Party Based on Declaration
of Dissident Australian Marxist-Leninists, by
Branko Lazitch, 9 pp, (pp 22-25).

No 315, 16-29 Feb 1964, pp 3-5.
An Anti-Communist Analysis of Changes in French
Communist Party Statues, by Claude Harmel, 6 pp.

JPRS 23797

Western Europe
Political (Contd)

A French Communist Discusses Future Development
of Communism in France, 10 pp.
FRENCH, per, l'Express, No 659, 30 Jan 1964, pp 13, 14. JPRS 23358

Billoux Interview on Party Policy, by Francois Billoux,
8 pp.
FRENCH, per, France Nouvelle, No 952, 15-21 Jan 1964,
pp 4, 5. JPRS 23314

Socialist Journalist Looks Favorably at Communist
Draft Statutes, by David Ellimer, 7 pp.
FRENCH, per, France Observateur, No 716, 23 Jan 1964,
p 6. JPRS 23314

Joint French and Spanish Communist Party Statement
Calls for Support of Moscow Declaration, United Action
With Other Parties, 8 pp.
FRENCH, np, l'Humanite, 7 Jan 1964, p 4. JPRS 22865

French Communist Party Prepares for 17th Congress
in May 1964--Excerpts of 9-10 January Central
Committee Resolution, 9 pp.
FRENCH, np, l'Humanite, 15 Jan 1964, pp 5, 6. JPRS 23100

An Exchange of Views on the Personality Cult, by
Michel Veret, 67 pp.
FRENCH, per, La Nouvelle Critique, No 151, Dec 1963,
pp 3-78. JPRS 23540

Reflections on Dogmatism, by Lucien Seve, 12 pp.
FRENCH, per, La Nouvelle Critique, No 151, Dec 1963,
pp 79-92. JPRS 23540

Reflections on the Purpose of the State, by
Roland Weyl, 13 pp.
FRENCH, per, La Nouvelle Critique, No 151, Dec 1963,
pp 114-128. JPRS 23540

A French Dissident Analysis of the Marxist Revolution
Today, 31 pp.
FRENCH, per, Socialisme ou Barbarie, No 35, Jan-Mar 1964,
pp 1-36. JPRS 23459

French Socialist Position on Unity of Action, 5 pp.
FRENCH, np, Tribune Socialiste, 8 Feb 1964, p 4. JPRS 23412

Editor Spitzer Criticizes PCF Position in View of
French Elections and PCF 17th Congress, by Gerard Spitzer,
5 pp.
FRENCH, per, La Voie Communiste, No 41, Feb 1964,
pp 8, 9. JPRS 23691

Western Europe
Political (Contd)

Catherine Rivier Says New PCF Draft Statutes Are More Democratic, But Basic Policy Remains Same, by Catherine Rivier, 5 pp.

FRENCH, per, La Voie Communiste, No 41, Feb 1964, pp 9, 10.

JPRS 23691

French Dissident Communist Opposition Opposes Forming a Second, Pro-Chinese Communist Party in France, 5 pp.

FRENCH, per, La Voie Communiste, No 41, Feb 1964, p 16.

JPRS 23691

Selected Articles From the French Periodical
La Voix de Peuple.

No 1, 11-24 Sep 1963.

JPRS 22992

General Resolution of the June 1963 Extraordinary Congress of the Brussels Federation of the Belgian Communist Party, 8 pp, (pp 5, 6).

The 15 August Reply of the Brussels Federation Committee to the CPSU Open Letter of 14 July 1964, 17 pp, (pp 7-12).

No 5, 31 Jan 1964.

JPRS 23459

Belgian Dissidents Criticize Louis Major Article on Belgian Labor in WFTU Organ, 5 pp, (p 3).

Belgian Dissidents Praise French Dissident Activities, 5 pp, (p 15).

No 6, 7 Feb 1964, p 14.

JPRS 23358

Belgian Dissidents Score French Communist Party Reaction to de Gaulle's Recognition of Communist China, 5 pp.

No 7, 14 Feb 1964, p 14.

JPRS 23764

Dissidents Form Group to Coordinate Spanish Revolutionary Movement, 5 pp.

The New Transmittal System of the German Federal Postal Organization.

GERMAN, rpt, Das Neue Leitsystem der Deutschen Bundespost, 30 pp.

*ACSI I-4356
ID 2204008364

Austrian Communist Party Central Committee Resolution on the Political Situation and Party Tasks, 28 Jan 1964, 10 pp.

GERMAN, np, Volksstimme, 12 Feb 1964, p 7.

JPRS 23530

Western Europe
Political (Contd)

Austrian Communist Party Chief Answers Chinese Criticism
of Yugoslav Economy, by Friedl Fuernberg, 11 pp.
GERMAN, per, Weg und Ziel, No 12, 1963, pp 756-765.

JPRS 22865

The Future of the Western European Labor Movement as
Seen by Austrian Communist Editor Franz Marek, by
Franz Marek, 15 pp.
GERMAN, per, Weg und Ziel, No 1, 1964, pp 5-18.

JPRS 23459

Selected Articles From the Italian Periodical
Mondo Nuovo.

19 Jan 1964, pp 5-20.
Organization of the Italian Socialist Party of
Proletarian Unity, 49 pp.

JPRS 23263

9 Feb 1964, p 5.
PSIUP Trade Unionists Organize Unity and
Autonomy Wing in CGIL, 5 pp.

JPRS 23637

16 Feb 1964, p 6.
PSIUP Organ Answers Lombardi's 9 February
Editorial on New Party's Role in Italian Politics,
by Giuseppe Avolio, 5 pp.

JPRS 23637

25 Feb 1964, pp 10, 11.
The New Italian Socialist Party and Labor Unity,
by Dario Valori, 7 pp.

JPRS 23797

Paolicchi Replies to Communist Criticisms of PSI Role
in Center Left Government, by Luciano Paolicchi, 11 pp.
ITALIAN, per, Mondo Operaio, Vol XVI, No 11, 12, 1963,
pp 2-9.

JPRS 23637

Italian Socialist Vasconi Discusses National and
International Communism Based on Two Isaac Deutscher
Studies, by Luciana Vasconi, 10 pp.
ITALIAN, per, Mondo Operaio, Vol XVI, No 11, 12, 1963,
pp 19-24.

JPRS 23637

PSIUP Secretary Vecchietti Interviewed on His Party's
Prospects, by Tullio Vecchietti, 5 pp.
ITALIAN, per, Rinascita, 18 Jan 1964, pp 3, 4.

JPRS 23227

Pintor Analyses Impact of New Party on Italian
Politics, by Luigi Pintor, 6 pp.
ITALIAN, per, Rinascita, No 4, 25 Jan 1964, pp 3, 4.

JPRS 23412

Italian Communist Party Central Committee Document
on the National Conference on Organization,
12-15 March 1964, 29 pp.
ITALIAN, np, l'Unita, 7 Jan 1964, pp 7-9.

JPRS 23137

Western Europe
Political (Contd)

- Alicata on the Italian Socialist Party Split, by
Mario Alicata, 5 pp.
ITALIAN, np, l'Unita, 14 Jan 1964, pp 1, 12. JPRS 23037
- Togliatti Tells Newsmen in Belgrade He and Tito
Agree on Principles and Goals, by Rubens Tedeschi,
5 pp.
ITALIAN, np l'Unita, 22 Jan 1964, pp 1, 12. JPRS 23227
- The 20th Swedish Communist Party Congress: A
Norwegian Socialist Analysis, 5 pp.
NORWEGIAN, np, Orientering, Vol XII, No 5, 1 Feb 1964,
pp 4, 5. JPRS 23412
- SPP Editor Gustavsen on What Divides the Norwegian
Labor Movement, by Finn Gustavsen, 8 pp.
NORWEGIAN, np, Orientering, Vol XII, No 6, 8 Feb 1964,
pp 9, 10. JPRS 23530
- French Communist Roger Garaudy Speaks in Cuba on
the Methodology of Marxism, by Roger Garaudy, 38 pp.
SPANISH, per, Principios, No 11, 12, 1963, pp 69-129. JPRS 22923
- Selected Articles From the Swedish Newspaper
Ny Dag.
- 21 Dec 1963, p 2. JPRS 22923
Landin Answers Ring's and Bnengtsson's Criticism,
Says Dictatorship of Proletariat Not Necessary in
Sweden, by Sven Landin, 5 pp.
- 28 Dec 1963. JPRS 22923
Gustafsson on Conditions for Renewal, by
Bo Gustafsson, 7 pp, (pp 2, 5).
- Holmberg and Senander Call Hagberg Line on Unity
With Social Democrats and Peaceful Transition to
Socialism Revisionism, by Nils Holmberg, 7 PP, (p 9).
- 2 Jan 1964, pp 2, 5. JPRS 22923
Hagberg Replies That Holmberg and Senander Are
Attacking Party Program, by Hilding Hagberg, 6 pp.
- 4 Jan 1964, p 8. JPRS 23037
Summary of Party Chairman Hagberg's Opening Speech,
by Hilding Hagberg, 7 pp.

Western Europe
Military

The Conduct of Repairs, by A.H.M. Vos, 18 pp.
DUTCH, per, De Militaire Spectator, No 10, 1963,
pp 455-465.

ACSI I-3973
ID 2204002464

Operational Training Plan for the Fleet, 10 pp.
FRENCH, rpt, 6 Nov 1963, USNA, Brussels, Belgium.

Navy 5807000964

The Armored Infantry Platoon, Armored Personnel
Carrier, Army Service Regulation 233/1, Provisional,
109 pp.
GERMAN, manual, Der Panzergrenadierzug SPz HDv
233/1 Vorlauffer, 22 Apr 1963, pp 7-212.

ACSI I-4175
ID 2204004564

The Armored Infantry Company, Armored Personnel
Carrier, 91 pp.
GERMAN, manual, Die Panzergrenadierkompanie SPz, Bonn,
Aug 1963, 171 pp, Rpt No HDv 232/1.

ACSI I-4174
ID 2204004464

Regulations Concerning the Service Uniforms for the
Personnel of the Fire-Fighting Elements of the
Bundeswehr, as Well Their Procurement and Control,
5 pp.

GERMAN, per, Ministerialblatt des Bundesministers
der Verteidigung, No 20, 15 Aug 1963, pp 395-397.

ACSI I-3962
ID 2204001364

The Most Favorable Choice of Protective - Structure
Strength, by H. Molitz, 11 pp.

GERMAN, per, Zivilschutz, Vol XXVII, No 11, 1963.

ACSI I-4195
ID 2204004964

Field Tests Concerning the Dissemination of Gas
and Aerosol Clouds, by B. Wedin, B. Aurivillius,
et al, 64 pp.

SWEDISH, rpt, Faltforsok Rorande Gas - Och Aerosolmolns
Utbredning Forrd Samt Del I Metodik, Oct 1960, pp 2-71,
Encl No 1 to IR 2892002963, ARMA, Sweden.

ACSI I-3815-A
ID 2228075

Field Tests Concerning the Dissemination of Gas
and Aerosol Clouds, Part II: Discussion of Methods, by
B. Wedin, B. Aurivillius, et al, 49 pp.

SWEDISH, rpt, Faltforsok Rorande Gas- Och Aerosolmolns
Utbredning Del II Diskussion av Metodiken, Apr 1961,
pp 2-71, Encl No 2 to IR 2892002963, ARMA, Sweden.

ACSI I-3815-B
ID 2228075

Field Tests Concerning the Dissemination of Gas and
Aerosol Clouds, Part IV: Nausta, by B. Wedin,
B. Aurivillius, 82 pp.

SWEDISH, rpt, Faltforsok Rorande Gas - Och Aerosolmolns
Utbredning Del IV Nausta, Apr 1961, pp 4-15, Encl
No 3 to IR 2892002963, ARMA, Sweden.

ACSI I-3815-C
ID 2228075

Western Europe
Military (Contd)

Field Tests Concerning the Dissemination of Gas and Aerosol Clouds, Part V: Lake Vener, by B. Wedin, B. Aurivillius, 54 pp.
SWEDISH, rpt, Faltforsok Rorande Gas - Och Aerosolmolns Utbredning Del V Vanern, Mar 1962, pp 2-37; 1-19 Encl No 4 to IR 2892002963, ARMA, Sweden.

ACSI I-3815-D
ID 2228075

Field Tests Concerning the Dissemination of Gas and Aerosol Clouds, Part VI: Kvarntorp, 101 pp.
SWEDISH, rpt, Faltforsok Rorande Gas - Och Aerosolmolns Utbredning Del VI Kvarntorp, Mar 1962, pp 2-105, Encl No 5 to IR 2892002963, ARMA, Sweden.

ACSI I-3815-E
ID 2228075

Rationalized QM Storage, by C. G. Hasselstrom, 8 pp.
SWEDISH, per, Svensk Intendentur Tidskrift, No 9, 1963, pp 222-231.

ACSI I-3965
ID 2204001664

Management, Personnel and Research Covering Military Medical Service in West Germany, France, and Great Britain, by Evert E. Son Schildt.
SWEDISH, per, Tidskrift i Militar Halsovard, Vol LXXXVII, No 1, 1962, pp 13-25.

*ACSI I-4407
ID 2204009164

Geographic

1959-1960 Report of Municipality of Aarhus, 5 pp.
DANISH, rpt, Aarhus Kommunes Beretning 1959-1960, 1959, 1960, pp 58; 181; 182; 185; 189; 190; 195.

ACSI I-3225
ID 2244412

Po Navigation, Change, Characteristics, Developments, Prospects, 122 pp.
ITALIAN, rpt, Navigazione Padana, Vicende, Ruolo, Sviluppo, Prospettive, Sep 1958, pp 19-189.

ACSI I-2996
ID 2240832

Sociological

A Danish Communist View of Transition to Socialism, 8 pp.
DANISH, per, Tiden, No 7, 1963, pp 237-241.

JPRS 22992

Victor Joannes on the Various Ways of Transition to Socialism, by Victor Joannes, 15 pp.
FRENCH, per, Cahiers du Communisme, No 12, 1963, pp 26-38.

JPRS 22992

Togliatti Praises Yugoslav Socialism, by Palmiro Togliatti, 5 pp.
ITALIAN, per, Rinascita, No 5, 1 Feb 1964, pp 1, 2.

JPRS 23358

AFRICA

Economic

- Activities of the Ministry of Finance, Labor and Economics, by Babkr Alfa, 6 pp.
ARABIC, np, Mauritania, 27 Nov 1963, pp 4, 17. JPRS 23583
- Activities of the Ministry of the Interior, Information and Communications, by Ahmad Saleh, 5 pp.
ARABIC, np, Mauritania, 27 Nov 1963, pp 5, 17. JPRS 23583
- 1964 Algerian Ministries Appropriations, 101 pp.
FRENCH, rpt, Journal Officiel de la Republique Algerienne, 31 Jan 1964, pp 94-148. JPRS 23556
- Sahel in a Time of Change, 5 pp.
FRENCH, np, l'Action, 26 Dec 1963, pp 2, 4. JPRS 23272
- Expansion of Tunisian Salt Production Cotusal Quadruples Output in Ten Years, 5 pp.
FRENCH, np, l'Action, Vol II, No 430, 8 Jan 1964, p 3. JPRS 23381
- Problems and Prospects of Agricultural Development in Greater Kabylia, 14 pp.
FRENCH, per, El Moudjahid, No 164, 25 Jan 1964, pp 2-4. JPRS 23381
- Morocco's 1963 Economic Report, 11 pp.
FRENCH, np, la Vie Economique, 3 Jan 1964, pp 1, 3, 4. JPRS 23272

Political

- Allal Al-Fasi On African Unity and Arab Unity, 7 pp.
ARABIC, np, Al-Alam, 22 Jan 1964, pp 1, 3. JPRS 23307
- Should the Algerian National Liberation Movement Fear the End of the Cold War, by Larbi Bouhali, 7 pp.
FRENCH, per, Democratie Nouvelle, No 12, 1963, pp 85-93. JPRS 23307
- Pan Africanism and the Struggle of Two Ideologies, 12 pp.
RUSSIAN, per, Kommunist, No 1, 1964, pp 104-113. JPRS 23262

Africa
Military

Activities of the Ministry of Defense and the National Forces, by Mohammad Ben esh Shaykh, 6 pp.
ARABIC, np, Mauritania, 27 Nov 1963, pp 10, 11.

JPRS 23583

Sociological

Activities of the Ministry of Health, Social Welfare and Public Affairs, by Si Sek, 6 pp.
ARABIC, np, Mauritania, 27 Nov 1963, pp 6, 13.

JPRS 23583

Ministry of Education, Youth and Recreation,
by Hadrami Ben Khatari, 5 pp.
ARABIC, np, Mauritania, 27 Nov 1963, p 9.

JPRS 23583

Al Asnam, an Algerian Province, 8 pp.
FRENCH, np, La Republique, 2 Jan 1964, p 5.

JPRS 23272

MIDDLE EAST

Economic

Organization of Electricity and Transportation - Aleppo on Its Tenth Anniversary of Nationalization 1951-1961, 18 pp.
ARABIC, rpt, Mu'assasat al Kahraba' wa an Naql -- Halab Ft Idiha al Ashir li at Ta'min 1951 -- 1961, 1951-1961, pp 7-9; 12; 22-37.

ACSI I-3311
ID 2246271

Political

Greater Attention to Increasing the Ideological-Theoretical and Professional Training of Propagandists, by Vangjel Moisiu, 7 pp.
ALBANIAN, per, Rruga e Partise, No 1, 1964, pp 36-41.

JPRS 23817

Israeli Party Organ Blasts Chinese Comment No 7 on CPSU Open Letter of 14 July 1963, 8 pp.
HEBREW, np, Kol Haam, 21 Feb 1964, pp 2, 7.

JPRS 23764

FAR EAST

Economic

Selected Articles From the Chinese Periodical
Chien-chu Hsueh-pao, No 11, 1963.

JPRS 23255

Experimental Rural Housing in Hsing-t'ai, Shih-chia-chuang, 21 pp, (pp 1-5).

Land Utilization and Cost Reduction in the Rural Housing of the Northeast, by Shang Chiu-tsan, 17 pp, (pp 6-8).

Structure of Rural Housing Using Reinforced Concrete Members in the Province of Hopei, by Liu Yin-sheng, 22 pp, (pp 9, 10).

A Brief Report of the Rural Design Conference, by Mu Hsing-yuan, 6 pp, (pp 11, 12).

Planning Meeting of the Committee On Operations of Chinese Construction Society, by Lu Kuei-ch'i, 5 pp, (p 13).

Standardization of Mountain Housing, by T'ang P'u, Cheng Yen, 19 pp, (pp 14-18).

Selected Articles From the Chinese Periodical
Ching-chi Yen-chiu, No 12, 17 Dec 1963.

JPRS 23276

A Number of Problems on the Manifestations of the Use-Value and Value of Fixed Assets, by Liu Kuo-kuang, 25 pp, (pp 1-14).

The Rational Management of State-Operated Farms, by Ting Lu-shu, 21 pp, (pp 15-26).

Does Not the Equal Right of to Each According to His Work Have The Nature of Bourgeois Legal Right?, by Wu Ching-lien, 24 pp, (pp 27-39).

The Question of National Economic Balance and Production Price, by Yang Chien-pai, 29 pp, (pp 40-56).

Two Questions Concerning Value Determination, by Wei Hsing-hua, 9 pp, (pp 57-61).

The Problem of Agricultural Modernization, 12 pp, (pp 73-78).

Far East
Economic (Contd)

On Several Questions Concerning China's Socialist
Banking Work, by Tuan Yu, 20 pp.
CHINESE, per, Hung-ch'i, No 1, 1964.

JPRS 23651

Ten Poems by Mao Tse-tung, by Mao Tse-tung,
6 pp.
CHINESE, per, Hung-ch'i, No 1, 1964, pp 1-6.

JPRS 23651

Selected Articles From the Chinese Periodical
Shang-hai Chi-hsieh.

JPRS 23378

No 9, 1963.
Group Processing, by Ts'ai Chien-kuo, 14 pp,
(pp 1-5).

The Application of Iron, Chromium and Aluminum
Electrothermal Alloy, by Chu Pin, 11 pp,
(pp 22-25).

Experiments to Improve the Glassiness of Chrome
Plated Parts and to Ensure the Quality of
Plating, by Shen Shao-hsiang, 5 pp, (pp 29, 30).

No 10, 1963.
Summation of Heng-Mo Wheel Test, by Tsou Chi-hsu,
9 pp, (pp 12-15).

Several Examples of Cold Rolling Precision
Adjustment Technology, by Ch'en P'ei-yu, 5 pp,
(pp 15, 16).

The Application of Plastics in the Repair of the
Guide Rail of Machine Tool, by Hsieh K'u, 10 pp,
(pp 19-21).

The Canton Autumn Export Fair Striking Proof of Our
Country's Economic Achievements, 6 pp.
CHINESE, per, Shih-shih Shou-ts'e, No 21, 1963,
pp 33, 34.

JPRS 23536

Precious Stone-441 A. C. Radio Receiver, by
Chung Ch'ien, 5 pp.
CHINESE, per, Wu-hsien-tien, No 1, 1964, pp 19, 20.

JPRS 23536

Strengthening the Road Bed on Soft Ground by Means of
Drainage Shafts, by Lu Ch'ao-chun, 8 pp.
GERMAN, per, Z der Organisation fuer die Zusammenarbeit
der Eisenbahnen OSSHD, No 6, 1963, pp 8-10.

JPRS 23253

On the Problem of Chinese Economic Development, by
Gabor Hidasi, 13 pp.
HUNGARIAN, per, Kozgazdasagi Szemle, Vol X, No 12,
1963, pp 1444-1455.

JPRS 23424

Far East
Economic (Contd)

Selected Articles From the Indonesian Newspaper
Harian Rakjat.

- 7, 8 Jan 1964, pp 3, 4. JPRS 23639
Let Us Return to the Economic Declaration While
Effecting a Consistently Patriotic Economy,
by Ir. Sakirman, 32 pp.
- 10 Jan 1964, p 2. JPRS 23442
D. N. Aidit Speaks on Mobilization Funds and
Forces for Development, by D. N. Aidit, 15 pp.
- 29 Jan 1964, p 3. JPRS 23456
Takeover of British Firms in Indonesia Supported,
5 pp.
- 30 Jan 1964, p 2. JPRS 23456
The Riau Archipelago, a Forward Bastion,
Continues to Destroy Malaysia, 5 pp.
- 31 Jan 1964, p 4. JPRS 23456
Discussion of Takeover of British Firms in
Indonesia, by Amarzan, 9 pp.
- 3 Feb 1964, pp 2, 3. JPRS 23456
The Role of the Press in the New Stage of the
Offensive of the Political Manifesto, 35 pp.
- Communications and Broadcasting Equipment in China,
by Ozaki Shotaro, 6 pp.
JAPANESE, per, Ajia Keizai Jumbo, No 556,
1, 3 Nov 1963, pp 1-5. JPRS 23536
- The Seven Year Economic Plan and Labor Productivity
in North Korea, by Choe Chung-guk, 14 pp.
KOREAN, per, Kulloja, No 22, 20 Nov 1963,
pp 16-23. JPRS 23646
- Accumulation and Consumption in Socialist Construction
in North Korea, by An Kwang-sup, 16 pp.
KOREAN, per, Kulloja, No 22, 20 Nov 1963, pp 24-31. JPRS 23646
- Economic Knowledge Policy for Labor Protection
Work, by Pak Taek-ching, 6 pp.
KOREAN, np, Minju Choson, Vol VII, 9, 10 Jan 1964. JPRS 23413

Far East
Economic (Contd)

Selected Articles From the Korean Newspaper
Nodong Sinmun.

- 15 Dec 1963, pp 2, 3. JPRS 23626
Planning of the People's Economy and Its Popular
Appeal, by Chi Un-sop, Kim Won-sok, 5 pp.
- 16 Dec 1963, p 2. JPRS 23626
For Rapid Development in Forestry, by
Chong Tong-ch'ol, 5 pp.
- 17 Dec 1963, p 2. JPRS 23626
Let Us Effectively Support the Reassessment
Project of Fixed Property, by Li Dok-il, 7 pp.
- 10 Jan 1964, p 2. JPRS 23413
The Expansion of the Production of Peoples of
the Consumer Goods and the Strengthening of the
Technical Equipment of Regional Industry, by
Kang Chung-han, 5 pp.
- Permanent and Seasonal Frost in Mongolia, by
N. Lonjid. (DC-10341)
MONGOLIAN, monograph, Mongol Orny Olon Jiliyn
ba Uliirlyn Tsebdgiyn Tuhay, Ulan Bator, 1963,
pp 1-77. *JPRS
- The 1964 Economic and Cultural Development Plan of
the Mongolian People's Republic, 21 pp.
MONGOLIAN, np, Unen, 24 Dec 1963, pp 2-4. JPRS 23399
- 1964 Budget of the Mongolian People's Republic
and Results of the 1962 Budget, 8 pp.
MONGOLIAN, np, Unen, 25 Dec 1963, pp 2, 3. JPRS 23399
- Selected Articles From the Vietnamese Periodical
Hoc Tap, No 12, 1963.
- Financial Management Must Be Improved, by
Pham Hung, 12 pp. JPRS 23542
- The State Bank and the National Economy, by
Tran Linh Son, 12 pp, (pp 15-21). JPRS 23560
- Early Experiences of the Movement of Increasing
Agricultural Production, by Le Quang Tuan,
13 pp, (pp 41-47). JPRS 23627
- Integration of Montane National Minorities, by
Nhi Quy, 12 pp, (pp 54-61). JPRS 23627

Far East
Economic (Contd)

Selected Articles From the Vietnamese Newspaper
Nhan Dan.

11 Dec 1963, p 3. The Industries of Hai Phong With the Problem of Technological Improvement in Agriculture, by Do Hanh, 5 pp.	JPRS 23531
20 Dec 1963, pp 1, 2. Cast Iron and Steel in Thai Nguyen, by Hoang Minh, 7 pp.	JPRS 23531
21 Dec 1963, p 3. Inauguration of Blast Furnace No 1 at Thai Nguyen, by Nhuyen Van Tran, 7 pp.	JPRS 23531
26 Dec 1963, p 2. Economic Development of Mountain Areas, by Le Trung Dinh, 7 pp.	JPRS 23627
30 Dec 1963, p 3. Capital Construction Management, 12 pp.	JPRS 23531
31 Dec 1963. Agricultural Tax Obligations for 1963, 1964, 1965, 6 pp, (p 1).	JPRS 23531
Improve Management of Basic Construction During the Campaign Build Three, Oppose Three, 16 pp, (p 3).	
2 Jan 1964, p 3. Guidelines, Responsibilities and Measures for Emulation in 1964, 17 pp.	JPRS 23458
3 Jan 1964, pp 1, 2. Government Council's Resolution on Water Conservancy Work for 1964-1965, 18 pp.	JPRS 23502
4 Jan 1964, pp 1, 4. Let Us Enthusiastically Start the Two Year Water Control Program, 5 pp.	JPRS 23406
4, 5 Jan 1964, p 2. Let Us Actively Launch the Two Year Water Control Movement, by Ha Ke Tan, 20 pp.	JPRS 23406
10 Jan 1964. Eliminating Labor Waste in Administrative Organs, by Le Tat Duc, 7 pp, (p 2).	JPRS 23458
Factory Produces Diesel Engines for Water Pumps, by Ngo Du, 7 pp, (p 3).	

Far East
Economic (Contd)

Selected Articles From the Vietnamese Newspaper
Nhan Dan. (Contd)

11-14 Jan 1964, p 3. JPRS 23502
With Past Achievements as Our Encouragement,
Let Us Speed Up Production and Construction,
Improve Circulation and Distribution Work, and
Try to Surpass the 1964 State Plan Goals, by
Dang Viet Chau, 35 pp.

15, 16 Jan 1964. JPRS 23657
Strengthen Leadership to Achieve 1964 Agricultural
Production Plan, by Nguyen Van Loc, 15 pp.

18 Jan 1964, p 3. JPRS 23502
Electric Plant Goes Up in Coal Country, 9 pp.

21 Jan 1964, p 2. JPRS 23458
Hoa Biny Steps Up Two-Year Irrigation Movement,
by Dinh Cong Hau, 5 pp.

Political

Criticize Fuernberg and Marek Speeches to Austrian
Communist Party Central Committee Plenum, 20 pp.
GERMAN, per, Die Rote Fahne, Vol I, No 1, 5 Oct 1964,
20 pp. JPRS 23764

Selected Articles From the Indonesian Newspaper
Harian Rakjat.

1 Jan 1964.
Speeches Welcoming the New Year 1964, 11 pp,
(pp 1, 8). JPRS 23442

Political Report to the Second Plenum of the
Central Committee of the Indonesian Communist
Party, by D. N. Aidit, 75 pp, (pp 2-8). JPRS 23639

9 Jan 1964, p 3. JPRS 23639
Unite to Defeat Imperialism and Subversic.,
by Moh. Samikidin, 6 pp.

11 Jan 1964, p 3. JPRS 23639
Invigorate the Basic Committee to Bring Off
the Four Year Plan, by Djokosudjone, 5 pp.

Far East
Political (Contd)

Selected Articles From the Indonesian Newspaper
Harian Rakjat. (Contd)

- 15 Jan 1964, p 3. JPRS 23682
Resolutions of the Second Plenum of the Central
Committee of the Indonesian Communist Party
Concerning the Political Report of the Polit-
bureau, 13 pp.
- 31 Jan 1964, p 6. JPRS 23456
Lukman: Help the People of Panama Oppose Us
Imperialists, by M. H. Lukman, 5 pp.
- 3 Feb 1964, pp 1, 3. JPRS 23456
Tactics Must Serve Strategy, 8 pp.
- Japanese Communists Discuss Anti-Party Revisionism
and the Test-Ban Treaty, by Ishida Selichi, 7 pp.
JAPANESE, np, Akahata, 30 Dec 1963, p 5. JPRS 22865
- Japanese Communist Fuwa Analyzes Yugoslav
Revisionism, by Fuwa Tetsuzo, 64 pp.
JAPANESE, per, Zenei, No 11, 1963, pp 79-98;
No 12, Dec 1963, pp 67-92. JPRS 23691
- Japanese Communist Kosuga Answers Sato Article
on Sino-Soviet Dispute, by Kosuga Shozo, 25 pp.
JAPANESE, per, Zenei, No 12, 1963, pp 93-108. JPRS 23579
- History of Factional Rivalry in North Korea,
101 pp.
KOREAN, bk, Pukkwe ui P'apol T'uchaengsa, No 9,
20 Nov 1962, pp 1-103. JPRS 23655
- These Heroes Are the Corner Stones of Our
Fatherland, by Kim Ch'ang-sik, 16 pp.
KOREAN, np, Minju Choson, 7 Jan 1964, p 2. JPRS 23369
- Lauds Economic and Social Development Since
Revolution, 8 pp.
MONGOLIAN, per, Namyn Am'dral, No 11, 1963,
pp 5-12. JPRS 23579
- Acknowledges CPSU as Leader of Communist Move-
ment, by B. Liguu, 10 pp.
MONGOLIAN, per, Namyn Am'dral, No 11, 1963,
pp 13-21. JPRS 23579
- Tasks of Party Organizations at Courts and
Prosecutors' Offices, by G. Ish, 5 pp.
MONGOLIAN, per, Namyn Am'dral, No 11, 1963,
pp 27-30. JPRS 23506

Far East
Political (Contd)

Yu. Tsedenbal's Report to the Fifth Plenum of the Mongolian People's Republic Party Central Committee, 21 pp.

MONGOLIAN, np, Unen, 22 Dec 1963, pp 1-3.

JPRS 23399

L. Tsend's Unparty Like Activities are Detrimental to the Cause of the Party, 8 pp.

MONGOLIAN, np, Unen, 30 Dec 1963, p 2.

JPRS 23399

The South Vietnam Revolution, a Decisive Victory, by Le Quang Dao. (NY-9081)

VIETNAMESE, monograph, Cach Mang Mien Nam, Nhat Dinh Thang Loi, Nhung Phuc Tap, Lau Dai, 1963, 248 pp.

*JPRS

Selected Articles From the Vietnamese Periodical Hoc Tap.

No 12, 1963.

Victory Belongs to the People of South Vietnam, by Nguyen Minh Vy, 11 pp, (pp 22-28).

JPRS 23560

The 1 November Coup D'etat in South Vietnam, by Le Ba Thuyen, 12 pp, (pp 34-40).

JPRS 23615

No 1, 1964.

War and Peace, by Hong Chuong, 18 pp.

JPRS 23766

Peace and Revolution, by Tran Quoc Tu, 22 pp.

JPRS 23546

Government Council Resolution and Party Directives With Regard to the Meeting Situation, 7 pp.

VIETNAMESE, np, Nhan Dan, 28 Dec 1963, pp 1, 2.

JPRS 23573

Military

Report of the Investigating Commission Concerning Food Provisions in Combat.

JAPANESE, rpt, 1962.

*ACSI I-4200
ID 2204005164

The New Taibopuroro Hijinesa Machine - The MU-2 in All Models, 21 pp.

JAPANESE, per, Airreview, No 5, 1963, pp 25-31.

ACSI I-3957
ID 2204000864
319th MI Bn

Strengthening Our Army, by Tran Do, 7 pp.

VIETNAMESE, np, Nhan Dan, 19 Dec 1963, p 2.

JPRS 23573

Van Tien Dung on the 19th Anniversary of the Vietnamese People's Army, by Van Tien Dung, 7 pp.

VIETNAMESE, np, Nhan Dan, 22 Dec 1963, pp 1, 2.

JPRS 23573

Far East
Geographic

Mongolian People's Republic, by I. K. Ovdiyenko. (DC-10342)
RUSSIAN, bk, Mongol'skaya Narodnaya Respublika,
Moscow, 1963, pp 1-160.

*JPRS

Journey Without Adventure and Fantasy, by
E. Murzayev. (NY-9085)
RUSSIAN, bk, Puteshestviya Bez Prikl'yucheni'y i Fantastiki,
Moscow, 1962, pp 1-160.

*JPRS

Visiting Chinghai's Vast Grassland, by Kao Kuo-jung,
10 pp.
CHINESE, per, Min-tsu Hua-pao, No 12, 1963, pp 4-15.

JPRS 23523

Sociological

Dwellings of T'ai Nationality in the Border Regions of
Yunnan, 20 pp.

CHINESE, per, Chien-chu Hsueh-pao, No 11, 1963, pp 19-23.

JPRS 23255

Vietnam Architecture, by Yuan Ching-shen, Chu Shan-ch'uan,
et al, 26 pp.

CHINESE, per, Chien-chu Hsueh-pao, No 11, 1963, pp 24-29.

JPRS 23258

Experience and Sophistication, 6 pp.

CHINESE, per, Chung-kuo Ch'ing-nien, No 22, 16 Nov 1963,
pp 27, 28.

JPRS 23320

Offer Knowledge to the People, by Fan Ti-chih, 5 pp.

CHINESE, per, Chung-kuo Ch'ing-nien, No 23, 1 Dec 1963,
pp 11-13.

JPRS 23320

Let Us Advance in the Direction Pointed by Chairman
Mao, by Chiao Kuang-kuo, 6 pp.

CHINESE, per, Chung-kuo Ch'ing-nien, No 23, 1 Dec 1963,
pp 17, 18.

JPRS 23320

What Do Women Live For?, 16 pp.

CHINESE, per, Chung-kuo Fu-nu, No 11, 1963, pp 8-12.

JPRS 23353

Intensify Socialist Education for the Working Masses,
by Ku Ta-ch'un, 17 pp.

CHINESE, per, Hung-ch'i, No 1, 1964.

JPRS 23651

Chen-ning Pu-i-miao Autonomous Hsien of Kweichow
Province Established, by Fang K'un, 6 pp.

CHINESE, per, Min-tzu T'-uan-chieh, No 10, 11,
1963, pp 18, 19, 41.

JPRS 23535

Far East
Sociological (Contd)

Kazakh Nationality Progress, by Chin Po, 6 pp.
CHINESE, per, Min-tzu T'uan-chieh, No 10, 11,
1963, pp 62-64. JPRS 23535

Continue the Integration of the Womens Movement
With Indonesian Farm Women, 5 pp.
INDONESIAN, np, Harian Rakjat, 23 Jan 1964, p 3. JPRS 23495

A Report of the Indonesian Delegation to the
International Youth Solidarity Meeting, 14 pp.
INDONESIAN, np, Harian Rakjat, 27 Jan 1964, p 3. JPRS 23495

Legendary Story of a War Hero Comrade Li Myong-sok
by Pae Sun-jae, Paek Tong-kyu, et al, 15 pp.
KOREAN, np, Minju Choson, 22 Jan 1964, p 2. JPRS 23369

Dinh Hoa District Welcomes People From the Delta
Region, by Nhu Dam, 9 pp.
VIETNAMESE, np, Nhan Dan, 27 Dec 1963, p 2. JPRS 23615

Public Health Service at Quan Hoa District, by
Truong Thi, 5 pp.
VIETNAMESE, np, Nhan Dan, 27 Dec 1963, p 3. JPRS 23615

Relocation Experiences in Diny Hoa District,
by Nhu Dam, 6 pp.
VIETNAMESE, np, Nhan Dan, 28 Dec 1963, p 2. JPRS 23573

Soviet Medical Science and Vietnamese Ophthalmology,
by Nguyen Xuan Nguyen, 5 pp.
VIETNAMESE, per, To Quoc, 1 Nov 1963, p 5. JPRS 23539

Biographic

Biographical Notes on General Soukan Vilaysan,
Secretary General of Lao Neutralist Party, 8 pp.
LAO, np, Sai Kang, 1963, 26 Oct, pp 10, 12; 9 Nov,
p 10; 16 Nov, p 10; 23 Nov, p 10; 30 Nov, p 17. JPRS 23553

LATIN AMERICA

Economic

Budgetary and Other Legislation, by
Osvaldo Dorticos Torrado, 20 pp.
SPANISH, per, Gaceta Oficial, No 12, 31 Dec 1963,
pp 1-6.

JPRS 23580

Selected Articles From the Spanish Newspaper Hoy.

19 Jan 1964.

JPRS 23311

Mechanization of the Sugar Harvest, by
Gerardo Bernardo, 5 pp, (p 3).

More Tobacco Production in 1964, by Diego Leon,
5 pp, (p 3).

24 Jan 1964, pp 1, 2.

JPRS 23362

Railway Trade Workers Union Sights Goals for
1964, 5 pp.

26 Jan 1964, p 3.

JPRS 23430

The Importance of Electrification, by
Felix V. Ronda, 8 pp.

30 Jan 1964, p 3.

JPRS 23387

Petro-Chemical Units Urged to Turn Out Maximum
Production, 8 pp.

1 Feb 1964, p 3.

JPRS 23430

Shoe Workers Aim to Fulfil Plans, by Orestes Gomez,
6 pp.

2 Feb 1964, p 7.

JPRS 23455

Francis Mestre, Vice Minister of INRA Agriculture
and Cattle Production Section, Replies to Questions
on Mechanization of Agriculture, 7 pp.

5 Feb 1964, p 6.

JPRS 23455

Land Transportation Enterprises Leader Discusses
Plans for 1964, 5 pp.

11 Feb 1964, p 6.

JPRS 23580

Cuban Mining Recent Performance and Outlook for
1964, 8 pp.

16 Feb 1964, p 6.

JPRS 23802

Greater Volume and Better Quality Food This
Year, by Humberto Grillo, 11 pp.

19 Feb 1964, p 3.

JPRS 23633

Vice Minister Mestre Gives Reason for Loss of
Rice in Pinar Del Rio Harvest, by
Rafael Francia Mestre, 5 pp.

Latin America
Economic (Contd)

Banks to Increase Service to Public, by
Enrique Gonzalez Manet, 5 pp.
SPANISH, np, El Mundo, 22 Jan 1964, pp 1, 2. JPRS 23430

Harvest Norms Being Surpassed, 5 pp.
SPANISH, np, Revolucion, 6 Feb 1964, pp 1, 2. JPRS 23591

Political

Selected Articles From the Spanish Periodical
Gaceta Oficial.

2 Dec 1963, pp 12265-12269. JPRS 23362
Regulations of the Chamber of Commerce of the
Republic of Cuba, 10 pp.

3-5, 9, 11, 13, 16, 17, 23, 26 Dec 1963;
3 Jan 1964. JPRS 23293
Revolutionary Armed Forces Judicial Department,
13 pp.

11 Dec 1963, pp 12659-12662. JPRS 23293
New By-Laws of Small Farmers' Association, 7 pp.

8 Jan 1964, pp 145-147. JPRS 23591
Government Laws, Decrees, and Resolutions Organic
By-Laws of Superior Council of Urban Reform, 7 pp.

Interview With the Economics Department of Hoy, 5 pp.
SPANISH, np, Hoy, 22 Jan 1964, p 3. JPRS 23430

Military

Domingo Maheu, Military Small Arms Plant, 36 pp.
SPANISH, bk, Fabrica Militar de Arms Portatiles JPRS 23430
Domingo Maheu, pp 1-48. ACSI I-2496
ID 2232441

Latin America
Sociological

Items From a Cuban Periodical, 7 pp.
SPANISH, per, Bohemia, Vol LVI, No 3, 17 Jan 1964,
pp 10; 16-22. JPRS 23346

Oriente University, by Ruben Castillo Ramos, 10 pp.
SPANISH, per, Bohemia Vol LVI, No 4, 24 Jan 1964,
pp 34-39. JPRS 23346

A School of Technology for Cuban Mechanics, 5 pp.
SPANISH, per, Bohemia, 21 Feb 1964, pp 21, 22. JPRS 23802

Matanzas Medical Conference, 5 pp.
SPANISH, np, El Mundo, 4 Jan 1964, p 5. JPRS 23252

Excerpts From El Mundo, 10 pp.
SPANISH, np, El Mundo, No 20864, 21 Jan 1964,
pp 1; 3-7; 10. JPRS 23346

WORLD WIDE

Economic

Economic Cooperation Among the CEMA Countries, by
B. Miroshnichenko, 9 pp.
RUSSIAN, np, Ekon Gazeta, No 42, 19 Oct 1963, pp 17, 18. JPRS 23088

The Equilization of the Levels of Development of the
Socialist Countries, by M. Poriyete, 8 pp.
RUSSIAN, per, Kommunist Sovetskoy Latvii, No 10,
1963, pp 9-15. JPRS 23088

The CEMA Countries Strengthen Economic Cooperation,
by N. Faddeyev, 15 pp.
RUSSIAN, per, Mirovaya Ekon i Mezhdunarod Otnoshen,
No 10, 1963, pp 3-15. JPRS 23088

The July 1963 Conference of the First Secretaries
of the CC of Communist and Workers Parties, by
N. Ptichkin, 6 pp.
RUSSIAN, per, Vneshnaya Torgovlya, No 10, 1963,
pp 3-5. JPRS 23088

Pseudo-Scientific Investigations by Bourgeois
Economists, by F. Abramov, 11 pp.
RUSSIAN, per, Vneshnaya Torgovlya, No 10, 1963,
pp 13-17. JPRS 23088

World Wide
Economic (Contd)

The Discriminatory Measures of the European Common Market, by D. Andreyev, 7 pp.
RUSSIAN, per, Vneshnaya Torgovlya, No 10, 1963, pp 28-31.

JPRS 23088

Cooperation by the Socialist Countries in the Area of Power Engineering, by I. Popov, 15 pp.
RUSSIAN, per, Voprosy Ekon, No 10, 1963, pp 111-122.

JPRS 23088

SCIENTIFIC

Aerospace

Ceramics for Aviation Parts, by I. D. Abramson, 277 pp.
RUSSIAN, bk, Keramika dlya Aviatsionnykh Izdeliy, Moscow, 1963, 240 pp.

JPRS 23706

Aviation Psychology, by K. K. Platonov.
RUSSIAN, bk, Psikhologiya Letnogo Truda, Chapter VI, 1960, pp 1-106; 222-350.

*FTD-TT-64-186

Guided Missiles, by V. I. Marisov, I. K. Kucherov, 330 pp.
RUSSIAN, bk, Upravlyayemye Snaryady, Moscow, 1959, pp 1-303.

JPRS 23032

A Necessary and Sufficient Condition for the Metricization of a Topological Space, by Yu. Smirnov, 7 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol LXXVII, No 2, 1951, pp 197-200. 9219383

NASA TT F-192

A Pair of Airplanes - A Hard Little Nut, by B. Ivanov, 5 pp.
RUSSIAN, np, Krasnaya Zvezda, No 167, 18 Jul 1962, p 1. 9691526

FTD-TT-63-1130

Mistress of the Stratosphere Report From Board a Rocket Carrier, by Ye. Smirnov, 7 pp.
RUSSIAN, np, Krasnaya Zvezda, Vol CXIV, No 17, 1963, p 1. 9691529

FTD-TT-63-943

Parachute Jumping Counter, by I. Bondarenko, V. Chekunov, 9 pp.
RUSSIAN, per, Krylya Rodiny, No 1, 1957, pp 20-22. 9691536

FTD-TT-63-1120

On the Way to the Cosmos, by V. Dobronravov, 11 pp.
RUSSIAN, per, Krylya Rodiny, No 6, 1957, pp 20-22. 9691546

FTD-TT-63-975

Scientific
Aerospace (Contd)

The Thermal Barrier, by N. Zhovinskiy, 13 pp.
RUSSIAN, per, Krylya Rodiny, No 7, 1957, pp 11-13.
9691537

FTD-TT-63-976

Variational Problems in Dynamics of Orbital
Aircraft, by A. A. Kosmodem'yanskiy.
RUSSIAN, per, Vest Mosk Univ Ser I, Mate, Mekh,
No 4, 1963, pp 70-76.

*Navy/APL J334

Civil Aviation in the Maghrie in the Contest of World
Aviation, 7 pp.
ARABIC, np, Al-Anba, 25 Jan 1964, pp 2, 3.

JPRS 23307

The Development of the Terraplane Glider, Lecture
by Mr. Bertin at the 23rd Flight Mechanics Panel
Meeting, 7 pp.
FRENCH, rpt, Le Developpement des Aeroglisseurs
Terraplane, Conference de M Bertin au 23eme Flight
Mechanics Panel Meeting, 8 Jul 1963, pp 1-9.

ACSI I-3968
ID 2204001964

Invisible Light, by D. Herfurth, 6 pp.
GERMAN, per, Jugend und Technik, No 5, 1963,
pp 10-12; 59.

ACSI I-3774
ID 2253789
525th MI Gp

The Role of the Air Force in Modern Antisubmarine
Warfare, by Istvan Endresz, 11 pp.
HUNGARIAN, per, Repules, No 4, 5, 1963, pp 12, 13.
9691636

FTD-TT-63-802

Agriculture

Dynamics of Mass Growth and Changes in the Chemical
Composition of the Parts of Walnut Fruits During
Ontogenesis, by N. D. Unchyev, 15 pp.
RUSSIAN, per, Biokhim Plodov i Ovoshchey Ak Nauk SSSR,
Vol V, 1959, pp 259-276.

OTS 63-11025
PL-480

Selected Articles From the Russian Newspaper
Ekon Gazeta.

No 49, 7 Dec 1963.
Fixed and Current Assets of Sovkhozes and Kolkhozes,
36 pp, (pp 1-16).

JPRS 23520

Determination of the Optimum Dimensions of
Sovkhozes, 40 pp, (pp 1-16).

Scientific
Agriculture (Contd)

Selected Articles From the Russian Newspaper
Ekon Gazeta. (Contd)

- No 3, 18 Jan 1964, pp 1-16. JPRS 23414
Results of Kolkhoz and Sovkhoz Work Analyzed,
37 pp.
- No 5, 1 Feb 1964, pp 1-16. JPRS 23732
Work Organization on Kolkhozes and Sovkhozes,
34 pp.
- Income Tax in the Kolkhozes, by K. Karpov, 7 pp.
RUSSIAN, per, Ekon Sel'skogo Khoz, No 12, 1963,
pp 82-88. JPRS 23414
- The Larch Fly, Chortophila Laricicola Karl, as a
Larch Seed Pest, by E. V. Zonova, 13 pp.
RUSSIAN, per, Entomologich Obozrenie, Vol XXV, No 3, 4,
1935, pp 206-220. OTS-63-11032
PL-480
- Better Chemical Fertilizers Mean Higher Soil Yield,
by I. Volovchenko, 6 pp.
RUSSIAN, np, Izvestiya, 1 Dec 1963, p 2. JPRS 23520
- Some Data on the Relation Between Annual Ring Width
and the Physical and Mechanical Properties of
Armenian Oak Wood, by P. A. Khurshudyan, 10 pp.
RUSSIAN, per, Iz Ak Nauk Arm SSR, Biol i Sel'skokh Nauk,
Vol XI, No 4, 1958, pp 33-43. OTS 63-11091
PL-480
- Effect of Ionizing Irradiation on Post Harvesting
Ripening of Fresh Fruits, Berries, and Vegetables, by
L. P. Koval'skaya, et al, 6 pp.
RUSSIAN, per, Konservnaya i Ovoshchesushil Prom,
No 12, 1963, pp 21-25. ACSI I-4212
ID 2204005264
- Development of Irrigation Farming, by A. Sarkisov,
6 pp.
RUSSIAN, np, Pravda, 22 Feb 1964, p 2. JPRS 23732
- Development of the Soviet National Economy in
1963, 6 pp.
RUSSIAN, np, Sel'skaya Zhizn, 25 Jan 1964, p 1. JPRS 23414
- Development of Estonian Agriculture, by I. G. Kebin,
8 pp.
RUSSIAN, np, Sovet Estoniya, 8 Jan 1964, pp 2, 3. JPRS 23414
- Increasing Grain Production in Kirgiziya Through
Irrigation, by A. Chubarov, 6 pp.
RUSSIAN, np, Sovet Kirgiziya, 27 Nov 1963, p 2. JPRS 23520

Scientific
Agriculture (Contd)

Heterosis of Vegetables, by D. D. Brezhnev.
RUSSIAN, per, Priroda, No 9, 1963, pp 50-55.

*USDA

Methods of Statistical-Phytosociological Analysis
of Forest Associations, by N. A. Konovalov,
V. A. Povarnitsyn, 26 pp.
RUSSIAN, per, Trudy Lesotechnich Ak, Vol XXXV,
1927, pp 69-104.

OTS 63-19969

Hydrological Importance of Forests and Forest
Management, by V. I. Rutkovskiy, 56 pp.
RUSSIAN, per, Vses Nauchno-Issled Inst Lesnogo
Khoz Issled po Lesnomu Khoz, Vol XVIII, 1940,
pp 65-112.

OTS 63-19604

Increasing the Protein Content of Corn Through
Selection, by A. E. Kovarskiy, B. P. Pugalov.
RUSSIAN, per, Vest Sel'skokh Nauk, Vol VI,
No 10, 1961, pp 18-27. 9220140

USDA Tr A-1423

Reserves for Increasing Meat Production in the
Central Black Earth Region, by N. P. Aleksandrov,
V. G. Suslov, et al, 12 pp.
RUSSIAN, per, Vest Sel'skokh Nauk, Vol VIII, No 10,
1963, pp 103-111.

JPRS 23732

Science -- For Agriculture, by A. Polyakov.
RUSSIAN, per, Vest Sel'skokh Nauk, Vol VIII, No 10,
1963, pp 141-144. 9220144

USDA Tr A-1427

110.6 Centers of Grapes per Hectare, by A. Maystrenko.
RUSSIAN, per, Vinodeliye i Vinograd SSSR, Vol IV,
No 211, 1962, pp 8-12.

CSIRO/No 6348

Experience in Creating Protective Tree Belts in
Vineyards, by E. Baranov, M. Markin.
RUSSIAN, per, Vinodeliye i Vinograd SSSR, Vol I,
No 216, 1963, pp 46-51.

CSIRO/No 6483

Concentrating Fruit and Berry Juices by Freezing,
by V. Mayorov.
RUSSIAN, per, Vinodeliye i Vinograd SSSR, Vol II,
No 217, 1963, pp 14-16.

CSIRO/No 6484

Experience in Boosting Economically Weak Kolkhozes,
by A. Volkonskiy, 14 pp.
RUSSIAN, per, Voprosy Ekon, No 11, 1963, pp 59-68.

JPRS 23732

Economic Effectiveness of Irrigation Farming,
by L. Levanovskiy, 11 pp.
RUSSIAN, per, Voprosy Ekon, No 11, 1963, pp 69-76.

JPRS 23732

Scientific
Agriculture (Contd)

- Animal Husbandry on Personal Plots of Members of Cooperatives, by Ivan Naydenov, 7 pp.
BULGARIAN, per, Zhivotnovudstvo, Vol XVIII, No 12, 1963, pp 21-25. JPRS 23686
- A Discussion of the Question of Intensified Agriculture in China, by Sha Ting, 22 pp.
CHINESE, per, Hung-ch'i, No 2, 3, 4 Feb 1964, pp 46-57. JPRS 23683
- Selected Articles From the Croatian Periodical Jugoslovenski Pregled, No 9, 1963. JPRS 23360
- Use of Agricultural Land, 18 pp, (pp 340-344).
- Farms of Agricultural Cooperatives, 17 pp, (pp 345-349).
- Production, Processing, and Export of Tobacco, 11 pp, (pp 350-353).
- Poultry-Raising in Yugoslavia, 19 pp, (pp 354-359).
- A Contribution to the Problem of Identifying Canned Goods Made by Rehydrating Dried Peas, by T. Lovric, V. Jovic, et al.
CROATIAN, per, Prehrambena Industrija Jugoslavije, No 8, 1963, pp 1545-1549. *ACSI I-4213-A
ID 2204005364
- Economic Considerations on the Drying of Foodstuffs by Freezing, by Josko Simoncic.
CROATIAN, per, Prehrambena Industrija Jugoslavije, No 8, 1963, pp 1550-1556. *ACSI I-4213-B
ID 2204005364
- Status of Soil Studies in Togo, by A. Leveque, 9 pp.
FRENCH, rpt, Jan 1964, pp 1-6. JPRS 23382
- On the Expansion of Cultivation and Fodder Characteristics of Lucerne in East Germany, by W. Roder, 8 pp.
GERMAN, per, Die Deutsche Landwirtschaft, No 1, 1964, pp 34-36. JPRS 23308
- Velocity, Intensity and Capacity of Auxin Transport in Geotropically Stimulated Pedicle Stumps of Fritillaria Meleagris L, by Harald Kaldewey, 27 pp.
GERMAN, per, Planta, No 60, 1963, pp 178-204. AEC-Tr-6281
- Situation in Cattle Raising and Tasks of Future Development, by Lajos Nemeth, 9 pp.
HUNGARIAN, per, Magyar Mezogazdasag, Vol XIX, No 4, 22 Jan 1964, pp 16, 17. JPRS 23599

Scientific
Agriculture (Contd)

- Judging Nitrogen Requirements of Grape Vines by
Determining Constituents of Amino Acids and Amides
in Leaves, by R. Isoda.
JAPANESE, per, Bulletin of the Hiroshima Agricultural
College, Vol I, No 4, 1961, pp 10-14. CSIRO/No 6456
- Contracting for Agricultural Production Requires
Further Improvement, by Stanislaw Szczepanski, 7 pp.
POLISH, per, Nowe Drogi, No 2, 1964, pp 78-83. JPRS 23686
- Structure of State Farms and Concentration of
Agricultural Production, by Bucur Schiopu, 12 pp.
RUMANIAN, per, Lupta de Clasa, No 12, 1963,
pp 14-24. JPRS 23686
- Achievements of Agriculture in 1963 and Tasks for
1964, by N. Ionescu, 8 pp.
RUMANIAN, per, Probleme Agricole, No 1, 1964, pp 4-9. JPRS 23812
- The Action Necessary to Improve the Production of
Animal Husbandry, by Radmilo Zivkovic, 6 pp.
SERBOCROATIAN, per, Poljoprivreda, Vol XI, No 10,
1963, pp 25-28. JPRS 23308
- Average Operating Conditions Not Yet Provided for
Agriculture as a Whole, by Ceda Veselinovic, 18 pp.
SERBOCROATIAN, per, Poljoprivreda i Zadrugarstvo,
Vol X, No 12, 1963, pp 3-17. JPRS 23308
- Corn Production on Farms in the Public Sector of
Agriculture, by Slavka Paris, 16 pp.
SERBOCROATIAN, per, Poljoprivreda i Zadrugarstvo,
Vol X, No 12, 1963, pp 18-30. JPRS 23308
- The Problem of Meat Production in More Modern
Conditions, by Radmilo Zivkovic, 11 pp.
SERBOCROATIAN, per, Poljoprivreda i Zadrugarstvo,
Vol X, No 12, 1963, pp 31-39. JPRS 23308
- Cutting Frequency for Hot Climate Graminaeae, by
L. Crowder, et al.
SPANISH, per, Agricultura Tropical, Bogota,
Vol XVII, No 4, 1961, pp 201-209. CSIRO/No 6290
- Finance in Support of Agriculture, by
Nguyen Thanh Son, 9 pp.
VIETNAMESE, per, Hoc Tap, No 12, 1963, pp 9-14. JPRS 23560

Scientific
Agriculture (Contd)

The People's Communes of China: Part I, by
Quang Thai, 6 pp.
VIETNAMESE, np, Nhan Dan, 26 Dec 1963, p 4.

JPRS 23666

The People's Communes of China: Part II, by
Quang Thai, 6 pp.
VIETNAMESE, np, Nhan Dan, No 12, 1963, p 4.

JPRS 23666

Scientific
Biological & Medical Sciences

Pharmacology of the Carotid Body Chemoreceptors,
by S. V. Anichkov, M. L. Belen'kiy.
RUSSIAN, bk.

Pergamon Press

Soviet Anesthesiology, by Jack Blanshey, 21 pp.
RUSSIAN, bk, 1959-1963.

JPRS 23517

Soviet Diagnostic Radiology, by Victor Dukoff,
66 pp.
RUSSIAN, bk, 1959-1963.

JPRS 23317

Interaction of Simultaneous Conditional Reactions
in Man, by N. Yu. Alekseyenko.
RUSSIAN, rpt, 1963, Attch to IR 1521004964.

*FTD-TT-64-282

Timely Questions on Psychiatry and Neuropathology, by
G. V. Morozov.
RUSSIAN, bk, Aktual'nyye Voprosy Psikhatrii i
Nevropatologii, 1963, 400 pp.

*FTD-TT-64-278

Bacteriological Studies and Disinfection of the
Air, by G. I. Karpukhin, 149 pp.
RUSSIAN, bk, Bakteriologicheskoye Issledovaniye i
Obezzarazhivaniye Vozdukh, 1962, pp 1-255.

ACSI I-2778
ID 2237273

Dynamocardiography, by Ye. B. Babskiy, V. L. Karpman.
RUSSIAN, bk, Dinamokardiografiya, Moscow, 1963,
168 pp.

*NASA TT F-205

Peculiarities in Methods of Sugar Beet Selection in
the USSR and in Foreign Countries, by N. A. Negovskiy.
RUSSIAN, bk, Dostizheniya Nauki i Peredovoi Opyt po
Sveklovodstvu, Ukrain Ak Sel'skokh Nauk, Moscow,
1961, pp 200-205. 9220136

USDA Tr A-1419

Methods Used in Administration of Electrically
Induced Sleep, by M. M. Zheltakov, Yr. K. Skripkin,
et al, 18 pp.
RUSSIAN, bk, Elektroson i Gipnoz v Dermatologii,
Moscow, 1963, pp 99-113; 307; 308.

JPRS 23524

The Physiological Role of Acetylcholine and the Search
for New Medicinal Preparations, by M. Ya. Mikhel'son.
(DC-10324)
RUSSIAN, bk, Fiziologicheskaya Rol' Atsetilkholina i
Izyskaniye Novykh Lekarstvennykh Veshchestv, Leningrad,
1957, 1-462.

*JPRS

Scientific
Biological & Medical Sciences (Contd)

Biological Action of Polonium, by G. M. Parkhomenko,
5 pp.

RUSSIAN, bk, Gigiyena Truda Pri Rabote s Poloniym,
Moscow, 1963, pp 16-20.

JPRS 23499

Maximum Permissible Concentrations and Levels of
Irradiation, by G. M. Parkhomenko, 5 pp.

RUSSIAN, bk, Gigiyena Truda Pri Raboto s Poloniym,
Moscow, 1963, pp 20-22.

JPRS 23499

Hygienic Aspects of Underground Uranium Mining,
by A. V. Bykhovskiy, 6 pp.

RUSSIAN, bk, Gigiyenicheskiye Voprosy pri Podzemnoy
Razrabotke Uranovykh Rud, Moscow, 1963, pp 300-302;
330-332.

JPRS 23515

Swine Plague, 68 pp.

RUSSIAN, bk, Infektsionnyye Bolezni Sviney,
Chapter VI, 1961, pp 50-130.

ACSI I-3153-A
ID 2240858

Infectious Encephalomyelitis of Swine, IEM,
Teshen's Diseases, Contagious Paralysis, 9 pp.

RUSSIAN, bk, Infektsionnyye Bolezni Sviney,
Chapter XXIV, 1961, pp 510-514.

ACSI I-3153-B
ID 2240858

Ion Exchanged Milk, 5 pp.

RUSSIAN, bk, Ionitnoye Moloko -- Izgotovleniye i
Primeniye, 1963, pp 121-124; 152.

JPRS 23727

Problems of Cybernetics in Medicine, by

A. D. Voskresenskiy, A. I. Prokhorov, 29 pp.

RUSSIAN, bk, Kibernetiku na Sluzhbu Kommunizmu,
Vol I, 1961, pp 126-140. 9691533

FTD-TT-63-521

Clinical Patterns of Schizophrenia in the Process
of Treatment With Psychotropic Preparations, by

T. A. Nevzorova, 22 pp.

RUSSIAN, bk, Klinicheskiye Zakonomernosti Shizofrenii v
Protsesse Lecheniya Psikhotropnymi Preparatami, Moscow,
1963, pp 109-121; 138.

JPRS 23571

Compensatory Hypertrophy of the Organs of

Mammalian Animals and Man, by L. D. Liozner, 22 pp.

RUSSIAN, bk, Kompensatornaya Gipertrofiya
Organov Mlekopitayushchikh Zhivotnykh i Cheloveka,
1963, pp 297-319.

JPRS 23725

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Book
Osnovnyeye Vyvody Nauchno-Issledovatel'skikh
Rabot za 1959-1960, Kiev, 1962.

JPRS 23467

Sugar Beet Selection, by N. I. Orlovskiy,
5 pp, (pp 5-7).

Selection of the One-Seeded Sugar Beet in the
USSR, by S. P. Sevost'yanov, 5 pp, (pp 8-10).

Hybridization of One-Seeded and Multi-Seeded
Sugar Beets, by N. A. Negovskiy, A. A. Tkachenko,
5 pp, (pp 14-16).

Sugar Beet Selection at the Vinnitsa Experimental
Station, by P. A. Dubinin, 7 pp, (pp 51-54).

Basic Results in Use of Heterosis From Inter-Variety
Sugar Beet Crossings, by A. I. Fedorov, G. P. Snegur,
6 pp, (pp 115-118).

Selection and Seed-Growing of Grain and Seed Pod
Crops, by L. P. Maksimchuk, 8 pp, (pp 232-236).

Selected Articles From the Russian Book
Pervichnyye i Nachal'nyye Protsessy, Biologicheskogo
Deystviya Radiatsii, Moscow, 1963.

JPRS 23426

Primary and Initial Processes of the Biological
Effect of Radiation, by N. A. Aladzhlova, N. N. Demin.

Investigation of Radiochemical Effects in Biological
Objects by the Electron Paramagnetic Resonance
Method, by L. A. Blyumenfel'd, A. E. Kaimanson, 14 pp,
(pp 45-52).

The Mechanism Suppressing Cell Division Under the
Influence of Ionizing Radiation, by A. V. Lebedinskiy,
V. N. Mastryukova, et al, 15 pp, (pp 157-165).

Biochemical Mechanisms of Radiation-Induced Disturbance
of Cell Division, by A. M. Kuzin, 12 pp, (pp 166-176).

The Significance of Cell Damage in the Radiation Reaction
of the Animal Organism, by E. Ya. Grayevskiy,
I. M. Shapiro, et al, 26 pp, (pp 177-191).

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Book
Pervichnyye i Nachal'nyye Protssesy Biologicheskogo
Deystviya Radiatsii, Moscow, 1963. (Contd)

JPRS 23426

The Rhythm of Oxidative Processes and Its
Disturbance by the Effect of Radiation, by
G. M. Frank, A. D. Snezhko, 21 pp, (pp 202-213).

Kinetic Regularities of Primary Reactions and
Chemical Protection, by B. N. Tarusov, 15 pp,
(pp 234-242).

Concluding Remarks, by G. M. Frank, 10 pp,
(pp 271-276).

Planning Local Plastic Surgery on the Surface of
the Body, by A. A. Limberg.
RUSSIAN, bk, Planirovaniye Mestnoplasticheskikh
Operatsiy na Pverkhnosti Tela, 1963, 594 pp.

*FTD-TT-64-279

Enhancement of the Resistance of the Organism to
the Action of Toxic Substances, by R. O. Amirov,
12 pp.
RUSSIAN, bk, Povysheniye Ustoychivosti Organizma k
Deystviyu Toksicheskikh Veshchestv, Baku, 1963,
pp 2-5; 85-94.

JPRS 23359

Results of Barley Selection, by N. D. Mukhin,
V. A. Semenov.
RUSSIAN, bk, Sbornik Nauchnykh Trudov, Belorusskiy
Nauchno-Issledovatel'skiy Institut Zemledeliya,
Vol VII, 1961, pp 299-305. 9220132

USDA Tr A-1415

Current Methods of Electroencephalographic
Analysis, by V. A. Kozhevnikov, R. M. Meshcherskiy,
274 pp.
RUSSIAN, bk, Sovremennyye Metody Analiza
Elektroentsefalogrammy, Moscow, 1963, pp 1-328.

JPRS 23890

Blood Circulation in the Brain, by B. N. Klosovskiy,
309 pp.
RUSSIAN, bk, Tsirkulyatsiya Krovi v Mozgu, 1951.

OTS 63-11171
PL-480

Soviet Neurosurgery, by Nicolas Polukhine, 87 pp.
RUSSIAN, bk, Voprosy Neyrokhirurgii, 1959-1963.

JPRS 23433

Medical Follow-Up On Athletes in Training, 23 pp.
RUSSIAN, bk, Vrachebnyye Nablyudeniya za Sportsmenami
v Protssesse Trenirovki, 1963, pp 3-20; 303; 304.

JPRS 23564

Scientific
Biological & Medical Sciences (Contd)

Mammals of USSR and Adjacent Countries, by S. I. Ognev,
508 pp.
RUSSIAN, bk, Zveri SSSR i Prilezhaschikh Stran, Vol VI,
1948.

OTS 63-11058
PL-480

Therapeutic Effect of Neomycin in Experimental
Tularemia, by E. M. Tsvetkova.
RUSSIAN, per, Antibiotiki, Vol VIII, No 2, 1963,
pp 152, 153. 9220102

USDA Tr V-1897

Biological Aspects in Theoretical Neuro-Oncology,
by A. P. Avtsyn, 27 pp.
RUSSIAN, per, Arkhiv Patologii, No 12, 1963,
pp 3-22.

JPRS 23559

The Morphology of Mammary Gland Tumors Induced
With Radioactive Niobium, by V. I. Ponomar'kov,
8 pp.
RUSSIAN, per, Arkhiv Patologii, No 12, 1963, pp 44-50.

JPRS 23559

The Condition of Sensitive Innervation of the
Nose and Tongue of Dogs During Affection With
Radioactive Strontium and Polonium, by B. I. Lebedev,
7 pp.
RUSSIAN, per, Arkhiv Patologii, No 12, 1963,
pp 51-56.

JPRS 23559

On the So-Called Reserve Albumin of Seeds,
by V. L. Kretovich, A. A. Bundel', 9 pp.
RUSSIAN, per, Biokhimiya, Vol XIX, No 2, 1954,
pp 208-215.

OTS 63-11044
PL-480

On Secondary Structure of Transfer RNA as
Revealed by Reaction With Formaldehyde and
Ribonuclease Digestion, by L. L. Kiselev, et al.
RUSSIAN, per, Biokhimiya, Vol XXIX, No 1, 1964,
pp 116-125.

*USDA

The Absorption and Secretion of Radioactive
Carbon C14 by Fish, by G. V. Fedorova, 9 pp.
RUSSIAN, per, Biolog Nauk, No 4, 1963, pp 84-89.

JPRS 23604

Mechanism of Venous Outflow From the Cranium,
by A. A. Kedrov, A. I. Naumenko, et al, 7 pp.
RUSSIAN, per, Byul Eksper Biol i Medit, Vol XXXVIII,
No 9, 1954, pp 10-14.

NASA TT F-163

On Fish Behavior in the Zone Before a Trawl Under
the Influence of an Electric Field of an Alternating
Current and Mechanical Irritant, by V. A. Shentyakov.
RUSSIAN, per, Byul Inst Biol Vodokhranilishch, Ak
Nauk SSSR, No 8, 9, 1960

*Ministry of Agri

Scientific
Biological & Medical Sciences (Contd)

The Structure of the Cutaneous Integument of Pinnipedia,
by V. Sokolov.

RUSSIAN, per, Byul Moskov Obshch Ispytateley Prirody,
Otdel Biol, Vol LXIV, No 6, 1959, pp 5-21.

CSIRO/No 6526

Certain Biological and Practical Conclusions From
the Experiments on Transplantation of Pacific
Salmon, by A. I. Smirnov.

RUSSIAN, per, Byul Moskov Obshch Ispytateley
Prirody, Otdel Biol, Vol LXVII, No 1, 1962,
pp 149-151.

Fisheries Res
Board Canada,
Nanaimo Station

Hybrids and Self-Pollinated Lines of Sweet Corn
at the Experimental and Selection Station of the
VIR, by N. N. Tkachenko, N. V. Gavrilov.

RUSSIAN, per, Byul Vses Inst Rastenievod, Vol IX,
1961, pp 3-9. 9220141

USDA Tr A-1424

Interaction Between Leaves of Different Nodes and
the Root System in the Aminoacid Metabolism of
Tobacco Plants, by E. Avundzhyan.

RUSSIAN, per, Dok Ak Nauk Armyanskoy SSSR,
Vol XXXIII, No 2, 1961, pp 79-82.

CSIRO/No 6162

Selected Articles From the Russian Periodical
Dok Ak Nauk SSSR.

Vol XCVII, No 3, 1954.

The Discovery of Silic Formations in the Epidermis
of Lower Crustaceans, by K. V. Beklemishev.

*Ministry of Agri

Vol CLII, No 1, 1963, pp 218-220.

The Mechanism of the Origin of Stimulation in
Single Mechanoreceptors, by O. B. Il'inskiy,
V. B. Fiks, 8 pp.

Navy Tr 3748
NMS 854

Vol CLIII, No 1, 1963, pp 243-245.

Effect of Vitamin A on Antibody Formation in
Chicks Following Immunization With Antigen
From the Nematode Ascaridia Galli, by
Z. K. Leutskaya, 6 pp.

JPRS 23650

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Periodical
Dok Ak Nauk SSSR.

Vol CLIII, No 4, 1963.

Radiosensitivity of Wheat Plant Progeny as
Influenced by Gamma Irradiation of the Parent Seed,
by L. M. Fonshteyn, 6 pp, (pp 933-935).

JPRS 23734

Growth and Propagation of Eucyclops Serrulatus
in Aquariums at Different pH Values of Water, by
M. V. Ivanov, 5 pp, (pp 936-938).

JPRS 23737

Interrelationship Between Super Faint Chemolumine-
scence and Heat Resistance of Plant Organisms, by
R. A. Gasanov, T. G. Mamedov, et al, 6 pp,
(pp 947-949).

JPRS 23735

Active and Passive Anaphylaxis in Worms, by
V. I. Luk'yanenko, S. P. Aleksindryuk, 7 pp,
(pp 970-973).

JPRS 23736

Survival of Leucocytes of Vertebrates in the
Intestines of Blood Sucking Insects and Ticks,
by Yu. S. Balashov, 5 pp, (pp 981-983).

JPRS 23733

Matching Parental Pairs in Order to Produce Inter-
varietal Buckwheat Hybrids, by G. V. Pryezhev.
RUSSIAN, per, Dok Moskov Ordena Lenina Sel'skokh Ak
imeni K. A. Timiryazeva, Vol LXXVII, 1962, pp 79-84.
9220139

USDA Tr A-1422

Selected Articles From the Russian Periodical
Farmakol i Toksikol.

JPRS 23384

Vol XIX, No 6, 1956, pp 10-17.

Searches for New Cholinolytic and Spasmolytic
Agents Among Esters of Diphenylacetic Acid and Its
Derivatives, by S. S. Liberman, 11 pp.

Vol XXIII, No 3, 1960, pp 206-215.

The Effect of Certain Complex Esters of R, R'-
Aminoethanol and Diphenylacetic Acid on the
Central Nervous System, by P. P. Denisenko, 15 pp.

Vol XXIII, No 5, 1960, pp 398-406.

On the Pharmacology of 3-Acetoxyquinuclidine
Aceclidine, by M. D. Mashkovskiy, K. I. Zaytseva, 12 pp.

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Periodical
Farmakoi i Toksikol. (Contd)

JPRS 23384

Vol XXIV, No 4, 1961.

The Effect of Dialkylaminoethyl Radical Loading
on the Pharmacological Properties of Benzoic Acid
Esters, by S. S. Liberman, R. Yu. Il'yuchenok, 8 pp,
(pp 432-436).

The Depolarizing Effect of Acetylcholine and the
Action of Nerve-Muscle Blocking Agents, by
A. I. Briskin, 15 pp, (pp 499-507).

Vol XXV, No 1, 1962, pp 32-37.

On the Pharmacology of 3-Benzoyloxyquinuclidine,
by M. D. Mashkovskiy, K. A. Zaytseva, 8 pp.

Vol XXV, No 4, 1962.

The Effect of Central Cholinolytic Agents on
the Orienting Reaction in Laboratory Animals,
by P. P. Denisenko, 9 pp, (pp 395-401).

On the Pharmacology of Polymethylene-Bis-Quinuclidinium
Halides, by F. Sadritdinov, 9 pp, (pp 428-433).

Selected Articles From the Russian Periodical
Fiziol Zhur SSSR imeni I. M. Sechenov.

Vol XXVII, 1939.

The Work of the Parotid and Submaxillary Glands
in Cattle, by E. L. Block.

*FTD-TT-64-205

Vol XXVIII, 1940.

Certain Biological Features of the Work of the
Parotid Glands in Ruminants, by V. K. Krausky,
M. K. Krynskaya.

*FTD-TT-64-206

Vol XLVIII, 1962, pp 214-218.

Optimum Conditions for Recording Electroplethysmograms
of Parts and Organs of the Human Body, by
Yu. Ye. Moskalenko.

*NASA TT F-203

Vol XLIX, 1963, pp 1145-1149. 9691545

The Effect of Transverse Acceleration of Oxygen
Tension in Brain Tissue, by Ye. A. Kovalenko,
V. L. Popkov, 11 pp.

FTD-TT-63-1215

Scientific
Biological & Medical Sciences (Contd)

The Relationship of Pharmacological Activity to Chemical Structure in Certain Esters of Tropine, by A. L. Mndzhoyan, G. L. Papayan, et al, 12 pp. RUSSIAN, per, Iz Ak Nauk Armyanskoy SSR, Biolog Nauk, Vol XV, No 12, 1962, pp 3-14.

JPRS 23384

The Effect of a Growth Substance of Petroleum Origin NRV on the Growth, Development, and Physiological Changes of Plants and the Potato Yield Under Conditions of Uzbekistan, by G. I. Abolina, V. V. Berezhnova, 19 pp. RUSSIAN, per, Iz Ak Nauk SSSR, Ser Biolog, No 6, 1963, pp 862-870.

JPRS 23577

Decapod Crustaceans of the Okhotsk Sea, by L. G. Vinogradov. RUSSIAN, per, Iz Tikhookeanskiy Nauchno-Issled Inst Rybnogo Khoz i Okeanografii, Vol XXV, 1947, pp 67-124.

*Fisheries Res Board, Canada

Methods of Investigating the Growth of Absorbing Roots in Fruit Trees, by E. V. Kolesnikov, 10 pp. RUSSIAN, per, Iz Timiryazev Sel'skokh Ak, Vol VI, No 19, 1957, pp 51-60.

OTS 63-11017
PL-480

Use of Heterosis in Buckwheat Breeding, by G. V. Pryezhev. RUSSIAN, per, Iz Timiryazev Sel'skokh Ak, Vol XLVI, 1962, pp 47-58. 9220133

USDA Tr A-1416

Scientific Research on Surgery in the Next Few Years, by B. V. Petrovskiy, 15 pp. RUSSIAN, per, Khirurgiya, Vol XL, No 1, 1964, pp 3-11.

JPRS 23808

Ganglioblocking Agents in the Treatment of Hypertensive Disease in Middle Aged and Elderly Patients, by Z. N. Dracheva, 10 pp. RUSSIAN, per, Klin Medit, Vol XLIII, No 1, 1964, pp 41-46.

JPRS 23667

Quteleron Therapy of Peptic Ulcer, by R. M. Pilosov, A. Bakhadyrov, et al, 5 pp. RUSSIAN, per, Klin Medit, Vol XLIII, No 1, 1964, pp 103-106.

JPRS 23667

The Effect of Irradiation on the Microflora of Beef, by T. S. Bushkanets, G. V. Ladukhina. RUSSIAN, per, Konservnaya i Ovoshchesushil Prom, No 1, 1964, pp 25-28.

*ACSI I-4371
ID 2204008864
525th MI Gp

Scientific
Biological & Medical Sciences (Contd)

New Governmental Standards Canned Food Products.
Methods of Bacteriological Analysis, by
N. N. Mazokhina.
RUSSIAN, per, Konservnaya i Ovoshchesushil Prom.
No 1, 1964, pp 35, 36.

*ACSI I-4339
ID 2204007864

Selected Articles From the Russian Periodical
Medit Radiolog.

Vol VIII, No 12, 1963.
Effectiveness of Early Use of Artificial Kidney
in Dogs Receiving Lethal Doses of Sr90, by
M. G. Petrovnnin, 11 pp, (pp 31-37).

JPRS 23678

The Effect of Complex-Forming Agents on the
Magnitude of Renal Tissue Radiation Dosage
With Administration of Radioactive Substances, by
L. A. Il'in, T. A. Norets, et al, 8 pp, (pp 43-47).

Experimental Data on Increased Resistance to Radiation
Sickness After Preliminary Administration of
Tetracyclines to Rats, by A. M. Dumova,
O. O. Chirkova, 9 pp, (pp 50-55).

Investigation of the Possibility of Obtaining
Immune Sera to Alleviate the Course of Radiation
Sickness in Experimental Animals, by V. I. Fofanov,
A. T. Kravchenko, 7 pp, (pp 55-59).

Vol IX, No 1, 1964.
Roentgen Therapy in the Acute Period of Burn
Injury, by I. B. Gurevich, R. I. Murazyan, 8 pp,
(pp 20-24).

JPRS 23566

The Effect of Na3Ca-DTPA Pentacine on Pu239 Excetion
From the Human Organism, by L. A. Plotnikova,
G. D. Baysogolov, 5 pp, (pp 49-52).

Some Biochemical Indices With Chronic Exposure of
Experimental Animals to Low Doses of Gamma-Radiation,
by S. A. Keyzer, K. V. Ivanov, et al, 7 pp, (pp 57-60).

Review of a Book by Ye. F. Romantsev: Chemical
Protection Against Radiation, by A. A. Gorodetskiy,
V. A. Barabay, 9 pp, (pp 82-87).

Conference About Bacterial Fertilizers, by V. T. Smaliy,
5 pp.
RUSSIAN, per, Mikrobiologiya, Vol XXI, No 3, 1952,
pp 387, 388.

OTS 63-16127

Scientific
Biological & Medical Sciences (Contd)

Microorganisms of the Upper Layers of the Atmosphere, by A. I. Zhukova.
RUSSIAN, per, Mikrobiologiya, Vol XXXII, No 2, Mar, Apr 1963, pp 362-370. 9220129

USDA Tr A-1410

The Second Meeting of the All-Union Microbiological Society, by A. B. Lozinov.
RUSSIAN, per, Mikrobiologiya, Vol XXXII, No 4, Jul, Aug 1963, pp 740, 741. 9220095

USDA Tr V-1890

Anticancerous Antibiotics, by B. Yu. Ayzenman, 19 pp.
RUSSIAN, per, Mikrobiolog Zhur, Vol XXV, No 6, 1963, pp 44-53.

JPRS 23525

On the Accumulation of Fragmentary Isotopes⁹⁰_Y by Marine Organisms. I. Accumulation of Sr⁹⁰, Ye⁹¹ and Ce¹⁴⁴ by Benthic Plants and Animals, by G. G. Polikarpov.
RUSSIAN, per, Nauch Dok Vysshey Shkoly, Biolog Nauk, No 3, 1960, pp 97-105.

*Ministry of Agr

Changes in the Geographical Distribution of the Fisheries and the Expected Effects of Regulation, by N. A. Maslov.
RUSSIAN, per, Nauchno-Tekh Byul Polyarnyy Nauchno-Issled Inst Morskogo Rybnogo Khoz i Okean, No 1 (15), 1961.

*Ministry of Agr

The Fisheries Characteristics of the West Spitsbergen Region, by T. S. Berger.
RUSSIAN, per, Nauchno-Tekh Byul Polyarnyy Nauchno-Issled Inst Morskogo Rybnogo Khoz i Okean, No 1(15), 1961.

*Ministry of Agr

Selected Articles From the Russian Periodical Nauka i Zhizn.

No 6, 1963, pp 24-29. 9220128
Crimean Wonder, Automated Poultry Farm, by S. Novikov.

USDA Tr A-1409

No 10, 1963, pp 24-27. 9220143
Powerful Grains -- NRV, Petroleum Growth Stimulant, by V. Gernik.

USDA Tr A-1426

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Periodical
Nauka i Zhizn. (Contd)

No 11, 1963.

Fishes of Our Time Reveal Earth's Past; Hypotheses,
Suggestions, Conjectures, by G. Lindberg, 7 pp,
(pp 46-49).

JPRS 23549

Russian Scientists in Brazil, a Forgotten
Expedition, by V. Pokhvalin, 10 pp, (pp 65-68).

JPRS 23526

Contemporary State of Prosthetics and Prosthesis, by
B. P. Popov, 8 pp.
RUSSIAN, per, Ortoped, Travmatol i Protezirov,
Vol XXIV, No 12, 1963, pp 3-9.

JPRS 23375

Acclimitization of the Sea-Otter on the Murman
Coast, by T. A. Malkovich.
RUSSIAN, per, Priroda, No 7, 8, 1938, pp 194-197.

*Fisheries Research
Board, Canada

A Study of Function of the Thyroid Gland With the
Aid of I131-Labeled Triiodothyronine Preliminary
Report, by V. K. Modestov, V. P. Klyachko, 8 pp.
RUSSIAN, per, Problemy Endokrinol i Gormonoterapii,
Vol X, No 1, Jan, Feb 1961, pp 20-24.

JPRS 23603

Hypersynapsis as a New Link in the Pathogenesis of
Diffuse Toxic Coiter, by M. V. Vogralik, G. V. Mironova,
12 pp.
RUSSIAN, per, Problemy Endokrinol i Gormonoterpii,
Vol X, No 1, Jan, Feb 1961, pp 32-37.

JPRS 23603

Selected Articles From the Russian Periodical
Problemy Gematol i Perelivan Krovi, Vol IX,
No 1, 1964.

JPRS 23648

Chromosome Changes in Leukemia of Man. Report I.
Chronic Myeloid Leukemia, by T. P. Tsessarskaya,
G. V. Osechenskaya, et al, 12 pp, (pp 3-10).

Some Biochemical Indices of Corpse Bone Marrow,
by A. F. Murchakova, 8 pp, (pp 31-35).

Preservation of Bone Marrow in Plastic Packing, by
A. G. Fedotenkov, L. A. Danilova, et al, 8 pp, (pp 35-40).

Experience in Organization of Free Donor Service in
Kurganskaya Oblast, by D. K. Sokolov, A. I. Andronova,
et al, 6 pp, (pp 52-55).

Scientific
Biological & Medical Sciences (Contd)

Control Mechanisms for Antibody Formation in the Light of Data on the Genetics of Immunity and the Biochemistry of Abnormal Human Hemoglobins, by V. P. Efroimson, 26 pp.
RUSSIAN, per, Problemy Kibernetiki, No 6, 1961, pp 161-181.

JPRS 23732

On the Tole of Chronic Tubercular Intoxication in the Development of Leukopenia, by V. M. Voityuk, 14 pp.
RUSSIAN, per, Problemy Tuberkuleza, Vol XXXIX, No 5, 1961, pp 105-110.

Navy Tr 3745
NMS 851

On the Distribution and Behavior of Cod and Haddock in the Barents Sea, by O. N. Kiselev.
RUSSIAN, per, Rybnoye Khoz, Vol XXXIII, No 5, 1957, pp 62-65.

*Fisheries Res
Bd of Canada
St. Andrews, N.B.

A New Device for Testing Fish Cans for Leaks, by L. M. Kazakov, 5 pp.
RUSSIAN, per, Rybnoye Khoz, Vol XXXVII, No 1, 1961, pp 39-43.

ACSI I-4193
ID 2204004864

Electric Trawls, by V. A. Shentyakov.
RUSSIAN, per, Rybnoye Khoz, Vol XXXVIII, No 4, 1962, pp 47-55.

*Ministry of Agri

Using Heterosis in Sugar Beet Production, by T. F. Grin'ko.
RUSSIAN, per, Sakharnaya Svekla, No 12, 1962, pp 22-24. 9220135

USDA Tr A-1418

State of Rest and Degree of Transformation of Nutrients in the Cells of Agricultural Plants, by E. Aknina, T. Pustovoitova.
RUSSIAN, per, Sbornik Fiziol Usteichivoisti Rast Ak Nauk SSSR, 1960, pp 207-211.

CSIRO/No 6203

Effect of Seed Reproduction on the Yield, by G. F. Nikitenko, F. S. Golovko.
RUSSIAN, per, Selekts i Semen, Vol XXVII, No 2, Mar, Apr 1962, pp 22-26. 9220134

USDA Tr A-1417

Cytoplasmic Male Sterility in the Selection and Breeding of Sorghum, by N. S. Kalashnik.
RUSSIAN, per, Selekts i Semen, Vol XXVIII, No 3, May, Jun 1963, pp 32-38. 9220137

USDA Tr A-1420

Public Health in the Cuban Republic, by I. P. Furmenko, 6 pp.
RUSSIAN, per, Sovet Zdravookh, Vol XXIII, No 1, 1964, pp 59-63.

JPRS 23397

Scientific
Biological & Medical Sciences (Contd)

Living Conditions and the Health of the Population of the USSR, Basic Indicators as Compared With the Pre-Revolutionary and Pre-War Periods, by V. K. Ovcharov, 7 pp.

RUSSIAN, per, Sovet Zdravookh, Vol XXIII, No 1, 1964, pp 93-96.

JPRS 23390

Wood Swelling, by P. N. Odintsov, 11 pp.

RUSSIAN, per, Trudy Ak Nauk Latvinskoy SSR Inst Lesokhoz, Vol XII, 1957, pp 45-56.

OTS 63-11024
PL-480

Results of the Investigations Carried Out by the Baltic Research Institute of Marine Fisheries and Oceanography Off the Coasts of Nova Scotia, Cruise II. RUSSIAN, per, Trudy Baltiiskiy-Issledovatel Inst Morskogo Rybnogo i Okeanografii, No 8, 1962, pp 3-16.

*Fisheries Res
Board, Canada

On Trawl Equipment for Fishing on Rocky Grounds, by G. E. Bidenko.

RUSSIAN, per, Trudy Baltiiskiy Nauchno-Issledovatel Inst Morskogo Rybnogo i Okeanografii, No 8, 1962, pp 146-158.

*Fisheries Res
Board, Canada

A Pink Salmon From a Lake, by E. L. Bakshtansky. RUSSIAN, per, Trudy Byulleten Polyarnogo Nauch Issled Inst Morskogo Rybnogo Khoz i Okean, No 4 (22), 1962, pp 46, 47.

Fisheries Res
Board Canada,
Nanaimo Station

Certain Characteristics in the Development of Parasitic Fauna of Fish in New Water Reservoirs, by N. A. Izyumova.

RUSSIAN, per, Trudy Inst Biol Vodokhranilishch, Ak Nauk SSSR, Vol I, 1959, pp 324-331. 9220131

USDA Tr A-1412

Effect of the Introduction of Heterogenic Blood in Hens Upon Their Offspring, by E. V. Tolokonnikova, I. G. Moyseyeva, 13 pp.

RUSSIAN, per, Trudy Inst Genetiki Ak Nauk SSSR, No 24, 1958, pp 372-384.

OTS 63-11046
PL-480

Effect of Varying Illumination on the Accessibility of Food Organisms for Certain Fish, by I. I. Girsu. RUSSIAN, per, Trudy Inst Morfologii Zhivotnykh, Ak Nauk SSSR, No 13, 1960, pp 118-128.

*Fisheries Res
Bd of Canada
St. Andrews, N.B.

Plankton and the Feeding of the Whalebone Whales, Mystacoceti, by S. K. Klumov.

RUSSIAN, per, Trudy Inst Okeanologii, Ak Nauk SSSR, Vol LI, 1961.

*Fisheries Res
Board, Canada

Scientific
Biological & Medical Sciences (Contd)

New Data on the Feeding of Some Cyclopidae, by
N. A. Dzyuban.

RUSSIAN, per, Trudy Mosk Tekh Inst Rybnogo Khoz
i Prom imeni A. I. Mikoyana, 1939, pp 163-172.

Fisheries Res
Board Canada,
Nanaimo Station

Some Problems on the Reproductive Ecology of Marine
Bottom Invertebrates With Pelagic Development, by
S. A. Mileikovskiy.

RUSSIAN, per, Trudy Murmansk Morsk Biol Inst,
Vol III, No 7, 1961, pp 147-169.

Dept of Interior
AC5 E57 No 82

Some Results of the Research and Scouting Cruises in
the Equatorial Atlantic, November 1960 - March 1961,
by E. S. Prosvirov.

RUSSIAN, per, Trudy Nauchno-Issledovatel Inst
Morskogo Rybnogo i Okeanografii, No 8, 1962, pp 17-23.

*Fisheries Res
Board, Canada

The Natural Resources of the Herring Fisheries,
Their Changes in the Recent Years and Prospects for
the Future, by A. S. Polonskiy.

RUSSIAN, per, Trudy Nauchno-Issledovatel' Inst
Morskogo Rybnogo i Okeanografii, No 8, 1962, pp 27-37.

*Fisheries Res
Board, Canada

Plankton and the Food of Larval Baltic Herring in the
Gulf of Riga, by L. N. Lisivnenko.

RUSSIAN, per, Trudy Nauch Issled Inst Rybnogo
Khoz Soveta Narod, 1961, pp 105-108.

Fisheries Res
Board Canada,
Nanaimo Station

Character of the Attack of Black Flies, Family
Simuliidae, on Farm Animals, 7 pp.

RUSSIAN, per, Trudy Nauchno-Issled Vet Inst, Vol I,
1960, pp 105-109.

NIH 1-16-64

The Feeding of the Cod in the Southern Part of the
Barents Sea, by V. J. Zatsepin, N. S. Petrova.

RUSSIAN, per, Trudy Polyarnyy Nauch-Issled Inst
Morskogo Rybnogo Khoz i Okean, No 5, 1939, pp 1-171.

*Fisheries Res Bd
of Canada
St. Andrews, N.B.

On the Utilization of Food by Plankton-Eating Fishes,
by V. S. Ivlev.

RUSSIAN, per, Trudy Sevastopolskoy Biol Stantsii,
Vol XIV, 1961, pp 188-201.

Fisheries Res
Board Canada,
Nanaimo Station

Fish-Cultural and Fish-Protective Measures for the
Maintenance and Propagation of Salmonoid Fishes in
Kamchatka Waters, by M. A. Andreyeva.

RUSSIAN, per, Trudy Soveshchanyy Ikh Kom Ak Nauk SSSR,
No 4, 1954, pp 70-77.

Fisheries Res
Board Canada,
Nanaimo Station

Scientific
Biological & Medical Sciences (Contd)

Contemporary Changes in the Abundance of the Pacific
Salmons, and Their Principal Causes, by R. S. Semko.
RUSSIAN, per, Trudy Soveshchanyy Ikh Kom Ak Nauk
SSSR, No 13, 1961, pp 117-129.

Fisheries Res
Board Canada,
Nanaimo Station

Selected Articles From the Russian Periodical
Trudy Vses Nauch-Issled Inst Morskogo Rybnogo
Khoz i Okean.

Vol IV, 1939, pp 321-338.
Diurnal Process of Feeding in Cod in the
Fishery Grounds of the Barents Seas, by
E. S. Zadul'skaya, K. S. Smirnov.

*Fisheries Res
Bd of Canada
St. Andrews, N.B.

Vol XXXIV, 1958, pp 102-126.
On the Effect of Feeding Conditions on a Fish
Population, by M. V. Zheltenkova.

Dept of Interior
QH 301 C273 No 240

Vol XXXVI, 1958, pp 62-82.
Daily Vertical Migrations of Cod and Haddock,
by K. G. Konstantinov.

*Fisheries Res
Bd of Canada
St. Andrews, N.B.

Vol XLV, 1962, pp 139-142.
Azeotropic Method of Obtaining Fish Meal, by
Yu. S. Davydova, 8 pp.

JPRS 23470

Amphipods of the Northern Part of the Pacific Ocean.
Part I, by E. F. Guryanova.
RUSSIAN, per, Trudy Zool Inst, Ak Nauk SSSR, No 74,
1962.

*Natl Museum
of Canada

Selected Articles From the Russian Periodical
Tsitologiya, Vol V, No 6, Nov, Dec 1963.

JPRS 23472

Permeability of the Cell Nucleus, by A. S. Troshin,
22 pp, (pp 601-614).

Cytochemistry of Free Purine Ribonucleotides in the
Life Cycle of Schizotrypanum Cruzi, by L. V. Balicheva,
G. I. Roskin, 12 pp, (pp 630-638).

Electron Microscopy Study of Pituicytes and
Interrelationship Between Them and Neurosecretory
Elements of the Posterior Lobe of the Hypophysis in
Albino Mice, by M. A. Belen'kiy, A. L. Polenov, 7 pp,
(pp 651-653).

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Periodical
Tsitologiya, Vol V, No 6, Nov, Dec 1963.

JPRS 23472

Electron Microscopy Study of the Fine Structure of
Tetrahymena Pyriformis Infusoria Cilia, by L. G. Fedorova,
S. A. Burnasheva, 7 pp, (pp 689-691).

A Chamber for Microscopic Examination of Biological
Objects at Temperatures Ranging From + 100 to -50
Degrees Centigrade, by G. A. Kozlov, 6 pp, (pp 700-704).

Experimental Analysis of Processes Associated With
Poisoning by Non-Volatile Phenols in Baltic Salmon
During Their Larval Period of Life, by M. F. Vernidub.
RUSSIAN, per, Uchenye Zapiski Leningrad Gosudarst-Univ,
No 311, 1962, pp 153-177.

Fisheries Res
Board Canada,
St. Andrews Stati

Selected Articles From the Russian Periodical
Uspekh Sovrem Biol, Vol LVI, No 2 (5), 1963.

JPRS 23425

Some Problems of Vitro Cultivation in Connection With
the Development of the Genetics of Human and
Mammalian Somatic Cells, by A. F. Zakharov, 28 pp,
(pp 228-248).

Primary Immunological Reactivity and Its Morphogenetic
Role, by O. Ye. Vyazov, 17 pp, (pp 249-264).

Physiological Death of Cells in an Organism, by
B. S. Laguchev, 12 pp, (pp 274-283).

Nitrogen Fixation in Blue-Green Algae, by E. A. Shtina,
20 pp, (pp 284-299).

The Effect of Petroleum Growth Stimulant NRV on the
Development, Physiological Changes, and Yield of Melons
in Uzbekistan, by N. A. Ataullayev.
RUSSIAN, per, Uzbek Biolog Zhur, No 5, 1963, pp 8-14.

*USDA

Experimental Basis of Method for Speeding Up Embryonic
Growth of Salmon and Its Significance, by M. F. Vernidub.
RUSSIAN, per, Vest Leningrad Univ, Ser Biol, Vol III,
1963, pp 7-22.

*Fisheries Res
Bd, Canada

Effect of Illumination On growth and Photosynthesis
of Chlorella Cultrues, by A. M. Stepanova.
RUSSIAN, per, Vest Leningrad Univ, Ser Biol, No 21,
1963, pp 72-85.

*FTD-TT-64-246

Scientific
Biological & Medical Sciences (Contd)

- On the Biochemistry of Piricularia Oryzae, by
Yu. V. Peruanskiy, I. N. Myusov.
RUSSIAN, per, Vest Sel'skokh Nauk, Vol VI, No 3, 1963,
pp 39-43. 9220127 USDA Tr A-1408
- Against Falsification in Biological Sciences, by
M. A. Ol'shanskiy.
RUSSIAN, per, Vest Sel'skokh Nauk, Vol VIII, No 10,
1963, pp 1-5. 9220138 USDA Tr A-1421
- Selected Articles From the Russian Periodical
Veterinariya.
- Vol XXXVIII, No 3, 1961, pp 69, 70. *AERE-Harwell
Radiological Hygiene Evaluation of Milk and Meat
From Cows Affected by Radioiodine, by V. G. Il'in.
- Vol XXXIX, No 10, 1962, pp 54, 55. 9220142 USDA Tr A-1425
The Course of Foot-and-Mouth Disease in Reindeer,
by S. E. Ogryzkov.
- Vol XL, No 7, 1963.
Anti-Foot-and-Mouth Disease Blood Crystal Violet
Vaccine, by B. G. Petrenko, E. V. Andreyev, et al,
(pp 9, 10). 9220122 USDA Tr V-1870
- Foot-and-Mouth Disease Control Measures, by
S. K. Vyatkin, (pp 10-12). 9220123 USDA Tr V-1871
- Eradication of Foot-and-Mouth Disease in Its
Primary Focus, by A. A. Vartanov, (p 12). 9220124 USDA Tr V-1872
- Eradication of Hog Cholera in Omsk Oblast, by
I. P. Lobanov, G. F. Epifanov, (pp 25, 26). 9220125 USDA Tr V-1873
- Group Vaccination of Piglets With Associated Vaccine
Against Hog Cholera and Erysipelas, by I. I. Kulesko,
A. T. Shikov, (pp 26-30). 9220081 USDA Tr V-1876
- Evaluation of Immunobiological Reactions in Sheep
Immunized With Vaccine Strain, by I. A. Kosilov,
(pp 32-34). 9220126 USDA Tr V-1874
- Ministry of Agriculture Coordinating Council on
Foot-and-Mouth Disease Control, by I. Rostovtseva,
(pp 87, 88). 9220080 USDA Tr V-1875

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Periodical
Veterinariya. (Contd)

Vol XL, No 8, 1963.

The Eradication of Foot-and-Mouth Disease is a Very
Important Task, by A. L. Skomorokhov, (pp 11-14).
9220082

USDA Tr V-1877

The Use of Anti-Foot-and-Mouth Disease GNKI Dry
Virus Vaccine, by F. Z. Amfiteatrov, V. F. Remizov,
et al, (pp 15, 16). 9220083

USDA Tr V-1878

An Experiment in Foot-and-Mouth Disease Eradication
in the Central Regions, by N. G. Ipatenko, (pp 16, 17).
9220084

USDA Tr V-1879

Passive Immunization Reduces Losses From Foot-and-Mouth
Disease, by N. B. Ezovitov, (pp 18, 19). 9220085

USDA Tr V-1880

Sanitation of the Farm From Porcine Leptospirosis,
by E. A. Andriyan, (p 25). 9220086

USDA Tr V-1881

Abortions of Leptospirosis Etiology in Swine, by
P. V. Kaymankan, N. I. Kaymakan, (pp 25, 26).
9220087

USDA Tr V-1882

Leptospirosis in Swine, by A. I. Ulendeyev, (p 26).
9220088

USDA Tr V-1883

Porcine Leptospirosis in the Altaiskii Krai, by
P. M. Baryshev, V. N. Drozhzhin, (p 26). 9220089

USDA Tr V-1884

Swine Susceptibility to Leptospira Culture
Isolated From the Wood Mouse Apodemus Sylvaticus,
by I. A. Soloshenko, M. A. Meliksetov, (pp 26, 27).
9220090

USDA Tr V-1885

Use of Gamma-Globulin for Prophylaxis of Infectious
Atrophic Rhinitis in Swine, by Yu. V. Fomin, (p 41).
9220092

USDA Tr V-1887

Changing the Pathogenicity of Foot-and-Mouth Disease
Virus by Long-Term Passage Through Tissue Cultures,
by V. A. Sergeyev, T. S. Lavrova, et al, (pp 71-74).
9220091

USDA Tr V-1886

Data on the Diagnosis of Anthrax in Cattle and Sheep,
by M. V. Kapitanaki, R. K. Semenyuk, (pp 77, 78).
9220118

USDA Tr V-1866

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Periodical
Veterinariya. (Contd)

- Vol XL, No 10, 1963.
Properties of Hog Cholera Virus Grown in Tissue
Cultures, by V. G. Airapetyan, (pp 29-31). *USDA
- The Use of Glycerinized Crystal Violet Vaccine
Against Hog Cholera on Affected Farms, by
G. G. Bedenashvili, (p 31). *USDA
- The Study of Abyssinian Vaccine Strains of African
Horse Sickness, by M. S. Shaburov, (pp 68, 69).
9220120 USDA Tr V-1868
- Virus Vaccine Against African Horse Sickness, by
E. V. Ivanovskiy, V. P. Nazarov, (pp 70-72). 9220121 USDA Tr V-1869
- Vol XL, No 11, 1963.
Experiences in Foot-and-Mouth Disease Eradication,
by G. A. Kozlovskiy, (pp 19-27). 9220096 USDA Tr V-1891
- The Role of Ixodes Ticks in Foot-and-Mouth Disease
Epizootiology, by A. M. Lukin, (pp 28-30). 9220097 USDA Tr V-1892
- Post-Vaccinal Immunity Against Foot-and-Mouth Disease
in Young Cattle, by B. A. Glushko, (pp 30, 31).
9220098 USDA Tr V-1893
- Eradication of Hog Cholera Among Suckling Pigs
of Autumn-Winter Farrows, by M. G. Pogonyaylo,
(p 37). 9220099 USDA Tr V-1894
- Immunity and Blood Protein of Piglets in a Normal
State, With Hog Cholera, and After ASV Inoculation,
by A. A. Konopatkin, (pp 43-47). *USDA
- Several Epizootiological Features of Atrophic
Rhinitis and Measures for Its Control, by I. T. Nechval',
(pp 47-49). *USDA
- Eradication of Hog Cholera From Farms in Voronezh Oblast,
by V. I. Barkovskiy, S. I. Volov'yev, et al, (pp 50, 51).
9220100 USDA Tr V-1895
- The Problem of Producing Atrophic Infectious Rhinitis
Experimentally, by L. S. Barzyalis, (pp 52-54). *USDA
- Vol XL, No 12, 1963, pp 39, 40.
Exudative Epidermitis in Piglets, by V. I. Eshmantas. *USDA

Scientific
Biological & Medical Sciences (Contd)

The Acid-Salt Balance in Grape-Juice and Wine, by
E. Kozenko, B. Romanova.
RUSSIAN, per, Vinodelye i Vinograd SSSR, Vol IV,
No 211, 1962, pp 19-22.

CSIRO/No 6347

Sucrose as an Objective Index of Physiological
Maturity in Grapes, by K. Pataraya, L. Silagadze.
RUSSIAN, per, Vinodelye i Vinograd SSSR, Vol IV,
No 211, 1962, pp 26-28.

CSIRO/No 6351

Contribution to the Study of the Different Varieties
of Grapes Cultivated in the Vale of Ferghana, by
I. Akramov.
RUSSIAN, per, Vinodelye i Vinograd SSSR, Vol IV,
No 211, 1962, pp 36-38.

CSIRO/No 6349

Selected Articles From the Russian Periodical
Voprosy Ikhtiologii.

No 14, 1960, pp 66-70.
Vertical Distribution of Cod and Halibut in
the Barents Sea, by O. N. Kiselev,
K. G. Konstantinov.

*Fisheries Res
Bd of Canada
St. Andrews, N.I.

No 16, 1960.
On the Role Played by Invertebrate Predators
in the Dynamics of Population Density of
Migratory Fishes, by V. I. Vladimirov, (pp 56-66).

Fisheries Res
Bd of Canada,
Nanaimo Station

The Rate of Growth and Age Groupings of Sockeye
Salmon in the Sea, by F. V. Krogyus, (pp 67-88).

Changes in Weight and Length of Fish After Fixation
in Formalin Followed by Soaking in Water, by
V. A. Amosov, (pp 187-190).

No 3, 1963, pp 497-505.
The Spawning Efficiency and Yield Estimation of
Atlantio-Scandian Herring in 1961, by I. G. Yudanov.

*Fisheries Res
Bd of Canada

Change in the Ratios Between the Excretion of 17-
Hydroxycorticosteroids and 5-Hydroxyindoleacetic Acid
in Pilots, by I. V. Fedorov, I. M. Khazen, et al, 8 pp.
RUSSIAN, per, Voprosy Medit Khim, Vol IX, No 6, 1963,
pp 583-587.

JPRS 23607

Morphological Changes in the Cat Brain Following Closed
Craniocerebral Injury Associated With Radiation Sickness,
by V. G. D'yachkov, 7 pp.
RUSSIAN, per, Voprosy Nevrokhirurg, Vol XXVII, No 6,
1963, pp 6-11.

JPRS 23544

Scientific
Biological & Medical Sciences (Contd)

Perspectives for the Development of the Biological Trend
in Scientific Research Work in Neurosurgery, by
B. G. Yegorov, 7 pp.

RUSSIAN, per, Voprosy Nevrokhirurg. Vol XXVIII,
No 1, 1964, pp 1-5.

JPRS 23738

The Frequency of Myeloid Leukoses in Mice Depending
on the Dose of External Gamma Radiation, by
R. V. Smirnov, 11 pp.

RUSSIAN, per, Voprosy Onkologii, Vol VIII, No 10, 1962,
pp 59-64. 9219767

AEC-Tr-6234

Reduction in Dopane Toxicity With Aminoethylisothionium
AETH in Experiments on Monkeys, by I. G. Spasskaya,
G. N. Platonova, et al, 5 pp.

RUSSIAN, per, Voprosy Onkologii, Vol IX, No 12, 1963,
pp 44-46.

JPRS 23568

Selected Articles From the Russian Periodical
Zhur Mikrobiol, Epidemiol, i Immunobiol.

No 11, 1962, pp 123-126. 9220093

USDA Tr V-1888

Simple Method of Increasing the Toxigenic and
Immunogenic Properties of Cl. Tetani Strains
by Cultivation in the Body of Laboratory Animals,
by A. Yu. Illyutovich.

No 2, 1963, pp 88-93. 9220101

USDA Tr V-1896

Serological Investigations in Plague. V. Methods
of Accelerated Selection of Pasteurella Pestis
Strains by the Yield of Fraction I, by M. I. Levi,
A. G. Momot.

No 5, 1963, pp 48-51. 9220119

USDA Tr V-1867

Natural Tularemia Foci in Khabarovsk Krai, by
P. V. Abushkevich, N. S. Belyayeva, et al.

No 12, 1963.

*USDA

A Study of the Method of Mass Aerosol Immunization
With the Powder Plague Vaccine, by N. I. Aleksandrov,
(pp 22-28).

A Comparative Study of Virulent and Vaccinal Strains of
F. Tularensis in the Tissue Culture of Human Embryo,
by Yu. M. Fedotova, (pp 84-88).

Materials on Epidemiology and Clinical Picture of
Anthrax, by A. Ya. Zaporozhchenko, (pp 117, 118).

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Periodical
Zhur Mikrobiol, Epidemiol, i Immunobiol. (Contd)

No 1, 1964.

*USDA

The Nonspecificity of the Indirect Hemagglutination Reaction in Botulin Detection in Food, by T. I. Bulatova, (pp 96-101).

Nitrogenous Substance Changes in the Nutritive Broths Prepared From the Dry KPD Preparation Following Culturing of Clostridium Botulinum of the A, B, C and E Types, by L. G. Ivanova, T. I. Sergeyeva, (pp 101-108).

Search for Effective Chemical Vaccines Against Some Zoonoses. Communication VI. Experiences in Obtaining Chemical Anthrax Vaccine in Semi-Industrial Conditions, by N. I. Aleksandrov, et al, (pp 119-125).

The Role of Birds in the Circulation of the Tick Typhus Causative Agent in Nature, by G. P. Somov, G. M. Soldatov, (pp 126-129).

Serological Investigations in Plague. Communication XIV. Trial of Some Serological Reactions in Epizootologic Examination in the Natural Plague Foci, by Yu. G. Suchkov, (pp 135-141).

Experience With the North-Asia Tick Rickettsiosis Pathogen Growing in a Tissue Culture, by V. A. Silich, (pp 141, 142).

No 2, 1964.

*USDA

The Efficacy of Various Methods of Vaccination Against Tularemia, by V. P. Motornaya, (pp 43-48).

Recording of Epidemiological Efficacy in Brucellosis Vaccination, by M. P. Kozlov, (pp 60-64).

On the Possibility of Simultaneous Vaccination Against Tularemia and Smallpox in Experiments, by R. A. Savel'yeva, (pp 85-88).

Brucellosis Lesions in the Spine and the Sacroiliac Joints in Rabbits Following Repeated Reinfection, by D. P. Mergol'd, (p 143).

Brucellosis Spread in the Armenian SSR and Measures of Its Control, by A. G. Mnatsakanyan, (p 149).

Scientific
Biological & Medical Sciences (Contd)

- Certain Problems of the Organization of Neuropsychiatric Aid, by E. A. Babayan, A. N. Serebryakova, 7 pp.
RUSSIAN, per, Zhur Nevropatol i Psikh imeni S. S. Korsakova, Vol LXIV, No 1, 1964, pp 137-141. JPRS 23446
- Microsociology and Psychiatry, by V. M. Morozov, 12 pp.
RUSSIAN, per, Zhur Nevropatol i Psikh imeni S. S. Korsakova, Vol LXIV, No 1, 1964, pp 142-147. JPRS 23447
- Resolution of Fourth All-Union Congress of Neuropathologists and Psychiatrists, 17 pp.
RUSSIAN, per, Zhur Nevropatol i Psikh imeni S. S. Korsakova, Vol LXIV, No 1, 1964, pp 148-155. JPRS 23460
- Transmission of Excitation by Electric Current in Plants, by Low Chen-huo, 10 pp.
RUSSIAN, per, Zhur Obshch Biol, Vol XIX, No 5, 1958, pp 329-337. OTS 63-11035
PL-480
- Natural Radiomimetic and Its Effect on Various Biological Objects and Systems, by Yu. B. Kudryashov, G. I. Gasanov, et al, 19 pp.
RUSSIAN, per, Zhur Obshch Biol, Vol XXV, No 1, 1964, pp 3-16. JPRS 23507
- A Few Comments on the Problem of Systemic Organization in Theoretical Biology, by B. G. Ioganzen, 5 pp.
RUSSIAN, per, Zhur Obshch Biol, Vol XXV, No 1, 1964, pp 18-21. JPRS 23514
- Present Status of the Problem of Cancer Chemotherapy, by Ye. I. Khomchenovskiy, K. I. Karpavichus, 81 pp.
RUSSIAN, per, Zhur Vses Khim Obshch imeni D. I. Mendeleeva, Vol VIII, No 4, 1963, pp 424-448. JPRS 23440
- Selected Articles From the Russian Periodical Zool Zhur.
- Vol XL, No 12, 1961, pp 1883-1891. 9220094
Migrations of Water Voles, *Arvicola Terrestris* L. and Their Role in the Formation of Tularemia Epizooties, by V. A. Kraft. USDA Tr V-1889
- Vol XLI, 1962.
An Evaluation of Existing Census Methods for the White Sea Harp Seal and Reflections on the State of the Stock, by Yu. I. Nazarenko. Dept of Interior
OH 301 C273 No 459

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Russian Periodical
Zool Zhur. (Contd)

- Vol XLIII, No 1, 1964. JPRS 23674
Dependence of the Biomass and the Outflow of the
Volga Zooplankton Upon the Main Environment Factors,
by Yu. P. Rukhlyadev, 22 pp, (pp 3-15).
- Zoological Investigation During the 35th Cruise
of the Expeditionary Vessel Vityaz in the
Eastern Part of the Indian Ocean, by A. P. Kuznetsov,
N. V. Parin, 9 pp, (pp 154-158).
- Long Term Development of Dentistry in Bulgaria, by
Ivan Angelov, 8 pp.
BULGARIAN, per, Stomatologiya, No 6, Nov, Dec 1963,
pp 2-9. JPRS 23461
- China's Economic Fauna: Birds, by Cheng Tso-hsin,
967 pp.
CHINESE, monograph, Chung-kuo Ching-chi Tung-wu
Chih - Niao Lei, Peiping, Mar 1963, pp 1-694. JPRS 23630
- Replantation of Forearm After Total Amputation
Due to Injury Report on a Successful Case, by
Ch'en Chung-wei, Pao Yueh-se, 9 pp.
CHINESE, per, Chung-hua Wai-k'o Tsa-chih, Vol XI,
No 10, 1963, pp 767-770. JPRS 23711
- Variations in Drug Resistance of Etiologic Bacteria
in Surgical Infections, by Wei Hsi-yuan, Wang Pang-ying,
13 pp.
CHINESE, per, Chung-hua Wai-k'o Tsa-chih, Vol XI,
No 11, 1963, pp 893-895. JPRS 23742
- The Clinical Application of Fluothane Anesthesia,
by Chang Hsin, Chin Ping, et al, 14 pp.
CHINESE, per, Chung-hua Wai-k'o Tsa-chih, Vol XI,
No 11, 1963, pp 914-916. JPRS 23742
- Pathogenicity of Different Strains of Japanese B
Encephalitis Virus Isolated From Human, Swine and
Mosquitoes, by Huang Chen-hsiang, T'ai Ying, 13 pp.
CHINESE, per, Wei-sheng-wu Hsueh-pao, Vol VI, No 1,
Feb 1958, pp 42-46. JPRS 23665
- The Influence of the Environment on the Development
of Parasitic Worms, by Hans Engelbrecht.
CZECH, per, Ceskoslovenska Parasitologie, Vol X,
1963, pp 73-80. Fisheries Res
Bd Canada,
Nanaimo Station

Scientific
Biological & Medical Sciences (Contd)

Revision of Fish Helminthofauna From the Territory of Czechoslovakia. 1. Genus Crepidostomum Braun 1900, by Radim Ergens.
CZECH, per, Ceskoslovenska Parasitologie, Vol X, 1963, pp 81-88.

Fisheries Res
Bd Canada,
Nanaimo Station

Bacteria and Viruses of Respiratory Infections. Experiences in Three Years of Examinations of Military Personnel, by Z. Dinter, et al, 11 pp.
DANISH, per, Nordisk Medicin, Vol LXIX, 1963, pp 165-168.

NIH 1-12-64

The Submicroscopic Structure of the Intestinal Cell of Ascaris Suilla. Electron Microscope Analysis. Parts I and II, by L. H. Bretschneider, 19 pp.
DUTCH, per, Koninklijke Nederlandse Akademie Van Wetenschappen, Vol LVII, 1954, pp 524-539.

NIH 1-2-64

Relationships Between Cortical and Reticular Activity, by M. Bonvallet, 21 pp.
FRENCH, per, Actualites Neurophysiologiques, Vol I, 1959, pp 166-181.

NIH 1-9-64

Temporary Paralysis of the Eyelids During Cataract Operation, by H. Villard, 21 pp.
FRENCH, per, Annales D'Oculistique, Vol CLVI, 1919, pp 352-364.

Navy Tr 3747
NMS 853

Allergical Parotitis, by E. Eliachar, 12 pp.
FRENCH, per, Annales de Pediatrie, Vol IX, No 10, 1962, pp 506-509.

Navy Tr 3746
NMS 852

Comparison Between the Influence of Nitrate and Ammonia Nutrients, Combined, With or Without Phosphoric Acid Deficiency, on the Absorption and Metabolism of Anions and Cations and More Particularly of Organic Acids in Maize. Comparison Between Maize and Tomato in Regard to the Nature of Nitrogen Supplies, by Y. Coic, et al.
FRENCH, per, Annales de Physiologie Vegetale, Vol III, No 3, 1961, pp 141-163.

CSIRO/No 6173

Study on Calcium Metabolism in Man by the Use of Calcium 45. Syndromes of Intestinal Malabsorption, by Gerard Milhaud, et al, 9 pp.
FRENCH, per, Archives des Maladies de l'Appareil Digestif et de la Nutrition, Vol LII, No 4, 1963, pp 309-315.

NIH 1-3-64

Nervous Regulations of the Cortical Activity, by F. Bremer, 17 pp.
FRENCH, per, Archives Suisses de Neurologie, Neurochirurgie et Psychiatrie, Vol LXXXVI, No 1, 2, 1960, pp 34-48.

NIH 1-13-64

Scientific
Biological & Medical Sciences (Contd)

Pre-Cancerous Stages in the Genesis of Hepatomas Induced by Butter Yellow. Obtaining Positive Grafts by Starting With a Donor Without Symptoms of Malignancy, by C. Theret, 9 pp.

FRENCH, per, Bulletin du Cancer, Vol XLIV, No 1, 1957, pp 197-202.

NIH 1-5-64

Contribution to the Study of Hepialidae 21st Paper, Description of a New Species *Endoclitia Javaensis*, by P. Viette.

FRENCH, per, Bulletin of the Royal Belgian Institute of Natural Sciences, Vol XXVI, No 44, 1950.

NZDIA

The Formation of Growth Twins, by R. Kern, 42 pp.

FRENCH, per, Bulletin Societe Francaise de Mineralogie et Cristallographie, Vol LXXXIV, 1961, pp 292-311.

AEC-AI-Tr-13

Contribution to the Study of Hepialidae, 8th Paper, The Validity of the Genus *Zelotypia* Scott, by P. Viette.

FRENCH, per, Bulletin de la Societe Zoologique de France, Vol LXXIV, 1949.

NZDIA

Contribution to the Study of Hepialidae, 20th Paper, The Genus *Druceiella* Vtt, by P. Viette.

FRENCH, per, Bulletin de la Societe Zoologique de France, Vol LXXV, 1950.

NZDIA

Studies With Hemopoietin on White Rat. Arguments in Favor of Its Renal Origin, by J. M. Mantz, 7 pp.

FRENCH, per, Comptes Rendus des Seances Societe de Biologie et de ses Filiales, Vol CLIV, No 5, 1960, pp 1068-1071.

Navy Tr 3743
NMS 849

Favourable Effect of Posthypophysis Extracts on Organisms That are Affected by a Surplus of Sodium, by A. Baisset, et al.

FRENCH, per, Comptes Rendus, Societe de Biologie de Toulouse, Vol CLII, 1958, pp 1593-1597.

CSIRO/No 6336

Observations on the Anti-Dispic and Natri-Uretic Effect of the Anti-Diuretic Hormone in a Dog That is Given Salt Water to Drink, by A. Baisset, et al.

FRENCH, per, Comptes Rendus Societe de Biologie de Toulouse, Vol CLVI, 1962, pp 942-945.

CSIRO/No 6335

New Familial Disease Characterized by Congenital Cataract and Arrest of Somatoneuropsychic Development, by G. Marinesco, et al, 14 pp.

FRENCH, per, L'Encephale, Vol XXVI, No 2, 1931, pp 97-109.

NIH 1-24-64

Scientific
Biological & Medical Sciences (Contd)

Experimental Study of the Reticulocortical Interrelations.
Proposal of a Theory of Subjection of the Reticular
System to a Diffuse Cortical System, by A. Hugelin,
et al, 30 pp.

FRENCH, per, Journal de Physiologie, Vol XLIX, 1949,
pp 1201-1223.

NIH 1-17-64

The Evolution of Amphibious Operations, by L. Vauteri,
39 pp.

FRENCH, per, Revue Maritime, No 198, Apr 1963,
pp 414-437.

Navy Tr 3736
ONI 980

Contribution to the Study of Hepialidae, 22nd
Paper, Hepialidae in the Leiden Museum, by
P. Viette.

FRENCH, per, Zoological Bulletin, Vol XXXI, No 7,
1950.

NZDIA

Cacti and Succulents, by Walther Haage.
GERMAN, bk, 264 pp.

Dutton & Co

Adrenal Glands and Paraganglia, by
H. Berkelbach van der Sprenkel.

GERMAN, bk, Handbuch der Vergleichenden Anatomie
der Wirbeltiere, 1934, pp 777-802.

Fisheries Res
Bd Canada,
Halifax Station

Results of Recent Investigations on the Fat of
Marine and Freshwater Animals, by T. H. Khoe.
GERMAN, per, Archiv fuer Fischereiwissenschaft,
Vol XIII, No 1, 2, 1963, pp 9-21.

*Fisheries Res
Bd of Canada
Ottawa, Canada

Drug Damage in the Fetus and New Born, by
G. A. von Harnack, 7 pp.

GERMAN, per, Archiv fuer Kinderheilkunde, Vol CLXVI,
No 3, 1962, pp 209-215.

NIH 1-22-64

Theory of Electro-Osmosis, by A. Belluigi.
GERMAN, per, Die Bautechnik, No 5, 1960.

NZDIA

Some Modifications of the Intracapsular Cataract, by
K. Lindner, 10 pp.

GERMAN, per, Bericht und Versamml die Deutsche
Ophthalmologische Gesellschaft, Vol LII, 1938,
pp 392-400.

Navy Tr 3740
NMS 846

A Method for the Determination of the Fatty Acids
of the Human Blood, With Particular Reference to
the Fatty Acids Which Occur in Small Quantities,
by A. Glaser, G. Grimmer, et al.

GERMAN, per, Biochemische Zeitschrift, Vol CCCXXXVI,
1962, pp 274-280.

Fisheries Res
Bd Canada,
Halifax Station

Scientific
Biological & Medical Sciences (Contd)

- A Contingency Table With Missing Data, by
E. Batachelet, 9 pp.
GERMAN, per, Biometrische Zeitschrift, Vol II,
No 2, 1960, pp 236-243. NIH 1-26-64
- Experience With the ASTM Soil-Block Technique for
Testing Fungicidal Effectiveness, by G. Theden.
GERMAN, per, Deutsche Gesellschaft fuer
Holzforschung, No 48, 1961, pp 9-13. CSIRO/No 6238
- Fungicidal Effectiveness of Various Coal-Tar
Creosotes, by G. Schulz, K. Starfinger.
GERMAN, per, Deutsche Gesellschaft fuer
Holzforschung Mitteilung, No 48, 1961,
pp 53-56. CSIRO/No 6239
- The State of a Fish's Body Considered as a Reflection
of Its Inheritance, Vitality and Environment, by
F.W.F. Morawa.
GERMAN, per, Fette-Seifen-Anstrichmittel, Vol LXIV,
No 2, 1962, pp 128-133. Fisheries Res
Bd Canada,
Halifax Station
- Eicosapentaenoic and Docosahexaenoic Acid in Cuttle-Fish
Oil, by Y. Toyama, T. Takagi.
GERMAN, per, Fette-Seifen-Anstrichmittel - Die
Ernahrungsindustrie, Vol LXIV, No 2, 1962, pp 134-137. Fisheries Res
Bd of Canada,
Biol Station,
Series No 449
- Renal Shock, by H. H. Edel, 55 pp.
GERMAN, per, Internist, 1962, pp 531-543. Navy Tr 3739
NMS 845
- On the Orientation of Indigenous Simuliids to Mammalian
Hosts, by P. Wenk.
GERMAN, per, Naturwissenschaften, No 7, 1962, pp 165, 166. NRC/Ref: C-4380
- Experiments for the Study of the Auxin Transport in
the Colcoptile of Zea Mays L, by R. Hertel,
A. C. Leopold, 31 pp.
GERMAN, per, Planta, No 59, 1963, pp 535-562. AEC-Tr-6261
- New Experiences With Midwater Trawls July to
December, 1962, by J. Scharfe, R. Steinberg.
GERMAN, per, Protokolle zur Fischereitechnik,
Vol XXXVII, No 8, 1963. *Ministry of Agri
- Behavior of Fish Schools During Capture With
Pelagic Trawls, by H. Mohr.
GERMAN, per, Protokolle zur Fischereitechnik,
Vol XXXVII, No 8, 1963. *Ministry of Agri

Scientific
Biological & Medical Sciences (Contd)

On the Invasion of the Odontoblast Nuclei in the Dentine Canals in Non Inflammatory Pulp, by Basel Von Erika Siegtist.
GERMAN, per, Schweiz Monatsschrift fuer Zahnheilkunde, Vol LIV, 1944, pp 267-282.

*Navy/NMS

Water Content and Osmoregulation of Plaice and Flounder, by J. Henschel.
GERMAN, per, Wissenschaftlich Meeresuntersuchungen Kiel, Vol XXII, pp 1934-1936.

*Ministry of Agri

From a Mosquito Field Station, by Fritz Eckstein, 9 pp.
GERMAN, per, Z fuer Angewandte Entomologie, Vol VI, No 2, 1920, pp 343-348.

NIH 1-19-64

Functional Subaortic Stenosis Due to Cardiomyopathy of Unknown Origin. Clinical and Hemodynamic Observations in Two Patients, by A. J. Beuren, et al, 10 pp.
GERMAN, per, Z fuer Kreislaufforschung, Vol L, 1961, pp 1162-1169.

NIH 1-10-64

Mikulicz's Disease and Allergic Parotitis and Its Possible Relationship to Systemic Disease, by Ottomer Neuss, 11 pp.
GERMAN, per, Z fuer Laryngologie, Vol XLIII, 1955, pp 308-311.

Navy Tr 3742
NMS 848

The Constitution of Ganglioside G_{II}, G_{III} and G_{IV}, by R. Kuhn, 7 pp.
GERMAN, per, Z fuer Naturforschung, Vol XVIIIB, No 7, 1963, pp 541-543.

NIH 1-6-64

Studies on the Determination of Body Components in Live Pigs by Means of 40K Gamma Radioactivity Measurements, by A. Pfau, et al, 22 pp.
GERMAN, per, Z fuer Tierzuchtung und Zuchtungsbiologie, Vol LXXVIII, No 2, 1963, pp 179-195.

NIH 1-25-64

On the Question of the Colouring and Marking of the Compound Insect Eye, by F. Friza.
GERMAN, per, Z fuer Vergleichende Physiologie, Vol VIII, No 2, 1929, pp 289-300.

CSIRO/No 6550

Biological Researches on the Hog-Louse Haematopinus Suis L. Under Special Considerations of Sensory Physiology, by Heinza Weber, 24 pp.
GERMAN, per, Z fuer Vergleichende Physiologie, Vol IX, No 4, 1929, pp 564-612.

NIH-1-20-64

Scientific
Biological & Medical Sciences (Cont'd)

The Importance of Test Tube Methods in the Field of Industrial Medicine, by Karl Grosskopf.
GERMAN, per, Zentralblatt fuer Arbeitsmedizin und Arbeitsschutz, Vol XI, No 7, 1961, pp 157-163.

*ACSI I-4334
ID 2204007364

Form and Size of the Sacculus-Otolith of the Gadidae, by A. F. Werner.
GERMAN, per, Zoologischer Anzeiger, Vol CLXX, No 7, 8, 1963, pp 282-288.

*Ministry of Agri

Annual Report of the Leadership of the Biological Sciences Department Within the Hungarian Academy of Sciences, by Bruno F. Straub, 52 pp.
HUNGARIAN, per, A Magyar Tudomanyos Akademia Biologiai Tudomanyok Osztalyanak Kozlemenyei, Vol VI, No 3, 4, 1963, pp 173-215.

JPRS 23481

Concerning a Lipid Component of Arterial Tissue. Histochemistry and Microscopy by Fluorescence, by V. Preto Parvis, A. Ugo.
ITALIAN, per, Bollettino Soceita Italiana di Biologia Sperimentale, Vol XXXIX, 1963, pp 657-659.

*AEC

Contribution to the Study of Traumatic Hemobilia, by Raimondo Bariatti.
ITALIAN, per, Chirurgia e Patologia Sperimentale, No 11, 1955, pp 887-896.

*ACSI I-4331
ID 2204007064

Observations on the Bacterial Cycle of Sulphur, by S. Genovese.
ITALIAN, per, Giornale di Microbiologia, Vol V, No 6, 1958, pp 165-175.

GB/114/Anon/1049

Experiments in Oyster Culture, by Luis Castillo.
ITALIAN, per, Imprenta Cervantes, No 50, 1910.

Dept of Interior
QH301 C273 No 367

The Predstory and Competitive Relationships Among Fishes Caught in Waters Adjacent to Japan, by Takeyuki Dei.
JAPANESE, rpt, Bulletin of the Tokai Regional Fisheries Research Laboratory, No 32, 1962, pp 39-121.

Fisheries Res
Bd of Canada,
Biol Station

The Specific Gravity of Mature Eggs of Cod, by Asamu Tamura.
JAPANESE, rpt, Japan Sea Regional Fisheries Research Laboratory on the Third Anniversary of Its Founding, 1952, pp 271-275.

Fisheries Res
Bd Canada,
Nanaimo Station

The Development and Rearing of Hatched Larvae of North Pacific Cod, by Gataro Yamamoto, Chuza Nishioka.
JAPANESE, rpt, Japan Sea Regional Fisheries Research Laboratory on the Third Anniversary of Its Founding, 1952, pp 301-308.

Fisheries Res
Bd Canada,
Nanaimo Station

Scientific
Biological & Medical Sciences (Contd)

Lipids of Flounder. IV. Lipids of the Flounder, Hippoglossoides dubius, by Hisanao Igarashi, Keichi Zama, JAPANESE, per, Bulletin of the Faculty of Fisheries, Hokkaido University, Vol XIV, No 2, 91-94.

*Fisheries Res
Bd, Canada

Studies on the Fishing Conditions of Dolphins, Coryphaena hippurus L., in the Western Region of the Sea of Japan III. Food Contents of the Dolphin, by S. Kojima.

JAPANESE, per, Bulletin of the Japanese Society of Fisheries, Vol XXVII, No 7, 1961.

NZDIA

Sperm Oil, by Hisashi Fujii.

JAPANESE, per, Bulletin of the Japanese Society of Scientific Fisheries, Vol XXIX, No 9, 1963, pp 889-898.

*Fisheries Res
Bd of Canada
Ottawa, Canada

Hydrocarbons in Pollack Liver Oil, by Isami Tsujino. JAPANESE, per, Bulletin of the Faculty of Fisheries, Hokkaido University, Vol XI, No 4, 1961, pp 222-224.

Fisheries Res
Bd Canada,
Halifax Station

The Predatory and Competitive Relationships Among Fishes Caught in Waters Adjacent to Japan, by Takeyuki Doi.

JAPANESE, per, Bulletin Tokai Regional Fisheries Research Laboratory, Vol XXXII, 1962, pp 49-118.

Fisheries Res
Bd Canada,
Nanaimo Station

The Heart-Rod Column of Large Diameter in a Preparative Gas Chromatograph and the Effect of an Evaporating Chamber, by Ken Kishimoto, Yoshikazu Yasumori. JAPANESE, per, Bunseki Kagaku, Vol XII, 1963, pp 125-130.

Fisheries Res
Bd Canada,
Halifax Station

Hard and Soft Faeces of the Rabbit and Their Relation to the Anal Gland Secretion and The Contents of the Caecum, by S. Takaki, M. Tagawa. JAPANESE, per, Japan Zoological Journal, Vol LXX, No 8, 1961, pp 248-252.

CSIRO/No 6446

Studies on the Curing of Tobacco Leaves. 1. Changes in Enzyme Activities During the Curing, by H. Tomita, E. Tamaki.

JAPANESE, per, Journal of the Agricultural Chemical Society, Vol XXXVI, No 8, 1962, pp 704-710.

CSIRO/No 6322

Vernacular and Japanese Names of Palmae in the Palau Islands, by Takasi Tuyama.

JAPANESE, per, Journal of Japanese Botany, Vol XVII, 1941, pp 320-324.

Dept of Interior
209(900) qUn34pr
No 738

Scientific
Biological & Medical Sciences (Contd)

Discussion on the First Record of Santalum From
the Bonin Islands, by Takasi Tuyama.
JAPANESE, per, Journal of Japanese Botany, Vol XXVI,
No 4, 1951, pp 125-128.

Dept of Interior
209(900) qUn34pr
No 737

Studies on Biting of Fishes. I. On Feeding in the
Goldfish, by Teiji Kariya.
JAPANESE, per, Suisan Zoshoku, Vol VII, No 3, 1960,
pp 29-36

Dept of Interior
SH211 E82 No 519

Studies of Parasites of Salmonoid Fishes of Japan.
II. Bulletin of the Yokohama Municipal University
Society, by Fukui Tamao.
JAPANESE, per, Natural Science, Vol XII, No 2,
1961, pp 1-66.

Fisheries Res
Bd Canada,
Nanaimo Station

Protein Nucleric Acid Enzyme.
JAPANESE, per, Tampakushitsu Kakusan Koso, Vol VIII,
No 1, 1963, pp 20-25.

*ACSI I-4369
ID 2204008764
525th MI Gp

Isolation and Structure of the Eicosenoic, Decosenoic,
Octadecatetraenoic, Eicosapentaenoic and Decosahexaenoic
Acid in Skipper Oil, by Suketaka Ito, Kazuo Fukuzumi.
JAPANESE, per, Yukagaku, Vol XII, No 5, 1963, pp 24-29.

Fisheries Res
Bd Canada,
Halifax Station

Observations on Corticoid Hormones of the Suprarenal
Gland in Sheep Plasma, by P. Forsius, M. Haikonen.
NORWEGIAN, per, Nordisk Veterinarmedicin, Vol VII,
No 2, 1955, pp 154-156.

CSIRO/No 6384

The Growth and Seasonal Changes in Coats of Fur-Breed
Rabbits, by J. Gedymin.
POLISH, per, Poznanskie Towarzystwo Przyjaciol Nauk,
Vol II, No 5, pp 1-53.

CSIRO/No 6385

Traumatic Hemobilia, by Fabio Schmidt Goffi,
Synesio Oliveira Borges, et al.
PORTUGUESE, per, Revista Paulista de Medicina,
Vol LIV, No 6, 1959, pp 423-430.

*ACSI I-4338
ID 2204007764

Selected Articles From the Serbo-Croatian Periodical
Arhiv za Poljoprivredne Nauke, Vol XVI, No 51, 1963.

OTS 63-11453/1
PL-480

Investigation of the Economically Most Important
Virus Diseases of Raspberries in Yugoslavia, by
M. Jordovic, 25 pp, (pp 3-27).

Preparation of Antiserum for the Diagnosis of Certain
Potato Viruses, by M. Panjan, V. Lusin, 8 pp,
(pp 29-35).

Scientific
Biological & Medical Sciences (Contd)

Selected Articles From the Serbo-Croatian Periodical
Arhiv za Poljoprivredne Nauke, Vol XVI, No 51, 1963.
(Contd)

OTS 63-11453/1
PL-480

Period of Eclosion and the Reduction Role of Some
Species of the Corn Borer Parasites *Ostrinia*,
Pyrausta, *Nubilalis* Hb. in the Vicinity of Zemun, by
P. Bjegovic, B. Lazarevic, 14 pp, (pp 37-49).

Laboratory Test of the Reduction Capacity, and Some
Biological Characteristics of the Egg Parasites of
the Gypsy Moth, by P. Bjegovic, 6 pp, (pp 52-57).

Specificity of Strains of the Nodule Bacteria
Rhizobium sp., Isolated From Peanuts in Some
Parts of Yugoslavia, by Z. Saric, 18 pp, (pp 60-76).

Early Sowing as a Method of Obtaining Cotton Plants
Resistant to Low Temperatures, by B. Naumovic,
D. Dimitrijevic, 12 pp, (pp 79-90).

Chemical Changes in Brine During the Ripening
of Soft White Cheese, by Z. Zivkovic, 9 pp,
(pp 92-100).

The Value of a Terramycin Supplement in the Feed
of Suckling Lambs, by S. Jancic, 8 pp, (pp 124-130).

Alkaloids in Plants of the Canary Islands. VII.
Nicotiana glauca and *Nicotiana paniculata*, by
A. G. Gonzalez, F. Diaz Rodriguez, 14 pp.
SPANISH, per, Anales Sociedad Espanola de Fisica
y Quimica, Vol LVIIIb, 1962, pp 431-436.

SLA 63-18429

Dynamic Subaortic Stenosis. Its Clinical Diagnosis
and Diagnosis by External Graphic Methods, by
B. L. Fishleder, et al, 31 pp.
SPANISH, per, Cardiologia de Mexico, Vol XXXII, 1962,
pp 430-451.

NIH 1-4-64

The Position Up to Now of the Most Recent Findings on
the Avidity for Blood of the Mosquitoes *Aedes*
Aegypti *Queenslandensis*, by E. Pina de Grimaldo, et al,
8 pp.
SPANISH, per, Revista Iberica de Parasitologia, Vol XIX,
No 4, 1959, pp 417-425.

NIH 1-15-64

Subcutaneous Traumatic Liver Injuries, by Rudolf Brandberg.
SWEDISH, per, Nordisk Medicinsk Tidskrift, Vol IV,
No 9, 24 Sep 1932, pp 712-717.

*ACSI I-4332
ID 2204007164

Scientific
Biological & Medical Sciences (Contd)

Condition of Health and Frequency of Sicknesses
Among Swedish United Nation Troops in Gaza and
the Congo, by Elias Bengtsson, Lennart Hellstrom.
SWEDISH, per, Tidskrift i Militar Halsovard,
Vol LXXXVIII, No 3, 1963, pp 71-85.

*ACSI I-4406
ID 2204009064

Selected Articles From the Ukrainian Periodical
Fiziol Zhur Ak Nauk Ukrain RSR.

Vol VII, No 4, 1961, pp 569,570.
Method of Ballistocardiographic Study of Dogs,
by M. M. Povzhnikov.

JPRS 12869

Vol X, No 1, 1964.
Basic Features of the Physiological Structure of
the Living Cell, by D. S. Vorontsov,
O. O. Bogomolets, 24 pp, (pp 3-15).

JPRS 23612

Formation and Dynamics of Conditioned Inhibition
in Ontogeny in the Dog, by L. N. Kozlova, 16 pp,
(pp 38-46).

Conditioned Reflex Activity of Animals Revived After
Lethal Electric Trauma, by M. P. Adamenko,
A. P. Kovtun, 10 pp, (pp 47-53).

Scientific
Chemistry

Objects From Uranium Dioxide, by P. P. Budnikov,
A. S. Berezhnoy, 7 pp.

RUSSIAN, bk, Tekhnologiya Keramiki i Ogneuporov,
Gosstroyizdat, 1962, pp 396-399. 9691541

FTD-TT-63-1012

The Spectral and Photochemical Properties of
Water-Soluble Analogs of Chlorophyll, by

I. G. Savkina, V. B. Yevstigneyev, 17 pp.

RUSSIAN, per, Biofizika, Vol VIII, No 3, 1963,
pp 335-343. 9691547

FTD-TT-63-1008

Reversible Changes of pH Solution of Certain

Organic Substances During Exposure, by A. P. Terent'yev,
6 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol LXVIII, 1949,
pp 537-539.

AEC-UCRL-Tr-996(L)

Chlorination of n-Undecane, by V. A. Nekrasova,
N. I. Shuikin, 5 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol XCVII, No 5,
1954, pp 843-846.

Erica Stux

The Mechanism of the Radiolytic Oxidation of Divalent
Iron in Aqueous, Oxygen Containing Sulfuric Acid

Solutions at High Magnitudes of Absorbed Dose, by

A. K. Pikayev, P. Ya. Glazunov, et al, 8 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CL, 1963,
pp 1077-1080.

AEC-Tr-6178

Selected Articles From the Russian Periodical
Farmakolog i Toksikolog, Vol XXVI, No 6, 1963.

Analgesic and Antitussive Action of Certain Esters
of Diphenylalkoxyacetic Acid, by S. S. Liberman,
A. I. Polezhayeva, 9 pp, (pp 656-661).

JPRS 23490

A Comparative Evaluation of the Action of
Cholinergic Compounds Hexamethonium,
Fubromehan, and Quateleron on the Development
of Experimental Ulcers, by S. M. Lipovskiy, 6 pp,
(pp 684-687).

JPRS 23533

Certain Relationships Between Structure and
Curareform Action in a Series of Bis-Quaternary
Derivatives of Cyclobutanedicarboxylic Acids, by
D. A. Kharkevich, L. A. Kravchuk, 8 pp,
(pp 702-707).

JPRS 23533

Scientific
Chemistry (Contd)

Selected Articles From the Russian Periodical
Farmakolog i Toksikolog, Vol XXVI, No 6, 1963. (Contd)

The Pharmacological Characteristics of Cystamine,
by Yu. Ye. Strel'nikov, 8 pp, (pp 732-737). JPRS 23533

The Antiradiation Action of Low-Molecular Narcotics,
by V. P. Paribok, G. F. Krupnova, 11 pp,
(pp 737-742). JPRS 23533

The Effect of Lysergic Acid Diethylamide on Some
Aspects of Behavior in Mice and Rats, by
G. I. Mil'shteyn, K. A. Laricheva, 7 pp, (pp 753-756). JPRS 23533

Tetrahydropyran as Solvent in the Reduction of
Carbonyl Compounds, by S. A. Giller, G. P. Sokolov,
6 pp.
RUSSIAN, per, Iz Ak Nauk Latvyskoy SSR, No 2(139),
1959, pp 85-90. ATS-70Q71R

Biochemical Changes in Meat Resulting From
Ionizing Radiation, by V. V. Pal'min, 5 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, No 2, 1962,
pp 76-81. ACSI I-3918
ID 2253819

Separation of Finely Dispersed Powder Fractions in
a Series of Cyclones, by R. S. Frayman, V. G. Syrkin,
et al, 8 pp.
RUSSIAN, per, Khim Prom, No 7, 1961, pp 494-498. ATS-21Q71R

Investigating Low-Sulfur Extracts of Selective Oil
Purification and the Product of Their Thermal Cracking,
by V. I. Zavidov, Z. V. Fedorova, 9 pp.
RUSSIAN, per, Khim i Tekh Toplivi i Masel, No 9, 1963,
pp 23-27. 9691543 FTD-TT-63-1152

The Study of Aromatic Substances in Tobacco, by
V. Chenikov, I. Tsonev.
RUSSIAN, per, Tabak, Vol XXIII, No 2, 1962,
pp 47-52. CSIRO/No 6249

Possibility and Expedience of Loose Wool Dyeing in the
Carbonizer, by A. Matetskiy.
RUSSIAN, per, Technology of the Textile Industry, No 1,
1963, pp 118-122. CSIRO/No 6533

Heat Transfer in Film Boiling of a Steam-Water Mixture
in Steam-Generating Tubes, by A. L. Miropol'skiy, 10 pp.
RUSSIAN, per, Teploenergetika, Vol X, No 5, 1963,
pp 49-52. AEC-Tr-6252

Scientific
Chemistry (Contd)

Electric Conductance and Its Nature in the $\text{CeO}_2\text{-BeO}$,
 $\text{CeO}_2\text{-MgO}$, $\text{CeO}_2\text{-CaO}$, $\text{CeO}_2\text{-SrO}$, and $\text{CeO}_2\text{-BaO}$, by
A. D. Neuymin, S. F. Pal'guyev.

RUSSIAN, per, Trudy Inst Elektrokhim Ural Filial
Ak Nauk SSSR, No 3, 1962, pp 141-147.

*ACSI I-4321
ID 2204006864

Correlation Between Electromotive Forces of
Chemical Cells and Jacobi-Daniel Cells in Melts,
by B. F. Markov, 10 pp.

RUSSIAN, per, Ukrain Khim Zhur, Vol XXI, No 1,
1955, pp 21-26.

K-H 5114 b

Linear, Polyfluorinated, Analogous, Bifunctional
Compounds as Potential Monomers, by I. L. Knunyants,
Li Chzh-yan.

RUSSIAN, per, Uspekhi Khim.

*Redstone Arsenal

Kazakh Scientific Achievements, by B. A. Beremzhanov,
6 pp.

RUSSIAN, per, Vest Vysshey Shkoly, No 1, 1958, pp 38-41.

JPRS 23680

Study of Structure Formation and Enzymatic Activity
of Pepsin and Trypsin Fragments During Autolysis
and Electrodialysis, by Z. A. Kapralova, S. Ya. Mirlina,
et al, 8 pp.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol V, No 12, 1963, pp 1870-1874.

JPRS 23373

Reactions of a Hydroxyl With Molecules of Various
Gases, by L. I. Avramenko, R. V. Lorentso.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIV, No 2, 1950,
pp 207-213.

*Navy/APL J344

Sensitization of the Photoconductivity of Silver
Iodine by Organic Dyes, by A. G. Gol'dman,
I. A. Akimov, 7 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVII, No 3,
1953, pp 355-361.

ATS-05Q72R

Catalytical Saponification of Chlorobenzene With
Steam, by D. V. Tishchenko, A. M. Churbakov, 9 pp.
RUSSIAN, per, Zhur Prikl Khim, Vol VII, No 5, 1934,
pp 764-769.

OTS 63-18540

Vapor-Phase Hydrolysis of Chlorobenzene, by
D. Tishchenko, R. Gutner, et al, 22 pp.

RUSSIAN, per, Zhur Prikl Khim, Vol VIII, No 4, 1935,
pp 685-694.

OTS 63-18541

Scientific
Chemistry (Contd)

The Principle of Gas Centrifugal Separation and
Its Applications in Isotopic Separation, by
Kan Huai-hsin, 22 pp.
CHINESE, per, Hua-hsueh T'ung-pao, No 10, 1961,
pp 534-539.

JPRS 23767

Beckmann Rearrangement of Cyclohexanone Oxime.
Kinetics of the Termination of the Reaction,
Part I, by O. Wichterle, J. Rocek, 7 pp.
CZECH, per, Chemicke Listy, Vol XLV, 1951,
pp 257-259.

ATS-18Q69C

Aromatic Diazo and Azo Compounds XXXIX.
Chromatographic Structure Analysis of Synthetic
Dyes, by J. Panchartek, Z. J. Allan, et al.
CZECH, per, Collection of Czech Chem Comm, Vol XXV,
No 10, 1960, pp 2783-2798.

Patent Office

Justified Application of Chile Saltpeter, 5 pp.
DUTCH, per, Maandblad voor de Landbouwvoorlich-
tingsdienst, Vol IX, No 12, 1952, pp 454, 455.

SLA 63-16057

Actinium, by G. Bouissieres, 15 pp.
FRENCH, rpt, Nouveau Traite de Chimie Minerale. Tome,
VII Deuxieme Fascicule, 1959.

AEC-MLM-1147 (TR)

Contribution to the Study of Sorption in Textile Fibres,
by J. Chabert, J. Diemunsch.
FRENCH, per, Bulletin Institut Textile de France, No 99,
1962, pp 205-263.

CSIRO/No 6206

Note on the Double Refraction Artificially Produced
in Regular-System Crystals, by M. G. Wertheim.
FRENCH, per, Comptes Rendus, Vol XXX, 1851, pp 576-579.

*Redstone Arsenal

Second Note on the Double Refraction Artificially
Produced in Regular-System Crystals, by M. G. Wertheim.
FRENCH, per, Comptes Rendus, Vol XXXV, 1852, pp 276-278.

*Redstone Arsenal

Effect of Adding Certain Mineral Salts on the
Precipitation of Calcium Phosphate, by L. Andres, et al.
FRENCH, per, Comptes Rendus, Vol CCXXXIV, 1952,
pp 2282-2287.

CSR

Contribution to the Study of the Escape of Fission
Gases From Irradiated Sintered Uranium Oxide, by
J. L. Berry, R. Darras, et al, 27 pp.
FRENCH, per, Journal of Nuclear Materials, Vol VIII,
1963, pp 102-115.

AEC-Tr-6242

Scientific
Chemistry (Contd)

Compatibility of Stainless Steels With Carbon Dioxide at Elevated Temperatures, by H. Loriers, D. Leclerco. FRENCH, per, Memoires Scientifiques Revue Metallurgie, Vol LX, No 3, 1963, pp 177-188. *BISI 3596

Improvement in the Treatment of Rubber, 17 pp. FRENCH, Patent No 712,775, 1931. OTS 63-18185

Process for Preparation of Esters and New Industrial Products Resulting Therefrom, 6 pp. FRENCH, Patent No 752,150, 1933. OTS 63-18188

Process for Recovery of Condensing Agents, 6 pp. FRENCH, Patent No 827,469, Apr 1938. OTS 63-18201

Process for the Synthesis of Various Organic Compounds From Methane, by E. Slatineanu, 10 pp. FRENCH, Patent No 1,168,051, Dec 1958. ATS-62Q71F

Process for the Continuous Evacuation of Hot Gases Containing Titanium Dioxide, Apparatus for Carrying Out This Process, and Products Obtained, by J. M. Robert, L. M. Andre, 14 pp. FRENCH, Patent No 1,307,280, Sep 1962. OTS 63-18898

Synthetic Poisons: Chemistry, Effects and Military Significance, by Karlheinz Lohs, 286 pp. GERMAN, bk, Synthetische Gifte: Chemie, Wirkung und Militarische Bedeutung, Berlin, 1963, pp 1-414. JPRS 23681

Modern Methods of Computing and Requirements for Shear Interferometric Precision Determinations of Diffusion Coefficients, by Olof Bryngdahl, Stig Ljunggren. GERMAN, per, Acta Chemica Scandinavica, Vol XVI, 1962, pp 2162-2176. Dept of Interior ACS E57 No 63

Six Membered and Eight Membered Ring System in Sulphur Chemistry, by Margot Becke-Gohring, 40 pp. GERMAN, per, Angewandte Chemie, Vol LXXIII, 1961, pp 589-597. SLA 63-18761

The Use of High Frequency Plasma Flames as Light Source for Spectrochemistry, by J. van Calker, W. Tappe. GERMAN, per, Archiv fuer Eisenhuettenwesen, Vol XXXIV, No 9, 1963, pp 679-683. BISI 3544

Action of Sulfuryl Chloride Upon Aromatic Hydrocarbons, by A. Tohl, O. Eberhard, 5 pp. GERMAN, per, Berichte, Vol XXVI, No 3, 1893, pp 2940-2945. 9218749 AEC-Tr-6105

Scientific
Chemistry (Contd)

The Results From Coke Microscopy in Relation to the Position of the Coke Lumps in the Coke Oven Chamber, by M. U. Otte.

GERMAN, per, Brennstoff-Chemie, Vol XLIV, No 5, 1963, pp 144-149.

BISI 3422

Systox Information -- Application of the Test Tube Technique in Toxicological Chemistry, by Karl Grosskopf.

GERMAN, per, Chemiker-Zeitung, Vol LXXXIII, No 4, 1959, pp 115-117.

*ACSI I-4335
ID 2204007464

Preparation of Actamethyl Sucrose, by H. Brederick.

GERMAN, per, Chemische Berichte, Vol LXXXVII, 1954, pp 35-37.

CSIRO/No 6388

Application of Gas Chromatography in the Field of Fats II, by H. P. Kaufmann, A. Seher, et al.

GERMAN, per, Fette-Seifen-Anstrichmittel, Vol LXIV, No 6, 1962, pp 501-509.

Fisheries Res Bd
Canada, Halifax Stat

The α -Glyceryl Ethers of Cod-Liver Oil, by A. Emmerie, C. Engel.

GERMAN, per, Fette-Seifen-Anstrichmittel, Vol LXIV, No 9, 1962, pp 813-816.

Fisheries Res Bd
Canada, Halifax Stat

Argon Determinations on Potassium Minerals - IX Measurements for the Various Types of Argon Diffusion, by H. Fechtig, W. Gentner, et al.

GERMAN, per, Geochimica et Cosmochimica Acta, No 25, 1961, pp 297-310.

NZDIA

Apparatus for Measurement of Sorption Kinetics and a Micro-Method for the Measurement of Sorption Isotherms, by A. Hofer, H. Mohler.

GERMAN, per, Helvetica Chimica Acta, Vol XLV, No 5, 1962, pp 1415-1418.

CSIRO/No 6221

On the Reactivity of Polycyclic Quinones, by

H. Hopff, H. Schweizer.

GERMAN, per, Helvetica Chimica Acta, Vol XLV, No 123, 1962, pp 1044-1064.

CSIRO/No 6135

Contribution to the Chemistry of the Si-N Bond, I. Preparation and Decomposition of Cyclic N-Silylated Silazanes, by Walter Fink, 11 pp.

GERMAN, per, Helvetica Chimica Acta, Vol XLV, No 127, 1962, pp 1081-1089. 9691148

DDC RSIC-119

On the Composition of the Fatty Acid Mixture of Various Fish Oils, by E. Klenk, D. Eberhagen.

GERMAN, per, Hoppe-Seylers Zeitschrift fuer Physiologische Chemie, Vol CCCXXVIII, No 3-6, 1962, pp 180-192.

Fisheries Res Bd
Canada, Halifax Stat

Scientific
Chemistry (Contd)

Electrolytic Nature of Some Alkali Organic Compounds.
Part IV. Research on Alkali Organic Compounds, by
K. Ziegler, H. Wollschitt, 17 pp.

GERMAN, per, Justus Liebigs Annalen der Chemie,
Vol CDLXXIX, 1930, pp 123-134.

K-H 3456 c

The Surface-Tension of Refrigerants, of Lubricants
and of Their Mixtures, by H. Steinle, 16 pp.
GERMAN, per, Kaeltechnik, Vol XII, 1960, pp 334-339.

AEC-Tr-6241

Mg(OH)₂ Solubility, pH Values and Buffering in the
System H₂O-MgCl₂-Mg(OH)₂, by J. d'Ands, W. Katz, 19 pp.
GERMAN, per, Kali, Verwandte Salze und Erdol,
Vol XXXV, No 3, 1941, pp 37-41.

SLA 63-18133

Reinforcing Fillers for Rubber, by H. Westlinning,
26 pp.
GERMAN, per, Kautschuk und Gummi, Vol XV, No 12,
1962, pp 475-481.

K-H 12921

The Colloid Chemistry of Clays and Coalins, by
K. Nishikawa.
GERMAN, per, Kolloid Zeitschrift, Vol XXXVIII,
No 4, 1926, pp 328-333.

Natl Bu of
Stand

On Boiler Operation. Recent Observations and
Knowledge Concerning the Behavior of Ferritic and
Austenitic Boiler Steels, by I. Class, 22 pp.
GERMAN, per, Mitteilungen der Vereinigung der
Grosskesselbesitzer, No 80, 1960, pp 326-337.

AEC-TRG-Inf-
Ser-330

An Expanded Correspondence Principle for
Determining Variables of State, by U. K. Rombusch.
GERMAN, per, Sonderdruck aus Allgemeine Wärmetechnik,
Vol XI, No 3, 1962, pp 41-50.

*Redstone Arsenal

An Expanded Correspondence Principle for
Determining Variables of State, by U. K. Rombusch.
GERMAN, per, Sonderdruck aus Allgemeine Wärmetechnik,
Vol XI, No 8, 9, 1963, pp 134-145.

*Redstone Arsenal

On the Measuring and Calculation of the Resonance
Absorption of Gold, Uranium, and Thorium Foils,
by Manfred Brose, 27 pp.
GERMAN, per, Technische Hochschule.

AEC-Tr-6135

Continuous Dyeing of Wool Tops, by G. Egli,
M. Perrig.
GERMAN, per, Textil-Rundschau, Vol XVI, 1961,
pp 794-796.

CSIRO/No 6427

Scientific
Chemistry (Contd)

Investigations of the Solubility of Sulphur in
Pernax Slags System $\text{CaO-Al}_2\text{O}_3\text{SiO}_2$, by H. Saige.
GERMAN, per, Tonindustrie-Zeitung, Vol LXXXVI,
No 22, 23, Dec 1962, pp 586-589.

*BISI 3597

Determination of Nickel and Manganese With
Formaldoxine, by A. Okac, M. Bartusek, 7 pp.
GERMAN, per, Z fuer Analytische Chemie, Vol CLXXVIII,
1960, pp 198-201.

K-il 10895 a

Gas Chromatography of Ethylenedia-Minepiperazine
Mixtures, by A. Castiglioni.
GERMAN, per, Z fuer Analytische Chemie, Vol CLXXXII,
No 6, 1961, pp 428, 429.

GB/114/Anon/1062

Determination of Aldehydes, Hydroperoxides and
Organic Peroxides Side by Side in Aqueous Solutions, by
G. Nettesheim.
GERMAN, per, Z fuer Analytische Chemie, Vol CXCI,
No 1, 1962.

GB/28

The Chemistry of the Platinum Metals. Part V.
Equilibria With $\text{Ru}(\text{solid})$, $\text{RuO}_2(\text{solid})$, $\text{RuO}_3(\text{gas})$,
and $\text{RuO}_4(\text{gas})$, by H. Schafer, A. Tebben, et al, 17 pp.
GERMAN, per, Z fuer Anorganische und Allgemeine
Chemie, Vol CCCXI, No 1, 2, 1963, pp 41-55. 9219334

AERE-Harwell-
Tr-968

Oxygen Ion Conducting Solid Electrolytes and
and Their Application Possibilities, by
Hans-Heinrich Mobius.
GERMAN, per, Z fuer Chemie, Vol II, No 4, 1962,
pp 100-106.

*ACSI 1-4330
ID 2204006964

The Autoxidation of Unsaturated Fatty Acid Esters
in the Presence of Protons and Methanol, by
R. Schollner, R. Herzsuh.
GERMAN, per, Z fuer Chemie, Vol III, No 1, 1963,
pp 27, 28.

*Fisheries Res Bd
Canada

Methane Synthesis From Hydrogen and Carbon at High
Temperatures and Pressures, by K. Hodden.
GERMAN, per, Z fuer Electrochemie, Vol LXVI,
No 8, 9, 1962, pp 652-661.

Dept of Interior
TN7 E57 No 721

The Band Spectrum and the Dissociation Energy of
 C_2F , by Schmitz.
GERMAN, per, Z fuer Naturforschung, Vol IIa, 1947,
pp 359-362.

*Redstone Arsenal

Scientific
Chemistry (Contd)

Hydrothermal Reactions Between Calcium and Siliceous Materials at 120°-220°C, by G. O. Assarsson.
GERMAN, per, Zement Kalk Gips, Vol XIV, No 12, 1961, pp 537-544.

CSR

Superconducting Magnets, by G. Passotti, N. Sacchetti, et al, 17 pp.
ITALIAN, rpt, Comitato Nazionale per l'Energia Nucleare, Ispra, 23 Apr 1963.

AEC-A1-Tr-19

Researches in the Thiazole Series. Note II, by V. Bellavita, L. Vantaggi.
ITALIAN, per, Annali di Chimica Applicata, No 41, 1951, pp 194-198.

GB/2

Contribution to the Study of Organometallic Compounds, by L. Riccoboni, et al.
ITALIAN, per, La Ricerca Scientifica, Vol II, No 4, 1962, pp 323-331.

CSIRO/No 6397

Rapid Determination of Nitrogen in Nitrocellulose and Nitric Acid.
JAPANESE, per, Japan Analyst, Vol IX, 1960, pp 100-105.

*AEC

The Relation Between Molecular Weight and Fluid Viscosity of Polyacrylic-Acid-Methyl and Its Saponified Substances, by H. Ito, et al.
JAPANESE, per, Japanese Journal of Industrial Chemistry, Vol LIX, No 8, 1956, pp 930-932.

CSIRO/No 6898

Study Pertaining to the Reduction of Saccharide. Reduction by Cyclohexanol. Report No 1, by J. Ashida.
JAPANESE, per, Journal of the Agricultural Chemical Society of Japan, No 20, 1944, pp 621-624.

CSR

Neutron Shielding of Metals in Thermal Neutron Activation, by Yuichiro Kamemoto, Yoshihiro Onoda, 11 pp.
JAPANESE, per, Journal of the Chemical Society of Japan, Vol LXXXIII, 1962, pp 1164-1167. 9219729

AEC-SC-Tr-523

Preparation of Polyamides From Cyanoethylated Compounds of Bisphenols, by T. Aoto, T. Imoto, et al, 14 pp.
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXV, No 1, 1962, pp 132-136.

ATS-60Q71J

Scientific
Chemistry (Contd)

Electrolytic Conductivity of Fused Salts. Report 14,
by S. Shishido, 25 pp.
JAPANESE, per, Nihon Kagaku Zasshi, Vol LXIX, 1948,
pp 45-52.

K-II 3980 f

The Compositions of the Component Fatty Acids of
Several Fish Oils, by Suketaka, Kazuo Fukuzumi.
JAPANESE, per, Yakagaku, Vol XII, No 5, 1963,
pp 278-281.

Fisheries Res Bd
Canada, Halifax Stat

Method of Recovering Mixed Gas, by Eiji Ootsuka,
Masatoshi Yakabe, et al, 6 pp.
JAPANESE, Patent No 55, Jan 1959.

SA Code-P-190

Chemical and Physical Properties of the Solonchak
at Melenci and the Solonetz at Kumane Banat, by
V. Nikodijevic, 8 pp.
SERBOCROATIAN, per, Archiv za Poljoprivredne Nauke,
Vol XVI, No 51, 1963, pp 114-122.

OTS 63-11453/1
PL-480

Anti-Radiation and Anti-Oxidation Properties of
Certain Polyphenols, by V. A. Baraboy, B. Ya. Medovar,
9 pp.
UKRAINIAN, per, Ukrain Biokhim Zhur, Vol XXXV, No 6,
1963, pp 924-929.

JPRS 23567

Earth Sciences & Astronomy

Origin of Life in the Universe; Reports of the
Conference, by A. G. Masevich.
RUSSIAN, rpt, Astronomicheskiiy Soviet Komissiya po
Kosmogonii Ak Nauk SSSR, 1963, 95 pp.

*FTD-TT-64-290

Selected Articles From the Russian Book
Elektromagnitnoye Zondirovaniye i Magnito-Tellurgicheskiye
Metody Razredki, 1963.

JPRS 23548

The AMT-1 Highly Sensitive H-Magnetometer, by
V. P. Samoylenko, 7 pp.

A Highly Sensitive H-Magnetometer, by B. Ye. Bryunelli,
6 pp.

The Magneto-Telluric Method for Investigation
of the Upper Part of the Earth's Crust, by
N. P. Vladimirov, 7 pp.

Scientific
Earth Sciences & Astronomy (Contd)

Selected Articles From the Russian Book
Elektromagnitnoye Zondirovaniye i Magnito-Tellurgicheskiye
Metody Razredki, 1963. (Contd)

JPRS 23548

Magneto-Telluric Sounding in the Region of the
Central Russian Depression, by B. Ye. Bryunelli.
A. A. Kovtun, et al, 10 pp.

The Outlook for Deep Magneto-Telluric Sounding, by
A. N. Tikhovon, V. N. Lipskaya, et al, 9 pp.

Some Results of Observations With Electron Telescopes,
by P. V. Shcheglov, 46 pp.
RUSSIAN, bk, Elektronnaya Teleskopiya, 1963, pp 157-192.

JPRS 23570

Graphs and Maps for Estimating Climate Characteristics
of Variable Application for the European Part of the
USSR, by A. N. Lebedev.
RUSSIAN, rpt, Grafiki i Karty Dlya Rascheta
Klimaticheskikh Kharakteristik Razlichnoy, 1960,
pp 3-5; 7-17; 19-84 graphs & maps; 116.

*ACSI I-4319
ID 2204006764

Meteorology and the Pilot, 393 pp.
RUSSIAN, bk, Letchiku o Metcorologii, 1962, pp 1-313.
9691875-V.

FTD-TT-63-620

Practical Soil Science, by N. N. Nikol'skiy, 240 pp.
RUSSIAN, bk, Pochvovedenie, 1959.

OTS 63-11083
PL-480

Method of Underwater Detection Based on the Use of
Magnetic and Electrical Phenomena, by A. N. Bessonov,
L. A. Gel'bukh, et al, 36 pp.
RUSSIAN, bk, Podvodnyy Poisk, Moscow, 1963, pp 6-47.

JPRS 23491

Selected Articles From the Russian Book
Problemy Fiziki Atmosfery, Leningrad.

Sbornik I, 1963. 9220146
A Study of the Applicability of the Normal
Law of Distribution for Random Quantities to
the Derivation of Regular Characteristics of
the Wind in the Free Atmosphere, by
S. V. Solonin, Yu. N. Liberman, 19 pp.

NASA TT F-184

Experimental Investigations of the Radiation
Balance in the Free Atmosphere, by K. Ya. Kondrat'yev,
G. N. Gayevskaya, et al, 61 pp.

On the Possibility of the Direct Measurement of
Radiative Divergence, by K. Ya. Kondrat'yev, 25 pp.

Scientific
Earth Sciences & Astronomy (Contd)

Selected Articles From the Russian Book
Problemy Fiziki Atmosfery, Leningrad. (Contd)

Sbornik 1, 1963. 9220146 Infrared Absorption Functions for the Mesosphere and Upper Stratosphere, by G. M. Shved, I. V. Tsaritsyna, 64 pp.	NASA TT F-184
Sbornik 2, 1963. Absorption of Thermal Radiation by the 9.6 Band of Ozone in the Atmosphere, by K. Ya. Kondrat'yev, et al, (pp 3-27).	*NASA TT F-207
Thermal Radiation of CO ₂ in the Atmosphere, by K. Ya. Kondrat'yev, et al, (pp 28-47).	*NASA TT F-208
Problem of Spectral Distribution of Outgoing Radiation, by K. Ya. Kondrat'yev, et al, (pp 48-66).	*NASA TT F-210
Investigation of the Spectral Distribution of Short-Wave Radiation, by K. Ya. Kondrat'yev, et al, (pp 67-86).	*NASA TT F-213
Infrared Absorption Spectrum of Liquid Water, by K. Ya. Kondrat'yev, et al, (pp 87-112).	*NASA TT F-211
The Spectroscopic Method for Determining the Total Content of Water Vapor in a Column of Atmosphere, by I. Ya. Badinov, et al, (pp 113-126).	*NASA TT F-212
Application of Thermomechanical Aerosol Fogs on Rice, by E. I. Bonch, A. I. Petrova. RUSSIAN, per, <u>Byul Vses Nauchno-Issled Inst</u> <u>Zashchity Rastenii</u> , Vol V, 1961, pp 77-82. 9220130	USDA Tr A-1411
IGY Papers on Tectonics, Seismology, and Gravity, 61 pp. RUSSIAN, per, <u>Geofiz Byull</u> , No 12, 1962.	AID Report T-64-8
On the Reduction of Direct Measurements of Gravitational Accelerations, by G. S. Butakov, 19 pp. RUSSIAN, per, <u>Geofiz Sbornik</u> , No 2(4), 1962, pp 28-32.	JPRS 23503
Calculation of the Effect of Refractive Boundary Curvature When Interpreting Seismic Sounding Data, by S. V. Krylov, N. N. Puzyrev, 18 pp. RUSSIAN, per, <u>Geolog i Geofiz</u> , No 11. 1963, pp 3-17.	JPRS 23759

Scientific
Earth Sciences & Astronomy (Contd)

Determining the Epicenters of Distant Earthquakes
by Polar and Sliding Rectilinear Epicenters, by
A. A. Treskov, 6 pp.
RUSSIAN, per, Geolog i Geofiz, No 11, 1963,
pp 128-131.

JPRS 23770

Regularity of the E-Layer Above South Sakhalin,
by P. V. Konnova.
RUSSIAN, per, Geomagnetizm i Aeronomiy, Vol II, No 6,
1962, pp 1146, 1147.

NZDIA

The Method of Measuring Precipitation in Central
Antarctica, by V. G. Averyanov.
RUSSIAN, per, Glyatsiologicheskiye Issledovaniya,
No 9, 1963, pp 195-197.

NZDIA

Investigation of the Physical Conditions in Solar
Protuberances by the Emission Lines With Self-
Absorption, by A. B. Severnyy, 20 pp.
RUSSIAN, per, Iz Krymskoy Astrofiz Observ, Vol XII,
1954, pp 33-45. 9691692

Amer Meteorol Soc
T-R-84

Determination of the Magnetic Field Gradient in the
Solar Photosphere, by V. Ye. Stepanov, 10 pp.
RUSSIAN, per, Iz Krymskoy Astrofiz Observ, Vol XXII,
1960, pp 42-48. 9219547

NASA TT F-138

A Photoelectric Method for the Measurement of
the Magnitude and Direction of the Solar Magnetic
Field, by V. Stepanov, A. Severnyy.
RUSSIAN, per, Iz Krymskaya Astrofiz Observ, Vol XXVIII,
1962, pp 166-193.

CSIRO/No 6546

Investigation of Water Permeability of Frozen Ground,
by V. D. Komarov, 17 pp.
RUSSIAN, per, Met i Gid, No 2, 1957, pp 10-18. 9691538

FTD-TT-63-928

On the Measurement of Dew, by I. F. Skachkova,
M. V. Shvarts, 5 pp.
RUSSIAN, per, Met i Gid, No 4, 1959, pp 55-58.

OTS 63-11021
PL-480

Eddy Structure of Cloud Cover Based on Data From
Weather Satellite, by L. S. Minina.
RUSSIAN, per, Met i Gid, No 1, 1964, pp 12-22.

*NASA TT F-206

Flying Ocean Liners, by G. Beriyeu, A. Bogatyrev,
13 pp.
RUSSIAN, per, Nauka i Zhizn, Vol XXX, No 6, 1963,
pp 30; 37-42.

ACSI I-4214
ID 2204005464

Scientific
Earth Sciences & Astronomy (Contd)

Selected Articles From the Russian Periodical
Okeanologiya.

- Vol II, No 2, 1962, pp 334-345.
The Deep Water Gamma-Radiometer and the Measurement
of Radioactivity of Bottom Layers of the
Indian Ocean, by L. M. Khitrov, K. A. Kotlyarov,
19 pp. Navy Tr 3738
NRL 216
- Vol III, No 5, 1963.
The Biostratigraphic Separation of Bottom Sediments
at Station Number 3802 in the Equatorial Pacific, by
V. V. Mukhina, 11 pp, (pp 861-869). JPRS 23403
- Changes in Commercial Fish Stocks in the Baltic Sea
Under the Influence of Oceanologic Factors, by
T. F. Dement'yeva, 13 pp, (pp 876-885). JPRS 23395
- Reconstruction of Fauna in the Caspian Sea, by
G. A. Aligadzhiev, 18 pp, (pp 886-897). JPRS 23402
- Kanda Bay and Its Inhabitants, by L. A. Galkina,
L. Ye. Pozdnyakova, et al, 13 pp, (pp 898-906). JPRS 23393
- Planet, Physics, Mankind, by M. Pasechnik, 9 pp.
RUSSIAN, per, Pravda Ukrainy, 1 Aug 1961, p 3.
9691473 FTD-TT-63-1148
- The Gulfstream, by M. M. Kazanskiy, 6 pp.
RUSSIAN, per, Priroda, No 11, 1963, pp 102-104. JPRS 23363
- On the Calculation of Components of the Heat Balance
of Reservoirs of Limited Area, by M. P. Timofeyev,
7 pp.
RUSSIAN, per, Trudy Glavnoy Geofiz Observ imeni
A. I. Voeikova, No 59(121), 1956, pp 3-8. OTS 63-11149
PL-480
- Influence of Atmospheric Turbulence on the
Audibility of Sounds in the Atmosphere, by
V. V. Bazilevich, 8 pp.
RUSSIAN, per, Trudy Glavnoy Geofiz Observ imeni
A. I. Voeikova, No 73, 1958, pp 50-53. 9691562 DDC RSIC-121
- Utilizing Evaporation Data in Hydrometeorological
Computations, by N. I. Sinitsyna, 9 pp.
RUSSIAN, per, Trudy Inst Odesskogo Gidro, No 17,
1958, pp 119-129. OTS 63-11148
PL-480
- Marine Fouling and Borers, by I. V. Starostin.
RUSSIAN, per, Trudy Inst Okeanologii, Vol LXX,
1963. *Navy/IO 221

Scientific
Earth Sciences & Astronomy (Contd)

Problems of Turbulent Diffusion in the Surface
Layer of the Earth's Atmosphere, by D. L. Laykhitman,
L. G. Kachirina. (DC-10344)
RUSSIAN, per, Trudy Leningradskogo Gidrometeorol
Inst, Voprosy Turbulentnoy Diffuzii v Prizemnom Sloye
Atmosfery, No 15, 1963, pp 2-240.

*JPRS

Present Day Methods in Climatography and the
Prospects for Their Development, by S. A. Sapozhnikova,
13 pp.
RUSSIAN, per, Trudy Pervogo Vsesoyuznogo Nauchnogo
Meteorologicheskogo Soveshchaniya, Vol IV, 1962.

JPRS 23235

Research and Development in Meteorology, by
S. A. Sapozhnikova, 13 pp.
RUSSIAN, per, Trudy Pervogo Vsesoyuznogo Nauchnogo
Meteorologicheskogo Soveshchaniya, Vol IV, 1962.

JPRS 23235

Method of Prediction of the Water Temperature in
the Barents Sea for Cold Seasons, by A. A. Lebedev,
V. T. Zhevnovatyy.
RUSSIAN, per, Trudy Polyarnyy Nauch-issled Inst
Morskogo Rybnogo Khoz i Okean, No 4(22), 1962,
pp 29, 30.

*Ministry of Agri

Radar Method of Determining the Phase State of
Clouds and Precipitations, by V. Ye. Minervin,
A. B. Shupyatskiy, 49 pp.
RUSSIAN, per, Trudy Tsentral' Aerolog Observator,
Fiz Oblakov, No 47, 1963, pp 63-84.

JPRS 23407

Some Data on the Occurrence of Contrails Behind
Airplanes, by A. F. Nepovitova, 10 pp.
RUSSIAN, per, Trudy Tsentral' Aerolog Observator,
Fiz Oblakov, No 47, 1963, pp 101-105.

JPRS 23407

Results of the Operational Investigations of
Various Methods for Monthly Weather Forecasting,
by Yu. B. Khrabrov, V. F. Kozel'tseva, 19 pp.
RUSSIAN, per, Trudy Tsentral' Inst Prognozov: Voprosy
Dolgosrochnykh Prognozov Pogody, No 124, 1963,
pp 3-13.

JPRS 23237

Influence of Solar Activity on the Formation of
Synoptic Processes, by L. G. Borisova,
B. G. Khesina, 6 pp.
RUSSIAN, per, Trudy Tsentral' Inst Prognozov: Voprosy
Dolgosrochnykh Prognozov Pogody, No 124, 1963,
pp 28-32.

JPRS 23237

Scientific
Earth Sciences & Astronomy (Cont)

Seasonal Changes of Phytoplankton of the Polar Seas in Connection With the Ice Regime, by P. P. Snirshov. RUSSIAN, per, Trudy Vses Arkticheskii Inst, Vol LXXXII, 1937, pp 47-112.

*Univ of Washington

Distribution of Bering Waters in the Chukohi Sea From Material of the Zooplankton Expedition on the Icebreaker Krasin in 1935, by V. S. Stepanova. RUSSIAN, per, Trudy Vses Arkticheskii Inst, Vol LXXXII, 1937, pp 113-143.

*Univ of Washington

Primary Production in the Atlantic Ocean, by I. Yu. Sorokin, L. B. Klyashtorin. RUSSIAN, per, Trudy Vses Gid Obshch, Vol XI, 1961, pp 265-284.

Fisheries Res Bd
Canada, Nanaimo Stat

High-Precision Nuclear Meter for Measuring Magnetic Field Strength, by Ye. Ye. Bogatyrev, 18 pp. RUSSIAN, per, Trudy Vses Nauchno-Issled Institut Metrolog imeni D.I. Mendeleeva, No 67(127), 1962, pp 76-88.

JPRS 23408

Fifth Interdepartmental Conference on Atmospheric Optics and Actinometry, by G. Rozenberg, 14 pp. RUSSIAN, per, Uspekhi Fiz Nauk, Vol LXXXI, No 3, Nov 1963, pp 566-573.

JPRS 23547

State and Problems of World Ocean Geology, by A. P. Lisitsyn, G. B. Udintsev. RUSSIAN, per, Vest Ak Nauk SSSR, No 7, 1963, pp 21-32.

*Navy/APL J338

Underwater Robots, by N. V. Vershinskiy, 7 pp. RUSSIAN, per, Vest Ak Nauk SSSR, No 12, 1963, pp 37-41.

JPRS 23392

The Study of Cosmic Rays, by A. A. Pomanskiy, 5 pp. RUSSIAN, per, Vest Ak Nauk SSSR, No 12, 1963, pp 83-85.

JPRS 23392

Problems of Engineering Seismology, No 8 in the Series, Works of the Institute of the Physics of the Earth imeni O. Yu. Shmidt No 28(195). (NY-9104) RUSSIAN, per, Voprosy Inzhenernoy Seismologii, Vyp. 8 Trudy Instituta Fizika Zemli imeni O. Yu. Shmidta, No 28(195), Moscow, 1963, pp 3-146.

*JPRS

The Characteristics of Local Climates of the T'ien Shan Glaciers, by Ch'en En-chiu, 19 pp. CHINESE, per, Ti'li, No 5, 1963, pp 193-200.

JPRS 23518

Scientific

Earth Sciences & Astronomy (Contd)

The Relationship Between the Topographical Characteristics and Agricultural Production in Fukien Province, by Chao Chao-ping, 15 pp.
CHINESE, per, Ti-li, No 5, 1963, pp 201-206.

JPRS 23518

The Natural Geography and the Problem of the Utilization of Aquatic-Product Resources of the T'ai Hu, by Tou Hung-shen, Lien Kuang-hua, 10 pp.
CHINESE, per, Ti'li, No 5, 1963, pp 207-210.

JPRS 23518

A Contribution to the Spectral Type Theory, IV. Formation of Lines in Stellar Spectra, by J. C. Pecker, 54 pp.
FRENCH, per, Annales Astrophysique, Vol XIV, No 4, 1951, pp 115-151. 9211927

NASA TT F-116

And Then Came Man, by Harmut Bastian.
GERMAN, bk, 354 pp.

Viking

The Measurement of Tide Currents, by Gunthor Sager.
GERMAN, bk, Ebbe und Flot, Chapter III, 1959, pp 197-207.

*Navy/HO Tr 222

A New Measure for the Field Strength of the Geomagnetic Equatorial Ring Current, by W. Kertz, 26 pp.
GERMAN, per, Abhandlungen Akademie der Wissenschaften Mathematisch-Physikalische Klasse, No 2, 1958, pp 5-16. 9691693

Amer Meteorol Soc
T-G-198

Report on Measurement of the Air Temperature With Various Types of Radiation Shielding, by Wilhelm Bauer, Richard Buschner, 23 pp.
GERMAN, per, Berichte Deutscher Wetterdienst, Vol III, No 19, 1955, pp 2-12. 9691694

Amer Meteorol Soc
T-G-193

Astronomical Research in the USSR, by Gisela Barker, 44 pp.
GERMAN, per, Ost Europa Naturwissenschaften, No 1, 1963, pp 16-43.

JPRS 23658

About the Miocene Foraminifera From Tochigi Prefecture, by Takayasu Uchio.
JAPANESE, rpt, Resume of Lecture Presented at the Meeting of Japan Geological Society, Apr 1949.

Dept of Interior
209(900) qUn33pr
No 423

Relation Between Air Temperature and Weather, by Tatsuo Fujii, 8 pp.
JAPANESE, per, Journal of Meteorological Research, Vol X, 1958, pp 353-357. 9691145

DDC RSIC-118

Scientific
Earth Sciences & Astronomy (Contd)

A Study of the Dynamics and Climatology of Cold
Outbreaks in the Far East, by K. Suta, 17 pp.
JAPANESE, per, Journal of Meteorological Research,
Vol X, 1958, pp 1053-1060. 9691143

DDC RSIC-120

Symposium on Hydraulic Engineering Problems of the
Rumanian Black Sea Littoral, Constanta,
30 September-5 October 1963, 7 pp.
RUMANIAN, per, Hidrotehnica, Vol VIII, No 11, 1963,
pp 428, 429.

JPRS 23585

The Productive of Soil Capacity, and the Evaluation
of Soil Characteristics, by M. Trifunovic, 10 pp.
SERBOCROATIAN, per, Archiv za Poljoprivredne Nauke,
Vol XVI, No 5, 1963, pp 102-111.

OTS 63-11453/1
PL-480

Scientific
Electronics

- Radiotelegraphy, by M. V. Verzunov, 67 pp.
RUSSIAN, pamphlet, Moscow, 1961, pp 1-80. JPRS 23500
- Analysis and Synthesis of Amplifier Circuits,
by L. Ya. Nagornyy, 309 pp.
RUSSIAN, bk, Analiz i Raschet Usilitel'nykh Skhem, 1963,
pp 1-244. 9691996-V FTD-TT-63-1011
- Long Range Propagation of Ultrashort Waves, by
M. P. Dolukhanov, 71 pp.
RUSSIAN, rpt, Dal'neye Rasprostraneniye Ul'trakorotkikh
Voln, Chapters V-VII, 1963, pp 4-6; 31-91. ACSI I-3925
ID 2245023
- Study of Special Purpose Aircraft Electrical Machines,
by A. I. Bertinova, 211 pp.
RUSSIAN, bk, Issledovaniye Spetsial'nykh
Aviatsionnykh Elektricheskikh Mashin, 1961, pp 1-151.
9691997-V FTD-TT-63-117
- Assembly of Radio and Allied Electronic Equipment,
by V. O. Bukler, Yu. I. Rabinovich, 250 pp.
RUSSIAN, bk, Sborka Radioapparaty, 1960. OTS-61-32104
PL-480
- Inertial Navigation, by I. A. Gorenshteyn,
I. A. Shul'man, 253 pp.
RUSSIAN, bk, Sovetskoye Radio, 1962, pp 1-248.
9692026-V FTD-TT-63-474
- Theoretical Premises for Optimization of the
Regime of a Power System Using Analog Computers,
by S. V. Usov, G. M. Pavlov.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk
Energ i Transp., No 4, 1963, pp 434-442. *Navy/APL J330
- Calculating Reliability of Electronic Computers, by
G. B. Linkovskiy, 10 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved Elektromekh,
Vol VI, No 7, 1963, pp 791-796. *Rand Corp
- Paramagnetic Amplifier for a Planetary Radar, by
M. Ye. Zhaborinskiy, A. V. Frantsesson, 6 pp.
RUSSIAN, per, Radiotekhnika i Elektronika, Vol IX,
No 1, 1964, pp 114-117. JPRS 23468
- On the Possibility of Using Stimulated Emission to
Determine the Emission Bands of Impurity Centres, by
K. K. Rebane.
RUSSIAN, per, Trudy Inst Fiz i Astron Ak Nauk Estonskoy
SSR, No 15, 1961, pp 209-211. *Navy/APL J322

Scientific
Electronics (Contd)

Electrets - New Material for Industrial Use, by A. N. Gubkin, 9 pp. RUSSIAN, per, <u>Vest Ak Nauk SSSR</u> , Vol VII, 1963, pp 73-76.	NLL Tr Bulletin Vol VI, No 1, 1964
Application of the Method of Partial Separation of Variables to Two Equivalent p-Electrons, 29 pp. RUSSIAN, per, <u>Zhur Eksper i Teoret Fiz</u> , Vol XXIII, No 4, 1952, pp 357-370.	NASA TT I-152
Radio Electronics and Petroleum Exploration, by Wang Jih-ts'ai, 5 pp. CHINESE, per, <u>Wu-hsien-tien</u> , No 12, 1963, pp 4, 5.	JPRS 23969
Mei-To No 28A Crystal Tube Receiver, by Shen Yu-cheng, 6 pp. CHINESE, per, <u>Wu-hsien-tien</u> , No 12, 1963, pp 21, 22.	JPRS 23696
Short Circuit Inductances in Radio Frequency Circuits, 5 pp. CZECH, per, <u>Sdelovaci Technika</u> , No 3, 1963, pp 82, 83.	ACSI I-3969 ID 2204002064
The French Effort for Quality of the Electronic Components, 42 pp. FRENCH, rpt.	Navy Tr 3722 BuShips 840
The Noise-Time of Response Compromise in Direct Current Period Meters. A New Type of Circuit, by G. Friedling. FRENCH, rpt, 1961.	*AEC
The Influence of Hyperfrequency Circuits on the Performance of a Coupled-Cavity Maser, by G. Broussaud, L. Malnar. FRENCH, bk, <u>Low Noise Electronics</u> , 1962, pp 200-224.	Navy Tr 3731 APL T938
Electrographic Recording Processes, by H. Kollner, 7 pp. GERMAN, per, <u>Bild und Ton</u> , Vol XVI, No 1, 1963, pp 7-10.	ATS-16Q69G
Electrographic Recording Processes. Continuation and Conclusions, by H. Kollner, 10 pp. GERMAN, per, <u>Bild und Ton</u> , Vol XVI, No 2, 1963, pp 39-44.	ATS-79Q70G
Transconductant Quartz Filter With a Large Band Width in a Branch Circuit, by J. W. Poschenrieder. GERMAN, per, <u>Nachrichtentechnische Zeitschrift</u> , Vol IX, No 12, 1960.	*FTD-TT-64-240

Scientific
Electronics (Contd)

- High Transport Operation Rates With Cable-Drawn Ingot and Slab Buggies: Part II - Electrical Equipment, by H. Greiner.
GERMAN, per, Stahl und Eisen, Vol LXXXIII, Apr 1963, pp 522-526. BISI 3306
- The Measurement of Residual Gas Pressure in Traveling-Wave Tubes, by H. Schnitger, 14 pp.
GERMAN, per, Vakuum-Technik, Vol XI, No 3, 1962. ATS-16Q71G
- Piezoelectric Microphone, 6 pp.
SWISS, Patent No 240,251. Patent Office
- Automatic Computation of Correlation Functions in the Case of Nonuniform Travel of Signal-Carrying Tape, by G. O. Ball.
UKRAINIAN, per, Avtomatyka, No 3, 1963, pp 47, 48. *FTD-TT-64-294

Engineering

- Studies of Stress Redistribution in Continuous Reinforced Concrete Beams, by S. M. Krylov, Yu. V. Zaitsev, 39 pp.
RUSSIAN, monograph, Design of Reinforced Concrete Structures, Moscow, 1961, pp 272-310. OTS 63-16982
- Nonlinear Oscillations of Mechanical and Structural Elements, by N. V. Grigor'yev, 311 pp.
RUSSIAN, bk, Nelineynyye Kolebaniya Elementov Mashin i Sooruzheniy, 1961, pp 1-255. 9691874-V FTD-TT-62-1197
- Shipbuilding Steel, by A. M. Veyngarten, V. A. Delle, et al, 241 pp.
RUSSIAN, bk, Sudostroitel'naya Stal'. 1962, pp 3-303. ACSI I-3367
ID 2246293
- Selected Articles From the Russian Periodical Avtomat Regulirov Avian, No 4, 1962. 9691646 FTD-TT-63-745
- Dynamic Characteristics of a Tubular Heat Exchanger, by A. A. Shevyakov, R. V. Yakovleva, 18 pp, (pp 1-17).
- Simulation of Random Disturbances of a Turbulent Atmosphere, by T. S. Mart'yanova, 18 pp, (pp 18-36).
- The Operation of an Air-Intake and Its Control System in a Perturbed Atmosphere, by V. I. Novikov, 40 pp, (pp 36-76).

Scientific
Engineering (Contd)

Selected Articles From the Russian Periodical
Avtomat Regulirov Avian, No 4, 1962. 2691646

FTD-TT-63-745

Certain Very Simple Timing Regulators Ensuring
Acceleration of a Tie With Respect to Reduced
Parameters, by Yu. V. Lyubomudrov, 9 pp,
(pp 76-85).

Reliability and Increase in the Working Life of
the Control and Fuel-Supply Equipment of Gas-Turbine
Engines, by G. P. Anuchkin, 12 pp, (pp 85-97).

Investigation of the Control Dynamics of a Turbo-
prop Engine With a Negative-Thrust Limiter, by
L. N. Getsov, T. S. Mart'yanova, 17 pp, (pp 97-114).

Certain Features of Pressure Jet Atomizers of
Gas-Turbine Engines, by A. M. Prakhov, 24 pp,
(pp 114-137).

Air-Stream Cooling of a Glow Plug Spiral in the
Combustion Chamber of a Gas Turbine Engine, by
A. S. Shteynberg, 11 pp.
RUSSIAN, per, Avtomobil Prom, No 9, 1963, pp 28-31.

ACSI I-4138
ID 2204003164
525th MI Gp

Computer for Determining the Load Distribution in
Power Systems Containing Hydro-Electric Stations,
by S. V. Usov.
RUSSIAN, per, Elektrichestvo, No 3, 1962, pp 24-28.

NZDIA

Certain Results of Experimental Research Concerning
Moisture-Catching Machinery in Steam Turbines, by
A. N. Astaf'yev, 6 pp.
RUSSIAN, per, Energomashinostroyeniye, Vol VI, No 2,
1960.

Navy Tr 3720
BuShips 838

Flow With Friction and Heat Exchange in a Conical
Nozzle, by D. V. Fedoseyev, S. V. Shteyman, 7 pp.
RUSSIAN, per, Inzhenerno-Fiz Zhur, Vol VI, No 8,
1963, pp 41-44. 9691527

FTD-TT-63-1040

Destruction Shock Wave in Brittle Media, by
M. Kh. Alyev.
RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk
Mekh i Mash, Vol CLI, No 1, 1963, pp 80-84.

*Dept of Interior

Some Results of the Destruction of Rocks by Means
of a Pulsed Water Jet, by V. B. Voytsekhovskiy,
V. P. Nikolayev, et al, 8 pp.
RUSSIAN, per, Iz Sibirskogo Otdel Ak Nauk SSSR,
Ser Tekh Nauk, No 1 (2), 1963, pp 7-11.

JPRS 23719

Scientific
Engineering (Contd)

Study of Friction Forces in a Directional Well,
by M. P. Gulizade, K. B. Shakhbazbekov, 7 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Neft' i
Gaz, Vol VI, No 2, 1963, pp 23-38.

ATS-70Q70R

The Determination of Changes in Hydrodynamic
Pressure at the Walls of a Well in the Course of
Running Drilling Tools and Casing, by M. K. Seid-rza,
A. A. Novsumov, 5 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Neft' i
Gaz, Vol VI, No 4, 1963, pp 29-32.

ATS-02Q72R

Nomographs for Selecting Deflecting Hook-Ups
for the Bottom of a Drill String, by V. F. Mochalov,
6 pp.
RUSSIAN, per, Neft Khoz, Vol XLI, No 4, 1963,
pp 14-19.

ATS-46Q71R

Gravimetric Observations in Bore Holes and Mine
Shafts, by P. I. Lukavchenko, 11 pp.
RUSSIAN, per, Razvedoch Prom Geofiz, Vol XLIII,
1962, pp 52-64.

ATS-39Q70R

Selected Articles From the Russian Periodical
Rybnoye Khoz.

Vol XXXIV, No 2, 1958, pp 53-56.
Preventing Trawl Breakage, by S. M. Barkan,
G. D. Silukov.

Fisheries Res Bd
Canada, St Andrews
Station

Vol XXXV, No 12, 1959.
The Use of Blocks of Lights in Fishing for
Kilka With a Fish Pump, by I. V. Nikonorov,
(pp 42-47).

Fisheries Res Bd
Canada, Nanimo
Station

The Use of Blocks of Lights in Fishing for
Kilka With a Fish Pump, by I. V. Nikonorov,
(pp 53-58).

Vol XXXVI, No 9, 1960, pp 43-53.
Designing Bottom Trawl Nets for Small and
Medium Trawlers, by N. N. Vinogradov.

Fisheries Res Bd
Canada, St Andrews
Station

Determining the Slip Coefficient of Wheels in Ex-
periments With Agricultural Machines, by
L. A. Boroshok.
RUSSIAN, per, Selkhoz mashina, No 12, 1956, pp 11, 12.

GB/141/136

Scientific
Engineering (Contd)

Technical-Economic Basis for the Use of Generators Mounted on the Shaft in Vessels, by G. A. Meleshkin. RUSSIAN, per, <u>Sudostroyeniye</u> , No 11, 1963.	Maritime Admin
Hydraulic Design of Air Cooling Systems for Multi-stage Gas Turbines by Using Electric Models, by I. T. Shvets. RUSSIAN, per, <u>Teploenergetika</u> , No 9, 1962, pp 14-17.	NASA TT F-78
New Opportunities for Pneumatic Deices, by L. A. Zalmanzon, A. A. Tal', 6 pp. RUSSIAN, per, <u>Vest Ak Nauk SSSR</u> , No 12, 1963, pp 58-62.	JPRS 23352
Improved Technique of Assembling Wheelpairs, by G. A. Bobrovnikov, 5 pp. RUSSIAN, per, <u>Zheleznodorozhnyy Transport</u> , Vol XLV, No 4, 1963, pp 48-50.	OTS 63-18793
Studies on the Deflagration-to-Detonation Transition of Explosives, by K. K. Andreyev, V. V. Gorbunov. RUSSIAN, per, <u>Zhur Fiz Khim</u> , Vol XXXVII, No 9, 1963, pp 1958-1965.	*Navy/APL J342
Mechanism for Reading Information from FVU-2 Five-to-Nine Track Punched Tape. RUSSIAN, Patent No 155,047, Jul 1963.	*ACSI I-4340 ID 2204007964
Directional Coupler With Variable Coupling, by I. I. Gak, R. G. Zharov. RUSSIAN, Patent No 155,192, Jul 1963.	*ACSI I-4341 ID 2204008064
Process and Apparatus for the Treatment of Liquids, by Ion Exchangers, 27 pp. BELGIAN, Patent No 520,694. (French)	Patent Office
Selected Articles From the Czech Report <u>Vyzkumneho a Zkusebniho Loteckeho Ustavu</u> , 1963.	
Basic Data on Shape, Material and Manufacture of Blades, Part I, (pp 2-64).	*FTD-TT-64-304
Manufacture of Blades by Casting and Forging, Part II, (pp 66-104).	*FTD-TT-64-305
Mechanical Processing of Blades, Part III, (pp 106-176).	*FTD-TT-64-306
The Causes of Overheating and Burning of Steel, by J. Elfmark, L. Toman. CZECH, per, <u>Hutnicke Listy</u> , Vol XV, No 3, 1960, pp 200-207.	*DISI 3589

Scientific
Engineering (Contd)

Thermistor Bridges for Temperature Measurements and Control, by Ladislav Roth, 5 pp.
CZECH, per, Sdelevaci Technika, No 3, 1963, pp 91, 92.

ACSI I-3970
ID 2204002164

The Shipbuilding Industry, 7 pp.
DANISH, per, Ingeniren, No 1, 1964, p 69 -, USNA,
Copenhagen.

Navy 5826001264

Propagation of Detonation of Explosives in Boreholes,
by J. Cocu.
FRENCH, rpt, Les Ondes de Detonation, Colloques Inter-
nationaux du Centre National de la Recherche Scienti-
fique, 1961.

Dept of Interior
TN7 E57 No 729

Contribution to the Study of the Thermodynamic
Equilibrium in the Oxygen Converter, by J. M. Kindelan,
J. Lindqvist.
FRENCH, rpt, Paper Presented at the International
Congress on Oxygen Steel Plants at Le Touquet and
Dunkirk, 23-26 Sep 1963.

BISI 3480

Recovery of Gases From the Oxygen Converter Without
Combustion, by J. Dumont-Fillon, G. Namy.
FRENCH, rpt, Paper Presented at the International
Congress on Oxygen Steel Plants at Le Touquet and
Dunkirk, 23-26 Sep 1963.

BISI 3476

A Simple Apparatus for Rapid Measurement of BET
Specific Surfaces, by R. Dellyes.
FRENCH, per, Revue des Matériaux de Construction
et de Travaux Publics, No 578, 1963, pp 353-359.

Natl Bu of Stand

Transformation of Martensite, by A. Lutts.
FRENCH, per, Revue Universelle des Mines,
Vol XIX, No 7, 1963, pp 289-303.

*BISI 3591

Thermodynamic Study of the Deoxidation of Steel,
by R. Scimar.
FRENCH, per, Revue Universelle des Mines, Vol CVI,
No 10, 1963, pp 403-418.

*BISI 3595

Projection Screen and Process for Its Manufacture.
FRENCH, Patent No 444,011.

Patent Office

Rear Projection Screen, 11 pp.
FRENCH, Patent No 959,731.

Patent Office

Amphibious Vehicle, 6 pp.
FRENCH, Patent No 979,171, Group 6, Class 1,
Applied for on 2 Dec 1948, Granted on 6 Dec 1960,
Published on 23 Apr 1959. 9691130

ACSI I-3781-C
ID 2253793

Scientific
Engineering (Contd)

Improvements in Methods for the Construction of
Recording and Reproducing Devices With Several
Magnetic Heads, 7 pp.

FRENCH, Patent No 1,112,823.

Patent Office

Apparatus for Treatment of Water and in Particular
for Demineralization, by Pierre-Louis-Eugene Sadon.
FRENCH, Patent No 1,167,826.

Patent Office

Device for Reversing Electric Motors Intended
Especially for Toys, 5 pp.
FRENCH, Patent No 1,194,534, Group 12, Class 5,
Applied for on 25 Mar 1958, Granted on 11 May 1959,
Published on 10 Nov 1959. 9691130

ACSI I-3781-D
ID 2253793

Gas-Tight Shaft Duct for a High-Speed Rotating Shaft,
10 pp.

FRENCH, Patent No 1,213,459, Apr 1960.

AEC-Tr-6238

Improved Thickened Lubricants, by Bill Mitacek,
John Philip Graham, 28 pp.

FRENCH, Patent No 1,299,731, Jun 1962.

OTS 63-20054

The Production of Steel by the Oip-Process, by
W. Koehler, J. Schoop.

GERMAN, rpt, Paper Presented at the International
Congress on Oxygen Steel Plants at Le Touquet and
Dunkirk, 23-26 Sep 1963.

BISI 3481

Pneumatic Transport of LD Flue Dust Back to the
Converter, by K. Rosner.

GERMAN, rpt, Paper Presented at the International
Congress on Oxygen Steel Plants at Le Touquet and
Dunkirk, 23-26 Sep 1963.

BISI 3483

Studies Concerning the Concept of Safety Associated
With Structures, by Ernst Baller, 56 pp.

GERMAN, rpt, Untersuchungen über den Sicherheit-
sbegriff von Bauwerken, 1960, pp 1-37.

ACSI I-3987
ID 2204002664

Scientific
Engineering (Contd)

Selected Articles From the German Periodical
Archiv fuer Eisenhüttenwesen.

- Vol XXXIII, No 12, 1962, pp 817-826. BISI 3175
The Behaviour of Wustite Inclusions in Iron
During Annealing, by W. A. Fischer, J. A. Schmitz.
- Vol XXXIV, No 1, 1963, pp 9-16. BISI 3537
The Significance of Available Energy in the
Thermodynamic Investigation of the Blast
Furnace Process, by H. Brauer, R. Jeschar.
- Vol XXXIV, No 10, 1963, pp 795-811. *BISI 3600
The Testing of Refractory Materials at High Tem-
peratures Under Load, by U. Ehroke, H. E. Schweite.
- Vol XXXV, No 1, 1964, pp 75-83. *BISI 3601
Structural Changes in Rolling and Annealing of
Silicon Steel Sheet to Obtain Goss or Cubic Texture,
by K. Detert.
- High-Pressure Water Installations in Rolling Mills,
by H. J. Pahnke.
GERMAN, per, Blech, Vol X, No 2, 1963, pp 58-67. BISI 3234
- Cylinder roller Thrust Bearings in Strip and Plate
Mill Stands, by G. Uerlinge.
GERMAN, per, Blech, Vol X, No 4, 1963, pp 172-175. *BISI 3313
- Digital Thickness Control for Cold Rolling Mill, by
J. Ullman.
GERMAN, per, Blech, Vol X, No 4, 1963, pp 178-180. *BISI 3314
- Elastic Analysis of Pretressed Flanged Pipe-Lines
by Means of Electronic Computers, by J. Hoppe.
GERMAN, per, Brennstoff-Warme-Kraft, Vol XV, No 7,
1963, pp 331-337. BISI 3518
- Regarding the Problem of Mutilation of Fishes by
Hydraulic Turbines, by Kurt von Raben.
GERMAN, per, Die Wasserwirtschaft, No 4, 1957,
pp 97-100. Fisheries Res Bd
Canada, Nanimo Stat
- Danger of Fatigue Failure in Grooves of Shafts and
Axles and Its Dimunition, by A. Thum.
GERMAN, per, Deutsche Kraftfahrtforschung, No 11,
1962, pp 1-10. GB/238/A 2042

Scientific
Engineering (Contd)

Blasting Tests on Protective Structures, Standard Types S1 and S9, on the Grounds of the Meppen Proving Center, by Gerhard Weigel, Sigurd Stots, 49 pp.
GERMAN, per, Eissenschaftlicher Bericht, No 4, May 1963, pp 1-66.

ACSI I-3770
ID 2253785

Comparative Study of Air and Oil Techniques in Very High Voltage Circuit-Breakers, by M. E. Maury.
GERMAN, per, Electrotechnik, 1962, pp 345-358.

NZDIA

Importance of Acceptance Tests on Generator High Tension Windings, by K. Edwin, W. Zwicknagl.
GERMAN, per, Elektrotechnik und Maschinenbau, No 21, 1962.

NZDIA

Organization, Functions and Achievements of the Institute of Length Measurement of the Advanced Technical School for Machine Construction, by H. Trumpold, 7 pp.
GERMAN, per, Feingeratetechnik, Vol XII, No 12, 1963, pp 529-531.

JPRS 23428

The Calculation of Frictional Losses in Sludge, by G. Annen.
GERMAN, per, Gas und Wasserfach, No 12, 1963, pp 342-346.

NZDIA

Experiments With Ridgers of Different Pitch and Side Angles, by R. Thaer.
GERMAN, per, Grundlagen der Landtechnik, No 15, 1962, pp 37-45.

GB/141/134

Automation in Ocean Navigation, Its Possibilities and Limitations, by Gunter Mau.
GERMAN, per, Hansa, No 2, 1964, pp 215-218.

Maritime Admin

Swelling Pressure of Wood in Water and Water-Saturated Air, by T. Perkitny, L. Helinska.
GERMAN, per, Holz als Roh- und Werkstoff, Vol XXI, No 1, 1963, pp 19-22.

CSIRO/No 6417

Weighing of the Amount of Impregnating Liquid Retained in Wood, by G. Franciosi.
GERMAN, per, Die Holzschwelle, Vol LVII, No 39, 1962, pp 1-11.

CSIRO/No 6292

On the Influence of Preliminary Treatment of Peas on the Values Recorded by Different Pea-Testing Instruments, by T. Grunewald, W. Klotz.
GERMAN, per, Industrielle Obst - und Gemuseverarbeitung, No 8, 1962.

CSIRO/No 6340

Scientific
Engineering (Contd)

The Development of Strip Coiler Designs, by P. Gruner.
GERMAN, per, Maschinemarkt Spanlose Formung, Vol LXIX,
No 6, 1963, pp 16-25.

BISI 3345

Welding and Heat-Sealing Plastic Films and Combined
Film, by G. Stuwe, 9 pp.
GERMAN, per, Neue Verpackung, Vol XV, No 10, 1962,
pp 1136; 1138; 1140-1142.

ATS-14Q71G

Selected Articles From the German Periodical
Stahl und Eisen.

Vol LXXXIII, 1963.

Investigation on the Agreement With Statistical Laws
of Spindle Torques and Housing Loads in a Blooming
Mill Train, by F. W. Griesse, W. Schweer, (pp 715-723).

BISI 3557

The Formation of Slag in the Basic Open-Hearth Process,
by G. Tromel, E. Gori, (pp 1035-1051).

*BISI 3583

The Decarburization of Cold-Rolled Silicon Steels, by
A. Mayer, (pp 1169-1176).

BISI 3453

The Effect of Different Patenting Conditions on the
Structure and Mechanical Properties of Drawn Steel
Wire With Particular Reference to the Influence of
Manganese Content, by H. J. Bockenhoff, C. Eisenhuth,
(pp 1616-1625).

*BISI 3590

Vol LXXXIV, 1964.

Technical Measuring Research on Rolling Mill Drives,
by W. Koller, (pp 15-24).

*BISI 3585

Automation of Blast Furnace Burdening, and Burden
Distribution, by M. Lowenstein, (pp 36-38).

*BISI 3586

On a Method of Calculating the Desulphurisation of
Steel Made According to Different Processes, by
M. Wahlster, (pp 63-73).

*BISI 3587

Desulphurization of Basic Bessemer Iron by Oxygen
Blowing, by M. Wahlster.

GERMAN, per, Technische Mitteilungen Krupp, Vol XXI,
No 2, 1963, pp 44-56.

*BISI 3594

Some Remarks on Desulphurization in Oxygen Top-Blowing
Processes, by H. Krainer.

GERMAN, per, Technische Mitteilungen Krupp, Vol XXI,
No 9, 1963, pp 37-43.

*BISI 3593

Scientific
Engineering (Contd)

Experiments With Photoelasticity, by L. Foppl.
GERMAN, per, Verein Deutscher Ingenieure, Vol XCIII,
No 5, 1951, pp 105-112.

*Redstone Arsenal

Considerations on Continuous Automatic Quality-
Control, by W. Dutschke.
GERMAN, per, Werkstattstechnik, Vol LII, No 9, 1962,
pp 496-500.

CSIRO/No 6418

Similarity Considerations Respecting Operations
Behavior of Jet Propulsion Units, by
Von Gottfried Beckmann, Gotz Bork, 21 pp.
GERMAN, per, Wissenschaftliche Z der Technischen
Univer Dresden, Vol II, No 1, 1962, pp 87-94.
9691029

FTD-TT-63-515

Grooves in Shafts Subjected to Torsion, by
R. Sonntag.
GERMAN, Z fuer Angewandte Mathematik und Mechanik,
Vol IX, No 1, 1929, pp 1-22.

*Redstone Arsenal

Magnetic Head for Magnetic Sound Tapes,
Guidance of Such Tapes, 6 pp.
GERMAN, Patent No 815,548.

Patent Office

Railroad Car Truck Guide, 7 pp.
GERMAN, Patent No 822,094.

Patent Office

Railroad Car Truck Guide, 12 pp.
GERMAN, Patent No 943,472.

Patent Office

Water Panel Cooling of the Blast Furnace Hearth,
by L. Foldi.
HUNGARIAN, per, Kohaszati Lapok, Vol XCVI, No 7,
1963, pp 316-319.

*BISI 3584

New Rolling Mill for Bars and Rods for Special
Steels, by V. Pigni.
ITALIAN, per, La Metallurgia Italiana, Vol LXIII,
No 2, 1961, pp 53-59.

*BISI 3598

Hand-Operated Pliers for Cutting and Grinding
Optical Glass and Lenses, by Pasqualino Paolini,
6 pp.
ITALIAN, Patent No 587,349.

Patent Office

The Influence of High Water and River Bed Instability
on the Determination of Water Balance, by M. Vukcevic,
15 pp.
SERBOCROATIAN, per, Hidrotehnicki Institut Ing
Jaroslav Cerni Beograd, Saopstenja, No 6, 1957,
pp 37-45. 9218586

OTS 60-21650
PL-480

Scientific
Engineering (Contd)

Device for the Separation of Specifically Heavier
Elements From Streams of Specifically Lighter
Media, by Eugen Haber, 8 pp.
SWISS, Patent No 184,282.

Patent Office

Third Interinstitutional Scientific Conference of
Problems of Evaporation, Combustion and Gas Dynamics of
Dispersion Systems, by D. I. Polishchuk, 7 pp.
UKRAINIAN, per, Ukrain Fiz Zhur, Vol VIII, No 4,
1963, pp 498-500. 9691534

FTD-TT-63-944

Scientific
Fuels & Propulsion

Hypothesis on Universal Ejection Properties of
Turbulent Jets of Gas, and Its Application, by
O. V. Yakovlevskiy, 32 pp.
RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk Metal
i Toplivo, No 3, 1961, pp 40-54. 9691144

DDC RSIC-108

Combustion Dynamics of Fuel Oil Flames in Relation
to Development Trends in Burner Design, by
W. Grimm, 15 pp.
GERMAN, per, Erdol und Kohle-Erdgas-Petrochemie,
Vol XVI, No 5, 1963, pp 371-378.

ATS-66Q71G

Detection and Determination of Manganese in Motor
Fuels Containing Additives, by Mario Pedinelli, 12 pp.
ITALIAN, per, la Chimica e l'Industria, Vol XLI,
No 12, 1959, pp 1180-1184.

K-II 10995

Scientific
Materials & Metallurgy

Initial Rock Pressures in Oil and Gas Deposits, by
B. A. Tkhostov.
RUSSIAN, bk.

Pergamon Press

Vacuum-Flask Method for Determination of the
Heat of Hydration of Cement, 10 pp.
RUSSIAN, rpt, Standard GOST 4798-57.

OTS 63-19285

Selected Articles From the Russian Report
Cathodic Protection Against Corrosion of Steel
Structures in Sea Water, Moscow, 1962.

Navy Tr 3734
ONI 966

Basic Concepts of Corrosion of Metals, by
A. A. Farkhadov, (pp 7-16).

Corrosion of Marine Structures, by A. A. Farkhadov,
(pp 17-73).

Cathodic Protection for Piles in the Submerged Zone,
by A. A. Farkhadov, (pp 127-173).

Development of Cathodic Protection for Hulls of
Seagoing Ships, by A. A. Farkhadov, (pp 189-211).

Technico-Economic Efficiency of Cathodic Protection
of Marine Structures and Ships, by A. A. Farkhadov,
(pp 226-240).

Economics of Nonferrous-Metal Production, by
E. G. Ginzburg, 114 pp.
RUSSIAN, bk, Ekonomika Proizvodstvennykh Protsessov v
Tsvetnoy Metallurgii, 1961.

OTS 63-11093
PL-480

The Working of Heat-Resistant Alloys, 375 pp.
RUSSIAN, bk, Obrabotka Zharoprochnykh Splavov, 1960,
pp 1-231. 9691638-V

FTD-TT-63-344

Beryllium Oxide. Properties and Applications, by
R. A. Belyayev, 260 pp.
RUSSIAN, bk, Okis' Berilliya. Svoistva i Primenenie,
Moscow, 1962, 239 pp. 9219765

AEC-Tr-6175

Use of X-Rays in the Investigation of Materials, 235 pp.
RUSSIAN, bk, Primeneniye Rentgenovykh Luchey k
Issledovaniyu Materialov, 1959, pp 3-127. 9692024-V

FTD-TT-63-671

Scientific
Materials & Metallurgy (Contd)

- Vacuum Siliconizing of Metals, by V. E. Ivanov,
A. I. Smovo.
RUSSIAN, rpt, Primeneniye Vakuuma v Metallurgii,
1963, pp 168-173. IHB 6157
- Rhenium, by K. B. Lebedev, 245 pp.
RUSSIAN, monograph, Reniy, Moscow, 1963, pp 1-208. JPRS 23361
- Structure of Binary Alloys of Zirconium With
Bismuth and Lead in Solid States, by T. A. Badayeva,
L. I. Rybakova.
RUSSIAN, bk, Structure and Properties of Uranium,
Thorium and Zirconium Alloys, Moscow, 1963,
pp 303-308. *AEC
- Fracturing in Coal, by I. I. Ammosov, I. V. Eremin,
112 pp.
RUSSIAN, bk, Treshchinovatost' Uglei, 1960. OTS 63-11062
PL-480
- A Study of Mechanical Interaction Between Billet and
Mould in Continuous Casting, by N. N. Guglin,
B. B. Gulyayov.
RUSSIAN, bk, Vzaimodeistvie Liteinoe Formy, 1962,
pp 88-98. BISI 3511
- Some Problems Regarding the Formation of Joints
Welded With Ultrasonic Vibrations, by A. A. Alov,
W. Baier.
RUSSIAN, per, Avtomat Svarka, No 11, 1963, pp 66-71. IHB 6151
- Selected Articles From the Russian Periodical
Beton i Zhelozobeton.
- No 5, 1962, pp 233-237. CSIRO/No 6163
Structure and Characteristics of Cement Mortar, by
F. Ivanov, V. Solntseva.
- No 8, 1962, pp 339-342. OTS 63-14712
Heat Resistant Perlite Concrete, by K. D. Nekrasov,
M. G. Maslennikova, 11 pp.
- No 11, 1962.
Theoretical Basis for the Computation of Deformations
of Reinforced Concrete Structures in Accordance With
the New Specifications, by N. Mulin, et al,
(pp 491-498). CSIRO/No 6325
- Increase in Deflections of Reinforced Concrete Beams
Under Prolonged Load Application, by V. Figarovskiy,
(pp 501-503). CSIRO/No 6324

Scientific
Materials & Metallurgy (Contd)

Thermochemical Study of the Structure of Dilute Aqueous Solutions of Uranyl Chloride and Nitrate, by I. I. Lipilina, O. Ya. Samoylov, 10 pp. RUSSIAN, per, Dok Ak Nauk SSSR, Vol XCVIII, 1954, pp 99-102.

AEC-Tr-6265

Fine Structure of the Basic X-Ray K-Absorption Spectrum of Titanium in Some Dielectric Materials, by E. Ye. Vaynshteyn, I. B. Staryy, et al, 5 pp. RUSSIAN, per, Dok Ak Nauk SSSR, Vol CV, No 5, 1955, pp 943-946.

JPRS 23510

Some Principles in the Structure of the Basic X-Ray K-Absorption Edge of Atoms in Crystals of Alkali Halides, by E. Ye. Vaynshteyn, R. L. Barinskiy, et al, 6 pp. RUSSIAN, per, Dok Ak Nauk SSSR, Vol CV, No 6, 1955, pp 1196-1199.

JPRS 23510

Impact Strength of Cr-Mo-V Steel, by E. Ya. Veksler. RUSSIAN, per, Elektricheskiye Stantsii, Vol XXXIII, 1962, pp 35-37.

GB/10/3056

Experimental Induction Pump for Molten Iron, by L. A. Verte. RUSSIAN, per, Elektrichestvo, No 12, 1963, pp 64-66.

*BISI 3613

Kinetic Theory of Dislocations, by N. S. Akulov, 8 pp. RUSSIAN, per, Inzhenerno-Fiz Zhur, Vol IV, No 2, 1961, pp 70-76.

JPRS 23509

Physical Properties of Tungsten Carbide-Cobalt Hard Metals, by V. I. Tumanov, et al. RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk Metal i Toplivo, No 6, 1961, pp 144-148.

HB 6186

Selected Articles From the Russian Periodical
Iz Vysshikh Ucheb Zaved, Chern Metal.

No 1, 1962, pp 183-189.

HB 6152

Effect of Nonmetallic Inclusions on the Properties of Malleable Cast Iron, by P. N. Bidulya, G. Yu. Shul'te.

No 6, 1963.

Change in the Mineralogical Constitution of Sinter in the Course of Reduction, by B. A. Livshits, (pp 27-31). *BISI 3599

Change in Frictional Forces in a Bed of Granular Materials as Affected by the Speed of a Gas Passing Through It, by P. N. Grekov, V. K. Gruzinov, et al, (pp 32-34).

HB 6010

Scientific
Materials & Metallurgy (Contd)

Selected Articles From the Russian Periodical
Iz Vysshikh Ucheb Zaved, Chern Metal. (Contd)

- No 7, 1963, pp 39-46. HB 6068
Development of Charge Conveying Systems in
Blast-Furnace Plants, by V. K. Gruzinov,
V. V. Petrovskiy.
- No 9, 1963, pp 28-32. HB 6103
Desulfurization of Pig Iron Outside the Blast
Furnace by Reduction of Magnesium Oxide With
Aluminum, by M. A. Rabkin, et al.
- No 1, 1964, pp 201-208. JPRS 23673
Technical Progress and Trends in the Utilization
of Fuels at Metallurgical Plants, by A. A. Fedotov,
N. P. Banny, et al, 10 pp.
- X-Ray Diffraction Research on the Fatigue Mechanism of
Ferrous and Nonferrous Metals and Alloys, Single
Crystals and Polycrystalline Samples, by V. M. Buyko,
V. Ye. Makogonov, et al, 11 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Fiz, No 5, 1959,
pp 93-101. JPRS 23510
- Crystal Lattice State and Dislocation Density in
Austenite and Ferrite During Phase Transformations,
by L. I. Mirkin, Ya. S. Umanskiy, 7 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Fiz, No 3, 1960,
pp 212-217. JPRS 23509
- Corrosion of Steel in Sulfuric Acid and Formaldehyde
Mixtures, by A. L. Labutin, L. P. Mal'shina.
RUSSIAN, per, Khim Mash, No 4, 1963, pp 28, 29. HB 6109
- Investigation of Inorganic Salts for the Purpose of
Using Them as High-Temperature Lubricants, by
M. M. Fyalko, A. I. Dintses, 9 pp.
RUSSIAN, per, Khim i Tekh, Toplivo i Masla, No 10,
1963, pp 22-26. 9691540 FTD-TT-63-1151
- Influence of Non-Scale Heating on the State of the
Surface Layer of Steel, by V. P. Nikiforov,
V. A. Kuroyedov.
RUSSIAN, per, Kuznechno-Shtampovochnoye Proiz, No 6,
1963, pp 31-33. *BISI 3609
- The Crystallization of Liquid Metal in Oscillatory
Centrifugal Casting, by P. N. Bidulya, A. L. Baldov.
RUSSIAN, per, Lit Proiz, No 9, 1963, pp 28, 29. HB 6159

Scientific
Materials & Metallurgy (Contd)

- Automatic Control of Air Blast in Cupolas, by
V. Ya. Soltyk, A. V. Klibus.
RUSSIAN, per, Lit Proiz, No 10, 1963, p 15. HB 6153
- Large Nonferrous Alloy Centrifugal Castings, by
G. I. Shandrenko, A. D. Gridin.
RUSSIAN, per, Lit Proiz, No 10, 1963, p 45. HB 6148
- Selected Articles From the Russian Periodical
Metal i Term Obra Metallov, No 1, 1964.
- Effect of Ultrasonic High-Temperature Heating
Upon the Structure of Technical Iron, by
Yu. F. Balalayev, (pp 48, 49). HB 6181
- Decomposition of Retained Austenite in Steel
Induced by Ultrasonic Vibrations, by G. E. Aizentsov,
P. A. Malinen, (pp 50, 51). HB 6182
- Nitriding of Steel Intensified by Ultrasound, by
G. V. Zemskov, (pp 52-55). HB 6183
- Effect of Ultrasonic Vibrations on the Hardenability
of Steel, by A. G. Vasil'yeva, (pp 55, 56). HB 6184
- Thermal Decomposition Mechanism of Calcium, Strontium,
and Barium Sulfites, by A. N. Ketov, V. V. Pechkovskiy,
6 pp.
RUSSIAN, per, Nauch Dok Vyssh Shkoly, Khim i Khim Tekh,
No 4, 1958, pp 667-671. AEC-Tr-6259
- Carbothermal Method of Producing Boron Carbide in
Resistance Furnaces, by A. I. Rekov, G. V. Samsonov,
14 pp.
RUSSIAN, per, Porosh Metal, Vol I, No 4, 1961, pp 80-85. OTS 63-18486
- Procedure for Calculation of Density and Thickness of
Porous Rolled Metal, by G. A. Vinogradov.
RUSSIAN, per, Porosh Metal, Vol III, No 5, 1963,
pp 15-20. HB 6186
- Boronizing of High-Melting Transition Metals, by
A. P. Epik.
RUSSIAN, per, Porosh Metal, Vol III, No 5, 1963,
pp 21-27. HB 6187
- Caprolite, by Korshak, Sergeyev.
RUSSIAN, per, Priroda, No 10, 1963, pp 98-100. *ACSI I-4342
ID 2204008164

Scientific
Materials & Metallurgy (Contd)

- Metallurgical Evaluation of Ores and Agglomerates,
by I. Solomakhin, V. Ya. Nikonov.
RUSSIAN, per, Sbornik Statey Vses Zaochnyy Politekh
Inst, No 14, 1956, pp 39-43. *BISI 3618
- Effect of Alloying Practice Upon Quality of Aluminum-
Containing Constructional Steels, by A. K. Petrov,
V. K. Petrov, et al.
RUSSIAN, per, Stal', Vol XVIII, No 8, 1958, pp 742-744. HB 5080
- The Emulsion Method of Dyeing Wool, Reconstituted
Fibre, and Synthetic Fibre, by V. Blinov, et al.
RUSSIAN, per, Textil Prom, No 10, 1962, pp 57-60. CSIRO/No 6453
- Studying the Oxidation of Niobium Base Alloys, by
V. I. Grigorovich, A. I. Dedyurin, 37 pp.
RUSSIAN, per, Trudy Inst Metall Metallurgiya
Metallovedeniye Fiziko Khim Metody Issled,
No 12, 1963, pp 214-240. 9691523 FTD-TT-63-1020
- Rolling Cobalt Powder into Strip, by Yu. N. Semenov,
G. S. Shmakov, et al, 6 pp.
RUSSIAN, per, Trudy Leningrad Politekh Inst imeni
M. I. Kalinina, No 222, 1963, pp 68-70. JPRS 23596
- Preparation of Scandium, Yttrium and Gadolinium
Monocrystals, by E. M. Savitskiy, V. F. Terekhova,
et al.
RUSSIAN, per, Tsvetnye Metal, No 5, 1963, pp 51-53. *AEC
- Physical Properties of Metals of High Purity, by
R. L. Garber, I. A. Oindin.
RUSSIAN, per, Uspekhi Fiz Nauk, No 5, 1961. GB/39/M/26037
- Dislocation Theory of Brittle Fracture, by
V. I. Trefilov, 14 pp.
RUSSIAN, per, Voprosy Fiz Metal i Metallov, No 16,
1962, pp 3-15. JPRS 23509
- Theory of X-Ray Absorption Spectra, by A. I. Kostarev,
I. B. Borovskiy, 11 pp.
RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XXVI, No 3,
1954, pp 377-384. JPRS 23510
- Theory of X-Ray Absorption Spectra, by E. Ye. Vaynshteyn,
R. L. Barinskiy, et al, 11 pp.
RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XXVII,
No 4, 1954, pp 521-528. JPRS 23510

Scientific
Materials & Metallurgy (Contd)

Selected Articles From the Czech Periodical
Hutnicke Listy.

- Vol XII, No 12, 1957, pp 1020-1026. *BISI 3619
Metallurgical Characteristics and Classification
of Iron Ores, by M. Prouza.
- Vol XVII, No 6, 1962, pp 390-395. *BISI 3622
Influence of the Content of Sulphur on the
Quality of Seamless Tubes, by J. Duda.
- Vol XVIII, No 6, 1963.
Plasma Arc Melting and Refining of Metals, by
J. Zboril, (pp 401-403). HB 6070
- Determination of the Lengths of the Thick Ends of
Reduced Tubes, by D. Valenta, (pp 404-406). *BISI 3607
- New Methods in Transport and Materials Handling
in Steelworks, by J. Kunc.
CZECH, per, Hutnik, No 3, 1963, pp 129-133. *BISI 3623
- Recent Progress in the Determination of Gases in
Metals by Spectrographic Emission, by G. Rossi,
J. Melamed, 9 pp.
FRENCH, rpt, Jul 1961. AEC-Tr-6266
- Capital and Operating Costs of Plants for the
Reprocessing of Irradiated Natural Uranium,
by L. Thiriet, C. Jouannaud, et al, 15 pp.
FRENCH, rpt, Fuel Cycles for Power Reactors,
Baden-Baden, Sep 1963. AEC-Tr-6166
- Automatic Inspection of Steel Billets, by
L. Colombier.
FRENCH, per, Bulletin du Cercle d'Etudes des Metaux,
Vol VIII, No 3, 1962, pp 325-332. BISI 3270
- The Influence of Certain Dissolved Elements on the
Rate of Nitrogen Dissolution in Molten Iron, by
P. Kozakevitch, G. Urbain.
FRENCH, per, Les Memoires Scientifiques de la Revue de
Metallurgie, Vol LX, No 2, 1963, pp 143-156. BISI 3369
- Phosphating of Steel at Elevated Temperatures, by
A. Hache.
FRENCH, per, Revue de Metallurgie, Vol LX, No 10,
1963, pp 869, 870. HB 6131
- Rolling Mill Rolls Made of Chilled Cast Iron, by
T. Boissaux.
FRENCH, per, Revue Tech Luxembourgeoise, Vol XLIV,
No 3, 1952, pp 171-180. *BISI 3604

Scientific
Materials & Metallurgy (Contd)

The Tempering of Martensite, by A. Lutts.
FRENCH, per, Revue Universelle des Mines, Vol XIX,
Aug 1963, pp 325-341.

BISI 3494

Process for the Preparation of Artificial Textile
Fibers, by Antoniono Ferretti, 10 pp.
FRENCH, Patent No 813,427, Aug 1936.

SLA 63-18199

Selected Articles From the German Report
Paper Presented at the International Congress on
Oxygen Steel Plants at Le Touquet and Dunkirk,
23-26 Sep 1963.

Results and Experience of Blowing Basic Bessemer
Pig Iron by the OLP Methods in Dillingen, by
K. H. Bauer.

BISI 3471

The Formation of Slags in Top-Blowing Processes,
by G. Tromel, E. Gorl.

BISI 3484

Research on the Permissible Oxygen Flow Speed in
Steel Pipes, by W. Wegener.

BISI 3485

Strength Tests in Rock Mechanics, by H. G. Denkhaus.
GERMAN, per, Abhandlungen der Deutschen Akademie der
Wissenschaften zu Berlin, Klasse fuer Bergbau,
Huttenwesen und Montangeologie, No 2, 1961, pp 80-95.

Dept of Interior
TN7 E57 No 728

Internal Protection of Aluminium Beer Barrels, by
K. Broockmann, A. Schimmer.
GERMAN, per, Aluminium, Vol XXXVIII, No 9, 1962,
pp 609-613.

GB/95

Aluminium Salts and Their Growing Importance, by
H. von Kretzschmar.
GERMAN, per, Aluminium, Vol XXXIX, No 3, 1963,
pp 189-193.

Dept of Interior
TN7 E57 No 699

Selected Articles From the German Periodical
Archiv fuer Eisenhuttenwesen.

Vol XXVI, No 1, 1955, pp 59-62.
The Time Law of the Precipitation of New Phases
in Solid Solutions, by B. Ilchner.

*BISI 3611

Vol XXXIII, No 10, 1962, pp 699-704.
Ultrasonic Inspection of Steel Sheet and Plate
With Lamb Waves, Part I, by P. Holler, E. Lechky.

HB 5764

Scientific
Materials & Metallurgy (Contd)

Selected Articles From the German Periodical
Archiv fuer Eisenhuettenwesen. (Contd)

- Vol XXXIV, No 3, 1963, pp 223-226. *BISI 3615
Costing System of the Energy Balance in a Steelworks.
An Example of the Applicability of Linear Programming,
by R. Graef.
- Vol XXXIV, No 8, 1963, pp 583-590. BISI 3455
Micro Analysis of the Alloying Elements of
Steel by Means of the Paper Chromatography, by
J. Bruch, A. Wutschel.
- Vol XXXIV, No 9, 1963, pp 701-712. *BISI 3588
Influence of Temperature on the Mechanical
Properties of Iron-Nickel Alloys, by F. Lihl,
J. Thony.
- Vol XXXIV, No 12, 1963, pp 935-950. *BISI 3621
Analysis of the Creep-Behaviour of High Temperature
Ferritic Steels at Temperatures of 450 to 600°C., by
M. Wild.
- Deep Drawability and Spot Weldability of Cold Rolled
Galvanised Sheets With Reference to Their Corrosion
Behaviour, by K. H. Kloos.
GERMAN, per, Bander, Bleche, Rohre, Apr 1963, pp 165-173. *BISI 3616
- Halloysite, the Most Unusual Clay Material, by U. Hofmann.
GERMAN, per, Berichte der Deutschen Keramischen Gesellschaft,
Vol XXXIX, No 10, 1962, pp 474-482. CSIRO/No 6383
- On N-Glycosides, Report III. Steric Course of Hydro-
genation of Iso-Glycosamines; Rotational Laws for
9-Polyoxyalkylflavines and N-Polyoxyalkylaminobenzenes,
by Friedrich Weygand, 11 pp.
GERMAN, per, Chemische Berichte, Vol LXXIII, 1940,
pp 1278-1283. AEC-Tr-6262
- Descaling and Annealing of Corrosion-Resistant and
Heat-Resistant Chrome-Nickel Wires in a Salt Bath
Furnace, by R. Stenzhorn.
GERMAN, per, Draht, Vol XII, No 10, 1961, pp 481-487. GB/39/HO 1804
- Microscopic Investigations of Coking Properties of
Coal, by M. Th. Mackowsky.
GERMAN, per, Erdol und Kohle, Vol XV, No 6, 1962,
pp 441-451. BISI 3358
- The Electroplating of Titanium, by J. Weigel.
GERMAN, per, Galvanotechnik, Vol LIV, No 3, 1963,
pp 127-138. GB/39/HO 1802

Scientific
Materials & Metallurgy (Contd)

- Dust Extraction From Cupolas With Special Reference to the Costs Involved, by E. Weber.
GERMAN, per, Giesserei, Vol XLIX, No 6, 1962, pp 136-142. HB 5613
- Effect of Vacuum Degassing of Cast Iron Melted Under Atmospheric Conditions, by J. Thieme.
GERMAN, per, Giesserei, Vol L, No 20, 1963, pp 602-609. HB 6084
- Attempts to Develop a Wear-Resistant Mild Hard Roll With Spherulitic Graphite, by H. Goebel.
GERMAN, per, Giesserei Technisch-Wissenschaft Beihefte, No 10, Mar 1953, pp 463-475. *BISI 3605
- Model Tests of the Interaction of Rock and Support in Mine Drifts, by Georg Everling.
GERMAN, per, Gluckauf, Vol XCVIII, No 25, 1962, pp 1472-1479. Dept of Interior
TN7 E57 No 725
- Press Techniques in Power Metallurgy, by F. Winterberg.
GERMAN, per, Industrieblatt, Vol LXII, No 10, 1962, pp 623-626. BISI 3382
- A Fully Automatic Testing Device for the Determination of the Thermal Fatigue Strength of High-Temperature Materials, by E. Krompl.
GERMAN, per, Materialprufung, Vol V, No 4, 1963, pp 144-153. BISI 3542
- Integral Equalization of the Fibre Length Distribution of the Combed Wool, by W. Wegener, W. Rosemann.
GERMAN, per, Melliand Textilberichte, Vol XLIII, No 8, 1962, pp 811-816. CSIRO/No 6193
- Application of Statistics in Metallurgical Processes Control, by M. Knotek.
GERMAN, per, Neue Huette, Vol VIII, No 7, 1963, pp 385-391. BISI 3429
- Contribution to the Development of Nitrogen-Alloyed Steels, by H. Schultz.
GERMAN, per, Neue Huette, Vol VIII, No 7, 1963, pp 391-398. BISI 3397
- Influencing Possibilities and Limits of Desulphurisation in the Smelting of Mild Steel in the Siemens-Martin Furnace, by H. John, W. Gurlich.
GERMAN, per, Neue Huette, Vol XVIII, No 11, 1963, pp 650-655. BISI 3550

Scientific
Materials & Metallurgy (Contd)

Setting Methods in the Wool Industry, by G. Elven,
L. Ondarza.

GERMAN, per, Spinner, Weber, Textilveredlung,
Vol LXXX, No 10, 1962, pp 967-969.

CSIRO/No 6346

Selected Articles From the German Periodical
Stahl und Eisen.

Vol LXXI, 1951, pp 836-839.

HB 5070

Investigation Into the Workability of Cold-Heading
Steels, General Discussion, by J. Billigmann.

Vol LXXV, 1955, pp 1701-1705.

HB 5353

General Discussion of Studies of Lubricating
Efficiency of Rolling Oils, Especially Oil Emulsions,
Part III, by J. Billigmann, H. Kuhn, et al.

Vol LXXVIII, 1958, pp 1556-1563.

BISI 3467

Effects of Heat on Tool Steels During Hot
Upsetting and Die Forging, by G. Beck.

Vol LXXXII, 1962, pp 1279-1287.

HB 5709

Possibilities of Sulfur Removal From Steel by
Way of the Gas Phase in the Basic-Oxygen
Processes, by N. Neuhaus, H. J. Langhammer, et al.

Vol LXXXIII, 1963.

On the Electric Arc Furnace With Special Reference
to Large Capacity Units for Steel Production,
Part II, by F. Harms, (pp 265-270).

HB 6035

High Transport Operation Rates With Cable-Drawn
Ingot and Slab Buggies. I - Mechanical Equipment,
by H. von der Warth, T. Sevenich, (pp 517-522).

BISI 3305

Determination of the Volume, Composition and
Temperature of the Waste Gas and the Dust
During Meltdown and Oxidation by Oxygen Lancing
in a 15-Ton Electric Arc Furnace, by
H. Kahnwald, O. Etterich, (pp 1067-1070).

HB 6066

Comparison of the Results of Testings of the
Cutting Property and Those of Structure and Strength
Testing of Case-Hardening and Heat Treatable Steel,
Part I, (pp 1209-1226).

BISI 3523

Influence of Deformation Conditions of Metal Flow
and Yield in Rolling Thick Slabs, by E. Ritter,
W. Dahl, (pp 1235-1250).

BISI 3448

Scientific
Materials & Metallurgy (Contd)

Selected Articles From the German Periodical
Stahl und Eisen. (Contd)

Vol LXXXIII, 1963. (Contd)

Comparison of the Results of Investigations Into
the Machining, Structural and Strength Properties of
Case-Hardening and Heat Treatable Steels, Part II,
(pp 1302-1315).

BISI 3523

Technical Deformation Characteristics of Hot-Rolling
Mills, by O. Pawelski, (pp 1440-1451).

*BISI 3620

Injection of Heavy Oil in Conditions of High Blast
Temperature, Fully Prepared Burden and Oxygen
Enrichment, by H. Th. Brandt, P. Ischebeck,
(pp 1541-1546).

BISI 3558

Comparison of Various Methods of Determining Yield
Stress at Room Temperature, by U. Krause,
(pp 1626-1640).

*BISI 3608

Crucible and Rotor Furnaces for the Production of
Oxygen Steel, by T. Haarbrucker.

GERMAN, per, Technik und Forschung, No 181(42),
1961, pp 758-760.

BISI 3284

Rolling of Stainless Steel Strip and Sheet,
by G. Momm.

GERMAN, per, Technische Mitteilungen Krupp Werksberichte,
Vol XXI, 1963, pp 1-10.

BISI 3540

Some Remarks on Desulphurisation in Oxygen Top Blow
Processes, by H. Krainer.

GERMAN, per, Technische Mitteilungen Krupp Werksberichte,
Vol XXI, No 2, 1963, pp 37-43.

*BISI 3602

Assessment of the Permeability to Gases of Refractories
and Its Significance for Steelworks, by P. Artelt,
R. Oberfeuer.

GERMAN, per, Tonindustrie Zeitung, Vol X, 1963,
pp 205-209.

*BISI 3592

Remote Protection Effect of Sprayed-on Metal Coatings
on Steel, by H. Spindler.

GERMAN, per, Werkstoffe und Korrosion, Vol IX,
No 5, 1958, pp 278-283.

*BISI 3624

Potentiostatic Differential Etching of the Structural
Constituents in 18/8 Cr Ni Steels, by B. Roschenblock,
E. K. Buss.

GERMAN, per, Werkstoffe und Korrosion, Vol XIV, No 4,
1963, pp 261-269.

BISI 3546

Scientific
Materials & Metallurgy (Contd)

Separation of Molybdenum From Heavy Metals by Means
of Ion Exchange Resins, by R. Klement.
GERMAN, per, Z fuer Analytische Chemie, Vol CXXXVI,
No 1, 1952, pp 17-25.

GB/95

Selected Articles From the German Periodical
Z fuer Metallkunde.

Vol XXXIX, 1948, pp 71-78.
The Age-Hardening of Iron-Zinc and Cobalt-Zinc
Alloys, by J. Schramm, A. Mohrnhelm.

*BISI 3614

Vol LI, 1960, pp 101-108.
Investigation of Grain Boundary Migration in
Aluminum Crystals, by Peter Haasen, et al.

*AEC

Vol LIII, 1962, pp 617-632.
A Review of the Research for Electrothermal
Production of Aluminum, by Erhard Herrmann.

Dept of Interior
TN7 E57 No 698

Vol LIV, 1963, pp 493-504.
Detection of Tridimensional Vacancy Agglomerates
in Quenched Copper Single Crystals by the Small-
Angle Scattering of X-Rays, by Alfred Seeger,
Volkmar Gerold, et al, 29 pp.

AEC-Tr-6255

Anticorrosive Plating of Carbon Steels by Electro-
Deposition in Inert Gas, by L. Cosimi.
ITALIAN, per, Revista Italiana della Saldatura, Vol XIV,
No 2, 1962, pp 70-73.

*BISI 3612

Preparation and Pretreatment of Packing Agents Used
for the Microanalysis of Carbon and Hydrogen, by
Tetsuro Kawano, Setsuko Yamamoto, et al, 18 pp.
JAPANESE, per, Japan Analyst, Vol I, No 2, 1952,
pp 126-130. 9219742

AEC-Tr-6249

Sintering of Tungsten Metal Powder, by Teruhiko Yao,
Yukio Anekoji, 11 pp.
JAPANESE, per, Journal of the Japanese Society on
Powder Metallurgy, Vol IX, No 5, 1962, pp 163-168.
9219377

AEC-Tr-6168

Initial Sintering of Tungsten. Relation Between Linear
Shrinkage and Particle Size, Sintering Temperature and
Time, by Teruhiko Yao, 9 pp.
JAPANESE, per, Journal of the Japanese Society on
Powder Metallurgy, Vol IX, No 6, 1962, pp 217-221.
9219376

AEC-Tr-6167

Scientific
Materials & Metallurgy (Contd)

Studies of the Stability of Natural Rubber. I. Formation of a Network Structure in Natural Rubber. II. Relation Between Network and Tensile Strength, by K. Tatebayashi, T. Endo.

JAPANESE, per, Nippon Gomu Kyokaishi, Vol XXIV, 1951, pp 130-138.

*AEC

Solvent Extraction of Scandium, Its Separation From Yttrium and Rare-Earth Elements, by T. Shigematsu, M. Tabushi, et al, 12 pp.

JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXIV, 1963, pp 263-267. 9219761

AEC-Tr-6239

Selected Articles From the Japanese Periodical Tetsu to Hagane.

Vol XLVIII, No 11, 1962.

Layout and Operation of Basic Oxygen Furnaces at Muroran, Japan, Works, by Sh. Toyoda, (pp 1354-1356).

HB 5841

On the Behavior of Nitrogen in the Basic Oxygen Steelmaking Process, by H. Otaki, (pp 1371, 1372).

HB 5759

Vol XLIX, No 3, 1963, pp 471, 472.

HB 5973

Gas Turbine Rotor Shaft of Consumable-Electrode Arc Melted Steel, by A. Suzuki.

Vol XLIX, No 10, 1963.

Sintering Test on Fuel Additions to Semi-Pellets, by K. Nakayama, (pp 1281, 1282).

HB 6111

Effect of Uranium on the Mechanical Properties of 28% Cr, 15% Ni Heat-Resisting Cast Steels, by Sh. Inoue, T. Tsuchiya, et al, (pp 1569-1571).

HB 6096

Effect of Cooling Conditions on the Fire Cracking of Slabbing-Mill Rolls, by C. Utahashi, (pp 1617, 1618).

HB 6082

Lithium Tetraborate, by H. Gode.

LATVIAN, per, Latvijas PSR Zinatnu Ak Vestis, No 3(20), 1949, pp 91-96.

*AEC

Separation of Dust From Gases in a Circulator Gas Cleaner, by K. Mikula.

POLISH, per, Archivum Hutnictwa, Vol V, No 4, 1960, pp 363-387.

HB 5043

Surface Properties of Metal and Slag in Steelmaking Processes, by T. Mazanek.

POLISH, per, Archivum Hutnictwa, Vol VIII, No 2, 1963, pp 119-140.

*BISI 3617

Scientific
Materials & Metallurgy (Contd)

- Gas Content and Nonmetallic Inclusions in Pig Irons, by L. Sofroni.
RUMANIAN, per, Studii si Cercetari de Metalurgie, Vol XIV, No 1, 1962, pp 73-87. HB 5703
- Concerning the Position of the Exchangeable Cations in Kaolinite, by A. Weiss, J. Russow.
SWEDISH, rpt, International Clay Conference, Stockholm, 12-16 Aug 1963, pp 203-213. Natl Bu of Stand
- On the Wear Resistance of Sintered Hard Metals and Hard Alloys, by O. Knotek.
SWEDISH, per, Jernkontorets Annalen, Vol CXLVII, No 1, 1963, pp 116-132. HB 5919
- Some New Metals and Their Importance Especially as Alloying Elements for Improving the Properties of Steel, by G. Bjorling.
SWEDISH, per, Jernkontorets Annalen, Vol CXLVII, No 4, 1963, pp 357-376. *BISI 3606
- Study of Electric Arc Furnace, by V. Lanner, P. E. Torseke.
SWEDISH, per, Teknisk Tidskrift, Vol XCIII, No 9, 1963, pp 789-796. *BISI 3610
- Creep-Resisting Steels With Various Alloying Additions, by M. P. Braun, B. B. Vinokur.
UKRAINIAN, per, Dopovidi Ak Nauk Ukrian RSR, No 9, 1963, pp 1190-1193. HB 6164
- Characteristics of Curves of the Intensity of X-Ray Scattering and Curves of the Atomic Distribution of Liquid Metals, by I. V. Radchenko, I. M. Shapovalov, 15 pp.
UKRAINIAN, per, Ukrain Fiz Zhur, Vol IV, No 1, 1959, pp 5-16. JPRS 23510
- Electric Transfer of Antimony in Aluminium, by P. P. Kuz'menko, V. S. Koval'chuk, 5 pp.
UKRAINIAN, per, Ukrain Fiz Zhur, Vol VII, No 12, 1962, pp 1350-1354. 9219345 AERE-Harwell-Tr-981

Scientific
Mathematics & Data Processing

Selected Articles From the Russian Book
Kombinirovannyye Vychislitel'nyye Mashiny. Trudy II.
Vsesoyuznoy Konferentsii-Seminara po Teorii i Metodam,
1962.

*FTD-TT-64-223

Transistorized Digit-Analog Translator, by
T. M. Aleksandridi, Ye. A. Fateyeva, (pp 139-149).

Electronic Voltage to Code Translator for the
Besm-2 Computer, by K. P. Zhukauskas,
I. Yu. Petkyavichus, (pp 174-185).

Automatic Synthesis of Optimal Automatic
Control Systems, by A. A. Fel'dbaum, (pp 186-198).

Problems of the Application of Analog Computers in
Optimal-Control Systems, by F. B. Gul'ko, (pp 199-204).

The Method of Mathematical Induction, by I. S. Sominskiy.
RUSSIAN, monograph, Metod Matematicheskoy Induktsiy,
5 ed., 1959.

Pergamon Press

Stability in Nonlinear Control Systems, by A. M. Letov,
409 pp.
RUSSIAN, bk, Ustoychivost' Nelineynykh Reguliruyemykh
Sistem, 1962, pp 1-483. 9691637-V

FTD-TT-63-399

Selected Articles From the Russian Periodical
Dok Ak Nauk SSSR, Vol CLIII, No 4, 1963.

JPRS 23613

One Method for the Numerical Solution of Optimum
Control Problems, by N. Ya. Bagayeva, N. N. Moyseyev,
5 pp, (pp 747-750).

The Problem of Synthesis of a Class of Automatic Control
Systems Which Are Subject to Chance Influence, by
G. A. Agasandyan, 6 pp, (pp 768-771).

Problems of Optimum Control of Processes for
Drawing Articles From a Molten Bath, by A. G. Butkovskiy,
A. Ya. Lerner, (pp 772-775).

Several Properties of Movement in Automatic Systems
With Variable Structure Having a Discontinuous
Change Over Function, by S. V. Yemel'yanov,
N. Ye. Kostyleva, 5 pp, (pp 776-778).

Inequalities for Harmonic Polynomials, by Ya. S. Bugrov.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved Matemat, No 5,
1963, pp 12-23.

*Navy/APL J326

Scientific
Mathematics & Data Processing (Contd)

- Solution of a Second-Order Hyperbolic Differential Equation by Reducing it to a System of Integral Equations, by T. V. Chekmarev.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved Matemat, No 5, 1963, pp 146-152. *Navy/APL J327
- Biologically Active Polyvinyl Alcohol Letilan Fibers, by L. A. Volf, I. Meos, et al, 7 pp.
RUSSIAN, per, Khim Volokna, No 6, 1963, pp 16-18. JPRS 23609
- On Normally Embedded Sets of Normal Spaces, by Yu. M. Smirnov, 7 pp.
RUSSIAN, per, Matemat Sbornik, Vol XXIX, (71) No 1, 1951, pp 173-176. 9219384 NASA TT F-193
- On the Formula of G. Rose in Structures With Relative Pseudo Supplements, by L. V. Kazaryan, Yu. N. Pecherskiy, 7 pp.
RUSSIAN, per, Matemat Vop Kobernet i Vychisl Tekh, No 1, 1963, pp 7-12. JPRS 23277
- On the Cauchy Problem for a Strongly Degenerating Hyperbolic Equation, by F. T. Baranovskiy.
RUSSIAN, per, Sibir Matemat Zhur, Vol IV, No 5, 1963, pp 1000-1011. *Navy/APL J328
- Strong and Weak Reductibility of Algorithmic Problems, by A. A. Muchnik, 21 pp.
RUSSIAN, per, Sibir Matemat Zhur, Vol IV, No 6, Nov, Dec 1963, pp 1328-1341. JPRS 23760
- Coding of Work Meanings According to Symbols of the Objects Expressed by Them, by E. F. Skorokhod'ko, 6 pp.
RUSSIAN, per, Vychislitel Matemat i Tekh, 1962, pp 105-110. JPRS 23640
- Some General Properties of Central Trajectories of a Point of Variable Mass, by A. M. Slesarev, 50 pp.
RUSSIAN, per, Vychislitel Matemat i Tekh, 1962, pp 131-178. JPRS 23629
- Logical Principles in Digital Techniques, by Silvin Leskovar, 9 pp.
CROATIAN, per, Vojnotehnicki Glasnik, No 2, 1963, pp 92-98. ACSI I-3967
ID 2204001864

Scientific
Mathematics & Data Processing (Contd)

Annual Report of the Leadership of the Mathematics
and Physics Department of the Hungarian Academy of
Sciences, by Gyorgy Hajos, 42 pp.
HUNGARIAN, per, A Magyar Tudomanyos Akademia Matematikai
es Fizikai Tudomanyok Osztalyanak Kozlemenyei, Vol XIII,
No 4, 1963, 1963, pp 313-340.

JPRS 23641

Tape-to-Card Conversion on the IBM 047, by
F. A. Behringer, 6 pp.
SPANISH, rpt, Symposium on Punched-Tape Techniques
in Documentaiton, Ispra, 28-30 May 1963. 9219341

AERE-Harwell-Tr-986

Scientific
Nuclear Science & Technology

Proceedings of the Second All-Union Conference
on Radiation Chemistry.
RUSSIAN, rpt, Moscow, 1962, 756 pp.

*AEC

Search for H^5 in the Thermal-Neutron Fission
Products of U^{235} , by V. N. Andreyev, S. M. Sirotkin,
7 pp.
RUSSIAN, rpt, Moscow, 1963.

AEC-Tr-6183

Study of Ohmic Plasma Heating in the Toroidal
System Tokamak-3, by L. A. Artsimovich, S. V. Mirnov,
et al, 16 pp.
RUSSIAN, bk, Issledovanie Omicheskogo Nagrevaniya
Plazmy na Toroidal'noi Ustanovke-Tokamak-3, 1963,
20 pp. 9219523

AEC-MATT-Tr-12

Linear Ion Accelerators, by D. V. Karetnikov,
I. N. Slivkov, et al, 226 pp.
RUSSIAN, bk, Lineniye Uskoriteli Ionov, Moscow,
1962, 208 pp. 9219769

AEC-Tr-6229

Principles of the Chemical Technology of Artificial
Radioactive Elements, by Ya. I. Zil'berman, 475 pp.
RUSSIAN, bk, Osnovy Khimicheskoy Tekhnologii
Iskustvennykh Radioaktivnykh Elementov, Moscow,
1961, pp 1-332.

JPRS 23350

Selected Articles From the Russian Report
Proceedings of the Conference on Neutron Dosimetry,
Vol I, 1963.

Recent Developments in Fast-Reactor Neutron
Spectrometry Techniques: Ionographic Emulsions,
Junctions, Fission Chambers and Activation
Monitors, by J. L. Campan, P. Caumette, et al,
17 pp, (pp 13-24).

AEC-Tr-6271

Problems Presented by the Use of Activation
Detectors, by A. Charbonnel, 12 pp, (pp 71-80).

AEC-Tr-6272

Study of the n, γ Reactions Cross-Sections for
Gold: Calculation of the Activity of a Thick
Gold Detector, by J. J. Brisbois, 15 pp,
(pp 181-192).

AEC-Tr-6273

The Spectrometric Method and the Attenuation
Curve Analysis Method for the Determination of
the Activity of Threshold Indicators, by
V. P. Mashkovich, 10 pp, (pp 253-260).

AEC-Tr-6274

Scientific
Nuclear Science & Technology (Contd)

Selected Articles From the Russian Report
Proceedings of the Conference on Neutron Dosimetry,
Vol I, 1963. (Contd)

Dosimetry and Spectral Distribution of a Fast-Neutron Flux for Use in Biological Experiments, by Y. Arnaud, 18 pp, (pp 277-291) AEC-Tr-6275

Spectrum Analysis of Fast Neutrons by Means of the $Li6(n,t)He4$ Reaction, by C. Beets, M. Lott, 15 pp, (pp 293-305). AEC-Tr-6276

A New Method for Measuring Continuous Fast Neutron Spectra. The Counting Efficiencies Method, by G. G. Doroshenko, V. I. Glagolev, et al, 9 pp, (pp 337-343). AEC-Tr-6277

Fast-Neutron Spectrometry by Means of Scintillation Single Crystals of Lithium Iodide, by V. V. Matveyev, V. P. Panova, et al, 8 pp, (pp 455-460). AEC-Tr-6278

Measurement of Fast-Neutron Spectra by Means of Nuclear Emulsions, by S. Passe, 22 pp, (pp 481-499). AEC-Tr-6279

Selected Articles From the Russian Report
Proceedings of the Conference on Radiation Damage in
Solids and Reactor Materials, Vienna, 7-11 May 1963,
Vol III, 1963.

Effects of Radiation on Semiconductors: Overall View, by P. Baruch, 15 pp, (pp 3-14). 9219379 AEC-Tr-6147

Accelerated Diffusion in Silicon, by P. Baruch, J. C. Pfister, 7 pp, (pp 43-48). 9219321 AEC-Tr-6148

Effects of Neutron Irradiation on the Structure and Magnetic Properties of High-Permeability Manganese and Lithium Ferrites, by E. Labusca, N. Andreesco, et al, 19 pp, (pp 103-120). 9219764 AEC-Tr-6149

Effects of Radiation on the Mechanical Properties of Ionic Crystals, by E. Andronikashvili, N. Politov, et al, 17 pp, (pp 147-162). 9219748 AEC-Tr-6150

Radiation and Chemical Protection, by E. F. Romantsev, 254 pp.
RUSSIAN, bk, Radiatsiya i Khimicheskaya Zashita,
Moscow, 1963. AEC-Tr-6258

Scientific
Nuclear Science & Technology (Contd)

Investigation of Neutron Flux Peaking in Multiplication Regions Caused by Supplementary Reflectors Made of Different Materials, by M. N. Nikolayev, A. V. Zvonarev, et al, 26 pp.

RUSSIAN, rpt, Symposium on Exponential and Critical Experiments, Amsterdam, 2-6 Sep 1963.

AEC-Tr-6240

Effect of a Transverse Magnetic Field on a Toroidal Discharge in a Strong Longitudinal Magnetic Field, by V. M. Grigorovich, V. S. Mukhovatov, 17 pp.
RUSSIAN, bk, Vliyaniye Poperechnogo Magnitnogo Polya na Toroidal'nyi Razryad v Sil'nom Podol'nom Magnitom Pole, 1963, 24 pp. 9219524

AEC-MATT-Tr-10

Problems of Nuclear Meteorology, by I. L. Karol', S. G. Malakhov, 328 pp.
RUSSIAN, bk, Voprosy Yadernoi Meteorologii, Moscow, 1962. 9219333-V

AEC-Tr-6128

Interaction of Atomic Particles With the Surface of a Metal, by U. A. Arifov, 317 pp.
RUSSIAN, bk, Vzaimodeistvie Atomnykh Chastits s Poverkhnost'yu Metalla, Tashkent, 1961, 323 pp. 9219346-V

AEC-Tr-6089

Synthetic Zeolites and Ion Exchangers. Part I. A Study of Ion-Exchange Kinetics, by G. M. Panchenko, A. M. Tolmachev.
RUSSIAN, per, Kinetika i Kataliz, Vol IV, No 6, 1963, pp 853-858.

*AERE-Harwell

Rate of Removal of RuO₄ From Aqueous Solutions by a Current of Air, by A. A. Goryunov, R. L. Myuller, 8 pp.
RUSSIAN, per, Vest Leningrad Univ Ser Fiz i Khim, No 2, 1960, pp 104-111.

AEC-TRG-Inf-Ser-134

On the Number of Neutrons Emitted by U235 Fission Fragments, by V. F. Apalin, Yu. N. Gritsyuk, et al, 12 pp.
RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XXXIV, No 2, 1958, pp 329, 330.

AEC-Tr-6254

Deviation From the 1/v Law in the Cross Sections of Slow Neutron Reactions in Light Nuclei, by A. A. Bergman, F. L. Shapiro, 28 pp.
RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XL, No 5, 1961, pp 1270-1281.

AEC-Tr-6153

Scientific
Nuclear Science & Technology (Contd)

- Scattering of Slow Neutrons by Crystals and Liquids,
by B.R.A. Nijboer, J.J.J. Kokkedee.
DUTCH, per, Nederlands Tijdschrift voor Natuurkunde,
Vol XXIX, No 3, 1963, pp 61-79. *AERE-Harwell
- Studies on the Stopping of Iodine-131, by G. Chevalier,
19 pp.
FRENCH, rpt, 1962. AEC-Tr-6270
- Formulary for the Calculation of the Shield of
Power Reactors, 81 pp.
FRENCH, rpt, Mar 1962. 9219773 AEC-Tr-6155
- Diffusion of Active Iodine Through Water, With the
Iodine Being Liberated in CO₂ Bubbles at High Tem-
perature, by A. Barthoux, J. Coulaud, et al, 15 pp.
FRENCH, rpt, Diffusion de l'Iode Actif a Travers
l'eau L'Iode Etant Libre dans des Bulles de CO₂
a Haute Temperature, Jun 1962. 9219751 AEC-Tr-6144
- The Fuel Cycle in Fast Neutron Reactors, by
E. Grison, J. Gaussens, et al, 28 pp.
FRENCH, rpt, Fuel Cycles for Power Reactors,
Baden-Baden, Sep 1963. AEC-Tr-6235
- Radiation Protection in the Experimental Pile
Marius, by G. Cohendy, 20 pp.
FRENCH, rpt, La Protection Contre les Radiations
a L'Empilement Experimental Marius, 1962. 9219763 AEC-Tr-6143
- High-Temperature Irradiation Systems. 1000°C
Capsules With Electrical Heating, by P. Millies,
C. Ferrier.
FRENCH, per, Bulletin d'Informations Scientifiques
et Techniques, No 75, 1963, pp 101-104. *AERE-Harwell
- Application of Neutron Activation Analysis to the
Study of the Impurities in Nuclear Graphites,
by S. May, 13 pp.
FRENCH, per, Bulletin de la Societe Chimique de
France, No 12, 1961, pp 2203-2208. 9219520 AEC-NP-Tr-1079
- Emission of Neutron on Rupture of the Uranium
Nucleus. A Possible Chain Reaction, by
Charles Hachmy, Albert Rosenberg.
FRENCH, per, Comptes Rendus, Vol CCVIII, 1939,
pp 898-900. *AEC

Scientific
Nuclear Science & Technology (Contd)

Kinetics of the Reaction of Pure Oxygen With Uranium Mononitride, by C. Moreau, J. Philippot, 6 pp.
FRENCH, per, Comptes Rendus, Vol CCLVI, 1963, pp 5366-5369.

AEC-Tr-6256

New Method for Determination of Diffusion Activation Energies. Application to Uranium Monocarbide, by A. Accary, J. Trouve, 10 pp.
FRENCH, per, Memoires Scientifiques de la Revue de Metallurgie, Vol LX, No 2, 1963, pp 117-124. 9219776

AEC-TRG-Info
Ser 354(D)

Spark Patterns of Elements, by Walter Baukloh.
GERMAN, per, Archiv fuer Eisenhuettenwesen, Vol XIII, No 12, Jun 1940, pp 543-547.

*AEC

Flow Resistance and Heat Transfer in Annuli With Rough Center Tubes, by H. Brauer, 37 pp.
GERMAN, per, Atomkernenergie, Vol VI, 1961, pp 152-161.

AEC-Tr-6264

Paper Chromatographic Separation of Radionuclides With Iron (III)-Hydroxide as Carrier, by H. H. Stamm, H. J. Schroeder, 8 pp.
GERMAN, per, Journal of Chromatology, Vol X, 1963, pp 392-395. 9218738

AEC-Tr-6138

Polarographic Investigations With Control of the Drop Time by Forced Dropping. I. The Drop-Time Dependency of Polarographic Currents, by D. Wolf.
GERMAN, per, Journal of Electroanalytical Chemistry, No 5, 1963, pp 186-194.

AEC-Tr-6263

Selected Articles From the German Periodical Kernenergie.

Vol V, 1962.

*AEC

Remarks on the Radiochemical Determination of α -Particles in the Fission Process of Uranium, by R. Munze, (p 488).

Some Investigations on the Production of Carrier-Free Cn^{54} and a Mixture of Carrier-Free Cobalt Isotopes Co^{56} , Co^{57} , and Co^{58} From Iron, by K. Wagner, (pp 853-859).

Scientific
Nuclear Science & Technology (Contd)

Selected Articles From the German Periodical
Kernenergie. (Contd)

Vol VI, 1963

Radiochemical Studies on the Multiple Fission of Uranium, Communication Number 4: Determination of the Fission Yield of Cu^{67} , by R. Munze, O. Hladik, (p 225).

*AEC

Halogenation Methods in the Reprocessing of Neutron Irradiated Fuel, by D. Naumann, 25 pp, (pp 243-251).

AEC-Tr-6276

Radiochemical Studies on the Multiple Fission of Uranium Communication Number 5: On the Formation of Na^{22} in UF_4 by Fission by Means of Neutrons, by R. Munze, G. Reinhard, (p 274).

*AEC

Fluorescence Spectroscopy, by E. Lippert.
GERMAN, per, Ullmanns Encyclopadie der Technischen Chemie, Vol II, No 1, 1961, pp 305-315.

*AERE-Harwell

Anomalous X-Ray Scattering of Heavy Atoms in the Region of the K and L Edges According to the Quantum Mechanical Theory of Dispersion, by I. H. Eisenlohr, G.L.J. Muller, 23 pp.
GERMAN, per, Z fuer Physik, Vol CXXXVI, 1954, pp 491-510.

AEC-Tr-6269

Theoretical-Experimental Studies on Recoil-Proton Counters Exposed to a Fast-Neutron Source, by L. Sani, L. Tondinelli, et al, 46 pp.
ITALIAN, rpt, Indagine Teorico-Sperimentale sui Contatori a Protoni di Rinculo Esposti ad una Sorgente de Neutroni Veloci, Jan 1962. 9219762

AEC-Tr-6253

The Change in Spermatogenesis Caused by Internal Irradiation With Cs^{137} , by T. Kitabatake, T. Yamaguchi, 6 pp.
JAPANESE, per, Radioisotopes, Vol VIII, 1959, pp 185-189.

AEC-Tr-6280

Production of Metallic Uranium Ingots From Uranium Oxides by Electrolysis of Fused Media, by V. Rafal'ski, E. Taubman, 8 pp.
POLISH, rpt, Poluchenie Litogo Metallicheskogo Urana Iz Okislov Urana Putem Elektroliza Rasplavlennykh Sred, Dec 1960.

AEC-Tr-6257

Radiation Dangers From Cesium-137, by A. Nelson, B. Carlquist, 6 pp.
SERBOCROATIAN, per, Svenska Lakartidningen, Vol LV, 1958, pp 608-615.

AEC-Tr-6268

Scientific
Physics

Some Basic Problems of the Mathematical Theory
of Elasticity, by N. I. Muskhelishvili.
RUSSIAN, bk.

P. Noordhoff Ltd.

Vessels on an Air Cushion, by Yu. Yu. Benua,
V. M. Korsakov, 101 pp.
RUSSIAN, rpt, 1962.

Navy Tr 3719
BuShips 835

N. P. Krenke and His Theory of Aging and Rejuven-
ation, by G. N. Chernov.
RUSSIAN, bk, 1963, 115 pp.

*FTD-TT-64-289

Effect of Radiation on Ion Structures, by
B. V. Budylin, A. A. Vorob'yev.
RUSSIAN, bk, Deystviye Izlucheniya na ionnyye
Struktury, 1962, 166 pp.

*ACSI I-4318
ID 2204006664

Motion of Isolated Charged Particles in a Magnetic
Field With Cylindrical Symmetry, by V. M. Balebanov,
B. I. Volkov, et al, 29 pp.
RUSSIAN, rpt, Dvizhenie Otdol'nykh Zaryazhennykh
Chastits v Magnitnom Pole s Vintovoi Simmetriey,
Moscow, 1963. 9219770

AEC-Tr-6190

On the Theory of Photodisintegration of the Light
Nuclei With Emergence of Fast Deuterons, by
V. V. Balashov, V. N. Fetisov, 17 pp.
RUSSIAN, rpt, Fizicheskiy Institut imeni P. N.
Lebedeva, Laboratoriya Fotomezonnykh Protssessov
A-29, Ak Nauk SSSR, Moscow, 1963, pp 1-16. 9691140

Navy Tr 3727
NRL 959

Cloud Physics, by A. M. Borovikov, A. Kh. Khrghyan,
392 pp.
RUSSIAN, bk, Fizika Oblakov, 1961.

OTS -63-11141
PL-480

Flow of a Viscous Fluid in Diffusers, 55 pp.
RUSSIAN, bk, Osnovnyye Zadachi Teorii Laminarnykh
Techeniy, 1951, pp 268-313. 9691470

FTD-TT-63-817

Theoretical Model of the Mechanism of Turbulant
Exchange in Fluid Flows, by N. I. Buleyev.
RUSSIAN, rpt, Teploperedacha, Ak Nauk SSSR,
Energ Inst, 1962, pp 64-98.

AERE-Harwell-
Tr-957

Post-Buckling Behavior of Cylindrical Shells.
Part 3. Torsion, by A. V. Pogorelov.
RUSSIAN, bk, Tsilindricheskiye Obolochki pri
Zakriticheskikh Deformatsiyakh. Chast' 3:
Krucheniye, Khar'kov, 1962, 72 pp.

*NASA TT F-196

Scientific
Physics (Contd)

Method for Accelerating a Gas Flow to Hypersonic Velocities by Means of a Reaction Nozzle, by M. D. Ladyzhenskiy.
RUSSIAN, per, Byul Izobreteniy i Tovarnykh Znakov, No 4, 1963, pp 39,40.

*Navy/APL J348

On the Fredholm Series, by I. A. Itskovich.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol LIX, No 3, 1948, pp 423-425.

*Navy/NRL

The Sensitivity of Some Explosives to a Shock Wave, by V. S. Ilyukin, P. F. Pokhil, 5 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXL, No 1, 1961, pp 179,180. 9691781

DDC RSIC-122

Experimental Estimation of the Influence Which Gravitational Convection and Linint Tubes Have on the Natural Distribution of Temperature in Drill Holes, by N. M. Frolov.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CL, No 2, 1963, pp 301-304.

*Navy/APL
J339

Theory of X-Ray Scattering by Crystals Containing Dislocations. Case of Randomly Distributed Dislocation Loops, by M. A. Krivoglaз, K. B. Ryaboshapka.
RUSSIAN, per, Fiz Metall i Metall, Vol XVI, No 5, 1963, pp 641-654.

*AERE-Harwell

Optical Effects in Light Transmission Through a Pile of Doubly Refracting Plates, by Kh. Aben, 5 pp.
RUSSIAN, per, Iz Ak Nauk Estonskoy SSR, Ser Fiz Mat i Tekh Nauk, Vol II, No 1, 1962, pp 16-23.

OTS 63-18700

Employment of Asymptotic Methods in Solving Problems About the Movement of an Astatic Gyroscope in Cardan Suspension, by D. M. Klimov, L. N. Slezkin, 11 pp.
RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk, Mekh i Mash, No 3, 1963, pp 45-50. 9691548

FTD-TT-63-1038

On the Stability of Motion of a Gyroscopic Pendulum, by V. F. Lyshenko.
RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk, Mekh i Mash, No 4, 1963, pp 3-6.

*Navy/APL
J329

Radio Emission From Planetary Nebulae and Determination of Distances to These Objects, by R. Gershberg.
RUSSIAN, per, Iz Krymskaya Astrofiz Observ, Vol XXVIII, 1962, pp 159-165.

CSIRO/No 6547

Scientific
Physics (Contd)

The Effect of Crystallographic Anisotropy on the Parametric Excitation of Spin Waves in Single Crystal Ferrites, by G. A. Petrakovskiy.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Fiz, No 6, 1962, pp 29-37.

*ACSI I-4252
ID 2204006464

The Tunnel Effect in Films of Degenerate Gallium Arsenide, by L. G. Lavrent'yeva, A. P. Vyatkin.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved Fiz, No 5, 1963, pp 174-176.

*Navy/NRL

Approximate Method of Evaluation of Energy of Forming Thin-Walled Parts, by M. A. Anuchin, L. P. Orlenko.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved Mash, No 12, 1962, pp 158-167.

*FTD-TT-64-249

Effect of Gamma Radiation on Moisture Absorption of Sawdust Boards, by A. P. Bersenev, A. G. Fokina.
RUSSIAN, per, Lesnoy Zhur, Vol V, No 2, 1962, pp 105-108.

CSR

Energy of the Siberian Rivers and the Northern Sea Route, by V. S. Antonov, 19 pp.
RUSSIAN, per, Priroda, No 6, 1963, pp 25-33.

Navy Tr 3733
ONI 979

Effect of Flow Velocity, Particle Size, and Concentration on the Refining Capacity of Fiber Filters, by Fritz Bangert.
RUSSIAN, per, Staub, Vol XXIII, No 2, 1963, pp 69-76.

*ACSI I-4337
ID 2204007664

Experimental Study of Contact Heat Exchange, by Yu. P. Shlykov, E. A. Ganin, 10 pp.
RUSSIAN, per, Teploenergetika, Vol VIII, No 7, 1961, pp 73-76. 9691561

DDC RSIC-128

The Accuracy of the Heat-Balance Method of Calculating Evaporation, by L. R. Struzer, 14 pp.
RUSSIAN, per, Trudy Gosudar Gidro Inst, No 54(108), 1956, pp 80-91.

OTS 63-11147
PL-480

Cation Excitations in Ionic Crystals, by E. Ilmas, R. Klink.
RUSSIAN, per, Trudy Inst Fiz i Astron Ak Nauk Estonskoy SSR, No 23, 1963, pp 221-223.

*Navy/NRL

The Hole Mechanism of Energy Migration in Ionic Crystals, by Ch. B. Lushchik, G. K. Zolotarev.
RUSSIAN, per, Trudy Inst Fiz i Astron Ak Nauk Estonskoy SSR, No 23, 1963, pp 224, 225.

*Navy/NRL

Scientific
Physics (Contd)

Problems of Theoretical Seismology and Physics
of the Earth's Interior.

RUSSIAN, per, Trudy Inst Fiz Zemli imeni O. Yu.
Shmidta, Ak Nauk SSSR, No 11 (178), 1960.

NASA TT F-123

Calculation of Boundary Layer by Decomposition
Method, by L. A. Rozin.

RUSSIAN, per, Vest Leningrad Univ Ser Matemat,
Mekh Astron, No 2, 1963, pp 128-140.

*Navy/APL
J343

On the Locking of a Molecular Generator by a Strong
External Force, by N. K. Maneshin, R. V. Khokhlov.

RUSSIAN, per, Vest Moskov Univ Ser Matemat, Mekh
Astron Fiz Khim, Vol XIII, No 2, 1958, pp 109-113.

*Navy/APL
J323

Calculation of the Roentgen Debayev Temperature of
Crystals With Face-Centered Cubic Lattice, by
M. A. Krivogiaz, 7 pp.

RUSSIAN, per, Voprosy Fiz Metal i Metallov, No 13,
1961, pp 35-43.

ACSI I-3617
ID 2250322

Study on the Transition to Detonation in the Combustion
of Explosives. I. Combustion of Powdered Explosives
at Elevated Pressures, by K. K. Andryev,
S. V. Chuyko.

RUSSIAN, per, Zhur Fiz Khim, Vol XXXVII, No 6, 1963,
pp 1304-1310.

*Navy/APL
J346

Effects of Optical Density and Light Flux Incident
on a Photoelectric Cell, Upon the Form of Silver
Halide Spectral Absorption Curve, by E. A. Kirillov,
E. A. Nesterovskaya, et al, 8 pp.

RUSSIAN, per, Zhur Nauch i Prik Fotog i Kinematog,
Vol VIII, No 1, 1963, pp 47-50.

OTS 63-18726

On Analysis of the Role of Radiation in Calculating
the Heat Exchange in a Turbulent Boundary Layer,
by S. S. Kutateladze, A. I. Leont'yev.

RUSSIAN, per, Zhur Prik Mekh i Tekh Fiz, No 4,
Jul, Aug 1963, pp 88-39.

*Navy/APL
J324

Improved Devices for Separating Gases by Diffusion,
by Y. Duziau, M. Gadai, et al, 6 pp.

BELGIAN, Patent No 567,135, 25 Oct 1958. 9219774
(French)

AEC-Tr-6129

Injection and Accumulation of High-Energy Particles
in a Magnetic Mirror System, by Li Cheng-wu, 13 pp.
CHINESE, per, Acta Physica Sinica, Vol XVIII, 1962,
pp 586-593. 9219750

AEC-Tr-6131

Scientific
Physics (Contd)

Survey of Research in Photosynthesis, by
Yin Hung-chang, 23 pp.
CHINESE, per, Hua-hsueh T'ung-pao, No 7, 1963,
pp 385-392.

JPRS 23711

Determination of the Number of Measurements for
the Achievement of a Required Accuracy, by
J. Tosovsky, 5 pp.
CZECH, per, Zpravodaj Vyzkumny a Zkusebni Letecky
Ustav, Vol I, 1961, pp 3,4. 9691146

DDC RSIC-113

Continuation of Milk After Accidental Atmospheric
Fallout of Iodine-131, by R. J. Kirchmann,
R. R. Boulenger.
FRENCH, rpt, Colloque du Pollution Radioactive des
Milieux Gazeux, 12-16 Nov 1963.

*AEC

Materials for Use in Infrared Optical Devices,
by P. Billard.
FRENCH, per, Acta Electronica, Vol VI, No 1,
1962, pp 7-65.

*Redstone Arsenal

Photoelastometry, Its Application and Methods,
by M. G. Delanghe.
FRENCH, per, Le Genie Civil, Vol XCI, 1927,
pp 243-249.

*Redstone Arsenal

Concept of Virtual Bound Levels, by J. Friedel, 21 pp.
FRENCH, per, Journal de Physique et le Radium,
Vol XXIII, No 10, 1962, pp 692-700. 9219320

AEC-AI-Tr-64-1

Improving Contrast in Details of Photographic
Images by Filtering of Spatial Harmonics, by
A. Marechal, P. Croce, et al, 8 pp.
FRENCH, per, Optica Acta, Vol V, 1958, pp 25-262.

ATS-56Q71F

Restoration of Images With Aberration by Filtering
of Spatial Frequencies. III, Restoration of an
Image Photographed With a Bifocal Filter, by
J. Tsujiuchi, 8 pp.
FRENCH, per, Optica Acta, Vol VIII, 1961, pp 161-168.

ATS-59Q71F

Optical Determination of Internal Stress, by
Henry Favre.
FRENCH, per, Revue D'Optique, Vol XI, No 1,
1932, pp 1-21.

*Redstone Arsenal

Scientific
Physics (Contd)

A Purely Optical Method for Determining Internal Stress, by Henry Favre.
FRENCH, per, Schweizerische Bauzeitung, Vol XC, No 23, 1927, pp 291-294.

*Redstone Arsenal

Process for Manufacturing Transferable Films for Electrophotography, 11 pp.
FRENCH, Patent No 1,246,963, Oct 1960.

ATS-04Q72F

Research Into the Diffusion of Rare Gases in Solids, Special Technical Report No 7, 24 pp.
GERMAN, rpt.

OTS/EURAEC-363

Physical Fundamentals of Theoretical Fluid Dynamics, by K. Oswatitsch.
GERMAN, bk, Handbuch der Physik, Vol VIII, No 1, 1959, pp 1-124.

*Redstone Arsenal

Absolute Calibration of Various Kinds of Underwater Sound Transducers in the Range From 5 to 250 kc, by H. Kuttruff, P. Wille, 19 pp.
GERMAN, per, Acustica, Vol XII, 1962, pp 410-421.

Navy Tr 3725
USRL 36

Thickness Modes of Vibration of Barium Titanate Disks, by G. Schmidt, R. Grohmann, 13 pp.
GERMAN, per, Acustica, Vol XIII, 1963, pp 131-139.

Navy Tr 3726
USRL 37

The Pressure and Isotherms of Air, Argon and Helium Between 0 and 200°, by L. Holborn, H. Schultze.
GERMAN, per, Annalen der Physik, Vol XLVII, 1915, pp 1089-1111.

Dept of Interior
TN7 E57 No 703

The Isotherms of Hydrogen, by L. Holborn.
GERMAN, per, Annalen der Physik, Vol LXIII, 1920, pp 674-680.

Dept of Interior
TN7 E57 No 706

The Evaporation of Falling Drops, by N. Frossling.
GERMAN, per, Beitrage zur Geophysik, Vol LII, 1938, pp 170-216.

*AERE-Harwell

Complete Determination of Two-Dimensional Stress State, by R. Hiltcher.
GERMAN, per, Forschung auf dem Gebiete des Ingenieurwesens (VDI), Vol XV, No 1, 1944, pp 12-17.

*Redstone Arsenal

The Statistical Fundamentals of Irreversible Thermodynamics, by Hans Ziegler.
GERMAN, per, Ingenieur Archiv, Vol XXXI, No 5, 1962, pp 317-342.

*Redstone Arsenal

Scientific
Physics (Contd)

- Absolute Measurement of the Activity of Radionuclides by the Beta-Gamma Coincidence Method Using Detectors of Great Efficiency, by A. Gandy, 20 pp.
GERMAN, per, International Journal of Applied Radiation and Isotopes, Vol XIII, 1962, pp 501-513. 9219775 AEC-Tr-6308
- Separation of Cr⁺⁺⁺, Mn⁺⁺, Co⁺⁺, and Fe⁺⁺⁺ Ions by the Ion Exchange Method, by J. Milulsky, I. Stronski.
GERMAN, per, Isotopentechnik, Vol II, 1962, pp 69, 70. *AEC
- Paper Chromatographic Separation of Zirconium and Niobium, by A. Moghissi, E. Edguer.
GERMAN, per, Journal of Chromatography, Vol XI, 1963, pp 389-393. *AEC
- Calculation of the Two-Dimensional Nonsteady Temperature Field in Heat-Sealed Thermoplastic Films, by H. Frielingsdorf.
GERMAN, per, Kunststoffe, Vol L, No 3, 1960, pp 154-156. CSIRO/No 6502
- Beta-Gamma Circular Polarization-Correlation of Sc⁴⁶ and Its Chemical Origins, by H. Daniel.
GERMAN, per, Max-Planck Institut fuer Kernphysik, 1963, pp 21-27. *AEC
- The Bauschinger Effect and Its Practical Applications, by W. Spath, 14 pp.
GERMAN, per, Metallwissenschaft und Technik, Vol VIII, No 1, 2, 1954, pp 25-29. 9219725 AEC-SC-Tr-524
- Transition Temperature and the Ductile-to-Brittle Behavior of Thin Tungsten Wires, by W. Schilling, H. Paschedag.
GERMAN, per, Metallwissenschaft und Technik, Vol XIV, No 1, 1960, pp 23-25. *Redstone Arsenal
- The Determination of Gases in Metals, by R. Kern.
GERMAN, per, Physik Kondensierter Materie, Vol I, 1963, pp 105-124. *BISI 3574
- Development and Present State-of-the-Art in the Field of Photoelasticity and Photoelasticity Within the Main Field of Experimental Elasticity, by R. V. Baud.
GERMAN, per, Schweizer Archiv fuer Angewandte Wissenschaft und Technik, Vol IV, No 1, 1938, pp 1-16. *Redstone Arsenal
- Effect of Disturbance Vibrations on the Endurance Limit, by E. Gassner, O. Svenson, 15 pp.
GERMAN, per, Stahl und Eisen, Vol LXXXII, No 5, 1962, pp 276-282. ATS-48Q71G

Scientific
Physics (Contd)

Selected Articles From the German Periodical
Staub.

Vol XXI, 1961, pp 298-300.
Evaluation of Mechanical Filters According to the
Oil Smoke Method, by Fritz Bangert. *ACSI I-4333
ID 2204007264

Vol XXII, 1962.
A New Dust Measuring Device for Evaluation of
Mechanical Filters, by Fritz Bangert, (pp 1-4). *ACSI I-4336
ID 2204007564

A New Measuring Apparatus for Testing Aerosol
Filters, by Fritz Bangert, (pp 105-108). *AEC

Vol XXIII, 1963, pp 69-76.
Influence of Speed of Flow, Particle Size and
Concentration on the Passage Capacity of Aerosol
Filters, by Fritz Bangert. *AEC

Visual Displays of X-Ray Photographs Using a Television
Camera Tube Which Responds to X-Rays, by M. Keller,
M. Ploke, 18 pp.
GERMAN, per Z fuer Angewandte Physik, Vol VII,
No 12, 1955, pp 562-571.

ATS-08Q70G

Selected Articles From the German Periodical
Z fuer Physik.

Vol X, 1922, pp 367-376.
On the Isotherms of Nitrogen, Oxygen and Helium,
by L. Holborn. Dept of Interior
TN7 E57 No 707

Vol XXIII, 1924, pp 77-94.
On the Isotherms of Some Gases up to 400°C and
Their Significance for the Gas Thermometer,
by L. Holborn. Dept of Interior
TN7 E57 No 711

Vol XXXIII, 1925, pp 1-12.
The Isotherms of Various Gases Between 400 and -183°,
by L. Holborn, J. Otto. Dept of Interior
TN7 E57 No 705

Vol L, 1928, pp 581-599.
Collisions of the Second Kind Between Molecules.
The Excitation of the Lyman Bands and the Noncom-
bination of the Symmetrical and the Antisymmetrical
Term Systems in the Hydrogen Molecule, by
H. Beutler. *AFCRL Res Lib

Scientific
Physics (Contd)

Selected Articles From the German Periodical
Z fuer Physik. (Contd)

Vol CXXVIII, 1950, pp 324-346. 9691132 Supraconduction of Copper Sulfide, by W. Buckel, R. Hilsch, 16 pp.	ACSI I-2493-A ID 2232439
Vol CXXXI, 1952, pp 420-442. 9691161 Supraconduction and Resistance of Tin With Lattice Distortions, by W. Buckel, R. Hilsch, 18 pp.	ACSI I-2493-B ID 2232439
Vol CXXXIX, 1954, pp 328-345. 9691449 The Influence of Lattice Distortions on Ultraviolet Self-Absorption of Potassium Iodide, by Fred Fisher, 13 pp.	ACSI I-2493-C ID 2232439
Vol CXLII, 1955, pp 58-69. 9691136 Supraconduction and Electrical Resistance of Vapor- Sprayed Bismuth Layers, by Nikolaus Barth, 9 pp.	ACSI I-2493-D ID 2232439
Vol CXLIII, 1956. E. The Structure of Thin Salt Layers - Condensed at Low Temperature - of First Alkali Halides, by Wilhelm Ruthi, 10 pp, (pp 591-604). 9691137	ACSI I-2493 ID 2232439
F. The Structure of Thin Salt Layers Condensed at Low Temperature - of Second Halides of Heavy Metals, Cu, Ag and Ti, 13 pp, (pp 605-622).	
Vol CXLV, 1956, pp 141-150. 9691138 Electron Diffraction Photographs of Thin Metal Layers at Low Temperatures, by Hagen Bulow, Werner Buckel, 8 pp.	ACSI I-2493-G ID 2232439
Vol CXLVII, 1957, pp 361-372. 9691129 Measurement of the False Order Energy of Bismuth and Gallium Layers at Low Temperature, by Wilhelm Sander, 10 pp.	ACSI I-2493-H ID 2232439
Vol CXLVIII, 1957, pp 646-652. Supraconduction of Vapor Sprayed Lead Layers Admixed With Manganese, by Nikolaus Barth, 5 pp.	ACSI I-2493-I ID 2232439
Vol CLII, 1958, pp 495-506. 9691305 Roentgenographic Studies of Vapor-Sprayed Bismuth Layers at Low Temperatures, by Hans-Joachim Queisser, 9 pp.	ACSI I-2493-J ID 2232439

Scientific
Physics (Contd)

Selected Articles From the German Periodical
Z fuer Physik. (Contd)

Vol CLIV, 1959, pp 474-485. 9691160 Hall-Effect of Bismuth Layers Condensed by Quenching, by Werner Buckel, 9 pp.	ACSI I-2493-K ID 2232439
Vol CLVII, 1959. L. Structure and Resistance of Very Greatly Distorted Copper Layers at Low Temperatures, by Ernst Feldtkeller, 12 pp, (pp 65-78).	ACSI I-2493 ID 2232439
M. Measurement of the False-Order Energy in Quench-Condensed Copper at Low Temperature, by Winfried Monch, Wilhelm Sander, 7 pp, (pp 149-158).	
N. The Influence of Lattice Distortions on the Optical Properties of Metal Layers, by Jorg Hasse, 18 pp, (pp 166-188). 9691304	
Vol CLVIII, 1960, pp 563-571. 9691126 Supraconduction of Vapor-Sprayed Lead Layers With and Admixture of Gadolinium, by Klaus Schwidtal, 7 pp.	ACSI I-2493-0 ID 2232439
Superconducting Magnets, by G. Passotti, N. Sacchetti, et al, 16 pp. ITALIAN, rpt, 23 Apr 1963. 9219733	AEC-AI-Tr-19
Procedure in Correcting for Matrix Effects in Fluorescent X-Ray Analysis, Part II, by Masakatsu Sugimoto, 15 pp. JAPANESE, per, <u>Bunseki Kagaku</u> , Vol XII, 1963, pp 475-483. 9691782	DDC RSIC-130
Neutron Scattering on Molecular Systems, by Jerzy A. Janik. POLISH, per, <u>Postepy Fizyki</u> , Vol XIV, No 2, 1963, pp 167-190.	*FTD-TT-64-196
Nomographs for Hydraulic Calculation, by Geza Bata, Slavoljub Jovanovic, 148 pp. SERBOCROATIAN, per, <u>Saopstenja</u> , Vol X, No 28, 1963.	OTS 63-11451/3 PL-480
Investigation of Kaolinite, Fireclay Minerals and Halloysite by Electron Microscopy, X-Ray Analysis, Infrared Spectroscopy, and Differential Thermal- Analysis, by H. Beutelspacher, H. van der Narel. SWEDISH, per, <u>Klei en Keramiek</u> , Vol X, No 12, 1962, pp 237-250.	CSIRO/No 6324

Scientific
Physics (Contd)

Selected Articles From the Ukrainian Periodical
Ukrain Fiz Zhur.

- Vol IV, 1953, pp 71-92. 9219342 AERE-Harwell-Tr-972
The Normal Coordinates and Natural Frequencies of
KCl, Calculated With Allowance for Ion Deformation,
by K. B. Tolpygo, I. G. Zaslavskaya, 25 pp.
- Vol I, 1956.
The Eigenvibration Spectrum of NaCl Taking Ion
Deformation Into Account, by K. B. Tolpyho,
I. H. Zaslavs'ka, 13 pp, (pp 226-244). 9219338 AERE-Harwell-Tr-971
- Calculation of the Specific Heat of the NaCl Crystal,
by I. H. Zaslavs'ka, 6 pp, (pp 366-370). 9219335 AERE-Harwell-Tr-970
- Vol III, 1958, pp 728-741. 9219339 AERE-Harwell-Tr-974
Eigenfrequencies and Amplitudes and Specific Heat
of KBr, by O. A. Demidenko, Z. O. Demidenko, et al,
7 pp.
- Vol IV, 1959, pp 72-91. 9219337 AERE-Harwell-Tr-975
Forces of Ion Interaction and Equations of Ion
Lattice Vibrations, Found by Means of a Multi-
Electron Treatment of Ion States and an Adiabatic
Approximation, by K. B. Tolpyho, 32 pp.
- Vol VI, 1961, pp 116-120. 9219343 AERE-Harwell-Tr-978
Determination of the Effective Charge of an
Impurity in a Metal of the Residual Electric
Resistance, by P. P. Kuz'menko, 6 pp.

Scientific
Miscellaneous

Introduction to Functional Analysis for Scientists and Technologists, by B. Z. Vulikh.
RUSSIAN, bk,

Pergamon Press

The Teaching Machine, by G. Pask, T. I. Rostunov, 12 pp.
RUSSIAN, bk, Avtomatizatsiya Proizvodstva i Promyshlennaya Elektronika, Vol II, 1963.

JPRS 23385

On the Nature of Image Mental Reflection in the Light of Ideas of Cybernetics, by Viktor Stepanovich Tyukhtin, 135 pp.
RUSSIAN, bk, O Prirode Obraza Psikhicheskoye Otrazheniye v Svete Idei Kibernetiki, Moscow, 1963, pp 3-123.

JPRS 23370

Essays on Cybernetics, by Lev Pavlovich Teplov, 478 pp.
RUSSIAN, bk, Ocherki o Kibernetike, Moscow, 1963, 415 pp.

JPRS 23554

Problems of Cybernetics, by A. A. Lyapunov, 610 pp.
RUSSIAN, bk, Problemy Kibernetiki, No 8, 1962, pp 3-356.

JPRS 23700

Psychology of Labor, by N. D. Levitov, 348 pp.
RUSSIAN, bk, Psikhologiya Truda, Moscow, 1963, pp 1-340.

JPRS 23477

Statistics and Automation in Lexicography, by L. N. Zazorina, 12 pp.
RUSSIAN, per, Filologicheskoye, Vol VI, No 4(24), 1963, pp 95-104.

JPRS 23576

The Ukrainian Academy of Sciences and Its Sections, by B. Paton, 6 pp.
RUSSIAN, np, Izvestiya, Vol XXXVII, No 78, 2 Apr 1963, p 3.

JPRS 23569

In the Line of Defense, by M. A. Lavrent'yev, 5 pp.
RUSSIAN, np, Izvestiya, 13 Nov 1963, p 3.

JPRS 23660

The Training of Young Scientists -- on a Level With Contemporary Tasks, by A. G. Arinshteyn, V. A. Larionov, 5 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, No 7, 1963, pp 123, 124.

JPRS 23707

Explorer Junior Academy of Sciences, by Y. Khudyakova, 12 pp.
RUSSIAN, per, Nauka i Zhizn, No 10, 1963, pp 51-57.

JPRS 23660

Melekess--City for the Peaceful Uses of Atomic Energy, by V. Lishevskiy, 5 pp.
RUSSIAN, per, Nauka i Zhizn, No 11, 1963, pp 33-35.

JPRS 23445

Scientific
Miscellaneous (Contd)

- Programmed Teaching, by P. D. Lebedev, 12 pp.
RUSSIAN, per, Srednyeye Spetsial'noye Obrazovaniye,
Vol X, No 8, 1963, pp 23-30. JPRS 23679
- Methods of Using Motion Pictures in the Educational
Process, by A. O. Berkovskiy, 7 pp.
RUSSIAN, per, Srednyeye Spetsial'noye Obrazovaniye,
Vol X, No 8, 1963, pp 34-38. JPRS 23679
- Scientists-Lenin Prize Winners for 1963, by
M. V. Keldysh, 6 pp.
RUSSIAN, per, Vest Ak Nauk SSSR, No 5, 1963, pp 3-6. JPRS 23690
- Academy of Sciences Kazakh SSR in a New Stage, by
K. I. Satpayev, 10 pp.
RUSSIAN, per, Vest Ak Nauk SSSR, No 12, 1963,
pp 26-31. JPRS 23660
- New Detachment of Lenin Prizes Laureates, by
N. S. Arzhanikov, 6 pp.
RUSSIAN, per, Vest Vysshey Shkoly, No 6, 1963,
pp 48-51. JPRS 23690
- Laboratories of Special Disciplines Are Equipped
in a New Fashion, by N. A. Kouzov, 5 pp.
RUSSIAN, per, Vest Vysshey Shkoly, No 9, 1963,
pp 70, 71. JPRS 23707
- Organization of Work in Engineering Psychology in
the USA, by A. I. Nazarov, 21 pp.
RUSSIAN, per, Voprosy Psikh, No 5, 1963, pp 176-186. JPRS 23448
- Symposium on Surgical Treatment of Coronary Disease,
by K. T. Tadzhiyev, 6 pp.
RUSSIAN, per, Zdravookh Tadzhik, No 3, 1963, pp 34-37. JPRS 23728
- Problems of Physiology and Pathology in High Altitudes,
by K. Yu. Akhmedov, O. G. Lorents, 5 pp.
RUSSIAN, per, Zdravookh Tadzhik, No 3, 1963, pp 37-39. JPRS 23728
- An Army of One Million Crosses the Great River, by
Kuo Mo-jo, 5 pp.
CHINESE, per, Hung-ch'i, No 1, 1964, pp 7-11. JPRS 23651

Scientific
Miscellaneous (Contd)

Selected Articles From the Chinese Periodical
K'o-hsueh T'ung-pao, No 11, 1963.

JPRS 23767

Exciting a Light Source With a Common Axis
Pulse Laser, by Hsu Chi-jen, Chang Tsun-k'uei,
et al, 12 pp, (pp 39-41).

Mathematical Models of Material Transport, by
Ch'en Min-heng, Yuen Wei-k'ang, 7 pp, (pp 51-53).

High Temperature Decomposition of Born Phosphide,
by Chao P'eng-nien, Mo Chin-chi, 9 pp, (pp 53-55).

Experiment on the Area of Movement of Charged
Particle in Dipole Magnetic Field, by
Chao Chiu-chang, Chou Kuo-ch'eng, 5 pp, (pp 56, 57).

1950-1960 Survey of the Mount Everest Region,
by Wang Ming-yeh, 9 pp, (pp 60-63).

Cane for the Blind, by Bernard Lemaire, 5 pp.
FRENCH, Patent No 1,159,491.

Patent Office

Production and Properties of Low Density Particle
Board, by W. Klauditz, H. J. Ulbricht, 23 pp.
GERMAN, per, Holz als Roh-und Werkstoff, Vol XVI,
No 12, 1958, pp 459-466.

SLA 63-18519

Washing Agents, 11 pp.
GERMAN, Patent No 1,074,188

Patent Office

Spotlight on Research Projects at the Tekhnion, 9 pp.
HEBREW, per, Yedi'ot HaTekhnion, No 65, Dec 1963,
pp 11-13.

JPRS 23568

The Faculty of Civil Engineering, by A. Nitsan, 7 pp.
HEBREW, per, Yedi'ot HaTekhnion, No 65, Dec 1963,
pp 16, 17.

JPRS 23568

List of Hungarians Awarded Candidate's and Doctor's
Degrees in October 1963, 8 pp.
HUNGARIAN, per, Magyar Tudomány, Vol VIII, No 12,
1963, pp 844-847.

JPRS 23575

Comments on a New Simulation Language, by
Vittorio Macchi.
ITALIAN, per, Metra, Vol II, No 1, 1963, pp 15-31.

*Rand Corp

Record of a Visit to Peking University, by
Hikotaro Ando, 6 pp.
JAPANESE, per, Ajia Keizai Jumbo, No 556,
Nov 1963, pp 6-10.

JPRS 23767

Scientific
Miscellaneous (Contd)

Selected Articles From the Japanese Periodical
Kagaku Keisatsu Kenkyusho Hokoku, Vol VI, No 4,
Dec 1963.

JPRS 23790

Basic Studies on the Utilization of Infrared
to Detect Counterfeit Notes, by Yoshihide Nakamura,
10 pp, (pp 305-309).

Inspection of Bank Notes With Infrared ITV, by
Masakazu Yoshida, 7 pp, (pp 310-312).

Studies on Resealing of Cash Money Envelopes,
by Nobuo Seto, 10 pp, (pp 319-323).

Arrangement and Form of Kana Sokuon Syllabary
Sound Groups in Vertical Writing, by
Toshikatsu Suga, 11 pp, (pp 324-329).

The Use of Gelatin Paper to Determine the Order
in Which Superimposed Stamp and Writing Were
Placed, by Takeo Matsukawa, 14 pp, (pp 330-339).

Psychological Aspects of Handwriting Examination,
by Gengo Shiotani, 19 pp, (pp 340-347).

Selected Articles From the Ukrainian Periodical
Radyans'ka Shkola.

JPRS 23476

No 7, 1963.

Compiling Programs for Teaching Machines, by
O. I. Dyudin, A. S. Magdesiyev, et al, 21 pp,
(pp 27-36).

Programming in American Schools, by I. F. Teslenko,
9 pp, (pp 37-39).

No 8, 1963.

Means of Automation in Educational Research, by
V. N. Vergasov, V. O. Ruchkin, 13 pp, (pp 46-49).

We Manufacture Teaching Machines, by Yu. I. Sosnovs'kyi,
I. V. Khazan, 6 pp, (pp 50, 51).

Technical Cybernetics Club in a School, by V. M. Kasatkin,
A. K. Denysovych, 12 pp, (pp 52-56).

INFORMATION RECEIVED DURING MARCH

ON COVER-TO-COVER TRANSLATIONS

Acta Mathematica Sinica, Vol XIII, No 3, 1963.	Amer Math Soc
Atomnaya Energiya, Vol XIV, No 3, 4, 1963.	CB
Bilten Instituta za Nuklearne Nauke, Boris Kidric, Vol XIV, No 3, 1963.	AEC-Tr-5737/3
Byulleten Eksperimental'noi Biologii i Meditsiny, Vol LIV, No 12, 1962.	CB
Doklady Akademii Nauk SSSR, Earth Science Sections, Vol CXLII, No 1-6, 1962.	Amer Geol Inst
Doklady Akademii Nauk SSSR, Physics Section, Vol CLI, No 4-6, 1963.	Amer Inst of Phys Sov Phys - Dok Vol VIII, No 8
Doklady Akademii Nauk SSSR, Physics Sections, Vol CLII, No 1-3, 1963.	Amer Inst of Phys Sov Phys - Dok Vol VIII, No 9
Fizika Tverdogo Tela, Vol V, No 8, 1963.	Amer Inst of Phys Sov Phys-Solid State Vol V, No 8
Fiziologiya Rastenii, Vol X, No 3, 1963.	CB
Geologiya Nefti i Gaza, Vol V, No 2, 3, 1961.	Geol Soc of Amer
Inzhenerno-Fizicheskiy Zhurnal Vol VI, No 8, 1963. Vol VI, No 10, 1963. Vol VI, No 12, 1963.	JPRS 23705 JPRS 23418 JPRS 23730
Izmeritel'naya Tekhnika, No 8, 9, 1963.	ISA
Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk Tekhnicheskaya Kibernetika, No 1, 1964. (SF-3079).	*JPRS
Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol XXVII, No 3, 1963.	CTT
Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, No 5, 11, 1963.	Amer Geophys Union

* In Process

Izvestiya Vysshikh Uchebnykh Zavedeniy, Priborostroyeniya, Vol VI, No 4, 1963.	*JPRS
Izvestiya Vysshikh Uchebnykh Zavedeniy, MViSSO SSSR po Razdelu Radiofizika, Vol VI, No 4, 1963.	JPRS 23436
Izvestiya Vysshikh Uchebnykh Zavedeniy MViSSO SSSR po Razdelu Radiofizika, Vol VI, No 5, 1963.	JPRS 23598
Izvestiya Vysshikh Uchebnykh Zavedeniy MViSSO SSSR po Razdelu Radiotekhnika, Vol VI, No 5, 1963.	JPRS 23532
Izvestiya Vysshikh Uchebnykh Zavedeniy, Seriya Aviatsionnaya Tekhnika, No 1, 1963.	JPRS 23588
Kinetika i Kataliz, Vol IV, No 1, 1963.	CB
Mikrobiologiya, Vol XXXII, No 2, 1963.	CB
Optika i Spektroskopiya, Vol XV, No 5, 6, 1963.	OSA
Pochvovedeniye, No 10-12, 1962.	Scripta Technica
Radiobiologiya, Vol III, No 2, 1963. 9219348	AEC-Tr-5435
Radiobiologiya, Vol III, No 3, 1963. 9219319	AEC-Tr-5436
Radiokhimiya, Vol IV, No 3, 1962.	CB
Radiotekhnika i Elektronika, No 4, 1963.	IEEE
Tsvetnye Metally, Vol III, No 10, 11, 1962.	Primary Sources
Uspekhi Fizicheskikh Nauk, Vol LXXX, No 3, 4, 1963.	Amer Inst of Phys Sov Phys - Uspekhi Vol VI, No 4
Vestnik Svyazi, No 12, 1963.	JPRS 23488
Voyennyy Vestnik, No 11, 1963.	ACSI I-1614-K ID 2201421
Voyennyy Vestnik, No 12, 1963.	ACSI I-1614-L ID 2201421
Zavodskaya Laboratoriya, Vol XXIX, No 8, 1963.	ISA
Zhurnal Analiticheskoi Khimii, Vol XVIII, No 5, 1963.	CB

Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki,
Vol XLV, No 3, 1963.

Amer Inst of Phys
Sov Phys - JETP
Vol XVIII, No 2

Zhurnal Obshchei Khimii, Vol XXXIII, No 3-5, 1963.

CB

Zhurnal Strukturnoi Khimii, Vol IV, No 2, 1963.

CB

Tables of contents follow for the above cover-to-cover translations.

CHINESE MATHEMATICS

ACTA MATHEMATICA SINICA

TABLE OF CONTENTS

(Vol. 4, No. 3, 1963—Chinese original Vol. 13, No. 3, 1963)

	Chinese page	Page
陈文耀 Chen Wen-yuan* (Ch'en Wen-yüan) <i>The index of solutions of nonlinear equations in Banach space</i>	(315)	341
龚昇 Gong Sheng (Kung Sheng) <i>Fourier analysis on unitary groups. IV On the Peter-Weyl theorem</i>	(323)	351
陈良炯 Chen Liang-jing (Ch'en Liang-ching) <i>A boundary-value problem for a degenerate elliptic equation</i>	(332)	360
路见可 Lu Chian-ke (Lu Jian-ke, Lu Chien-k'e) <i>The periodic Riemann boundary value problem and its applications to the theory of elasticity</i>	(343)	372
赖万才 Lai Wan-cai (Lai Wan-tsai) <i>On starlike typically-real functions</i>	(389)	423
沈燮昌 Shen Xie-chang (Shen Hsieh-ch'ang) <i>On the closure of $\{z^n \log^j z\}$ in a domain of the complex plane</i>	(405)	440
許以超 Xu Yi-chao (Hsü Yi-ch'ao) <i>On the groups of analytic autohomeomorphisms of bounded positive (m, p)-circular domains</i>	(419)	454
党诵诗 Dang Song-shi (Tang Sung-shih) <i>On the imbedding theorems of a class of function spaces</i>	(433)	470
程乃栋 Cheng Nai-dong (Ch'eng Nai-tung) <i>On the constructive property of a class of uniformly almost-periodic functions</i>	(441)	478
何成奇 He Cheng-qi (Ho Ch'eng-ch'i) <i>Compactness and quasiconformal mappings</i>	(447)	485
李忠 Li Chung (Li Zhong, Li Chung) <i>On the existence of homeomorphic solutions of a system of quasilinear partial differential equations of elliptic type</i>	(454)	493
沈仙尧 Shen Xin-yao (Shen Hsin-yao) <i>On natural systems and homotopy types of A_n^2-polyhedra</i>	(462)	501
余家荣 Yu Jia-rong (You Chia-jung) <i>On the Borel lines of entire functions defined by Laplace-Stieltjes transforms</i>	(471)	511

Available From Amer Math Soc

SOVIET ATOMIC ENERGY

A translation of **ATOMNAYA ÉNERGIYA**
A publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 14, No. 3

January, 1964

CONTENTS

	P A G E	
	ENG.	RUSS.
Academician A. P. Aleksandrov	243	I & II
The Interaction of High-Current Pulse Beams with Plasma in a Magnetic Field		
— A. K. Berezin, G. P. Berezina, L. I. Bolotin, and Ya. B. Fainberg	245	249
Inelastic Scattering of Cold Neutrons by Various Materials Containing Hydrogen		
— M. G. Zemlyanov and N. A. Chernoplekov	252	257
Radiative Capture Cross Sections of Tellurium Isotopes as a Function of Neutron		
Energies Up to 1.5 keV — L. S. Danelyan and B. V. Efimov	258	264
On the Dynamics of a Spherically Symmetric Pulsed Fast Reactor — V. F. Kolesov	267	273
Determination of the External Slug Effect in Multiplying Systems with a Heavy Water		
Moderator — V. F. Belkin, O. V. Shvedov, and B. P. Kochurov	275	281
Determination of Sr^{90} and Ce^{144} in Samples by Extraction — F. Ya. Rovinskii		
and V. V. Ispravnikova	280	285
Mechanical Properties and Corrosion Resistance of Hafnium-Zirconium Alloys		
In a Steam-Water Medium — R. V. Grebennikov and F. P. Shamashov	285	290
The Conditions of Formation and Classification of Exogenous Uranium Deposits		
— V. I. Danchev	291	296
Radioactive Contamination of the Air above the Indian and Pacific Oceans		
during 1959-1960 — V. N. Lavrenchuk, G. N. Sofiev, and V. M. Shubko	304	309
LETTERS TO THE EDITOR		
Coherent Interaction between an Electron Beam and Plasma — I. F. Kharchenko	309	314
Determination of the Accumulation Factor in Barrier Geometry — L. R. Kimel'	311	315
Calculation of the Dose Rate Inside a Spherical Source with a Normal Distribution		
of the γ -Radiator — Yu. A. Izrael'.	313	317
Photoefficiency of NaI(Tl) Crystals in the Case of Uncollimated γ -Radiation		
— Yu. S. Korda, G. F. Timoshevskii, and V. V. Remaev	316	319
Heat Transfer to Molten Metals during Flow in Pipes — V. M. Borishanskii,		
T. V. Zablotskaya, and N. I. Ivashchenko	318	320
Thermal Stresses and Strains in a Long Bar with Uneven Internal Heat Liberation		
— V. A. Tsykanov	321	322

Available From CB

(continued)

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
An Activation Method for the Quantitative Determination of Impurities of Organically Combined Sulfur in Polyphenyls — Yu. G. Sevast'yanov, L. A. Bulanov, E. P. Kaplan, O. M. Nefedov, and A. P. Smirnov-Averin	325	324
The Displacement of Radioactive Equilibrium between Sr^{90} and Y^{90} in Lake Water — G. A. Sereda and F. Ya. Rovinskii	327	326
NEWS OF SCIENCE AND TECHNOLOGY		
Tashkent Activation Analysis Conference — V. M. Patskevich	329	328
Symposium on Molecular Mechanisms in the Biological Effects of Ionizing Radiations — Yu. S. Lazurkin	332	330
Nuclear Research in Norway — A. A.	335	332
Commissioning of a Synchrotron at the Tokyo Nuclear Research Institute — B. Ya.	338	335
Brief Communications	340	338
BIBLIOGRAPHY		
New Literature.	341	337

Available From CB

SOVIET ATOMIC ENERGY

A translation of **ATOMNAYA ÉNERGIYA**
A publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 14, No. 4

February, 1964

CONTENTS

	P A G E	
	ENG.	RUSS.
Investigation of Electromagnetic Radiation from a Straight High-Current Discharge —V. A. Suprunenko, Ya. B. Fainberg, V. T. Tolok, E. A. Sukhomlin, N. I. Reva, P. Ya. Burchenko, N. I. Rudnev, and E. D. Volkov	353	349
Mikhail Aleksandrovich Leontovich	357	353
Passage of a Plasma Burst Through a Magnetic Mirror Machine—N. N. Brevnov and A. I. Matulis	359	354
6.5 MeV Microtron for Electron Injection in a Synchrotron—K. A. Belovintsev, A. Ya. Belyak, A. M. Gromov, E. M. Moroz, and P. A. Chereknov	364	359
Effect of Single Channels and Slits on Reactivity—Ya. V. Shevelev	369	364
Boundary Conditions for the Solution of Boltzmann's Equation in Periodic Lattices —G. Ya. Runyannev	377	371
Corrosion Resistance of Stainless Chrome-Nickel Steels in Sodium As a Function of Its Oxygen Content—G. V. Akimov	382	375
Complexing Reactions in Uranium Chemical Technology—I. I. Chernyaev and G. V. Ellert	389	383
An Investigation of the Reaction of $UO_2(NO_3)_2$ with Na_2HPO_4 in Aqueous Solution —I. V. Tananayev and G. V. Rodicheva	401	395
Spectra and Inelastic Scattering Cross Sections of Neutrons in the 0.2-1.2 MeV Energy Range Scattered by Nuclei of V, Th, Hg, W, Sb, Cd, Mo, Nb, Fe—N. P. Glazkov	405	400
A Method for Calculating the Neutron Flux in a Shut-Down Reactor with a Photoneutron Source—L. V. Konstantinov and B. I. Kochetov	408	402
The Energy Distribution of Scattered Neutrons in Water—V. A. Dulín, Yu. A. Kazanskii, and I. V. Shugar	411	404
The Bremsstrahlung Radiation of β -Particles and Shielding Against It—V. S. Eliseev	413	405
Certain Dosimetric Characteristics of the SBM-10 Small-Size Counter—A. M. Panchenko	416	408
Determination of the Content of α -Radiators Whose Energies are Close to Each Other in Isotope Mixtures—L. S. Gorn and B. I. Khazanov	418	409
Device for Radiation-Chemical Investigations in the Channel of the IRT-2000 Reactor —A. A. Akhundov, G. S. Karumidze, G. M. Krasavtseva, and V. T. Popov	422	412
Determination of the Relationship Between the Coefficients of the Turbulent Transfer of Heat and Momentum—V. I. Subbotin, M. Kh. Ibragimov, and E. V. Nomofflov	426	414
Specific Heat of Heavy Water at High Temperatures and Pressures—S. L. Rivkin and B. N. Egorov	430	416
New Type of Nomograms for γ -Flaw Detection—Slavcho Popov	432	418
Photographic Health Monitoring with Respect to β - and γ -Irradiation—V. F. Kozlov	434	419

Available From Consultants Bureau

(Contd.)

ATOMNAYA ENERGIYA
Vol XIV, No 4, 1963.

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
NEWS OF SCIENCE AND TECHNOLOGY		
Working Conference on Weak Interactions—V. Belyaev	438	423
International Conference on Sector Cyclotrons—A. L.	439	423
A Two Weeks' Visit to British Physicists—S. M. Polikanov and F. S. Lazutkin	442	425
[The Melbourne Energy Conference		427]
BRIEF COMMUNICATIONS	445	428
BIBLIOGRAPHY		
New Literature	446	430
Available From Consultants Bureau		

BILTEN INSTITUTA ZA NUKLEARNE NAUKE, BORIS KIDRIC
Vol XIV, No 3, 1963.

TABLE OF CONTENTS

	Page
A universal semi-quantitative spectrochemical method for the analysis of powdered samples, by Momir Marinković	111
Titanium complexes with ascorbic acid and their stability constants, by M.V. Šušić	125
Extraction of ⁹³ (Zr, Nb) from oxalic acid solutions by means of tri-isooctyl amine, by M.V. Šušić and Z.B. Maksimović	135
Production of ⁵¹ Cr of high specific activity, by R. Drašković, Z. Maksimović and S. Kozomara	143
Studies on the favorable effect of postirradiation bleeding on hematopoiesis and survival, by S. Hajduković, N. Petrović, V. Ninkov, and D. Rašković	155
The effect of cysteamine on the responses to biologically active substances of the isolated guinea-pig ileum taken from normal and gamma-irradiated animals, by S. Stepanović, V. Varagić, and S. Hajduković	163
On the isolation and properties of RNA from rat liver microsomal membranes, by Š. Petrović, J. Petrović, A. Bećarević, and V. Janković	175

Available From AEC-Tr-5737/3

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' EKSPERIMENTAL'NOI
BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 54, No. 12, pp. 1307-1452

January, 1964

CONTENTS

	P A G E	
	ENG.	RUSS.
PHYSIOLOGY		
Electrical Activity of the Cerebral Cortex of Apes During Development—T. G. Urmancheeva and G. M. Cherkovich	1307	3
Cerebral Electrical Responses of Healthy Persons to Rhythmical Light or Light and Sound Stimuli—L. G. Makarova	1311	7
The Effect of Voluntary Eye Movements on the Electrical Activity of the Human Neck Muscles—G. I. Gurvich and V. A. Martynov	1315	12
Spinal Currents in Regulation of Respiratory Movements (Electromyographic Study) —M. S. Samatdinov	1318	14
Lung-Heart Reflexes in Amphibia—A. F. Alekseev	1322	18
On the Role of the Cerebral Cortex in the Functional Interrelations Between the Mammary Gland and the Digestive System—Shi Chzhun'-Yuan'.	1326	22
The Activity of Cholinesterase in the Wall of the Ductus Arteriosus—L. I. Novikov	1330	26
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
On the Mechanism for Accelerating Blood Coagulation in Dogs Associated with Intravenous Injection of Adrenalin—L. I. Samoilenko	1333	29
The Effect of Ultrasonic Waves on the Intraocular Pressure and the Permeability of the Vessels in the Eye—N. N. Zaiko and S. M. Mints	1336	32
On the Sensitivity, Resistance and Tolerance of Rats of Various Ages to Tetanus Toxin —V. D. Rozanova	1341	36
On the Mechanism of the Allergic Reaction in Skeletal Muscle—I. M. Rakhmatullin	1347	42
Changes in Brain Choline Acetylase and Choline Esterase During Generalized Hypothermia —L. N. Ponomarenko	1351	47
Silicon Content of Various Formations of the Human Brain—V. A. Del'va	1355	50
PHARMACOLOGY		
Anticonvulsant Actions of Trimecain and Xilocain—K. S. Raevskii	1358	53
The Influence of Certain Drugs on the Response of Smooth Muscle to Direct Electrical Stimulation—A. I. Shevchenko	1362	57

(continued)

Available From CB

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
Age Changes in the Resistance of Rats to Adrenalin and Serotonin—I. V. Markova	1365	61
MICROBIOLOGY AND IMMUNOLOGY		
A Study of the Immunological Function of Lymphoid Tissue after Cell Transfer.		
I. The Formation of Antibodies by Spleen Cells from Immune Mice		
after Transplantation into Adult Unirradiated Recipients—V. I. Levenson		
and N. A. Kraskina	1368	64
The Detection of Hemagglutinins in Regional Lymph Nodes Following Skin		
Homotransplantation in Rabbits—N. N. Dakhina	1372	68
An Experiment to Determine the Physiological Nature of the Anamnestic Reaction		
—V. I. Luk'yanenko	1376	71
A Study of the Properties of Sera Obtained by Immunization of Rabbits with Fractions		
of the Plague Bacillus—I. V. Domaradskii, L. E. Khundanov, A. P. Kalmykova,		
E. D. Shkurko, V. A. Krotova, and A. A. Tokareva	1379	75
ONCOLOGY		
Preparation of Clones of Ehrlich's Ascites Carcinoma in Vivo—P. E. Moroz	1382	79
EXPERIMENTAL BIOLOGY		
The Humoral Nature of the Osteogenic Activity of Transitional Epithelium—A. Ya. Fridenshtein	1385	82
Mitotic Activity of Mouse Mammary Gland Epithelium after Removal of a Considerable		
Portion of the Gland—I. V. Markelova	1388	84
Regeneration of the Thyroid Gland in White Rats and the Change of Height of the Thyroid		
Epithelium of the Regenerating Wounded Surface in Experimental Hypo-		
and Hyperthyroidism—V. Ya. Savva	1394	88
Artificial Cryptorchism in Rats—S. E. Levina and Yu. N. Belenev	1398	92
Organ Growth Regulation in Embryogenesis. Communication IV. The Influence on the Growth		
of Chick Embryo Organs of a Substance from Splenic Cells Which Passes		
Through Membranous Filters—I. I. Titova	1403	100
MORPHOLOGY AND PATHOMORPHOLOGY		
Morphological Changes in the Pancreas During the Development of Experimental Diabetes		
—G. N. Voronin, Z. P. Mikhail'skaya, and A. V. Rikhl'	1406	103
METHODS		
Electrical Recording of Movements of the Gizzard and Oviduct of Birds—N. N. Tsarikov	1409	106
A Method for Causing a Chronic Myocardial Infarct—I. Ya. Usvatova and V. N. Semenov	1412	108
Cholinesterase Inhibition in Tissues and the Action of Reversible Inhibitors—Ya. S. Smusin	1415	111
The Topography of the Salivary and Lacrimal Glands of the Rat—A. G. Babaeva	1419	114
INDEX FOR VOLUMES 53 AND 54, 1962		
Author Index	1423	
Tables of Contents	1427	

Available From CB

DOKLADY of the ACADEMY of SCIENCES of the U.S.S.R. (DOKLADY AKADEMII NAUK SSSR)

EARTH SCIENCE SECTIONS

Vol. 142, Nos. 1-6 (Russian original dated January-February, 1962) February 1964

CONTENTS

Page

GEOPHYSICS

INVESTIGATION OF X-RADIATION FROM THE SUN DURING THE TOTAL SOLAR ECLIPSE OF FEBRUARY 15, 1961, by B.N. Vasil'yev	1
DUST LAYERS IN THE UPPER ATMOSPHERE, by A.B. Mirikov	3

GEOLOGY

FUNDAMENTAL TECTONICS OF THE KURILE-KAMCHATKA FOLDED ZONE, by A.V. Goryachev	5
THE ORIGIN OF LAKE KRASNOYE, by I.P. Kartashov	8
STRATIGRAPHIC CLASSIFICATION OF QUATERNARY (ANTHROPOGENE) DEPOSITS OF NORTHERN KIRGIZIA, by K.V. Kurdyukov	10
THE STAGES OF SULFIDE MINERALIZATION IN THE DEVONIAN CARBONATE ROCKS OF THE GAVA-KASSAN INTERFLUVE IN THE SOUTHWESTERN PART OF THE CHATKAL RANGE, by A.M. Lur'ye	13
MINERALIZATION ASSOCIATED WITH VOLCANIC FORMATIONS IN TRANSCARPATIA, by Ye.F. Maleyev	16
ON THE STRATIGRAPHIC RELATIONSHIP BETWEEN THE VARICOLORED AND THE GRAY- COLORED FORMATIONS OF THE LOWER PALEOGENE IN DAGESTAN, by K.I. Mikulenko	20
FIRST FINDINGS OF FISHES FROM NEOCENE AND LOWER QUATERNARY DEPOSITS OF THE HIGH ALTAY, by Ye.K. Sychevskaya and Ye.V. Devyatkin	21
ON THE MINERAL COMPOSITION OF THE CLASTIC MATERIAL IN THE ROCKS OF THE STALINOGORSK STRATUM IN THE EASTERN PART OF THE RUSSIAN PLATFORM, by Ye.T. Gerasimova and N.G. Latypov	24
ON THE ORIGIN OF THE MINERALIZED BRECCIAS OF CERTAIN DEPOSITS OF THE COPPER-PYRITE TYPE IN THE ALTAY AND THE URALS, by P.F. Ivankin	27
SOME RELATIONSHIPS BETWEEN THE MINERAL-GEOCHEMICAL AND THE STRUCTURAL- GEOLOGIC FEATURES OF THE ORE FIELDS OF THE ANTIMONY-MERCURY-ORE COMPLEX, by M.A. Karasik, G.A. Bulkin and A.P. Bol'shakov	29
ON THE GENESIS OF THE TULUN DEPOSIT OF QUARTZ-SANDS, by S.A. Kashik and V.A. Bronnikov	32
ON THE RATES OF RETREAT OF THE ANCIENT GLACIERS IN THE ALTAY REGION, by V.Ye. Popov	33
TYPES OF SECTIONS THROUGH THE "VERKHNEKYNOV" ("UPPER KYNOV") LIMESTONE IN TATARIA, by S.S. Ellern	36
ON THE PROBLEM OF THE AGE OF THE ULTRABASIC INTRUSIVES IN THE SOUTHERN URALS, by S.S. Gorokhov, G.B. Rudnik and V.S. Sharfman	39
ON THE AGE OF THE METAMORPHIC AND IGNEOUS ROCKS AT THE CORE OF THE TUARKYR ANTICLINE, by Yu.Ya. Kuznetsov and V.V. Prusov	41
ON THE AGE OF THE ROCKS OF THE GREENSTONE SERIES IN THE POLEVSKIY DISTRICT OF THE MIDDLE URALS, by N.P. Malakhova and P.Ya. Yarosh	43
THE STRUCTURE OF THE EASTERN FLANK OF THE MOSCOW SYNECLISE, by A.I. Mushenko	45
SOME NEW DATA ON THE AGE OF THE IGNEOUS ROCKS IN THE WESTERN PART OF THE VERKHNOYANSK-KOLYMA FOLDED REGION, by N.I. Nenashev	47
SOME NEW DATA ON THE PRECAMBRIAN ROCKS ON THE EASTERN SLOPES OF THE URALS, by I.V. Chermeninova	51

Available From Amer Geol Inst

(Contd)

DOKLADY AKADEMII NAUK SSSR,
Earth Science Sections
Vol. CXLII, No 1-6, 1962.

CONTENTS (Contd)	Page
A CORRELATION OF THE PRE-ORDOVICIAN STRATA IN VOLHYNIA AND PODOLIA, by K. E. Yakobson	52
A NEW SPORE ASSEMBLAGE AND THE PROBLEM OF THE MIDDLE-UPPER DEVONIAN BOUNDARY IN THE VOLGA-URAL REGION, by A. D. Arkhangel'skaya	55
PRECAMBRIAN SPORES FROM THE DNIESTER REGION, by N. A. Volkova	56
NEW DATA ON THE AGE OF THE SHIPOTKA AND DUSINO FORMATIONS, EASTERN CARPATHIANS, by O. S. Vyalov, N. V. Dabagyan, and Ya. O. Kul'chitskiy	59
UPPER PERMIAN IN LESSER KHINGAN, by A. P. Glushkov	61
UPPER CARBONIFEROUS AND LOWER PERMIAN DEPOSITS IN WESTERN CIS- CAUCASUS, by A. I. Letavin and N. A. Redichkin	62
THE IMPORTANCE OF VEIN ROCKS IN DETERMINING DEPTH OF EROSION IN MASSIFS WITHIN THE URALIAN PLATINIFEROUS GABBRO-PERIDOTITE BELT, by V. A. Reshit'ko	64
STRATIGRAPHIC IMPORTANCE OF SPORES FROM MIDDLE DEVONIAN STARO-OSKOL AND MULLINSK CLASTIC STRATA IN THE VOLGA-URAL PROVINCE, by A. B. Filimonova	66
LATE PALEOZOIC IGNEOUS ACTIVITY IN NORTHEAST USSR, by L. V. Firsov	68
THE EXTENT OF THE MARINE TRANSGRESSION OF AKCHAGYLIAN AGE WITHIN THE VOLGA-URAL PROVINCE, by S. K. Gorelov	70
ANTECEDENCE OF THE DNIESTER VALLEY ABOVE THE RAPIDS, by N. N. Karlov	72
NEW DATA ON GEOLOGY OF THE NORTHERN CENTRAL RANGE, KAMCHATKA, by B. A. Korzhenevskiy	74
NEW DATA ON THE ORIGIN AND COMPOSITION OF CLAY MINERALS FROM MAYKOPIAN DEPOSITS. THE CIS-CAUCASUS, by D. D. Kotel'nikov	75
MESOZOIC IGNEOUS ACTIVITY IN THE YENISEY RANGE, by P. P. Krendeleev and D. V. Klechkovskiy	78
NEW FINDINGS OF QUATERNARY MAMMALIAN FOSSILS IN THE UPPER OB' REGION, by V. Ye. Ryzasina	80
NEW DATA ON TOURNAISIAN STRATIGRAPHY OF THE TATARIA, by I. A. Antropov	81
EFFECT OF METASOMATISM ON THE ORIGIN OF GRANITIC ROCKS IN POSTMAGMATIC FORMATIONS OF SOUTH GISSAR (SOUTH TIEN SHAN), by R. B. Baratov and A. Kh. Khasanov	83
NEW DATA ON GEOLOGY OF THE PYTKOV KAMEN' AREA, by V. K. Vayner and G. I. Gurevich	85
STRUCTURAL RELIEF AND TECTONICS OF THE NORTH AZOV REGION, by N. N. Karlov	87
A TROUGH-TYPE UPPER DEVONIAN CARBONATE SECTION IN THE BIRSK SADDLE, by V. N. Krasovnikov, O. A. Lipina, O. M. Mkrtchyan, and V. A. Chizova	89
PRESENT-DAY ACTIVITY OF ELBRUS VOLCANO, by Yu. P. Masurenkov and I. Ya. Panteleyev	91
FLOODPLAINS OF MULTICHANNEL RIVERS, by V. A. Nikolayev	92
BIVALVE MOLLUSKS IN COAL MEASURES OF SIBERIA, by L. A. Ragozin	94
LOWER PALEOGENE DEPOSITS IN THE NORTH ARAL REGION, by Ye. M. Sekunova	97
LATE MESOZOIC MAGMATIC PHASES IN NORTHEAST USSR, by L. V. Firsov	99
HYDROGEOLOGY	
SULFATE-CARBONATE EQUILIBRIA AND REDOX STATE OF SULFUR IN THE MINERAL WATERS AROUND MINERAL'NYYE VODY IN THE CAUCASUS, by P. A. Kryukov, S. S. Zavodnov and V. E. Goremykin	101
OUTFLOW MECHANISM FOR DEEP GROUND WATER IN THE CASPIAN DEPRESSION, by V. N. Kortsenshteyn	103
AN HYPOTHESIS ON THE ORIGIN OF NATURAL SOLUTIONS, by V. P. Dergol'ts	105
MINERALOGY	
THE CRYSTAL STRUCTURE OF AESCHYNITE, by V. B. Aleksandrov	107
NACRITE FROM A FLUORITE DEPOSIT OF THE WESTERN TRANSBAYKAL REGION AND ITS STRUCTURAL PROPERTIES AS DETERMINED BY ELECTRON DIFFRACTION STUDIES, by B. B. Zvyagin and A. D. Shcheglov	109
STRONTIAPATITE-A NEW MINERAL, by A. F. Yefimov, S. M. Kravchenko and Z. V. Vasil'yeva	113
COSALITE FROM EASTERN MONGOLIA, by A. D. Kalenov	116
BETALOMONOSOVITE, by V. I. Gerasimovskiy and M. Ye. Kazakova	118
FLUOBORITE FROM CENTRAL ASIA, by Yu. I. Yedovin and G. M. Utekhin	121
KELDYSHITE-A NEW MINERAL, by V. I. Gerasimovskiy	123
ON THE DISCOVERY OF TILLEYITE IN THE CONTACT ZONE OF THE ANAKITSKIY TRAPROCK INTRUSIVE ON THE LOWER TUNGUSKAYA RIVER, by V. V. Reverdatto	126
THE FIRST OCCURRENCE OF DIAPHORITE IN THE USSR, by L. N. Indolov	127
Available From Amer Geol Inst	(Contd)

DOKLADY AKADEMII NAUK SSSR,
Earth Science Sections,
Vol CXLII, No 1-6, 1962.

CONTENTS (Contd)	Page
PETROGRAPHY	
A REPLACEMENT OF LIMESTONE BY ALBITE WITH FLUORINE-CONTAINING INCLUSIONS, by D.I. Pavlov	131
THE PRINCIPAL FEATURES OF THE EMPLACEMENT AND STRUCTURE OF THE GAURDAK SULFUR ORES, by V.D. Kogan	133
SOME ROCKS CONTAINING ANALCITE AND OTHER ZEOLITES FROM THE NORTHERN ONEGA BAUXITE DEPOSIT, by E.A. Kal'berg and Ye.P. Levando	136
ON THE STAGES OF MINERAL FORMATION IN THE DEPOSITS OF THE TAURIAN SUITE IN THE CRIMEA, by N.V. Logvinenko, G.V. Karpova, D.P. Shaposhnikov and V.G. Kosmachev	138
ON THE ZONALITY OF THE LOESSIAL ROCKS IN THE EUROPEAN PART OF THE USSR, by M.P. Lysenko	140
MINERAL ASSOCIATIONS IN THE ALLUVIAL DEPOSITS OF THE KARA-DARYA RIVER, by Chen' Li-Zhun'	143
GEOCHEMISTRY	
ON THE RELATION BETWEEN THE CATIONS OF PORE SOLUTIONS AND THE EXCHANGE-ABLE CATIONS OF ARGILLACEOUS ROCKS, by N.P. Zatenatskaya	146
CHANGES IN THE STRUCTURE OF FOSSIL COALS INDUCED BY NATURAL ACTIVATION, by I.L. Ettinger	149
GEOCHEMICAL BEHAVIOR OF TITANIUM IN METASOMATISM, by G.A. Sokolov and D.I. Pavlov	152
THE FORMS OF OCCURRENCE OF URANIUM IN THE WATERS OF THE SEA OF AZOV AND SOME ESTUARIES AND RIVERS OF THE AZOV-BLACK SEA BASIN, by M.S. Lamber, D.S. Nikolayev	155
ADSORPTION ASH OF COAL, by I.N. Semasheva, I.S. Soflyev	156
FLUORINE, PHOSPHORUS AND MINOR ELEMENTS IN THE BONES OF FOSSIL FISHES AND DOLPHINS, by L.N. Kudrin, A.S. Sivkova and S.S. Martynova	160
CHEMICAL COMPOSITION OF METEORIC WATERS ON THE CAUCASIAN SHORE OF THE BLACK SEA, by V.P. Zverev	161
DISTRIBUTION OF DISPERSED MANGANESE, IRON AND PHOSPHORUS IN THE MANGANIFEROUS SEDIMENTS OF GEORGIA, by O.Yu. Butuzova and L.E. Shterenberg ..	164
PALEONTOLOGY	
A CASUARINA FROM THE CAUCASUS, by V.G. Gayvoronskiy	167
PLANT(?) FOSSILS OF UNKNOWN TAXONOMIC POSITION FROM THE DEPOSITS OF THE BAVLINSKAYA SERIES IN THE VOLGA-URALS OIL PROVINCE, by Ye.D. Shepeleva ..	170
WOOD SPECIMENS OF SOME LEAFY TREES FROM THE MAYKOPIAN DEPOSITS IN THE WESTERN CAUCASUS, by V.G. Gayvoronskiy	171
ON THE PALEOGENE STROMATOLITES FROM THE GISSAR RANGE, by V.P. Maslov	174
Available From Amer Geol Inst	

Soviet Physics DOKLADY

A Translation of the Physics Sections of the Proceedings of the USSR Academy of Sciences
(Russian Original Vol. 151, Nos. 4-6, August, 1963)

Vol. 8, No. 8, pp. 747-866

February, 1964

CONTENTS

	PAGE	RUSS. ISSUE	RUSS. PAGE
AERODYNAMICS			
The Method of Integral-Moment Kinetic Equations. <u>R. G. Barantsev</u> (T)	747	5	1038
A Method for Calculating the Flow of a Rarefied Gas. <u>B. V. Kuksenko</u> (T)	750	5	1042
The Nonlinear Theory of Aerodynamic Stability. <u>V. V. Struminskii</u> (T)	753	5	1046
A Cross-Shaped Wing of Finite Span in a Compressible Flow. <u>B. L. Fridlander</u> . . . (T)	756	6	1209
ASTRONOMY			
Radar Studies of the Planet Mars in the Soviet Union. <u>V. A. Kotelnikov</u> , <u>V. M. Dubrovin</u> , <u>B. A. Dubinskii</u> , <u>M. D. Kislik</u> , <u>B. I. Kuznetsov</u> , <u>G. M. Petrov</u> , <u>A. P. Rabotyagov</u> , <u>O. N. Rzhiga</u> , and <u>A. M. Shakhovskoi</u> (E)	760	4	811
The Accuracy of the Spectral Scheme of O III Used for the Calculation of Its Recombination Spectra in Stars and Nebulae. <u>A. A. Nikitin</u> (T)	764	6	1306
CYBERNETICS AND CONTROL THEORY			
Equivalent Transformations of Various Types of Automata. <u>N. A. Gorbovitskaya</u> . . (T)	766	4	799
Complexity of Contact Circuits Realizing a Function of Logical Algebra. <u>R. E. Krichevskii</u> (T)	770	4	803
Equivalent Transformations for Logical Networks. <u>V. L. Murskii</u> (T)	773	4	807
Some Questions on the Theory of Navigation. <u>V. S. Shebshagovich</u> (T)	776	6	1295
FLUID MECHANICS			
Periodic Waves Generated by a Source above an Inclined Bottom. <u>I. N. Sretenskii</u> (T)	770	5	1050
MATHEMATICAL PHYSICS			
A Two-Zone Problem in Convective Heat Transfer. <u>N. A. Avdonin</u> (T)	782	4	815
PHYSICS			
Steady-State Properties of the Completely Ionized Plasma Surrounding the Earth. <u>A. A. Vlasov</u> and <u>F. Kh. Khakimov</u> (T)	785	4	818
Term Splitting Energy of the Hydrogen Molecule. <u>L. P. Gor'kov</u> and <u>I. P. Pitaevskii</u> (T)	788	4	822
Features of Li_2^+ Formation in the Interaction of 660 MeV Protons with C_6^{12} . <u>O. V. Lozhkin</u> , <u>N. A. Perfilov</u> , and <u>Yu. P. Yakovlev</u> (E)	791	4	826
Valve and Diffusion Photo-emf's. <u>E. L. Adirovich</u> (T)	794	5	1060
Specific Heat at Constant Volume of Water and Steam in Single- and Double- Phase Regions Adjoining the Boundary Curve which Includes the Critical Point. <u>Kh. I. Amirkhanov</u> and <u>A. M. Kerimov</u> (E/T)	797	5	1064

(continued)

Available From Amer Inst of Phys
Sov Phys - Dok
Vol VIII, No 3

	PAGE	RUSS. ISSUE	RUSS. PAGE
A Study of the Structure of Cadmium Sulfide at High Pressures up to 90 Kilobars. S. S. Kabalkina and Z. V. Troitskaya(E)	800	5	1068
Pyramidal Slip in Zinc Crystals. F. F. Lavrent'ev and O. P. Salita(E)	803	5	1071
Anisotropy of the Ion-Electron Emission Coefficient of Single Crystals. E. S. Mashkova, V. A. Molchanov, and D. D. Odintsov(E/T)	806	5	1074
The Microwave Spectrum of the F_2HC-CH_2F Molecule. I. A. Mukhtarov,(T)	808	5	1076
The Paramagnetic Component of the Magnetic Susceptibility of $Al^{III}B^{III}V$ Semiconducting Compounds from X-ray Analysis Data. N. N. Sirota and N. M. Olekhovich(E)	811	5	1079
Expansions for the Neighborhood of the Critical Temperature of a Phase Transition which Are Asymptotic for Weak Interaction, as Obtained in a Modified Formulation of the Problem of a Nonideal Bose-Einstein System. V. V. Tolmachev(T)	812	5	1081
An Experimental Study of the Band Structure of Hexagonal Crystals of Selenium and Tellurium. V. V. Sobolev(E)	815	6	1308
TECHNICAL PHYSICS			
Mechanical Properties of Copper Films. I. A. Odintsov and I. T. Aleksanyan(E)	818	4	829
Formation of Plane Hexagonal Nets during Polygonization. A. L. Rolitburd and M. P. Usikov(E/T)	821	4	833
Development of a Long Positive Spark in the Case of an Exponential Voltage Wave Front. I. S. Stekol'nikov and A. V. Shkilev(E)	825	4	837
Investigation of Negative Spark Mechanisms. I. S. Stekol'nikov and A. V. Shkilev,(E)	829	5	1085
The Mechanism of Normal Crystal Growth. V. T. Borisov(T)	834	6	1311
THEORY OF ELASTICITY			
The Stability of Axisymmetric Deformations of Spherical Shells under Axisymmetric Loads. A. V. Pogorelov(T/E)	837	5	1053
The Contact Problem in the Theory of Elasticity for Bodies of Bounded Dimensions. A. F. Khristalev(T)	839	5	1056
Loss of Stability of a Shell of Rotation under an External Pressure Uniformly Distributed along a Parallel. A. V. Pogorelov,(T/E)	842	6	1303
BIOPHYSICS			
Mechanisms of Muscle Contraction (from X-ray Data). L. A. Mel'nikov, L. L. Razumova, B. K. Lermazhikhin, and G. M. Frank	847	4	855
Optical Rotatory Dispersion of Deoxyribonucleic Acid Extracted from T-2 Bacteriophage. G. A. Dvorkin, E. I. Golub, L. P. Gorbachev, L. G. Koreneva, and M. I. Mekshenkov	851	5	1211
Diurnal Dynamics of Electrical Activity of Plants under a Functional Load. A. D. Semenenko, M. A. Khvedelidze, and A. D. Semenenko	855	5	1215
Regenerative Processes in Duodenal Mucosa after Radiation Injury. I. A. Chaltsov and L. B. Berlin	859	6	1450

Available From Amer Inst of Phys
Sov Phys - Dok
Vol VIII, No 8

Soviet Physics DOKLADY

A Translation of the Physics Sections of the Proceedings of the USSR Academy of Sciences
(Russian Original Vol. 152, Nos. 1-3, September, 1963)

Vol. 8, No. 9, pp. 867-952

March, 1964

CONTENTS

	PAGE	RUSS. ISSUE	RUSS. PAGE
CRYSTALLOGRAPHY			
The Crystal Structure of Hodgkinsonite, $Zn_2Mn(SiO_4)(OH)_2$, <u>L. P. Solov'eva and N. V. Belov</u> (E)	867	2	327
CYBERNETICS AND CONTROL THEORY			
Disposition of Intermediate Information during Calculations Using Nonerasing Turing Machines, <u>N. V. Belyakin</u> (T)	871	1	75
Application of Variable-Structure Automatic Control Systems to the Control of Objects whose Parameters Vary within Wide Limits, <u>S. V. Eimel'yanov and V. I. Urkin</u> (T)	873	2	200
Stability of Processes in Nonlinear Automatic Sampled-Data Systems, <u>Ya. Z. Tsypkin</u> (T)	875	2	302
MATHEMATICAL PHYSICS			
Conformal Transformation Groups in Gravitational Fields, <u>R. F. Bilyalov</u> (T)	878	3	570
Distinction between Interaction and Scattering Effects in Perturbation Theory, <u>I. D. Faddeev</u> (T)	881	3	573
MECHANICS			
Motion of a Free Gyroscope on a Mobile Support, Taking into Account the Mass of the Rings of the Cardan Suspension, <u>L. A. Bunatyan</u> (T)	884	2	305
PHYSICS			
Magnetic Susceptibility of Semiconducting Elements of Group IV Determined on the Basis of X-Ray Analysis, <u>N. N. Sirota and A. U. Shelep</u> (E)	887	1	81
The Instability of a Gas Discharge in a Magnetic Field with no Longitudinal Current, <u>A. V. Timofeev</u> (T/E)	890	1	84
Optical Method of Determining the Variation of the Melting Point of Graphite as a Function of Pressure at Pressures up to 3000 atm, <u>N. S. Fateeva, I. F. Vereshchagin, and V. S. Kolotygin</u> (E)	893	1	88
The Fine Structure of the Edge Radiation Band Extinction Times in GaP Crystals, <u>I. I. Gross and D. S. Nedzvetski</u> (E)	896	2	309
Motion of Charged Particles in a Strong Magnetic Field in the Presence of a Strong Transverse Electric Field, <u>V. S. Kudryavtsev</u> (T)	901	2	313
An Optical Method of Determining the Melting Temperature of Graphite as a Function of Pressure up to 40,000 atm, <u>N. S. Fateeva, I. F. Vereshchagin and V. S. Kolotygin</u> (E)	904	2	317
The Virial Expansion in the Problem of the Electrostatic Polarization of a Many-Body System, <u>V. M. Finkel'berg</u> (T)	907	2	320
Available From Amer. Inst. of Phys.			
Sov. Phys. - Dokl.			
Vol. VIII, No. 9			
		(continued)	

DOKLADY AKADEMII NAUK SSSR

Physics Sections

Vol CLIII, No 1-3, 1963.

CONTENTS (continued)

	PAGE	RUSS. ISSUE	RUSS. PAGE
A New Spectroscopic Method for Studying Anisotropy of Electron Transitions in Polar Molecules. <u>N. G. Bakhshiev</u> (E/T)	910	3	577
Plasma Studies on a Traveling Wave Setup. <u>N. A. Borzunov, N. Ya. Kuz'mina, I. Kh. Nevyazhskii, S. M. Osovets, Yu. F. Petrov, B. I. Polyakov, I. A. Popov, K. V. Khodataev, and V. P. Shimchuk</u> (E)	914	3	581
Phase Transitions in Antimony at High Pressures. <u>S. S. Kabalkina and V. P. Mylov</u> (E)	917	3	585
Theory of a Weakly Turbulent Plasma. <u>V. I. Karpman</u> (T)	919	3	587
Quantum Statistical Theory of Ferromagnetic Resonance. <u>O. A. Ol'khov and B. N. Provotorov</u> (T)	922	3	591
TECHNICAL PHYSICS			
Suzuki Atmospheres in Brasses and Aluminum Bronzes. <u>V. E. Panin, E. F. Dudarcov, and M. A. Bol'shanina</u> (T)	925	1	92
A Theory of Hardening of Well-Ordered Solid Solutions. <u>E. V. Kozlov and L. E. Popov</u> (T)	928	3	595
THEORY OF ELASTICITY			
Analytic Structure of the Membrane Equation Solution. <u>N. F. Morozov</u> (T)	931	1	78
BIOPHYSICS			
Reduction of Protective Efficacy of Cysteamine in the Case of Repeat Exposure to Radiation. <u>S. N. Aleksandrov and K. F. Galkovskaya</u>	936	1	215
Mechanism of Induction of Excitation in Isolated Mechanoreceptors. <u>O. B. Il'inskiĭ and V. B. Eiks</u>	937	1	218
Chemiluminescence of Lipids and Rate of Growth of Pacific Ocean Salmon. <u>A. I. Zhuravlev and V. P. Korzhenko</u>	940	2	457
Determination of C^{14} Concentration by the Track-Count Method. <u>N. D. Perumova and L. E. Pakulina</u>	944	2	461
Effect of Acrylamide and its Hydrogenated Derivative on Irradiated Biological Systems. <u>Yu. P. Kozlov and T. N. Kalabukhova</u>	947	3	737

Available From Amer Inst of Phys
 Sov Phys - Dok
 Vol VIII, No 9

Soviet Physics SOLID STATE

A Translation of the Journal "Fizika Tverdogo Tela"

(Russian Original Vol. 5, No. 8, pp. 2049-2387, August, 1963)

Vol. 5, No. 8, pp. 1495-1742

February, 1964

CONTENTS

	PAGE	RUSS. PAGE
"Linear" Phase Transitions in Solids (Related to P. S. Ehrenfest's Equations). <u>M. P. Mokhnatkin</u> (T)	1495	2049
Effect of Ordering Processes on the Internal Friction in Alloys of the Fe_3Al Type. <u>L. A. Svergunenko</u> (T)	1497	2052
Temperature Dependence of Magnetization on Heating and Cooling of Lithium Ferrite-Chromite in Weak Magnetic Fields. <u>A. I. Drokin, R. P. Smolin,</u> <u>and L. I. Ryabinkina</u> (E)	1502	2059
Investigation of the Electrical Properties of the TiO_2-x -Ag Contact with an Intermediate Insulating Layer. <u>V. A. Dorin and A. Ya. Patrakova</u> . . (E)	1506	2065
Combination Resonance in Deformed p-Type Ge. <u>G. E. Gurgenshivili</u> (T)	1510	2070
Radiation Defects Created in Germanium by Fast 28-MeV Electrons. <u>B. M. Konovalenko, S. M. Ryvkin, and I. D. Yaroshetskii</u> (E)	1513	2075
Kinetics of Photoconductivity in p-TlSe Single Crystals. <u>M. Kh. Alieva and G. A. Akhundov</u> (E)	1521	2087
Macroscopic Theory of $BaTiO_3$ -Type Ferroelectric Crystals in the Form of Thick Plates. <u>L. P. Kholodenko</u> (T)	1524	2090
Disorientation and Certain Other Defects in Silicon Single Crystals Upon Growth by the Czochralski Method. <u>M. G. Mil'vidskii</u> (E)	1532	2102
Instability of the Process of Generation of Monochromatic Radiation in Solid-State Optical Masers. <u>T. I. Kuznetsova and S. G. Rautian</u> (T)	1535	2105
Effect of Distortions Due to Precipitation from Supersaturated Solid Solutions of Nickel in Germanium and Copper in Germanium on the Anomalous X-Ray Transmission. <u>O. N. Efimov and A. M. Elistratov</u> (T/E)	1543	2116
Mössbauer Line Shape Associated with the Spread in Local Values of ∇E . <u>S. V. Karyagin</u> (T)	1552	2128
Light Absorption by Free Carriers in Semiconductors Whose Impurity Centers Have a Short-Range Field. <u>V. A. Yakovlev</u> (T)	1555	2133
Thermal Expansion of $AlSb$, $GaSb$, $ZnTe$, and $HgTe$ at Low Temperatures. <u>S. I. Novikova and N. Kh. Abrikosov</u> (E)	1558	2138
Thermodynamic Green's Functions of an Isotropic Antiferromagnet with Arbitrary Spin. <u>J. Czerwonko</u> (T)	1560	2141
Theory of the Hall Effect in Low-Mobility Semiconductors. <u>Yu. A. Firsov</u> (T)	1566	2149

(continued)

Available From Amer Inst of Phys
Sov Phys - Solid State
Vol. V, No. 8

CONTENTS (continued)

	PAGE	RUSS. PAGE
Theory of Optical Transitions in Local Centers. <u>L. S. Kukushkin</u> (T)	1581	2170
Application of the Green's-Function Method to the Analysis of Magnetic Lattices. <u>A. G. Khachatryan</u> (T)	1586	2178
Determination of the Degree of Orientation of Crystallites in Polymers by X-Ray Diffraction. <u>A. E. Gromov and A. I. Slutsker</u> (T/E)	1591	2185
Dynamics of ZnS-Type Crystal Lattices Having Ions with Variable Fractional Charges. <u>E. N. Korol' and K. B. Tolpygo</u> (T)	1597	2193
Exciton Wave Function and Energy in a Bounded Crystal. <u>V. I. Sugakov</u> (T)	1607	2207
Momentum Transfer from a Scattered Electron to an Impurity Center in a Lattice. <u>V. B. Fuks</u> (T)	1611	2213
Healing of an Isolated Pore in a Crystalline Body by Hydrostatic Pressure. <u>Ya. E. Geguzin, A. S. Dzyuba, and A. M. Kosevich</u> (E)	1615	2219
Some Results of Investigating Electroluminescence in Silicon Carbide p-n Junctions. <u>Yu. S. Blank, Yu. A. Vodakov, and A. A. Mostovskii</u> (E)	1621	2228
Calculation of the Second Moment of a Nuclear Magnetic Resonance Line in Isotropic Rotation of Molecules. <u>I. V. Dmitrieva and V. V. Moskalev</u> (T)	1623	2230
Complexes of Impurity Ions in Strontium Chloride Crystals. <u>M. I. Kornfeld</u> and <u>L. S. Sochava</u> (E)	1625	2232
Intensity of Allowed and Forbidden Electron Paramagnetic Resonance Lines. <u>G. L. Bir</u> . . . (T)	1628	2236
Stabilization of Electrons in the Low-Temperature Radiolysis of Organic Substances. <u>V. G. Nikol'skii, V. A. Tochil, and N. Ya. Buben</u> (E/T)	1636	2248
Electron Paramagnetic Resonance Spectra of Free Radicals in the Destruction Products of Solid Polymers. <u>P. Yu. Butyagin, I. V. Kolbanev, and V. A. Radtsig</u> . . . (E)	1642	2257
Dielectric Properties of KBr Single Crystals Irradiated with Fast Electrons. <u>V. V. Krasnopevtsev</u> (E/T)	1645	2261
Time Dependence of the Strength of Heterogeneous Materials. <u>V. A. Bershtein and L. A. Glikman</u> (E)	1651	2270
Mechanism of Delayed Failure in Polyester Fiberglasses. <u>V. A. Bershtein</u> and <u>L. A. Glikman</u> (E)	1657	2278
Some Energy Characteristics of Electron Passage through a Solid. <u>A. Ya. Vyatskin and A. N. Pilyankevich</u> (T/E)	1662	2285
Desorption of Potassium from Tungsten in an Electric Field. <u>A. G. Haumovets</u> (E)	1668	2294
Electron Paramagnetic Resonance and Spin-Lattice Relaxation of the Impurity Ion Nd^{3+} in a $CaWO_4$ Single Crystal. <u>N. E. Kask, L. S. Kornienko,</u> <u>A. M. Prokhorov, and M. Fakir</u> (E)	1675	2303
Spin-Lattice Relaxation of the Ti^{3+} Ion in Corundum. <u>N. E. Kask, L. S. Kornienko,</u> <u>T. S. Mandel'shtam, and A. M. Prokhorov</u> (E)	1677	2306
Diffusion and Solubility of Silver in Gallium Arsenide. <u>B. I. Boltaks</u> and <u>G. S. Shishiyau</u> (E)	1680	2310
Temperature Dependence of Carrier Lifetimes in InAs. <u>M. P. Mikhailova,</u> <u>D. N. Nasledov, and S. V. Slobodchikov</u> (E)	1685	2317
Study of the Anisotropy of Mechanical Properties of NaCl Single Crystals from Observations of the Dislocation Distribution on the (111) Face. <u>Yu. S. Boyarskaya and M. I. Val'kovskaya</u> (E)	1690	2324
Anisotropic Scattering of Electrons in Ge and Si. <u>I. V. Dakhovskii</u> (T/E)	1695	2332
Theory of Infrared Light Absorption in Crystals. Four-Phonon Interaction. <u>V. N. Kashcheev</u> (T)	1700	2339
Wave Function and Energy of a NaCl Crystal with an Excess (Band) Electron. <u>Z. Ya. Evseev</u> (T)	1705	2345

(continued)

Available From Amer Inst of Phys
Sov Phys - Solid State
Vol V, No 8

CONTENTS (continued)

	PAGE	RUSS. PAGE
Splitting of the Ground State of Mn^{2+} and Fe^{3+} Ions in Low-Symmetry Crystal Fields. <u>A. M. Leushin</u> (T/E)	1711	2352
BRIEF COMMUNICATIONS		
Temperature Studies of Infrared Reflection Spectra of $BaTiO_3$ and $SrTiO_3$ in the 2-1000 μ Region. <u>V. N. Murzin and A. I. Demeshina</u> (E/T)	1716	2359
Some Quantitative Rules of the Rashba Effect in Impurity Crystals. <u>E. F. Shcka</u> . . . (E/T)	1718	2361
Effect of Electrical Dipole Induction in Electron Resonance. <u>A. R. Kessel'</u> and <u>I. V. Obchinnikov</u> (T)	1720	2364
Effect of a Strong Electric Field on the Absorption of Electromagnetic Microwave Radiation in Photosensitive Layers of Lead Sulfide. <u>S. N. Chechurin</u> (E)	1721	2365
Calculation of Lattice Deformation Around Impurities in an Ionic Crystal. <u>N. N. Kristofel'</u> (T)	1722	2367
Mechanism of the Effect of Microwaves on the Electrical Conductivity of n-Type InSb at Low Temperatures. <u>V. A. Dantilychev and B. D. Osipov</u> (E/T)	1724	2369
Influence of the Internal Photoeffect on the Attenuation of Elastic Waves in Ge. <u>V. M. Beilin, Yu. Kh. Vekilov, A. E. Kadyshevich, Yu. V. Piguzov,</u> <u>and R. Ratike</u> (E)	1726	2371
Influence of the Internal Photoeffect on the Microhardness of Ge and Si. <u>V. M. Beilin and Yu. Kh. Vekilov</u> (E)	1727	2372
Permittivity and Dielectric Losses in Oxalates at Low Frequencies. <u>V. K. Zhuravlev</u> . . (E)	1729	2374
Peculiarities of the Zeeman and Stark Effects of the Mott Exciton. <u>D. S. Bulyanitsa</u> . . (T)	1730	2376
Spin Resonance in F_2 -Centers in Alkali-Halide Crystals. <u>Yu. V. Chkhartishvili</u> (T)	1733	2378
Two Mechanisms of Conductivity in Semiconductors with Low Mobility. <u>E. L. Nagaev</u> . (T)	1734	2380
Effective Collision Radius in Experiments on Sputtering and Ion-Electron Emission of Single Crystals. <u>E. S. Mashkova and V. A. Molchanov</u> (T/E)	1736	2383
Conversion of Intense Monochromatic Radiation into Electric Current. <u>N. G. Basov and O. N. Krokhin</u> (T)	1737	2384
ANNOUNCEMENT		
New Journal: High-Temperature Thermophysics	1739	

Available From Amer Inst of Phys
Sov Phys - Solid State
Vol V, No 8

SOVIET PLANT PHYSIOLOGY

A translation of Fiziologiya Rastenii

(Russian Original Dated May-June, 1963)

Vol. 10, No. 3, pp. 219-330

November-December, 1963

CONTENTS

	PAGE	RUSS. PAGE
Functional Significance of Action Currents Affecting the Gas Exchange of Higher Plants. <u>I. I. Gunar and A. M. Sinyukhin</u>	219	265
Investigation of the Biosynthetic Interrelation of Chlorophylls <i>a</i> and <i>b</i> in <i>Chlorella</i> . <u>A. A. Shlyk, S. A. Mikhailova, V. I. Gaponenko, and T. V. Kukhtenko</u>	227	275
The Role of Red Pigments in the Life of Marine Algae. <u>I. A. Yartseva</u>	237	288
Metabolism of C ¹⁴ -Phosphoglyceric Acid in Bean and Sugar Beet Leaves. <u>R. Ya. Shkol'nik</u> and <u>N. G. Doman</u>	242	295
On Chloroplast Structure in Relation to Ultraviolet Irradiation. <u>A. A. Shakhov and B. M. Golubkova</u> . Oxygen and Nitrogen Metabolism of Pumpkin Roots Suffering Potassium Deficiency. <u>E. I. Vyskrebentseva</u>	246	300
The Effect of Potassium on the Drought Resistance of Wheat. <u>A. I. Shchukina</u>	253	307
The Effect of the Microelement Vanadium on Grape. <u>O. K. Dobrolyubskii</u>	258	313
The Effect of Chloramphenicol on Protein Synthesis in Plants. <u>Yu. G. Molotkovskii</u> and <u>A. M. Smirnov</u>	263	319
Nitrogen Metabolism of Squash Plants in Relation to Root Temperature. <u>R. L. Vinokur</u>	268	325
The Relation Between the Annual Growth Cycle of Arboreal Shoots, Nucleic Acid Contents and Water Relations of the Growing Points. <u>Yu. L. Tselinker</u>	275	334
Effect of Hardening Seed with Alternating Temperatures on the Physiological Characteristics and Cold Resistance of Cucumbers. <u>V. F. Velik</u>	279	339
Effect of Nitrogen and Light Intensity on Correlative Relationship During Growth of Roots and Shoots of Meadow Grasses. <u>P. V. Lebedev</u>	288	351
	294	358
BRIEF COMMUNICATIONS		
Some Data on the Physiology of Frost Hardiness in the Vine. <u>Ouyan Shoy-zhu</u>	300	366
Rate of Molybdenum Uptake and Translocation in Plants. <u>B. I. Minina</u>	303	369
Frost Resistance of Winter Wheat Relative to Duration of Growth at Low Positive Temperatures. <u>T. V. Voblikova</u>	307	371
Effect of Low Temperatures on the Sugar Content in Winter and Summer Wheat and in the Combined Type of Plant. <u>A. S. Krushilin</u>	310	374
PRACTICAL APPLICATIONS		
Foliar Diagnosis of the Nitrogen and Potassium Requirement of Tea Shrubs. <u>Z. I. Zhuretskii and D. V. Shtrausberg</u>	312	377
METHODS		
A Method for Rapid Determination of the Chlorophyll Content. <u>I. A. Shul'gin, V. Z. Podolnyi,</u> and <u>S. V. Sokolova</u>	318	383
Determination of the Water Content in Vacuole and Protoplasmic Saps and in Chloroplasts. <u>N. G. Vasil'eva and Z. S. Burkina</u>	323	387

(continued)

Available From CB

FIZIOLOGIYA RASTENII, Vol X, No 3, 1963.

CONTENTS (continued)

	PAGE	RUSS. PAGE
EVENTS		
Conference on the Problem of Regulating the Photosynthetic Activity of Plants (January 17-19, 1963). <u>A. A. Nichiporovich</u>	325	389
Available From CB		

GEOLOGIYA NEFTI I GAZA

TABLE OF CONTENTS
Vol. 5, No. 2, 1961

1. Results of oil and gas exploration for 1960 in the U. S. S. R. and tasks for 1961. P. I. Levitskiy	p. 63
2. Interrelationship of structural elements of the area of a fore-mountain downwarp. B. N. Viktorov	p. 67
3. Principal features of the structure of the Amu-Dar'ya part of southeast Turkmenia. R. Ye. Ayzberg	p. 70
4. Determination of the position of the water-oil contact. A. V. Velichko	p. 73
5. Waters of the Mesozoic sediments of the Caucasus in relation to evaluating the oil and gas possibilities. G. M. Sukharev	p. 78
6. Results of barrier flooding of the Kalinov gas-oil field. G. B. Vyzhigin and V. B. Cherepanov	p. 82
7. Geologic nature of the gravity anomalies of the Amuro-Bureya field. A. P. Tarkov	p. 87
8. Mapping areas of greater thickness of the clastic unit of the lower Carboniferous by the seismic reflection method. A. K. Urupov, Yu. A. Byakov, S. A. Shikhov	p. 91
9. Method of analysis of the results of study of the density of argillaceous rocks. E. A. Prozorovich	p. 93
10. Relationship of the structural stages of the Yuzhnyy Alamyshik anticline. K. A. Grudkin and L. P. Polkanova	p. 96
11. Characteristics of the upper Cretaceous sediments of the Argun River region. A. N. Resnikov	p. 98
12. Variations in the heat regimen in the oil-bearing rocks of the east Gobi. N. A. Minskiy	p. 102
13. Composition of the oils of the Trans-Danubian area of Hungary and their origin. L. Graf	p. 108

Available From GSA

GEOLOGIYA NEFTI I GAZA

TABLE OF CONTENTS

Vol. 5, No. 3, 1961

1. Results of geological exploration for oil and gas in the RSFSR in 1960. B. A. Tkhostov	p. 117
2. Results of geological exploration in the territory of Turkmenia in 1960 and tasks for 1961. V. V. Semenov	p. 122
3. Classification of oil and gas fields and pools. N. A. Yeremenko	p. 127
4. Geology of the productive stratum and basis for improving the development of fields. M. I. Maksimov et al.	p. 135
5. The effect of the number of exploitation wells on the recovery factor. I. M. Matbeyev	p. 138
6. Characteristics of carbonate reservoirs of the Carboniferous sediments of the Stalingrad area. A. G. Gabrielyan et al.	p. 143
7. Principles of evaluating gas prospects according to the composition and expansibility of the gases dissolved in subsurface waters. E. Ye. London et al.	p. 149
8. Conditions of formation of oil pools in the Pashiy beds of the Bol'shekinsel flexure. V. G. Kuznetsov	p. 154
9. Relationship between geothermal conditions of the sedimentary cover and the structure of the crystalline basement. A. V. Drushinin	p. 158
10. Results of the use of regulated directional reception of seismic waves. V. I. Meshbey	p. 163
11. Methods for speeding up the testing of wells and for improving the quality of this work. B. D. Panov	p. 166
12. History of the tectonic development of the Nebit-Dag fold. T. V. Schwartz	p. 169
13. Deep subsurface and oil prospects of the Dzun-Bain depression. M. M. Kuzmetsova	p. 174

Available From Geological Society of America

INZHENERNO-FIZICHESKIY ZHURNAL

(Journal of Engineering Physics)

No 8, 1963

-USSR-

Following is the translation of the Russian language periodical Inzhenerno-Fizicheskiy Zhurnal (English version above), Vol. VI, No. 8, Minsk, August 1963, pp. 3-140.]

TABLE OF CONTENTS

TITLE	TEXT PAGE	SOURCE PAGE
1. An Investigation of Heat Transfer Between Packing and Pseudo-Fluidized Bed in Inter-Particle Channels; by A. P. Baskakov and V. S. Vershinina	1	3
2. An Experimental Investigation of the Influence of Vibrations on the Heat and Mass Exchange of a Cylinder and a Cone in a Turbulent Air Current; by S. S. Chervyakov.....	10	10
3. An Investigation of Combustion of a Carbon Particle Flow in the High Temperature Range; by A. L. Mosse and L. N. Khitrin.....	18	15
4. On Thermal Rating of a Thin Pseudo-Fluidized Bed with Cross Motion of the Thermal Agents; by V. A. Dorodulya.....	28	22
5. On the Determination of Boundary Conditions for Heat Exchange in Turbodynamics; by V. M. Kapinos.....	36	28
6. On Thermal Conductivity of a Two-Layer System; by S. M. Kotlyar.....	47	37
7. Flow with Friction and Heat Exchange in a Canonical Nozzle; by D. V. Fedoseyev, and S. V. Shteyman.....	52	41
8. On the Relationship of the Combustion Rate of a Liquid to its Surface Temperature; by V. by V. Ye. Anisimov, V. E. Blinov and V. Ch. Reutt.....	57	45
	(continued)	

Available From JPRS 23705

TABLE OF CONTENTS
(continued)

TITLE	TEXT PAGE	SOURCE PAGE
9. An Approximate Method for Calculating a Non-Stationary Temperature Field in a Moving Medium; by N. I. Nikitenko.....	68	52
10. Temperature Stresses in a Plate and a Cylinder Heated by Radiation and Convection by Yu. A. Samoylovich.....	76	59
11. Formation of a New Phase on Boiling Binary Mixtures; by L. N. Grigor'yev.....	85	66
12. The Temperature Field in an Electric Arc Heater with a Rotating Arc; by V. I. Krylovich.....	90	70
13. On the Problem of Determining the Equilibrium Constant for the Dissociation Reaction of Ammonia in a Wide Interval of Temperatures and Pressures. II; by P. M. Kessel'man, A. G. Tabachnikov.....	100	78
14. On the Problem of Procedures for Ejection of Jets of Liquid Under High Pressure; by A. A. Semerchan, M. A. Plotnikov.....	105	82
15. Calculation of the Elasticity Curves of a Real Gas According to Data of Two Basic Substances; by Yu. A. Borisov and V. I. Kudashov.....	113	88
16. External Resistance of Bodies with Ducts, an Elliptical Cone and Supersonic Intake Velocities; by M. P. Ovsyannikov.....	119	92
17. A Boundary Layer in an Electroconductive Liquid in the Presence of a Longitudinal Magnetic Field; by M. V. Belubskyan.....	126	97
18. Thermodynamic Properties of Methyl Alcohol; by A. M. Zhuravlev.....	137	106
19. Critical Thermal Loads with External Flow Around a Tube in a Square Underheated Water Duct for Low Flow Rates; by B. A. Zenkevich, O. V. Remizov.....	144	112

LETTERS TO THE EDITOR

20. On the Anomalous Character of the p--T - Diagram for Water at Low Temperatures; by V. V. Sychev.....	150	116
--	-----	-----

PEOPLE IN SOVIET SCIENCE

21. Bekir Mikhaylovich Smol'skiy.....	153	118
---------------------------------------	-----	-----

(continued)

Available From JPRS 23705

TABLE OF CONTENTS
(continued)

TITLE	TEXT PAGE	SOURCE PAGE
<u>A REVIEW</u>		
22. Thermal Processing of Materials Using Currents of Industrial Frequency; by N. M. Smol'skiy.....	156	120
23. Intensification of Thermal Exchange in Electric Fields; by I. T. Alad'yev, V. A. Yefimov.....	163	125
<u>DISCUSSION</u>		
24. On Heat Exchange of a Fine Wire in a Transverse Air Current on Heating it with an Alternating Current; (Comments on the Article by M. A. Goldshtik), A. L. Parnas.....	176	133
<u>CHRONICLE</u>		
25. Higher Education Scientific Engineering Conference on Industrial Thermal Power Engineering.....	183	138
<u>READER'S GUIDE</u>		
26. Contents of the International <u>Heat and Mass Transfer Journal</u>	183	139

Available From JPRS 23705

INZHENERNO-FIZICHESKIY ZHURNAL

(Journal of Engineering Physics)

Vol. VI, No 10, Sept 1963

- USSR -

Following is a translation of 25 articles in the Russian-language periodical Inzhenerno-fizicheskiy zhurnal (Journal of Engineering Physics), Vol VI, No 10, published by the Academy of Sciences USSR. September 1963, Minsk, pages 3-139.

Table of Contents

	<u>Page</u>
Calculating the Heat State of a Concrete Dam for Selecting Efficient Construction Methods	1
Basic Problems in Radiation Pyrometry of Weakly Heated or Cooled Objects	8
Thermodynamic Analysis of Gas Liquefaction Processes II. Analysis of the Linde Process for Air	20
A Determination of the Moisture Diffusion Coefficient in Granular Materials	27
Effects of Variation in Time Spent in a Fluidized Bed on the Course of Drying	35
On the Mechanism of Radiation Drying of Lacquers	42
Heat and Mass Transfer When the Drying Rate is Constant	48
Method of Detecting Hygrothermal Equilibrium for Some Hygroscopic Substances	56

(continued)

Available From JPRS 23418

CONTENTS (Contd)

	<u>Page</u>
Calculation of the Drying Time for Paste Materials in Ribbon Dryers	60
Determination of the Mean Temperature Over a Volume During Transient States of Heat Transfer	65
A Mixed Boundary Problem in Thermal Conduction for a Half Space	71
Equations for the Transient Temperature Distribution in a Three-Layer Plate of Unsymmetrical Structure	77
An Investigation of High-Temperature Reduction of Carbon Dioxide in a Stream of Coke Dust	82
An Investigation of the Cooling Properties of Methyl Alcohol at Pressures $(98 - 392) \cdot 10^5 \text{ N/m}^2$	91
Optimal Withdrawal of the Boundary Layer on a Porous Plate in an Incompressible Fluid	97
An Investigation of the Heat Transfer of a Gas Jet in a Cylindrical Chamber	102
Structure of the Turbulent Flow in an Annular Channel When the Inner Cylinder Rotates	106
Method of Determining the Coefficient of Lengthwise Turbulent Diffusion for a Channel of Finite Length	110
An Experimental Investigation of the Condensation of Steam Inside Coils	113
An Apparatus for Measuring the Viscosity of an Organic Heat Carrier of High Melting Point	120
Relation of Gap Size to Porosity for Powdered Bodies	123
An Experimental Study of Water Transfer in Capillary Edge Zone	126
Nonlinear Edge Problems for a Thermally Radiating Cylinder	132
Temperature Distribution in a System of Solid Bodies in Contact Via a Thin Intermediate Layer	141
BOOK REVIEWS AND BIBLIOGRAPHY	
Advances in Magnetohydrodynamics*	149
Available From JPRS 23418	

INZHENERNO-FIZICHESKIY ZHURNAL

(Journal of Engineering Physics)

Vol VI, No 12, December 1963

- USSR -

Following is a translation of 21 articles in the Russian-language periodical Inzhenerno-fizicheskiy zhurnal (Journal of Engineering Physics), Vol VI, No 12, published by the Academy of Sciences BSSR, December 1963, Minsk, pages 3-126.

TABLE OF CONTENTS

	<u>Page</u>
Experimental Investigation of the Process of Heat and Mass Exchange With Evaporative Cooling of Various Shaped Bodies	1
Heat Exchange From a Wall to Carbon Dioxide Gas With Turbulent Flow in a Round Tube and High Thermal Loads	14
Investigation of the Process of Heat and Mass Exchange in the Tube of a Pneumogas Grain Drier	19
The Use of a Multizone Packing-Type Heat Exchanger as a Unit for High-Temperature Air Heating	28
Heat and Mass Transfer in Reacting Systems	37
Determination of the Temperature Conductivity of Pallats	48
The Chemical Potential of Mass Transfer of Capillary Bound Moisture	56
Specific Heat of Evaporation and Moisture-Transfer Potential of Capillary Porous Bodies	61
The Thermal Capacity of Water and Steam at Constant Pressure on the Saturation Curve	72

(continued)

Available From JPRS 23730

<u>Table of Contents (Cont'd)</u>	<u>Page</u>
Two-Dimensional Problem of Heat and Mass Exchange	77
The Temperature Field of Bodies in Conditions of Pulsed Variations in Temperatures	91
Calculation of Temperature Fields During Operation of Moving Heat Sources	100
The Nonstationary Problem of Heat Conductivity of Nonuniform Laminar Slabs	112
Methods of Calculating the Specific Energy of Fuel Elements....	118
Determining the Optimum Shape of a Diffuser With Arbitrary Mean Line During Separation of the Flow	122
A Semiconductor Vacuum Gage	134
State Equations for Carbon Monoxide and Dioxide	146
Thermal-Vacuum Pressing of Peat	157
Thermodynamic Diagram of Neon and Certain of Its Properties....	163
On the Combustion Propagation Mechanism in Smokeless Powder....	173
Self-Modeling Problem of the Laminar Boundary Layer on a Permeable Curvilinear Surface	185

Available From JPRS 23730

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR
(Russian Original Dated August, 1963)*

1963, No. 8, pp. 631-718

February, 1964

CONTENTS

	PAGE	RUSS. PAGE
Basic Problems of Contemporary Metrology. <u>V. O. Anutyunov</u>	631	1
GENERAL PROBLEMS OF METROLOGY		
Another Contribution to the Problem of Applying the Information Theory to Measurement Technology. <u>B. G. Kaduk</u>	636	5
Graphico-Analytical Determination of the Mean-Square Systematic Error in Discrete Measurements. <u>I. M. Shenbrot</u>	638	6
LINEAR MEASUREMENTS		
Difference Method for Checking the Kinematic Error in Gears. <u>B. Ya. Verkhoturov</u>	644	11
Gauge Blocks for Large Sizes. <u>I. P. Vaganov</u> and <u>N. M. Shchlapacheva</u>	649	15
Application of Induction Transducers for Measuring Displacements at High Temperatures. <u>M. I. Korsunskii, A. S. Lagunov, and L. P. Baival'</u>	651	18
Interference Dilatometer. <u>A. N. Koroleva</u>	655	20
Autocollimator with Photoelectric Display. <u>G. A. Lenkova, A. I. Lokhumatov,</u> <u>and V. I. Somovskii</u>	656	20
Measurement of the Roundness of Center Holes. <u>G. S. Biryukov</u>	657	21
Optical Method for Setting Plane Mirrors. <u>S. I. Knyazev</u> and <u>B. A. Chazikov</u>	659	22
Measurement of the Roughness of Curvilinear Surfaces. <u>A. I. Kvacheva, S. D. Kuznetsov,</u> <u>and E. M. Turovskii</u>	660	23
MECHANICAL MEASUREMENTS		
Dynamometer Using Resistance-Wire Strain Gauges without an Amplifier. <u>V. N. Vydrin, P. N. Amosov, and L. M. Ageev</u>	661	24
Recording Strain-Gauge Unit. <u>E. F. Besmertnyi</u>	662	25
Compressor Vacuum System for Feeding Reference Installations.	664	27
Clamping Head for Connecting Pressure Gauges to Test Pumps. <u>S. A. Ableev</u>	665	27
THERMOTECNICAL MEASUREMENTS		
Errors in Dynamic Calibration of Thermoelectric Transducers with Differences between Their Thermal Inertias. <u>M. M. Graevskii</u>	666	28
Supplies for Standard Temperature Lamps from Rectifiers. <u>D. M. Shcherbina</u>	670	32
Thermistor Temperature Meter with Stabilised Supply. <u>V. S. Bulychev</u>	673	34
Instrument for Measuring Spectral Black-Body Radiation Factors. <u>G. A. Boberskii</u>	675	35
ELECTRICAL MEASUREMENTS		
Highly-Sensitive Autocompensated RMS Millivoltmeters Class 1.0. <u>P. P. Omatskii,</u> <u>Yu. M. Tuz, and E. V. Greshchenko</u>	676	36
Application of Silicon Stabilitrons in Suppressed-Zero Voltmeters. <u>N. V. Martynenko</u>	680	39
Method for Precision Measurements of the Mean Value of Voltages in the Infra-sonic Range. <u>G. L. Grin</u>	683	42
Device for Converting Voltage into a Digital Code. <u>E. I. Shprits</u>	687	45
Digital Representation of Measured Quantities in Scanning Systems. <u>V. L. Slavinskii</u>	689	47

(continued)

Available From ISA

CONTENTS (continued)

	PAGE	RUSS. PAGE
Analysis of the Stability of Static Autocompensators. <u>M. G. Misyuk</u>	692	49
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
Frequency-Conversion Phase Errors in Phase Meters with Modulation and Synchronous Signal Detection. <u>V. A. Potapov</u>	698	53
INFORMATION		
British Exhibition of Scientific and Commercial Instruments	702	56
STATE COMMITTEE OF STANDARDS, MEASURES AND MEASURING INSTRUMENTS OF THE USSR		
Measures and Measuring Instruments Approved by the State Committee as the Result of State Tests, and Passed for Use in the USSR.	706	58
New Instructions for Testing Measures and Measuring Instruments	712	62
Amendments to Instructions 1-60 and 2-62. <u>L. A. Kingi</u>	718	68

Available From ISA

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR*

(Russian Original Dated September, 1963)

1963, No. 9, pp. 719-804

February, 1964

CONTENTS

	PAGE	RUSS. PAGE
Priority Trends in the Development of the General Information Theory of Measurements. <u>E. G. Shtraukov, G. I. Kavalero, and P. V. Novitskii</u>	719	1
LINEAR MEASUREMENTS		
Method for Automatic Checking of Components with any Curvilinear Profile. <u>N. M. Karelin and V. I. Kiparenko</u>	725	5
Measurement of the Cross-Sectional Area of Bodies with a Complex Form. <u>O. B. Orzhevskii</u>	728	8
Guides with Flat Springs for Forward Displacements. <u>Ya. M. Tseltlin</u>	732	11
Device for Measuring the Degree of Faceting in Wires. <u>V. V. Pen'kov</u>	737	15
MECHANICAL MEASUREMENTS		
Schematics of Magnetically-Elastic Pressure Transducers. <u>E. I. Slepukhin, V. M. Shchitova, and I. P. Makeev</u>	738	16
Hardness Testing in Automatic and Conveyor Lines. <u>V. G. Ulegin</u>	743	20
Discrete Photoelectric Transducer for Torque Meters and Dynamometers. <u>Yu. I. Zharikov</u>	745	22
Miniature Transformer Transducer for Measuring Torque. <u>V. P. Bondar', V. M. Kabanov, and Yu. S. Simanovskii</u>	747	23
Instrument for Measuring Small Alternating Mechanical Tensions over a Wide Frequency Range. <u>L. N. Korenevskii</u>	748	24
Ball Dynamometer with a Resistance-Wire Strain Gauge. <u>A. A. Korablev</u>	749	25
THERMOTECNICAL MEASUREMENTS		
Melting Point of Corundum. <u>V. Ya. Chekhovskoi and V. A. Petrov</u>	751	26
New Technique for Fixing Surface Thermocouples. <u>G. S. Sarychev, I. M. Vesel'nitskii, and G. N. Rokhlin</u>	753	28
ELECTRICAL MEASUREMENTS		
Time-Pulse Logarithmic Transistorized Converter. <u>B. K. Petrov, V. B. Smolov and E. P. Ugryumov</u>	754	29
Measurement of Inductance and Effective Capacitance of a Standard Air Capacitor. <u>M. A. Gulyaev</u>	758	32
Quadrature Indicator with an Alternating Output Voltage. <u>G. A. Shtamberger</u>	761	35
Voltmeter with an Extended Scale. <u>A. N. Bronnikov</u>	764	37
Effect of the Voltage-Curve Shape on the Error of Electrostatic Voltmeters. <u>S. M. Pigin</u>	765	38
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
Transistorized Quartz Calibrators for Meter Wavelengths. <u>A. I. Aleksandrov and Yu. B. Boblovskii</u>	767	39
Measurement of the Parameters of Phase-Modulated Oscillations. <u>V. Ya. Sup'yan</u>	769	40
Method for Measuring Impedances. <u>V. I. Beketov</u>	771	42

(continued)

Available From ISA

CONTENTS (continued)

	PAGE	RUSS. PAGE
ACOUSTICAL MEASUREMENTS		
Calibration of Hydrophones by an Electrostatic Method with Resonance Amplification in a Water-Filled Tube. <u>A. N. Golenkov</u>	777	46
LIQUID AND GAS FLOW MEASUREMENTS		
Nomogram for Determining the Error in Differential-Manometer Flowmeters. <u>A. S. Nemirovskii and S. M. Kessel'man</u>	780	49
Level Indicator with an Analog-to-Code Converter. <u>Yu. A. Koval'skii</u>	784	52
Measurement of Liquid Level Displacements in a Metering Vessel. <u>A. A. Kurilov</u>	786	53
Static Pressure Tube for a Three-Dimensional Flow. <u>S. N. Shkarbul'</u>	787	55
REVIEWS AND REPORTS		
Method for Checking Electricity Meters Against Reference High-Precision Meters.	790	56
INSPECTION OF MEASURES AND INSTRUMENTS		
Practical Work of the Smolensk GKL (State Inspection Laboratory) in Supervising Instrument-Making. <u>P. I. Gostev and V. N. Alyakrinskii</u>	794	59
INFORMATION		
Problems of Radio-Measurement Techniques at the Session Dedicated to Radio Day	797	61
STATE COMMITTEE OF STANDARDS, MEASURES AND MEASURING INSTRUMENTS OF THE USSR		
Measures and Measuring Instruments Approved by the State Committee from the Results of State Testing and Passed for Use in the USSR	800	63

Available from TsA

Table of Contents

	Page	
	Orig.	Trans.
Transactions of the Sixth Conference on X-Ray Spectroscopy (To be concluded in Vol. 27, No.6)		
Energy bands of titanium in the cubic lattice - I.Ya.Nikiforov & V.P.Sachenko	310	319
Concerning the shape of the K β emission band of iron. II. Transition probability as a function of energy - I.Ya.Nikiforov & M.A. Blokhin	314	323
Energy levels of metallic molybdenum - I.G.Shveitser, V.P.Sachenko & I.Ya.Nikiforov	319	328
Effect of changes in valence on the K emission spectrum of chromium - A.T.Shuvaev & G.M.Kulyabin	322	331
Fine structure of the L γ -L γ absorption edge of argon - A.P. Lukirskii & T.M.Zimkina	325	333
M Series spectra of Zr, Nb and Mo and the M emission bands of Nb and Mo - A.P.Lukirskii & T.M.Zimkina	330	339
K Absorption spectrum and the conduction band of alkali halide crystals - K.I.Narbutt & I.S.Smirnova	340	349
Structure of the K absorption spectrum of Zn $^{2+}$ - K.I.Narbutt & L.K.Izraileva	348	356
The Stark effect and hybridization in K absorption spectra - R.L.Barinskii & B.A.Malyukov	351	360
Concerning two energy states of the valence electrons in cadmium sulfide - A.V.Ivanov	359	368
X-Ray spectra of niobium in the Nb-N system in the region of the α -phase - M.I.Korsunskii & Ya.E.Genkin	362	371
Calculation of the fine structure of the x-ray absorption spectra of metals using Hartree fields - A.I.Koslenkov	364	373
Method of determining the asymptotic scattering phase on the basis of experimental data on the fine structure of x-ray absorption spectra - I.B.Borovskii, B.A.Batyrev & A.I.Koslenkov	378	387
Determination of the asymptotic scattering phases in some metals and alloys from the fine structure of the x-ray absorption spectra - V.A.Batyrev	381	389
Contribution to the theory of the temperature dependence of the fine structure of x-ray absorption spectra. II. Case of high temperatures - V.V.Shmidt	384	392
Absorption spectra of Mn and Fe in alloys and compounds with Al, Si, P, S, and Cl - S.A.Nemnonov & K.M.Kolobova	390	398
Influence of the chemical bonds on the valence state of chromium in different compounds - A.Z.Men'shikov & S.A.Nemnonov	394	402
L γ absorption spectra of tin, barium, lanthanum, ytterbium and rhenium in some compounds - N.V.Troneva	403	410
Regarding the optimum excitation conditions for x-ray spectra in the 5 to 10 Å region - M.I.Korsunskii & L.I.Lukashenko	409	415
Improvement of a scanning microscope and local x-ray microanalyzer and some applications of the instrument - Yu.M.Kushmir, D.V. Fetisov, K.K.Raspletin, B.I.Pochtarev, F.U.Spektor, R.P.Gurova, P.D.Tokarev, V.N.Osipov & V.A.Pavlov	415	421

(continued)

Available From CTT

CONTENTS (Contd)

The MAR-1 x-ray spectroscopic microanalyzer - M.M.II'in, A.M.Solov'ev, V.N.Vertsner, G.G.Dutov, B.S.Kolchev & S.A.Toporkov	420	426
Two-channel x-ray microanalyzer - S.A.Ditsman & V.G.Bogdanov	427	432
Proportional counters for detecting x-rays and their use for x-ray spectroscopic analysis - K.I.Narbutt, S.M.Perel'man, I.A.Prager & V.A.Kharlakov	430	434
Proportional counters for detecting x-radiation - D.A.Goganov & G.P.Gogolev	438	440
Proportional counters for soft x-rays - A.P.Lukirskii, I.A.Brytov & O.A.Ershov	446	447

Available From CPT

IZVESTIYA AKADEMII NAUK SSSR, SERIYA GEOFIZICHESKAYA

English Edition of
Bulletin (Izvestiya), Academy of Sciences, USSR, Geophysics Series No. 5, 1963

CONTENTS

	Page	
	English	Russian
V. V. FEDYNSKII, The Role of G. A. Gamburtsev in the Development of Geophysical Methods for Studying the Earth's Crust	409	661-669
PHYSICS OF THE SOLID EARTH		
S. A. FEDOTOV and I. P. KUZIN, The Velocity Profile of the Upper Mantle in the Vicinity of the South Kuril Island	415	670-686
I. O. OSIPOV, Love Waves in an Anisotropic Layer with Monoclinic Symmetry	426	687-694
L. V. PETROV, The Use of Chebyshev Polynomials in the Design of Arrays for Seismic Exploration	431	695-711
I. D. SAVINSKII, The Solution of Inverse Geophysical Problems Expressible in the Form of Fredholm Integral Equations of the First Kind	441	712-721
M. B. GOKHBERG (Hochberg), A Method for Processing Records of Fluctuations of the Earth's Natural Electromagnetic Field with a View to Deep Sounding	447	722-729
N. S. SIDORENKOV, A Contribution on the Nature of the Irregularity in the Earth's Rotation	451	730-739
E. I. POPOV, Results of Experimental Determinations of the Acceleration of Gravity in the Air from an Aircraft	457	740-747
V. A. KAZINSKII, The Means of Development and Methods of Solving Problems of Underground Gravimetry	463	748-765
SCIENTIFIC REPORTS		
A. I. LOSHCHAKOV, An Approximate Method of Interpreting the Z_n Component of the Magnetic Field	473	766-768
PHYSICS OF THE SEA AND OF THE ATMOSPHERE		
L. R. TSVANG, S. L. ZUBKOVSKII, V. N. IVANOV, F. YA. KLINOV AND T. K. KRAVCHENKO, Measurements of Some Properties of Turbulence in the Lowest 300 Meters of the Atmosphere	475	769-782
A. M. GOLOVIN, The Solution of the Coagulation Equation for Cloud Droplets in a Rising Air Current	482	783-791
YU. S. SEDUNOV, The Relative Motion of Stokesian Particles in Turbulent Flow	488	792-804
V. I. KAZAS, The Use of A Continuous Photoelectric Device for Studying the Microstructure of Clouds from an Aircraft	494	805-809
L. R. ARRAGO, The Propagation of Heavy Impurities in the Atmosphere when the Wind Varies with Height	497	810-817
YU. A. ISRAEL, The Influence of the Microrelief of the Earth's Surface on the Propagation of Gamma Radiation in the Surface Layer of the Atmosphere	501	818-824
SCIENTIFIC REPORTS		
YU. G. RYZHIKOV, Adjective Heat Transfer and Formation of a Zone of Intensified Exchange in Wind "Tide" Circulation in the Deep Sea	505	825-827
Correction	507	

Available From AGU

CONTENTS

	Page	
	English	Russian
PHYSICS OF THE SOLID EARTH		
P. G. GIL'BERSHTEIN AND I. I. GURVICH, The Study of Head Waves From Layers of Various Thicknesses on Two-Dimensional Models	969	1605-1619
A. S. ALEKSEEV, I. S. VOL'VOVSKII, N. I. ERMILOVA, P. V. KRAUKLIS AND V. Z. RYABOI, The Physical Nature of Various Waves Recorded in Deep Seismic Sounding	979	1620-1630
TEN TSEI-WEN, Dynamic Characteristics of Seismic Waves in the Presence of a Fault	985	1631-1643
E. F. SAVARENSKII, On the Energy Flux in Love Waves as a Function of Period and Depth	993	1644-1648
G. G. OBUKHOV, The Propagation of Love Surface Waves in the Earth's Crust, As Derived From a Model With Periodic Irregularities on the Earth's Surface and at the Mantle-Crust Interface	996	1649-1657
V. V. KORMIL'TSEV, The Excitation and Decay of Induced Polarization in a Capillary Medium	1001	1658-1666
V. N. TABULEVICH, Swell, Opposing Winds and Microseisms	1006	1667-1675
Scientific Reports		
A. G. KONSTANTINOVA, L. G. MYSINA AND V. S. IVANOV, Peculiarities of the Seismo-Acoustic Processes Accompanying Sudden Bursts of Coal and Gas During the Drilling of Relief Holes	1011	1676-1683
D. G. LEVCHENKO AND A. F. KOTYUK, Induction Pickups for Measuring Weak Magnetic Audio-Frequency Fields	1017	1684-1690
L. L. VAN'YAN, On the Quantities Characterizing the Build-Up of a Field	1022	1691-1693
I. C. DYAD'KIN, A. T. LISENENKOV AND G. N. ZVEREV, A Mathematical Experiment for Solving Certain Geophysical Problems	1024	1694-1698
V. N. TABULEVICH, Evaluation of the Focal Depth of the Caspian Earthquakes of 15 October 1960 and 12 February 1961	1028	1699-1700
G. YA. GOLIZDRA, The Distribution of the Singular Points of a Gravitational Field for One Class of Two-Dimensional Bodies	1030	1701-1708
PHYSICS OF THE SEA AND OF THE ATMOSPHERE		
K. P. MAKHON'KO, A Determination of the Capture Coefficient for Radioactive Dust by Rain	1035	1709-1717
I. L. KAROL', An Estimate of the Rate at which Natural Radioactive Aerosols are Removed from the Atmosphere by Clouds and Rain	1040	1718-1729
I. B. PUDOVKINA, An Investigation of Changes in the Atmospheric Electric Field in the Elbrus Region	1047	1730-1740
S. L. LEBEDEV, On the Question of Influence of Gravitational Settling of Cloud Drops on the Water Content of Clouds	1053	1741-1746
Scientific Reports		
YU. S. SEDUNOV, A Calculation of the Relative Velocities of Stokesian Particles in Turbulent Flow	1057	1747-1753
A. P. IVANOV AND S. A. MAKREVICH, The Influence of Thickness of a Light Beam on the Depth of its Penetration into a Surrounding Medium	1062	1754-1757
I. D. KONOZENKO AND ZH. A. ZAIKA, An Instrument for Plotting Regional Thermal Charts	1065	1758-1761
Chronicle		
YU. ROSS AND M. SULEV, All-Union Comparison of Long-Wave Radiation Receivers at Tartu	1068	1762-1763
Correction Notice for Izv., No. 9.	1069	

Available from AGU

NEWS OF HIGHER EDUCATIONAL INSTITUTIONS
MINISTRY OF HIGHER AND SECONDARY SPECIALIZED EDUCATION
USSR

RADIOPHYSICS SERIES

Vol VI, No 4, 1963

[Following is a translation of the Russian-language journal Izvestiya Vysshikh Uchebnykh Zavedeniy MVisso SSSR po razdelu Radiofizika, Vol VI, No 4, 1963, (English Version above), Jul-Aug issue, Gor'kiy pp 655-871]

(Note: Illustrations are given at the end of each article. Original source page numbers are given in the left-hand margin of translation.)

CONTENTS

	<u>Page</u>
Radio Emission from the Moon and the Sun at a Wavelength of 1.3mm	1
Results of Observation of Radio Spots on the Sun at a Wavelength of 5 Meters	13
Fluctuations of the Radio Emission from the Atmosphere	34
Coefficient of Absorption of Electromagnetic Waves by Water Vapor in the Range 10μ -- 2 cm	44
Electrodynamic Properties of a Non-Stationary Plasma	87
Collision Integral for a Plasma	99

(continued)

Available From JPRS 23436

CONTENTS (Contd)	Page
Electromagnetic Waves in an Inhomogeneous Medium Pierced by a Plasma Beam	112
Low Frequency Oscillations of a Cold Magnetoactive Plasma in a Gravitational Field	124
Resonant Radiation of a Charge Moving Near a Plasmoid	136
Quadrupole Energy Levels for Some Spins	151
Two-Dimensionally Periodic Multiconductor Line Containing N Round Conductors Per Cell	165
Modulation of Signals in Transmission Lines with Periodically Varying Parameters	191
Contribution to the Theory of Tubes with Transverse Interaction	215
Investigation of Synchrotron Oscillations of Accelerated Particles with Account of Beam-Position Feedback	238
Some Cases of the Dependence of Periodic Motions of A Relay Systems on the Parameters	261
Stability of One Nonlinear Dynamic System	293
Synthesis of Discrete Control Systems on the Basis of Sets of Algebraic-Logic Equations with Delay	310
Use of a One-Port Containing a Tunnel Diode and a Transistor in Computer Elements	345
On the Design of a Transistorized Voltage Stabilizer	356
BRIEF COMMUNICATIONS AND LETTERS TO THE EDITOR	
Radio Emission from the Moon and the Sun at 1.8 Millimeters	368
Radiation Friction Deceleration of a Charge Moving in a Plasma Situated in a Magnetic Field	372
Concerning the Damping of Electromagnetic Waves in a Plasma Placed in an Inhomogeneous Dielectric	378
Measurements of Amplitude Fluctuations of a Transistor Oscillator	381
	(continued)

Available From JPRS 23436

CONTENTS (Contd)

	<u>Page</u>
Possibility of Using the Method of Quate Series for Forward and Backward Wave Magnetron Amplifiers	387
Closed Trajectories in Recirculation Registers Without Information Shift	390

INFORMATION

Fourth All-Union Scientific Conference on Radio Astronomy	394
Geomagnetism I Aeronomiya, v. III, No. 2, 1963 Abstracts of Articles of Interest to the Readers of "Radiofizika"	413

Available From JPRS 23436

NEWS OF HIGHER EDUCATIONAL INSTITUTIONS
MINISTRY OF HIGHER AND SECONDARY SPECIALIZED EDUCATION
USSR

RADIOPHYSICS SERIES

Vol VI, No 5, 1963

[Following is a translation of the Russian-language
journal Izvestiya Vysshikh Uchebnykh Zavedeniy MVISSO
SSSR po razdelu Radiofizika, Vol VI, No 5, 1963,
(English version above), Sep-Oct issue, Gor'kiy, pp
877-1077.]

(Note: Illustrations are given at the end of each
article. Original source page numbers are given in
the left-hand margin of translation.)

CONTENTS

	<u>Page</u>
Polarization of Radio Emission of Discrete Sources and Study of Metagalactic, Galactic, and Near-Solar Space	1
Contribution to the Theory of Integral Radioemission from the Moon	20
Spectra of Radio Emission from Discrete Sources Cassiopeia-A, Cygnus-A, Taurus-A and Virgo-A at Frequencies 12.5 - 40 Mc	32
Radiation from an Oscillator Moving in Inhomogeneous Medium	42
Passage of Particles Having Dipole Moments Through Matter	50
Effect of Radiation on Relativistic Particles Moving in a Magnetic Field	61

(continued)

Available From JPRS 23598

CONTENTS (Contd)

	Page
Cyclotron Oscillations of a Low-Pressure Inhomogeneous Plasma	75
Interaction of Magnetic-Sound Waves	81
Instability in a Plasma-Beam System with Limited Radius	93
Parametric Instability of an Electron Beam in an Inhomogeneous Anisotropic Dielectric	100
Effect of Antenna Directivity Patterns on the Intensity of the Received Radiation in Scattering of Radio Waves by Inhomogeneities of the Troposphere	109
Resonant Diffraction of Elastic Waves in Plane-Stratified Media With Total Internal Reflection	118
Lower Frequency Limit of High-Frequency Quasi Potential in a Helium and Krypton Plasma	126
Propagation of Electromagnetic Waves in Nonlinear Transmission Lines with Lumped Parameters. I. Nonstationary Processes	138
Propagation of Electromagnetic Waves in Nonlinear Transmission Lines with Lumped Parameters. II. Structure of Shock Wave Front	156
Sphere of Arbitrary Conductivity with Non-Concentric Spherical Inclusion in the Field of a Vertical Dipole	165
Propagation of Helical H_{nm} Waves in a Helical Waveguide Without Radiation	180
On the Theory of Transients in a Parametrically Excited Circuit	187
Averaging Method from the Point of View of the Method of Point-wise Transformations	206
Concerning the Optimization of an Operation Schedule	223

BRIEF COMMUNICATIONS AND LETTERS TO THE EDITOR

Intensity of Several Discrete Sources, the Moon, and the Sun at 927 Mc	254
Measurements of the Spectrum of Radio Emission of the Night Side of Venus in the Centimeter Band	258
Excitation of Electromagnetic Waves in a Plasma by an Ion Beam	262

(continued)

Available From JPRS 23598

CONTENTS (Contd)	<u>Page</u>
Investigation of the Continuous Spectrum of the Current in Ferroelectrics Near the First Harmonic of the Repolarization Frequency and the Threshold Signal of a Dielectric Amplifier	269
Measurement of the Technical Width of the Spectral Line of a Klystron Oscillator	275
Contribution to the Statistical Theory of a Cylindrical Magnetron With Internal Cathode	280
Account of Lower Bend of Nonlinear Characteristic and Hysteresis in Oscillations Produced in a Resonant Circuit with Asymmetrical Characteristic	285
On the Calculation of the Wave Admittance of a Shielded Multi- Conductor Line with Rectangular Leads	289
Two Geometrical Interpretations of Solutions of Systems of Equations of Algebraic Logic and the States of Their Physical Models	293
Letters to the Editor	299
INFORMATION	
Geomagnetizm i Aeronomiya, v. III, No 3, 1963, Abstracts of Articles of Interest to the Readers of "Radiofizika"	301

Available From JPRS 23598

NEWS OF HIGHER EDUCATIONAL INSTITUTIONS
MINISTRY OF HIGHER AND SECONDARY SPECIALIZED EDUCATION
USSR

RADIO ENGINEERING SERIES

Vol VI, No 5, 1963

[Following is a translation of the Russian-language journal Izvestiya Vysshikh Uchebnykh Zavedeniy MVISSO SSSR po razdelu Radiotekhnika, Vol VI, No 5, 1963, (English version above), Sep-Oct issue, Kiev, pp 455-583.]

(Note: Illustrations are given at the end of each article. Original source page numbers are given in the left-hand margin of the translation.)

CONTENTS

	<u>Page</u>
Concerning the Propagation of Radio Waves Along an Inhomogeneous Earth's Surface	1
High-Frequency Wattmeter with Nonlinear Active Resistances.....	19
Discontinuous Junction of Rectangular Waveguides in H Plane.....	33
Concerning One Device for Signal Time Compression.....	43
Concerning One Unused Possibility of Narrowing Down the Spectrum of a Television Signal.....	55
Complex Cathode Follower.....	63
Types and Properties of Waves in a Round Diaphragmed Waveguide...	74
Suppression of Pulse Noise by Intermittent Amplitude Limitation in the Low-Frequency Section of a Radio Receiver.....	84
Relative Instability of Main Parameters of an Amplifier.....	93
Concerning the Control of Wire-Wound Resistances over a Wide Range of Frequencies.....	107

(continued)

Available From JPRS 23532

IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY MVISO SSSR po RAZDELU RADIOTEKHNIKA,
Vol. VI, No 5, 1963. CONTENTS (Contd)

	<u>Page</u>
Bearing-Time Radio Method for Determining Radiants and Velocities of Single Meteors.....	121
Distribution of the Maxima of the Envelope of a Quasi-Harmonic Noise.....	128
Comparison of Broadband Power Amplification Circuits with Two Screen-Grid Tubes.....	137
Use of Q Meter for Measurement of Magnetic Permeability.....	146
Some Problems in the Telemetry of Fast Processes.....	159

BRIEF COMMUNICATIONS

On the Calculation of the Q of Thermally Compensated Quartz Resonators.....	169
Setup for Measurement of Amplitudes and Phases of Oscillations of Different Points of a Loud Speaker Cone.....	173
Voltage Level Suppressors.....	178
Some Experimental Investigations of the Extrapolation Method of Suppressing Pulsed Noise in the Reception of Facsimile Signals	184
Calculation of the Dispersion of a Chain of Toroidal Cavity Resonators Inductively Coupled Through Slots.....	190
Determination of Equivalent Parameters of a Multipole Network from the Matrix of the Multipole Circuit.....	194
Measurement of Parameters of Diodes with Variable Capacitance in the Microwave Band.....	197
On the Calculation of Slow-Wave Systems of Finite Width.....	202

DEFENSE OF DISSERTATIONS

Defense of Dissertations at the Leningrad Polytechnic Institute imeni M. I. Kalinin.....	206
--	-----

CRITICISM AND BIBLIOGRAPHY

Works of the Scientific Institute of Communication.....	212
---	-----

Available From JPRS 23532

AVIATION ENGINEERING

No. 1, 1963

- USSR -

Following is the complete translation of the Russian-language publication Izvestiya vysshikh uchebnykh zavedeniy, seriya "Aviatsionnaya Tekhnika," (News of Higher Educational Institutions, Aviation Series), No 1, 1963, Ministry of Higher and Secondary Specialized Education USSR, Kazan', pages 3-175.

TABLE OF CONTENTS	<u>Page</u>
Maximum Aerodynamic Quality of an Aircraft with Regard to Balancing.....	1
The Flow of a Viscous Non-Compressed Liquid in an Elliptical Rotating Channel.....	10
Qualitative Simulation of the Functioning of Supersonic Diffusers in Transition Conditions.....	23
Numerical Solution of the Problem of a Temperature Field in a Medium in Motion.....	31
Longitudinal and Transverse Bending of Round, Cylindrical Framework Hulls.....	40
Free Oscillations of Shells of Zero Curvature.....	64
The Calculation of Cantilever Plates by the Variation Method of V. Z. Vlasov.....	80
	(continued)

Available From JPRS 23588

<u>Table of Contents (Cont'd)</u>	<u>Page</u>
Selection of Rational Parameters for Mechanisms in the Design of High Speed Aircraft.....	92
Calculation of a Turbine Stage with a Conical Meridian Profile and Variable Parameters at the Intake.....	113
Polytropic Process of a Steam-Gas Mixture with Phase Transformations.....	128
Nozzle with Aerodynamic Control in a Turbojet Engine System.....	140
The Optimal Ratio of Total Pressures in the Mixing Chamber of a Dual Cycle (By-Pass) Turbo-Jet Engine.....	152
Disk Losses in a Radial-Axial Turbine.....	169
An Approach to the Physical Nature of Cavitation Destruction of Materials.....	185
The Summation of Production Errors by Limit Values of Their Parameters.....	193
Technical Notes -- An approach to the Calculation of Lateral Forces on Airplane Wheels Fitted with Pneumatic Tires.....	208
The Calculation of Pulsations Produced by a Sliding Vane Pump.....	215
An Approach to the Derivation of Variational Equations for a Shallow Cylindrical Shell with Temperature Stresses Taken into Consideration.....	225
The Effect of the Downwash Behind a Wing on the Lifting Force of a Stabilizer Whose Span is Greater than the Span of the Wing.....	234
A Graphico-Analytic Method for Integrating a System of Inhomogeneous Second-Order Differential Equations with Preassigned Point Boundary Conditions	250

Available From JPRS 23588

KINETICS AND CATALYSIS

A translation of **KINETIKA I KATALIZ**
A publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 4, No. 1

January-February, 1963

CONTENTS

	P A G E	
	ENG.	RUSS.
Aleksandr Vasil'evich Topchiev (Obituary)	1	I
Adsorption Isotherms and Adsorption States—J. Horluti and T. Toya	3	3
Recombination of Free Radicals on Semiconductor Surfaces and Its Significance in Luminescence—F. F. Vol'kenshtein, A. N. Gorban', and V. A. Sokolov.	19	24
A Possible Explanation for the Compensation Effect in Various Reactions—G. I. Likhenshtein	28	35
Decay of the Molecular Ions Formed in Photoionization of Hydrazine and Some of Its Alkyl Derivatives—M. E. Akopyan and F. I. Vilesov.	32	39
Formation of Free Radicals in the System $RH + O_2$. I. Tetralin, Cyclohexanol and Cyclohexanone—E. T. Denisov.	44	53
Determination of the Absolute Rates of Chain Growth and Initiation During the Anionic Polymerization of Styrene—Kh. S. Bagdasar'yan and A. I. Nepomnyashchii	49	60
Investigation of Energy Transfer Processes by Luminescence and Radiation Chemistry —V. A. Krongauz and I. N. Vasil'ev.	55	67
Reduction of Uranium Trioxide with Nitrogen-Hydrogen Mixtures—V. G. Vlasov and V. M. Zhukovskii.	63	76
Comparative Kinetic Characteristics of the Cationites KU-1, SDV-3, SM-12, and SBS —G. M. Panchenkov, V. I. Gorshkov, and V. I. Slovetskii	68	82
The Catalysis of Solid Phase Reactions. The Thermal Decomposition of Ammonium Perchlorate in the Presence of Iron Oxide—F. Solymosi and L. Révész	73	88
The Kinetics of Reactions Involving Solid Phases. II. The Hydrogenation of Iron Carbide —A. Ya. Rozovskii, A. A. Ivanov, Yu. B. Kagan, and A. N. Bashkurov	80	97
Comparison of the Catalytic Activity of Semiconductive Catalysts with Parameters Characterizing the Photoconductivity and Photoconductivity Kinetics of Such Catalysts—V. A. Zhuravlev and V. N. Kulitkii	90	109
Reactions of α -Oxides. II. Kinetics of the Reaction of Ethylene Oxide with Acetic and Monochloroacetic Acid—N. N. Lebedev and K. A. Gus'kov	96	116
The Reaction Sequence During Hydrogenation of Piperylene on Raney Nickel Catalyst —L. Kh. Freidlin, E. F. Litvin, I. F. Zhukova, and B. A. Englin	106	128
The Heat of Activation for the Decomposition of Ammonia on Various Types of Catalysts, I. Iron Base Catalysts—Yu. N. Artyukh, M. T. Rusov, and O. A. Strel'tsov	111	134
The Effect of Regeneration and Activation on the Texture and Surface Hydration of Alumochrome Catalysts—A. M. Rubinshtein, K. I. Slovetskaya, and T. R. Brueva	115	139

(continued)

Available From CB

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
A Study of the Interaction of Oxygen with Activated Carbon by the Contact Difference in Potential Method—L. A. Fokina, N. A. Shumovskaya, and R. Kh. Burshtein.	118	143
Studies on Vapor Phase Catalytic Reactions of Acetylene. I. Adsorption of Acetylene and Hydrogen Chloride on Catalysts for Vapor Phase Hydrochlorination of Acetylene—A. I. Gel'shtein, M. I. Siling, G. A. Sergeeva, and G. G. Sheheglava.	123	149
The Hydrogenolysis of Xylitol. 1. Effective Temperature and Pressure—N. A. Vasyunina, A. A. Balandin, and Yu. Mamatov.	129	156
BRIEF COMMUNICATIONS		
The Determination of the Yield of Radicals During Radiolysis of Diisopropyl Ether by Reaction with the Acceptor $FeCl_3$ —V. V. Saraeva and É. Z. Novgorodova.	135	163
New Catalysts for the Preparation of Tetrahydrofuran and γ -Butyrolactone from Butanediol-1,4—V. I. Ivanskii and B. N. Dolgov.	138	165
LETTERS TO THE EDITOR		
On the Effect of Adsorbed Gases on the Electrophysical Properties of Pyrolyzed Polyacrylonitrile Fibers—I. M. Kustanovich, I. I. Patlakh, and L. S. Polak.	140	167
CHRONICLE		
The Conference on Catalytic Reactions in the Liquid Phase—O. N. Temkin, A. B. Fasman, S. G. Durgar'yan, and A. Ya. Rozovskii.	141	168

Available From CB

MICROBIOLOGY

A translation of Mikrobiologiya

(Russian Original Dated March-April, 1963)

Vol. 32, No. 2, pp. 167-328

September-October, 1963

CONTENTS

	PAGE	RUSS. PAGE
Effect of Light Intensity on the Use of CO ₂ and Organic Compounds in the Photosynthesis of <i>Chloropseudomonas ethylicum</i> . <u>R. M. Balitskaya and E. N. Kondrat'eva</u>	187	193
Relation between Physiological State and Mean Fluorescence Lifetime of Bacteriochlorophyll in Cells of Photosynthetic Bacteria. <u>A. B. Rubin and L. K. Osnitskaya</u>	172	200
Development of Propionic Acid Bacteria and Synthesis of Vitamin B ₁₂ in Synthetic and Natural Media. <u>V. N. Shaposhnikov and L. I. Vorob'eva</u>	175	204
Pyruvic Acid Metabolism and the Biosynthesis of Chlorotetracycline by a Culture of <i>Actinomyces aureofaciens</i> . <u>I. P. Baranova and N. S. Egorov</u>	179	209
Amino Acid Requirements of Thermotolerant Yeasts. <u>L. G. Logina and M. I. Verkhovtseva</u>	185	218
Amino Acid Composition of Mycelium of Fungus <i>Hydnum septentrionale</i> Fr.. <u>N. N. Falina, R. A. Maslova, and P. A. Yakimov</u>	191	223
Oxidation-Reduction Potential in the Development of Metallogenium. <u>V. V. Epikhina and G. A. Zavarzin</u>	195	227
Value of Lecithin-Vitellin Reaction for Differentiation of Species of Sporeforming Bacteria. <u>K. Bötcher</u>	198	231
On the Cytology of Lactic Acid Bacteria. <u>A. A. Imshenetskiĭ and G. K. Zhil'tsova</u>	204	239
A Cytologic Study of Actinophage-Infected <i>Actinomyces olivaceus</i> Cells. <u>G. R. Mikhailova, K. D. Krasnopol'skaya, and T. S. Il'ina</u>	209	245
On UV Induction of Temperate Phage Formation by a Lysogenic Culture of <i>Act. venezuelae</i> . <u>Ya. I. Rautenshtein and N. Ya. Solov'eva</u>	218	252
Some Peculiarities of <i>Staphylococcus aerfermentans</i> Mutants with Respiration Defects. <u>G. F. Gauze, G. V. Kochetkova, G. B. Vladimirova, and N. S. Landau</u>	224	280
Selection of <i>Aspergillus usami</i> by Means of Mitagenic Factors. <u>B. V. Kotov</u>	229	286
Utilization of Humic Acid by Soil Actinomycetes as a Sole Source of Carbon and Nitrogen. <u>M. V. Fedorov and T. K. Il'ina</u>	234	272
Interrelationships of Buckwheat and <i>Micrococcus</i> sp. <u>Z. A. Arkad'eva</u>	238	277
An Electron-Microscopic Investigation of Peat Microflora. <u>M. P. Volarovich and V. P. Tropin</u>	241	281
Abundance and Distribution of Bacterioplankton in L. Ladoga. <u>A. G. Rodina and N. K. Kuz'mitskaya</u>	248	288
The Effect of Gibberellin on the Cells and Coenobia of <i>Pediastrum boryanum</i> (Turp.) Menegh. <u>P. P. Goryachev</u>	254	296
Effect of Various Environmental Factors on Pigment Production in the Alga <i>Dunaliella salina</i> . <u>E. S. Mil'ko</u>	256	299
Formation of Various Types of Penicillin Using Active Strains of <i>Penicillium chrysogenum</i> . <u>L. M. Lur'e and M. M. Levitov</u>	263	308
Cultivation of Strain 15 (<i>Actinomyces griseus</i>) in Fermenters. <u>I. V. Ulezlo</u>	269	315
Method of Vitamin B ₁₂ Assay with <i>Escherichia coli</i> . <u>V. M. Novikov, V. A. Fortushnyi, and V. D. Shulyak</u>	272	319

(continued)

Available From CB

CONTENTS (continued)

	PAGE	RUSS. PAGE
The Use of a New "Microfil" Type of Filter for Detection of Bacterial Aerosols, <u>B. F. Sadovskii, V. V. Veodavets, E. V. Zulkova, L. I. Mats, and I. V. Petryanov</u>	275	323
Use of Variance Analysis in the Investigation of Errors in Quantitative Studies of Soil Microflora, <u>A. E. Vitgeft</u>	278	327
VIII International Microbiological Congress Agricultural and Technical Microbiology, <u>A. A. Imshenetskii</u>	285	334
DISCUSSION		
Bacterial Fertilizers and their Importance for Agricultural Plants, <u>R. A. Menkina</u>	297	352
The Effectiveness of Bacterial Fertilizers, <u>E. F. Berezhova</u>	301	358
REVIEW		
Microorganisms in the Upper Atmosphere, <u>A. I. Zhukova</u>	305	362
BOOK REVIEWS		
P. A. Genkel', Plant Physiology and Basic Microbiology, Moscow, 1962, <u>A. A. Imshenetskii</u>	312	371
B. I. Bilal, Antibiotic-Producing Microscopic Fungi, <u>G. V. Kocherkova</u>	314	373
CURRENT EVENTS		
International Symposium on Photosynthesis in Gif-sur-Yvette, <u>N. G. Doman and L. K. Ositskaya</u>	316	375
Fourth Conference on the Problem of Phytoncides, <u>S. I. Zelepukha</u>	320	379
Defense of Dissertations, <u>I. V. Konova</u>	323	381

Available From CB

The Relation Between the Cross Sections for Elastic and Inelastic Scattering in Nonadiabatic Atomic Collisions	M. A. Korol'shner and Yu. S. Sayasov	313 (577)
Photoionization of Atoms and Recombination of Ions in the Vapors of Alkali Metals	Yu. V. Morozov	316 (582)
The Relationship Between the Excitation Temperature and the Cathode Current in the Positive Column of an Arc Discharge	I. V. Podolskiy and I. V. Podolskiy	318 (587)
Some Experimental Estimates of the Integral Characterization of Radiation in an Arc	I. V. Podolskiy, I. S. Stetsko, and G. G. Hla	323 (593)
Determination of the Electronic Transition Moments for the Raman-Scattered Bands of the Oxygen Molecule	N. I. Krasovskiy, N. N. Smolov, and L. N. Tsaritsin	326 (601)
Analysis of the Vibrations of Noncenter-symmetric and the Raman Vibrations of Ethylene by the Perturbation Method	D. L. Tsvetits and N. A. Chumachenko	331 (606)
Vibrational Spectra of Deuterium and Tritium Substituted Derivatives of Nonlinear Triatomic Hydroxides	M. P. Kozlov, N. V. Kozlov, Yu. Tsvetits, and V. A. Lazovskiy	333 (612)
Resonance of the Second Order of the Raman Effect in the Scattering of Light	I. I. Shchegoleva and P. D. Simova	336 (622)
Electron Paramagnetic Resonance of Substituted Diphenylpicrylhydrazyls	Yu. V. Yablokov, R. O. Kiselevskiy, M. A. Birina, A. V. P'yavov, Yu. M. Spitsyn, L. I. Sushkov, and L. F. Shadrinov	340 (626)
Study of the Metastable State of Phigates by the Laser Photographic Method	A. A. Chibrikov and A. V. Karyagin	349 (635)
Gas-Liquid Phosphorescence Spectra of Phenanthrene Solutions	P. A. Teplov	356 (642)
The Effect of Absorption on the Spectrum of Light Reflected from the Free Surface of Concentrated Solids	L. I. Al'perovich	353 (647)
The Generalized Theory of Electro-Optical Effects. I. Rectification and Autorscopy of Electrochromic Media	V. A. Zaitsev	355 (649)
The Effect of Intensity	A. I. Shchukin, S. A. Tolstov, and G. I. Mal'ko	357 (651)
The Effect of the Electric Field on the Spectrum of a Dielectric Medium	A. I. Shchukin, S. A. Tolstov, and G. I. Mal'ko	362 (657)
The Effect of the Polarization of Light on the Spectral Transparency	A. G. Vlasov and D. M. Krupp	367 (662)
The Effect of the Superposition of Two Fields	Kh. K. Aben	370 (669)
The Effect of the Superposition of Two Fields	Kh. K. Aben	374 (673)
The Effect of the Superposition of Two Fields	N. A. Tolstov and A. M. Tkachenko	378 (677)
Graphical Method for Determining Solar Radiation Coefficients	I. Ya. Derishtein and Yu. L. Kaminskiy	381 (680)
Control of the Radiation of a Plane-Parallel Layer by Scattering Gratings	O. A. Gref'yanov and V. P. Shestopalov	383 (682)

(continued)

Available From OSA

OPTIKA I SPEKTROSKOPIYA, Vol XV, No 5, 1963.

CONTENTS (Contd)

BRIEF COMMUNICATIONS

Measurement of the Optico-Acoustic Effect During Ultraviolet Irradiation of Certain Gases and Vapors Ya. I. Zhukov	300 (715)
On the Frequency Dependence of ZnS-Cu Luminescence N. F. Kovtongin	303 (716)
Spectroscopic Observation of the Nonstable Region in a Transition from a "Weak" to a "Strong" High-Frequency Discharge O. P. Zolotareva and L. P. Razumovskaya	305 (716)

PERSONALIA

Aleksandr Alekseyevich Lebedev (On His 70th Birthday)	309 (719)
---	-----------

Available From OSA

TABLE OF CONTENTS

Isotopic Shift in X-Ray Spectra	F. A. Babushkin	393 (721)
Effective Cross Sections for the Direct and Stepwise Excitation of Neon Atoms	S. E. Frish and V. F. Ryk. (c)	395 (726)
The Probability of Inelastic Atomic Collision in the Case of Several Points of Intersection (or Pseudointersection) of Terms	M. A. Kozhushner and Yu. S. Sayasov	399 (734)
Characteristics of the Plasma Jet of a Powerful Capillary Discharge	N. N. Ogartsova, I. V. Podrioshenskii, and V. M. Shelemova	404 (743)
On the Theory of the Intensities of Raman Lines. IV. The Classical Model (Expansion of the Induced Moment in a Fourier Series)	L. L. Krushinskii	406 (747)
The Spectroscopic Manifestation of the Coordination Transitions of Boron in Some Vitreous Systems	Ya. S. Babovich	412 (759)
Investigation of Molecular Interaction in Polymers and Their Hydrogenated Monomers on the Basis of Infrared Spectra. II. Polymers	G. P. Mikhailov and A. L. Smolyanin	416 (766)
Effect of an Electric Field on the NMR in Gases and Liquids	A. M. Vasil'ev and V. M. Evdokimov	419 (772)
Absorption Spectra of Liquid Crystals of Thiazine Dyes	N. M. Melnikhel'm	423 (781)
On the Theory of the F Band in Ionic Crystals. Calculation of the Higher Approximations of the Adiabatic Theory	M. E. Palstam	425 (785)
A New Kind of Plane Electromagnetic Waves in Absorbing Crystals	N. S. Petrov and E. I. Fedorov	428 (792)
Reflection and Refraction of Light by Optically Active Crystals	B. V. Bokut and E. I. Fedorov	431 (797)
Determination of the Particle Spectrum of a Dispersed System from Data on Its Transparency. III. Use of the Fundamental Equation for the Case of a Tabular (Graphic) Presentation of the Spectral Transparency	K. S. Shifrin and A. Ya. Perelman	434 (803)
SHORT COMMUNICATIONS		
Intensity Formulas for Raman and Infrared Combination Tones and Overtones of Polyatomic Molecules	L. M. Sverdlov	439 (814)
On the Computational Formula for the Calculation of the Ten or Components of the Polarizability Derivatives for a Polyatomic Molecule Using Normal Coordinates	H. N. Sirota	440 (816)
Investigation of the Gas-Cloud Composition of an AC Arc	V. I. Iosadkov and P. A. Kaimanov	442 (818)
The Use of the Instrumental Function of a Double-Beam Interferometer for the Analysis of the Distribution of Spectral Line Intensities	V. K. Abdolov	444 (820)
On the Vibrational Spectra of Bromoform and Deuterio-bromoform in the Liquid and Crystalline State	I. I. Makhlov and V. N. Salatskiy	445 (822)
Excitation in the Long-Wavelength Region of Semiconducting Films of Silicon Monoxide Containing Silver and Gold	V. P. Kryzhanovskii, A. Ya. Kuznetsov, and L. A. Pafomova	447 (824)
Fluorescence of an Evaporated ZnS:Mn Phosphor Excited by Unipolar Electric Pulses	V. M. Korsun and S. A. Kostylev	448 (826)
Oscillator Strengths of the Spectral Lines of Calcium	L. N. Shabanova	450 (830)
On the Absorption Spectra of Bromine Solutions	V. O. Mokhnach and I. M. Rudakov	451 (830)
Nuclear Quadrupole Resonance Frequencies of Br ⁷⁹ and Br ⁸¹ in Menthylketen Complexes	V. S. Grechishkin and I. A. Kyunt	453 (832)
On H-D Isotopic Exchange Between Chlorophyll-Type Pigments and Deuterium-Containing Compounds	A. N. Sidorov	454 (834)
Available From Optical Soc. of Amer.		(continued)

Optika i Spektroskopiya
Vol XV, No 6, 1963.

CONTENTS (Contd)

Determination of the Concentration of Charged Particles in a Low-Pressure Discharge from H α Line Broadening	L. A. Laizova	455	(835)
Evidence of Hydrogen Bonding with Uranyl Nitrate Hexahydrate in the Luminescence Spectrum of Mg-Phthalocyanine	G. I. Kobyshev, G. N. Lyalin, and A. N. Terenia	456	(837)
The Concentration of Excited Atoms in a Helium-Neon Pulsed Discharge	V. S. Egorov, Yu. G. Koslov, and A. M. Shukhtun	458	(839)
EVENTS			
The VII European Congress on Molecular Spectroscopy in Budapest	M. V. Vol'kenshtein and M. M. Sushchinskii	459	(841)
OBITUARY			
Alexander Harionovich Tudorovskii 1875-1953		461	(843)
Index		462	(840)
Index to Volume XV		463	(845)

Available From Optical Soc of Amer

SOVIET SOIL SCIENCE

POCHVOVEDENIYE

No. 10, October 1962

Translation printed: February 1964

CONTENTS

	Page	Russian Page
PRODUCTIVITY OF SOILS OF UZBEKISTAN UNDER IRRIGATION FOR VARYING LENGTHS OF TIME, by S. P. Suchov.	1111	1
HUMIC-GLEYED SOILS OF THE BLACK ALDER STANDS, by N. P. Romosov. .	1119	10
ZONAL SOIL GROUPS IN PERMAFROST REGIONS, by I. A. Sokolov and T. A. Sokolova.	1130	23
ROLE OF PHYSIOLOGICALLY ACTIVE SUBSTANCES IN THE SOIL—HUMIC ACIDS, BITUMENS AND VITAMINS B, C, P-P, A AND D—IN THE LIFE OF PLANTS AND THEIR REPLENISHMENT, by L. A. Khristeva and N. V. Luk'yanenko.	1137	33
EFFECT OF LIMING ON THE FERTILITY OF THE SOILS OF TRANSCAR- PATHIA, by P. A. Dmitrenko and N. Ye. Shestidesyatnaya.	1142	40
GENETIC CHARACTERISTICS OF LEACHED CHERNOZEMS OF WELL- DRAINED FOREST STEPPE, by T. F. Skok.	1146	47
MICROSTRUCTURE AND MICROAGGREGATION OF SOILS AS RELATED TO SHEET EROSION AND THE FORMATION OF ALLUVIUM, by A. I. Romashkevich.	1156	56
CAPILLARY RISE OF WATER IN SANDS OF DIFFERENT MOISTURE CON- TENTS, by S. A. Vladychenskiy.	1162	62
PHYSICAL PROPERTIES AND WATER REGIME OF THE CHERNOZEM SOILS OF KOKCHETAV OBLAST (Virgin Land Province), by Ye. V. Kulakov and I. D. Gromyko.	1166	67
EFFECT OF DRAINAGE AND IRRIGATION ON THE SOIL FORMING PROCESSES IN THE HUNGARIAN LOWLAND, by I. Szabolcs.	1174	78
COMPLEX SOIL-BIOLOGICAL INVESTIGATIONS OF RENDZINAS, by I. Szabo, M. Marton, L. Varda and S. Schönfeld.	1179	85
METHODS		
COMPARISON OF METHODS FOR DETERMINING THE INTENSITY OF SOIL RESTORATION, by V. N. Mina.	1188	96
USE OF ANION EXCHANGER TO DETERMINE AVAILABLE PHOSPHATES IN THE SOIL, by Chan Fu-Chu.	1193	101
SOME NEW TECHNIQUES FOR PREPARING THIN SECTIONS OF SOILS, by M. N. Pol'skiy.	1197	104
CHRONICLE		
LUBOV PETROVNA BELYAKOVA.	1205	112
INTER-MURAL SCIENTIFIC AND ECONOMIC CONFERENCE ON THE PROBLEM "SOIL EROSION AND ITS CONTROL", by P. G. Aderikhin and I. A. Santalov.	1207	114
TWENTY-FIFTH ANNIVERSARY OF THE CHAIR OF SOIL SCIENCE AT VORONEZH STATE UNIVERSITY, by Yu. G. Churilina.	1208	115
BIBLIOGRAPHY.	1210	117

Available From Scripta Technica

SOVIET SOIL SCIENCE

POCHVOVEDENIYE

No. 11, November 1962

Translation printed: February 1964

CONTENTS

	Page	Russian Page
PROBLEMS OF SOVIET SOIL SCIENCE IN THE LIGHT OF THE NEW PROGRAM AND RESOLUTIONS OF THE XII CONGRESS OF THE COMMUNIST PARTY OF THE SOVIET UNION, by I. P. Gerasimov. . . .	1221	1
EFFICACY OF PHOSPHORUS FERTILIZERS IN RELATIONSHIP TO THE CHEMICAL PROPERTIES OF SOD-PODZOLIC MEDIUM CLAY LOAMS, by I. S. Lupinovich and T. N. Kulakovskaya.	1231	17
MINERALS OF THE CLAY SEPARATES IN SOILS DEVELOPED ON THE IGNEOUS ROCKS OF EASTERN SAYAN, by B. P. Gradusov and V. G. Targul'yan	1237	24
RESIDUAL FLOOD PLAIN SOD SOILS OF THE OB' FOREST TUNDRA, by L. F. Kaplyuk	1246	34
CERTAIN ASPECTS OF Sr ⁹⁰ FALLOUT IN THE MIDDLE LATITUDES OF THE USSR, by Yu. A. Polyakov, A. M. Leont'yev, and L. K. Mel'nikov	1256	45
CHEMICAL AND SPECTROPHOTOMETRIC CHARACTERISTICS OF WATER-SOLUBLE HUMIN-LIKE COMPOUNDS FORMED BY THE FUNGUS INONOTUS OBLIQUUS (PERS.) PIL., by A. N. Shivrina	1260	51
UREASE ACTIVITY IN THE SOIL, by Ye. S. Vasilenko	1267	61
GENETIC FEATURES OF THE MOUNTAIN-MEADOW AND MEADOW- STEPPE SOILS OF THE CEGAM HIGHLANDS, by I. M. Ovsepyan. . . .	1273	68
EFFECT OF COMBINED APPLICATION OF MANURE AND MINERAL FERTILIZERS ON COTTON YIELD, by F. A. Skryabin.	1285	82
METHODS		
DEFLATION OF SOILS IN NOVOSIBIRSK OBALST', by I. K. Supryaga.	1291	89
METHOD FOR DETERMINING THE WATER PERMEABILITY OF SOILS AND SHOWER RUN-OFF, by G. P. Surmach.	1295	93
COMPUTATION OF THE WATER PERMEABILITY OF SOILS FROM VACUUM-CAPILLAROMETRIC DATA, by V. D. Berdyshev.	1300	97
DETERMINATION OF AVAILABLE PHOSPHORUS COMPOUNDS IN THE SOILS OF THE MOUNTAIN REGIONS OF ARMENIA, by N. O. Avakyan . .	1303	100
BIOCHEMICAL AND ENZYMATIC ACTIVITY OF LITTER IN PINE PLANTINGS, by V. P. Kornev	1312	109
BIBLIOGRAPHY.	1318	115

Available From Scripta Technica

SOVIET SOIL SCIENCE

POCHEVOVEDENIYE

No. 12, December 1962

Translation printed: February 1964

CONTENTS

	Page	Russian Page
ACADEMICIAN I. V. TYURIN'S INVESTIGATIONS IN THE FIELD OF SOIL ORGANIC MATTER, by M. M. Kononova	1325	1
ROLE OF PRODUCTS FROM LIVING ACTINOMYCETES IN THE FORMATION OF HUMUS SUBSTANCES, by I. V. Aleksandrova	1330	8
ROLE OF HUMUS SUBSTANCES IN THE FORMATION OF BROWN FOREST SOIL, by V. V. Ponomareva	1335	15
NATURE OF THE HUMUS OF MOUNTAIN-TAIGA FERRUGINOUS SOILS OF THE WESTERN TRANSBAYKAL, by K. K. Vil'k	1345	31
IRON HUMUS COMPLEXES OF CERTAIN SOILS, by N. A. Titova	1351	38
ELECTROPHORESIS OF HUMUS SUBSTANCES AND THEIR COMPLEXES WITH COPPER, by F. Pospishil	1357	44
NITROGEN INTAKE IN SOIL FROM ATMOSPHERIC PRECIPITATION IN VARIOUS ZONES OF THE EUROPEAN USSR, by M. A. Bobritskaya	1363	53
INFLUENCE OF ORGANIC FERTILIZERS ON HUMUS FORMATION AND THE NITROGEN BALANCE IN SOD PODZOLIC CLAY LOAM, by V. K. Mikhnovskiy, P. N. Vysotskaya and L. V. Kotova	1369	61
DECOMPOSITION OF CERTAIN ORGANIC MATERIALS IN SOD PODZOLIC SOIL, by B. N. Makarov, V. P. Ignatova and R. N. Khodakova	1374	68
METHODS		
HUMUS CONTENT AND COMPOSITION OF CARPATHIAN BROWN FOREST, by P. S. Pasternak and V. V. Skiba	1379	74
CELLULOSE DECOMPOSITION DURING AGRICULTURAL RECLAMATION OF PEAT SOILS, by V. S. Shaydurov	1384	79
CHANGE IN THE PHOSPHATE LEVEL OF SOD PODZOLIC SANDY LOAMS AS AFFECTED BY PLANTS by A. N. Gavrilova	1387	83
WATER STABILITY OF SOIL, by V. I. Bobchenko	1391	86
INFLUENCE OF MINERAL FERTILIZERS ON THE HUMIFICATION OF ALFALFA ROOTS AND MANURE IN BIEROZEMS (FROM GREENHOUSE EXPERIMENTS), by F. A. Skryabin	1396	91
CHRONICLE		
IN MEMORY OF IVAN VLADIMIROVICH TYURIN, by L. T. Zemlyanitskiy ...	1401	96
CONDOLENCES	1403	98
WORK ON THE INTERNATIONAL COMMITTEE ON SOIL PHYSICS TER- MINOLOGY, by A. A. Rode	1405	100
BIBLIOGRAPHY	1410	105

Available From Scripta Technica

TABLE OF CONTENTS

N. I. Ryabchenko, P. I. Tseitlin. Investigation of Radiation Induced Damage of DNA by the Method of Thermal Separation of Strands I. Analysis of Local Injuries in DNA Induced by Ionizing Radiation.....	1
Shen Wen-Mei. Oxidative Phosphorylation and Optical Density of Mitochondria of Normal and Regenerating Livers of Rats Subjected to General Irradiation by X-rays.....	10
B. M. Graevskaya, R. N. Shchedrina. Investigation of the Nature of the Action of X-rays on the Tissue Protease Activity.....	24
M. A. Lomova. The Influence of Gamma Irradiation on the Tributyrinase Activity of the Liver and Epididymal Adipose Tissue of Rats.....	34
N. M. Berezina, V. A. Yasykova. The Effects of Ionizing Radiations on the Peroxidase Activity in Corn Sprouts after Irradiation Prior to Planting.....	39
N. P. Dubinin, L. G. Dubinina. Radiation and Nuclear Changes in Various Phases of the Human Cellular Cycle in Tissue Culture.....	45
V. M. Mastryukova, A. D. Strzhizhovskii. The Influence of Neutron Radiation on the Mitotic Activity of the Corneal Epithelium.....	59
Yu. A. Buevich, E. M. Karabaev, V. I. Korogodin. Selecting a Model Describing the Restoration of Viability of Yeast Cells Injured by Gamma Rays.....	68
I. V. Vysochina. Influence of Ionizing Radiation on the Respiratory Function of the Blood of Rabbits Irradiated by Lethal Doses of X-rays.....	78
E. N. Antipenko. Restoration of Hematogenesis in Dogs That Have Survived Acute Radiation Sickness.....	89

(continued)

Available From AEC-Tr-5435

CONTENTS (Contd)

O. B. Il'inskii, E. I. Komarov. The Action of Beta Radiation on the Bioelectric Activity of a Single Nerve-Ending.....	97
I. A. Piontkovskii, I. A. Kolomeitseva. Higher Nervous Activity of Adult Rats Subjected to a Single Prenatal Action of a Small Dose of Ionizing Radiation.....	103
N. N. Livshitz, E. S. Meizerov. The Influence of Chronic Irradiation on the Head with Co ⁶⁰ on the Higher Nervous Activity of Dogs.....	110
N. N. Klemparskaya, V. V. Shikhodyrov. The Significance of Tissue Antigens in the Change in Reactivity of the Irradiated Organism.....	120
D. V. Mangina. The Yeast Model as a Method of Evaluating the Radioprotective Properties of Chemical Compounds.....	136
V. I. Suslikov. Characteristics of the Variation of Effectiveness of Certain Protective Agents at Various Irradiation Doses.....	145
L. S. Isupova, V. S. Balabukha. Prevention of Radiation Depolymerization of Rat Liver DNA with Propyl Gallate and 5-Methoxytryptamine.....	160
I. G. Krasnykh, P. G. Zherebohenko, L. F. Semenov, N. N. Suvorov, K. A. Zeiteunyan. Prophylaxis of Radiation Sickness in Monkeys with 5-Methoxytryptamine.....	165
G. M. Airapetyan. Protection of Rat Thymocytes from the Harmful Action of Radiation with Indole Derivatives.....	171
N. P. Lebkoval, A. N. Shevchenko. Radioprotection of the Hematopoietic Organs of Mice.....	175
O. L. Torchinskaya, N. O. Razumovskii, V. G. Yashunskii, V. S. Balabukha, V. F. Ushakova. Elimination of Radioactive Cerium from the Organism under the Influence of Triethylene-tetramine Hexaacetic and Tetraethylenepentamine Heptaacetic Acids.....	184

(continued)

Available From AEC-Tr-5435

CONTENTS (Contd)

S. V. Argutinskaya, R. I. Salganik. The Protective Action of Polyanions in the Irradiation of Mice by Lethal Doses of X-rays.....	193
A. M. Stashkov, V. P. Korotkova. The Quantitative Dependence of the Protective Activity of Antiphenons on the Irradiation Dose.....	201
E. D. Plotnikova, S. I. Strashnonko. Relative Genetic Effectiveness of 500-Mev Protons and 180-Kv X-rays	209
N. L. Shmakova, S. P. Yarmonenko. A Cytological Analysis of the Action of High-Energy Protons. I. Cellular Degeneration and the Mitotic Activity of the Bone Marrow of Mice Subjected to Total Irradiation by Protons with Energies of 880 Mev.....	215
O. A. Khomutovskii. Influence of X-rays on the Growth, Microscopic and Submicroscopic Structure of Bone Sarcomas Induced by Radioactive Strontium.....	220
L. A. Afrikanova. An Experiment Studying the Early Structural Changes of the Irradiated Interauricular Septum of the Frog (Intravital and Histochemical Observations).....	230

RADIOBIOLOGY AND PRACTICE

A. M. Kuzin, I. G. Kostin, L. N. Shershunova, L. A. Zubareva. The Use of Ionizing Radiation in Poultry Raising.....	246
---	-----

METHODS AND INSTRUMENTS

A. P. Dubrov. A Simple Method of Ultraviolet Microirradiation Using Reflecting Optics.....	256
V. A. Ivanov, M. S. Kulish, E. I. Yartsev. A Rapid Method of Intravital Determination of Radiostrontium in the Animal and Human Organism.....	263

Available From AEC-Tr-5435

TABLE OF CONTENTS

page

For the Further Development of Biological Science.....	1
Ryabchenko, N. I. and Tseitlin, P. I., Investigation of DNA Radiation Damages by the Method of Thermal Strand Separation. II. Effect of Ionizing and Ultraviolet Radiation upon the Separation of Two-Stranded DNA.....	4
Konstantinova, V. V., Physicochemical Changes in Deoxy- ribonucleic Acid under the Effect of Plutonium-239 in vivo.....	11
Kuz'minskaya, G. N., Changes in Sorption Properties of Certain Cells and Tissues of White Mice Exposed to Whole-Body X-Irradiation.....	18
Prokhonchukov, A. A., Effect of Radioactive Phosphorus upon Mineral and Protein Metabolism in Calcified Tissues.....	24
Elkina, N. I., Phosphatase Activity and Content of Calcium, Phosphorus and Nitrogen in Rabbit Bony Tissue after Injury with Plutonium-239.....	32
Sosova, V. F., Dynamics of Variation of the Amount of Introduced Gamma-Globulin in Rabbit Blood Serum During Radiation Sickness.....	37
Kolomiitseva, I. K., Free Radicals in Liver and Spleen Lipids of Irradiated Rats.....	44
Zyusin, I. K., Significance of Certain Microelements in the Evolution of Radiation Micropathology.....	51
Burykina, L. N. and Trusova, N. E., Changes in Spermatogenic Function of Dogs in Chronic Injury by Strontium-90.....	59
Lebedeva, J. D., Experimental Study of the Effect of Stable Phosphorus upon Accumulation of P^{32} in Fishes.....	70
Aleksandrova, M. F. and Selivanova, L. N., Reaction of the Blood System of Dogs upon Chronic Poisoning with Strontium-90 Depending on the Original Condition of Hematopoiesis.....	78
Gruzdev, G. P., Fedotova, M. I. and Shcherbova, E. N., On Certain Patterns of Devastation of the Bone Marrow in Gamma-Irradiated Rats.....	87
Tseveleva, I. A., The Effect of Ionizing Radiation of the Content and Metabolism of Nucleotides in Rabbit Lymphoid Tissue.....	93
Stepanova, T. S. and Tyukov, D. M., The Dynamics of Bio- Electric Activity of Rabbit's Brain upon Short-Wave Ultraviolet Irradiation.....	103
Lebedev, A. N., The Role of Tectum Mesencephali and Sub- Thalamus in the Formation of an Early Bio-Electric Reaction of Rabbit Cerebral Cortex to a Total-Body Ionizing Irradiation.....	113
Sidorov, B. N. and Sokolov, N. N., The Radiation Analysis of Chromosome Discreteness in the Process of Autoreproduction..	122

(continued)

Available From AEC-Tr-5436

	page
Abeleva, E. A. and Lapkin, Yu. A., Dependence of the Recessive Sex-Linked Lethal Mutation Frequency in <i>Drosophila</i> Spermiogenesis on the Fast Neutron Dose.....	129
Delone, N. L., Changes in Radiosensitivity of <i>Tradescantia</i> Paludosa Microspores in the Course of Mitosis.....	132
Tarasenko, N. D., The Action of Gamma Rays, Fast Neutrons and Ethyleneimine upon Mutability and Chromosome Aberrations in Potato Seedlings.....	139
Shapiro, N. I. and Tolkacheva, E. N., A Comparative Study of the Effects of Protective Agents in Irradiation of Tumorous and Normal Tissues.....	144
Ganassi, E. E., Eidus, L. Kh. and Arifulina, R. A., Investigation in Vitro of the Mechanism of Action of Chemical Radioprotectors. Communication I.....	156
Paraishvili, E. A., Ogandzhanyan, E. E. and Kheifets, Yu. B., Effect of Different Sinestrol Doses on Hemopoiesis and Survival of Irradiated C ₅₇ Strain Black Mice.....	166
Yarmonenko, S. P. and Shmakova, N. L., Cytological Analysis of the Effect of High-Energy Protons. Communication 2. Effect of S, β -Aminoethylisothiuronium (AET) on the Destruction, Mitoses and Chromosome Aberrations in the Bone Marrow of Mice Subjected to Total-Body Irradiation with 660 Mev Protons.....	174
Libinson, R. E., Konstantinova, V. V., Popova, T. G. and Rogacheva, S. A., On the Mechanism of Therapeutic Effect of High-Polymeric DNA in Radiation Sickness.....	179
Mikhailova, E. G., Distribution of S ³⁵ Between Organs and Tissues of Rats Following Intraperitoneal Injection of Some S-Labeled Sulfur-Containing Radioprotective Preparations.	189
Parkhomenko, I. M., The Effect of Some Radioprotectors Applied upon Gamma Irradiation of the Cells of <i>Cynomolgus</i> Monkey Heart (CMH) in Vitro.....	195
Kuzin, A. M. and Kasymov, A. K., Formation of Substances Which Inhibit the Growth and Development in Gamma Irradiated Potato Tubers.....	203
Ivanitskaya, A. F., Use of the Explantation Method for the Study of Fast Neutron Action on White Mouse Spleen.....	210
Chronicle	
Tolkacheva, E. N. and Ganassi, E. E., Symposium on Action Mechanisms of Protective Agents.....	220

SOVIET RADIOCHEMISTRY

A translation of **RADIOKHIMIYA**

a publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 4, Number 3

May-June, 1962

CONTENTS

	P A G E	
	ENG.	RUSS.
Investigation of Anomalous Mixed Crystals Using Radioactive Tracers. IX, Effect of Polyvalent Ions on the Character of the Distribution of the Microcomponent between the Solid and Liquid Phases in the Systems $\text{NH}_4\text{Cl}-\text{CdCl}_2-\text{H}_2\text{O}$ and $\text{NH}_4\text{Br}-\text{CuBr}_2-\text{H}_2\text{O}-\text{F}$, M. Ioffe	227	249
Theory of Errors of Indirect Measurements in the Study of Sorption Processes with Radioactive Tracers—V. V. Rachinskii and S. M. Rustamov,	230	253
Synergetic and Antagonistic Effects in the Extraction of Plutonium Compounds—M. Taubé	237	260
Effect of the Nature of the Solvent on the Extraction of Inner Complex Compounds—Yu. A. Zolotov and I. P. Allmarin,	247	272
Extraction of Microamounts of Cerium from Nitric Acid Solution with Di- and Monoisooamyl Esters of Methylphosphonic Acid—B. V. Ukraintsev and N. F. Kashcheev,	252	279
New Salts of Uranooxalic Acid—A. A. Grinberg, G. I. Petrazhak, and G. S. Lozhkina	261	289
Synthesis and Investigation of Compounds of Uranyl Salts with Pyridine Oxide Derivatives—A. V. Nikolaev, V. G. Tugov, V. K. Roman, V. A. Mikhailov, and I. L. Kotlyarevskii	266	296
Determination of the Composition and Instability Constants of Thiocyanate Complexes of Am(III), Cm(III), and Ce(III) by Ion Exchange—I. A. Lebedev and G. N. Yakovlev,	273	304
Investigation of the Decomposition of Americium Oxalate under the Action of Its Own α -Radiation—I. A. Lebedev, S. V. Pirozhkov, V. M. Razbitnoi, and G. N. Yakovlev	276	308
Complex Compounds of Lanthanide Nitrates with Nitric Acid—E. E. Kris and Z. A. Sheka	279	312
Study of the Kinetics of the Establishment of Adsorption Equilibrium in Extraction by Means of Radioactive Tracers—I. E. Starik and K. F. Lazarev,	286	322
Sorption of Long-Lived Fission Products by Soils and Argillaceous Minerals. III. Selectivity of Soils and Clays toward Sr^{90} under Various Conditions—Yu. A. Kokotov and R. F. Popova	292	328
Radiometric Method of Determining the Isotopic Composition of Cerium Isolated from Fission Products of Heavy Nuclei—S. V. Belov, R. V. Zhelezkov, N. T. Polyakov, and N. V. Sidorov	297	334
Available From Consultants Bureau		(continued)

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
Isolation of Carrier-Free Tellurium from a CdCl Target Irradiated with 680 MeV Protons -V. N. Rybakov, Wang Ch'ung-p'êng, and Ming Namg Buk	302	340
Chemical Identification of Phosphorus and Thallium by Quantitative Neutron Activation Analysis-E. A. Isaeva, I. B. Makasheva, I. A. Maslov, and A. P. Obukhov	307	345
Chemical Changes During β -Decay Processes of Sb ¹²⁵ Present in Some Phenyl and Toly Derivatives-V. D. Nefedov, I. S. Kirin, and V. M. Zaitsev	311	351
Change in Emanation Power and Liberation of Surface Gas Tracer During Dehydration of Hydroxides-Ch. Ekh, G. M. Zhabrova, S. Z. Roginskii, and M. D. Shibanova	314	355
Method of Determining the Vapor Pressure of Ruthenium Tetroxide over Its Aqueous Solution by Means of Radioactive Tracers-R. L. Myuller and A. B. Nikol'skii	321	364
The Effect of Ethanol on the Sorption of Strontium Ions by Active Manganese Dioxide -Yu. V. Egorov, V. V. Pushkarev, and E. V. Tkachenko	327	371
Photometric Determination of Neptunium with Quercetin-E. G. Chudinov and G. N. Yakovlev	329	373
Photometric Determination of Neptunium with Thoron-E. G. Chudinov and G. N. Yakovlev	331	375
Preparation of a Sample of Long-Lived Bi ²¹⁰ -N. B. Abel'skaya, E. G. Gracheva, Z. V. Brihova, V. S. Zverev, V. V. Maslovskaya, and L. Ya. Rudaya	333	377
Available From Consultants Bureau		

RADIO ENGINEERING AND ELECTRONIC PHYSICS

RADIOTEKHNIKA I ELEKTRONIKA

NUMBER 4

1963

CONTENTS

	Page
M. F. Bakhareva and L. I. Byalyy: Noise Immunity of Amplitude-Keyed Signals in the Presence of Fading.	585
Yu. G. Tratas: Features of Optimum Reception of a Pulsed Signal in Long-Distance Tropospheric Propagation of Radio Waves.	590
A. A. Kuriksha: Optimum Use of Space-Time Signals.	595
V. G. Yampolskiy: Diffraction of a Plane Electromagnetic Wave by a System of Metallic Strips.	605
R. F. Matveyev: Loss Measurements in Short Waveguide Lines.	617
G. N. Rapoport and V. R. Dobrovinskiy: Calculation of the Depression Coefficient.	624
V. N. Parygin: Bunching of Electrons in the Field of a Retarding System.	630
L. A. Belov and M. V. Kapranov: Frequency Multiplier Based on a Reflex Klystron.	638
S. M. Levitskiy and I. N. Groshev: Oscillational Phenomena in a Diode Filled with Cesium Vapors.	649
A. A. Ostroukhov: Distribution of the Potential and Concentration in a Thermoelectric Low-Pressure Energy Converter.	655
K. S. Golovanivskiy and A. A. Kuzovnikov: Stationary Distribution of the Ion Concentration of a Positive Plasma Column in an External Inhomogeneous HF Field.	657
O. A. Malkin: Calculation of the Electrical Conductivity of Gaseous Mixtures in a Plasma State.	665
V. I. Ridnik and B. M. Yavarskiy: Elementary Processes Close to the Surface in a Gas Discharges.	673
N. A. Belova: Effect of Alloys with Deep Levels on the Over Current of Germanium Tunnel Diodes.	679
O. I. Mednikov and V. H. Parygin: Sorting of Ammonia Molecules in a Maser.	685
Yu. F. Sokolov: Frequency Characteristics of p-n Junctions.	691
U. A. Arifov, A. Kh. Ayukhanov and S. V. Starodubtsev: Method for the Simultaneous Study of the Dependences of Secondary-Ion and Electron Emission on the Thickness of Various Films on Metal.	701
B. S. Kul'varakaya, V. A. Grodko, B. N. Markar'yan and I. M. Rubanovich: Thermionic Emission Properties of Uranium and Zirconium Carbides and Solid Solutions.	706
B. I. Mikhaylovskiy and R. I. Marchenko: Evaporation Rate and Evaporation Products of a Thorium Carbide Thermionic Cathode.	710
Ya. M. Fogel', R. P. Slabospitskiy and A. S. Slavnyy: Mass Spectrometric Investigation of the Secondary Ion Emission Caused by Argon Ion Bombardment of Platinum.	713
A. M. Tyutikov: Photoelectric and Secondary-Electron Emission from a Beryllium Oxide Layer on a Surface of Oxidized Beryllium Bronze.	719
A. M. Tyutikov: Structure and Secondary Emission of Emitters of Activated Beryllium Bronze.	725
A. O. Berkovskiy: Photomultiplier Tube with High Time Resolution.	735
BRIEF COMMUNICATIONS	
E. L. Kulikov: Calculation of Waveguide Junctions with Partial Anisotropic Filling.	739
O. N. Toroshin: Inverse Electrodynamical Problem for an Impedance Antenna Having a Special Shape.	741
A. D. Vlasov: Determining Waves in Electron Beams of High Space Charge Density.	745
G. V. Der-Shvarts: Image Curvature and Astigmatism in Electrostatic Emission Systems.	748
L. A. Logunov: Backward Diode as a Small Signal Detector.	750
L. A. Logunov and V. S. Pitanov: Current-Voltage Characteristics of Tunnel Diodes Made of Gallium Arsenide.	752
A. A. Ravinovitch-Visel and M. E. Gertsenshteyn: Relaxation Oscillation in Nonlinear Capacitance Frequency Multipliers.	754

Available From IEEE

On the Eve of the 45th Anniversary of the Great October Socialist Revolution.....	1	(1)
The Use of Computer Techniques in Technical and Economic Calculations for Non-Ferrous Metallurgy, by A. Kh. Benuni, S. Kh. El'bisinov and M. G. Zhuk.....	3	(4)
The Construction of Flotation Plant Control Systems, by O. V. Golosov, A New Type of Concentration Plant, by V. G. Svirin.....	8	(8)
Residual Xanthogenate Concentration and its Connection with Metals Extraction During Flotation, by B. I. Revazashvili.....	16	(17)
An Examination of Certain Properties of Copper Cathodes Precipitated in the Presence of Various Surface Active Additives, by N. N. Myul'lar and L. I. Sotnikova.....	22	(24)
Extracting Cobalt from the Xanthogenate Cakes of Zinc Plants, by T. Kh. Taerekov and P. M. Polulyakh.....	27	(29)
The Use of Mazut in Fuming, by V. V. Kostelov and I. N. Grinovich....	32	(33)
Costs and Prices of Rare Elements Produced by Non-Ferrous Metallurgical Plants, by V. N. Leskin and A. G. Tokareva.....	38	(39)
White Slime as an Activating Addition for the Process of Aluminate Solution Desilicification, by A. I. Lainor, M. A. Kolenkova and L. U. Kotieva.....	41	(42)
Methods of Eliminating Manual Labor in the Extraction of Slime from Magnesium Electrolyzers, by K. D. Muzhzhavlev, O. A. Lebedev, A. I. Ivanov and O. G. Desyatnikov.....	49	(50)
Improving the Quality of Commercial Tellurium, by A. N. Polukarov....	55	(56)
Straight-Seam Welding Brass Tubes with Radio-Frequency Currents, by V. Ya. Gol'berg.....	62	(63)
Structure and Properties of SAP (Sintered Aluminum Powder), by A. I. Paisov, A. I. Kolpashnikov and Pan Ya-Chen'.....	68	(69)
Feder Mikhailovich Loskutov (1900-1962).....	71	(71)
Determining Some Thermophysical Characteristics of Crude Alunite, by F. P. Voreshchagin and V. V. Baranovskii.....	75	(76)
Express Method of Determining Hydrogen in Dehydrated Carnallite, by Ya. E. Vil'nyanskii, E. I. Savinkova and L. S. Bychikhina.....	76	(78)
Electromagnetic Pump for Non-Metallic Melts, by V. P. Polishchuk and M. R. Tsia.....	78	(80)
Some Shortcomings in the EKS-1250 Electrical Separator, by N. M. Kar-naukhov and T. B. Tarasova.....	80	(82)
Seminar of Specialists - Members of SEV on Problems Connected with Improvements in Techniques for Hydrometallurgical Production of Zinc.....	82	(84)
Technical Progress in Converting Copper Mattes, by V. D. Kuznetsov and V. I. Beregovskii.....	84	(85)
New Technical Literature.....	87	(88)
	94	(94)

Available From FS

Tsvetnye Metally Non-Ferrous Metals	Table of Contents November, 1962	Vol. 3, No. 11 English Translation
Forty-Five Years of Soviet Non-Ferrous Metallurgy, by M. M. Lakernik.	1	(1)
Non-Ferrous Metallurgy in Uzbekistan Over 45 Years of Soviet Power, by A. M. Lomov.....	6	(7)
The Ust'-Kamenogorsk Lead-Zinc Combine, Named for V. I. Lenin, on the 45th Anniversary of the Great October Socialist Revolution, by A. M. Vartanyan.....	9	(10)
On the Road to a Complex Automation of Production Processes, by S. M. Sozaev.....	14	(15)
Concentration Technology and Cybernetics, by G. S. Nesterov.....	23	(24)
The Automation of Ore Dressing Plants, by V. K. Apollonov.....	26	(27)
Concentrating Gaiskii Ores, by G. V. Kozlov.....	29	(30)
Using the Clunker of Electrolytic Zinc Plants for Copper Precipita- tion with Combined Concentration of Oxidized Copper Ores, by G. B. Klebanov, A. V. Skrobova and V. A. Stepanov.....	35	(36)
Present State and Future Prospects of Oxygen Use at Several Non-Fer- rous Metallurgical Enterprises in the USSR, by L. M. Bozhkarev and Yu. A. Bykhovskii.....	37	(38)
Roasting Sulfide Zinc Concentrates with an Air-Oxygen Blast in a FluoSolid Furnace at the Ust'-Kamenogorsk Lead-Zinc Combine, Named for V. I. Lenin, by A. M. Vartanyan, V. D. Ponomarev, T. Kh. Tse- rekov and A. Ya. Laikin.....	43	(43)
Using Natural Gas at the Almalyk Copper Smelter, by V. S. Chakhotin, L. K. Udalov and B. A. Stepanov.....	49	(49)
Bath Voltage Balances and Ways to Improve the Quality of Servicing Electrolyzers in Copper Electrolytic Plants, by A. I. Levin, E. S. Letskikh, V. A. Mukhin and M. I. Nomberg.....	52	(52)
Purifying Converter Gases from Copper Smelters, by V. P. Savraev, V. N. Kazakov and M. F. Bogatyrev.....	57	(57)
Methods of Preparing Copper-Nickel Converter Matte for Flotation Separation to Copper and Nickel Concentrates, by S. T. Kiselev.....	62	(63)
Desilicification of Pure Potassium Aluminate Solutions in the Presence of Chemical Additives, by M. G. Manvelyan, A. A. Khanamiryan, N. T. Mkrtychyan, S. A. Bakhchisaraitseva and B. A. Taliashvili.....	66	(66)
A Comparison of Thermal Loads for the Continuous Self-Roasting Anodes in the Electrolytic Production of Aluminum, by M. A. Korobov.....	74	(75)
Study of Deformation Grain in Rolled Niobium, by D. I. Lainer, V. Ya. Solov'ev, E. I. Krupnikova-Perlina and E. V. Kachur.....	79	(80)
Vacuum Rolling for Chemically Active Metals, by V. E. Ivanov, S. F. Kovtun, N. D. Tarasov and R. A. Ul'yanov.....	84	(85)
Remodification of Silumin, by E. A. Boom.....	87	(89)
The Preparation and Properties of Titanium Aluminides, by G. V. Samsonov and V. S. Sinel'nikova.....	90	(92)
The Influence of Temperature on the Corrosion Resistance of Tin in Acid Media, by V. A. Khitrov and E. I. Shatalova.....	93	(95)
Twelfth Conference of the Standing Commission of the Council of Economic Mutual Assistance for Non-Ferrous Metallurgy.....	94	(96)

Available From IS

CONTENTS	Page	Russian Reference	
Aleksandr Aleksandrovich Fridman			
. P. Ya. Polubarinova-Kochina	467	80,	345
The Researches of A. A. Fridman on the Einstein Theory of Gravitation			
. V. A. Fock	473	80,	353
The Theory of the Expanding Universe as Originated by A. A. Fridman			
. Ya. B. Zel'dovich	475	80,	357
Problems of Relativistic Cosmology			
. E. M. Lifshitz and I. M. Khalatnikov	495	80,	391
Detonation Waves in Gases			
. R. I. Soloukhin	523	80,	525
Modern Methods in the Theory of Many-Phonon Processes			
. Yu. E. Perlin	542	80,	553
Nuclear Spin Resonance			
. V. S. Grechishkin and N. E. Alnbinder	566	80,	587
<u>Meetings and Conferences</u>			
Eleventh Conference on Luminescence			
. G. P. Gurinovich, N. D. Zhevandrov, and K. N. Solov'ev	590	80,	685
<u>Personalia</u>			
Bentzion Motseevich Vul			
. V. S. Vavilov	606	80,	703
Georgii Nikolaevich Flerov			
. K. A. Petrzhak and S. M. Polikanov	609	80,	707
Available From Amer Inst of Phyc Sov Phys - Uspekhi Vol. VI, No 4			

VESTNIK SVYAZI

HERALD OF COMMUNICATIONS

A Monthly Industrial-Technical Journal of
the USSR Ministry of Communications and
of the Central Committee of the Trade
Union of Communication Workers and of the
Motor Transport and Highways Workers

No 12 (285) December 1963
(Twenty Third Year of Publication)

CONTENTS

Page

EDITORIAL — Printed Matter Must be Delivered to the
Population Promptly.

8

COMMUNICATION ENGINEERING

Yu. P. KORENEV — A Mobile Measuring Tuning and
System for Monitoring the Performance of Trans-
mitters.

15

L. Ya. KANTOR — On the Selection of Level in
Multiprogram Broadcasting.

26

D. M. LEKAREV and E. Ya. PUTNASHOLIS —
Transistorized Direct-Voltage Converter With Power
Supply from a 60-Volt Direct-Voltage Source.

31

L. P. ISAYEV — A Stand for Mechanical-
Strength Tests Up to 500 Kilograms.

38

B. Ye. APATOVSKIY and I. V. SMIRNOV — An
Automatic Machine for the Manufacture of Paper
Cable Sleeves.

44

CHEMICAL INDUSTRY — FOR
COMMUNICATIONS INDUSTRY

A. I. NIKANOROVA — Diffusion Methods of
Treating Poles with Chemicals.

50

(continued)

Available From JPRS 23488

CONTENTS (Contd)

Page

COMMUNICATION ECONOMICS

V. A. BRUKER, L. A. NEMIROVSKIY and N. V. URUMYAN — A Method of Determining the Economic Effect Due to the Adoption of Postal-Mechanization Facilities.

57

ORGANIZATION AND OPERATION
OF
COMMUNICATION FACILITIES

F. V. SHALASHOV and O. D. TISHCHENKO — Technology of Telegram Processing on Automatic Concentrator.

65

G. G. SHAKH-NAZAROV — Mechanization and Automation of Production Processes at the Mail Transport Departments of Moscow Center.

71

L. R. GUSEVA and A. D. BENTSION — We Are Raising the Quality of Telegram Processing.

80

A. M. SAVVINA — Determination of Time Standards for Telegram-Delivery Postmen.

84

Ye. Z. BELEN'KIY — Our Resources.

88

B. L. SHIKHVARGER — What Helped Our Collective to Improve Its Work.

93

S. G. VOLKOV and L. Ya. YAKOVLEV — In a Consolidated Rayon.

99

TOWARD THE TRIUMPH OF COMMUNIST LABOR

N. F. GIL'EV — To Learn to Live and Work in a Communist Manner.

107

LETTERS TO THE EDITORS

F. I. MINEYEV — Service to the Population Has to be Improved by Joint Efforts.

118

Available From JPRS 23488

VOYENNIY VESTNIK
No 11, 1963.

TABLE OF CONTENTS

	<u>Page</u>
I. LEAD ARTICLES	1
A. Lead in a Professional and Concrete Manner	1
B. Glorious Traditions by Marshal of Artillery K. P. Kazakov, Commander of Rocket Troops and Artillery	6
II. REMEMBERING PAST BATTLES	12
A. Skill and Courage by Col. A. Telegin (Reserve)	12
B. In the Battles for Kiev by Maj. Gen. of Artillery G. Desnitskiy (Reserve)	16
C. Battle Heroes by Col. V. Yakubov	18
D. Their Feats Are Immortal by Lt. Col. P. Pshonichnyy (Reserve)	21
III. ADVANCED EXPERIENCE	26
A. Motorized Rifle Battalion	26
1. Advanced Experience - into Practice by Army General A. Beloborodov, Commander of the Troops of the Moscow Military District	26
Available From ACSI I-1614-K ID 2201421	(continued)

Table of Contents (continued)

	<u>Page</u>
2. Strength -- In the Collective by Guards Lt. Col. M. Yapishkin, Hero of the Soviet Union	31
3. The Backbone of the Battalion by Guards Maj. P. Mitin	36
4. Thus Is Trained a Marksman by Guards Capt. B. Matviyets	40
5. Steel Muscles by Guards Maj. A. Andreyev and Guards Capt. V. Ostramenskiy	48
6. Easily Controlled by Col. L. Kozlovskiy and Ya. Davydov	52
B. Tank Battalion	59
1. Our Best by Guards Major-General, Tank Forces, I. Veroshchagin	59
2. Military Endeavor in the Name of Our Country by Guards Lt. Col. D. Lukin	61
3. At High Speeds by Capt. (Engineers) V. Torent'yev	72
4. Bulls-eye First Round by Guards Col. I. Konyayev	76
5. Flank Attack by Col. N. Fomin	81
C. Artillery Battalion	85
1. Moving Ahead by Lt. Gen. (Artillery) P. Siderenko Hero of the Soviet Union	85
2. In Competition with the Second Hand by Col. N. Medved'yev	87
3. The Fruits of Collective Labor by Guards Lt. Col. S. Denisov, Guards Major T. Siminov and Guards Major I. Shterenahus	93
IV. TACTICS	108
A. Operations of Airborne Small Units by Col. I. Dentsov and Lt. Col. P. Livotov	108
B. Defense in the Mountains by Col. A. Derofcyev	112
C. Special Classroom by Col. I. Mikhaylov	119
V. TRAINING AND INDOCTRINATION	123
A. A Paramount Matter (Results of propagandizing the experiences of outstanding soldiers) by Col. F. Podoprigora	123

Available From ACISI I-1614-E
ID 2201421

(continued)

<u>Table of Contents (continued)</u>	<u>VOYENNIY VESTNIK</u> No 11, 1963.	<u>Page</u>
B. The Individual Rating (Discussion of the article published in Issue No. 4) by Lt. Col. N. Bugrov		128
C. Plan in a Purposeful Manner by Lt. Col. M. Polnikov		130
D. In Combination with Tactics by Lt. Col. G. Ovrutskiy		133
VI. ROCKETS, ARTILLERY AND AIR DEFENSE TROOPS		137
A. Everyone Should Be Excellent by Lt. Col. V. Chertov		137
B. So the Fire Will Be Accurate by Col. G. Pychenko		141
VII. SPECIAL TROOPS		144
A. Engineer Troops		144
1. Small-Unit Military Training by Lt. Gen. A. Tertyshnikov, Engineers		1.
2. The Construction of a Column Route (A Class with BAT Driver-Mechanics) by Maj. A. Slyusarev, Engineers		200
3. A Universal Electric Detonating Circuit by Lt. Col. M. Bolousov		151
B. Signal Troops		156
1. Instruction Begins With a Clear Plan by Lt. Col. A. Bazanov		156
2. Making Young Officers by Lt. Col. I. Manoylo		159
3. Preparation of Training Layouts		161
a. A Guidance and Control Position by Major A. Kirilychev		161
b. Our Radio Training Equipment by Lt. Col. P. Degonskiy		163
VIII. FIRE AND WEAPONS		166
A. The Firing Training of Recruits (From experience)		166
B. Intersection With Azimuthal Indicators by Senior Lieutenant A. Fyl'tsyn		171

Available From ACBI I-1614-K
ID 2201421

VOYENNIY VESTNIK
No 12, 1963.

TABLE OF CONTENTS

	<u>Page</u>
I. LEAD ARTICLE	1
Political Classes in the New Year	1
II. REMEMBERING PAST BATTLES	6
A. Skill and Courage by Maj. Gen. A. Kromik (Reserve) . . .	6
B. Initiative and Boldness by Col. P. Pestryakov	9
III. TACTICS	12
A. Defense of a Tank Battalion by Lt. Col. A. Kislyakov . .	12
B. Winter Operations of a Motorized Rifle Battalion by Maj. M. Sotskov	16
C. Night -- The Reliable Assistant of Scouts by Col. A. Serov	19
D. Airborne Assault in the Desert by Col. Ya. Samoylenko	24
E. The Preparation of Degassing Liquids in the Winter by Capt. A. Val'kov	30
F. A Check of Radioactive Radiation by Guards Maj. V. Milovanov	31
G. Protection from Radiation When Calibrating Instruments by Lt. Col. I. Sobol'	33

Available From AGSI 1-1604-L
ID 2201421

(continued)

<u>Table of Contents (Continued)</u>	<u>Page</u>
IV. TRAINING AND INDOCTRINATION	35
A. To Train for Hard Trials by Lt. Gen. of Tank Troops M. Shaposhnikov	35
B. The Commander and the Community by Sr. Lt. V. Ustinov	39
C. To Be Both a Friend and an Exacting Commander by Col. V. Soshnev	43
D. Squad in the Offense by Guards Col. D. Popov	46
E. Imitator Devices by Maj. of Med. Svc. I. Nebukin	53
F. With the First Shell, With the First Salvo by Maj. V. Ivonin	54
MILITARY SCHOOLS	
G. The Independent Work of Cadets by Lt. Gen. A. D'yakonov and Lt. Col. V. Komissarov	57
ON THEMES OF PEDAGOGY AND PSYCHOLOGY	
H. Visual Aids and Clarity by Lt. Col. V. Baranov	62
THE READERS RECOMMEND	
I. Increase the Width of the Zeroing Target by Maj. A. Chigarev	65
V. ROCKETS, ARTILLERY AND AIR DEFENSE TROOPS	67
A. Rockets and Artillery	67
1. The Training of Students in Training Small Units by Lt. Col. G. Kamenskiy	67
2. From the Experience of Training Artillery Specialists by Sr. Lt. M. Laskin	71
3. Grading Maneuverability by Guards Maj. D. Nakhankis	76
4. How We Achieve Teamwork by Capt. I. Tkhorov	77
5. Separate Training of Artillerymen by Col. I. Andrushkevich	79
B. Air Defense Troops	83
1. Operators Are Trained in the Small Unit by Maj. G. Starodubets	83
2. Artillery Firing Training Exercises by Col. V. Shtan'ko	86

(continued)

<u>Table of Contents (Continued)</u>	<u>Page</u>
3. The Skillful Use of Equipment in the Winter by Capt. (Engr) Ye. Bogdanov	90
4. In Friendship With Equipment by Lt. Col. (Engr) I. Pintsov	92
VI. SPECIAL TROOPS	95
A. Engineer Troops	95
1. Floating Bridges in Winter by Lt. Col. I. Koblov, Guards Lt. Col. E. Zmachinskiy, and Maj. V. Buldakov	95
2. Bridge Builders by Col. K. Yakovlev	100
3. We Train Tank Crews in Engineer Work by Lt. Col. A. Smirnov	101
4. Mine-Field Recording by Lt. Col. V. Zhuravlev	104
B. Communications Troops	108
1. Control Skillfully by Radio by Col. Ye. Lazarev	108
2. The Tape Recorder As Equipment for the Exercise Instructor by Lt. N. Derevyanko	111
3. Skill Wins by Col. A. Galkin	115
4. Training Specialists at the Level of New Requirements by Col. G. Ponomarenko, Lt. Col. A. Saiganik, and Maj. V. Smirnov	118
VII. FIRE AND WEAPONS	121
A. The Firing Training of Student Gunners by Col. L. Gusev	121
B. Use of the PS-55 Sighting Device in Training by Col. D. Koslov	124
C. Time and Accuracy by Lt. Col. V. Sotnikov	127
VIII. CREATIVE WORK OF THE RATIONALIZERS	130
A. A Device for Target Designation and Preparation of Data by Capt. V. Skorobogat'ko	130
B. The AMI-1 Target Mount Has Been Modernised by Lt. Col. A. Suprunenko	132
C. A Nomograph for Determining Length of Day and Period of Daylight by Lt. Col. A. Chelnokov	135

<u>Table of Contents (Continued)</u>	<u>Page</u>
D. A Device for Determining the Coordinates and Power of Nuclear Explosions by Guards Lt. Col. S. Semenyuta	140
IX. CRITIQUE AND BIBLIOGRAPHY	
A. Glorious Path by Col. A. Kuz'min	142
B. Lively Sprouts of the New by Col. I. Fedoseyev	143
C. Reconnaissance in Mountains by Col. V. Turehenko . . .	145
Available From ACSI I-1614-L ID 2201421	

Industrial Laboratory

*A translation of Zavodskaya Laboratoriya, a publication of the
State Scientific-Technical Committee of the
Council of Ministers of the USSR
(Russian Original Dated August, 1963)*

Vol. 29, No. 8, pp. 967-1108

February, 1964

CONTENTS

	PAGE	RUSS. PAGE
Development of the Electron Microscope	987	899
METHODS OF CHEMICAL ANALYSIS		
The Development of Analytical Chemistry in 1962 (Review). <u>A. K. Babko</u>	989	901
Methods for the Determination of Boron in Steels and Alloys (Review). <u>P. Ya. Yakovlev and G. V. Kosina</u>	988	920
The Determination of Gases in Sheet Molybdenum. <u>Yu. A. Kiyachko, T. A. Ismanova, and B. M. Chistyakova</u>	990	923
The Benzidine Method for Determining Silicon in Certain Silicoorganic Compounds. <u>A. P. Kreshkov, L. V. Myshiyeva, and V. V. Kravtshchikov</u>	992	924
Determination of the Absorptive Capacity of Ion-Exchange Resins by a Gravimetric Method. <u>V. V. Rachinskii and I. V. Kolosov</u>	993	926
The Determination of Nitrogen-Containing Silicoorganic Compounds in Air. <u>F. D. Krivoruchko</u>	995	927
The Polarographic Determination of Lead and Tellurium in Technical Selenium. <u>R. G. Pats, L. N. Vasil'eva, T. V. Zaglodina, and B. D. Shuvalova</u>	997	928
The Determination of Antimony in Lead Filling Paste by Means of Phenylfluorone. <u>B. N. Rozenblyum and Zh. Ya. Pochtman</u>	998	929
The Determination of Chromate and Bichromate when Present Together. <u>Yu. V. Khodakov, T. M. Zhuravleva, and V. V. Mil'chenko</u>	998	939
METHODS OF SPECTRAL ANALYSIS		
Some New Methods of Increasing the Reproducibility and Correctness of the Spectral Determination of the Main Components of Alloys. <u>L. N. Filimonov</u>	1000	930
The Error in Spectral Analysis Associated with Nonlinearity of the Characteristic Curve of the Photographic Plate. <u>M. A. Averbukh</u>	1006	936
The Use of a Cone-Shaped High-Power Arc for the Spectral Analysis of Powder Samples. <u>A. A. Gusei'nikov</u>	1007	937
The Quantitative Determination of Impurities in Chloroform by Means of Infrared Absorption Spectroscopy. <u>V. I. Kolbasov, S. B. Bardenshtein, and R. V. Dzhabatpanyan</u>	1009	938
Determination of Tertiary Amyl Alcohol in a Pentane-Amylene Fraction by Infrared Spectrometry. <u>V. A. Terent'ev and M. A. Shaburov</u>	1011	940
The Technique of Pressing Samples for Obtaining Infrared Spectra. <u>N. I. Makarevich and N. A. Borisevich</u>	1013	941
The Rapid Quantitative Analysis of Solution of Chlorinated Methane Derivatives by Infrared Absorption Spectrometry. <u>N. A. Gozhenko and V. N. Malinko</u>	1015	943

(continued)

Available From ISA

CONTENTS (continued)

	PAGE	RUSS. PAGE
PHYSICAL METHODS OF INVESTIGATION		
A Direct Observation of the Interaction Between the Dislocations and the Particles of the Second Phase. <u>M. P. Usikov and L. M. Uteviskii</u>	1018	944
Electron Microscope Investigation of the Structure of Fe-Cr Base Solid Solutions. <u>A. V. Smirnova</u>	1020	948
Electron-Diffraction and Electron-Microscopic Investigation of the Transition Layer of Tin Plate. <u>G. A. Kokorin</u>	1024	952
The Application of the Method of Thin Metal Foils to the Investigation of the Morphology of Martensite. <u>V. B. Spiridonov, Yu. A. Skakov, and V. N. Iordanskii</u>	1027	955
The Use of Electron Microscopy in Solving Some Problems of Chemical Technology. <u>V. A. Sokol, A. V. Bromberg, A. G. Kasatkina, and E. A. Rif</u>	1028	956
Investigation of the Surface of Porous and Powdered Specimens and of Specimens with a Deep Profile. <u>L. I. Zemlyanova and A. M. Lyapina</u>	1031	960
Investigation of Fibrous Carbon Catalysts Under the Electron Microscope. <u>B. S. Tul'chinskii and Ya. A. Satunovskii</u>	1034	963
Investigation of Orientated Specimens of Argillaceous Minerals Under an Electron Microscope. <u>G. G. Surovnev and E. A. Tkachenko</u>	1036	965
Investigation of Synthetic Polymers and Molecular Crystals by the Negative Contrast Method. <u>E. M. Belavtseva and K. Z. Gumargalieva</u>	1037	966
Application of Electron Microscopy to the Evaluation of the Distribution of Carbon Black in Rubber Mixtures. <u>K. A. Pechkovskaya, I. P. Pavlova, O. A. Sinyaeva, and M. I. Daishevskii</u>	1039	968
Investigation of Polymer-Cement Suspensions Under an Electron Microscope. <u>N. L. Sirotkina and V. L. Smolyanskii</u>	1041	970
Obtaining Thin Aluminum and Aluminum-Alloy Films for Examination Under a Transmitting Electron Microscope. <u>V. B. Spiridonov</u>	1043	972
Obtaining a Structureless Replica for Electron Microscopy. <u>V. A. Marikhin</u>	1044	973
Obtaining Replica by the Simultaneous Evaporation of Carbon and a Shading Substance. <u>S. M. Polyakov and T. S. Zimina</u>	1046	973
Measurement of Magnification of An EM-5 Electron Microscope. <u>G. A. Kokorin and V. I. Lopatin</u>	1046	974
Preparation of Micronets for Electron Microscopy. <u>V. A. Marikhin and L. P. Romankova</u>	1047	975
MECHANICAL METHODS OF INVESTIGATION		
Method of Determination of Yield Strength of Metal at High Temperatures. <u>Ya. M. Oshtrimenko</u>	1048	976
Method of Determination of Plasticity Characteristics without Samples. <u>M. P. Markovets</u>	1050	978
Determination of Ultimate Compressive Strength of Hard Metals. <u>V. I. Tumanov, V. P. Funke, Z. I. Pavlova, and Yu. P. Il'in</u>	1053	981
Testing of Rail Steel for Bearing Strength Under Impact Load. <u>A. D. Konyukhov and V. N. D'yakov</u>	1056	984
The Use of the Cut Pit Method for Measuring Local Wear of Rollers. <u>I. M. Lyubarskii and M. L. Turvskii</u>	1058	986
On the Parameter m of Tensile Curves. <u>L. B. Getsov</u>	1060	988
The Use of Three-Dimensional Sectional Models for the Investigation of the Strength of Rolling-Mill Rolls by the Optical Method. <u>P. I. Polukhin, V. P. Polukhin, Yu. D. Zheleznev, and V. I. Skotupskii</u>	1062	990
The Measurement of Strain on Gauge Lengths of Less than 3 mm. <u>G. M. Kupershiyak-Yuzefovich</u>	1065	993
EQUIPMENT AND TECHNIQUES OF LABORATORY WORK		
Device for Maintaining a Constant Stress in a Specimen Subjected to Uniaxial Tension. <u>E. E. Tomashevskii and A. I. Slutsker</u>	1067	994

(continued)

Available from ISA

CONTENTS (continued)

	PAGE	RUSS. PAGE
A Device for the Thermomechanical Investigation of Polymers. <u>V. D. Gerasimov,</u> <u>G. A. Kuznetsov, and L. N. Fomenko.</u>	1069	996
A Device for the Atomic-Absorption Spectrophotometric Flame Analysis. <u>N. S. Poludkov</u> <u>and S. E. Grinzaid.</u>	1071	998
Attachments to Infrared Spectrometers. <u>E. I. Lebedev, I. I. Reshina, and I. L. Sakin.</u>	1074	1000
On the Analytical Use of a Gas-Discharge Tube Having a Double Hollow Cathode. <u>N. P. Ivanov and E. N. Andrikanis.</u>	1075	1002
On the Use of a Rectified Condensed Spark for the Spectral Analysis of Alloys. <u>Yu. M. Buravlev, M. A. Perepelkina, V. N. Usov, and V. I. Ustinova.</u>	1079	1005
A Technique for Bonding Optical-Crystal Windows to Lamps and Vessels. <u>A. K. Fivel'skaya and S. A. Yakovlev.</u>	1081	1007
A Laboratory High-Frequency Automatic Titrating Device. <u>G. A. Mukhin, M. A. Vekler,</u> <u>and A. I. Boyarinov.</u>	1082	1008
A High-Ohmic Potentiometer and pH-Meter Based on a LP-58 Device, <u>V. G. Mairanovskii.</u>	1084	1010
Metering Device for Dust in a Gaseous Stream. <u>S. S. Yankovskii.</u>	1086	1011
Device for Clearing Openings in Electron Microscope Specimen Screens. <u>V. A. Doris</u> <u>and B. I. Kuznetsov.</u>	1086	1012
Fluoroscope for the Visual Inspection of Chromatographic Separations. <u>A. V. Borovkov.</u>	1087	1012
An Attachment for work with Solutions that are Sensitive to the Influence of Air. <u>A. A. Voskresenskii.</u>	1088	1012
Vacuum Tube Galvanometer for Electrochemical Measurements. <u>A. S. Chagolya</u> <u>and L. A. Parfenov.</u>	1089	1013
A Mortar for Grinding Hard Crystals. <u>A. N. Shteinberg.</u>	1089	1013
Circuit for Measuring the Impedance of an Electrochemical Cell. <u>L. A. Kryuchkov</u> <u>and M. R. Burakov.</u>	1090	1014
An Arrangement for Accurately Measuring the Conductivity of Solutions. <u>B. A. Lopatin</u> <u>and A. V. Gul'in.</u>	1091	1014
Programming Device for Controlling Type EPD Potentiometers. <u>V. I. Kosolapov.</u>	1092	1015
Inductive Balance for Investigating the Thermal Disintegration of Polymers. <u>S. S. Leshchenko, V. L. Karpov, I. K. Karpovich, V. N. Karyshev, and Zh. K. Krumin.</u> . .	1093	1016
IN THE INDUSTRIAL LABORATORIES		
The Laboratory of the Elektrostal' Heavy Engineering Plant Competes for the Title of Collective of Communist Labor. <u>V. A. Skripchenko.</u>	1095	1017
Electron Microscopy in the Laboratory of the "Krasnyi Oktyabr'" Plant. <u>A. P. Olenko</u> <u>and M. I. Ivanenkov.</u>	1096	1018
ORGANIZATION OF LABORATORY WORK AND EXCHANGE OF IDEAS		
Principles of Rational Analytical Control in Industry. <u>A. B. Shaevich, V. M. Solov'ev,</u> <u>and L. I. Topalov.</u>	1097	1019
The Ultrasonic Dispersion of Powdered Materials for Electron Microscope Investigations. <u>E. E. Levin and I. S. Mel'nikova.</u>	1101	1022
REVIEWS AND BIBLIOGRAPHY		
Gas Chromatography. <u>A. A. Zhukhovitskii and N. M. Turkel'taub.</u>	1102	1023
Paper Chromatography. Edited by <u>I. M. Helis and K. Maceka.</u>	1103	1024
Universal Instability Measurer—UIN-1	1105	Back cover
Instrument for the Determination of Resolution, Stimulation Quantum Efficiency of Screens and Cathodoluminophors—PRSEL	1105	Back cover

Available From ISI

JOURNAL OF ANALYTICAL CHEMISTRY

OF THE USSR

A translation of (ZHURNAL ANALITICHESKOI KHIMII)

A publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 18, Number 5

May, 1963

CONTENTS

	P A G E	
	ENG.	RUSS.
Analytical Application of 8-Mercaptoquinoline (Thiooxine) and Its Derivatives. Communication 25. Water Solubility and Extraction Range of 8-Mercaptoquinoline in the System Water-Organic Solvents—Yu. A. Bankovskii, L. M. Chera, and A. F. Ievin'sh	478	555
4-Chlorobenzene-2-Phosphonic Acid- \langle 1-Azo-1'-2-Hydroxynaphthalene-3,6-Disulfonic Acid (Chlorophosphonazo R) As a Reagent for the Photometric Determination of Beryllium—V. F. Luk'yanov, A. M. Lukin, B. M. Knyazeva, and I. D. Kalinina	485	562
Kinetics of the Extraction of Copper with Lead Diethyldithiocarbamate Solution —S. E. Kreimer and A. S. Lomekhov	489	567
A Study of Rhodamine C As a Fluorescent Reagent for Indium—A. K. Babko and Z. I. Chalaya . .	492	570
Antipyrine and Some of Its Derivatives As Analytical Reagents for Tetravalent Cerium. The Synthesis of the Condensation Products of Certain Aldehydes and Antipyrine and Their Oxidation by Tetravalent Cerium Salts—N. A. Kanaev	496	575
A Chronometric Method for Determining Bismuth—M. T. Koslovskii and N. V. Grushina	505	585
Extraction of Chelate Compounds of Plutonium and Other Elements with N-Benzoylphenylhydroxylamine—M. K. Chmutova, O. M. Patukhin, and Yu. A. Zolotov	507	588
A New and Effective Method for Separating and Purifying Protoactinium for Its Subsequent Radiometric Determination—B. F. Myasodov and E. S. Pal'shin	513	596
A Kinetic Method for Determining Traces of Tungsten and Molybdenum—R. P. Pantaler	519	603
Extraction Separation of Rhodium from Iridium, Platinum, and Palladium by Means of Diantiprylpropylmethane—A. I. Busev and V. A. Akimov,	525	610
Extraction Photometric Determination of Boron in Uranium Tetrafluoride—Z. K. Karalova and A. A. Nemodruk	529	615
Mass-Spectrographic Determination of Microimpurities in Solid Materials —M. S. Chupekhin and G. G. Glavin	532	618

(continued)

Available From CB

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
The Application of Zone Refining for Concentrating Impurities During the Spectrographic Analysis of Pure Bismuth—E. B. Konovalov, Sh. I. Peizulaev, G. P. Pinchuk, I. B. Larionova, and L. I. Kondrat'eva	538	624
Spectrographic Determination of Selenium in the Products from Sludge Treatment—I. G. Yudelevich, I. R. Shelpakova, and E. M. Avseiko	546	634
Elemental Organic Analysis by "Wet Oxidation". Communication 7. Determination of Carbon from Organic Materials in Waste Water from Silicoorganic Production—A. P. Terent'ev, B. M. Luskina, and S. V. Syavitsillo	551	639
Improvement of the Method for the Direct Determination of Oxygen in Organic Materials—E. A. Bondarevskaya and M. O. Korshun	555	644
Potentiometric Determination of Formaldehyde and Benzaldehyde by Hypochlorite—P. K. Norsh	560	650
Determination of N-Vinylcarbazole in Its Polymers—Yu. P. Ponomarev, V. N. Dmitrieva, and V. D. Bezuglyi	563	654
BRIEF COMMUNICATIONS		
The Extraction of Protactinium N-Benzoylphenylhydroxylamine—E. S. Pal'shin, B. F. Myasodov, and Yu. P. Novikov	566	657
The Use of Thermometric Peaks for Establishing the End Point During Acid-Base Titration—V. I. Bodayu, I. V. Kozlova, Yu. D. Sister, and Yu. S. Lyalikov	568	659
CRITICISM AND BIBLIOGRAPHY		
"Analysis of the Minerals and Ores of the Rare Elements"—V. R. Sheller and A. R. Powell, Edited by Yu. N. Knipovich and N. P. Popov	571	662
A New Reagent for the Kinetic Determination of Copper	573	664
Conference on Methods of Concentrating Elements for Analytical Purposes	574	664

Available From CB

CONTENTS

	Page	Russian Reference
Degree of Localization of Magnetic Electrons and the Nernst-Ettingshausen Effect in Ferromagnetic Metals E. I. Kondorskii and R. P. Vasil'ova	277	45, 401
Angular Distribution of Photoneutrons from Bi^{208} E. S. Anashkina	279	45, 404
Azimuthal Distribution in Jets Produced by Cosmic-ray Particles in Photographic Emulsions Sh. Abluzhamilov, S. A. Azimov, L. P. Chernova, G. M. Chernov, and V. M. Chudakov	281	45, 407
Investigation of the Magnetization of a Forrite Garnet in Strong Pulsed Magnetic Fields V. E. Rodo and A. V. Vodyanov	286	45, 415
Energy Spectrum of Nuclear-active Particles in Extensive Air Showers Kh. P. Babayann, N. G. Boyadzhyan, N. L. Grigorov, E. A. Mamidzhanyan, Ch. A. Tret'yakova, and V. Ya. Shostoporov	298	45, 418
The Determination of Deuterium Plasma Density by Means of a Tritium Ion Beam B. M. Gokhberg, I. K. Kikoin, A. S. Knyazytov, V. V. Mal'tsov, and G. A. Oiroshchenko	295	45, 428
Effect of the Nucleus on π^0 -Meson Production V. S. Domidov, E. D. Zhizhin, V. G. Kirillov-Ugryumov, A. K. Ponomarev, F. M. Sergeev, and Ya. Ya. Shalimov	301	45, 437
Resonance Scattering by Sn^{116} and Cu^{63} Nuclei of Gamma Rays from Solid and Liquid Sources D. K. Katkov, Yu. K. Shubnyi, Yu. G. Kosyak, and R. B. Bogzhanov	305	45, 443
Measurement of the Resistance of Single Crystals in a Pulsed Magnetic Field N. E. Aleksosovskii and V. S. Egorov	309	45, 448
Decay of Residual Nuclei Produced in the Interaction of 660-MeV Protons with Carbon Nuclei A. P. Zhdanov and P. I. Fedotov	313	45, 455
Lifetime of the 0.570 MeV Level in the Te^{122} Nucleus Yu. K. Shubnyi	316	45, 460
An Investigation of Gamma Rays from Cs^{140} E. A. Zherobin, A. I. Krylov, V. I. Polikarpov, and N. N. Yuzvuk	319	45, 464
Observation of $K_S^0 \rightarrow \pi^+ + \pi^- + \pi^0$ Decays M. Kh. Antkina, O. N. Gogitidze, M. S. Zhuravlova, A. A. Kozlov, D. M. Koliyarevskii, Z. Sh. Mandzhavidze, A. N. Mostvirishvili, D. Nongu, E. O. Okonov, N. I. Petrov, A. M. Rozanova, V. A. Rusakov, G. G. Takhtamyshev, I. V. Chkhaldze, Wu Tsun-fan, and A. A. Tsarelov	323	45, 469
Measurement of the Spin Correlation Coefficient in Elastic 315 MeV Proton-proton Scattering I. M. Vasil'evskii, V. V. Vishnyakov, E. Ilonaku, and A. A. Tyapkin	327	45, 474
Investigation of the Magnetostriiction of the Metamagnetic Alloy MnAu V. I. Nikolayev, A. I. Kurchevskii, V. G. Tainov, and B. V. Vasil'ev	331	45, 480
The Equilibrium Diagram for the $\text{Hf}^{180}\text{-Ho}^{164}$ Liquid-crystal System N. G. Doroznyak, I. V. Bogoyavlenskii, and B. N. Esel'son	336	45, 486
Ionization of Gases by Fast Helium Atoms and Singly-charged Helium Ions E. S. Solov'ev, R. N. Il'in, V. A. Oparin, and N. V. Fedorenko	342	45, 496
Modulation of Scattered Light by Parametric Resonance E. B. Aleksandrov, O. V. Konstantinov, V. I. Porol', and V. A. Khodovoi	346	45, 503
On the Theory of the Nernst-Ettingshausen Effect in Ferromagnetic Metals E. I. Kondorskii	351	45, 511
The Dielectric Constant of Crystals from the Quantum Viewpoint G. M. Gandel'man and V. M. Ermachenko	358	45, 522
Theory of Photointegration of Light Nuclei With Emission of Fast Deuterons V. V. Balashov and V. N. Fetisov	365	45, 532
On a Certain Experimental Possibility of Studying the Mechanism of the (t, d) Reaction V. V. Balashov	371	45, 541
Regge Poles and the Asymptotic Behavior of the Cross Sections for Some Weak-Interaction Processes Nguyen Van Hieu	374	45, 544
Some Neutrino Pair Production Processes in Stars V. S. Pinaev	377	45, 548
Restrictions on the Values of the Coupling Constants and the Vertex Part for the Interaction of Three Particles in Quantum Field Theory. II. B. V. Geshkenbein and B. L. Ioffe	382	45, 555
Fluctuation of Number of Particles in Electron-photon Showers Produced by High-energy Muons E. V. Gedalin and N. M. Gerasimova	389	45, 565
Thermal EMF Due to Electron magnon Scattering in Ferromagnetic Metals L. E. Gurevich and G. M. Nedlin	396	45, 576
On the Theory of Gigantic Oscillations in Ultrasonic Absorption S. V. Gantsevich and V. L. Gurevich	403	45, 587
Polarization Phenomena in Scattering of π -Mesons on Nucleons and the Fermion Regge Poles M. P. Rekalo	409	45, 595
Real Part of the Amplitude for Elastic pp Forward Scattering L. S. Azhgirei and S. B. Nurushov	412	45, 600
The Theory of Spiral Amplitudes Ya. A. Smorodinskii	415	45, 604
Theory of Resonance Excitation of Weakly Decaying Electromagnetic Waves in Metals E. A. Kaner and V. G. Skobov	419	45, 610

(continued)

CONTENTS-continued

	Page	Russian Reference
The Hypothesis of Regge Poles in Quantum Field Theory and the Threshold Singularities of Inelastic Processes	433	45, 631
Phase Shift Analysis of Nucleon-nucleon Scattering at 147 MeV	437	45, 637
Emission of Radio Waves Upon Modulation of an Intense Beam of Light in a Medium	441	45, 643
Nonlinear Theory of the Drift Instability of an Inhomogeneous Plasma in a Magnetic Field	444	45, 647
Determination of Correlative Functions for Dense Gases and Liquids I. System of Rigid Spheres	450	45, 656
Phase-shift Analysis of Elastic pp Scattering at 860 MeV with Account of Relativistic Effects	456	45, 664
Photoproduction of π Mesons on Nucleons and Fermion Regge Poles	462	45, 672
Comparison of Elastic πp and pp Scattering on the Basis of a Model with Three Regge Poles	467	45, 679
Open Resonators with Spherical Mirrors	471	45, 684
Slow π^+ -Meson Capture by Light Nuclei in the Correlational Nuclear Model	480	45, 698
Effect of External Fields on Angular Correlations in Consecutive Electromagnetic Transitions	485	45, 706
On the Theory of the Neutral Vector Field with Spin 1	487	45, 709
Radiative Capture of μ^- Mesons in Hydrogen	490	45, 713
Excitons in Thin Crystals	496	45, 723
Effect of Magnetic Resonance Saturation on Cross Relaxation	500	45, 730
The Born-Oppenheimer Method in the Theory of Atomic Collisions	503	45, 734
Factorization at the Regge Pole of Scattering Amplitudes of Particles with Spin	509	45, 742
Absence of Superconductivity in Metals of the Bismuth Type	512	45, 748
Anharmonicity of High Order on Transport Processes in Solids	515	45, 750
Stability of the Laminar Flow of Thin Liquid Layers	519	45, 755
An Investigation of the S Matrix in the Complex Angular Momentum Plane in the Quasi-classical Case	522	45, 760
Temperature Dependence of the Shape of the Domain Wall in Ferromagnetics and Ferroelectrics	530	45, 772
Resonance Reflection of Gamma Rays from a Crystal Surface	536	45, 780
Some Consequences of the Long Lifetime of η and ω Mesons	538	45, 783
Range Straggling of Charged Particles in Various Substances	540	45, 787
Analytic Properties of the Forward Scattering Amplitude in the Nonlocal Theory	542	45, 791
Depolarization of Relativistic Electrons in a Magnetic Field	546	45, 797
Regge Poles in the Nonrelativistic Problem with Nonlocal and Singular Interaction	548	45, 800

LETTERS TO THE EDITOR

Reduction of the Penetrating Capacity of Intense Light Due to Scattering on Refracting Halos of Optical Disturbances of the Medium Near Inhomogeneities	555	45, 810
Neutron Diffraction Investigations of Solid Oxygen	556	45, 812
Ionization of Positive Ions by Electrons	558	45, 815
One Possibility of Plasma Instability	559	45, 816
Track Spark Chamber	561	45, 818
Anomalous Behavior of Specific Heat of Crystals with Heavy Impurity Atoms	562	45, 819
New Method for the Determination of Anisotropy Relaxation Time and Modulation of Light in a Kerr Cell	564	45, 822
Comparison of the Absolute Measurements of the Energy in a Bremsstrahlung Beam Performed in the Laboratories of Different Countries	565	45, 824
Standing Magnetoplasma Waves in Bismuth, Connected with Hybrid Resonance	566	45, 826
Measurement of the Specific Heat C_p of Oxygen Near the Critical Point	568	45, 828

Содержание журнала опубликовано в журнале
 "ЖУРНАЛ ЭКСПЕРИМЕНТАЛЬНОЙ И ТЕОРЕТИЧЕСКОЙ ФИЗИКИ"
 ТОМ XXV, № 5, 1953.

JOURNAL OF GENERAL CHEMISTRY OF THE USSR

A translation of ZHURNAL OBSHCHEI KHIMII

A publication of the Academy of Sciences of the USSR

* 1963 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 33, Number 3

March, 1963

CONTENTS

	P A G E	E
	ENG.	RUSS.
Boris Vladimirovich Pitayn (On His Sixtieth Birthday) — L. M. Volshtein	707	717
The Infrared Spectra of Molecular Compounds of Indium Chloride with Nitrogen- Containing Organic Substances — O. A. Osipov and I. M. Semenova	709	720
The Effect of Temperature on Change of Entropy in Chemical Reactions — V. A. Kireev	714	724
The Polarographic Properties of Diquaternary Ammonium Derivatives of Ethylenediamine with Activated C-N Bonds — A. I. Lopushanskii, V. P. Denisenko, and M. V. Pokhtunkaya	717	728
The Cathode Hydrodimerization of Esters of α , β -Unsaturated Acids — A. P. Tomilov and L. V. Kaabak	720	731
Kinetics of the Diene Synthesis with Participation of Azodiaroyls — N. I. Vasil'ev, I. S. Levina, Yu. S. Shabarov, and R. Ya. Levina	723	734
The Absorption Spectra of 3-Keto-2,3-Dihydrothionaphthene and Its Derivatives. V. The Effect of Ortho-Substituents on the Absorption Spectra and on Stability to Action of Light of Substituents of 2-Benzylidene-Keto-2,3-Dihydrothionaphthene — M. A. Mostoslavskii and V. A. Ismail'skii	727	739
The Synthesis of 1,1-Bis(β -Hydroxyethyl) Thiosemicarbazide — I. V. Podgornaya and I. Ya. Postovskii	732	744
Diazonium Salts of Aryl Sulfonic Acids. Infrared Spectra in the Region of Valence Oscillation of the SO_2 Group — V. V. Kozlov and Yu. A. Kolesnik	736	748
The Chemical Structure and Biological Activity in a Series of Amides of Some Carboxylic Acids — P. A. Petionin and M. S. Khodyreva	743	755
Complex Compounds of Acetylene with $\text{CuCl-NH}_4\text{Cl}$ I — A. L. Klebanskii, I. M. Dolgopolskii, and Z. F. Dobler	749	761
The Effect of Various Factors on the Formation of Complex Compounds of Acetylene with $\text{CuCl-NH}_4\text{Cl}$ and the Properties of the Latter. II. — A. L. Klebanskii, I. M. Dolgopolskii, and Z. F. Dobler	756	768
Available From Consultants Bureau		(continued)

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
The Direction of the Addition Reaction of Hydrogen Chloride to Vinylacetylene — I. M. Dolgopolskii and Yu. V. Trenke	761	773
Potential Antimetabolites. V. Peptides of β -(4-Hydroxy-6-Methylpyrimidyl-2) Alanine — Yu. P. Shvachkin and L. A. Syrtsova	766	778
Studies in the Field of Conjugated Systems. CLXIX. Addition of Dialkyl Phosphorus Acid Chlorides to Diene Hydrocarbons — N. A. Razumova and A. A. Petrov	771	783
Addition of Benzonitrile Oxide to Unsaturated Compounds. III. Reaction of Benzonitrile Oxide with Vinylacetylenes Substituted on the Vinyl Group in the β -Position — V. N. Chistokietov, A. T. Troshchenko, and A. A. Petrov	777	789
Studies in the Series of Pyrane, its Analogs, and Related Compounds. II. Dialkylamino- methylated Esculetin and 4-Methyl Esculetin — V. A. Zagorevskii and D. A. Zykov	781	793
Polymethine Dyes Containing the Ferrocene Residue. I. Synthesis of Ferrocenyl Benzthiazoles and the Preparation from them of Thiocyanines — I. K. Ushenko, K. D. Zhikhareva, and F. Z. Rodova	785	798
3,6-Endoxocyclohexenes and Cyclohexanes. VIII. The Wagner-Meerwein Rear- rangement in Halogenated Derivatives of 3,6-Endoxocyclohexene — Yu. K. Yur'ev and N. S. Zefirov	791	804
3,6-Endoxocyclohexenes and Cyclohexanes. IX. Synthesis of Amino Derivatives of the 3,6-Endoxocyclohexane Series — Yu. K. Yur'ev, N. S. Zefirov, and R. A. Ivanova	799	813
3,6-Endoxocyclohexanes and Cyclohexenes. X. Acetoxymethyl Treatment of the Dimethyl Ester of 3,6-Endoxo- Δ^4 -Tetrahydrophthalic Acid — Yu. K. Yur'ev, N. S. Zefirov, and L. P. Shalderova	803	818
Mannich Bases in the Series of Derivatives of 6-Hydroxybenzofuran — A. N. Grinev and N. K. Venevtseva	806	820
Studies in the Pyridylthiazolymethane Series. II. Synthesis and Properties of 2-Pyridyl- 2'-Thiazolylcarbinols — V. G. Ermolaeva, I. S. Musatova, and M. N. Shchukina	811	825
Vinyl Formate and Ethylidene Difomate — E. N. Rostovskii and A. N. Burinova	814	829
Glycol Ethers and their Derivatives. L. Synthesis of Alkoxyethyl Ethers of 1-Chloro- 3-Alkoxy-2-Propanol — Shamkhal Mamedov and F. Gadzhisade	817	831
Glycol Ethers and their Derivatives. LI. Synthesis of Alkoxy Derivatives of Methyl Ethers of o- and p-Methylbenzyl Alcohols — Shamkhal Mamedov, E. G. Dzhangupova, and M. A. Avanesyan	822	836
Glycol Ethers and their Derivatives. LII. Synthesis of Alkoxy Derivatives of Methyl Ethers of 1,2-Cyclohexanediol — Shamkhal Mamedov and I. L. Nisler	827	841
Glycol Ethers and their Derivatives. LIII. Ethers of Oxydimethylene Glycol — Shamkhal Mamedov and T. N. Dzhalilov	832	848
Autooxidation of Phenylcyclohexene — G. A. Razuvaev and B. G. Zateev	837	861
Stereochemical Studies. XIV. Optically Active Aryl β -Aminovinyl Ketones and their Tautomerism — V. M. Potapov, F. A. Trofimov, and A. P. Terent'ev	840	863
Bis(β -Chloroethyl) Amines — Derivatives of Urea and Thiourea — A. Ya. Berlin and I. S. Levi	846	860
Alkylation of Chloroaminopyridines. II — B. I. Mikhant'ev and E. I. Fedorov	851	866
Character of the Conjugation in Esters of Azodicarboxylic Acid — A. P. Tomilov, I. G. Sevast'yanova and S. S. Dubov	853	866
Reactions of Hydrazine Derivatives. XXXVII. Synthesis of Alkylhydrazines and Pyrazole Esters of Dimethylcarbamic Acid — A. N. Kost and R. S. Sagitullin	855	867
Integrated and Peak Intensity of the Stretching Vibration Band of the P=S Bond in Esters of Dithiophosphoric Acid and Some Other Phosphorus Compounds — A. F. Vasil'ev	861	874
Available From Consultants Bureau		

(continued)

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
Absorption Spectra and Halochromism of Furan Analogs of Methoxychalcones and their Vinyls - V. F. Lavrushin, S. V. Tsukerman, and A. I. Artemenko	865	878
Initiation of the Profound Chlorination of Butane and its Chloro Derivatives Using Butylene and Butadiene - L. M. Kogan and N. P. Ignatova	870	883
Reaction of Nitrosyl Chloride with Unsaturated Hydrocarbons VII. Conversion of the Nitroschlorides of Olefins by Treatment with Hydrogen Chloride to the Oximes of α -Chloroaldehydes and α -Chloroketones - K. A. Ogioblin, V. P. Semenov, and V. I. Skoblikova	875	888
Synthesis of Dialkylphosphinites of 1,2 : 5,6-Diisopropylidene-glucose and their Conversion to 6-Halodesoxyglucose - K. A. Petrov, É. E. Nifant'ev and A. A. Shchegolev	882	896
Transesterification of Neutral Phosphites and Phosphinites - K. A. Petrov, É. E. Nifant'ev, A. A. Shchegolev, M. M. Butilov, and L. F. Rebus	885	899
Reactions of Aromatic Nitro Compounds XV. Transesterification of Alkyl Ethers of Nitronaphthols - S. S. Gitis and A. I. Glaz	888	902
Synthesis of Organo-(2-Chloroethoxy)-Silanes - V. B. Losev and G. Ye. Fridman	891	905
Synthesis of Some Substituted Azo Derivatives of Benzene. II - I. Kh. Fel'dman and Ch. S. Frankovskii	893	906
Thiazolidine-4-Carboxylic Acid and its Derivatives. X. Reaction of 4-Chloro- and 4-Aminomethylene-2-Phenyl-5-Oxazolones - I. T. Strukov and Yu. V. Zhdanovich	897	910
Monocholine Esters of Polymethylenedicarbanic Acids - G. G. Tsybayeva	903	917
Arylsulfonyltrifluoromethylsulfonylmethanes - L. M. Yagupol'skii and N. V. Kondratenko	906	920
A Study of the Molecular Compounds of Benzoic Acid with Amines - E. N. Gur'yanova and I. G. Beskina	914	928
Vinyl Monomers Based on Dicarboxylic Acids. III. Vinyl Alkyl Esters of Glutaric Acid. Vinyl Cyclohexyl and Vinyl Benzyl Esters of Succinic, Glutaric, and Adipic Acids. - G. N. Freidlin, S. M. Zhenodarova, A. P. Chukur, and N. V. Fomina	919	934
Derivatives of 1,3-Diethylbenzene-4-Sulfonic Acid - S. I. Gennistov and A. I. Danilevskaya	923	938
Chemistry of 1,4-Dihydroanthraquinone. II. Reaction of 1,4-Dihydro-1-Methylantraquinone with Nitric Acid - V. I. Gudzenko	925	940
Substituted Hydrazides of Hydroxycarboxylic Acids. VIII. p-Tolylhydrazides of Diaryl- and Dialkylglycolic Acids - I. S. Berdinskii and I. D. Yatskova	928	943
A Study of the Mobility of the Hydrogen Atoms of the Methylene Groups of Anhydro-2-Benzimidazolylmercaptosuccinic and - β -Mercaptopropionic Acids - I. I. Chizhevskaya, I. I. Gapanovich, and L. V. Poznyak	931	945
Investigation in the Field of the Chemistry of Benzo-2,1,3-Thiadiazole. XVII. Halogenation of Benzo-2,1,3-Thiadiazole and its Halogen Derivatives - V. G. Petin, A. M. Khaletskii, and V. A. Sergeev	935	949
A Study of the Infrared Spectra of a Series of Coumarins and Eurocoumarins - M. E. Petel'son	938	952
2-Mercaptobenzothiazole in the Mannich Reaction. III. The Mechanism of the Formation of (2-Thionobenzothiazol-3-yl)-(Benzothiazol-2-yl)mercapto-Methane - M. P. Kolosova and V. I. Stavrovskaya	944	955
The Synthesis of Bi-A ² -Pyrazolonyls - E. E. Baroni and K. A. Kovyryzina	947	959
New Synthesis of Dyes of the Triazine Series. I. Vat Dyes - V. A. Titkov and I. D. Pletnev	951	963
Intermediates and Dyes Containing an Ethylenimine Residue. I - Zhen' Go-du		

(continued)

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
and L. S. Štros	954	966
Investigations in the Field of Thiosulfonic Acids, VII. Alkyl Ethers of Thiosulfonic Acids, Derivatives of Naphthalene and Phenanthrene — B. G. Boldyrev and L. N. Yulkevich	958	969
Derivatives of Benz-(c, d)-Indoline, VII. Transformations of 1-Arylamino benz-(c, d)-Indoline-2-Ones: Opening of the Heteroring and Rearrangement of Pericarboxylic Acids of Hydrazo Compounds — N. S. Dokunikhin and G. I. Bystritskii	962	974
The Influence of Substituents on the Formation of the Condensed System Tetrazolo-(1, 5-b)-Benzothiazole — L. F. Avramenko, V. Ya. Pochinok, and Yu. S. Rozum	968	980
Dipole Moments of Some Substituted Diphenylamines — A. E. Lutskii, L. A. Kochergina, and P. M. Bugai	973	985
The Replacement of Halogen in Azo Compounds, XVII. Reactions of Polyhaloazo Compounds. Utilisation of the Reaction for Establishment of the Structure of Some Aromatic Halogenated Compounds — M. A. Andreeva, N. N. Vorozhtov, Jr., N. I. Kriahechkovskaya, B. I. Stepanov, and G. G. Yakobson	976	988
The Migration of the Acyl Group in N-Acyl Derivatives of 1, 4-Aminoalcohols — D. V. Ioffe and S. G. Kuznetsov	979	991
Aromatic Hydrocarbons XXVII. 2-p-Phenoxyphenyl-1, 2, 3, 8-Tetrahydrobenzoic Acids in the Synthesis of 2-Phenoxyfluorenes — V. R. Skvarchenko, D. Ts. Tsybikova, and R. Ya. Levina	983	996
Diazonium Salts of Arylsulfonic Acids, Infrared Spectra in the 2100-2300 cm ⁻¹ Region — B. S. Kikot' and Yu. A. Koletnik	986	997
Investigations on Indazole Derivatives I. Reaction of 1-Benzylindazole with Sodium Amide — A. M. Simonov, B. K. Maruokha, and F. T. Posharskii	990	1001
Direct N-Arylation of Five-Membered Nitrogen Heterocycles — A. F. Posharskii, B. K. Maruokha, and A. M. Simonov	994	1005
Investigations on Benzimidazole Derivatives, XIII. Transformations of 2-Formyl-1-Methylbenzimidazole — D. D. Dalgatov and A. M. Simonov	998	1007
Styryldialkylphosphines and their Oxides — G. K. Fedorova and A. V. Kisanov	1000	1011
Alkylation of Phosphorus Diodide by Higher Alkyl Iodides — N. G. Feshchenko, T. I. Alekseeva, and A. V. Kisanov	1002	1013
Diphenylchlorophosphazacyls — I. N. Zlmutova and A. V. Kisanov	1004	1015
Phenyldialkyl- and Styryldialkylphosphazacyls — G. I. Derkach, G. K. Fedorova, and E. S. Gubnitskaya	1006	1017
The Chemistry of Polymyxin M, VI. Synthesis of Peptides of L- α , γ -Diaminobutyric Acid — N. V. Fedoseeva, A. B. Silaev, and L. I. Andreeva	1009	1019
The Reaction of Organic Thiocyanates with Water in Presence of Hydrogen Chloride — E. N. Zil'berman and A. Ya. Lazaris	1012	1023
S-Derivatives of Thiourea, VII. Reaction of Thiourea with N-Isopropyl-2, 3-Dibromopropylamine — V. M. Fedoseev, V. V. Ivanenkov, and A. B. Silaev	1015	1026
Studies of Compounds Entering into the Composition of Essential Oils, V. Addition of Alcohols to Sabinene — M. I. Goryaev and G. A. Tolstikov	1019	1031
Synthesis on the Basis of Anabasine, XVI. Reaction of N-Methylanabasine N-Oxides with Methylmagnesium Iodide — O. S. Otrushchenko, A. S. Sadykov, M. U. Utebaev, and A. I. Isametova	1025	1038
DISCUSSION		
On the 2-Bromoethyl Ester of Benzoic Acid — D. V. Ioffe and S. G. Kuznetsov	1028	1041
Available From Consultants Bureau		(continued)

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
LETTERS TO THE EDITOR		
The Reducing Properties of Triethylstannane — N. S. Vyazankin, G. A. Razuvaev, and S. P. Korneva	1029	1041
The Alkenylation of Phenol with Butadiene on KU-2 Ion-Exchange Resin — V. I. Isagulyants and V. P. Evstaf'ev	1030	1042
2-Vinylfuran Oxide — K. Yu. Novitskii, A. F. Oleinik, and Yu. K. Yur'ev	1031	1043
Synthesis of the 1, 3, 5, 7-Tetraketo-S-Hydrindacene System — O. Neiland and M. Vavere . .	1032	1044
Nucleophilic Additions to Alkynylphosphonic Esters — A. N. Pudovik, N. G. Khusainova, and I. M. Aladzheva	1034	1045
Isomeric Di-, Tri-, and Tetra-Pyrroldyl Derivatives of Phosphonitric Chloride Trimer — A. A. Kropacheva and N. M. Kashnikova	1036	1046
The Retropinacoline Rearrangement During the Dehydration of Tertiary Neopentyl Acetylenic Alcohols — Yu. P. Artsybasheva and I. A. Favorskaya	1037	1047
Available From Consultants Bureau		

JOURNAL OF GENERAL CHEMISTRY OF THE USSR

A translation of ZHURNAL OBSHCHEI KHIMII

A publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 33, Number 4

April, 1963

CONTENTS

	P A G E	R U S S.
	ENG.	RUSS.
Preparation of Iridium Carbonyls—N. S. Imyanitov and D. M. Rudkovskii	1041	1053
Heats of Formation of Some Boron-Containing Compounds in the Liquid Phase —P. G. Maslov	1043	1054
Investigation of Complex Formation in Dilute Solutions by the Method of Molecular Polarizations—I. K. Shelomov, O. A. Olsopov, and O. B. Kashirenin	1045	1058
Kinetics of the Reaction of Diethylamine with Arylsulfochlorides in Benzene Solution —L. M. Litvinenko and A. F. Popov	1048	1059
Aromatic Hydrocarbons. XXVIII. Thermal Aromatization of 1,2,3,6-Tetrahydrobenzole Acids to Benzene and Alkylbenzenes—V. R. Skvarenko, D. T. Tsybikova, and R. Ya. Levina	1057	1069
Synthesis and Isomerization of 4-Chlorobutadiene-1,2—I. M. Dolgopolskii, Yu. V. Trenka, and M. Kh. Blyumental'	1059	1071
The Influence of the Nature of the M ⁺ Cations in MCl on the Composition of Complex Compounds of Acetylene with CuCl-MCl, III. —I. M. Dolgopolskii, A. L. Kleban'skii, and Z. F. Dobler	1062	1074
On Complex Compounds of Vinylacetylene with CuCl-NH ₄ Cl, IV. —A. L. Kleban'skii, I. M. Dolgopolskii, and Z. F. Dobler	1064	1077
Catalytic Condensation of Acetylene with Aromatic Amines. XXIX. The Problem of the Reaction Mechanism—N. S. Koslov and L. Yu. Pinegina	1066	1079
Orientation During Substitution in the Aromatic Ring. X. Sulfonation of Toluene at Low Temperatures—A. A. Spryskov and B. G. Gnedin	1069	1082
Alkylation of Grignard Reagent by Allyl and Propargyl Benzenesulfonates—M. S. Malinovskii . and O. A. Prib	1073	1086
Investigations of Rhodamine Dyes and Related Compounds. VII. 8-Phenylethylrhodamines —I. S. Ioffe and M. Z. Zal'manovich	1076	1089
Reaction of Ethyl Esters of α -Halocinnamic Acids with Hydrazine Hydrate—V. F. Martynov and I. B. Belov	1079	1092

Available from Consultants Bureau

(continued)

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
The Chemistry of 2,1,3-Thiodiazole. XVIII. Esters and Amides of 5,7-Dihalobenzo-2,1,3-Thiodiazole-4-Hydroxyacetic Acids—V. G. Pesin, A. M. Khaletskii, and I. A. Loumanenko	1082	1098
The Chemistry of 2,1,3-Thio- and Selenodiazoles. XIX. Synthesis of 2-Methylthiazolo-(5,4-g)- and 2-Methylthiazolo-(4,5-g)-Benzo-2',1',3'-Thiodiazoles and Their Selenium Analogs—V. G. Pesin, A. M. Khaletskii, and L. V. Zolotova-Zolotukhina. 1086	1101	1101
Sulfonic Esters of Sterols and Their Transformations. II. The Reactivity of Salts of Sulfonic Esters of β -Sitosterols—A. M. Khaletskii and M. V. Vasil'eva	1089	1104
Reactions of Ketene with Nitrogen-Containing Bases. XIII. Chloroacetylation of Secondary Aromatic Amines and Some Hydrazines—Yu. V. Svetkin and A. N. Mjnilbaeva	1092	1108
Investigations on Conjugated Systems. CLXX. Chloroarylation of Divinylacetylene and Its Homologs—Yu. I. Kharuze and A. A. Petrov	1095	1111
Complete Synthesis of the Ethyl Ester of Hicosatetraen-5,8,11,14-Oic Acid (Arachidonic Acid)—Yu. B. Pyanova, G. I. Myagkova, I. K. Sarycheva, and N. A. Preobrazhenskii	1103	1120
The Condensation of β -Substituted Glutaric Esters with Tryptamine—É. A. Markaryan, R. P. Evstigneeva, and N. A. Preobrazhenskii	1106	1123
The Relation Between Structure and Antituberculosis Action of Some Derivatives of α -Naphthoquinone. VI. α -Naphthoquinone Imine—I. Oeriu and M. Krecha	1110	1127
Studies on Furan Compounds. XXI. The Synthesis of Some Diamines of the Furan and Tetrahydrofuran Series—A. A. Ponomarev, I. M. Skvortsov, and N. P. Maslennikova	1113	1130
The Preparation of α -Monobromomethyl Aryl Ketones by Bromination of Methyl Aryl Ketones in Dioxane—M. I. Shevchuk and A. V. Dombrovskii	1118	1135
The Reaction of Hydroxy and Methoxy Derivatives of Methyl Triphenyl Methane with Acids—V. F. Lavrushin and Z. N. Tarakhno	1120	1137
The Preparation of Hydroaromatic Hydrocarbons by Pyrolysis of Acetates of Secondary Alcohols Obtained from the Condensation Products of Isoprene with Crotonic Aldehyde—N. P. Sopov and M. L. Kovner	1124	1142
Studies in the Furan Series. XXV. Oxidative Splitting of 2,5-Disubstituted Furans—K. Yu. Novitskii, V. P. Volkov, Yu. M. Il'ina, and Yu. K. Yur'ev	1128	1145
Studies in the Furan Series. XXVI. The Proportions of Diene Synthesis and Substituent Addition Reactions in the Furan Series—Yu. K. Yur'ev, N. S. Zefirov, and A. A. Shtelman	1132	1150
The Chemistry of Selenophene. XLIV. Bis- β -Diketones of the Selenophene Series—Yu. K. Yur'ev, N. N. Magdesieva, and V. V. Titov	1138	1156
Studies in the Field of Divinylacetylene and Its Halogen Derivatives. XIII. The Adduct of Cis-2,3,4,5-Tetrachloro-1,3,5-Hexatriene with Methylvinylketone, Its Sulfone, and Their Reactions—A. N. Akopyan and V. S. Aslamazyan	1141	1160
The Reaction of tert-Butylacetylene with Lower Saturated Monobasic Acids—A. N. Orlova	1145	1164
Studies of Glycol Ethers and Their Derivatives. LIV. Alkoxyethyl Ethers of 2,3-Butandiol—Shamkhal Mamedov, Yu. Pokonova, and A. Rzaev	1147	1166
Studies of Glycol Ethers and Their Derivatives. LV. Alkoxyethyl Ethers of α -Phenylethyl Alcohol—Shamkhal Mamedov, D. N. Khydyrov, and Z. Seid-Kzaeva	1152	1171
The Reactions of Aryl Dichlorophosphines with Cyclic Oxides. VI. The Arbuzov Rearrangement of Di- β - β' -Chloroethyl Esters of Phenyl and Chlorophenylphosphonic Acids—E. L. Gefter and I. A. Rogacheva	1157	1177
Available From Consultants Bureau		(continued)

CONTENTS (continued)

	P	A	G	E
	ENG.			RUSS.
The Use of Nuclear Magnetic Resonance in Studying the Allyl Rearrangement of 3-Hydroxy-3-Vinylquinuclidine—M. V. Rubtsov, L. N. Yakhontov, and L. I. Mastafanova	1160			1180
Ethylene- α,β -Bis(Phenylethylarsine) and Its Derivatives. Gil'm Kamal and Yu. F. Gattlov	1167			1189
Studies in the Isoxazole Series, XIV. Bromination of the Side Chain in Methylisoxazoles—S. D. Sokolov and N. K. Kochetkov	1170			1192
Studies in the Isoxazole Series, XV. Magnesium Organic Syntheses in the Isoxazole Series—N. K. Kochetkov and S. D. Sokolov	1174			1196
Para-Anisyl Derivatives of the Class $ArPbX_3$ —V. I. Lodochnikova, E. M. Panov, and K. A. Kocheshkov	1177			1199
2-Phenylated Indolizenes—E. A. Kochetkova	1179			1201
The Reduction of Pyridazinones and Phthalazones by Lithium Aluminum Hydride—Yu. S. Shabarov, N. I. Vasil'ev, N. K. Mamaeva, and R. Ya. Levina	1182			1206
The Absorption Spectra and Structure of Ketone Acids in Solution—I. S. Trubnikov, R. B. Tuplinskaya, Yu. A. Pentin, N. P. Shuherina, and R. Ya. Levina	1186			1210
Substituted Hydrazides of Hydroxycarboxylic Acids. VI. Ultraviolet and Infrared Spectra of Arylhydrazides of Diaralkylglycolic Acids—I. S. Berdinski	1190			1214
Substituted Hydrazides of Hydroxycarboxylic Acids. IX. Unsymmetrical Phenylmethylhydrazides of Diaralkylglycolic Acids—I. S. Berdinski	1194			1219
Tertiary Amines and Quaternary Salts Based on 4-Chloro-1-Aryl-2-Butenes, and Secondary and Tertiary Heterocyclic Nitrogenous Bases—K. G. Zolotukhina, N. I. Ganushehak, M. M. Yukhomenko, and A. V. Dombrovskii	1197			1222
Alkylation of Guanidine and Its Substituted Derivatives. I. Alkylation by Isopropyl and Cyclohexyl Alcohols—S. I. Burmistrov and Yu. V. Sukhoruchkin	1202			1227
Hydrazides and Acyl Derivatives of Hydrazides of Methacrylic and Isobutyric Acids—O. P. Shvaika and Yu. I. Makarenko	1207			1233
Anomalous Alkylation Reactions of α -Aminopyridine—P. F. Butskus, G. I. Denis, and N. V. Ragutane	1210			1236
Two Products of the Aminomethylation of Cyclohexyl Methyl Ketone—E. M. Cherkasova, G. S. Erkomashvili, and L. D. Miroshnichenko	1217			1244
Properties of Amides of Phosphoric Acid. VI. Synthesis of 1,2,5-Trimethylpiperid-4-YL Esters of Phosphoric Acid. The Phosphorus Analogue of "Promedole"—K. A. Petrov, V. P. Ivdakov, and L. I. Mizrakhi	1219			1246
Action of Raney Nickel on Organosilicon Derivatives of Thiophene—P. A. Konstantinov and R. I. Shupik	1223			1251
Spectra and Halochromism of Mononitro Derivatives of Thiophene Analogs of Chalcone and Dibenzalacetone—S. V. Tsukerman, V. M. Nikitchenko, and V. F. Lavrushin	1227			1255
Reactions of Magnesium Amines. X. The Magnesium Amine Method of Obtaining Arylamides of Aminoacids—P. A. Petyunin, Yu. V. Kozhevnikov, and L. A. Tetyueva	1232			1261
Synthesis of Aroylmethylenetriphenylphosphoranes—A. V. Dombrovskii and M. I. Shevchuk	1235			1263
Synthesis of Esters and Other Derivatives of Carboxylic Acids under Acid Catalysis. Conditions from Carbon Monoxide, Olefins, and Acylating Compounds. IX. Synthesis of Carboxylic Acids and Their Esters from Saturated C_3-C_{18} Alcohols—K. V. Puzitkii, Ya. T. Eidus, K. G. Ryabova, and I. V. Guseva	1240			1269
Aromatic Nucleophilic Substitution. I. Amination of Polychlorobenzenes—G. G. Yakobson, L. S. Kobrina, T. D. Rubina, and N. N. Vorozhtsov, Jr.	1244			1273
Reaction of Phenylsodium with Quinoline and Quinaldine—B. A. Tenov and S. E. Panchenko	1248			1277

Available from Consultants Bureau

(continued)

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
The Kinetics and Catalysis of Esterification of Phenol with Phosphorus Oxychloride —L. L. Shmidt, É. A. Talis, and É. É. Iokhannes	1251	1280
The Reaction of 1,3-Dichlorobut-2-Ene with α -Aminoalcohols—K. D. Petrov and O. P. Blinkova.	1256	1285
Reaction of Ketene with Nitrogen Containing Bases. XIV. Chloroacetylation of Primary Aromatic Amines—Yu. V. Svetkin and A. N. Minlibaeva	1258	1287
Investigations of Organosilicon Compounds. II. Compounds Containing Alkoxyphenyl Radicals—I. I. Lapkin and T. N. Povarnitina.	1260	1289
Synthesis of Polysilazanes from Methylvinyl(allyl)dichlorosilanes—D. Ya. Zhinkin, V. N. Markova, and M. V. Sobolevskii.	1263	1293
Transamination Reactions of Bis-Diethylamino Derivatives of Silanes and of Octamethyl- cyclotetrasilane with Aromatic Amines—K. A. Andrianov, G. A. Kurakov, L. M. Khananashvili, and T. A. Lomonosova	1265	1294
Halogenated Aromatic Silanes. XII. Production and Properties of Chlorine Derivatives of p-Tolylmethylidichlorosilanes with the Chlorine Atoms in the Methyl Groups. Synthesis of p-Trichloromethylphenyltrichloromethylidichloro(ethoxy)silanes —G. V. Motzarev, V. R. Rosenberg, and T. T. Tarasova	1269	1299
Furan Compounds. XXII. Influence of Structure of γ -Furylalkanols on the Course of Their Reaction in Catalytic Hydrogenation—A. A. Ponomarev, V. A. Sedavkina, and Z. V. Tili	1273	1303
Condensed Heterocycles. II. Condensation of 5-Alkyl-3-Amino-1,2,4-Triazoles with Acetoacetic Ester—Ya. A. Levin, A. P. Fedotova, N. F. Rakova, G. A. Savicheva, and V. A. Kukhtin	1279	1309
Chemistry of 1,4-Dihydroanthraquinone. III. Chlorination of 1,4-Dihydroanthraquinone —V. I. Gudsenko	1284	1314
Synthesis of 1,2-Benzanthracene Derivatives—B. S. Tumatelchuk, S. V. Sokolov, F. I. Abesgaus, and I. Ya. Postovskii.	1289	1319
Salicyloylguanidines —S. I. Barmistrov and Yu. V. Sukhoruchkin.	1293	1322
Imidazole Derivatives. XXIX.—A. V. El'tsov	1297	1327
Synthesis of 7-Methoxy-4,5-Dihydroharman and 7-Methoxyharman from Serotonin —M. P. Petrova, N. S. Kaverina, and G. P. Men'shikov.	1303	1333
Synthesis of Some Physiologically Active Organophosphorus Compounds—M. I. Kabanchnik, N. N. Godovikov, and B. I. Godyna	1305	1335
Trichlorophosphazoperchlorovinyl and Trichlorophosphazoperchloroethyl —V. I. Shevchenko, N. D. Bondarchuk, and A. V. Kirsanov	1312	1342
Study of the Complexing of Titanium Tetrachloride with Ketones by the Infrared Spectroscopy Method—O. A. Ostrov and V. I. Galvonomskii.	1315	1346
Diamides of Phenylphosphonic Acid—I. N. Zhmurova and I. Yu. Volushechkovskaya	1318	1349
Some New Azomethines—A. S. Kudryavtsev and I. A. Savich	1321	1351
New Synthesis of Dyes of the Triazine Series. II. Vat Dyes of the Triazolo-Triazine Series —V. A. Titkov and I. D. Platnev	1324	1355
Halochromic Unsaturated Tertiary Alcohols of the Aliphatic Series—Yu. Yu. Tsmur and B. N. Dashkevich	1326	1357
Synthesis of Hydroperoxides of Halo Derivatives of Isopropylbenzene and the Rate of Their Thermal Decomposition in α -Methylstyrene—M. A. Diki! and T. I. Yurzenko	1329	1360
Preparation of Some Esters of Alkylphosphoric and Alkylphosphonic Acids —N. P. Bogonosova and T. E. Filippova.	1332	1363
Available From Consultants Bureau		(continued)

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
Reaction of Some Alkene Oxides and Thioxides with Carbon Disulfide—G. A. Razuvaev, V. S. Etlis, and L. N. Grobov	1335	1368
Chemical Structure of Albomycin Antibiotic. IV. Determination of the Amino Acid Composition and Transformations of the Albomycin Fractions—E. P. Krysin and N. A. Poddubnaya	1339	1370
Alkaloids of C ₁₈ Series. XII. Structure of Goebeline—Ya. I. Pakanaev and A. S. Sadykov	1343	1374
LETTERS TO THE EDITOR		
Synthesis of α -Hydroxy- β -Methyl- β -(3-Indolyl)propionic Acid—M. N. Preobrazhenskaya, L. M. Orlova, and N. N. Suvorov	1347	1378
Structure of the Pyrimidine Base Found in Albomycin Antibiotic—G. I. Lavrenova and N. A. Poddubnaya	1348	1379
Use of the Darzens Reaction to Synthesize Chlorohydroxy Compounds—V. F. Martynov and M. I. Titov	1350	1380
DISCUSSION		
Conversion of β -Cyanoethyl Ether of β -Naphthol to α -(β -Cyanoethyl)- β -Naphthol —P. F. Burskus	1361	1381
Available from Consultants Bureau		

JOURNAL OF GENERAL CHEMISTRY OF THE USSR

A translation of ZHURNAL OBSHCHEI KHIMII

A publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 33, Number 5

May, 1963

CONTENTS

	P A G E	E N G .	R U S S .
Infrared Spectra of Some Titanium Oxides in the Crystalline State — S. M. Arlya and M. V. Golomolzina	1365	1365	1369
The Influence of the Temperature on the Heat Effects of Chemical Reactions — V. A. Kircev	1367	1367	1391
The Polarographic Reduction of Semicarbazones and Thiosemicarbazones — Yu. P. Kitaev and G. K. Budnikov	1362	1362	1396
Investigation in the Field of β -Hydroxy- and β -Halogenocarbonyl Compounds. II. Production of Nuclear-Substituted Alkylaryl β -Ketoalcohols — T. I. Temnikova and N. A. Oshueva	1368	1368	1403
Reaction of Metal Derivatives of β -Dicarbonyl Compounds with α -Halogenooxides. II. Reaction of Na-Dimedone with the α -Bromooxides of the Isomeric Butenes and Epibromohydrin — T. I. Temnikova and D. A. Bakhov	1370	1370	1405
Synthesis of Herbicides. V. Arenesulfonic Derivatives of 2,4-Dichlorophenoxyethylalkyl- amines — S. I. Burmistrov, O. Kh. Vinova, and I. G. Kazankina	1374	1374	1409
Esters of Diaryloxymonoalkoxyacetic Acids — Ya. N. Ivashchenko and S. D. Meshchitskii	1377	1377	1412
Alkylation of Benzene with Diethyl Ether in the Presence of Aluminum Chloride — A. I. Nogaideli and N. N. Skhirtladze	1379	1379	1414
Aza Derivatives of 2-p-Dimethylaminoxyethylbenzothiazole — A. I. Kiprianov and F. A. Mikhailenko	1381	1381	1418
Hydrogenation and Bromination of 1-Trimethylsilyl-3-1-butylbut-3-en-1-yne — M. D. Stadnichuk	1386	1386	1421
Conversion of Aldose by the Cannizzaro Reaction as an Intermolecular Oxidation-Reduction — V. F. Kazimirov and S. N. Danilov	1390	1390	1424
Reaction of 2-Tosyl-1,4:3,6-dianhydroxyethylol with Amines — G. A. Efimova, G. E. Ustyuzhanin, N. S. Tikhomirova-Sidorova, and S. N. Danilov	1395	1395	1429
Investigation in the Field of the Chemistry of 5-Halogenoturanos. XX. 5-Halogeno-2- acetyluranes — Z. N. Nazarova, Yu. A. Babaev, and T. N. Natal'ina	1397	1397	1431

(continued)

Available from CB

CONTENTS (continued)

	P A G E	R U S S.
Aminomethyl and Aminoethyl Derivatives of 5-Methoxybenzofurane — A. N. Grinev and N. K. Venevueva	1401	1436
Investigation in the Isoxazole Series. XVI. The Decompositions of 4-Halogenoisoxazoles under the Conditions of the Grignard Reaction — N. K. Kochetkov and S. D. Sokolov . .	1407	1442
Investigation in the Field of Glycol Ethers and Their Derivatives. LVI. Alkoxyethyl Ethers of 1-Phenylpropane-1,3-diol — Shamkhal Mamedov, Kh. Kh. Shamilov, and D. N. Khydyrov	1411	1446
Investigation in the Field of Ethers of Glycols and Their Derivatives. LVII. Synthesis of Alkoxyethyl Ethers of <i>B</i> -Aryloxyethanols — Shamkhal Mamedov, A. R. Mamedova, and M. A. Avanesyan	1416	1451
Formation of Tetra- and Pentathionates by the Action of Acids on Thiosulfates in the Presence of Salts of Some Organic Bases — N. P. Volynskii and V. V. Smolyaninov . . .	1420	1456
Preparation of <i>N</i> -Alkylpyridinium, <i>N</i> -Alkylquinolinium and Dimethylalkylphenylammonium Chlorides — N. P. Volynskii and V. V. Smolyaninov	1424	1461
Structure and Reactivity of Hydrazine Derivatives. IV. Kinetics of the Reaction of Benzoic Acid Hydrazide with Benzoyl Chloride, Picryl Chloride and Benzoic Anhydride in Benzene — A. P. Grekov and M. S. Marakhova	1428	1463
Structure and Reactivity of Hydrazine Derivatives. V. Kinetics of the Reaction of Ortho Derivatives of Benzoic Acid Hydrazide with Picryl Chloride in Benzene — A. P. Grekov and M. S. Marakhova	1433	1469
Structure and Reactivity of Hydrazine Derivatives. VI. Kinetics of the Reaction between Aliphatic Acid Hydrazides and Picryl Chloride in Benzene Solution — A. P. Grekov and M. S. Marakhova	1437	1474
Nitroesters of Orthosilicic Acid — L. M. Koslov, L. A. Koroleva, and B. A. Markovich	1441	1478
Study of the Transesterification of Diethyl Phosphite with Ethylene Glycol — K. A. Petrov, E. E. Nifant'ev, and R. G. Gol'tsova	1449	1485
Perchloric Acid and Its Compounds as Catalysts in Organic Synthesis. X. Acylation in the Acenaphthene Series — B. A. Rozenberg, R. D. Bodnarchuk, G. N. Dorofeevko, and E. P. Babin	1452	1489
Synthesis of 2,2-Dimethyl-3-[(α -N,N-DI(2-chloroethyl)aminoethyl)cyclobutylacetic Acid Hydrochloride — I. A. Poplavskaya and M. I. Goryaev	1466	1492
Synthesis of 2,2,3-Trimethyl-8-N,N-DI(2-chloroethyl)aminoethyl-3-cyclopentene Hydrochloride — I. A. Poplavskaya and M. I. Goryaev	1469	1495
Nitration of the Paraffin Chain in Ethylbenzene and Terealin — A. I. Titov	1481	1497
Synthesis of <i>N</i> -Substituted Methacrylamides. VII. — T. A. Sokolova, L. A. Oviyannikova, and I. I. Tikhodzeva	1466	1502
Synthesis of <i>p</i> -Nitrostyrene from Styrene — A. M. Shur and N. A. Barba	1468	1504
Synthesis of Some Oxazole Derivatives, 2-Mercapto- and 2-Methylmercapto-4-Aryloxazoles — E. D. Sych and Zh. N. Belaya	1471	1507
Synthesis of Carbonyl Monomers Based on the Mannich Reaction. IV. New Method for Synthesis of Divinyl Ketones — G. S. Mironov, M. I. Farberov, and I. M. Orlova . . .	1476	1512
Preparation and Spectra of 3,4,7,8,11,12-Hexamethylphenylene — A. I. Nogaideli, N. N. Skhirtladze, G. D. Bagratishvili, and N. I. Oniasvili	1481	1517
Alkylation of Arenesulfonyl- <i>N</i> -Alkylamides with Secondary and Tertiary Alkanols — V. I. Markov, S. I. Burmistrov, and Yu. N. Nizel'skii	1484	1520
Mechanism of the Reductive Cleavage of Dimethylamino Derivatives of Triphenylmethane — A. T. Rekasheva and I. P. Samchenko	1487	1523
Hydroxy Derivatives of Phenanthrene. III. 1,2-Phenanthrenequinone 2-Oxime and 3,4-Phenanthrenequinone 3-Oxime — S. V. Bogdanov and L. S. Shilyayeva	1493	1529

(continued)

Available From CF

CONTENTS (continued)

	P A G E ENG.	RUSS.
Hydroxy Derivatives of Phenanthrene. IV. Bisulfite Compounds of 4'-Sulfophenylazo-2- and -3-Phenanthrols — S. V. Bogdanov and L. S. Shibryaeva	1498	1532
N,N-Di(β-Cyanoethyl)cyanamide and Its Reactions — A. E. Krelov and N. D. Borodavko	1500	1536
Intermediate Products and Dyes which Contain the Residue of β-Chloropropionic Acid. I. Chu Ch'un-hua and L. S. Éros	1503	1539
N-Oxides of the Quinoxaline Series. VI. N-Oxides of the Amino and Hydroxy Derivatives of Quinoxaline — A. S. Elina and L. G. Tsurul'nikova	1507	1544
Structure and Reactivity of Hydrazine Derivatives. VII. Kinetics of the Reaction of Some Meta and Para-Derivatives of Benzhydrazide with Picryl Chloride and Benzoyl Chloride in Benzene — A. P. Grekov and M. S. Matakova	1514	1552
Syntheses Based on Vinylpyridines. VIII. The Introduction of Functional Substituents into Pyridylethoxyindole — E. V. Vinogradova, A. N. Kost, V. N. Mitropol'skaya, and A. P. Terent'ev	1518	1556
Double Diazonium Salts of Mercuric Chloride and Trivalent Antimony — L. A. Kazitsyna, O. A. Reutov, and B. S. Kikot'	1523	1561
The Rate of N-Alkylation of Some Cholinolytic Substances which Contain Tertiary Amino Groups — S. G. Kuznetsov and E. V. Rozinskaya	1531	1570
The Diacetylation of Acenaphthene — M. M. Dashovskii and E. M. Shamis	1534	1573
The Structure of Dipropionylacenaphthene — M. M. Dashovskii and Z. P. Malevannaya	1537	1576
The Condensation of N-Arylsulfonyl Monolmino Sulfur Dioxides with Dienes — E. S. Levchenko, Ya. G. Bal'on, and A. V. Kirsanov	1540	1579
The Reaction of Phosphorus Pentachloride with Aryl Ureas — G. I. Dorkach, A. V. Narbut, and A. V. Kirsanov	1545	1584
Derivatives of Isocyanatophosphoric Acid — G. I. Dorkach and L. I. Samarin	1549	1587
The Phosphorylation of Primary Nitriles — V. I. Shevchenko, N. D. Bolnarchuk, and A. V. Kirsanov	1553	1591
Syntheses in the Phenothiazine Series. X. The Synthesis of Esters of 2-Phenothiazinecarbamio Acid — S. V. Zhuraviev and A. N. Griuenko	1558	1596
The Nature of the Absorption Bands in the Electron Spectra of Substituted Benzenes. I. Criteria which Assign the Bands to Electron Transitions — A. E. Lutskii	1562	1601
The Nature of the Absorption Bands in the Electron Spectra of Substituted Benzenes. II. Classification of Absorption Bands — A. E. Lutskii	1569	1609
The Absorption Spectra of Disubstituted Benzenes with Similarly Directing Functional Groups. IV. Hydroxy-, Methoxy-, and Acetoxy-Substituted Benzenes — A. E. Lutskii and A. S. Gol'berkova	1574	1614
The Absorption Spectra of Disubstituted Benzenes with Similarly Directing Functional Groups. V. Amino and Acetamino Substituted Phenols and Anisoles — A. E. Lutskii, A. S. Gol'berkova, and P. M. Bugai	1583	1624
The Absorption Spectra of Disubstituted Benzenes with Similarly Directing Functional Groups. VI. Phthalic Acids and Their Methyl Esters — A. E. Lutskii and A. S. Gol'berkova	1591	1633
Complexes of Naphthoquinones with Phenols — B. V. Tronov, I. M. Bortovoi, and N. P. Moskalenko	1597	1639
The Reaction of Acetyl Chloride with Styrene — L. P. Peurenko	1599	1641
Diaminodiethyleniminobenzoquinones. I. Reactions of Fluoroanil with Amines and Esters of α-Amino Acids — A. N. Makarova, V. S. Martynov, and A. Ya. Berlin	1601	1643
Alkylation of Alkanesulfamides. II. Alkylation by Secondary and Tertiary Alkanols — V. I. Markov and S. I. Burmistrov	1608	1647

(continued)

Available From CB

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
Syntheses in the Purine Series. IV. Alkaline Cleavage of Derivatives of 1,3,9-Trimethyl-xanthine. Synthesis of 8-Aminoethylisocaffeine - E. S. Golovchinskaya, O. A. Kolganova, L. A. Nikolaeva, and E. S. Chaman	1608	1650
Nucleophilic Addition Reactions of Amides of Dialkyl Esters of Phosphoric Acid - A. N. Pudovik and G. P. Krupnov	1612	1654
Synthesis of Precursors and Fragments of Antibiotics. X. Synthesis of Half Esters of α -Phenoxyadipic and Phenoxy malonic Acids - O. E. Kostromina and M. S. Rabinovich	1615	1658
Esters of Phenylalkyl-(4-morpholino)propanols - E. M. Cherkasova and G. S. Erkomalishvili	1617	1661
On the Secondary Product of Reaction of 17-Cyano- $\Delta^{8,16}$ -androstanediol-3 β -acetate with Methylmagnesium Bromide - V. I. Maksimov, F. A. Lur'i, and L. S. Morozova	1622	1666
Infrared Absorption Spectra of Natural Compounds. I. Flavonoids. Absorption Bands of Carbonyl and Hydroxyl Groups - I. P. Kovalev and B. V. Titov	1626	1670
Investigations on Terpenophenols. VIII. Transformations of Products of Condensation of Camphene with Phenol - L. A. Khel'is, G. I. Moldovanskaya, A. V. Kokhmanskii, and V. N. Belov	1637	1676
Study of Alkaloids of the C ₁₈ Series. XIII. The Structure of Isosporamine - Yu. K. Kushmuradov, A. S. Sadykov, and Kh. A. Aslanov	1637	1683
The Structure of Ungerine - N. F. Proskurnina	1640	1686
The Alkaloids of Leucosium aestivum. Isolation of Estivine and Ungerine - N. F. Proskurnina	1643	1689
Study of the Alkaloids of the Arctic Spoonwort (Cochlearia arctica Schl.) - V. I. Murav'eva, A. G. Mamedova, and A. I. Ban'kovskii	1646	1690
The Alkaloids of Galanthus Woronowii. VI. Isolation of Taxutin - A. P. Yakovleva	1647	1691
LETTERS TO THE EDITOR		
On the Synthesis of Folic Acid Fragments - I. V. Aleksneva and Z. V. Pushkareva	1649	1693
Condensation of Phenol with Allyl Alcohol and Propionaldehyde on Cation Exchanger KU-2 - V. I. Bagulyants, V. P. Evstaf'ev, and L. I. Eroshova	1650	1694
Opening of the Coumarin Ring by Amines - V. A. Zagorevskii, N. V. Dudykina, and V. L. Savel'ev	1651	1695
High-Temperature Condensation of Fluorosilanes with Chlorobenzene - M. F. Shostakovskii, B. A. Sokolov, A. I. Kozlenko, R. G. Sultangareev, and L. T. Ermakova	1652	1696
Reaction of Sodium Malonic Ester with Isomeric Bromobutene Oxides - T. I. Temnikova and S. N. Semenova	1652	1696
The Synthesis of Diethylaminobromoacetylene - Yu. Yu. Tsmur and V. I. Ivanik	1653	1697
Dipole Moments of Some Phenylcyclopropane Derivatives - I. B. Masheiko, S. S. Güller, P. A. Gombitskii, and R. Ya. Levina	1654	1698
The Methylation of Esculetin and 4-Methylesculetin - V. A. Zagorevskii and Z. D. Sovzenko	1655	1699
Erivanin - A New Sesquiterpene Lactone from Artemisia fragrans Willd. var. erivanica Bess. - K. S. Rybalko and R. M. Abbasov	1656	1700
2,5,5-Trimethylhex-1-en-3-yne - A. A. Petrov, T. V. Yakovleva, and B. S. Kupin	1657	1761
Action of Perchloric Acid on Pivalophenol Labeled with C ¹⁴ in the Carbonyl - T. E. Zaleskaya and T. B. Remizova	1658	1702
DISCUSSION FORUM		
2-Phenylbutanediol-2,4 - Yu. Kireev	1659	1702

Available From CB

JOURNAL OF STRUCTURAL CHEMISTRY

A translation of *ZHURNAL STRUKTURNOI KHIMII*,
a publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 4, Number 2

March-April, 1963

CONTENTS

	P A G E	
	ENG.	RUSS.
A Study of the Structure of Cyclohexane—N. V. Alekseev and A. I. Kitaigorodskii	145	163
The Decoding of Vapor Electronograms Taking Account of the Movement of the Molecular Nuclei. 2. The Temperature Dependence of the Intensity of Dis- persion of the Electrons of Diatomic Molecules—N. G. Rambidi	149	167
The Effective Mass of a Hydrated Ion in Solution—A. M. Zaitseva and I. Z. Fisher	155	173
Ionic Radii for Aqueous Solutions—S. S. Batsanov	158	176
The Stabilization of the Structure of Aqueous Solutions—P. S. Yastrebinskii	161	179
Thermodynamics and the Structure of Nonaqueous Solutions of Electrolytes. 3. Comparison of the Structures of Solutions of Sodium Perchlorate in Acetone and Water—K. P. Mishchenko and V. V. Sokolov	165	184
The Vibrational Spectra of Cyclic Hydrocarbons with Conjugated Double Bonds—B. V. Sobolev, V. T. Aleksanyan, E. M. Mil'vitskaya, and M. A. Pryanishnikova	169	189
A Spectroscopic Investigation of the Conformation Equilibrium of Chlorocyclohexane and Bromocyclohexane—Yu. A. Pentin, Z. Sharipov, G. G. Kotova, A. V. Kamernitskii, and A. A. Akhrem	174	194
The Use of Infra-Red Spectroscopy in the Study of Problems of Isomorphism in Biotite —D. K. Arkhipenko	180	201
A Study of the Transformations of Radicals During the Oxidation of 2,6-Di-(1,1'-Di- methylalkyl)-4-Methylphenols—A. I. Brodskii, V. D. Pokhodenko, and L. N. Ganyuk	187	210
Nuclear Magnetic Resonance in Oriented Polymers. 1. Formulas for the Computation of the Second Moment—I. Ya. Slonim and Ya. G. Urman	192	216
A Study of Nitrogen-Containing Copper Complexes by the Electron Paramagnetic Resonance Method—N. N. Tikhomirova and K. I. Zamaraev	200	224
A Study of the X-Ray Absorption Spectra of Acetylacetonate Complexes of the Transition Metals. K-Absorption Spectra for Copper in Copper Acetylacetonate, Copper (II) Oxide, and Copper (I) Oxide—I. P. Aleksandrova	206	231
Mean Densities of Valence Electrons in FeO _x , VO _x , and TiO _x —P. V. Gel'd and V. A. Tikhai	210	235

(continued)

Available From CB

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
Peculiar Features of the Structure of Certain Complex Compounds of Ruthenium and Osmium—E. M. Shustorovich	218	245
The Nature of the Chemical Bond in Semiconducting Compounds Formed by Zinc with Antimony—Ya. A. Ugal, É. P. Domashevskaya, and T. A. Marshakova	223	250
Calculations in Quantum Chemistry. III. LCAO MO Computation of $\pi(\text{A})$ $\sigma\sigma^*(\text{B})$ Interaction on a Fast Digital Electronic Computer—Yu. A. Kruglyak and D. R. Whitman	227	254
BRIEF COMMUNICATIONS		
The Mobility of Hydrated Ions—A. M. Zaitseva and I. Z. Fisher	234	261
The Thermodynamic Characteristics of the Structural Changes in Water Associated with the Hydration of Certain Ions of the Rare Earth Elements and the Actinides—G. A. Krestov	236	263
The Effect of Heavy Water on the Chemical Shift of F^{19} —P. M. Borodin, E. K. Login, E. N. Sventitskii, M. B. Khaidman, and V. A. Shcherbakov	240	266
Nuclear Quadrupole Resonance in Some Compounds of Arsenic, Antimony, and Bismuth—I. A. Safin	242	267
Nuclear Quadrupole Resonance of the Isotopes of Antimony in Monocrystals of SbCl_3 , $\text{SbCl}_3 \cdot \text{C}_6\text{H}_6$, and $\text{SbCl}_3 \cdot \text{C}_7\text{H}_8$ —V. S. Grechishkin and I. A. Kyunsel'	243	269
The Crystal Structure of Calcium Diborate Hexahydrate $\text{Ca}[\text{B}_2\text{O}(\text{OH})_4] \cdot 3\text{H}_2\text{O}$ —V. B. Kravchenko	246	271
Some Features in the Structure of Some Complex Compounds of Molybdenum—E. M. Shustorovich and L. O. Atovmyan	248	273
The Binary Oxides of Uranium, Tantalum, and Tin—V. K. Trunov, Yu. P. Simanov, and L. M. Kovba	252	277
A Program for the Calculation of Structure Amplitudes with Isotropic Thermal Parameters for a Large Electronic Computer—F. A. Buzentsev	254	279
REVIEWS		
A Systematic Classification of Types of Intermetallic Structures (Conclusion)—P. I. Krilpyakevich	257	282
BIBLIOGRAPHY		
International Union of Crystallography. Commission on Crystallographic Data. List of Papers for 1960 Containing New Data on Crystal Structures, B. Inorganic Compounds	275	300
Supplementary List of Papers Containing New Data on Crystal Structures	296	319

Available From CB

INDEX TO AUTHORS

This index does not include authors listed in the cover-to-cover tables of contents.

- A -

Aben, Kh.	156	Andreesco, N.	150
Abolina, G. I.	73	Andres, L.	103
Abram, P.	8	Andreyev, D.	58
Abramov, F.	57	Andreyev, E. V.	82
Abramson, I. D.	58	Andreyev, K. K.	123
Abroskin, P. I.	10	Andreyev, V. N.	149
Abushkevich, P. V.	86	Andreyeva, M. A.	79
Accary, A.	153	Andriyan, E. A.	83
Actarian, V.	27	Andronikashvili, E.	150
Adamenko, M. P.	99	Andronova, A. I.	76
Agasandyan, G. A.	146	Andryev, K. K.	158
Aidit, D. N.	47, 50	Anekoji, Yukio	143
Airapetyan, V. G.	84	Angelov, Ivan	89
Aizentsov, G. E.	135	Anichkov, S. V.	65
Akhmedov, K. Yu.	167	Annen, G.	127
Akhundov, V. Yu.	2	Anpilogov, G.	8
Akimov, I. A.	102	Anto, T.	108
Aknina, E.	77	Antonov, V. S.	157
Akramov, I.	85	Anuchin, M. A.	157
Aksel'rod, G.	11	Anuchkin, G. P.	121
Akulov, N. S.	133	Anuroyev, I.	13
Aladzhulova, N. A.	67	Apalin, V. F.	151
Albertini, Georges	36	Arabadzhiyev, Vasil	29
Albrocht, Jerzy	26	Arifov, H. A.	151
Aleksandridi, T. M.	146	Arinshteyn, A. G.	166
Aleksandrov, N. I.	86, 87	Ariskin, I. T.	16
Aleksandrov, N. P.	61	Arkayev, V. A.	13
Aleksandrov, V.	11	Arkhipov, A. P.	16
Alekseyenko, N. Yu.	65	Arnaud, Y.	150
Alekseyev, V.	14	Artelt, P.	142
Aleksindryuk, S. P.	71	Artsimovich, L. A.	149
Alfa, Babkr	43	Arzhanikov, N. S.	167
Alicata, Mario	40	Ashida, J.	108
Aligadzhiev, G. A.	113	Assarsson, G. O.	108
Alisov, N.	4, 6	Astaf'yev, A. N.	121
Allun, Z. J.	103	Atanasova, Ginka	17
Almasan, Bujor	27	Ataullayev, H. A.	81
Alov, A. A.	132	Aull, H.	21
Alyev, M. Kh.	121	Aurivillius, B.	41, 42
Amarzan	47	Averyanov, V. G.	112
Amfiteatrov, F. Z.	83	Avolio, Giuseppe	39
Amirov, R. O.	68	Avramenko, L. I.	102
Aminosov, I. I.	132	Avtsyn, A. P.	69
Amosov, V. A.	85	Avundzhyan, E.	70
An, Kwang-sup	47	Ayzenman, B. Yu.	75
Andre, L. H.	104		

Babayan, E. A.	88	Behringer, F. A.	148
Bab'skiy, Ye. B.	65	Beklemishev, K. V.	70
Badayeva, T. A.	132	Belen'kiy, M. A.	80
Badinov, I. Ya.	111	Belen'kiy, M. L.	65
Bagayeva, N. Ya.	146	Belet'skiy, M. I.	12
Baier, W.	132	Belikov, N.	18
Baisset, A.	91	Bellavita, V.	108
Bakhadyrov, A.	73	Belluigi, A.	92
Baksh'tanskiy, E. I.	78	Belyakov, A. A.	1
Balalayov, Yu. F.	135	Belyayev, R. A.	131
Balashov, V. V.	155	Belyaveva, N. S.	86
Balashov, Yu. S.	71	Bengtsson, Elias	99
Baldov, A. L.	134	Benua, Yu. Yu.	155
Balebanov, V. M.	155	Beremzhanov, B. A.	102
Balicheva, L. V.	80	Berezhnova, V. V.	73
Ball, G. O.	120	Berezhnoy, A. S.	100
Baller, Ernst	125	Berger, T. S.	75
Banaszak, Antoni	31	Bergman, A. A.	151
Bangert, Fritz	157, 162	Beriyov, G.	112
Banny, N. P.	134	Berkovskiy, A. O.	167
Barabay, V. A.	74	Bernardo, Gerardo	55
Barahoy, V. A.	109	Berry, J. L.	103
Baranov, E.	61	Bersonov, A. P.	157
Baranovskiy, F. T.	147	Bertinova, A. I.	118
Bariatti, Raimondo	95	Bessonov, A. N.	110
Baricevic, Ivan	30	Beuren, A. J.	94
Barinskiy, R. L.	133, 136	Boutel'spacher, H.	164
Barkan, S. M.	122	Boutler, H.	162
Barker, Gisela	116	Bibishev, V.	8
Barkovskiy, V. I.	84	Bidenko, G. E.	78
Barth, Herrmann	20	Bidulya, P. N.	133, 134
Barth, Nikolaus	163	Billard, P.	159
Barthoux, A.	152	Billigmann, J.	141
Bartusok, M.	107	Billoux, Francois	37
Baruch, P.	150	Birulya, Ye.	5
Baryshov, P. M.	83	Bjogovic, P.	98
Barzialis, L. S.	84	Bjorling, G.	145
Bastian, Hartmut	116	Blanshoy, Jack	65
Bata, Geza	164	Blinov, V.	126
Batachelet, E.	93	Block, E. L.	72
Baud, R. V.	161	Blume, Jean	36
Bauer, K. H.	138	Blyumenfel'd, L. A.	67
Bauer, Wilhelm	116	Bobrovnikov, G. A.	123
Baukloh, Walter	153	Bobylev, B.	7
Baybukov, N.	4	Bockenhoff, H. J.	128
Baysogolov, G. D.	74	Bogatyrev, A.	112
Bazilevich, V. V.	113	Bogatyrev, Ye. Ye.	115
Beck, G.	141	Bogdanov, A.	7
Becke-Gohring, Margot	104	Bogdanovic, Jovo	32
Beckmann, Von Gottfried	129	Bogomolets, O. O.	99
Bedenashvili, G. G.	84	Boguslavskiy, I. Ya.	2
Beets, C.	150	Boissaux, T.	137

Bonch, E. I.	111
Bondarenko, I.	58
Bonvallet, M.	90
Borges, Synesio Oliveira	97
Borisov, A.	14
Borisova, L. G.	114
Bork, Gotz	129
Boroshok, L. A.	122
Borovikov, A. M.	155
Borovskiy, I. B.	136
Bouhali, Larbi	43
Bouissieres, G.	103
Boulenger, R. R.	159
Bozhilov, Yordan	18
Bragin, V. F.	5
Brandberg, Rudolf	98
Brandi, H. Th.	142
Brauer, H.	126, 153
Braun, M. P.	145
Broderock, H.	105
Bremer, F.	90
Bretschneider, L. H.	90
Brezhnev, D. D.	61
Brisbois, J. J.	149
Briskin, A. I.	72
Broockmann, K.	138
Brose, Manfred	106
Broussaud, G.	119
Bruch, J.	139
Brukov, A. T.	2
Bryngdahl, Olof	104
Bryunelli, B. Yo.	109, 110
Bubentsov, V.	3
Buckel, W.	163, 164
Budnikov, P. P.	100
Budylin, B. V.	155
Bugrov, Ya. S.	146
Bukler, V. O.	118
Bulatova, T. I.	87
Buleyev, N. I.	155
Bulgakoff, Sergiu	26
Bulow, Hagen	163
Bundel', A. A.	69
Burn, Dimitrije	19
Burmistenko, M. A.	2
Burnasheva, S. A.	81
Buschner, Richard	116
Bushkanets, T. S.	73
Bushuyev, V.	12
Buss, E. K.	142
Butakov, G. S.	111
Butkovic, Matija	19
Butkovskiy, A. G.	146
Buyko, V. H.	134
Bykhovskiy, A. V.	66

- C -

Campan, J. L.	149
Carlquist, B.	154
Castiglioni, A.	107
Castillo, Luis	95
Caumette, P.	149
Chabert, J.	103
Chang, Hsin	89
Chang, Tsun-k'uei	168
Chao, Chao-ping	116
Chao, Chiu-chang	168
Chao, P'eng-nien	168
Charbonnel, A.	149
Chekmarev, T. V.	147
Chekunov, V.	58
Ch'en, Chung-wei	89
Ch'en, En-chiu	115
Ch'en, Min-heng	168
Ch'en, P'ei-yu	46
Cheng, Tao-hsin	89
Cheng, Yen	45
Chenikov, V.	101
Chernov, G. N.	155
Chevalier, G.	152
Chi, Un-sop	48
Chiao, Kuang-kuo	53
Chin, Ping	89
Chin, Po	54
Chirkova, O. O.	74
Choo, Chung-guk	47
Chong, Tong-ch'ol	48
Chou, Kuo-ch'ong	168
Chu, Pin	46
Chu, Shan-ch'uan	53
Chubarov, A.	60
Chukanov, O.	6
Chung, Ch'ion	46
Churbakov, A. M.	102
Chuyko, S. V.	158
Chzh-yan, Li	102
Ciolan, I. L.	26
Class, I.	106
Cocu, J.	124
Cohendy, G.	152
Coic, Y.	90
Colombier, L.	137
Constantinescu, Stefan	27
Cosimi, L.	143
Coulard, J.	152
Croce, P.	159
Crowder, L.	63
Csikos-Nagy, Bela	23

- D -

Dahl, W.	141
d'Ands, J.	106
Dang, Viet Chau	50
Daniel, H.	161
Danilova, L. A.	76
Darras, R.	103
Davydova, Yu. S.	80
Dedyurin, A. I.	136
de Grimaldo, E. Pina	98
de Groot, Paul	35
Doi, Takeyuki	95
Delanghe, N. G.	159
Delle, V. A.	120
Dollyes, R.	124
Dement'yova, T. F.	113
Demidenko, O. A.	165
Demidenko, Z. O.	165
Demidov, V. P.	3
Domin, N. N.	67
Denisenko, I.	7
Denisenko, P. P.	71, 72
Denkhaus, H. G.	138
Denysovych, A. K.	169
Despotovic, S.	18
Detert, K.	126
Diamandopol, M.	26
Dibra, Adli	29
Dichev, Khristo	29
Diemunsch, J.	103
Dimitrijevic, D.	98
Dimitrov, Atanas	17
Dinh, Cong Hau	50
Dinter, Z.	90
Dintsos, A. I.	134
Djokosudjono	50
Djurakovic, Stjepan	28
Do, Hanh	49
Dobronravov, V.	58
Doi, Takeyuki	96
Dolukhanov, E. P.	118
Doroshenko, G. G.	150
Dracheva, Z. N.	73
Drozdzhin, V. N.	83
Dubinin, P. A.	67
Duda, J.	137
Dukoff, Victor	65
Dumcix, Auguste	36
Dumont-Fillon, J.	124
Dumova, A. M.	74
Durbabic, Marko	28
Duriau, Y.	158
Dutschke, W.	129
D'yachkov, V. G.	85

Dyudin, O. I.	169
Dzhurov, Dobri	30
Dzyuban, N. A.	79

- E -

Eberhagen, D.	105
Eberhard, O.	104
Eckstein, Fritz	94
Edel, H. H.	93
Edguor, E.	161
Edwin, K.	127
Efroimson, V. P.	77
Egli, G.	106
Ehroke, U.	126
Eisenhuth, C.	128
Eisenlohr, I. H.	154
Elfmak, J.	123
Elinchar, E.	90
Elimer, David	37
Elven, G.	141
Emmerio, A.	105
Endo, T.	144
Endress, Istvan	59
Engel, C.	105
Engelbrocht, Hans	89
Epifanov, G. F.	82
Epik, A. P.	135
Eremin, I. V.	132
Ergons, Radim	90
Eshmantas, V. I.	84
Etterich, O.	141
Everling, Georg	140
Ezovitev, N. B.	83

- F -

Faddoyev, N.	57
Faleyov, G.	5
Fan, Ti-chih	53
Fang, K'un	53
Farkhadov, A. A.	131
Fateyeva, Ye. A.	146
Favre, Henry	159, 160
Fechtig, H.	105
Fedorov, A. I.	67
Fedorov, I. V.	85
Fedorova, G. V.	69
Fedorova, L. G.	81
Fedorova, Z. V.	101
Fedoseyev, D. V.	121
Fedoseyev, P.	4
Fedotenko, N.	6
Fedotenkov, A. G.	76
Fedotov, A. A.	134
Fedotova, Yu. M.	86

Greiner, H.	120
Grekov, P. N.	133
Gridin, A. D.	135
Griese, F. W.	128
Grigorovich, V. I.	136
Grigorovich, V. M.	151
Grigoryan, V. M.	12
Grigor'yev, N. V.	120
Grillo, Humberto	55
Grimm, W.	130
Grimmer, G.	92
Grinishin, D.	13
Grin'ko, T. F.	77
Grison, E.	152
Gritsyuk, Yu. N.	151
Grohmann, R.	160
Grosskopf, Karl	95, 105
Gruner, P.	128
Grunewald, T.	127
Gruzinov, V. K.	133, 134
Grysiak, Jan	25
Gubkin, A. N.	119
Guglin, N. N.	132
Gulizade, M. P.	122
Gul'ko, F. B.	146
Gulyayev, B. B.	132
Gurovich, I. B.	74
Gurlich, W.	140
Gurovich, A. N.	9
Guryanova, E. F.	80
Gustafsson, Bo	40
Gustavsen, Finn	40
Gutner, R.	102

- H -

Ha, Ke Tan	49
Haage, Walther	92
Haarbrucker, T.	142
Haasen, Peter	143
Haber, Eugen	130
Hache, A.	137
Haenny, Charles	152
Hagberg, Hilding	40
Haikonen, M.	97
Hajek, Frantisek	31
Hajos, Gyorgy	148
Halili, Bulikiz	17
Harmel, Claude	11, 36
Harms, F.	141
Hasse, Jorg	164
Hasselstrom, C. G.	42
Hedden, K.	107
Helinska, L.	127
Hellstrom, Lennart	99

Henschel, J.	94
Herfurth, D.	59
Hero, S.	33
Herrmann, Erhard	143
Hertel, R.	93
Herzschuh, R.	107
Hidasi, Gabor	46
Hikotaro, Ando	168
Hilsch, R.	163
Hiltscher, R.	160
Hlaca, Vinko	19
Hladik, O.	154
Hoang, Minh	49
Hofer, A.	105
Hofmann, U.	139
Holborn, L.	160, 162
Holler, P.	138
Holmberg, Nils	40
Hong, Chuong	52
Hopff, H.	105
Hoppe, J.	126
Horovitz, M.	27
Hoxha, Ismail	32
Hsieh, K'u	46
Hsu, Chi-jen	168
Huang, Chen-hsiang	89
Hugelin, A.	92

- I -

Iancu, A.	27
Igarashi, Hisanao	96
Il'ichev, L.	15, 16
Il'ichev, L. F.	11
Il'in, L. A.	74
Il'in, V. G.	82
Il'inskiy, O. B.	70
Ilyutovich, A. Yu.	86
Ilmas, E.	157
Ilchner, B.	138
Il'yuchenok, R. Yu.	72
Ilyukin, V. S.	156
Imoto, T.	108
Inoue, Sh.	144
Iogansen, B. G.	88
Ionescu, N.	63
Ipatenko, N. G.	83
Ischebeck, P.	142
Ish, G.	51
Ishida, Seichi	51
Isoda, R.	63
Israelyan, V. L.	12
Ito, H.	108
Ito, Suketaka	97
Itskovich, I. A.	156

Ivanchev, Ivan	17
Ivanenko, S.	3
Ivanov, B.	58
Ivanov, F.	132
Ivanov, K. V.	74
Ivanov, M. V.	71
Ivanov, V. E.	132
Ivanov, V. V.	1
Ivanova, L. G.	87
Ivanovskiy, E. V.	84
Ivanovskiy, V.	7
Ivlev, V. S.	79
Izyumova, N. A.	78

- J -

Jancic, S.	98
Janik, Jerzy A.	164
Jaroszewicz, Piotr	26
Jarowinsky, Werner	21
Jeschar, R.	126
Jevdjovic, Melanija	28
Joannes, Victor	42
John, H.	140
Jordovic, M.	97
Jouannaud, C.	137
Jovanovic, Slavoljub	164
Jovic, V.	62
Junker, Wolfgang	21

- K -

Kachaturov, T.	10
Kachirina, L. G.	114
Kahnwald, H.	141
Kalashnik, N. S.	77
Kaldewey, Harald	67
Kalinin, A.	11
Kalmanson, A. E.	67
Kal'nik, V. N.	14
Kanemoto, Yuichiro	108
Kamenetskiy, V. Ya.	9
Kamenev, V.	14
Kan, Huai-hsin	103
Kandyba, M.	6
Kang, Chung-han	48
Kao, Kuo-jung	53
Kapitanaki, M. V.	83
Kapralova, Z. A.	102
Kareli, L. G.	9
Karetnikov, D. V.	149
Kariya, Teiji	97
Karol', I. L.	151

Karpavichus, K. I.	88
Karpinski, Andrzej	24
Karpman, V. L.	65
Karpov, K.	4, 60
Karpukhin, G. I.	65
Kartsev, Ya. P.	10
Kasatkin, V. M.	169
Katz, W.	106
Kaufmann, H. P.	105
Kawano, Tetsuro	143
Kaymakan, N. I.	83
Kaymankan, P. V.	83
Kazakov, L. M.	77
Kazanskiy, M. M.	113
Kazanskiy, N.	15
Kazartsov, N.	6
Kazaryan, L. V.	147
Kobin, I. G.	60
Kedrov, A. A.	69
Kekhayov, Dimitur	18
Keldysh, M. V.	167
Keller, M.	162
Kern, R.	91, 161
Kertz, W.	116
Ketov, A. N.	135
Keyser, S. A.	74
Kharitonov, N.	14
Kharkevich, D. A.	100
Khatari, Hadrami Ben	44
Khaue, M. O.	15
Khazan, I. V.	169
Khazen, I. M.	85
Khesina, B. G.	114
Khitrov, L. M.	113
Khoo, T. H.	92
Khokhlov, R. V.	158
Khomchenovskiy, Ye. I.	88
Khrabrov, Yu. B.	114
Khrgyan, A. Kh.	155
Khudynkova, Y.	166
Khurshudyan, P. A.	60
Kiernozycski, Aleksander	24
Kil'chevskiy, A.	8
Kim, Ch'ang-sik	51
Kim, Won-sok	48
Kindelan, J. M.	124
Kirchmann, R. J.	159
Kirichenko, I.	5
Kirillov, E. A.	158
Kiselev, L. L.	69
Kiselev, O. N.	77, 85
Kishimoto, Ken	96
Kitabatake, T.	154

Larionov, V. A.	166
Lavrent'yev, M. A.	166
Lavrent'yeva, L. G.	157
Lavrova, T. S.	83
Laykhtman, D. L.	114
Lazarevic, B.	98
Lazitch, Branko	36
Le, Ba Thuyen	52
Le, Quang Dao	52
Le, Quang Tuan	48
Le, Tat Duc	49
Le, Trung Dinh	49
Lebedev, A. A.	114
Lebedev, A. N.	110
Lebedev, B. I.	69
Lebedev, K. B.	132
Lebedev, P. B.	167
Lubelinskiy, A. V.	67
Lechky, E.	138
Leckzyck, Adolph	35
Leclerco, D.	104
Lemaire, Bernard	168
Leon, Diego	55
Leont'yov, A. I.	158
Leopold, A. C.	93
Lerner, A. Yu.	146
Leskovar, Silvín	147
Lesinski, Heinz	20
Loshkevich, V. V.	1
Letov, A. M.	146
Lentskaya, Z. K.	70
Levanovskiy, L.	61
Levuquo, A.	62
Levi, M. I.	86
Lovin, A.	2
Lovitov, N. D.	166
Leybovich, A. G.	14
Leytman, B.	7
Li, Cheng-wu	158
Li, Dok-il	48
Liberman, S. S.	71, 72
	100
Liberman, Yu. M.	110
Libsis, S. Yo.	5
Lien, Kuang-hun	116
Liguu, B.	51
Lihl, F.	139
Limberg, A. A.	68
Linke, L.	21
Lindberg, G.	76
Lindner, K.	92
Lindqvist, J.	124
Linkovskiy, G. B.	118
Liozner, L. D.	66
Lipilina, I. I.	133

Lipovskiy, S. M.	100
Lippert, E.	154
Lipskaya, V. N.	110
Lishevskiy, V.	166
Lisitsyn, A. P.	115
Lisivnenko, L. N.	79
Litvinov, P.	10
Liu, Kuo-kuang	45
Liu, Yin-sheng	45
Livshits, B. A.	133
Ljunggren, Stig	104
Lobanov, I. P.	82
Lohs, Karlheinz	104
Lohse, Eberhard	22
Lonjid, N.	48
Lorents, O. G.	167
Lorentso, R. V.	102
Loriers, H.	104
Lott, M.	150
Lovric, T.	62
Low, Chen-huo	88
Lowenstein, M.	128
Lozinov, A. B.	75
Lu, Ch'ao-chun	46
Lu, Kuoi-ch'i	45
Lukavchenko, P. I.	122
Lukin, A. M.	84
Lukman, M. H.	51
Luk'yanenko, V. I.	71
Lushchik, Ch. B.	157
Lushnikov, P.	14
Lusin, V.	97
Lutts, A.	124, 138
L'vov, D. S.	9
Lyandros, Ya.	15
Lyshenko, V. F.	156
Lyubomudrov, Yu. V.	121
Lyapunov, A. A.	166

- M -

Macchi, Vittorio	168
Mackowsky, M. Th.	139
Maftel, N.	27
Magdesiyev, A. S.	169
Magruski, J.	32
Majewski, Stanislaw	24
Makmutov, N.	16
Makogonov, V. Ye.	134
Maksimchuk, L. P.	67
Malakhov, S. G.	151
Malinen, P. A.	135
Malkovich, T. A.	76

Malnar, L.	119	Michalski, Stanislaw	25
Mal'shina, L. P.	134	Mihailovic, Milovan	28
Mal'tseva, P. V.	16	Mikheyl'son, M. Ya.	65
Mamarin, V. V.	9	Mikula, K.	144
Mamedov, T. G.	71	Mileikovskiy, S. A.	79
Mamontov, V. G.	11	Milhaud, Gerard	90
Manescu, Radu	27	Millies, P.	152
Maneshin, N. K.	158	Milosavljevic, Petar	19
Manet, Enrique Gonzalez	56	Nil'shteyn, G. I.	101
Mantz, J. M.	91	Nilulsky, J.	161
Mao, Tse-tung	46	Mindak, Henryk	26
Marakhtanov, K. P.	4	Minervin, V. Ye.	114
Marechal, A.	159	Minina, L. S.	112
Marok, Franz	39	Mirkin, L. I.	134
Marinesco, G.	91	Mirlina, S. Ya.	102
Marisov, V. I.	58	Mirnov, S. V.	149
Markin, M.	61	Mironov, Ivan	18
Markov, B. F.	102	Mironova, G. V.	76
Mart'yanova, T. S.	120, 121	Miropol'skiy, A. L.	101
Masakazu, Yoshida	169	Miroshnichenko, B.	57
Masevich, A. G.	109	Misic, Radivoje	19
Mashkovich, V. P.	149	Mitacek, Bill	125
Mashkovskiy, M. D.	71, 72	Mitic, Novica	28
Maslennikova, M. G.	132	Mitin, S.	8
Maslov, N. A.	75	Mitrakovic, B.	18
Nastryukova, V. M.	67	Mizov, Nikolay	29
Matetskiy, A.	101	Mlikovsky, Vladimir	31
Matsnev, V. N.	1	Mnatsakanyan, A. G.	87
Matveyev, V. V.	150	Mndzhoyan, A. L.	73
Mau, Gunter	127	Mo, Chin-chi	168
Maury, M. H.	127	Mobius, Hans-Heinrich	107
Mny, S.	152	Mochalov, V. F.	122
Mayboroda, A. R.	10	Modestov, V. K.	76
Mayer, A.	128	Moghissi, A.	161
Mayorov, V.	61	Mohler, H.	105
Maystrenko, A.	61	Mohr, H.	93
Mazanek, T.	144	Mohrnheim, A.	143
Mazokhina, N. N.	74	Moiseyev, G.	4
Mazurov, K.	3	Moisiu, Vangjol	44
Medovar, B. Ya.	109	Molenda, Tadeusz	24, 25
Medvedev, V.	15	Molitz, H.	41
Nehanovic, Faik	30	Momm, G.	142
Melamed, J.	137	Momot, A. G.	86
Moleshkin, G. A.	123	Monch, Winfried	164
Meliksetov, M. A.	83	Morawn, F.W.F.	93
Mel'nikov, N.	14	Moreau, C.	153
Menzel, D.	21	Morozov, G. V.	65
Meus, I.	147	Morozov, V. M.	88
Mergol'd, D. P.	87	Moskalenko, Yu. Ye.	72
Meshcherskiy, R. M.	68	Moskalev, V.	15
Mestre, Rafael Francia	55	Motornaya, V. P.	87
Metodiyov, Dimitur	29	Movsumov, A. A.	122
Meylikhov, M. Ye.	3	Moyseyev, N. N.	146

Moyseyeva, I. G.	78
Mu, Hsing-yuan	45
Muchnik, A. A.	147
Mukhin, N. D.	68
Mukhina, V. V.	113
Mukhordykh, Ye.	3
Mukhovatov, V. S.	151
Mulin, N.	132
Muller, G.L.J.	154
Munze, R.	153, 154
Muratov, P. G.	3
Murazyan, R. I.	74
Murchakova, A. F.	76
Murzaev, E.	53
Musinov, L. N.	4
Muskhelishvili, N. I.	155
Mitafchiev, Boncho	18
Nyuller, R. L.	151
Myusov, I. N.	82

- N -

Nadlacki, Ljubica	19
Nagornyy, L. Ya.	118
Nakayama, K.	144
Namy, G.	124
Nartov, V. I.	3
Naumann, D.	154
Naumenko, A. I.	69
Naumenko, P.	3
Naumovic, B.	98
Naydonov, Ivan	62
Nazarenko, Yu. I.	88
Nazarov, A. I.	167
Nazarov, V. P.	84
Nechval', I. T.	84
Nefru, R.	27
Negovskiy, N. A.	65, 68
Nekrasov, K. D.	132
Nekrasova, V. A.	100
Nelson, A.	154
Nemeth, Lajos	62
Nepovitova, A. F.	114
Nestorovskaya, B. A.	158
Nettesheim, G.	107
Neuhau, N.	141
Neuss, Ottomer	94
Neuymin, A. D.	102
Novzorova, T. A.	66
Neykov, Ves.	30
Ngo, Du	49
Nguyen, Minh Vy	52
Nguyen, Thanh Son	63
Nguyen, Van Loc	50
Nguyen, Xuan Nguyen	54
Nhi, Quy	48
Nhu, Dam	54
Nhuyen, Van Tran	49
Nigmatova, N.	4
Nijboer, B.R.A.	152
Nikiforov, V. P.	134
Nikitenko, G. F.	77
Nikodijovic, V.	109
Nikolayev, M. N.	151
Nikolayev, V. P.	121
Nikol'skiy, N. N.	110
Nikonorov, I. V.	122
Nikonov, V. Ya.	136
Nishikawa, K.	106
Nishioka, Chuzo	95
Nitsan, A.	168

Nobuo, Seto	169
Norets, T. A.	74
Novikov, I.	3, 6
Novikov, S.	75
Novikov, V. I.	120
Novozhilov, G. I.	9
Nyers, Rezzo	24

- O -

Oberfeuer, R.	142
Obradovic, Dragutin	18
Odintsov, P. N.	78
Ognev, S. I.	69
Ogryzkov, S. E.	82
Oindin, I. A.	136
Okac, A.	107
Ol'shanskly, M. A.	82
Olzowski, Kuzimierz	25
Ondarza, L.	141
Onoda, Yoshihiro	108
Ootsuka, Eiji	109
Orlenko, L. P.	157
Orlovskiy, N. I.	67
Osechenskaya, G. V.	76
Ostkov, A. V.	16
Oswatitsch, K.	160
Otaki, H.	144
Otto, M. U.	105
Otto, J.	162
Ovcharov, V. K.	78
Ovdiyenko, I. K.	53
Ozaki, Shutaro	47

- P -

Pachev, T.	18
Pao, Sun-jao	54
Paek, Tong-kyu	54
Pahnko, H. J.	126
Pak, Taek-ching	47
Pal'guyev, S. F.	102
Pal'min, V. V.	101
Panasenko, V.	6
Panchartek, J.	103
Panchenko, G. M.	151
Panjan, M.	97
Pan'kov, H.	1
Panov, I.	14
Panova, V. P.	150
Pao, Yueh-se	89

Paolicchi, Luciano	39	Pham, Hung	48
Paolini, Pasqualino	129	Philippot, J.	153
Papayan, G. L.	73	Piatkowski, B.	32
Paribok, V. P.	101	Pioniazek, S. A.	25
Parin, N. V.	89	Pieters, Sjef	35
Paris, Slavka	63	Pigni, V.	129
Parkhomenko, G. M.	66	Pikayev, A. K.	100
Partenie, Victor	27	Pilosov, R. M.	73
Parvis, V. Preto	95	Pintor, Luigi	39
Paschedag, H.	161	Piradov, A.	12
Pasechnik, M.	113	Platonov, K. K.	58
Pask, G.	166	Platonova, G. N.	86
Passe, S.	150	Plocica, Albin	26
Passotti, G.	108, 164	Ploke, M.	162
Pataraya, K.	85	Plotkina, M. A.	8
Paton, B.	166	Plotnikova, L. A.	74
Pavlov, G. M.	118	Pogonyaylo, M. G.	84
Pawelski, O.	142	Pogorelov, A. V.	155
Pecchioli, Ugo	35	Pokhil, P. F.	156
Pecelj, Gorcin	33	Pokhvalin, V.	76
Pecherskiy, Yu. N.	147	Polenov, A. L.	80
Pechkovskiy, V. V.	135	Polezhayeva, A. I.	100
Pecker, J. C.	116	Polikarpov, A.	5
Pedinelli, Mario	130	Polikarpov, G. G.	75
Peltramova, S.	20	Polishchuk, D. I.	130
Penev, Blagoy	32	Politov, N.	150
Peric, Aleksandar	28	Polonskiy, A. S.	79
Perkitny, T.	127	Polukhine, Nicolas	68
Perovic, Latinka	31	Polyakov, A.	61
Perovic, Punisa	30	Pomanskiy, A. A.	115
Perrig, M.	106	Ponomar'kov, V. I.	69
Peruanskiy, Yu. V.	82	Popkov, V. L.	72
Peters	22	Popov, D. P.	76
Petkov, Dimitur	29	Popov, I.	58
Petkyavichus, I. Yu.	146	Popov, N.	7
Petohazi, Gabor	23	Poriyete, M.	57
Petrakovskiy, G. A.	157	Poschenrieder, J. W.	119
Petrenko, B. G.	82	Potekhin, I.	12
Petriychuk, D.	8	Povarnitsyn, V. A.	61
Petrov, A. K.	136	Povzhnikov, M. M.	99
Petrov, Krustyu	18	Poyda, A.	4
Petrov, M.	30	Pozdnyakova, L. Ye.	113
Petrov, V. K.	136	Pozin, B. L.	8
Petrova, A. I.	111	Prakhov, A. M.	121
Petrova, N. S.	79	Prokhorov, A. I.	66
Petrovic, Dragoljub	33	Prosvirov, E. S.	79
Petrovnin, M. G.	74	Prouza, M.	137
Petrovskiy, B. V.	73	Pryozzhev, G. V.	71, 73
Petrovskiy, V. V.	134	Pszesnicki, Maksymilian	24
Pfau, A.	94	Ptichkin, N.	57
Pfister, J. C.	150	Pugalov, B. P.	61

Purvanov, Milcho	18
Pustovoitova, T.	77
Puzyrev, N. N.	111

- Q -

Quang, Thai	64
Queisser, Hans-Joachim	163

- R -

Rabinovich, Yu. I.	118
Rabkin, M. A.	134
Radchenko, I. V.	145
Radlinski, Antoni	24
Radoi, Gheorghe	27
Radosavljevic, Momcilo	28
Radovanovic, R.	28
Rafal'ski, V.	154
Ramos, Ruben Castillo	57
Ramzaytsev, D.	10
Raykher, G. S.	10
Rebane, K. K.	118
Reinhard, G.	154
Rekov, A. I.	135
Remizov, V. F.	83
Riccoboni, L.	108
Ritter, E.	141
Rivior, Catherine	38
Robert, J. M.	104
Roder, W.	103
Rodriguez, F. Diaz	98
Romanova, B.	85
Romantsev, B. F.	150
Rombusch, U. K.	106
Ronda, Felix V.	55
Roschenblock, B.	142
Rosemann, W.	140
Rosenberg, Albert	152
Roskin, G. I.	80
Rosner, K.	125
Rossi, G.	137
Rostovtseva, I.	82
Rostunov, T. I.	166
Roth, Ladislav	124
Rozin, L. A.	158
Ruchkin, V. O.	169
Rutkovskiy, G.	7
Rozzman, V.	6
Rozenberg, G.	115
Rukhiyadev, Yu. P.	89

Rumpf, Willie	21
Rusakov, K. B.	13
Russow, J.	145
Ruthl, Wilhelm	163
Rutkovskiy, V. I.	61
Ryaboshapka, K. B.	156
Rybakova, L. I.	132

- S -

Sacchetti, N.	108, 164
Sadon, Pierre-Louis-Eugene	125
Sadritdinov, F.	72
Sager, Gunther	116
Sakirman, Ir.	47
Salah, Ahmad	43
Salgo, H.	107
Samardzija, Ninko	33
Samikidin, Moh.	50
Samoylenko, V. P.	109
Samoylov, O. Ya.	133
Samsel, Zbigniew	26
Samsonov, G. V.	135
Sandor, Wilhelm	163, 164
Sani, L.	154
Sapozhnikova, S. A.	114
Saric, Z.	98
Sarkisov, A.	60
Sarychev, N. K.	9
Satpayev, K. I.	167
Savel'yeva, R. A.	87
Savitskiy, E. M.	136
Savkina, I. G.	100
Savosin, S.	13
Schafer, H.	107
Scharfe, J.	93
Schandert, Horst	22
Schilling, W.	161
Schimanski, Hans	31
Schimmer, A.	138
Schiopu, Bucur	63
Schmidt, G.	160
Schmitz	107
Schmitz, J. A.	126
Schnitger, H.	120
Schollner, R.	107
Schoop, J.	125
Schramm, J.	143
Schroeder, H. J.	153
Schultz, H.	140

Schultze, H.	160	Shteyman, S. V.	121
Schulz, G.	93	Shteynberg, A. S.	121
Schwar, H.	21	Shtina, E. A.	81
Schweer, W.	128	Shuikin, N. I.	100
Schweite, H. E.	126	Shul'man, I. A.	118
Schweizer, H.	105	Shul'te, G. Yu.	133
Schwidtal, Klaus	164	Shumilin, B.	15
Scimar, R.	124	Shupyatskiy, A. B.	114
Seeger, Alfröd	143	Shuteriqi, Dh. S.	29
Seher, A.	105	Shutov, M.	15
Seld-rza, M. K.	122	Shvarts, M. V.	112
Sek, Si	44	Shved, G. M.	111
Semenov, V. A.	68	Shvets, I. T.	123
Semenov, Yu. N.	136	Shvyrkov, Yu.	28
Semenyuk, R. K.	83	Shlykov, Yu. P.	157
Semko, R. S.	80	Sikorakiy, V.	12
Serebryakov, I. N.	5	Silagadge, L.	85
Serebryakova, A. N.	88	Silich, V. A.	87
Sergeyev	135	Silukov, G. D.	122
Sergeyev, V. A.	83	Simonic, Josko	62
Sergeyeva, T. I.	87	Sinenko, F.	13
Sergiyenko, S.	4	Sinitzyna, N. I.	113
Seve, Lucien	37	Sirotkin, S. M.	149
Sevenich, T.	141	Skachkova, I. F.	112
Severnyy, A. B.	112	Skomorokhov, A. L.	83
Sevast'yanov, S. P.	67	Skopac, Srecko	19
Sha, Ting	62	Skorokhod'ko, B. F.	147
Shaburov, M. S.	84	Skorokhodov, V. D.	10
Shakhbazarbekov, K. B.	122	Skripkin, Yr. K.	65
Shalayev, P.	9	Skvirskiy, S.	8
Shambili, Peti	17	Slatineanu, B.	104
Shandrenko, G. I.	135	Slesarev, A. M.	147
Shang, Chiu-tsan	43	Sleskin, L. N.	156
Shapiro, F. L.	151	Slivkov, I. N.	149
Shapiro, I. M.	67	Slutsker, M. S.	1
Shapovalov, I. M.	145	Smaliy, V. T.	74
Shatilov, S.	15	Smirnov, A. I.	70
Shaykh, Mohammad		Smirnov, K. S.	80
Ben esh	44	Smirnov, R. V.	86
Shcheglov, P. V.	110	Smirnov, Ye.	58
Shehu, Fiqret	32	Smirnov, Yu.	58
Shen, Shao-hsiang	46	Smirnov, Yu. M.	147
Shen, Yu-cheng	119	Smovo, A. I.	132
Shentyakov, V. A.	69, 77	Smykov, Ye. A.	10
Shevyakov, A. A.	120	Snegur, G. P.	67
Shigematsu, T.	144	Snezhko, A. D.	68
Shikov, A. T.	82	Sofroni, L.	145
Shirshov, P. P.	115	Sokolov, D. K.	76
Shishido, S.	109	Sokolov, G. P.	101
Shishlakov, P. G.	8	Sokolov, V.	70
Shkvarikov, V. A.	15	Sokolovic, Velimir	33
Shmakov, G. S.	136	Solajic, Dragutin	30

Soldatov, G. M.	87
Solntsova, V.	132
Solomakhin, I.	136
Solonin, S. V.	110
Soloshenko, I. A.	83
Soltyk, V. Ya.	135
Sominskiy, I. S.	146
Somov, G. P.	87
Sonntag, R.	129
Son Schildt, Evert H.	42
Sorokin, I. Yu.	115
Soskin, B.	11
Sosnovs'kyy, Yu. I.	169
Spasskaya, I. G.	86
Spasskiy, V. A.	13
Spath, W.	161
Spindler, H.	142
Spitzer, Gerard	37
Stamm, H. H.	153
Stanev, Stefan	33
Starcevic, Teodor	19
Starfinger, K.	93
Starostin, I. V.	113
Starry, I. B.	133
Steinbach, Guenther	20
Steinberg, R.	93
Steinle, H.	106
Stenzhorn, R.	139
Stepanov, V. Ye.	112
Stepanova, A. M.	81
Stepanova, V. S.	115
Stepinski, Mieczyslaw	25
Stots, Neppen	127
Stranjak, Asim	28
Straub, Bruno F.	95
Strel'nikov, Yu. Ye.	101
Stroehm, Carl Gustaf	35
Stronski, I.	161
Strumilin, S.	12
Struyev, A.	2
Struzer, L. R.	157
Stuwa, G.	128
Suchkov, Yu. G.	87
Suda, Zdenek	31
Sugimoto, Masakatsu	164
Suketaka	109
Sushko, N.	13
Suslov, V. G.	61
Suta, K.	116
Suzuki, A.	144
Svenson, O.	161

Svetsov, N.	6
Syrkin, V. G.	101
Szczepanski, Stanislaw	63
Szklarzewicz, Jerzy	25
Szulc, Kazimierz	25
Szyrocki, Jozef	24

- T -

Tchoyev, F.	4
Tabushi, M.	144
Tadzhiev, K. T.	167
Tagawa, M.	96
Ta'i, Ying	89
Takagi, T.	93
Takaki, S.	96
Takao, Matsukawa	169
Tal', A. A.	123
Tamaki, B.	96
Tamao, Fukui	97
Tamura, Asamu	95
T'ang, P'u	45
Tappe, W.	104
Tarusov, B. N.	68
Tatebayashi, K.	144
Taubman, B.	154
Tebben, A.	107
Tedeschi, Rubens	40
Teplev, Lev Pavlovich	166
Terekhova, V. F.	136
Teront'yev, A. P.	100
Tereshchenko, N.	7
Teslenko, I. F.	169
Thaer, R.	127
Thoden, G.	93
Theret, C.	91
Thieme, J.	140
Thiriet, L.	137
Thony, J.	139
Thum, A.	126
Tikhomirova, Ye.	7
Tikhovon, A. N.	110
Tikhvinskiy, S. L.	16
Timofeyev, M. P.	113
Ting, Lu-shu	45
Tishchenko, D.	102
Tishchenko, D. V.	102
Titov, M.	7
Tkachenko, A. A.	67
Tkachenko, N. N.	70
Tkhostov, B. A.	131

Voigtsberger, Siegfried	22
Vorityuk, V. M.	77
Volf, L. A.	147
Volkonskiy, A.	61
Volkov, B. I.	155
Volovchenko, I.	60
Volovchenko, I. P.	6
Volov'yev, S. I.	84
von der Warth, H.	141
von Erika Siegtist,	
Basel	94
von Gajzago, Oliver	22
von Harnack, G. A.	92
von Kretzschmar, H.	138
von Raben, Kurt	126
Vorkapic, Spase	20
Vorob'yev, A. A.	155
Vorontsov, D. S.	99
Vos, A.H.M.	41
Voskresenskiy, A. D.	66
Voytsekhovskiy, V.	7
Voytsekhovskiy, B. V.	121
Vukcevic, M.	129
Vulikh, B. Z.	166
Vyatkin, A. P.	157
Vyatkin, R. V.	16
Vyatkin, S. K.	82
Vyazov, O. Ye.	81

- W -

Wagner, K.	153
Wahlster, M.	128
Waic, Lubomir	20
Wang, Jih-ts'ai	119
Wang, Ming-yeh	168
Wang, Pang-ying	89
Weber, E.	140
Weber, Heinza	94
Wedin, B.	41, 42
Wegener, W.	138, 140
Wei, Hsing-hua	45
Wei, Hsi-yuan	89
Weigel, Gerhard	127
Weiss, A.	145
Wenk, P.	93
Werner, A. F.	95
Wertheim, M. G.	103
Westlinning, H.	106
Weygand, Friedrich	139
Weyl, Roland	37
Wichterle, O.	103
Wild, M.	139
Wille, P.	160

Winterberg, F.	140
Woigel, J.	139
Wolf, D.	153
Wollschitt, H.	106
Wu, Ching-lien	45
Wutschel, A.	139

- Y -

Yakabe, Masatoshi	109
Yakovleva, R. V.	120
Yakovlevskiy, O. V.	130
Yamaguchi, T.	154
Yamamoto, Gataro	95
Yamamoto, Setsuko	143
Yang, Chien-pai	45
Yao, Teruhiko	143
Yasumori, Yoshikazu	96
Yedygenov, K.	6
Yegorov, B.	7
Yegorov, B. G.	86
Yemel'yanov, S. V.	146
Yeshtokin, A.	6
Yevgen'yeva, A.	16
Yevstigneyev, V. B.	100
Yevzlin, V. N.	2
Yezhevskiy, A. A.	7
Yin, Hung-chang	159
Yoshihide, Nakamura	169
Yuan, Ching-shen	53
Yudanov, I. G.	85
Yuen, Wei-k'ang	168

- Z -

Zabegalov, G. V.	5
Zadul'skaya, E. S.	80
Zaitsev, Yu. V.	120
Zakhariev, Vasil	29
Zakharov, A. F.	81
Zalmanzon, L. A.	123
Zama, Koichi	96
Zaporozhchenko, A. Ya.	86
Zaslavs'ka, I. H.	165
Zaslavskaya, I. G.	165
Zasorina, L. N.	166
Zatsepin, V. J.	79
Zavidov, V. I.	101
Zaytseva, K. I.	71, 72
Zboril, J.	137
Zemskov, G. V.	135
Zhaborinskiy, M. Ye.	118
Zhadov, A. S.	14
Zharov, R. G.	123

Zheltakov, M. M.	65
Zheltenkova, M. V.	80
Zhevnevaty, V. T.	114
Zholdak, S. A.	1
Zhovinskiy, N.	59
Zhukauskas, K. P.	146
Zhukova, A. I.	75
Ziegler, Hans	160
Ziegler, K.	106
Zielinska, Bogumila	24
Zil'berman, Ya. I.	149
Zivkovic, Radmilo	63
Zivkovic, Z.	98
Zolotarev, G. K.	157
Zonova, E. V.	60
Zorin, V.	12
Zorin, V. A.	12
Zvenarev, A. V.	151
Zwicknagl, W.	127

* * *

Best Available Copy



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
AD0834364	78-03109A	52	1	6	62	Consolidated Translation Survey For February 1963	2/1/1963	232	Approved For Release	3/25/2004
AD0402915	78-03109A	52	1	7	63	Consolidated Translation Survey For March 1963	3/1/1963	314	Approved For Release	3/25/2004
AD0405169	78-03109A	52	1	8	64	Consolidated Translation Survey For April 1963	4/1/1963	278	Approved For Release	3/25/2004
AD0409473	78-03109A	52	1	9	65	Consolidated Translation Survey For May 1963	5/1/1963	358	Approved For Release	3/25/2004
AD0413153	78-03109A	53	1	1	66	Consolidated Translation Survey For June 1963	6/1/1963	361	Approved For Release	3/25/2004
AD0414818	78-03109A	53	1	2	67	Consolidated Translation Survey For July 1963	7/1/1963	249	Approved For Release	3/25/2004
AD0418328	78-03109A	53	1	3	68	Consolidated Translation Survey For August 1963	8/1/1963	324	Approved For Release	3/25/2004
AD0834365	78-03109A	53	1	4	69	Consolidated Translation Survey For September 1963	9/1/1963	193	Approved For Release	3/25/2004
AD0423936	78-03109A	53	1	5	70	Consolidated Translation Survey For October 1963	10/1/1963	232	Approved For Release	3/25/2004
AD0426736	78-03109A	53	1	6	71	Consolidated Translation Survey For November 1963	11/1/1963	298	Approved For Release	3/25/2004
AD0428566	78-03109A	53	1	7	72	Consolidated Translation Survey For December 1963	12/1/1963	298	Approved For Release	3/25/2004
AD0431011	78-03109A	53	1	8	73	Consolidated Translation Survey For January 1964	1/1/1964	273	Approved For Release	3/25/2004
AD0433215	78-03109A	53	1	9	74	Consolidated Translation Survey For February 1964	2/1/1964	200	Approved For Release	3/25/2004
AD0437984	78-03109A	54	1	1	75	Consolidated Translation Survey For March 1964	3/1/1964	305	Approved For Release	3/25/2004
AD0440831	78-03109A	54	1	2	76	Consolidated Translation Survey For April 1964	4/1/1964	155	Approved For Release	3/25/2004
AD0442174	78-03109A	54	1	3	77	Consolidated Translation Survey For May 1964	5/1/1964	249	Approved For Release	3/25/2004
AD0443106	78-03109A	54	1	4	78	Consolidated Translation Survey For June 1964	6/1/1964	191	Approved For Release	3/25/2004
AD0444756	78-03109A	54	1	5	79	Consolidated Translation Survey For July 1964	7/1/1964	169	Approved For Release	3/25/2004
AD0447557	78-03109A	54	1	6	80	Consolidated Translation Survey For August 1964	8/1/1964	153	Approved For Release	3/25/2004
AD0450482	78-03109A	54	1	7	81	Consolidated Translation Survey For September 1964	9/1/1964	141	Approved For Release	3/25/2004
AD0451428	78-03109A	54	1	8	82	Consolidated Translation Survey For October 1964	10/1/1964	149	Approved For Release	3/25/2004
AD0453181	78-03109A	54	1	9	83	Consolidated Translation Survey For November 1964	11/1/1964	157	Approved For Release	3/25/2004
AD0455133	78-03109A	54	1	10	84	Consolidated Translation Survey For December 1964	12/1/1964	121	Approved For Release	3/25/2004
AD0456859	78-03109A	54	1	11	85	Consolidated Translation Survey For January 1965	1/1/1965	179	Approved For Release	3/25/2004
AD0458780	78-03109A	54	1	12	86	Consolidated Translation Survey For February 1965	2/1/1965	161	Approved For Release	3/25/2004
AD0461501	78-03109A	55	1	1	87	Consolidated Translation Survey For March 1965	3/1/1965	301	Approved For Release	3/25/2004