POPOV, D.

Trade-union activity on the state farm. Sov.profsoiuzy 2 no.5:56-59 My '54. (MLRA 7:6)

1. Predsedatel' rabochego komiteta ptitsevodcheskogo sovkhoza im. MYuD, Orlovskoy oblasti. (State farms)

COUNTRY : Bulgaria
CATEGORY :

ABS. JOUR. : RZKhim., No. 16 1959, No. 57176

AUTHOR : Popov, D.
INST. : Not given
TITLE : Consistency and Structure of Enamel Slips

ORIG. PUB. : Leka Promishlenost, 7, No 11, 22-25 (1958)

ABSTRACT : The author describes methods used in the determination of the consistency of enamel slips (ES) by the use of viscometers and other devices, and discusses the fluidity and other rheological properties of ES as a function of water content, the concentration of structure-forming agents (clays, bentonite, kaolin) and of electrolytes (Na_2CO_3, $Na_2B_4O_7$): the part played by 'damping agents' [fillers?] and by the other components in the process of structure formation is noted.

Ya. Batunovskiy

CARD: 1/1

Pharmacology and Toxicology

BULGARIA

POPOV, D., Higher Veterinary-Medical Institute, Sofia

"Synthesis of 1, 4-Unsymmetrically Substituted Piperazines. Preparation of 1-Phenyl-4-Aryl-Piperazines"

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 19, No 12, 1966, pp 1163-1166

Abstract: [English article] A large number of substances of symmetrically and nonsymmetrically substituted 1, 4-piperazines have been synthesized which have shown central depressive action. The present paper describes the condensation of phenyl-substituted bis-2-chlorethylamine with aromatic amines leading to the production of nonsymmetrically substituted 1, 4-piperazines. In order to obtain 1-phenyl-4-arylpiperazines, use was made of the reaction between bis-2-chlorethylaniline (lymphochin) with aryl- or substituted arylamines which, in comparison with the method of Cerkovnikov and Stern (Archiv Kemi., 18, 1946, 12, 27), proceeded under exceptionally mild conditions. A detailed description of the piperazine production is followed by a table listing the melting point and nitrogen content of 27 newly produced compounds only two which are found described in literature. References: 1 Bulgarian and 12 Western. (Manuscript received, 24 Aug 66.)

POPOV, D.A. (Moskva)

Investigation of the stability of identical d.c. generators in parallel operation. Izv.AN SSSR. Otd.tekh.nauk. Energ. i avtom. no.5:33-43 S-O '60. (MIRA 13:11)
(Electric generators)

POPOV, D.A. (Moskva)

Frequency characteristics of d.c. generators. Izv.AN SSSR. Otd. tekh. nauk Energ. i avtom no.1:47-55 Ja-F '61. (MIRA 14:3)
(Electric generators--Direct current)

POPOV, D.A., kand.tekhn.nauk (Moskva)

Concurrent selection of the gear ration of the reduction gear and the parameters of an electric motor. Elektrichestvo no.7: 63-67 Jl '61. (MIRA 14:9)

(Electric driving)

POPOV, D.A. (Moskva)

Transfer functions and frequency characteristics of a carbon voltage regulator. Avtom i telem.22 no.4:543-551 A; '61. (MIRA 14:4)

(Voltage regulations) (Electric generators)

POPOV, D.A., (Moskva)

Frequency characteristics of autonomous electrical systems. Elektrichestvo no.6:18-27 Je '63. (MIRA 16:7)

(Electric generators) (Frequency regulation)

L 05629-67 EWT(1)/T LJP(c) AT

ACC NR: AP6024501 SOURCE CODE: UR/0181/66/008/007/2248/2250

AUTHOR: Bordina, N. M.; Vasil'yev, A. M.; Popov, D. A.

46
B

ORG: none

TITLE: Influence of internal field on diffusion in semiconductors

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2248-2250

TOPIC TAGS: physical diffusion, semiconductor impurity, impurity level, semiconductor carrier, carrier density

ABSTRACT: It is shown that certain observed peculiarities accompanying diffusion in semiconductors can be attributed to the influence of electric fields. It is proposed that the field can be assumed homogeneous, and a rule is given for the determination of this field. Actually, however, the field is inhomogeneous and it is more correct to use a different approximation. For concreteness, diffusion of donors in an intrinsic semiconductor is considered. The differential equation of donor diffusion is obtained for a field determined by the Poisson equation, under the assumption that the electrons and holes are in equilibrium during diffusion. The expression for the diffusion is obtained in terms of a fictitious surface density and is found to agree well with experimental data. When the surface density of the diffusing impurity is smaller than the density of the intrinsic carriers, the diffusion has in first approximation the usual character. When the surface density exceeds the intrinsic value, there exists a gently sloping region which corresponds to diffusion with a dual diffusion co-

Card 1/2

Card 2/2 egh

L 05207-67 EWP(j)/EWT(m)/T RM

ACC NR: AP7000756 SOURCE CODE: UR/0192/66/007/003/0370/0

BENDERSKIY, V. A., BLYUMENFEL'D, L. A. and POPOV, D. A., Institute of Chemical Physics, Academy of Sciences SSSR (Institut khimicheskoy fiziki AN SSSR)

42
B

Charge Transfer Conditions in Organic Systems. III. Conductivity Zone and the Excited Status of Molecules in Organic Semiconductors"/

Moscow, Zhurnal Strukturnoy Khimii, Vol. 7, No 3, 1966, pp 370-379

Abstract: In organic semiconductors the relative position of the levels of the polar and nonpolar excitations can be arbitrary. It is shown that the levels of the former should lay close to the lower levels of excitation of the isolated molecule. The spectrum and wave functions of the polar states are found in the approximation of a strong bond for a uni-dimensional model. With a weak intramolecular interaction the lower levels of this branch corresponds to electron transfer between molecules with a definite relative distance, and with its increase the wave functions are diffused upon capturing several molecules and

UDC: 541.67

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L 05207-67

ACC NR: AP7000756

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approaching the s-functions of the hydrogen atoms. The greater the intramolecular interactions and the lower the levels of the free carriers, the more the transfer is described as a hydrogen-like model at lower relative distances of the exciton. The probabilities of the optical transitions into the polar states are low and rapidly decrease with growth of their number so that they do not appear in the absorption spectrum. Orig. art. has: 1 figure, 2 formulas and 1 table. [JPRS: 37,177]

TOPIC TAGS: organic semiconductor, wave function

SUB CODE: 20 / SUBM DATE: 06Dec65 / ORIG REF: 010 / OTH REF: 016

Card 2/2 gd

POPOV, D. A., Engineer Cand. Technical Sci.

"Regulating the Speed of Electric Drives in Airplane Mechanisms."
Sub 6 Jun 47, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov

Dissertations presented for degrees in science and engineering in Moscow in 1947.

SO: Sum.No. 457, 18 Apr 55

POPOV, D. A.

"Characteristics of an Amplidyne-Selsyn Synchro-Tracking System," Elektrichestvo, No. 2, 1948.

POPOV, D. A. [illegible]

USSR/Academy of Sciences
Automatic Regulations Jul 49

"Scientific Seminar of the Institue of Automatics and Telemechanics on Automatic Electric Drive," I. V. Utkin, 5 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 7

At the seminar, attended by about 100 scientific and engineering-technical workers of Moscow, reports submitted included: V. S. Kulebakin's "Theory of the Impulse Method of Regulating Speed in Electric Motors," F. A. Goryanov's "Operation of an Electrical (Rototrol) in Regulation Systems," and D. A. Popov's "Characteristics of Aircraft Electric Drive." Two sessions were devoted to the report, "Frequency Method of Analyzing the Quality of a Servoelectric Drive."

POPOV, Dmitriy Aleksandrovich prof. [deceased]; KORCHUNOV, Nikolay Grigor'yevich prof.; KUKLINOV, Boris Alekseyevich, dots.; MENSHUTKIN, Yakov Grigor'yevich, dots.; KUVALDIN, Boris Ivanovich, dots.; ALYSHEV, Ivan Fedorovich, dots.; SHCHELKUNOV, Valentin Vasil'yevich, dots.; NIKOL'SKIY, Boris Vasil'yevich, dots.; KORUNOV, M.M., prof., retsenzent; DOROKHOV, B.A., red.

[Land transportation of lumber] Sukhoputnyi transport lesa. [By] D.A.Popov i dr. Moskva, Goslesbumizdat, 1963. 863 p.
(MIRA 17:5)

POPOV, Dimitur A.

A rationalizer's invention. Durvomebel prom 6 no.1:27 Ja-F '63.

32-7-38/49

AUTHORS: Smol'yaninov, S. I., Popov, D. D., Zobvoyev, D. D.

TITLE: An Apparatus for the Determination of the Aniline Sources of Dark Mineral Oil Products (Pribor dlya opredeleniya anilinovykh tochek temnykh nefteproduktov).

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 7, pp. 873-873 (USSR)

ABSTRACT: The apparatus consists of an electric pocket torch, a test tube with pressed-in bottom into which a bulb is fitted, the "wire mixer", and a thermometer. 3 ml aniline and a mineral oil product are introduced into the tube. The moment of complete dissolution is controlled by interior illumination. If the solution becomes dull, the filament of the bulb is invisible. By means of this apparatus it is possible to determine aniline sources. There is 1 figure.

ASSOCIATION: Polytechnic Institute of Tomsk (Tomskiy politekhnicheskiy institut).

AVAILABLE: Library of Congress

Card 1/1

ANDRIANOV, A.P.; ZAYTSEV, M.M.; IDEL'CHIK, I.Ye.; POPOV, D.D.[deceased]; TEVEROVSKIY, Ye.N.; UZHOV, V.N.; CHUMAK, L.I.; SHAKHOV, G.F.; SHIROKOV, F.A.; TOMCHINA, Ye.I., red.; ZAZUL'SKAYA, V.F., tekhn. red.

[Battery cyclones; instructions for designing, assembling, and operating] Batareinye tsiklony; rukovodiashchie ukazaniia po proektirovaniiu, montazhu i ekspluatatsii. 2. izd. Moskva, Gos. nauchno-tekhn.izd-vo khim. lit-ry, 1959. 103 p. (MIRA 15:1)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po khimii. (Separators (Machines))

ALABUSHEV, V.A., aspirant; POPOV, D.I.

Chemical weed control in millet fields. Zashch. rast. ot vred. i bol. 6 no.5:8-9 My '61. (MIRA 15:6)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva TSentral'noy chernozemnoy polosy imeni V.V. Dokuchayeva (for Alabushev). 2. Glavnyy agronom Kalacheyevskoy inspektsii po sel'skomu khozyaystvu (for Popov).

(Voronezh Province--Millet)
(Voronezh Province--Weed control)

KROPACHEV, N.G.; POPOV, D.I.

Efficient utilization of potentialities in open-hearth furnace plants. Stal' 21 no.9:846-849 S '61. (MIRA 14:9)

1. Kuznetskiy metallurgicheskiy kombinat i TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Open-hearth furnaces—Accounting)

POPOV, D.I.; ZUBAREV, A.G.

Analysis of the technical and economic indices of the performance of continuous steel pouring installations. Stal' 23 no.8: 752-754 Ag '63. (MIRA 16:9)
(Continuous casting) (Electrometallurgy)

MITYAYEV, N.I.; POPOV, D.I.; SKLOKIN, N.F.

Use of industrial capital assets in the iron and steel industry
Stal' 25 no.2:163-168 F '65. (MIRA 18:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P. Bardina i Gosudarstvennyy komitet po chernoy i tsvetnoy metallurgii.

POPOV, D.I.

Performance of equipment for the continuous pouring of steel.
Metallurg 8 no.7:19-22 Jl '63. (MIRA 16:8)

1. Gosudarstvennyy komitet po chernoy i tsvetnoy metallurgii pri Gosplane SSSR.
(Continuous casting--Equipment and supplies)

POPOV, D.I.

Classification and conventional symbols for technological equipment. Standartizatsiia 25 no.1:10-13 Ja '61. (MIRA 14:3)
(Standards, Engineering)

POPOV, D.I.

Seminar on standardization in the Moldavian S.S.R.
Standartizatsiia 27 no.10:47-48 O '63. (MIRA 16:11)

S/133/62/000/005/002/008
A054/A127

AUTHORS: Popov, D.I., Candidate of Economic Sciences, and Chernenskiy, D.P.

TITLE: At the Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I.P. Bardina (Central Scientific Research Institute of Ferrous Metallurgy im. I.P. Bardin) Generalizing the practice of using pressurized air in open-hearth production

PERIODICAL: Stal', no. 5, 1962, 418

TEXT: In co-operation with the KMK and Siberian GIPROMEZ, tests were carried out on the feeding of pressurized air into the torch and the bath of 190-ton and 385-ton open-hearth furnaces. Fuel mixtures of coke and generator gas, and, in some cases, mixtures of coke and furnace gas were applied. Among the furnaces not operating on oxygen, those which were investigated yielded the best parameters. The furnaces tested are operated on low-manganese cast iron (with 0.35 - 0.70% Mn and 0.14 - 0.16% P); the liquid pig iron content of the charge amounts to 60 - 62%; steel is top-poured from double-stopper, 200-ton, remote-controlled ladles in 6.0- - 7.6-ton ingots. Some high-alloy steels are poured via an intermittent apparatus. Air at a pressure of 1 - 3 atm is fed into the frontal part of the gas tank

Card 1/2

POPOV, Dmitriy Ivanovich; YERONIN, P., redaktor; DANILINA, A., tekhnicheskiy redaktor.

[Finland; a political and economic sketch] Finliandiia; politiko-ekonomicheskii ocherk. Moskva, Gos.izd-vo polit.lit-ry, 1957. 215 p. (MLRA 10:7)
(Finland)

POPOV, Dimitur

Gel filtration, an extention of chromatographic methods to the separation of biologic products. Priroda Bulg 13 no.3: 73-76 My-Je '64.

Popov, D. K.

19

3936

ENRICHMENT OF THE RADIOACTIVE ISOTOPES OF IODINE, GERMANIUM, ARSENIC, AND ANTIMONY OBTAINED BY THE (γ,n) REACTION. A. N. Murin, V. D. Nefedov, V. I. Baranovskii, and D. K. Popov (Zhdanov Leningrad State Univ.). Doklady Akad. Nauk S.S.S.R. 111, 609-07(1956) Dec. 1. (In Russian)

Results are reported of experiments made to enrich the radioactive isotopes obtained by the γ quanta bombardment of elements in a synchrotron. The bombardment was carried out for 48 hr by bremsstrahlung radiation on a synchrotron with maximum γ quanta equal to 265 Mev. Special monitoring experiments revealed complete absence of neutron background in the beam. The chemical procedures, and the enrichment and yield factors are presented in a tabulated form. (R.V.J.)

MURIN, A.N.; NEFEDOV, V.D.; POPOV, D.K.; BARANOVSKIY, V.I.

Successive neutron capture in antimony. Atom.energ. 2 no.6:553 Je '57. (MIRA 10:7)

(Neutrons--Capture)

POPOV, D.K.

AUTHOR MURIN, A.N., NEFEDOV, V.D., POPOV, D.K., BARANOVSKIY, V.I.

TITLE On the Successive Neutron Capture in Antimony.
(O posledovatel'nom neytronnom zakhvate v sur'me-Russian)

PERIODICAL Atomnaya Energiya, 1957, Vol 2, Nr 6, pp 553-553 (U.S.S.R.)

ABSTRACT On the occasion of the irradiation of a sufficiently intensive neutron flux a twofold neutron capture according to the scheme

$$Sb^{123}(n,\gamma)\,Sb^{124}\ (T=60\ \text{Days})\ (n,\gamma)\ Sb^{125}\ (T = 2{,}7\ \text{Years})$$

is possible. By means of the β-decay Sb^{125} goes over into Te^{125m} (T=58 Days) and this is the highest isomeric state of the stable Te^{125}. From the samples of the antimony irradiated by neutrons deposited for about one year (for the purpose of a sufficient accumulation of Te^{125m} in antimony) the authors separated the Te^{125m}. Stable Te here served as a carrier. The metallic tellurium was separated from the antimony by reduction with tin-dichloride. An important activity of the Te^{125m} was observed in the separated tellurium; it was identified after the half value period (57±4 days) from the accumulation in the antimony and from the curve of the absorption of the conversion electrons in aluminum. This curve, by the way, agrees with those given by G.Friedlander, M.Goldhaber, G.Scharff-Goldhaber, Phys.Rev., 74, 981 (1948). Thus, the existence of a successive (double) capture, which develops according to the scheme given here, may be assumed as an established fact.

Card 1/2 Tests were made to evaluate the cross section of the activation of

POPOV D.K

AUTHORS: Murin, A. N.; Nefedov, V. D.; Baranovskiy; and Popov, D. K. (Leningrad)

TITLE: Chemical Effects of the Gamma, n Reaction (Khimisheskiye effekty reaktsii)

PERIODICAL: Uspekhi Khimii, 1957, Vol. 26, No. 2, pp. 164-175 (U.S.S.R.)

ABSTRACT: During the exposure of various elements by high energy gamma-rays an interaction occurs between the nuclei of the atoms of these elements and the gamma-quanta, accompanied by the emission of one or several nuclear particles. Such reactions are termed photonuclear and have very small cross sections (of the order $0.1\text{-}0.001 \cdot 10^{-24}$ cm^2). The gamma, n reaction is the best studied and generally has the largest section compared to all other photonuclear reactions. Radioactive isotopes with a shortage of neutrons form from this reaction, disintegrating for the most part by way of $\beta^{\pm}$ disintegration or K-capture; many of these isotopes may be used as radioactive indicators. Study of photonuclear reactions began in the mid-1930s, and the intensive and thorough investigation of photodisintegration is now being conducted.

Card 1/5

Chemical Effects of the Gamma, n Reaction

A great step ahead was the application (in studies on the photonuclear reactions) of gamma emission originating during the impingement of Li and B protons according to the reactions:

$$Li\ (p, \gamma)\ Be^{8},$$

$$B^{11}\ (p, \gamma)\ C^{12}.$$

The invention of electron accelerators (betratrons, synchrotrons) made possible the derivation of gamma emission of any energy up to 10^9 eV. More than 100 radioactive isotopes have been obtained from the gamma, n reaction but only 12 studies have been published since 1950 on the chemical effects associated with photonuclear reactions.

The author next presents general data on photonuclear reactions, introducing the concept that E_{thresh} (E_{nop}) (Threshhold of photonuclear reaction) in order to separate the neutron from the nucleus, must be somewhat greater than Q_n (the bond energy of the neutron). He develops an equation for the energy of emission of the atom (E_M) in which M = atomic mass, E_γ = energy of the gamma quantum, m = neutron mass, Q = energy of nuclear reaction, c = speed

Card 2/5

germanium, iodine, antimony and arsenic. Table 3 shows (based partly on data from a study of R. B. Duffield and A. Calvin [76] the holding for the gamma, n reaction and the n, gamma reaction in %, in which such irradiating preparations as crystals of salicylaldehyde-ortho-phenylene diimine and a solution of same in pyridine are applied. It follows from Table 3 that, depending on irradiation conditions, a considerable part of radioactive atoms is held in the form of the original compound. F. S. Rowland and W. E. Libby (81) studied the distribution of radioactive carbon originating from a reaction of C^{12} (γ, n) C^{11} between CO and CO_2 during irradiation of liquid and solid carbon dioxide, solid $NaHCO_3$ and water solutions of $NaHCO_3$ and Na_2CO_3.

Results of their tests are shown in Table 4 which shows that the irradiation of solid samples leads to the condition that C^{11} is evenly distributed between carbon monoxide and carbon dioxide. However, the Rowland-Libby results do not agree with those of Z. J. Sharman and K. J. McCallum (82) which are shown in Table 5 based on their study of the radiocarbon distribution obtained in the irradiation by gamma-rays of sodium carbonate. W. J. Edwards and K. J. McCallum (83) studied the chemical composition of C^{11} originating with the irradiation of sodium bicarbonate and calcium bicarbonate by gamma-rays with a maximum energy equivalent to 23 MeV. The samples were irradiated for about 10 minutes under an intensity of gamma rays in the range of 1000-2000 roentgens/minute; results are portrayed in Table 6.

of light, and O = the angle between the trajectories of the emitted neutron and the incident photon. The energy of nuclei of emission obtained in a gamma, n reaction is great and exceeds by far the energy of chemical bond of the atom in a molecule of any compound. The interaction of heavy high energy particles with surrounding media (solution, crystals) and the concomitant chemical changes are of great practical and scientific interest. The few studies made on this subject can be classified under two groups: 1. studies on enrichment of radioactive isotopes and 2. studies on the chemical state (of atoms) originating from the gamma, n reaction. (The author gives much detail under these groups; see explanation of tables 2-6 below, and contributions of personalities).

Table 1 presents threshholds of reaction for various nuclei and has 9 columns giving such information as atomic mass and number, product of reaction, half-life period. E_{thresh} etc. Table 2 lists elements with their corresponding compounds, reactions, methods of enrichment, output in %, and enrichment factors. The elements listed are

POPOV, D. K., Cand of Chem Sci — (diss) "The Reaction of Scillaridin-Chalmers in Certain Metalloorganic and Oxidizing Compounds, Having Retarding Radiation," Leningrad, 1959, 10 pp (Leningrad State Univ im A. A. Zhdanov) (KL, 4-60, 115)

5(4) SOV/76-33-2-26/45

AUTHOR: Popov, D. K.

TITLE: The Szillard-Chalmers Effect in the γ-quantum Irradiation of Chromates and Dichromates (Effekt Stsillarda-Chalmersa v khromatakh i bikhromatakh pri obluchenii ikh γ-kvantami)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 2, pp 405 - 410 (USSR)

ABSTRACT: The chemical effects of the reaction (n,γ) in chromates and dichromates has been investigated in a number of papers (Refs 1-3). It was assumed that intermediary radicals of the types CrO_3, CrO_3^{2-}, CrO_2^{2+}, CrO^{4+}, and Cr^{6+} formed. The low specific activity of chromium preparations which are obtained by the reaction $Cr^{50}(\gamma,n)Cr^{49}$ does not allow any complete comparison with the chemical effects of the reaction $Cr^{50}(n,\gamma)Cr^{51}$, and it is limited to only strongly concentrated solutions. It was possible under these conditions to carry out only experiments involving a retention in the dependence upon the time between dissolution of the irradiated preparations and the separation of the radioactive chromium with

Card 1/3

the non-isotopic carrier, and to arrive at an explanation for the possibility of concentrating the radioactive chromium which forms from chromates and dichromates in the reaction (γ,n). The preparations were irradiated with a maximum energy of the γ-quantum of 20 megavolts using the betatron of the Institut metallurgi AN SSSR (Institute for Metallurgy AS USSR). The irradiation lasted 40 minutes, i.e. corresponding to a half life period of Cr^{49} according to the reaction $Cr^{50}(\gamma,n)Cr^{49}$ (Refs 5,6). The concentration of the Cr^{49} was carried out by a precipitation with ammonia in the presence of iron, whereby two variations were worked out (Table 1). The concentration factor was greater than 10^4 in all preparations. The activity measurements (Fig 1) were carried out with a cylindrical β-counter. The size of the retention for solid irradiated preparations depends upon the time interval between the dissolution of the salt and the separation of the Cr^{49} in the iron hydrate (Refs 2-4). In the irradiation of aqueous solutions the increase is zero. Since a separation of the Cr^{4+} and Cr^{5+} out of the solutions failed it is assumed that after the dissolution of the

The Szillard-Chalmers Effect in the γ-Quantum Irradiation of Chromates and Dichromates

SOV/76-33-2-26/45

irradiated preparations the non-stable forms of the chromium are transformed to Cr^{3+} and Cr^{6+}. Finally, the following workers are thanked: the researchers of the FIAN SSSR (FIAN USSR), Professor V. I. Gol'danskiy and the senior Research Analyst L. Ye. Lazareva; Yu. A. Kondratenko, researcher in the Institut metallurgii AN SSSR (Institute for Metallurgy AS USSR); V. I. Baranovskiy, researcher of the kafedra radiokhimii LGU (Chair for Radiochemistry LGU); and Professor A. N. Murin. There are 4 figures, 4 tables, and 6 references, 1 of which is Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: June 7, 1957

Card 3/3

24817
S/081/61/000/011/009/040
B105/B203

21.4200

AUTHORS: Moskal'kova, E. A., Popov, D. K., Tolmachev, Yu. M.

TITLE: Separation and purification of radioactive zirconium radioisotopes

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 11, 1961. 49, abstract 11G349 (Radiokhim. analiz produktov deleniya. M-L., AN SSSR, 1960, 58-62)

TEXT: LaF_3 is twice precipitated from the solution to be analyzed which contains the carrier Zr and the 44% HF (3ml). The precipitate is separated, and the $BaZrF_6$ is precipitated from the solution by means of saturated $Ba(NO_3)_2$ solution. The precipitate is centrifuged, washed with 0.5% HF and water, and dissolved by successive addition of 5 ml of 5% H_3BO_3 solution, 10 ml of water, and 3 ml of concentrated HNO_3. $BaSO_4$ is precipitated by means of 5% H_2SO_4 from the solution heated to boiling.

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Separation and purification of ...

The solution with the precipitate is heated for 10 min, then cooled down, and the $BaSO_4$ precipitate is separated out and washed out by means of 0.1% H_2SO_4. The $Zr(OH)_4$ is precipitated from the filtrate by a 30% KOH solution. The precipitate is centrifuged, washed by means of 1% KNO_3 solution, and dissolved in a minimum quantity of concentrated HCl. The $Zr(OH)_4$ is precipitated once more, and after its dissolution in concentrated HCl, the solution is diluted to 1 N concentration of HCl. The phenyl arsonate of Zr (I) is precipitated out of the solution obtained by adding 5 ml of the 10% solution of phenyl arsonic acid to 6 N HCl. The sediment (I) is separated out, washed out by means of 1 N HCl (containing 0.1% phenyl arsonic acid), and treated with 5 ml of 10% NaOH solution. The $Zr(OH)_4$ precipitated is centrifuged, washed by means of 0.5% NaOH solution, dissolved in concentrated HCl, and the separation of (I) and its conversion $Zr(OH)_4$ are repeated. The latter is dissolved in 6 N HNO_3 by adding 3 ml of 44% HF in 5 mg La. The LaF_3 precipitated is separated out and washed

Card 2/3

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S/075/63/018/004/004/015

45

AUTHOR: Popov, D. K. and Mikhaylova, A. I.

TITLE: The direct determination of calcium in plants, soils and milk with use of a flame photometer

PERIODICAL: Zhurnal analiticheskoy khimii, v. 18, no. 4, April 1963, 440-443

TEXT: The authors demonstrate experimentally that there is no lessening of the intensity of radiation from calcium on account of quenchers (aluminum, sulfate and phosphate ions), provided 8-hydroxyquinoline is present. On this basis they suggest a method for the direct determination of calcium in soils, milk and plants, the removal of quenchers being unnecessary. There are 2 figures and 2 tables. The most important English-language reference reads as follows: Debras-Guedon, J., Voinovitch, J., Compt. rend. Acad. Sci., 248, 3421 (1959).

ASSOCIATION: Leningradskiy nauchno-issledovatel'skiy insitut radiatsionnoy gigeny (Leningrad Scientific Research Institute for Radiation Hygiene)

SUBMITTED: July 21, 1962

Card 1/

[redacted], V.M.; [redacted], L.L.

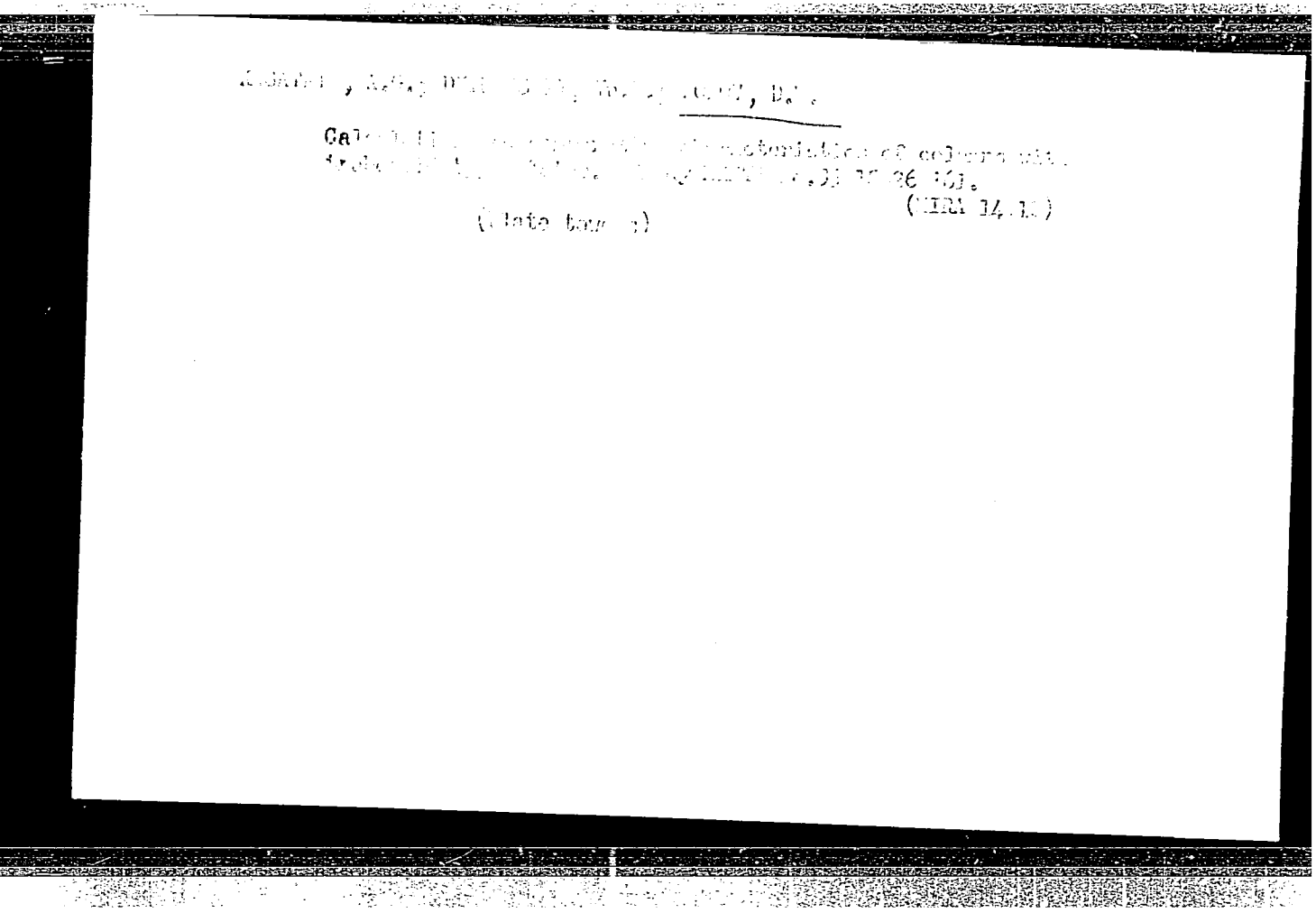
Radiochemical determination of antimony-125 in soils.
Radiokhimiia 6 no. 1:112-11[redacted] '64. (MIRA 17:6)

IOKHEL'SON, S.V.; POPOV, D.K.

Sb^{125} content in the topsoil and in plants. Atom. energ. 16 no.2:155-159 F '64. (MIRA 17:3)

POPOV, Dmitriy Mikhaylovich; DOBRYY, Iosif Matveyevich; AMENTOV, B.K., otv. red.; SIDOMOVA, T.S., red.; MARKOCH, K.G., tekhn. red.

[Plans for the dispatching and regulation of mail flows] Plany napravleniia i regulirovanie pochtovykh potokov. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1961. 80 p.
(MIRA 15:1)
(Postal service—Transportation)



KASATKIN, A.G.; POPOV, D.M.; DYTNERSKIY, Yu.I.

Mass transfer in turbogrid-type bubble plates. Khim.prom. no.2:123-130 F '62. (MIRA 15:2)

1. Moskovskiy Ordena Lenina khimiko-tekhnologicheskiy institut im. D.I. Mendeleyeva.
(Plate towers) (Mass transfer)

5 (4), 5 (2)

S/064/59/000/07/021/035
B005/B001

AUTHORS: Kasatkin, A. G., Doctor of Technical Sciences, Professor, Popov, D. M., Aksel'rod, Yu. V.

TITLE: Heat Transfer Through the Walls of the Spiral Cooler Under the Conditions of Bubbling

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 7, pp 622 - 624 (USSR)

ABSTRACT: The authors of this paper investigated the heat transfer on absorption of sulfur trioxide in concentrated sulfuric acid (98% H_2SO_4) for the preparation of standard oleum and on absorption of sulfur dioxide in a solution of ammonium sulfite-bisulfite. In both cases, cooling spirals were fixed to the sieve plates of the absorption column. Table 1 shows the characteristics of the apparatuses used and the working conditions on investigation of the absorption of SO_3 and SO_2. The temperature of the cooling water was measured when entering and leaving the cooling spiral; moreover, the consumption of water (kg per hour) and the temperature of the bubbling layer at the plate were measured. This temperature was considered

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Heat Transfer Through the Walls of the Spiral Cooler Under the Conditions of Bubbling

S/064/59/000/07/021/035
B005/B001

to be constant at all points which corresponds to a complete blending of the layer at the bubble plate. The heat transfer coefficient K was computed from these values. The coefficients of the heat transfer from the cooler wall to the cooling water (α_2) and of the heat transfer from the bubbling layer to the wall of the cooling spiral (α_1) were also computed. The respective equations are given in the paper. Table 2 shows the results of the experiments and computations. It appears that the values of K are very high and reach 950 kcal/m^2 hours °C. Since the heat transfer through the cooler walls under the conditions of bubbling is considerable, the same apparatus can also be used for the cooling of hot liquids. In connection with it, the hot liquid is conducted through the cooler; the bubbling layer is cold. The evaluation of the obtained results showed that α_2 increases from 1950 to 6500 kcal/m^2 hours °C at increasing velocity of flow of the cooling water. α_1 remained constant in the investigated range of bubbling gas velocities 0.85 - 1.35 m/sec) and was 1200 kcal/m^2 hours °C on an average. This means that the total heat transfer coefficient must be

Card 2/3

constant and independent of the gas velocity when α_2 is given. Table 3 shows a comparison of the value for α_1 obtained by the authors with the results obtained by other authors (M. E. Aerov and others, Ref 3, K. N. Shabalin and I. G. Blyakher, Ref 2, M. Ye. Pozin and others, Ref 1). The comparison proves the above assumption that α_1 is independent of the velocity of flow of the gas in the apparatus. The values for α_1 are in good agreement except for the data of M. Ye. Pozin and co-workers. It may be concluded that in plate apparatuses the maximum turbulence for the respective apparatus is always realized in the entire load range because α_1 depends neither on the turbulence nor on the physical properties of the bubbling layer if the cooling spirals are completely submerged in the bubbling layer. There are 3 tables and 4 Soviet references.

POPOV, D.M.

Calculation of the composition - temperature equilibrium dependence for liquid ideal systems. Zhur.prikl.khim. 37 no.7:1523-1530 Jl '64. (MIRA 18:4)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza.

POPOV, D. M., Cand. Tech. Sci. (diss) "Investigation of Hydraulics and Mass-exchange on Bubbling Grates of Descending Type," Moscow, 1961, 19 pp. (Moscow Inst. Chem. Machinebuilding) 200 copies (KL Supp 12-61, 272).

LABATKIN, A.G.; DYTNERSKIY, Yu.I.; POPOV, D.N.

Hydraulic laws governing the processes taking place on turbogrid-type bubble plates. Khim. prom. no.7:482-491 Jl '61. (MIRA14:7)
(Plate towers)

KASATKIN, A.G.; DYTNERSKIY, Yu.I.; POPOV, D.N.

Analysis of the process of mass transfer on bubble plates.
Report no.1. Trudy MKHTI No.33:5-10 '61. (MIRA 14:10)
(Mass transfer)
(Plate towers)

KASATKIN, A.G.; DYTNERSKIY, Yu.I.; ROKOV, D.[illegible].

Analysis of the process of mass transfer on bubble plates. Report No.2. Trudy MKHTI No.33:11-17 '61. (MIRA 14:10)
(Mass transfer)
(Plate towers)

KUZ'MINYKH, I.N., [deceased] doktor tekhn.nauk, prof. POPOV, D.M.; GORBACHEV, B.I.

Bubble absorption of sulfur dioxide resulting in the production of concentrated solution of ammonium bisulfite. Khim.prom. 2:128-132 My '60. (MIRA 13:7)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva i ChKhZ imeni M.I. Mendeleyeva.
(Sulfur dioxide) (Sodium sulfite)

POPOV, Dimitur M., inzh., parkstroitel

Zoological parks during the centuries. Prir i znanie 13 no.2:18-19 F '60. (EEAI 9:11)
(Zoology)

1. POPOV, D.N.

2. USSR (600)

4. Grafting

7. Slip grafting, Sad i og. no. 3, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, APRIL 1953. Unclassified.

POPOV, D.N.; PLOKHIKH, B.A.

Mechanized painting and glazing of facing tiles on conveyers. suggested by D.N.Popov, B.A.Plokhikh. Rats.i izobr.predl.v stroi. no.11:75-76 '59. (MIRA 13:3)

1. Rabotniki plitochnogo zavoda, stantsiya Losevo, Khar'kovskogo sovnarkhoza.
(Losevo--Tiles)

POPOV, D. N.

POPOV, D. N. -- "Automatic Velocity Regulation of Hydroturbines Using Remote Sensing Elements." Min Higher Education USSR. Moscow Order of Lenin and Order of Labor Red Banner Higher Technical School imeni Bauman. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Sciences)

SOURCE Knizhnaya Letopis' No 6 1956

POPOV, D.N., kandidat tekhnicheskikh nauk.

Selection of the parameters of isodrome speed-control governors for hydraulic turbines. Trudy VIGM no.19:87-127 '56.
(MLRA 10:2)

(Hydraulic turbines)

POPOV, D.N.

122-2-7/33

AUTHOR: Popov, D.N., Candidate of Technical Sciences.

TITLE: On the Resistance Forces Arising in Spool Valve Control Mechanisms (O silakh soprotivleniya, voznikayushchikh v zolotnikovykh ustroystvakh)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, No.2, pp. 26-28 (USSR)

ABSTRACT: The force resisting the displacement of a spool valve after standstill greatly exceeds the hydrodynamic resistance. Breakdown of the oil film, accompanied by the appearance of dry friction and the clogging of narrow clearances as a result of molecular changes in the oil have been thought responsible for the excess force. An experimental set-up using a control valve of the KЭ speed governor for hydraulic turbines is described as investigated on a test rig at the All-Union Scientific Research Institute for Hydraulic Machinery (VIGM). The spool was fixed inside the moving sleeve so that the pressure distribution in the annular ports around the sleeve was held at a level corresponding to the normal operation of the valve. Appropriate ports were connected through throttle valves and the port pressures were measured individually. The displacement force was measured by a calibrated spring. Several sleeves were tested made of different materials and having surfaces either smooth, or provided with threaded or annular grooves.

Card1/2

On the Resistance Forces Arising in Spool Valve Control Mechanisms

Rest periods were varied. The resistance force was found to stabilise after 1.5 hours. It is shown to depend essentially on the surface area of the land exposed to pressure, but not on the width of the clearance. If a force too low for displacement is applied and subsequently the oil pressure is reduced, the sleeve will move only after several minutes. It is concluded that the excess force is not due to clogging of the clearance by solid particles or to an eccentric pressure distribution, but to a change of the molecular structure of the oil in the clearance. Apart from rotating or oscillating motion, the greatest reduction in the land area is considered the most effective remedy.
There are 2 figures, 1 table and 4 Russian references.

AVAILABLE: Library of Congress

Card 2/2

8(6), 14(6) SOV/112-59-5-8715

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 44 (USSR)

AUTHOR: Popov, D. N.

TITLE: Influence of the Servomotor Characteristic Upon Speed-Control Conditions of a Hydro Turbine

PERIODICAL: Tr. Vses. n.-i. in-ta gidromashinostr., 1958, Nr 21, pp 110-130

ABSTRACT: Limits are determined between which the time constant of the servomotor can be neglected in calculating fundamental parameters of the regulator. Analytical expressions are developed that determine the stability range of a regulation system. A method for determining the curve of speed regulation with an allowance for the nonlinear servomotor characteristic is presented. Bibliography: 6 items.

A.A.B.

Card 1/1

POPOV, D.N., kand.tekhn.nauk

Control of speed and acceleration of hydraulic turbines. Trudy VIGM no.24:150-178 '59. (MIRA 12:8)
(Hydraulic turbines) (Automatic control)

PHASE I BOOK EXPLOITATION SOV/6071

Nosov, Yuriy Andreyevich, Dmitriy Nikolayevich Popov, and Sergey Nikolayevich Rozhdestvenskiy

Nekotoryye voprosy rascheta i konstruirovaniya aviatsionnykh gidravlicheskikh sistem (Some Problems in the Design and Construction of Aircraft Hydraulic Systems). Moscow, Oborongiz, 1962. 231 p. Errata slip inserted. 3500 copies printed.

Ed. (Title page): S. N. Rozhdestvenskiy; Ed.: I. L. Yanovskiy, Engineer; Ed. of Publishing House: A. A. Khrustaleva; Tech. Ed.: L. A. Garnukhina; Managing Ed.: S. D. Krasil'nikov, Engineer.

PURPOSE: The book is intended for aircraft designers specializing in hydraulics. It can also be used by students of machine-building institutes.

COVERAGE: The book, based on non-Soviet sources, deals with the calculation

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and design of aircraft hydraulics. The dynamics and hydraulics of servodrives and the effect of high temperatures on their operation and sealing, are considered. No personalities are mentioned. There are 9 references: 1 Soviet (a translation from English) and 8 English.

TABLE OF CONTENTS [Abridged]:

6781
S/089/62/012/005/013/014
B102/B104

21.1000
26.2240

AUTHORS: Gruzinova, T. A., Ionaytis, R. R., Kamenshchikov, F. T., Popov, D. N.

TITLE: Calculation of transient states in a hydraulic loop containing a falling body

PERIODICAL: Atomnaya energiya, v. 12, no. 5, 1962, 421-423

TEXT: Transient-state calculations were carried out for a hydraulic loop (Fig. 1) with one vertical tube (1) in which a solid body 2(h=12m, d = 0.0306m) is allowed to fall; the elasticity of the liquid and the pipe walls is ignored. The purpose of the calculations was to see if the velocity v of the falling body could be increased. A relation between the liquid pressure and flow rate in the system, on the one hand, and v on the other, was found. The liquid in the loop flows at w = 0.25 m/sec before the body starts falling in the vertical tube. The motion of the liquid is described by

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Calculation of transient states in ...

$$\frac{p_{0(1)-V}}{\gamma} = \alpha_{0(1)-V}\omega^2 + \beta_{0(1)-V}\frac{d\omega}{d\tau} \pm \pm \alpha_{III}(\omega - v)^2 \mp \beta_{III}\frac{dv}{d\tau}, \quad (1),$$

the motion of the body by

$$\frac{dv}{d\tau} = a + b(\omega - v)^2 \div c\frac{d\omega}{d\tau}. \quad (3).$$

p is the pressure, γ the specific weight of the liquid, the α and β are numerically given coefficients, τ the duration of the fall, the double signs stand for $w \gtrless v$; a, b, and c are also numerically given. The equations are numerically solved when a) an accumulator (providing discharge and pressure of the liquid) is at the loop entry and b) an accumulator is at the top of the vertical tube. The results are graphically shown: $p_o/\gamma = f(\ )$ for (a) and w, v = f(T) for (b). a) At a water pressure of 20-30 kg/cm^2 the body travels along a path of 3.5 m in T = 0.8 - 1.2 sec. b) at p_{I-I} = 1, 4.5, and 9 kg/cm^2, T = 1.4, 1.07, and

Card 2/3

0.87 sec (path 3.5 m). Conclusions: 1) in the section I-I of a loop with constant pressure the body falls continuously; 2) with constant pressure at the entry of the vertical tube the body falls 3.5 m in 0.9 - 1.4 sec; 3) if the accumulator is placed at the vertical tube it is more effective than if it is at the loop entry. These calculations can be valuable for analyses of special hydraulic systems, such as in the safety shields of atomic power plants. There are 3 figures.

SUBMITTED: November 29, 1961

Card 3/3

TARKO, L.M.; POPOV, D.N., kand. tekhn. nauk, retsenzent; GORBOV, P.S., inzh., red.; TUCHKOVA, L.K., red.izd-va; UVAROVA, A.F., tekhn. red.

[Wave processes in the pipings of hydraulic mechanisms] Volnovye protsessy v truboprovodakh gidromekhanizmov. Moskva, Mashgiz, 1963. 181 p. (MIRA 16:10)
(Oil hydraulic machinery--Hydrodynamics)

POLUSHKIN, K.K.; YEMEL'YANOV, I.Ya.; DELENS, P.A.; ZVONOV, N.V.; ALEKSENKO, Yu.I.; GROZDOV, I.I.; KUZNETSOV, S.P.; SIROTKIN, A.P.; TOKAREV, Yu.I.; LAVROVSKIY, K.P.; BRODSKIY, A.M.; BELOV, A.R.; BORISYUK, Ye.V.; GRYAZEV, V.D.; POPOV, D.N.; KORYAKIN, Yu.I.; FILIPPOV, A.G.; PETROCHUK, K.V.; KHOROSHAVIN, V.D.; SAVINOV, N.P.; MESHCHERYAKOV, M.N.; PUSHKAREV, V.P.; SUROYEGIN, V.A.; GAVRILOV, P.A.; PODLAZOV, L.N.; ROGOZHKIN, I.N.; TETYUKOV, V.D.

"Arbus" atomic power plant with organic heat transfer agent and moderator. Atom. energ. 17 no.6:439 D '64 (MIRA 18:1)

L 24212-65 EWT(m)/EPF(c)/EPF(n)-2/EPR Pr-4/Ps-4/Pu-4 DM

ACCESSION NR: AP5001265 S/0089/64/017/006/0439/0448

AUTHOR: Polushkin, K. K.; Yemel'yanov, I. Ya.; Delens, P. A.; Zvonov, N. V.; Aleksenko, Yu. I.; Grozdov, I. I.; Kuznetsov, S. P.; Sirotkin, A. P.; Tokarev, Yu. I.; Lavrovskiy, K. P.; Brodskiy, A. M.; Belov, A. B.; Borisyuk, Ye. V.; Gryazov, V. M.; Tetyukov, V. D.; Popov, D. N.; Koryakin, Yu. I.; Filippov, A. G.; Petrochuk, K. V.; Khoroshavin, V. D.; Savinov, N. P.; Meshcheryakov, M. N.; Pushkarev, V. P.; Suroyegin, V. A.; Gavrilov, P. A.; Podlazov, L. N.; Rogozhkin, I. N.

TITLE: Atomic electric power installation "Arbus" with organic coolant and moderator

SOURCE: Atomnaya energiya, v. 17, no. 6, 1964, 439-448

TOPIC TAGS: small nuclear reactor, organic coolant, organic moderator, reactor economy, nuclear reactor

ABSTRACT: The paper is a summary of the SSSR # 307 report at the Third Inter-

Card 1/2

L 24212-65

ACCESSION NR: AP5001265

national Conference on Peaceful Uses of Atomic Energy, 1964. It describes an installation of a reactor in which organic liquid serves as the coolant, and as the moderator. The low-power reactors of about 5 Mw are expected to be economical in the remote regions where the usual energy sources are not available. A regeneration system is described for the coolant which removes the products of radiolysis. Orig. art. has: 7 figures

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

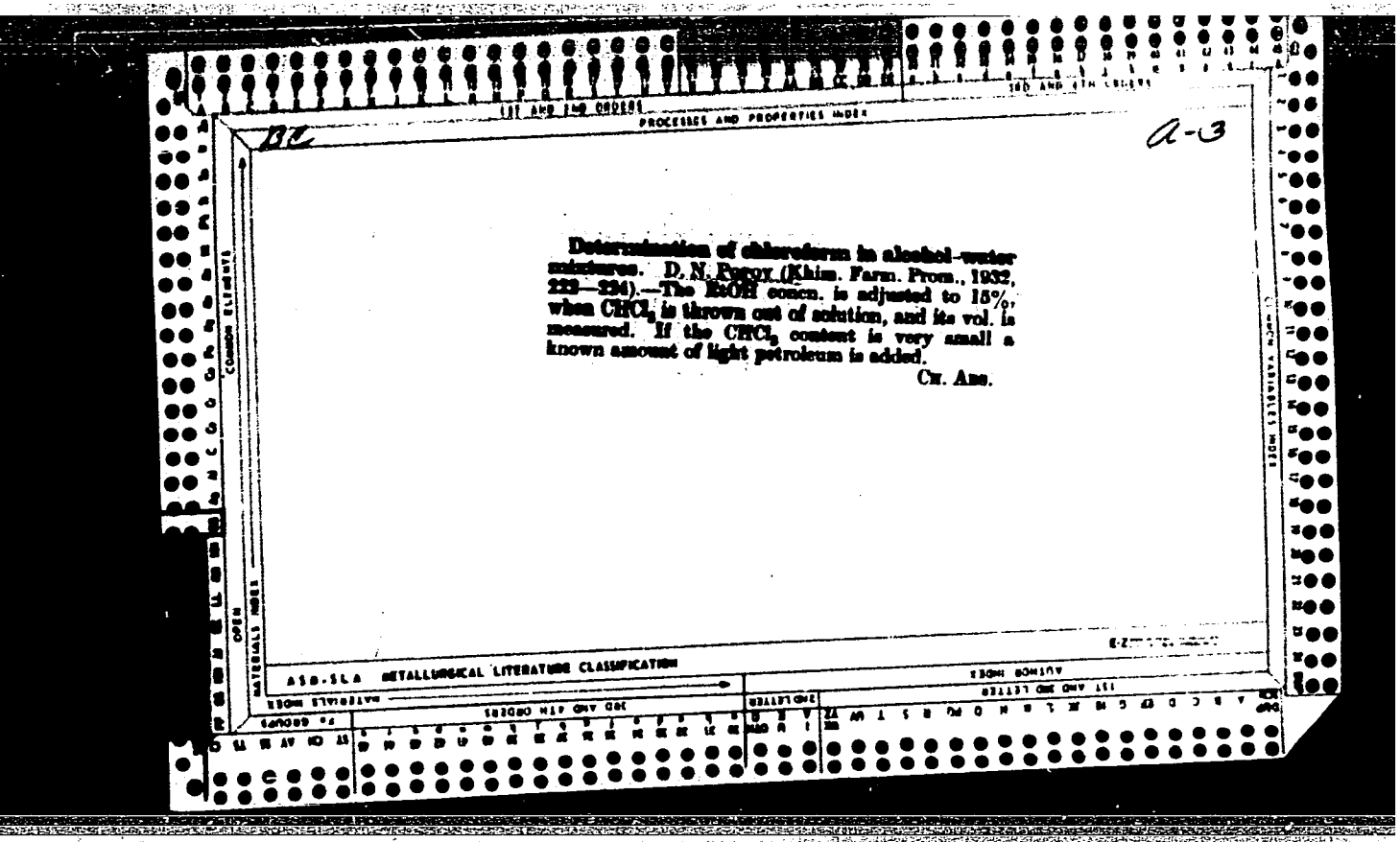
NR REF SOV: 000 OTHER: 000

Card 2/2

BUGAKOV, P.I.; GRUZINOVA, T.A.; IONAYTIS, R.R.; KAMEN'SHCHIKOV, F.T.; POPOV, D.N.

[Study of a hydraulic system with a body moving within it] Issledovanie gidravlicheskoi sistemy s dvizhushchimsia v noi telom. [n.p.] Gos.kom-t po ispol'zovaniiu atomnoi energii, 1960. 42 p. (MIRA 17:1)

(Hydraulics)

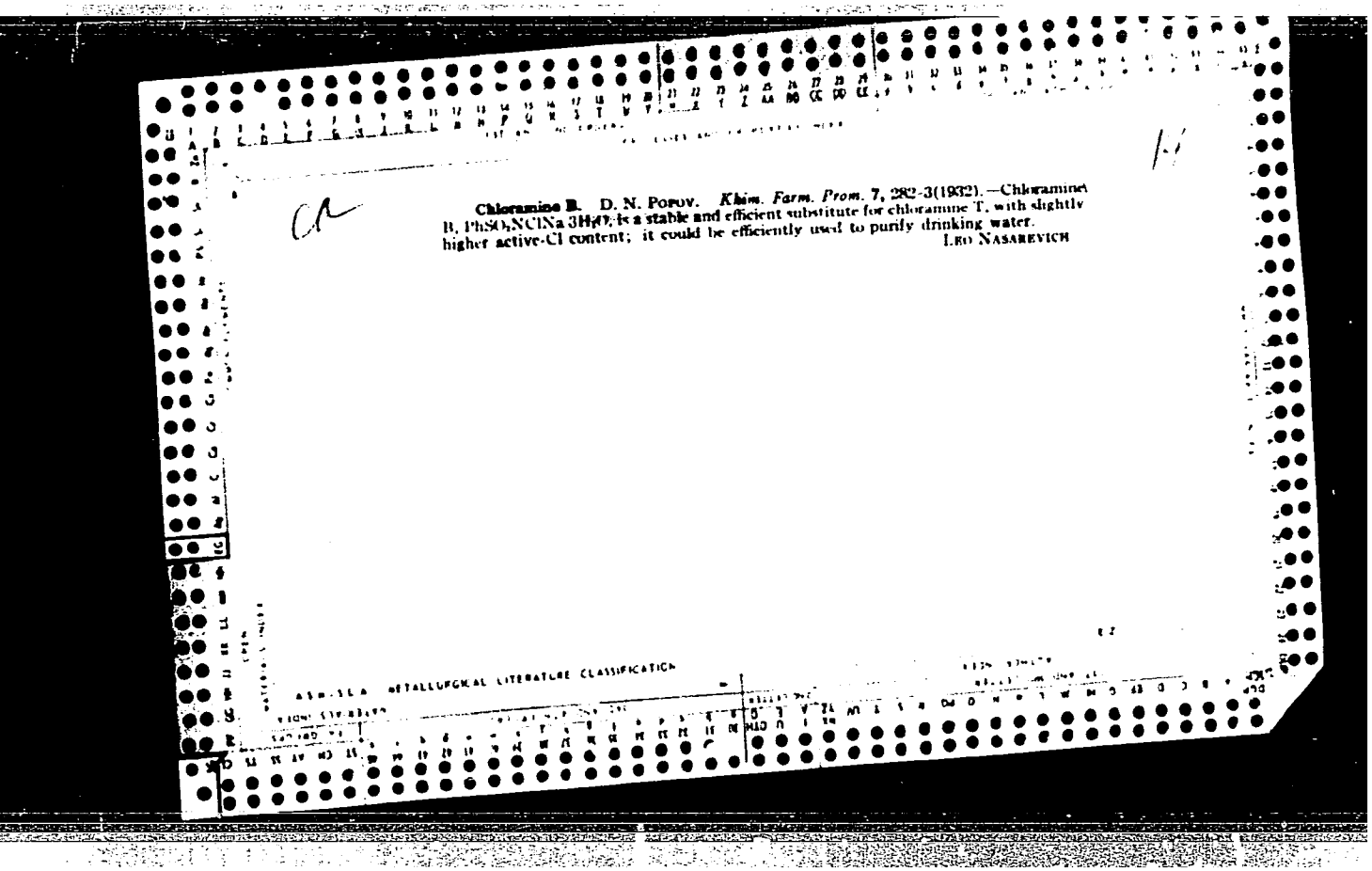


BL

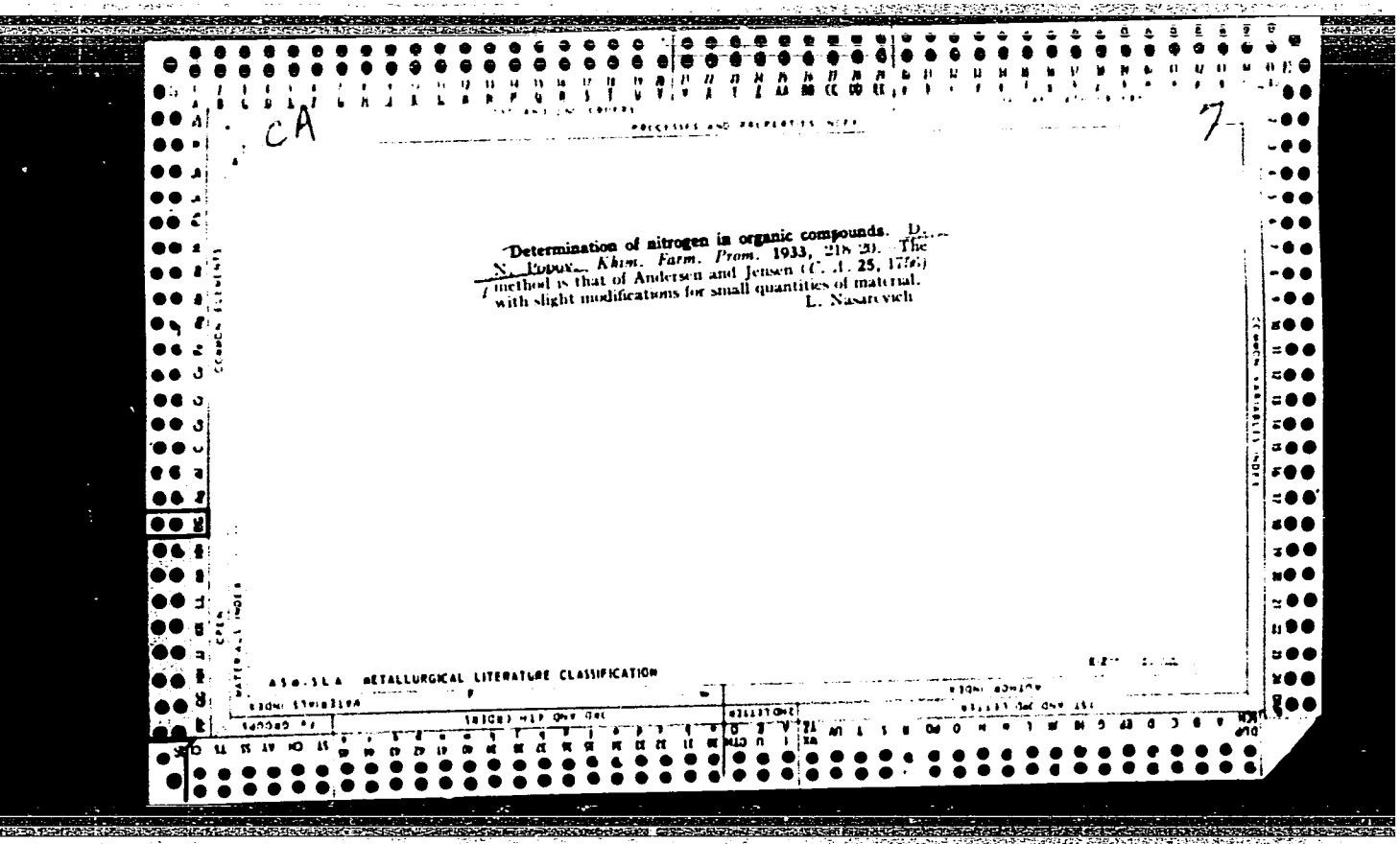
A-3

Determination of chloroform in alcohol–water mixtures. D. N. Fenox (Khim. Farm. Prom., 1932, 223—224).—The EtOH concn. is adjusted to 15%, when $CHCl_3$ is thrown out of solution, and its vol. is measured. If the $CHCl_3$ content is very small a known amount of light petroleum is added.

Ch. Abs.



Chloramine B. D. N. Popov. *Khim. Farm. Prom.* 7, 282-3(1932).—Chloramine B, $PhSO_2NClNa\cdot 3H_2O$, is a stable and efficient substitute for chloramine T, with slightly higher active-Cl content; it could be efficiently used to purify drinking water.
Leo Nasarevich



INDENBAUM, G.V.; POPOV, D.N.

Substructure of spherical single crystals of aluminum depending on crystallization conditions. Fiz. met. i metalloved. 14 no.2:205-211 Ag '62. (MIRA 15:12)

1. Kransnoyarskiy institut tsventnykh metallov imeni Kalinina.
(Aluminum crystals) (X-ray crystallography)

S/020/62/143/002/011/022
B104/B102

AUTHORS: Indenbaum, G. V., Novikov, I. I., and Popov, D. N.

TITLE: Channels and macroscopic etch patterns in pure monocrystalline aluminum

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 2, 1962, 316 - 318

TEXT: The Bridgman technique was used to grow spherical aluminum single crystals in a device that allowed the cooling rate and the axial temperature gradient of the growing crystal to be regulated. At high cooling rate and small axial temperature gradient there is a large subcooling zone in front of the crystallization zone, i. e., dendritic structures may develop in front of the crystallization zone. Crystals grown in this way exhibit no external defects, but their density is insufficient. If such single crystals are etched for 20 to 50 min in an acid mixture of HNO_3 (47 parts), HCl (50 parts), and HF (3 parts), large etch patterns will occur: holes of regular shape, which are bounded by faces with minimum rate of dissolution: {100}, {110}, or {111}. The

Card 1/2

Channels and macroscopic...

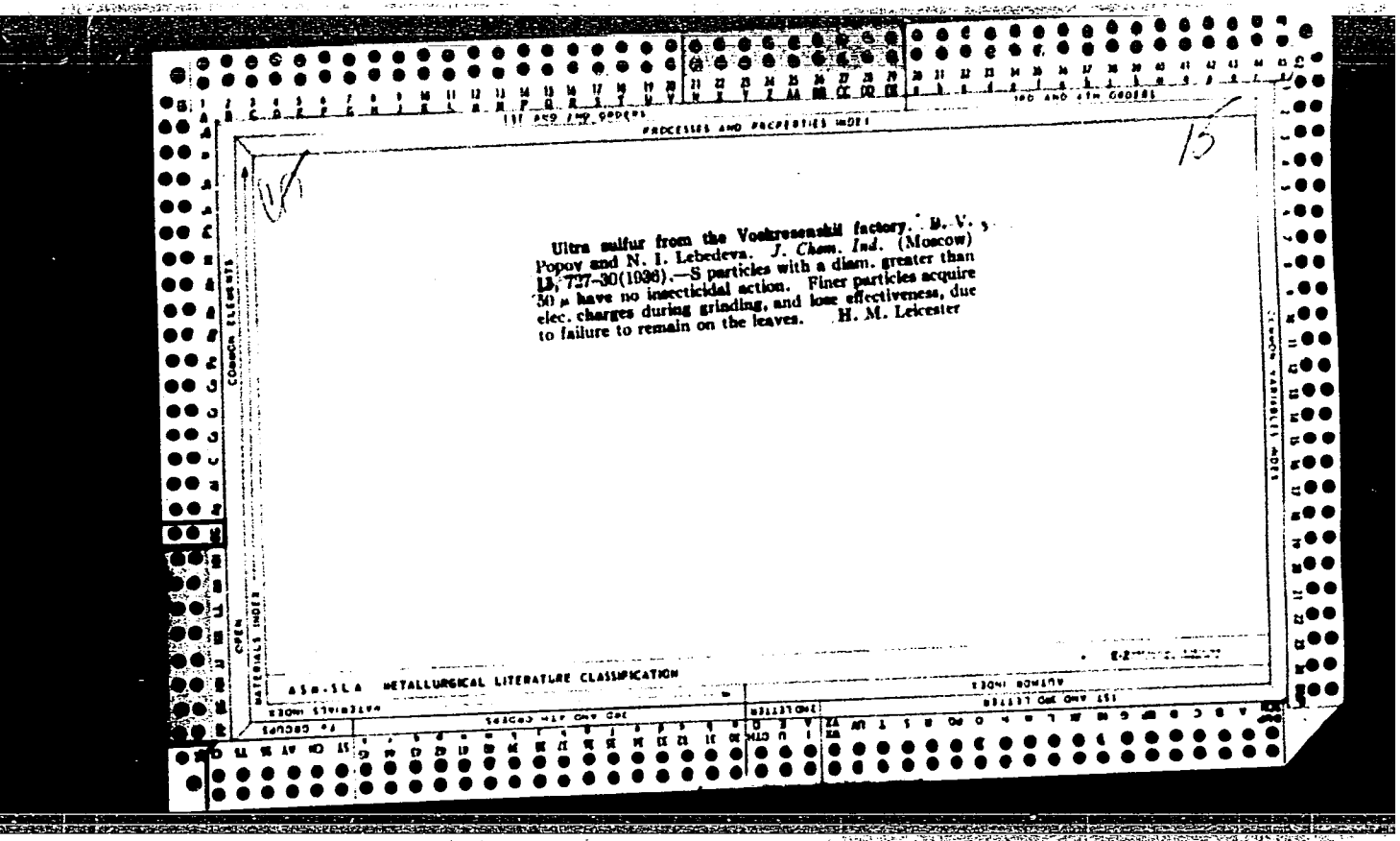
pouring channel is surrounded by 6 - 10 mm deep perpendicular, square channels with bright walls. The metallographic examination of a cut crystal has shown that both macroscopic etch patterns and channels develop along the axes of dendrites. V. B. Zernov is thanked for making available the experimental arrangement and the mold for growing the single crystals. A. A. Bochvar is mentioned. There are 4 figures and 3 references: 1 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: P. Lacombe, L. Beaujard, J. Inst. Metals, 74, 1 (1948); M. Jamamoto, J. Japan Inst. Metals, 21, 85 (1957).

ASSOCIATION: Krasnoyarskiy institut tsvetnykh metallov im. M. I. Kalinina (Krasnoyarsk Institute of Nonferrous Metals imeni M. I. Kalinin)

PRESENTED: October 16, 1961, by A. A. Bochvar, Academician

SUBMITTED: October 4, 1961

Card 2/2



Ultra sulfur from the Voskresenskii factory. B. V. Popov and N. I. Lebedeva. *J. Chem. Ind.* (Moscow) 13, 727–30(1936).—S particles with a diam. greater than 30 μ have no insecticidal action. Finer particles acquire elec. charges during grinding, and lose effectiveness, due to failure to remain on the leaves. H. M. Leicester

POPOV, Dimitur S., inzh.

Determining the coefficient of a many-yeared output. Khidrotekh. i melior 9 no.9:287-288 '64.

POPOV, D.T.

Importance of enzyme tests in the diagnosis of liver diseases in children. Vop. okh. mat. i det. 6 no.9:43-48 S '61. (MIRA 14:9)

1. Iz kafedry detskikh bolezney (nachal'nik - deystvitel'nyy chlen AMN SSSR zasluzhennyy deyatel' nauki prof. M.S.Maslov [deceased]) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.
(LIVER--DISEASES) (ENZYMES)

SERAFIMOVICH, Viktor Stepanovich, kand. tekhn. nauk; POPOV, D.V., inzh., retsenzent; BRAYLOVSKIY, N.G., inzh., red.; KHITROVA, I.A., tekhn red.

[Automatic regulators of the brake gear of railroad cars and locomotives] Avtomaticheskie reguliatory tormoznoi rychazhnoi peredachi vagonov i lokomotivov. Moskva, Transzheldorizdat, 1962. 96 p. (MIRA 15:6)

(Railroads—Brakes) (Automatic control)

POPOV, D. V.

POPOV, D.V. "Determination of the Concentration of Polysulfide of Barium in Solutions According to Specific Weight," Doklady Vsesoiuznoi Akademii Sel'skokhoziasitvennykh Nauk imeni V. I. Lenina, vol. 5, no. 9, 1940, pp. 36-40. 20 Akl

SO: SIRA, SI-90-53, 15 December 1953

PETROV, P.S.; POPOV, E.

Effect of the preliminary treatment of corn extract on the fermentation processes of penicillin and chlortetracycline. (MIRA 14:5)
Antibiotiki 5 no.2:117-119 Mr-Ap '60.

1. Medzavod No.4, Bolgariya, g. Razgrad.
(PENICILLIN) (AUREOMYCIN)

POPOV, E.

Cancer of the pancreas. Nauch. tr. vissh. med. inst. Sofia 40 no.5: 157-169 '61.

1. Predstavena ot prof. B. Kurdzhiev, rukovoditel na Katedrata po patologichna anatomiia.

(PANCREAS neopl)

Country : BULGARIA
Category: Cultivated Plants. Fruits. Berries.

Abs Jour: RZhBiol., No 22, 1958, No 100430

Author : Popov, Emil; Boykov,Dimit'r; Panov, Vasil
Inst : -
Title : The State and the Possibilities of the Development of Horticulture in Bulgaria.

Orig Pub: Selskostop. nis"l, 1957, 2, No 6, 321-331

Abstract: In 1896, regardless of favorable natural conditions, orchards occupied about 4842 hectares; in 1929, the orchard area enlarged to 18644 hectares, among them 63.8% of the area under plums, 34.6% under mixed orchards (plum, sweet cherry, cherry, apple, pear, nuts, apri-

Card : 1/2

Country : BULGARIA
Category: Cultivated Plants. Fruits. Berries.

Abs Jour: RZhBiol., No 22, 1958, No 100430

cots, peach, quince), 1.36% under apple trees and 0.2% under pear trees. In 1944 the area increased to 55511 hectares, along with which the area under plums decreased (to 34%) and the area under apple trees increased (to 33%). In 1956 - to 11470 /?sic/ hectares along with an enlargement of the areas under apricot, cherry, sweet cherry, peach, raspberry and wild strawberry. Shortcomings in the management of orchard cultivation are being discovered and measures for its improvement are being planned. -- K.M. Lyutikov

Card : 2/2

BERCHEV, kr.; POPOV, E.

On patho-anatomical changes during biomycin therapy. (Contribution to a case of intravenous biomycin therapy). Suvr. med. 12 no.6:91-96 '61.

1. Iz Katedrata po patologichna anatomiia pri Visshiia meditsinski institut, Sofiia,(Rukovoditel na katedrata prof. B. Kardzhiev)

(CHLORTETRACYCLINE toxicol)

POPOV, E., inzh.

Determining the most economical dimensions of rectangular grooves in the rotors of electric machines. Mashinostroene 12 no.8:27-28 Ag '63.

1. NIPKIEP.

POPOV, E.A.

Design for critical speeds of the EVA electric spindle of acetate silk spinning machines. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.2:149-154 '65. (MIRA 18:5)

1. Moskovskiy tekstil'nyy institut.

POPOV, E.

Experiments in stimulating sugar beets with dry chemical mixtures. (EEAI 10:9)
Izv Inst biol BAN 11:243-259 '61.

(Sugar beets) (Chemicals)

POPOV, E. A. (Prof.)

From Russian for Dr. Seymour Perlin

Zhurnal Nevropatologii i Psikhiatrii imeni S. S. Korsakova,
57, 9: 1101-1105, 1957

The problem of so-called "familial" schizophrenia
by
A. G. Ambrumova

(Psychiatric Clinic (Prof. E. A. Popov, Director),
First Moscow Order of Lenin Medical Institute).

Translated at the National Institutes of Health, Bethesda, Maryland.
Full translation available in [redacted]/M.

EXCERPTA MEDICA Sec.8 Vol.11/5 Neuro-Psychiat.May 58

POPOV, E.A.

2668. RESULTS OF ADMINISTERING AMINAZINE IN THE PSYCHIATRIC CLINIC (Russian text) - Popov E.A. and Nevzorova T.A. - ZH. NEVROPAT. PSIKHIAT. (Mosk.) 1956, 56/7 (559-566)

Aminazine (the Soviet chlorpromazine) has been given to patients in the psychiatric clinic under the auspices of Popov since March 1955. The present report deals with 138 cases. The drug was given i.a. in psychomotorical excitement (10 patients) and potentiating hypnotic cure (37 patients). Secondary symptoms are described of sleepiness, changes of the blood and temperature, catarrhs of mucous membranes, orthostatical collapses, parkinsonism and asthenia with euphoria. The mechanism of the effect of aminazine has not as yet been described uniformly.

Hádlík - Brno

GILYAROVSKIY, V.A. (Prof.) and POPOV, E.A. (Prof.)

"Actual Problems of Psychiatry"

Paper given before the Office of the Division for Clinical Medicine, AMS, December 1955.

Popov, E.A.

411. THE PATHOGENESIS OF SCHIZOPHRENIA (Russian text) - Popov E.A.
Z.NEVROPAT.PSIKHIAT. (Mosk.) 1957, 57/5 (545-555)

All the material is divided into 3 groups. (1) Mental disturbances and other troubles of the CNS are explained in agreement with Pavlov's theory, i.e. as a manifestation of inhibition 'in the different degrees of diffusion and tension'. (2) Schizophrenia is characterized in the nervous system by predominance of the tone of the parasympathetic system. (3) In schizophrenia the metabolism of carbohydrates is decreased and the responsiveness to changes in the blood composition is diminished. These 3 groups of phenomena are closely related. By adaptation to the changes of the surroundings, the organism has produced 2 varieties in the tendency of the vital processes. One of these is characterized by predominance of the sympathicotonic excitability and preponderance of the catabolic processes over the anabolic processes. Characteristic for the second are: predominance of inhibition, parasympathicotonia and preponderance of the anabolic processes. The progress in the organism of the first type ensures the external activity and of the second type ensures rest and restoration of strength. The 2 types are reflected in the pathogenes-

is. The manic state can be interpreted as a pathological variety of the first and schizophrenia as a morbid variation of the second type. From this point of view, all the principal manifestations of schizophrenia present themselves as factors connected with each other by a single and unique biological complex.

POPOV, E.

Field experiments in stimulation and chemical investigation of sugar beet. p. 19

Bulgarska akademiia na naukite. Institut po biologia "Metodi Popov."
IZVESTIA. BULLETIN. Sofia, Bulgaria., Vol. 9, 1958

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 12,
December 1959
Uncl.

PA 26Th8

USSR/Metals - Drawing
Dies - Drawing

May 1947

"Analysis of Metal Drawing Through Two Dies with Tapering Walls," E. A. Popov, Candidate in Technical Sciences, 4½ pp

"Vest Inzher i Tekh" No 5

Drawing with tapering walls is the most effective technological method for obtaining completed articles in which it is important to have thick bases in comparison with the finished product. Results of actual operation in industries have shown the advantage of using two coaxial matrices instead

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POPOV, E. A.

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USSR/Metals - Drawing (Contd) May 1947

of one die. This method of drawing through two dies cannot be accomplished experimentally, however, and so this method lacks data. Therefore, the author attempts to give some theoretical data with reference to drawing of metal through two dies with tapering walls. Presents a diagram of the apparatus, graphs and mathematical formulae to confirm his theories.

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EXCERPTA MEDICA SEC 8 Vol 12/2 Neurology Feb 59

1243. THE RESULTS OF EMPLOYMENT OF PAVLOV'S THEORY IN THE FIELD OF PSYCHIATRY (Russian text) - Popov E. A. - ZH.NEVROPAT. PSIKHIAT. (Mosk.) 1957, 57/6 (673-680)

Pavlov's theory gives a better explanation of many psychiatric phenomena, which is based on objective-physiological instead of subjective-psychological findings. The dogmatic trend which is based on Pavlov's theory but does not allow further development should be rejected. These considerations, which manifest monopolism and sectarianism, should not be allowed. In the study of psychical diseases the development should go on, irrespective of diverting tendencies

Dimitrijević - Sarajevo