Effect of Reflected Electrons in Second Electronic Emission.

can be connected with the increase of the reflection-coefficient in the case of growing φ (angle of descent of the primary electron beam). The influence of reflected electrons on the SEE-pheomenon was investigated. On the basis of experimental data formulae for the comparative judgement of σ_{theor} (theoretical coefficient of SEE) were deduced in the range U_p. In this range the free path of the dispersion of primary electrons is greater than the effective work function of the secondary electrons λ_2. The investigation of σ_{theor} carried out here lead to suppose that the reflected electrons play a considerable part in the process of exciting secondary electrons and that this influence should not be neglected when investigating the SEE-phenomenon, especially in the case of materials, which show a high reflection - coefficient.
(7 illustrations, 1 table and 4 citations from Slav publications)

ASSOCIATION: LFTI
PRESENTED BY:
SUBMITTED: 13.11.1956
AVAILABLE: Library of Congress.
Card 2/2

DOBRETSOV, L.N.

Theory of surface ionization. Trudy LPI no.194:143-153 '58.
(MIRA 11:11)

(Ionization)

~~24(6)~~ 24.7700

66291

AUTHORS: Bol'shov, V. G., Dobretsov, L. N., SOV/181-1-11-26/27
Zharinov, A. A., Krachino, T. V., Repnikova, M. K.

TITLE: Emission Properties of Germanium Treated in Cesium Vapors

PERIODICAL: Fizika tverdogo tela, 1959, Vol 1, Nr 11, pp 1768-1770 (USSR)

ABSTRACT: The thermal, photoelectric and secondary electron emissions of monocrystalline n-germanium samples and germanium films were measured in the conventional way. For the germanium films the germanium was deposited by evaporation in vaccum on glass or a tantalum foil and the latter was subsequently treated in cesium vapors. The measuring results are the following: for the germanium film deposited by evaporation on glass and subsequently processed, an increase by 2 orders of magnitude could be established in the electrical conductivity. This points toward a change in volume of the layer. Figure 1 contains the dependence of the real work function φ_T on the temperature of the cathode following a cesium treatment at 800°C cathode temperature and a ≈150°C measuring instrument temperature. If the cathode is heated at T>300°C for a sufficiently long period after the cesium processing and if the cesium vapors are frozen out, one can

Card 1/~~2~~

again obtain a φ_m, corresponding to the value of pure germanium. Figure 2 represents the characteristic spectrum distribution of 2 photoelectric elements, whose germanium photoelectric cathodes were treated in the following method: a) germanium was evaporated in a vacuum, precipitated on molybdenum glass, and treated with cesium vapor. The temperature of the vapor and the sample was ~200°C. b) The photoelectric cathode was illuminated through an uviol glass mounted before the sample. Figure 3 contains the course of the secondary electron-emission coefficients σ (measured at room temperature) for the following samples: a) non-treated germanium, b) germanium treated at 150°C in cesium vapor and for several minutes at a sample temperature of ~800°C. Figures 2 and 3 show that, disregarding a certain shift, the basic course of the curves is maintained for both samples. Additional details will be published in the near future. There are 3 figures.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut AN SSSR
(Leningrad, Physico-technical Institute of the AS USSR)

PHASE I BOOK EXPLOITATION SOV/5348

Dobretsov, Leontiy Nikolayevich

Atomnaya fizika (Atomic Physics) Moscow, Fizmatgiz, 1960. 348 p. 40,000 copies printed.

Eds.: F. M. Kuni and M. M. Kal'; Tech. Ed.: A. A. Luk'yanov.

PURPOSE: This book is intended for students of higher technical educational institutions.

COVERAGE: This is a textbook on atomic physics based on a series of lectures given by the author to students of the Radio Technology Division of the Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute). The following topics are discussed: properties of electrons and ions, photon theory of light, quantum theory of atomic structure, elements of atomic spectroscopy, electron spin, Pauli's principle, molecular optics, X-ray and corpuscular diffraction, quantum mechanics, and the electron theory of solids. Mention is made of E. V. Shpol'skiy,

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author of Atomnaya fizika (Atomic Physics), and N. A. Belov, S. L. Dobretsov, and A. G. Savin, students of the radio division of the Institute. There are no references.

TABLE OF CONTENTS:

81107

S/057/60/030/04/01/009
B004/B002

24.2700
9.3120

AUTHOR: Dobretsov, L. N.

TITLE: Thermoelectronic Transformers of Thermal Into Electric Energy

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 4, pp. 365-394

TEXT: The author discusses the problem of a practicable thermoelectronic diode with a steep characteristic in the negative potential range (Fig. 1) and a sufficiently large saturation current of the cathode. He discusses the action of such a diode from the thermodynamic viewpoint by comparing it with a thermodynamic machine (Fig. 2). The following types of electric energy transformers published so far, are described: 1) vacuum diode with an uncompensated space charge (called "vacuum thermocouple with space charge"). The course of the potential energy within the space between cathode and anode is graphically shown (Fig. 3). Fig. 4 gives the Langmuir diagram with the dimensionless coordinates ξ, η. Furthermore, the calculation and graphical representation of the voltage - current characteristic is given in Figs. 5, 6. Fig. 7 shows the power W of

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Thermoelectronic Transformers of Thermal Into Electric Energy

the diode as dependent on the external resistance r. Fig. 8 gives the dependence of W on the current density j at different temperatures, and Fig. 9 that on the distance d between anode and cathode. The author mentions that with this type practicable current densities can be attained only at d-values of several microns. Fig. 10 shows the scheme of a test model according to Ref. 7, and Fig. 11 gives the respective experimental data. 2) Diodes with a space charge compensated by Cs^+ ions, with Cs^+ developing only by ionization of the cathode surface (vacuum thermocouple without space charge): The processes taking place in this transformer are dealt with on the basis of A. I. Ansel'm's calculations which were made according to a suggestion by A. F. Ioffe. The case in which the work function $e\phi_1$ on the hot electrode is smaller than $e\phi_2$ on the cold electrode (Fig. 12) has not been investigated in detail. For $e\phi_1 > e\phi_2$ the following items are distinguished: a) density j_{1s} of the saturation current of the hot electrode is smaller than j_{2s} of the cold electrode (Figs. 13-18, Table 1); b) $j_{1s} = j_{2s}$; c) $j_{1s} > j_{2s}$ (Fig. 19). In this case, the emf at $T_2 = 400^\circ K$ is given for different ϕ_1 and T_1

Thermoelectronic Transformers of Thermal Into Electric Energy

(Table 2). Figs. 20 and 21 show the range within which the reduction of the power factor by heat radiation is not too great. The compensation of the space charge by Cs^+ ions is discussed. The suggestion of an irregular Cs distribution on the cathode (Refs. 3, 10, 11) is not considered to be very promising (Fig. 22). 3) Transformers in which the space charge is compensated by means of ions developing within the space between cathode and anode (plasma transformer): here, the author refers to papers by M. Ye. Gurtovoy and G. I. Kovalenko (Ref. 13), P. Marchuk (Ref. 14), and N. D. Morgulis and P. Marchuk (Ref. 15) concerning the voltage - current characteristic of a thermoelectronic diode with a tungsten cathode in Cs vapor. Ref. 16 gives the values of the power coefficients (Fig. 23) which are only useful at temperatures at which the tungsten cathode is considerably affected by vaporization. Finally, western papers on plasma transformers (Refs. 10, 18-28) are discussed, and a schematic diagram of a test apparatus from Ref. 18 is shown in Fig. 24. The author mentions the following unsolved problems: influence of the magnetic fields on the motion of electrons and ions (pointed out by B. P. Konstantinov), voltage drop at the cathode due to emission current, etc. The author doubts that the plasma outside the cathode and anode layer is in equilibrium.

81107

Thermoelectronic Transformers of Thermal Into Electric Energy

S/057/60/030/04/01/009
B004/B002

There are 24 figures, 2 tables, and 26 references: 7 Soviet, 18 British, and 1 German.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR Leningrad (Institute of Physics and Technology of the AS USSR, Leningrad)

SUBMITTED: January 12, 1960

4

Card 4/4

BAKAL, M.; DOBRETSOV, L.N.

Milliken vacuum capacitor. Part 1. Radiotekh. i elektron. 6 no.4:637-641 Ap '61. (MIRA 14:3)
(Electric capacitors)

30438

S/109/61/006/012/013/020
D201/D305

9,3120
26.2531

AUTHOR: Dobretsov, L.N.

TITLE: Constants of thermionic emission

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 12, 1961, 2054 - 2062

TEXT: In the experience of the author many people who now have to deal with problems of thermionic conversions, have no clear ideas as to what the thermionic emission constants are. He deems it to be useful, therefore, to consider in the present article these constants, to derive them and explain their meaning. From the first principles, he derives the expression for the saturation current in thermionic emission containing the Sommerfeld constant A_o and then proves that the equation for the thermionic emission current density is valid, with the same value of A_o for all kinds of emitters, not necessarily metals; The equation is then rewritten as

$$j = A_1 T^2 \exp\left[-\frac{\varepsilon\psi}{kT}\right] \qquad (11)$$

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Constants of thermionic emission .

assuming that the work function is linear within a certain range of temperature near T_0, from which he proceeds to discuss the Richardson's straight line - the graph of $\ln j/T^2 = F(1/T)$ - Richardson's constant A_1 and the Richardson's work function. By considering the electron flow emitted by one of the electrodes of a plane diode and neglecting the effect of space charge and electron dispersion, the expression for the electron stream leaving the first electrode for the second dv_{12} and vice versa dv_{21} are derived, in which $D_1(W_{x1})D_2(W_{x2})/1 - R_1(W_{x1})R_2(W_{x2})$ - the combined diode transit coefficient and is denoted by $D_{12}(E_x, V)$. Under the same transit conditions $D_{12}(E_x, V) = D_{21}(E_x, V)$ and for isothermal conditions $T_1 = T_2$ and $V = 0$ it follows that

$$v_1(E_x - E_{01}) = v_2(E_x - E_{02}) \text{ at } T = \text{const.} \qquad (14)$$

Since the distribution function $v(E_x - E_0)$ is determined by the emitter properties and temperature, Eq. (14) is true independently

Constants of thermionic emission

of whether the emitter form a balanced system or not. The universality of current density in various bodies is considered next for the case of a uni-dimensional model of a crystal. Considering again the current density in a plane diode with reflection at electrodes 1 and 2, expressions

$$j_{12}^{(a)} = A_{12}^{(a)} T_1^2 \gamma(T_1, \Delta V) \exp\left[-\frac{e}{kT_1}\varphi_1(T_1)\right], \qquad [16a(12)]$$

and

$$j_{21}^{(a)} = A_{21}^{(a)} T_2^2 \exp\left[-\frac{e}{kT_2}\varphi_2(T_2)\right], \qquad [16a(21)]$$

are derived containing $A_{12}^{(a)} = A_o D_{12}^{(a)}$ and $A_{21}^{(a)} = A_o D_{21}^{(a)}$ - the combined thermionic emission coefficients of electrode 1 and 2 respectively which are stated to differ in general owing to the averaging conditions. Lastly, by considering the Maxwell energy distribution of thermal emission electrons, the condition

$$A_{12}^{(a)} = A_{21}^{(a)} = A_{12}^{(\sigma)} = A_{21}^{(\sigma)} = \frac{D_1 D_2}{1 - R_1 R_2} = A_{1,2}^{*}. \qquad (19)$$

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Constants of thermionic emission

is derived, in which $A^*_{1,2}$ is called the combined thermionic emission constant of a diode which may be used to find the expression for current density from one electrode or electrodes into another. This expression then is

$$j = A^*_{1,2} T^2 \exp\left[-\frac{e}{kT}\Phi(T)\right], \qquad (20)$$

in which T - the temperature of emitting electrode, $\Phi(T)$ - its "acting" work function, equal to the work function $\varphi(T)$ in the absence of retarding field and equal to $[\varphi(T) + \Delta V]$ in the presence of retarding potential difference ΔV. There are 3 figures and 2 Soviet-bloc references. [Abstractor's note: Ref. 1 is a translation from English, and Ref. 2 from a German language publication].

SUBMITTED: March 21, 1961

BACAL, M.; DOBRETOV, L. N.[Dobretsov, L.N.]

Physical principles of the method of Millikan vacuum condenser. Studii cerc fiz 12 no.2:325-334 '61.

1. Institutul politechnic Leningrad.

(Cosmic rays) (Vacuum apparatus)
(Condensers(Electricity))

L 5405-66 EWT(1)
ACC NR: AP5027393 SOURCE CODE: UR/0181/65/007/011/3200/3203

AUTHOR: Dobretsov, L. N.

ORG: Physicotechnical Institute, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR)

TITLE: Field emission from a metal covered with a layer of adatoms

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3200-3203

TOPIC TAGS: tungsten, germanium, metal film, Fermi level, field emission

ABSTRACT: The author discusses the results of previous studies by I. A. Sokolovskaya and N. V. Mileshkina (*FTT*--3, 389, 1961; 5, 2501, 1963; 6, 1786, 1964) on field emission from tungsten covered with a layer of germanium. A qualitative theoretical explanation is given for the following two observations from these previous papers: 1. when a tungsten knife-edge is covered by a layer of germanium (assumed to be close to monomolecular thickness), the field emission current is reduced by a factor of 40-70, but the current-voltage curve remains parallel to that for pure tungsten, which indicates that the work function is not changed; 2. the energy spec-

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trum for the emitted electrons shows, in addition to the single maximum observed in pure tungsten, a second maximum corresponding to electrons with lower energies. The monatomic semiconductor theory proposed by Sokolovskaya and Mileshkina is rejected, and a hypothesis is proposed which is based on Gurney's unidimensional model of the adsorbed layer (J. Gurney, *Phys. Rev.*, 47, 479, 1935). The ratio between the square of the amplitude of the wave function which corresponds to some energy E_x in the potential wall of the layer and the square of the amplitude of the wave function in the metal $\Delta(E_x)$ may be taken as an index of the degree to which the electron cloud penetrates the potential barrier between the metal and the layer for this value of E_x. It is assumed that for the case of a germanium layer on tungsten, the Fermi level in the metal is located opposite the section of the $\Delta(E_x)$ curve with small Δ, and that $\Delta(E_x)$ increases rather rapidly with a reduction in E_x. Orig. art. has: 2 figures.

SUB CODE: SS/ SUBM DATE: 19Apr65/ ORIG REF: 004/ OTH REF: 001

BVH.

L 40947-65

ACCESSION NR [illegible]

[illegible]

[illegible]

SOURCE: Zhurnal tekhnicheskoy fiziki, v 35, no.3, 1965, 535-538

TOPIC TAGS: surface phenomenon, ionization, electric field

ABSTRACT: [illegible] present author (ZhTF 23,417,1953) [illegible]

corrected in the present paper. The author repeats the calculation on pp.256,257 of his monograph (Elektronnaya i ionnaya emissiya M.-L.,1952) [illegible]

Card 1/2

L 40947-65

ACCESSION NR: AP5007303

Orig.art.has: 17 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut im.A.F.Ioffe AN SSSR

SUBMITTED: 06May64 ENCL: 00 SUB CODE: NP

NR REF SOV: 004 OTHER: 000

Card 2/2

L 45916-66 EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6028619 SOURCE CODE: UR/0057/66/036/008/1449/1458

46
45
B

AUTHOR: Dobretsov,L.N.; Matskevich, T.L.

ORG: Physicotechnical Institute im. A.F.Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Concerning the work functions of metals

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 8, 1966, 1449-1458

TOPIC TAGS: work function, transition element, metal, METAL FILM

ABSTRACT: This paper is a polemic against the views concerning the work function of metals held by G.V.Samsonov and his associates and expounded by them in a series of papers beginning in 1957, the most recent of which appears in the present issue of the Journal (ZhTF, 36, 1435, 1966 /see Abstract AP6028618/). The work function is carefully defined and its relation to the contact potential is explained. Experiments with films deposited on different substrates show that in the case of metals it is the first few molecular layers at the surface that determine the work function, although hundreds or thousands of molecular layers may be involved in the case of semiconductors. The authors admit that with the aid of a perfected theory (which is not in sight at present) one should be able in principle to calculate the work function of a pure material from the properties of its atoms, but they doubt that simple scalar properties would suffice for the purpose. The concepts presented by Samsonov et al, and their

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presentation of them, are criticized for lack of clarity. Samsonov et al. have not been sufficiently critical of the experimental data when comparing their conclusions with them: data from diverse sources obtained by different methods are uncritically compared (some of the measurements were made as long ago as 1906); the Richardson work function has been employed when the total emission current work function would be more appropriate; and sometimes "recommended" values of the work function have been cited instead of the experimental data themselves. Even the data as cited by Samsonov et al. do not always support the conclusions that they draw from them, and a critical examination of the most reliable work function data reveals no support for any of their conclusions. It is concluded that there is no support of any kind, theoretical or experimental, for the thesis of Samsonov et al. that the work function is mainly determined by the bulk properties of the material. The authors thank M.V.Gomoyunova for her active participation in discussions of the paper. Orig. art. has: 2 formulas, 2 figures and 1 table.

SUB CODE: 20 SUBM DATE: 06Jan66 ORIG. REF: 031 OTH REF: 013

DOBRETSOV, N.A.

MINERALOGICAL ASSOCIATION, INTER-
NATIONAL - Third General Meeting -
Washington, D.C., 17-20 Apr 62

BARSANOV, G. P., Mineralogical Museum imeni A. Ye. Fersman, Moscow - "Minerals and their classification"
BEUS, Aleksey A., Institute of Mineralogy, Geochemistry and Crystallography of Rare Elements, Academy of Sciences USSR [1960 position] - "Association of metasomatic minerals in certain interlayered bodies of leucocratic granite"
CHUKHROV, Fedor V., Dr., Institute of Geology of Mineral Deposits, Petrography, Mineralogy, and Geochemistry, Academy of Sciences USSR [1959 position]
DOBRETSOV, N. A., Novosibirsk - "The jadeites of the Eastern Sayan deposits"
DOLGOV, U. A., Novosibirsk - "Genesis of pegmatites based on the study of fluid inclusions"
GENKIN, Aleksandr D., Institute of Geology of Mineral Deposits, Petrography, Mineralogy and Geochemistry, Academy of Sciences USSR - "New data on minerals of the Pt group from the Cu-Ni deposits of the USSR"
GODOVIKOV, A. A., Institute of Geology and Geophysics, Siberian Department, Academy of Sciences USSR, Novosibirsk - "Remarks on the selenides of bismuth of 'laytakarit'"
GRIGOR'YEV, Dmitriy P., Prof., Leningrad Mining Institute [1960 position]

GVAKHARIYA, Georgiy V., Institute of Geology, Academy of Sciences Georgian SSR, Tbilisi - "Changes in pyroxene composition during the volcanic process as exemplified in Georgia"
IVANOV, A. F., Prof., Kazakhstan
KASHKAY, Mir-Ali, Academician Secretary of the Department of Geology and Chemical Sciences, Academy of Sciences Azerbaydzhan SSR, Baku - "Mineralogy and origin of the pyrites types of deposit"
KUKHARENKO, Aleksandr A., Prof., Leningrad State University, Chair of Geochemistry [1960 position].
PETROVSKAYA, N. V., Dr., Central Scientific Research Mining Prospecting Institute of Rare, Trace, and Precious Metals, Moscow [1958 position]
SHAFRANOVSKIY, Illarion I., Leningrad Mining Institute [1960 position] - "True crystallo-chemical forms, as indicators of the peculiarities of the formation of minerals"
SOBOLEV, N. V., Novosibirsk - "Paragenetic types of granites in eclogites and hyperbasites"
SOBOLEV, Vladimir S., Institute of Geology and Geophysics, Siberian Department, Academy of Sciences USSR, Novosibirsk, [1960 position; reported as Deputy Director in 1959], and REVERDATTO, Viktor V., Novosibirsk - "High-temperature contact minerals in the lime deposits of the Lower Tunguska River"
SOLOV'YEV, Sergey P., Leningrad Mining Institute [1960 position] - "Basic traits of the development of metamorphic species in the history of the earth"

BELOUSOV, A.F.; DOBRETSOV, N.A.; KOCHKIN, Yu.N.; KRIVENKO, A.P.; KUTOLIN, V.A.; TELESHEV, A.Ye.; KHLESTOV, V.V.

Experience in the utilization of calculations on electronic computers for the solution of petrochemical and mineralogical problems. Geol. i geofiz. no.6:163-164 '64. (MIRA 18:11)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

DOBRETSOV, N.L.

Relationship between the principal ions of rhombic pyroxenes and their effect on optical properties of minerals. Zap. Vses. min. ob-va 88 no.6:672-685 '59. (MIRA 13:8)
(Pyroxenes) (Minerals—Optical properties)

SOBOLEV, V.S.; ZOLOTUKHIN, V.V.; DOBRETSOV, N.L.

V.N.Lodochnikov's works on Siberian petrography; on the 75th anniversary of his birth. Geol.i geofiz. no.5:138-139 '62. (MIRA 15:8)

(Lodochnikov, Vladimir Nikitich, 1887-1943)
(Siberia--Petrology)

DOBRETSOV, N.L.; PUPYSHEV, N.A.

Find of marine Middle Carboniferous sediments in the eastern Tarbagatay Range. Trudy VSEGEI 74:59-62 '62. (MIRA 15:9)
(Tarbagatay Range--Geology, Stratigraphic)
(Tarbagatay Range--Deep-sea deposits)

DOBRETSOV, N.L.

Miscibility limits and mean compositions of jadeite pyroxenes. Dokl. AN SSSR 146 no.3:676-679 S '62. (MIRA 15:10)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom V.S.Sobolevym.
(Jadeite)

DOBRETSOV, N.L.

Anomalous analcim from jadeite rocks of the Borus Range (Western Sayan Mountains) and its origin. Geol. i geofiz. no.12:114-116 '62. (MIRA 16:3)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

(Borus Range—Analcite)

DOBRETSOV, N.L.

Mineralogy, petrography and genesis of ultrabasites, jadeitites and albitites in the Borus Range (Western Sayan Mountains). Trudy Inst.geol.i geofiz.Sib.otd.AN SSSR no.15:247-316 '63. (MIRA 17:4)

DOBRETSOV, N.L.; PONOMAREVA, L.G.

Lawsonite-glaucophane metamorphic schists in the Penzhina Range of northwestern Kamchatka. Dokl. AN SSSR 160 no.1:196-199 Ja '65. (MIRA 18:2)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR. Submitted July 21, 1964.

DOBRETSOV, N.L.

Genesis of ultrabasites. Geol. i geofiz. no.3:3-20 '64.
(MIRA 18:7)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

DOBRETSOV, N.L.; PONOMAREVA, L.G.

Paragenetic types and the dependence of the composition of metamorphic pyroxenes on the composition and conditions governing the formation of the rocks enclosing them. Sov. geol. 7 no.12:39-57 D '64. (MIRA 18:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.

DOBRETSOV, N.L.; REVERDATTO, V.V.; SOBOLEV, V.S.; SOBOLEV, N.V.; USHAKOVA, Ye.N.; KHLESTOV, V.V.

Basic characteristics of the distribution of the facies of regional metamorphism in the U.S.S.R. Geol. i geofiz. no.4: 3-18 '65. (MIRA 18:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

[redacted], L.G.; DOBRETSOV, N.L.

Olivine orientation in the ultrabasites of the Mugodzhary Range (Western Sayan Mountains) and Pay-Khoy (Arctic Urals). Geol. i geofiz. no.5:39-43 '65. (MIRA 18:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

DOBRETSOV, N.L.; SOBOLEV, N.V.

Some problems of petrology at the 22nd session of the International Geological Congress. Geol. i geofiz. no.8: 151-154 '65. (MIRA 18:9)

DOBRETSOV, N.L.; PONOMAREVA, L.G.

Pyroxenes of the eclogite facies of jadeite rocks and glaucophane schists. Trudy Inst. geol.i geofiz. Sib.otd. AN SSSR no.30:56-96 '64.

(MIRA 18:11)

DOBRETSOV, N.L.

Effect of the change of temperature and sodium potential during the formation of diaphthoresis of jadeite rocks in ultrabasites. Trudy Inst. geol.i geofiz. Sib.otd. AN SSSR no.30:169-184 '64.

(MIRA 18:11)

L 13678-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS/ES(s)-2 AFFTC/ASD/ESD-3/SSD
Ps-4/Pc-4/Pr-4/Pt-4 RM/WW

ACCESSION NR: AP3003773 S/0080/63/036/006/1335/1341

84
12

AUTHOR: Koton, M. M.; Dobretsov, S. L.; Sokolova, T. A.

TITLE: Preparation and study of the properties of copolymers of N-substituted methacrylamides with styrene and methyl methacrylate

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 6, 1963, 1335-1341

TOPIC TAGS: styrene, methyl methacrylate, N-substituted methacrylamide, copolymer, o-biphenylmethacrylamide, p-biphenyl methacrylamide, alpha-naphthylmethacrylamide, beta-naphthylmethacrylamide, triethylamine, increased heat resistance, increased impact strength, dielectric property, temperature frequency dependence, loss tangent, dielectric constant, softening point, N-substituted methacrylamide-methyl methacrylate copolymer

ABSTRACT: The effect of N-substituted methacrylamides on the heat resistance and dielectric properties of the copolymers of such amides with styrene or methyl methacrylate has been investigated. The following N-substituted amides were used as monomers: N-o-biphenyl- (I); N-p-biphenyl- (II); N-α-naphthyl- (III); and

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ACCESSION NR: AP3003773

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N-β-naphthylmethacrylamide (IV). Monomer I was synthesized for the first time by Sokolova et al. in 1959. The monomers were prepared from the aromatic amine by acylating it with methacryloyl chloride in the presence of triethylamine to neutralize the evolving HCl. The copolymers were obtained by bulk polymerization of the components with 0.3--0.6% benzoyl peroxide, with a single step increase in temperature. The data on composition, polymerization conditions, degree of conversion, and dielectric properties are tabulated for the 26 copolymers obtained, which were solid colorless thermoplastic materials. The dielectric properties were determined in the temperature range from -180 to 200C, at 400, 1000, and 5000 cps with an MLE device and at 50--7000 kc with a Q-meter. The temperature dependences of the loss tangent and dielectric constant and the frequency dependences of the loss tangent are plotted for the copolymers. The dielectric properties of the copolymers approximate those of polystyrene or poly(methyl methacrylate). The softening point of the copolymers increases with an increase in the N-substituted methacrylamide content. Orig. art. has: 3 tables and 3 figures.

ASSOCIATION: Institut vy*sokomolekulyarny*kh soyedineniy AN SSSR (Institute of Macromolecular Compounds, AN SSSR)

SUBMITTED: 12May62 DATE ACQ: 07Aug63 ENCL: 00

SUB CODE: CH NO REF SOV: 003 OTHER: 003

Card 2/2

DOBRETSOV, V.B., inzh.

Open-pit coal mining in Noril'sk. Ugol' 37 no.3:24-25 Mr '62.
(MIRA 15:2)

(Tunguska Basin--Strip mining)

RZHEVSKIY, V.V., prof., doktor tekhn. nauk; PROTASOV, Yu.I., kand. tekhn. nauk; DOBRETSOV, V.B., gornyy inzh.

Low frequency breaking of rock. Gor. zhur. no.4:37-39 Ap '65. (MIRA 18:5)

1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki.

DOBRETSOV, V.B.; PROTASOV, Yu.I.

Study of the electric resistance of rocks and minerals at low temperatures. Izv. AN SSSR. Fiz. zem. no.4:102-103 '65.
(MIRA 18:8)

1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki.

DOBRETSOV, V.B.; SUKHANOV, A.Ye.

Methods of rock breaking during the simultaneous action of positive and negative temperatures. Fiz.-tekh. probl. razrab. pol. iskop. no.5:171-173 '65. (MIRA 19:1)

1. Institut radioelektroniki i gornoy elektromekhaniki, Moskva.

DOBRETSOV, V.N.; PANTELEYEV, A.A.

Main trends in the work of area design institutes of an association. Prom. stroi. 42 no.5:2-4 '65. (MIRA 18:8)

1. Ob"yedineniye "Soyuzmetallurgstroyniiproyekt".

Dobretsov, V.V.

NADEYN A.P;DOBRETSOV, V. V.

Technic of subtotal resection of the thyroid gland in exophthalmic goiter. Klin. med., Moskva 30 no.3:72-74 Mar 1952. (CLML 22:2)

1. Professor for Nadein. 2. Of the Department of Operative Surgery (Head -- Prof. A. P. Nadein), State Order of Lenin Institute for the Advanced Training of Physicians imeni S. M. Kirov.

DOBRETSOV, V.V., kandidat meditsinskikh nauk (Leningrad, ul. Chekhova, d.12, kv. 20)

Parathyroid arterial blood supply [with summary in English p.160]
Vest.khir. 77 no.7:99-103 Jl '56. (MLRA 9:10)

1. Iz 1-y khirurgicheskoy kafedry (i.o.zav. - dotsent A.S.Chechulin) Gosudarstvennogo ordena Lenina instituta usovershenstvovaniya vrachey im. S.M.Kirova.

(PARATHYROID GLANDS, blood supply
arterial)
(ARTERIES, anat. and histil.
parathyroid arterial blood supply)

56-2-35/51

AUTHORS: Dobretsov, Yu. P. , Nikol'skiy, B. A.

TITLE: The Formation of Positive Pions by Negative Pions (Rozhdeniye π^+-mezonov π^--mezonami)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol. 34, Nr 2, pp. 510 - 511 (USSR)

ABSTRACT: The present work investigated the production of positive pions on the nuclei of a photo-emulsion under the action of negative pions of an energy of from 340 ± 30 MeV. The emulsion chamber consisting of 60 emulsion layers of a total thickness of 23 mm and of a diameter of 100 mm was arranged in a beam of negative 370 MeV pions of the synchrocyclotron of the ОИЯИ (= United Institute for Nuclear Research, Ob"yedinennyy institut yadernykh issledovaniy). The chamber consisted of an НИКФИ-emulsion of the P type. On observing the emulsion layers the $\pi^+ \rightarrow \mu^+ \rightarrow e^+$ decays were recorded. Then the found positive pions were traced to the place of their production. When tracing their path 56 stars caused by negative pions were found. In the case of 21 stars

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The Formation of Positive Pions by Negative Pions

the emission of a positive pion is accompanied by the emission of a second pion, which is identified from the gradient of granular density along its path. Such cases obviously belong to the production of positive pions. In the remaining number of the cases no emission of second pion was noticed but these cases can also be related to the production of a positive pion with subsequent absorption of a negative pion in the nucleus (or with emission of a neutral pion). The energy of the such produced positive pions was determined from their range within the emulsion. The energy of the negative pions (in the stars with 2 pions) was determined from the density of the grain. The taking into account of the edge effect is shortly discussed. Two diagrams show the energy spectrum and the angular spectrum of the produced positive pions. The spectra of the positive pions with and without emission of a second pion from the nucleus are similar to each other. In determining the relative momenta of two pions emitted from the same star no noticeable correlation of the two pions of the final state was found. This is, however, only a qualitative final conclusion. The cross section of the production

56-2-35/51

The **Formation** of Positive Pions by Negative Pions

of slow positive pions (E_{π^+} = 0 to 60 MeV) by negative pions of an energy of from 340 $\pm$ 30 MeV on a nucleus of the photo-emulsion is equal to $\sigma = (2{,}1 \pm 0{,}8).10^{-27}$ cm^2. There are 2 figures, and 8 references, 4 of which are Slavic.

ASSOCIATION: **AS** USSR (Akademiya nauk SSSR)

SUBMITTED: October 29, 1957

AVAILABLE: Library of Congress

1. **Pions-Formation-Positive** 2. **Pions-Negative-Applications**
3. **Pions-Energy spectrum** 4. **Pions-Angular spectrum**

Card 3/3

24(3), 21(7) SOV/56-36-4-65/70

AUTHORS: Ali-Zade, S. A., Gurevich, I. I., Dobretsov, Yu. P., Nikol'skiy, B. A., Surkova, L. V.

TITLE: The Asymmetry of Electron Angular Distribution in $\mu^+ \rightarrow e^+$-Decay in a Magnetic Field of 27000 G (Asimmetriya uglovogo raspredeleniya elektronov $\mu^+ \rightarrow e^+$-raspada v magnitnom pole 27000 G)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 4, pp 1327-1329 (USSR)

ABSTRACT: If angular distribution is described by the expression $4\pi dN/d\sigma = 1 - a\cos\theta$ ($a = \lambda P/3 = a_0 P$; $\lambda = 3a_0 = -\cos(V,A)$ characterizes the ratio of the vectorial and pseudovectorial share of interaction in $\mu \rightarrow e$-decay; P denotes muon polarization), it is found that the quantity a depends both on the measuring method and on the nature of the depolarized matter. It attains a maximum value of $a = 1/3$ at $\cos(A,V) = -1$. For NIKFI-R emulsions a was determined as amounting to 0.092 ± 0.018, for Ilford G-5 it was 0.14. The maximum value attained by a for graphite is 0.303 ± 0.048. The depolarizing property of matter may be reduced by applying strong magnetic fields, the direction of which coincides with muon polarization. The increase of a brought about

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SOV/56-36-4-65/70

The Asymmetry of Electron Angular Distribution in $\mu^+ \rightarrow e^+$-Decay in a Magnetic Field of 27000 G

by magnetic field can be described by $a = a_0\left[1 - \frac{0.5}{1+(\mu H/\Delta E)^2}\right]$; a_0 denotes the a-value if no depolarization takes place, ΔE - the energy of fine-structure splitting of the μ-mesic atom in the ^1S-state. An experimental checking of this formula in fields of up to 14000 G showed that by it the dependence a(H) is qualitatively described. The authors determined a in the $\pi \rightarrow \mu \rightarrow e$-decay in photoemulsions at H = 27000 G. a was determined from the ratio $a = 2(N_{backward} - N_{forward})/(N_{backward} + N_{forward})$. Results:

For $\theta = 0 - 30^0$ $a_1 = 0.315 \pm 0.026$

$\theta = 150 - 180^0$ $a_2 = 0.295 \pm 0.027$.

Mean value formation averaged over the directions in which muons fly off gives: $a_3 = 0.305 \pm 0.019$. If $a_{real} = a_3/\cos\theta$, one obtains $a_{real} = a_3/0.940 = 0.324 \pm 0.020$. Herefrom it follows that $|\lambda|P = 0.972 \pm 0.06$, i.e. $|\lambda|$ with an accuracy of up to a

Card 2/3

The Asymmetry of Electron Angular Distribution in $\mu^+ \rightarrow e^+$-Decay in a Magnetic Field of 27000 G

statistical error of $\pm$ 6% attains its maximum value and $P \approx 1$. This indicates a considerable degree of inaccuracy of the formula describing a(H). The authors finally thank B. S. Neganov and B. V. Sokolov for their help in irradiating the photoemulsions, D. M. Samoylovich for developing the emulsion, and further also V. M. Kutukova, A. M. Alpers, and G. V. Pleshivtseva for their assistance. There are 8 references, 2 of which are Soviet.

SUBMITTED: February 1, 1959

L 8202-66 JXT(C2)

ACC NR: AT5022299 SOURCE CODE: UR/3136/64/000/620/0001/0011

AUTHOR: Gurevich, I. I.; Makar'ina, L. A.; Nikol'skiy, B. A.; Sokolov, B. V.; Surkova, L. V.; Khakimov, S. Kh.; Shestakov, V. D.; Dobretsov, Yu. P.; Akhmanov, V. V.

ORG: [Gurevich, Makar'ina, Nikol'skiy, Sokolov, Surkova, Khakimov, Shestakov] IAE; [Dobretsov] MIFI; [Akhmanov] LYaP OIYaI

TITLE: Asymmetry of the angular distribution of electrons in the decay $\pi^+ \to \mu^+ \to e^+$ in a magnetic field of 140,000 gauss

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-620, 1964, Asimmetriya uglovogo raspredeleniya elektronov pi plus → mu plus → e plus raspada v magnitnom pole napryazhennost'yu 140 000 gauss, 1-11

TOPIC TAGS: mu meson, pi meson, positron, bubble chamber, radioactive decay

ABSTRACT: The universal V-A coupling theory applied to the determination of the angular distribution of electrons in the reaction $\pi^+ \to \mu^+ \to e^+$ is given by

$$\frac{dN}{d\theta} \sim 1 - a \cos \theta_e$$

in terms of the parameter a. In order to obtain a value of a which depends on the polarization state of the meson, an experiment was performed showing the effect countering the depolarization of the dense medium through which the meson is moving.

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L 8202-66
ACC NR: AT5022299

Critical magnetic fields needed to oppose the depolarizing effect, which in turn allows more accurate determination of the parameter a, were found. Only 8800 gauss were required in the hydrogen bubble chamber to counter the effect of hydrogen depolarization. However, the scatter in the value is quite large. The photographic emulsion yielded much smaller scatter but required an application of a very large magnetic field of 140,000 gauss. The value of a found in the experiment is 0.325 ± .010 (as compared to the theoretical value of 0.333). This value was obtained by analyzing over 66,000 events. A brief discussion is given of the effect of the magnetic field on the motion of the electron. It is shown that the electron direction must be measured with respect to the magnetic field direction after setting certain constraints on the selection of the angular range. Orig. art. has: 3 figures, 1 table, 5 formulas.

SUB CODE: 18/ SUBM DATE: 00/ ORIG REF: 005/ OTH REF: 007

nw
Card 2/2

4

L 2535-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) JD UR/0120/65/000/004/0182/0187
ACCESSION NR: AP5021359 621.318.3:621.384.634

AUTHOR: Akhmanov, V. V.; Markov, L. M.; Nikol'skiy, B. A.; Sokolov, B. V.; Khakimov, S. Kh.; Sheetakov, V. D.; Bobovikov, R. S.; Dobretsov, Yu. P.; Zamolodchikov, B. I.

TITLE: An arrangement for producing pulsed magnetic fields of strengths up to 150 kilogauss

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1965, 182-187

TOPIC TAGS: pulsed magnetic field, thyratron, synchrocyclotron

ABSTRACT: The units of an apparatus for producing a pulsed magnetic field of 146 kilogauss in a space of about 600 cm^3 are described. Pulsed magnets of beryllium bronze are powered by a capacitor bank of 0.1 farad capacitance. The capacitors are charged through limit resistances to 2 kv from a thyratron rectifier, and a I-100/5 ignitron is used as the switching element. Synchronization and control for operation with a synchrocyclotron are obtained by a special circuit. This arrangement for obtaining the pulsed field operates reliably. In the tests two separate magnets were used, each producing a field of 146 kilogauss. The use of the I-100/5

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ignitron when proper heating and cooling were maintained prior to switching in the field secured operation without breakdown for 20—40 hr at a switching rate of 10/min. The joint operation of the pulsed magnet with the synchrocyclotron required some rearrangement of the control system to guarantee that no particle was emitted without accompaniment of a pulsed magnetic field. "The authors express their thanks to V. I. Danilov, T. N. Tomilina, and I. B. Yanchevich for carrying on the work. The authors are grateful to I. I. Gurevich and V. P. Dzhelepov for their constant interest and help in the work. The authors express their thanks to V. I. Smirnov, F. Ye. Gugnin, I. P. Lavrushkin, Yu. V. Maksimov, A. V. Shestov, V. I. Ivanov, I. M. Markachev, A. F. Burtsev, B. V. Degtyarev, N. P. Chistyakov, and M. T. Berezov for their aid in maintaining and operating the equipment." Orig. art. has: 11 figures and 1 table. [04]

ASSOCIATION: Institut atomnoy energii GKAE, Moscow (Institute of Atomic Energy GKAE); LYaP OIYaI; NII EFA; MIFI

SUBMITTED: 17Jun64 ENCL: 00 SUB CODE: EA,NP

NO REF SOV: 001 OTHER: 003 ATD PRESS: 4110

Card 2/2

BAZAROV, L.Sh.; DOBRETSOVA, I.L.; YUSUPOV, S.Sh.

Characteristics of the distribution of fluorine around a chamber pegmatite in granites. Dokl. AN SSSR 157 no.5: 1135-1138 Ag '64. (MIRA 17:9)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom V.S. Sobolevym.

DOBRETSOVA, L.A.

Vegetation in the upper Mola (Charky) Valley. Nauch.soob. IAFAN SSSR no.2:79-88 '59. (MIRA 16:3)
(Charky Valley—Vegetation and climate)

KARAVAYEV, M.N.; DOBRETSOVA, L.A.

Brief outline of vegetation of the lower Nera Valley (upper Indigirka Basin). Bot.zhur. 49 no.11:1544-1559 N '64.

(MIRA 18:1)

1. Moskovskiy gosudarstvennyy universitet i Yakutskiy filial Sibirskogo otdeleniya AN SSSR, g. Yakutsk.

USSR/General and Systematic Zoology. Insects. Harmful Insects and Acarids. Fodder Pests. P

Abs Jour : Ref Zhur - Biol., No 3, 1959, No 11609

Author : Rekach V.N., Dobretsova T.A.
Inst : Odessa Agricultural Institute
Title : Data on Pests of Seed Alfalfa and on Their Control in the South of the Steppe Zone.

Orig Pub : Tr. Odessk. s.-kh. in-ta, 1957, 9, 50-58

Abstract : The principal pests of the 1st generation seed alfalfa are the alfalfa-leaf weevil and a complex (11 species) of bugs (B), the most harmful of which are the alfalfa and beet B (in some seasons of the years 1950-1954 either one or the other predominated). Other B species are considerably less numerous and less harmful. The biophenology and dynamics of the B species complex are presented.

Card : 1/2

USSR/General and Systematic Zoology. Insects. Harmful Insects and Acardis, Fodder Pests. P

Abs Jour : Ref Zhur - Biol., No 3, 1959, No 11609

It is recommended to harvest the alfalfa for hay not later than the end of May (prior to development of the B wings), using a low cut and removing the mowed hay from the alfalfa field; at the appearance of considerable numbers of larvae on the seed alfalfa, a twofold treatment by DDT or BHC, after hatching of the larvae and before blossoming, is also recommended. Experiments have demonstrated the advantages of summer nidulate and wide-row alfalfa sowings. Biophenology, kynamics of the alfalfa-leaf weevil and measures for its control. 00 A.P. Adrianov

Card : 2/2

DOBRETSOVA, T.B.; LUTKOV, A.N.; MANYHOS, A.M.

Spontaneous polyploid and haploid sugar beet forms among twin plants. Dokl. AN SSSR 160 no.2:454-457 Ja '65.
(MIRA 18:2)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR.
Submitted May 30, 1964.

DOBRETSOVA, T.B.; LUTKOV, A.N.; MANZHOS, A.M.

Spontaneous polyploid and haploid forms of twin sugar beet plants.
Dokl. AN SSSR 164 no.4:921-924 O '65. (MIRA 18:10)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR.
Submitted July 20, 1964.

DOBREV, A. (Narodnaya Respublika Bolgarii)

Measuring the work complexity of engineering and technical workers and employees. Biul.nauch.inform.:trud i zar.plata 5 no.11:61-66 '62. (MIRA 15:12)

(Technicians in industry) (Job analysis)

DOBREV, A.

Measurement of the complexity of work of technical engineers and office employees. Pod org 17 no.10:477 O '63.

DOBREV, Asen, kand. na ikonomisheskite nauki

Improvement of the organization of labor wages and personal material interest. Trud tseni 6 no. 1: 52-64 '64.

1. Chlen na Redaktsionnata kolegiia, "Trud i tseni".

DOBREV, A.

System of work and wages in automatic production lines in the food industry. Sots.trud. no.2:60-65 F '57. (MLRA 10:5)
(Wages) (Assembly-line methods)

DOBREV, A.; KARAIVANOV, P.

Intra-osseous local novocaine anesthesia in surgery in children and adolescents. Khirurgiia, Sofia 10 no.1:74-76 1957.

1. Detski sanatorium -- momin prokhod Gl. lekar: St. Kravaev.
(PROCAINE, analgesia and anesthesia,
intra-osseous in child. & adolescents (Bul))

DOBREV, Ang.

Case of traumatic aneurysm of the femoral artery.
Khirurgiia, Sofia 9 no.3:269-270 1956.

(ARTERIES, FEMORAL, aneurysm,
traum. case (Bul))
(ANEURYSM,
femoral artery, traum. case (Bul))

DOBREV, A.; STOICHEVA-BOIKOVSKA, Iu.

Rehabilitation of immobilized patients. Khirurgiia, Sofia 11 no.4:364-367 1958.

1. Detski sanatorium -- momin prokhod. G. lekar: D. Petrunov.
(POLIOMYELITIS, surgery,
myoplasty & orthopedic rehabil. (Bul))

DOBREV, D.

Deciding factors for the success in short wave competitions. Radio i televiziia 11 no.11:322-323 '62.

IANAKIEV, A., inzh.; DOBREV, D.; SOTIROV, Vl.

Economic importance of fast heading for the development of the Gorbuso State Mining Enterprise. Min delo 17 no.8:3-4 Ag '62.

1. Durzhavno minno predpriiatie "Gorbuso".

DOBREV, Dimitur

Linear operators defined in a convex and normalized cone.
Godishnik fiz 55 no.1:77-81 '60/'61. (publ. '62)

[redacted], M.; BOCHAROV, S.; KIROV, K.; DOBREV, D.

Clinical aspects and treatment of cancer of the prostate. Urologiia no.5:43-48 '62. (MIRA 15:12)

1. Iz urologicheskogo otdeleniya (zav. M. Yenfedzhiyev) oblastnoy bol'nitsy imeni Racho Angelova, Sofiya.
(PROSTATE GLAND--CANCER)

PANGAROV, N.; DOBREV, D.

Predominant orientation of crystals in the electrolytically deposited iron. Doklady BAN 15 no.5:519-522 '62.

1. Submitted by Academician R. Kaishev.

PANGAROV, N.; DOBREV, D.

Predominant orientation of the crystals of electrolytically precipitated iron. Izv Inst fiz khim 2:101-116 '62.

BOGDANOV, P.; DOBREV,D.; KOSSEV,R.; PIRYOVA, B.

A method of measuring the blood pressure of man in a water environment. Dokl. Bolg. akad.nauk 17 no.1:93-95 '64

1. Submitted by Academician D.Orahovats.

DOBREV, DIMITUR

Finite automata. Fiz mat spisanie BAN 7 no.1:43-47 '64.

DOBREV, D.

Controlling the smoothness of surfaces by the comparative method. p. 32.
Vol. 5, No. 3, 1956

TEZHKA PROMISHLENOST, SOFIYA, BULGARIA.

SOURCE: EEAL, LC, Vol. 5, No. 10, Oct. 1956

DOBREV, D.

SCIENCE

Periodical: IZVESTIIA. Vol. 3, no. 1, 1958

DOBREV, D. Integral representation of a class of functions, p. 43.

Monthly List of East European Accessions (EEAI), IC. Vol. 8, no. 2
February 1959, Unclass.

DOBREV, Dimitur; SENDOV, Blagovest

Linear programming. Fiz mat spisanie BAN 4 no.3:200-213 '61.

MITREV, St., inzh.; DOBREV, D., inzh.

Investigation on the enrichment of the talc in the deposits near the Village of Zhivkovo, Sofia District. Min delo 16 no.11:17-20 '61.

(Tar)

DOBREV, D.

"Results from an Inventory of Cultivated Plants," p. 433. (GORSKO STOPANSTVO, Vol. 9, no. 10, Dec. 1953. Sofiya, Bulgaria.)

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954/Unclassified

DOBREV, D.

"Our Successes in the Struggle for High Yields." p.7,
(KOOPERATIVNO ZEMEDELIE, Vol. 9, No. 9, 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

[illegible], D. - Gorsko Stopanstvo

Results and lessons from fulfillment of the reforestation plan for 1954 and tasks for the 1955 plan. p. 97
(GORSKO STOPANSTVO VOL. 11, No 3, Mar. 1955)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 9, Sept. 1955, Uncl.

DOBREV, D.

Tsvetkov, K. How we raise heavy lambs. p. 27.
KOOPERATIVNO ZEMEDELIE, Sofyia, Vol. 11, no. 3, Mar. 1956.

SO: Monthly List of East European Accessions, (EEAK), LC, Vol. 5, No. 6 June 1956, Uncl.

DOBREV, D.

DOBREV, D. Experiment in afforestat on with white pine seeds and seedlings in in unplowed soil. p. 188

Vol. 12, no. 4, Apr. 1956
GORSKO STOPANSTVO
AGRICULTURE
Sofiia, Bulgaria

SO: East European Accession, Vol. 6, No. 3, March

DORREV, D.; PESHEV, G.

State forest belts near finishing. p. 68.
(GORSKO STOPANSTVO, Vol. 13, no. 2, Feb. 1957, Sofia, Bulgaria.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957 Uncl.

DOBREV, D.; LIUDSKANOV, K.

Reforestation and protection from flood waters which erode land on denuded hills in the past and present according to figures and facts. p. 132.

Forestry in some European and Mediterranean countries. p. 137.
(GORSKO STOPANSTVO, Vol. 13, no. 3, Mar. 1957, Sofia, Bulgaria.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957 Uncl.

DOBREV, D.

Weak and strong inversability of quasi-machines. Doklady BAN 17 no.10:881-883 '64.

1. Submitted June 6, 1964.

Dobrev, D.

TOMOV, L., ot kand. na medits. nauki; DOBREV, D.

Sleep therapy of hypertension. Suvrem.med., Sofia 6 no.3:70-75 1955.

1. Iz klinikata po fakultetska terapiia pri Visshiia meditsinski institut V.Chervenkov - Sofiia (zav.chl.koresp.prof. K.Chilov)

(SLEEP, therapeutic use, hypertension)
(HYPERTENSION, therapy, sleep ther.)

NEICHEV, S.; DOBREV, D.

Effect of biomycin on the microoorganisms most frequently responsible for infections. Suvrem. med., Sofia 8 no.6:30-35 1957.

1. Katedra po mikrobiologiia pri VMI; Sofiia Direktor: akad. VL. Markov Nauchnoizsledovatelski kozhno-venerologichen institut; Sofiia Direktor: prof. Dr P. Popkhristov.

(CHLORTETRACYCLINE, effects,
on common pathogens (Bul))

DOBREV, D.

Case of acanthosis nigricans associated with gastric cancer. Suvrem. med., Sofia 9 no.8:100-103 1958.

1.(Iz Nauchnoizledovatelskiia kozhno-venerologichen institut v Sofia Direktor: prof. P. Popkhristov).

(ACANTHOSIS NIGRICANS, compl.
cancer of stomach (Bul))
(STOMACH NEOPLASMS, compl.
acanthosis nigricans (Bul))

NIKOLOV,P.; POPKHRISTOV,P.; BOIADZHIEV,Ts.; DOBREV,D.

Clinical studies on anti-inflammatory and anti-allergic properties of Digitalis lanata in certain skin diseases. Suvrem. med.,Sofia 11 no.2-3:78-80 '60.

1. Iz Katedrata po farmakologiia pri VMI - Sofiia, Rukov. na Katedrata: prof. P. Nikolov; i NIKVI , Direktor: prof. P. Popkhristov.
(SKIN dis.)
(DIGITALIS ther.)

DOBREV, D.

A case of biomycin hypersensitivity. Suvrem med., Sofia no.7-8: 166-169 '60.

1. Iz Nauchno-izsledovatelskiia kozhno-venerologichen institut, Sofiia (Direktor prof. P.Popkhristov)
(CHLORTETRACYCLINE toxicol)
(DERMATITIS MEDICAMENTOSA case reports)

DOINOV, M.; DOBREV, D.

On some medical and medico-social problems of the old age. Nauch. tr. vissh. med. inst. Sofia 40 no.1:79-99 '61.

1. Predstavena ot prof. M. Rashev, rukovod. na Katedrata po vutreshni bolesti.

(GERIATRICS)

PANDOV, Kh.; DOBREV, D.; ANGAROV, G.

Electrophoretic changes in serum proteins, its comparison with flocculation reaction and blood sedimentation in influenza patients during the course of the 1957 epidemic. Nauch. tr. vissh. med. inst. Sofia 40 no.2:103-114 '61.

1. Predstavena ot prof. M. Rashev, rukovoditel na Katedrata po vutreshni bolesti.

(INFLUENZA blood) (BLOOD PROTEINS)
(BLOOD SEDIMENTATION)

RASHEV, M.; DOBREV, D.; BELOEV, I.; ANGAROV, G.; NIKOLOVA, N.

On the problem of some biochemical changes in atherosclerotic patients. Nauch. tr. vissh. med. inst. Sofia 40 no.6:1-16 '61.

1. Predstavena ot prof. M. Rashev, rukovoditel na Katedrata po vutreshni bolesti.

(ARTERIOSCLEROSIS blood)

TENCHOV, G.; KHADZHIDEKOV, G.; DOBREV, D.

Mutilating arthritis and its roentgenological characteristics. Suvrem med., Sofia no.4/5:183-188 '61.

1. Iz katedrata po rentgenologiia i radiologiia pri Instituta za spetsializatsiia i usuvurshenstvuvane na lekarite. (Rukovoditel na katedrata prof. G. Tenchov.)

(ARTHRITIS RHEUMATOID radiog)