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ABSTRACTS FROM EAST EUROPEAN  
SCIENTIFIC AND TECHNICAL JOURNALS

No. 130

(General Series)

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## FOREWORD

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JPRS: 18,693

ABSTRACTS FROM EAST EUROPEAN  
SCIENTIFIC AND TECHNICAL JOURNALS

No. 130

- General Series -

This report consists of abstracts of articles from the East European scientific and technical journals listed in the table of contents below.

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<u>Comunicarile Academiei Republicii Populare Romine,</u> <u>Bucharest, Vol 13, No 1, Jan 63</u>	14

BULGARIA

IVANOV, I. [ Affiliation not given ]

" Geodetic Lines of the First Order in Plain Geometry as Minimum Lines "

Sofia, Doklady Bolgarskoy Akademii nauk, Vol 15, n°7, 62, pp 697-698

Abstract [ German article, Author's Russian summary modified]:

An equation is derived with reference to a property of geodetic lines of first order in two-dimensional geometry by means of certain relations defined in other works on the subject given in references, related to linear elements.

2 - Bulgarian; One - Western references.

1/1

BULGARIA

DOCHEV, K. [ Affiliation not given ]

" On Newton's Iterations "

Sofia, Doklady Bolgarskoy Akademii nauk, Vol 15, n°7, 62, pp 699-701

Abstract [ German article, Author's Russian summary modified]:

Some adequate conditions are outlined in this paper for the convergency of newton's theory of successive approximations for numeric definition of certain algebraic equations which enabled the generalization of L. Iliiev's theorem.

One - Bulgarian; One - Western references.

1/1

BULGARIA

STROYANOV, D. [ Affiliation not given ]

" Variational Boundary Condition in Tamm-Dancoff's Method "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N#7 , 62  
pp 703-706

Abstract [Russian article, Author's English summary]:

A new method is proposed for the approximate determination of eigenvalues and eigenfunctions from the Schrodinger's stationary equation in the presence of strong perturbations. In contrast to the Tamm-Dancoff's method, where the eigenfunctions of the perturbed Hamiltonian are expanded in terms of eigenfunctions of an unperturbed one, in the proposed method this expansion is done in terms of eigenfunctions of a more generalized Hamiltonian, depending on "r" parameters "g" and equal to the unperturbed one for certain values of parameters " $g_a = g_a^0$ ".

3 - Soviet block; 2 - Western references.

1/1

BULGARIA

DZHAKOV, E. ; ORLINOV, V ; ZARKOVA, L ; KONSTANTINOV, E [Institute of Physics at the Bulgarian Academy of Sciences, Sofia]

" High-Frequency Oscillations in a Thermionic Converter under Low Pressure of Cesium Vapors "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N#7 , 62  
pp 707-710

Abstract [ Article written in English. Authors' Russian summary modified ] : Experiments have been made for investigating high frequency oscillations using a tube consisting of 2-cm long tungsten wire, as cathode, and a 5-mm diameter nickel anode; the cathode was heated with a half-wave rectified AC current, 50 cycle frequency. It has been noted that the frequency of oscillations rises with the increase of the temperature in the cathode; oscillations in the anode circuit did not change appreciably in amplitude with the increase in voltage.

8 references predominantly of Western origin.

1/1

BULGARIA

DERZHANSKI, A. [ Affiliation not given ]

" A New Autodyne Method for Detection of Nucleomagnetic Resonances "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7, 62  
pp 711-715

Abstract [German article, Author's Russian summary modified]:

The proposed method is actually an improvement of the standard method whereby such drawbacks as work instability of autodyne detectors, their frequency instability at low amplitudes are eliminated by certain alterations in the circuitry.

1/1

BULGARIA

BORISOV, M; KYNEV, S; GEORGIEVA, I. [ Affiliation not given ]

" A New Equalization Effect of CdS - Monocrystals "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 715-718

Abstract [Russian article, Authors' German summary modified]:

The proposed method using CdS monocrystals stresses the role of the anode for increasing the conductivity by means of depositing  $Cu_2O$  or  $Ag_2O$ .

6 - references predominantly of Western origin.

1/1



BULGARIA

SYRNEV, L. [ Affiliation not given ]

" Slow States on the PbS Surface Produced by Water Vapors "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 719-722

Abstract [ Russian article, Author's English summary modified]:

After measuring the slow relaxations of the photo-current in the reverse direction of the point-contact diodes of PbS it was established that the slow state on the surface of this material is almost completely ionized. Water vapors produce slow levels on the PbS surface which lie around the Fermi level, hence they do not produce an electric charge on the surface but change the character of the slow relaxation and cause a strong increase of the flicker noise.

9 - references predominantly of Western origin.

1/1

BULGARIA

NADZHAKOV , G.; ANTONOV, A.; ZADOROZHNIY, G. [Affiliation not given]

" Nature of Shallow Traps in Monocrystal Sulfur "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 723-726

Abstract [Article written in Russian. Authors' English summary modified]: The assumption that the application of high electric fields to monocrystal sulfur produces ion adsorption on the crystal surface with ions transformed into peculiar shallow traps is experimentally confirmed in this work. Traps participate in the mechanism of dark polarization, dark current and photodepolarization current.

One - Western and one Soviet references.

1/1

BULGARIA

SERAFIMOV, K.; UZUNOVA, S. [Affiliation not given]

" Optimal Covered Aerial Zones "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 727-730

Abstract [Russian article, Authors' English summary modified]:

An analytic expression for the optimal covered distance of a given aerial for a certain wave-length is given and a method is outlined for calculating the optimal servicing zone in the presence of ionograms. Optimal distances covered by standard synphase, rhombic or fleeting-wave aeriels are determined for different heights of reflection.

4 - Soviet-bloc and one western references.

1/1

BULGARIA

PANCHEV, S. [Affiliation not given]

" Velocity of Free Fall of Small Drops of Variable Density "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 731-734

Abstract [Russian article, Author's French summary modified]:

An approximate solution of the motion of small drops of variable density in air at low Reynolds numbers and a modified equation for water drops taking into account evaporation are given in the article with the resulting conclusion that for the calculation of the velocity the known Stokes equation can be used as in case of constant density.

3 - Soviet-bloc references.

1/1

**BULGARIA**

IVANOV, N. [Affiliation not given]

" New Method for Quick Quantitative Determination of Alkaloids in Fresh Tobacco Leaves "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 735-738

Abstract [English article, Author's Russian summary modified]:

A new method for determination of nicotine in fresh tobacco leaves has been developed using chromatography as a means, and formulas for testing reagents are outlined in the paper .

7 - references predominantly from the Soviet bloc.

1/1

**BULGARIA**

TEREBLININA, A. ; ANGELOVA, G. [Affiliation not given]

" A Study of Relations Between Mineral Contents and Organic Matter in Coal "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 739-742

Abstract [Russian article, Authors' German summary modified]:

Tests were conducted with different specimens of domestic coals by spreading particles with 0.2 n of HCl for elimination of mineral contents solvable in this acid; by further processing relations have been established between the mineral contents and other organic matter by spectral and silicate analysis.

5 - references predominantly of Western origin.

1/1

**BULGARIA**

CHOBANOV, D. Institute of Organic Chemistry at the Bulgarian Academy of Sciences [Original-language version not given]

"Use of Ternary Solvent System Diagram in Liquid-Liquid Chromatography: Separation of Short Chain Fatty Acids (C<sub>2</sub> to C<sub>6</sub>)"

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, n°7, 62  
pp 743-746

Abstract [English article, Author's Russian summary modified];

A three-component system consisting of water-acetone-petroleum ether triangular combination has been selected in accordance with Kwell's classification of liquids and implemented for experimentation using chromatography as an analytical method with resulting observations proving the importance of triangular diagrams for the selection of solvent systems for liquid-liquid chromatography.

9 - references predominantly of Western origin.

1/1

**BULGARIA**

ZAGORCHEV, B.; KONSTANTINOVA, M. [Affiliation not given]

"Tartarcomplex of Iron and Its Use for Separation Fe<sup>+++</sup> from Fe<sup>++</sup> Ions"

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7, 62  
pp 747-750

Abstract [German article, Authors' Russian summary modified]:

Relations between ferritartar complexes and anions have been investigated through qualitative and quantitative analysis with the resulting elaboration of a method for separation of ferri from ferro ions.

7 - references predominantly of Soviet-bloc origin.

1/1

BULGARIA

IVANOV, D.; ELASHOV, B. [Affiliation not given]

" Preparation of a Polyfunctional Organomagnesium Reagent with Accumulated Double Bonds and a Carboxyl Group, Applied to Certain Syntheses "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, No 7 , 62  
pp 751-754

Abstract [ Article written in French; Authors' Russian summary modified ] : A polyfunctional organomagnesium preparation reagent has been obtained by metallizing 3,4-pentadien acid with  $C_2H_5MgBr$ ,  $i-C_4H_9MgCl$  and  $o-C_6H_4MgBr$ . The resulting hydroacids have been checked through carbonyl displacement and their presence proved in the infrared spectrum.

9 references predominantly Western.

1/1

BULGARIA

ALEXIEV, B.; HOLYVSOVSKY, V.; SORM, F.; Institute of Organic Chemistry and Biochemistry at the Czechoslovak Academy of Sciences, Prague [Original-language version not given]

" Structure of Some Peptides Isolated from Trypsinhydrolysat of S-Sulfotrypsinogenes "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, No 7 , 62  
pp 755-758

Abstract [German article, Authors' Russian summary modified]:

Described are structures of three peptides containing 16, 37, and 14 aminoacids respectively. A hypothesis is advanced on a connection between one of these peptides containing methionine and phenylalanine with another peptide of a smaller trypsin molecule structure. The third peptide contains tryptophan and its presence is explained by an unknown part of an enzyme molecule.

10 references predominantly Western.

1/1

BULGARIA

RASHKOV, S. ; MIRCHEVA, V. [Affiliation not given]

" Structure and Predominant Orientation of Cobalt Crystals with Electrolytic Depositing in Presence of Iodine Ions "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 759-762

Abstract [English article, Authors' Russian summary modified]:

A detailed X-ray study of the effect of  $J'$  on the structure and predominant orientation of cobalt crystals in a wide range of pH under different temperatures and current densities is outlined with some effects of KJ in  $\alpha$ -Co depositing pH and  $\beta$ -Co depositing shown on X-ray pictures.

9 references predominantly of Soviet-bloc origin.

1/1

BULGARIA

KOLCHAKOV, M. [ Affiliation not given ]

" Differential Equations for Thin, Flat and Elastic Orthotropic Shells of Variable Thickness "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 763-766

Abstract [Russian article, author's German summary modified]:

Fundamental differential equations for thin flat shells of variable thickness are analyzed taking into account initial normal shiftings due to contour irregularities and temperature changes.

8 references predominantly of Soviet-bloc origin.

1/1

**BULGARIA**

**NIKOLOV, P.** [Affiliation not given]

" A Study of the Antigen Structure of Erysipelothrix Rhusiopathiae "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 767-769

Abstract [ German article, Author's Russian summary modified]:

A study of electrophoretic relations in proteins of erysipelo-thrix rhusiopathiae is the subject of this paper coupled with the investigation of relations of antigens through immunoelectrophoresis and diffusio-precipitation in agar gel.

10 references predominantly of Western origin.

1/1

**BULGARIA**

**NAIDENOV, V.** [ Affiliation not given ]

" A Study of Zooplankton on the Bulgarian Shore of the Danube River "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 771-774

Abstract [ German article, author's Russian summary modified]:

The subject study represents a statistical report covering localities situated along the Danube.

3 - Soviet bloc and 2 - Western references.

1/1

BULGARIA

ATANASOV, D. [affiliation not given]

"Selection of Virus-Resistant Potatoes."

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 15, No 7, 62, pp 775-778

Abstract [English article, Author's Russian summary modified]: An inexpensive and efficient method for the selection of virus-resistant potatoes from common varieties is described, with some statistics in support of the method. No references.

1/1

BULGARIA

MANCILOV, S. [Affiliation not given]

"Detection of Cholinesterase Activity and the Impregnation of the Ends of Nerve Fibers in Striated Muscles."

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 15, No 7, 62, pp 779-781

Abstract: [French article, Author's Russian summary modified]: A method for observing cholinesterase activity and nerve fibers is described, combining Coers' thiozol and Bodian's nerve-impregnation methods. Nine references, predominantly Soviet-bloc.

1/1



**BULGARIA**

ZOGRAFOV , D. [ Affiliation not given ]

" A Study of Fibrinolysis on Rabbits Subjected to Intense X-Ray Radiation "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7, 62  
pp 783-785

Abstract [ German article, Author's Russian summary modified]:

: Two groups of rabbits in the weight bracket of between 2.5 kg and 3.5 kg have been subjected to 400r and 700r X-ray radiation with the resulting observation of the retardation of fibrinolysis activity already in the first day of tests. The method used was the euglobulin method developed by Kowarovyk and Buluk.

11 references predominantly of Western origin.

1/1

**BULGARIA**

GALABOV, S. [ Affiliation not given ]

" A Study of Induced Variability of Colibacteria."

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, N°7 , 62  
pp 787-790

Abstract [German article, author's Russian summary modified]:

C<sub>235</sub>, O<sub>43</sub>, O<sub>waks</sub>, CB<sub>6H6</sub> and CB<sub>7</sub> colibacteri have been investigated with the purpose of determining effects of Salmonella gallinarium extracts on biochemical properties of colibacteria.

9 references predominantly of Soviet-bloc origin.

1/1

**BULGARIA**

CHAKYROV, B.; POSEALAKI, Z. [Affiliation not given]

" On the Use of Polymers of Ethylenglycol in Microchemical Methods for Detection of Lipides "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, n°7 , 62  
pp 791-794

Abstract [ French article, Authors' Russian summary modified]:

The results of this study indicate serious objections against using polyethylene glycol in the technique of detection of lipides and on the preference of the cryostat technique.

10 references predominantly of Western origin.

1/1

**BULGARIA**

VYRBANOV, V.; Psychological Institute of the Bulgarian Academy of Sciences [original-language version not given]

" A Comparative Study of Hyperemia in Upper and Lower Extremities of Young and Aged Persons "

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 15, n°7 , 62  
pp 795-798

Abstract [ German article, Author's Russian summary modified]:

32 persons between 18 and 50 years of age and 34 persons between 60 and 105 years of age of both sexes have been investigated. Active hyperemia in the shoulder area which took place 2-1/2 minutes after stopping the arterial flow of blood using rubber bands has been studied along with changes in blood flow in the arm and leg using two Schroeder instruments. The authors conclude the paper with the observation on the inferiority of capillaries of the lower extremities in adult persons.

9 references predominantly of Western origin.

1/1

RUMANIA

MIHOC, Gh. Corresponding Member of the RPR Academy (Membru  
Correspondent al Academiei RPR) [affiliation not given]

"Limiting Law for the Sums of Vectorial Variables of a  
Chain with Multiple, Complete, Stationary Connections."

Bucharest, Comunicarile Academiei Republicii Populare  
Romina, Vol 13, No 1, Jan 1963, pp 5-9.

Abstract [Author's French summary modified]: Let  $v(t)$ ,  
 $t=1,2,3,\dots$ , be an aleatoric vector which at the instant  
 $t$  may assume one of the values

$$v^h = \{v_1^h, v_2^h, \dots, v_m^h\}, h=1,2,\dots,m,$$

where the vectors  $v^h$  belong to an euclidian space with  $s$   
dimensions. The succession of the vectors  $v(t)$  is based  
on a chain with complete multiple second-order stationary  
connections, with probabilities of passage  $\mathbb{P}_{jk}(\bar{p}, \bar{p}_c(\bar{p}))$   
and initial probabilities  $\bar{p}, \bar{p}_c, \bar{p}_c$ . The author  
uses the notations  $w(t) = v(1) + v(2) + \dots + v(t)$ ,  $t=1,2,\dots$

1/2

RUMANIA

Bucharest, Comunicarile Academiei Republicii Populare  
Romina, Vol 13, No 1, Jan 1963, pp 5-9.

to state the sufficient conditions for making the suitably  
normed vector  $w(t)$  accord at the limits to a normal law for  
several dimensions.

Includes 1 Western and 4 Rumanian references.

2/2

RUMANIA

TIRNOVEANU, Mircea [affiliation not given]

"Regarding a Geometric Model of the System  $\Sigma$ ".

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 11-16.

Abstract [Author's French summary]: In section 1, the author introduces the notions of a vectorized logical domain  $L_1$ ; and of an  $L$ -conjugated vectorial space with an  $L_3$ -vectorized domain. In addition, he establishes some theorems concerning the  $L_3$ -vectorized domains. In section 2 he defines the notion of the differential logical variation attached to a logistic non-constructive system  $\Sigma$ . He then establishes some theorems referring to the differential logical variations.

Includes 1 American, 1 German and 4 Rumanian references.

1/1

RUMANIA

MOISIL, Diana [affiliation not given]

"Reflection Spectra of Thin Layers of Copper in Various Oxidation Stages."

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 17-21.

Abstract [Author's French summary modified]: Reports the results of studies of the reflection of light of various wavelengths (470  $m\mu$  to 650  $m\mu$ ) on thin layers of copper in various stages of oxydation. The results are compared to those given in the litterature for the oxydation of copper in bulk; attention is called to the main factors responsible for the shift in the position of the minima in the reflection by thin layers.

Includes 3 figures and 1 Rumanian and 8 Western references.

1/1

RUMANIA

AGIRBICEANU, Ion, ICHIMESCU, Ariana and VIROSANU, Ion  
[affiliation not given]

"Transmission of Thin Layers of Silver Subjected to Heating".

Bucharest, Comunicarile Academiei Republicii Populare  
Romane, Vol 13, No 1, Jan 1963, pp 25-26.

Abstract [Author's French summary]: The authors study the changes undergone by thin layers of silver subjected to heating. They find that the behavior of layers that are 200 Angstrom thick behave very differently from 600-Angstrom layers for the same heating. The differences, ascertained by spectrophotometric studies, by electron microscopy and by electron diffraction, contribute to an explanation of the differing thermic emission ability of thin silver layers of different thicknesses.

Includes 3 figures and 1 Rumanian and 1 Western reference.

1/1

RUMANIA

BERATLIEF, C., ROMASCU, Em. and MIRCESCU, Al. [affiliation not given]

"The Sensitivity of Some Varieties of Wheat to Attack by the Nematode Tylenchus Tritici Steinb."

Bucharest, Comunicarile Academiei Republicii Populare  
Romane, Vol 13, No 1, Jan 1963, pp 27-32.

Abstract [Author's French summary modified]: The authors report on the sensitivity to attack by the nematode Tylenchus tritici Steinb. of 15 varieties of winter wheat and 3 varieties of spring wheat. The varieties Dicoa and Concho were least sensitive, although all 18 were attacked to varying degrees. It is pointed out that an exact evaluation of nematode damage must include plants attacked early which do not produce a heading as well as the damaged ones.

Includes 4 tables and 3 Rumanian, 1 Russian and 1 Western reference.

1/1

RUMANIA

PRECUPETU-ZAMFIRESCU, Ana [affiliation not given]

"New Data on the Study of the Family Megalodontidae (Hymenoptera - Tenthredinoidea) in the Rumanian Peoples' Republic."

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 35-38.

Abstract [Author's French summary]: This note contains the description of six species of Hymenoptera - Tenthredinoidea of the Megalodontidae family collected during the period 1955-1960 in different localities in Rumania; some of them are new for the fauna of Rumania and others were found in new localities. The note is accompanied by original drawings and by biological and zoo-geographic observations.

Includes 7 figures and 2 Eastern and 5 Western references.

1/1

RUMANIA

NEGRU, St. [affiliation not given]

"New Mallophages in the Fauna of the Rumanian Peoples' Republic (Mallophaga Nitzsch).(VI)"

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 39-44.

Abstract [Author's French summary modified]: The author reports on 8 species found for the first time in Rumania. He gives details on the conditions under which the insects were found and on the body length of the adult insects. The collected material was taken from 14 hosts belonging to 8 species of birds.

Includes 1 table and a bibliography with 24 entries, mostly Eastern.

1/1

RUMANIA

GRUIA, Lucian [affiliation not given]

"New Algae for the Flora of the Rumanian Peoples' Republic."

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 45-51.

Abstract [Author's French summary modified]: The author reports on 9 new algae in the flora of Rumania collected in the period 1956-1962 in the Danube delta, the Trotus, Cibin and Olt rivers, the Bucegi massif, and the Sinaia station of Bucarest University. Complementary data are given on the diagnosis of the species Pseudanabaena crassa Vozzhenn.

Includes 9 original drawings and 1 German, 3 Russian and 12 Rumanian references.

1/1

RUMANIA

SILVA, F., PAUN, E. AND MATEESCU, Elena [affiliation not given]

"Dynamics of the Accumulation of Morphine in Poppies with Mixed Utilization Grown in Different Pedoclimatic Zones of the Rumanian Peoples' Republic."

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 53-58.

Abstract [Authors' French summary modified]: The authors describe results obtained in 3 stations of the Central Institute for Agricultural Research. It is shown that the maximum accumulation of morphine occurs during the semi-maturity of the plants regardless of the pedoclimatic conditions or provenience of the plants. A tendency is noted for increased morphine content going from the humid forest region toward the dry steppe region.

Contains 1 table and 17 references, mostly German.

1/1

RUMANIA

LUPE, Ioan Z. [affiliation not given]

"The Cultivation of Oak Trees in Biogroups and Square Plantations at Iacul Sarat, Braila, After 12 Years."

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1965, pp 59-67.

Abstract [Author's French summary modified]: Plantation in pockets according to the method of T. D. Lyssenko is compared to plantation in biogroups and to simple plantations with trees in rows of 1.50x1.50 m. After 12 years it is seen that plantation in biogroups is the best method, both from the point of view of planting and upkeep costs and because of a better regulation of density and selection of specimens. The author points out that with some structural modifications in the oak biogroups and a proper choice of mixtures one can obtain particularly valuable populations.

1/1 Contains 5 figures, 1 table and 7 Eastern references.

RUMANIA

DISSESCU, R. [affiliation not given]

"Studies on the Periodicity of Tree Felling Caused by Wind in Forests."

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, pp 69-75.

Abstract [Author's French summary modified]: A study of wind damage during a period of 77 years in Rumania, 140 years in Czechoslovakia and 101 years in Germany leads to the conclusions that: in the region analyzed, massive wind damage in the forests had a periodicity of approximately 11 years, with the probability of appearance being  $\pm 3$  years in 68 of 100 cases. There is a clear relation between periods of massive damages and periods of solar activity. Changes in the intensity of the damage depends mainly on the secular variation of the wind intensity.

Contains 2 figures, 1 table and a bibliography with 15 entries of which 1 French, 4 German, 1 Czech and 7 Rum.  
1/1



RUMANIA

SZABO, St., MODY, E., GYERGYAY, F., SZEKELY, I., and FESZT, T. of the Tg. Mures Scientific Research Base of the RPR Academy (Academia RPR. Baza de Cercetari Stiintifice) and of the Department of Physiology (Catedra de Fisiologie) of the Medical-Pharmaceutical Institute of Tg. Mures (Institutul Medico-Farmaceutic, Tg. Mures).

"Studies on Experimental Encephalopathies. IV. Electrophoretic Examination of Serum Proteins, Glucoproteins and Lipoproteins in Rabbits Treated with a Suspension of Heterologous Brain".

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 77-85.

Abstract [Authors' French summary modified]: Electrophoretic studies were carried out for allergic encephalomyelitis experimentally induced in rabbits by the administration of heterologous brain. With regard to proteins, hypoalbuminemia and hyperglobulinemia were

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Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 77-85.

observed. The total concentration of glucoproteins increased. As for the glucoprotein fractions, the proportion of albumins decreased and the percentage of alpha and beta globulins increased. The number of serum lipoproteins increased and the ratio between their fractions changed considerably in favor of the beta lipoproteins. The modifications of the proteins and glucoproteins are due largely to the metabolism disturbances at the neuraxis level. The multiplication of the lipoproteins is attributed not only to myelinosis but also to non-specific factors.

Includes 3 tables and 1 Japanese, 3 Western and 7 Rumanian references.

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SZABO, St., MODY, E., SZEKELY, I. and GYERGYAY, F. of the Tg. Mures Scientific Research Base of the RPR Academy (Academia RPR. Baza de Cercetari Stiintifice Tg. Mures) and of the Department of Physiology (Catedra de Fisiologie) of the Medical-Pharmaceutical Institute of Tg. Mures (Institutul Medico-Farmaceutic, Tg. Mures).

"Studies on Experimental Encephalopathies. V. Experiences Concerning the Mechanism of Lipidemia in Allergic Encephalomyelitis."

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 87-93.

Abstract [Authors' French summary modified]: The authors observed an increase of serum lipids and an increase of beta lipoproteins in rabbits and guinea pigs treated with antigenic substances or subjected to interventions capable of provoking inflammations and fibroses. The multiplication of the beta lipoproteins is considered as a non-specific

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Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 87-93.

reaction usually accompanying dysproteinemias of the inflammatory type. Thus the lipoprotein changes observed in experimental encephalomyelites are not only due to the myelinolysis processes but also to other factors independent of these.

Includes 7 tables and 5 Western, 1 Russian and 9 Rumanian references.

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RUMANIA

NEACSU, C., SERBAN, Al, M. D., JUVINA, Elena and STATESCU, L. [affiliation not given]

"Contribution to the Study of Cerebral Metabolism Under Hormonal Influence. The Influence of Chronic Treatment With Testosterone and of Acute Treatment with ACTH and Chorionic Gonadotrophine on the Phosphorus Metabolism in Different Regions of the Brain in Rats."

Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 95-102.

Abstract [Authors' French summary modified]: The authors studied the prolonged action of testosterone and the acute influence of ACTH and chorionic gonadotrophine on the incorporation of radioactive phosphorus  $P^{32}$  in different sections of the rat brain. They found that chronic administration of testosterone increased phosphorus accumulation, especially in the Varole bridge and the callose

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Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol 13, No 1, Jan 1963, pp 95-102.

body. Acute administration of ACTH increased the accumulation of radioactive phosphorus in the area of the callose body, white matter, bulb and bridge. The action of chorionic gonadotrophine weakened the effect of testosterone in the bulb and the bridge. The archeopallium was found to be more sensitive to the influences than the neopallium. The stages having important neuro-endocrine functions were found to be more sensitive to hormonal action.

Includes 4 figures, 3 tables, 1 Western, 2 Rumanian and 5 Russian references.

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