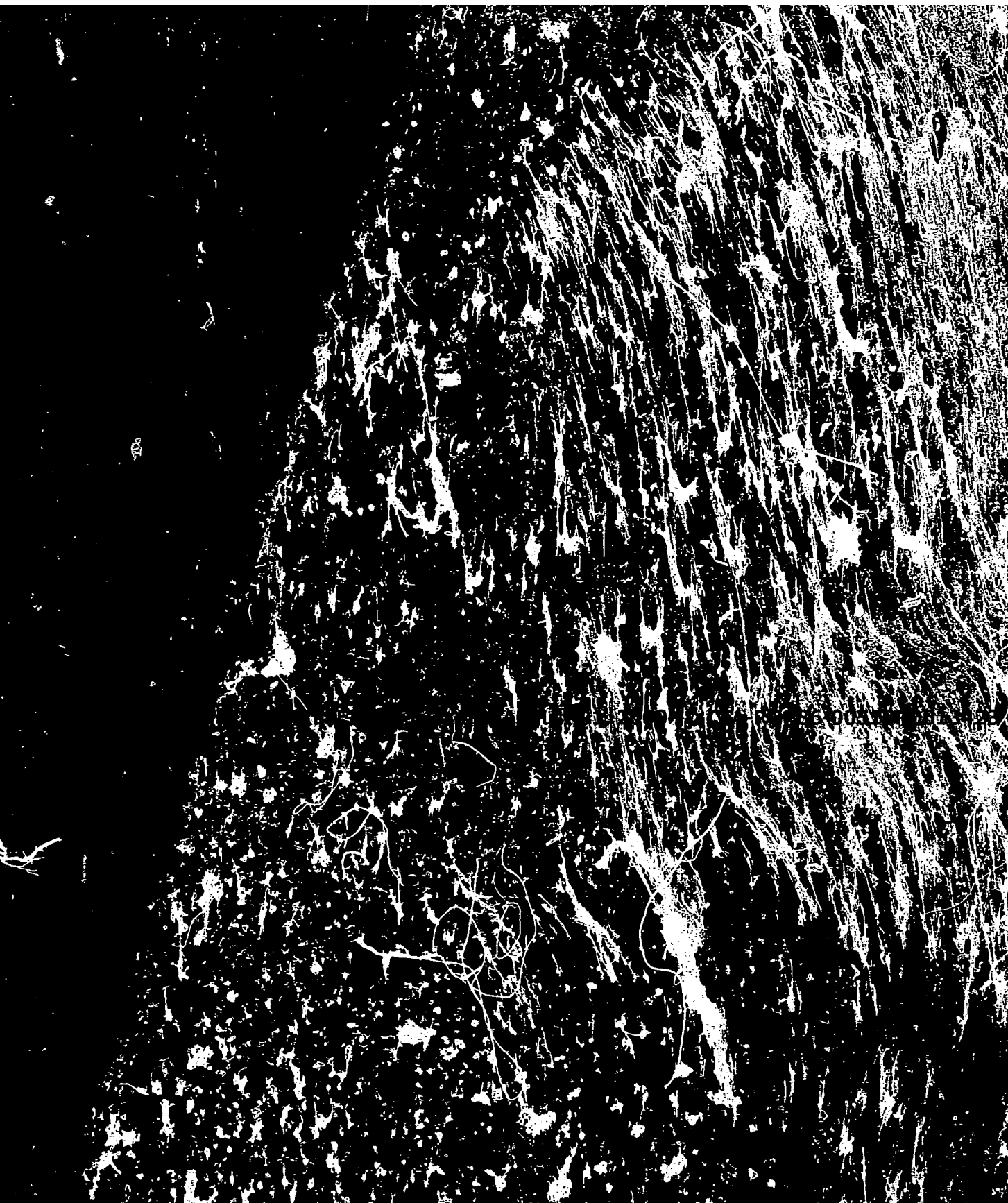


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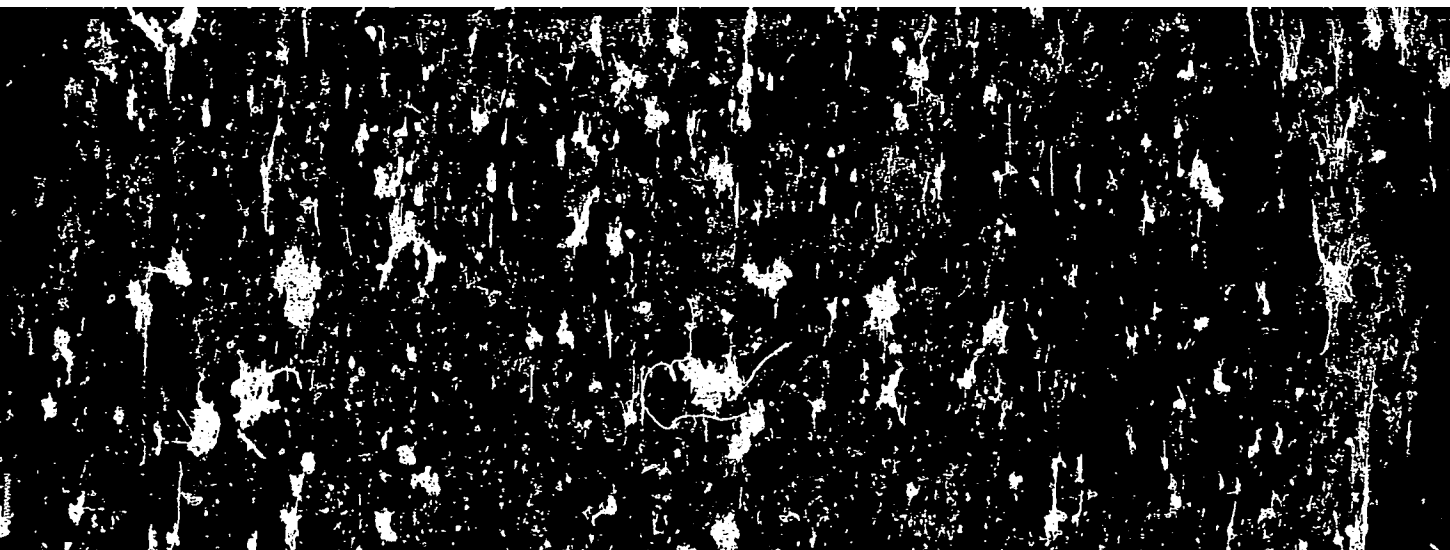
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POPOV, A.K.



"APPROVED FOR RELEASE: Tuesday, August 01, 2000

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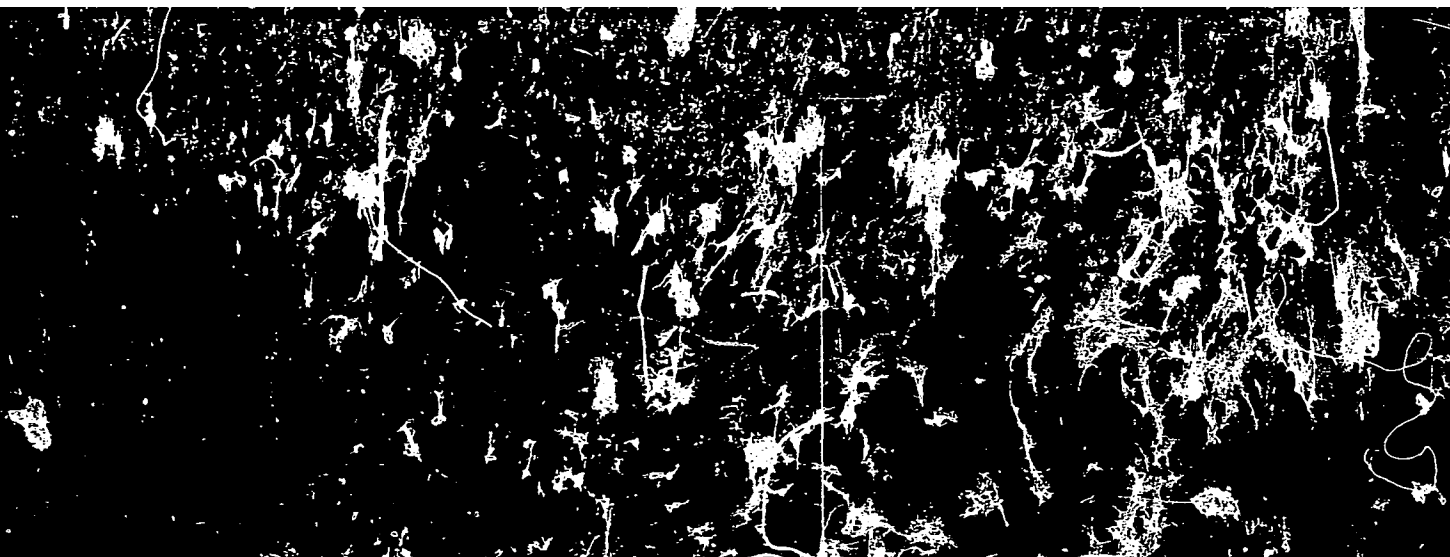


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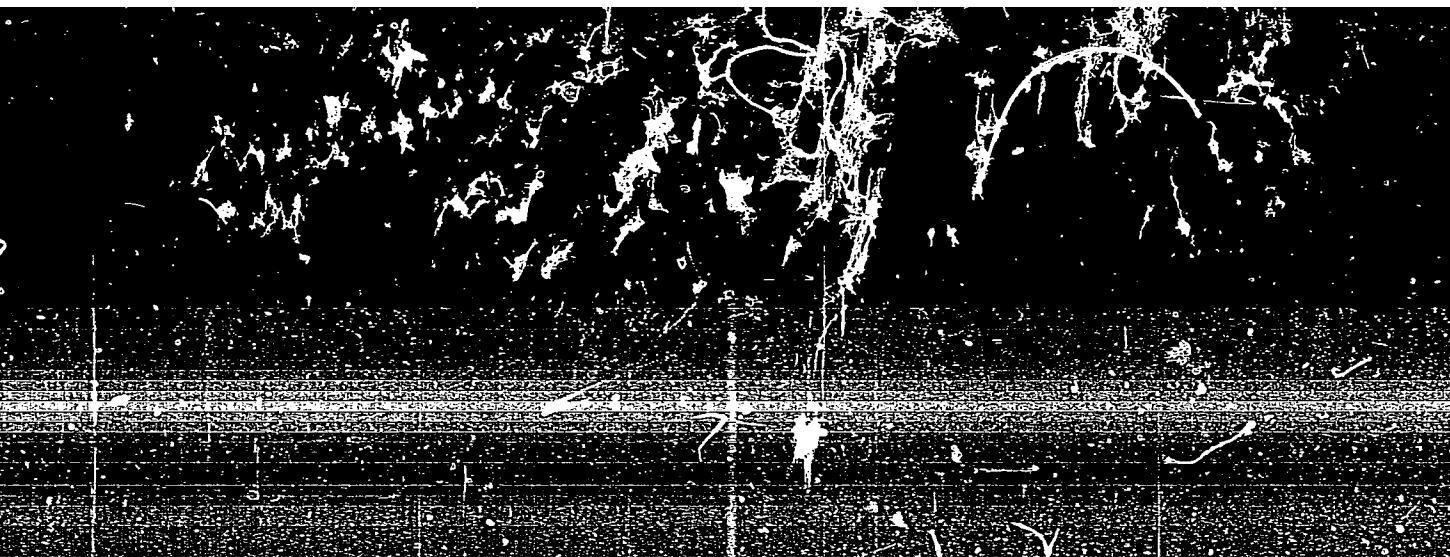


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L 49434-65 EWA(k)/FBD/ENG(r)/EWT(1)/EEG(k)-2/EEG(t)/T/EEG(b)-2/EWP(k)/EWA(m)-2/
EWA(h) Pf-l/P1-l/P1-l/Pm-l/Pn-l/Pe-l/Pab SCTB/IJF(c) WL
UR/0056/65/048/005/1279/1282

ACCESSION NR: AP5013886

AUTHOR: Popov, A. K.

TITLE: The theory of gas lasers 75

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 5, 1965
1279-1282

TOPIC TAGS: gas laser, laser theory, stimulated emission

ABSTRACT: A simple approach is proposed for calculating the threshold and power generated by a gas laser in the near-threshold region under the experimental conditions imposed by A. Javan et al (J. Opt. Soc. Amer., 52, 96, 1962). The result is expressed as the dependence of the field density of the stimulated emission on the resonator parameters, on the probabilities of atomic excitation in the gas-discharge plasma per unit time, and on the relaxation characteristics of the system. The proposed method takes into account the motion of radiating particles, degeneracy of the energy levels, the random orientation of the dipole moments of particles which interact with the radiation, and the presence of a mechanism for excitation of the lower level. Orig. art. has: 1 figure and 13 formulas. [YK]

Card 1/2

56
54
B

POPOV, A.K.

Significance of psychic trauma in the development of Gurn-Harmann
saw winking synkinesis; clinical observation. Zhur.nerv.i psikh.
(MIRA 15:11)
62 no.6:860-861 '62.

1. Kafedra nervnykh bolezney (nachal'nik - prof. S.I.Karchikyan)
Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova,
Leningrad.
(EYELIDS--DISEASES) (MASTICATION) (MENTAL ILLNESS)

POPOV, A.K.

Criterion for measuring activity during sleep. *Zhur. vzb.*
nerv. deiat. 14 no. 4:732-736 J1-Ag '64. (MIRA 17:12)

1. Chair of Nervous Diseases, Kirov Military Medical
Academy, Leningrad.

ACC NR: AP6032530

SOURCE CODE: UR/0413/66/000/017/0131/0131

6

INVENTOR: Gusev, L. S.; Zimin, Yu. A.; Nistratov, A. F.; Pobedin, I. S.;
Popov, A. K.; Rozanov, B. V.; Tokarskiy, A. P.; Kholin, Yu. T.; Tulyankin, F. V.;
Shcheglov, V. F.; Yanovskiy, V. A.

ORG: none

TITLE: Drive of a high-speed counterblow hammer. Class 49, No. 185669 [announced
by the All-Union Scientific Research Institute for the Planning and Design of
Metallurgical Machinery (Vsesoyuznyy nauchno-issledovatel'skiy i proyektno-
konstruktovskiy institut metallurgicheskogo mashinostroyeniya)

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 131

TOPIC TAGS: metal forming machine tool, forging machinery, metal press

ABSTRACT: This Author Certificate introduces a drive of a high-speed counterblow
hammer, which includes a high-pressure cylinder and a piston with a sliding sealing
bushing. To improve the operational characteristics and efficiency of the hammer,
the bushing, placed in a lower part of the cylinder, has a circular groove inside,
into which oil is pumped under pressure equal to that of the gas in the cylinder,
thus forming a layer which serves the dual purpose of sealing and lubrication. Orig.
art. has: 1 figure.

SUB CODE: 11, 13/ SUBM DATE: 22May64/

Card 1/1

UDC: 621.974.4-82

L 38144-56 EWT(1)

ACC NR: AP6024871

SOURCE CODE: UR/0056/66/051/001/0121/0128

AUTHOR: Popov, A. K.

ORG: Institute of Physics, Siberian Department, Academy of Sciences SSSR (Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Application of gas lasers for determining some atomic characteristics

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 121-128

TOPIC TAGS: gas laser, laser cavity, metastable level, cavity tuning

ABSTRACT: An expression is obtained for the dependence of the radiation frequency and power of a gas laser on resonator tuning and plasma column length under stationary excitation conditions. The expression is deduced by using an equation for the density matrix in a coordinate system which is not fixed with respect to the moving particles. The result is valid for an arbitrary ratio of the spectral line contour dispersion width to the Doppler width. Degeneracy of the operating levels, relaxation transitions between them, and the self-consistent mechanism of filling up the lower operating level from the metastable level are taken into account. The result is used for estimating some atomic characteristics. Orig. art. has: 48 formulas. [CS]

SUB CODE: 20/ SUBM DATE: 27Aug65/ ORIG REF: 005/ OTH REF: 002/ ATD PRESS: 5045

Card 1/1 MLP

L 34490-65 FBD/EWT(1)/EEC(k)-2/T/EWP(k) IJP(c) WG

ACC NR: AP6013457

SOURCE CODE: UR/0139/66/000/002/0016/0024

AUTHOR: Popov, A. K.

ORG: Institute of Physics, SO AN SSSR (Institut fiziki SO AN SSSR)

TITLE: Contribution to the semiclassical theory of quantum generators 25

SOURCE: IVUZ. Fizika, no. 2, 1966, 16-24

TOPIC TAGS: quantum generator, laser theory, kinetic equation, laser emission, laser optic material, particle collision

ABSTRACT: The purpose of the investigation was to study the response of a quantum generator under certain characteristic conditions, and to illustrate the operating mode of lasers with the aid of analytic solutions obtained in limiting cases of weak and strong fields, with allowance made for cases when the absorption coefficient in the laser changes not only in magnitude but also in sign, and for cases when the laser field is not homogeneous. Earlier erroneous results due to failure to take these factors into account are pointed out. The kinetic equation for the density matrix is used to determine the response of the quantum system to a monochromatic standing wave of the electromagnetic field. A simultaneous solution of Maxwell's equations and the equations for the density matrix makes it possible to analyze the stationary mode of laser emission. The inhomogeneities of the radiating medium, modulated by the field, as well as the motion of the radiating particles, are taken into account. The stationary emission modes and generation thresholds are compared

Card 1/2

Card 2/2 j

POPOV, A.K.

Method for joint registration of vascular and bioelectric reactions
in man. Nov. med. tekhn. no. 1:50-53 '60. (MIRA 14:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut fizicheskoy
kul'tury.

(ELECTROPHYSIOLOGY)

POPOV, A.K.

Correlation of unpleasant sensations with orienting and defensive reactions. Vop. psikhol. 6 no.1:121-127 Ja-Y '60. (MIRA 13:6)

1. Kafedra psikhologii Moskovskogo gosudarstvennogo universiteta.
(Senses and sensation) (Orientation)

POPOV, A.K.

"Actographic" studies on sleep in man. Zhur. vys. nerv. deiat.
4 no.1:133-136 Ja-F '54. (MLBA 7:8)

1. Klinika nervnykh bolezney Voenno-meditsinskoy akademii im.
S.M.Kirova.

(SLEEP, physiology.

*motor funct., registration)

(MOVEMENT,

*in sleep, registration)

POPOV, A.K.

Diagnostic significance of the cinematographic method of studying pupillary reaction to light in some diseases of the central nervous system. Trudy Gos. nauch.-issl. psikhonevr. inst. no.20:395-403 '59. (MIRA 14:1)

1. Voenno-meditsinskaya Akademiya imeni S.M. Kirova, Leningrad.
(REFLEXES) (PUPIL (EYE))
(PHOTOGRAPHY, MEDICAL) (NERVOUS SYSTEM—DISEASES)

POPOV, A.K.

Paradoxical pupillary reactions to light. Zhur. nevr. i psikh 61
no.6:818-819 '61. (MIA 15:2)

1. Klinika nervnykh bolezney Voenno-meditsinskoy ordena Lenina
akademii imeni S.M.Kirova, Leningrad.
(PUPIL (EYE)) (MENINGES...TUBERCULOSIS)

POPOV, Al.; DIMITROVA, Ia.

Hypopituitarism after an abnormal labor (~~Simmonds-Sheehan~~ disease) combined with carcinoma of the uterus. Suvrem. med., Sofia 9 no.2: 98-102 Feb 58.

1. Iz Klinikata po Vutreshni bolesti s obmiana na veshchestvata i endokrinologija pri ISUL. (Direktor: prof. Iv. Penchev).

(SIMMOND'S DISEASE, compl.

cancer of uterus, puerperal (Bul))

(UTERUS NEOPLASMS, compl.

Simmond's dis., puerperal (Bul))

(PUERPERIUM, compl.

Simmond's dis. with cancer of uterus (Bul))

L 10417-57 - EWT(d)/EWT(m)/EWP(v)/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) IJP(o)
ACC NR: AP6029955 (A,N) JD/HW SOURCE CODE: UR/0413/66/-00/015/0134/0135

INVENTORS: Nistratov, A. F.; Popov, A. K.; Gusev, L. S.; Rozanov, B. V.; Pobedin, I. S. 26

ORG: none

TITLE: An instrument for deep piercing of ingots. Class 49, No. 184592
/announced by All-Union Scientific Research and Design-Construction Institute of
Metallurgical Machine Construction (Vsesoyuznyy nauchno-issledovatel'skiy i
proyektno-konstruktorskiy institut metallurgicheskogo mashinostroyeniya)/

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 134-135

TOPIC TAGS: metallurgic machinery, metalworking machinery

ABSTRACT: This Author Certificate presents an instrument for deep piercing of
ingots. The instrument includes a container, an immobile piercing needle, and a
movable centering disk (see Fig. 1). To increase the accuracy of piercing, the
container is made up of two parts, the immovable one (carrying the centering disk
and the piercing needle) and the movable one (carrying the working plunger).

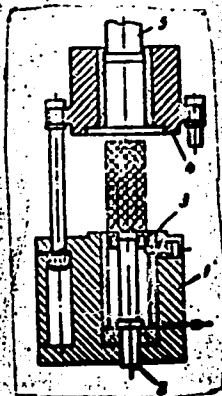
Card 1/2

UDC: 621.735.6.06

L 10417-67

ACC NR: AP6029955

Fig. 1. . 1 - lower part of the container; 2 - piercing needle; 3 - centering disk; 4 - upper part of the container; 5 - working plunger



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 06Feb64

Card 2/2 ^{b7p}

POPOV, Al.
POPOV, Al.

Association of diabetes mellitus with hyperthyroid syndrome.
Suvrem. med., Sofia 5 no.1:69-76 1954.

1. Iz Vtora vutreshna klinika s endokrinologija i obmiana na veshchestvata pri ISUL (direktor: prof. Iv.Penchev).
(DIABETES MELLITUS, complications,
*hyperthyroidism)
(HYPERTHYROIDISM, complications,
*diabets mellitus)

~~POPOV, Al. K.~~
~~SURNAME (in caps); Given Names~~

Country: Bulgaria

Academic Degree: not indicated

Affiliation: not indicated

Source: Sofia, Priroda, No 1, Jan/Feb 61, pp 78-80

Data: "A Member of the Odonata Family Previously Unknown in Bulgaria."

POPOV, A.K.

Some features of the development, course and outcome in bilateral
Bell's palsy. Zhur. nevr. i psikh. 65 no.2:216-221 '65.

(MIRA 18:9)

1. Kafedra nervnykh bolezney (nachal'nik - prof. A.C. Panov)
Voyenno-meditsinskoy ordena Lenina akademii im. Kirova, Leningrad.

POPOV, A.K.

Theory of gas lasers. Zhur. eksp. i teor. fiz. 48 no.5:1279-1282
My '65. (MIRA 18:7)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR.

POPOV, A.K.

Structure of the pupillary reflex in early neurosyphilis. Vop. psikh. i
nevr. no.3:130-135 '58. (MIRA 12:3)

1. Iz kafedry nervnykh bolezney Voenno-meditsinskoy ordena Lenina
akademii im. S.M. Kirova.
(NERVOUS SYSTEM--SYPHILIS) (PUPIL(EYE))

POPOV, Aleksi K.

What we know about the distribution of lace-winged insects
(Neuropterodea) in Bulgaria. Priroda Bulg 13 no.6:68-72
N-D '64.

POPOV, A.K.

Electromyographic examination of the mimetic musculature following recovery from Bell's palsy and in epinuclear lesions of the Facial nerve. Zhur. nevr. i psikh. 63 no.9: 1322-1328 '63. (MIRA 17:8)

1. Kafedra nervnykh bolezney (nachal'nik - prof. A.G. Panov)
Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova,
Leningrad.

KUCHEROV, Nikolay Iv.; POPOV, Al. [translator]

Practical importance of the problem of the conquest of
the cosmos. Priroda Bulg 12 no. 6:34-39 N-D '63.

1. Main Astronomical Observatory in Pulkovo, U.S.S.R.
(for Kucherov).

WACHUK, N., kand. na med. nauki; 60 00, 1964. (Translator)

Some interesting data on longevity in the U.S.S.R.
Prirada Bulg 13 no.3, 25-36 My-Jo '64.

POPOV, A. L.

Viticulture

Viticulture on the consolidated "Biruintsa" Collective Farm. Vin SSSR 12 No. 8, 1952

9. Monthly List of Russian Accessions, Library of Congress, December 195~~3~~₂. Unclassified.

POPOV A M

Zashchitnoye lesorazvebemiye panyatke cultivation of protective forests; handbook moskva, goslesbumizdat. 1950. 87 p illus., tables diags. at head of title; russia ministerstvo lesnogo khozyaystva.

POPOV, A. N.

Prilozheniya k vykladam po matematike v nachalnoi shkole. 1-4-11. 111 str. [Methods of mental computation in arithmetic in the first four classes; 1-4-11. 111 p.].
Izd. M-o. Moskva, Uchebnik, 1958. 111 p.

SG: Monthly List of Soviet Acquisitions, Vol. 7, No. 4, July 1958.

PCPCV, A.M.

Sewage - Purification

Improvement in purification of sewers. Gig. i san., no. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED

POPOV, A.M. (M.D.)

Mammary Glands—Tumors

Tumors of mammary glands. *Med.sestra*, no. 9, 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS, LIBRARY OF CONGRESS, NOVEMBER 1952. UNCLASSIFIED.

POPOV, Aleksandr Mikhaylovich; GRIGOR'YEV, Ye.P., red.; PEVZNER,
V.I., tekhn. red.

[Large-scale fattening of swine] Massovyi otkorm svinei. Moskva, Sel'khozizdat, 1961. 45 p. (MIRA 15:10)

1. Svinar'-mekhanizator sovkhoza "Borovichanin" Novgorodskoy oblasti (for Popov).
(Swine---Feeding and feeds)

GUTSEVICH, A.V.; DONETS, Z.S.; YEZHOVA, G.G.; POPOV, A.M.

Floodsucking mosquitoes (Diptera, Culicidae) of Chernovtsy
~~Province~~ Ent. oboz. 41 No. 2: 355-358 '62. (MIRA 15:11)
(Bukovina—Mosquitoes)

POPCV, A.M., starshiy inzh.

Low-temperature binding of polychlorovinyl coating sheaths
and cold binding of polyethylene coating sheaths. Vest.
svyazi 21 no.9:15-17 S '61. (MIRA 14:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut svyazi
Ministerstva svyazi SSSR.
(Protective coatings) (Cables)

POPOV, Aleksandr Mikhaylovich, svinar'-mekhanizator; LEBEDEV, P.B., red.;
KLYUCHEVA, T.D., tekhn.red.

[Producing 6.6 kilograms of pork every day] Kazhdyi den' 6.6 kilo-
grammov sviniy. Moskva, Izd-vo "Sovetskaya Rossiya," 1961. 19 p.
(MIRA 14:6)

1. Sovkhoz "Borovichanin" Novgorodskoy oblasti (for Popov).
(Novgorod Province—Swine)

POPOV. AM.

"Protecting a Generator from Short Grounding by Current Transformers with Annular
Magnetic Circuits." Elek. Stan., No. 1, 1949.

FCFCV, A. M.

Electric Relays

Elimination of vibration of thw armature of
the relay EN-524. Elek. sta. 23 no. 2, 1952.
Inzh.

Monthly List of Russian Accessions, Library
of Congress, April 1952. UNCLASSIFIED.

KULIZADE, Kyazim Novruz Ali ogly, dotsent, kandidat tekhnicheskikh nauk;
POPOV, A.M., redaktor; GONCHAROV, I.A., redaktor izdatel'stva

[Saving electric power and setting norms for the consumption of
electricity in petroleum enterprises] *Ekonomiia elektroenergii i*
normirovanie elektropotrebleniia na neftianykh promyslakh. Baku,
Azerbaidzhanskoe gos.izd-vo neft. i nauchno-tekhnit-ry, 1956.
114 p. (MLRA 10:9)

(Electric power distribution) (Petroleum industry)

SOV/111-59-3-21/26

8(3)
AUTHOR: Popov, A.M., Senior Engineer

TITLE: Prevention of Damage by Rodents to Non-Metallic Cable Casings (Predotvrashcheniye povrezhdeniy gryzunami nemetallicheskih obolochek kabelya)

PERIODICAL: Vestnik svyazi, 1959,¹⁹Nr 3, pp 37-38 (USSR)

ABSTRACT: In this article the author discusses various problems connected with the laying of underground cables, with PRVPM casings, such that they will not be subject to damage by rodents, which nest in the cavity along the cable, and briefly reviews several experiments and methods tried to this end. The author considers experiments using cables with casings containing shale oil, which had proven effective in the laboratory in discouraging rodents, but was found not to be 100% effective in the field. Experimental cables, using casings of RS-50 plastic with shale oil, tested in the laboratories of the scientific-research institute of the Ministry of Public Health of the USSR, were laid in 1951. A line in the

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SOV/111-59-3-21/26

Prevention of Damage by Rodents to Non-Metallic Cable Casings

Stavropol' territory showed heavy rodent damage, and research in that direction ceased. The author is not satisfied, however, that shale oil is useless, and recommends further work with it and other substances. He reports that processing of cable casing surfaces with liquid chemicals, e.g. creoline has not met with positive results. The rest of the article is almost entirely devoted to consideration of mechanical means of preventing rodent damages. A "packer" attached to the KUN-2 cable laying tool (see fig), proposed by Ye.P. Os'makov, which forms a dense layer of earth over the cable, and the application of which was described by I.N. Pogosyan (Vestnik svyazi, 1957, Nr 9), did not have the desired results. The author considers it more expedient to form a layer of loosened soil about the cable, which would completely fill the drain along the cable, and adds that it has been observed that rodent damage ceases when cables are buried in sand.

Card 2/4

SOV/111-59-3-21/26

Prevention of Damage by Rodents to Non-Metallic Cable Casings

According to the Stalingrad DRTS rodent damage, using their method of cable-laying, with two channels, and filling the drains and niches with loose earth, is not in evidence. In 1957 Ye.P. Gsimakov, G.M. Timonin, and A.Ye. Cherepanov suggested the use of a thinner cutter (16 mm thick), placed under the lower blade of the KUN-2 (see fig), by which means the cable is placed at the bottom of a narrow slot 12-15 cm deep, and compressed by its walls. The author proposed a combination of the cutter and "packer" on the cable-laying tool (see fig), which permits covering the cable with an additional layer of earth no less than 15 cm thick. The cutter also decreases the tractive effort, a fact confirmed by engineer A.I. Romanov of the Stavropol' DRTS during installation of a TsNIIS experimental-control cable; whereas the usual method of cable-laying required and additional DT-54 tractor, use of the cutter eliminated this need. The thin cutter also increases

Card 3/4

SOV/111-59-3-21/26

Prevention of Damage by Rodents to Non-Metallic Cable Casings

the depth of the cable channel (up to 1 m), which is necessary not only to prevent rodent damage, but also other mechanical injury. On the basis of experience on TsNIIS control lines, optimum construction of the removable cutter has been determined. The author concludes with several comments and suggestions for choosing future line routes in order to minimize the possibilities of rodent, and other, damage to cables, e.g. choosing a route outside of known rodent-infested areas. He also raises the possibility of extermination of rodents in areas where a cable route is planned. There is 1 figure.

ASSOCIATION: TsNIIS

Card 4/4

6(7)

SOV/111-59-9-9/31

AUTHOR: Popov, A.M., Senior Engineer

TITLE: Blackening of the Insulation of PRVPM Cable in Underground Lines

PERIODICAL: Vestnik svyazi, 1959, Nr 9, p 12 (USSR)

ABSTRACT: In this article the author describes blackening of the insulation on PRVPM cable in service, and experiments conducted to determine the causes of this phenomenon. The author briefly discusses discoloration of PRVPM cable insulation in service on underground lines, and states that it was established that white cable casings produced from plastic preparation Nr 230 tend to blacken, while the color of golden casings produced from plastic preparation Nr 38 does not change. It was proposed that blackening of the white casing resulted from the action of sulphureous compounds in the soil on the lead salt contained in the plastic preparation Nr 230. This proposition was checked and verified in the laboratory by exposing samples of

Card 1/3

SOV/111-59-9-9/31

Blackening of the Insulation of PRVPM Cable in Underground Lines

PRVPM and PTVZh cable, with casings of plastic preparations Nr 230 and 38, to the (artificial) action of sulphureous compounds. Measurements were made of the insulation resistance of normal cable and cable which had blackened under natural as well as laboratory conditions. The samples studied were submerged in water containing 0.5% electrolyte for a period of 20 months. The results (measurements) are presented (Table 1,2). On the basis of these results the author concludes that quality of the cable is not lowered as a result of blackening, and that the samples were still suitable for service. The nature of the blackening and the border between the blackened and white zones in the casings tested is also discussed. In conclusion the author notes that observation of changes taking place in blackened cable casings is being continued. There are 2 tables.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut svyazi
Card 2/3

SOV/111-59-9-9/31

Blackening of the Insulation of PRVPM Cable in Underground Lines
(TsNIIS) (Central Scientific-Research Institute of
Communications).

Card 3/3

POPOV, A.M.

Methods of splicing PRVPM cable sheathing. Vest.sviazi 20
no.2:9-12 F '60. (MIRA 13:5)

1. Starshiy inzhener Tsentral'nogo nauchno-issledovatel'skogo
instituta svyazi.
(Electric cables)

33338

S/181/62/004/001/004/052
B102/B138

24 2700 (1043, 1137, 1482)

AUTHORS: Gitsu, D. V., Ivanov, G. A., and Popov, A. M.

TITLE: Thermoelectromotive force in bismuth and its alloys with tellurium

PERIODICAL: Fizika tverdogo tela, v. 4, no. 1, 1962, 22 - 28

TEXT: Measurement was made of the thermo-emf α of Bi single crystals with a tellurium impurity. The temperature difference was between 2 and 10°C in dependence on the Te concentration. When the temperature gradient was oriented parallel to the trigonal axis, the differential thermo-emf was denoted by α_{\parallel} , for a perpendicular gradient it was α_{\perp} ; anisotropy was thus characterized by $\alpha_{\parallel}/\alpha_{\perp}$. The measurements were carried out by a compensation method using a ППТН-1 (PPTN-1) potentiometer and copper-constantan thermocouples. α dropped rapidly with increasing Te content (from 0 - 0.4 at%); the anisotropy also decreases, vanishing at 0.1 at% Te where the α_{\parallel} and α_{\perp} curves meet. In order to explain this behavior the rotation diagrams were taken for the thermo-emf of pure and impure single
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33338
 S/181/62/004/001/004/052
 B102/B13a

Thermoelectromotive force in...

crystals. In the first case they were elliptic and in the second circular. Exact measurements showed that there was no anisotropy between 0.1 and 0.3 at% Te. From the equations of the isoenergetic surfaces of conduction and valence bands, on the assumption that the electron and hole mean free paths were independent of carrier energy for both pure Bi and its alloys,

$$\alpha_j = \frac{\sigma_{ij} \frac{\mu}{kT} - \sigma'_{ij} \frac{1}{eT}}{\sigma_{ij}} \quad (8)$$

was found:

$$\sigma_{ij} = -\frac{2e^2 \sqrt{2m_1 m_2 m_3}}{3\pi^2 \hbar^3 m_i} \delta_{ij} \int_0^\infty \tau E^{1/2} \frac{\partial f_0}{\partial E} dE \quad (6)$$

$$\sigma'_{ij} = -\frac{2e^2 \sqrt{2m_1 m_2 m_3}}{3\pi^2 \hbar^3 m_i} \delta_{ij} \int_0^\infty \tau E^{1/2} \frac{\partial f_0}{\partial E} dE \quad (7)$$

μ denotes the level of chemical potential. For a relaxation time

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33338

S/181/62/004/001/004/052
B102/B138

Thermoelectromotive force in...

$\tau \sim E^{-1/2}$, $\alpha_j = \frac{k}{e} \left[\mu^* - \frac{2F_1(\mu^*)}{F_0(\mu^*)} \right]$ where μ^* is the reduced level of chemical potential. The same relation is found for total thermo-emf, if the contributions of the sets of ellipsoids are added. $\alpha_{||} = \alpha_{\perp} = \frac{1}{eT} (\mu - \frac{A'}{A})$, where

$$A = -\frac{2e^2 \sqrt{2m_1 m_2 m_3}}{3\pi^2 \hbar^3} \delta_{ij} \int_0^{\infty} \tau E^{3/2} \frac{\partial f_0}{\partial E} dE, \quad (21)$$

$$A' = -\frac{2e^2 \sqrt{2m_1 m_2 m_3}}{3\pi^2 \hbar^3} \delta_{ij} \int_0^{\infty} \tau E^{5/2} \frac{\partial f_0}{\partial E} dE. \quad (22)$$

These relations hold if one electron remains in the Bi alloy with increasing Te content. This contains the vanishing anisotropy found experimentally. In anisotropic metals (Zn, Cd, Hg), semimetals (Bi, Sb) and semiconductors (CdSb) anisotropy may be considerable (Bi: $\alpha_{||} = 96.6 \mu\text{V/deg}$, $\alpha_{\perp} = 58.0 \mu\text{V/deg}$ at 18°C). There are 2 figures, 1 table, and 13 references; 6 Soviet and 7 non-Soviet. The four most recent references to English-language publications read as follows: G. E. Smith. Phys. Rev., 115, 1561, 1959; B. Abeles a. S. Meiboom. Phys. Rev., 101, 544, 1956; A. H. Wilson. The theory of metals, Cambridge, 1954; Card 3/4

Thermoelectromotive force in...

S/181/62/004/001/004/052
B102/B138

F. R. Drabble & R. Wolfe. Proc. Phys. Soc., 69, 1101, 1956.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut im.
A. I. Gertsena (Leningrad State Pedagogical Institute imeni
A. I. Gertsen) X

SUBMITTED: June 21, 1961

Card 4/4

IVANOV, G.A.; POPOV, A.M.; CHISTYAKOV, B.I.

Electric properties of binary Bi alloys in a wide temperature range.
Part 1: Solid solutions of Sn, Sb, and Te in bismuth (polycrystals).
Fiz. met. i metalloved. 16 no.2:184-192 Ag '63. (MIRA 16:8)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut im.
A.I. Gertsena.

(Bismuth alloys)

(Solutions, Solid)

Galvanomagnetic properties of solid solutions of Bi-Sb in the temperature interval 77°-300°K and the influence of the important impurity tellurium on their properties. G. A. Ivanov, A. M. Popov (15 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

L 13028-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD
ACCESSION NR: AP3000626 S/0181/63/005/005/1428/1429

AUTHOR: Ivanov, G. A.; Popov, A. M.

TITLE: Free path length of current carriers in bismuth and in its alloys with antimony

SOURCE: Fizika tverdogo tela, v. 5, no. 5, 1963, 1428-1429

TOPIC TAGS: specific resistance, Hall constant, free path, Bi, Ge, impurity layer, current carrier, polycrystalline material

ABSTRACT: The authors have investigated changes (in the temperature interval 77-300K) in specific resistance and in the Hall constant for polycrystalline samples of Bi and for its alloys with Sb in relation to grain size and in comparison with single-crystal samples. They found the free path to be dependent on grain size, and they have concluded that the changes are due to limitation of free path of current carriers by grain boundaries in polycrystalline material. They state that considerable error may arise in evaluating concentration and mobility of current carriers in Bi-Sb alloys on the basis of measurements made in polycrystalline material. Conclusions concerning the solubility of several impurities in Bi, based on the "semiconductor" path of specific resistance in

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L 13028-63

ACCESSION NR: AP3000626

alloys, may be erroneous because of the formation of impurity layers during growth of single crystals. An alloy of Bi and 0.75 atomic percent Ge has a "semiconductor" course of specific resistance, but the authors have established that the Hall constant of this alloy is no different from the Hall constant for pure Bi in the temperature interval 77-300K. Orig. art. has: 3 figures and 1 formula.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut im. A. I. Gertsena (Leningrad State Pedagogical Institute)

SUBMITTED: 12Jan63 DATE ACQ: 11Jun63 ENCL: 00

SUB CODE: 00 NO REF SOV: 003 OTHER: 003

Card 2/2

S/181/63/005/003/037/046
3102/3180

AUTHORS: Ivanov, G. A., and Popov, A. M.

TITLE: Variation in the region of the weak magnetic field in bismuth and its alloys with antimony as a function of temperature

PERIODICAL: Fizika tverdogo tela, v. 5, no. 3, 1963, 946-948

TEXT: At room temperature the weak-field region extends to 1300 oe (H_{lim}), shrinking rapidly with falling temperature. At 77°K $H_{lim} \approx 60$ oe. For Bi single crystals, Bi-Sb single crystals (7at%Sb), and compacted specimens the field strength dependence of the resistivity ratios (applied in parallel to the triginal axis) were measured with and without field. The graph shows that H_{lim} for pure Bi (compacted polycrystals as well as single crystals) lies at higher field strengths (60oe) than H_{lim} of the alloy (≈ 60 oe). As a temperature function for pure Bi H_{lim} increases monotonically from -200 to 0°C. There are 2
Card 1/2

Variation in the region of the weak ... S/181/63/005/003/037/046
B102/B180

figures.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut
im. A. I. Gertsena (Leningrad State Pedagogical Institute
imeni A. I. Gertsen)

SUBMITTED: November 3, 1962

Card 2/2

POPOV, A.M. (Leningrad)

Layout of a building on nonuniformly compressed soils. *Osн., fund.*
i mekh.grun. 5 no.6:14-16 '63. (MIRA 16:12)

IVANOV, G.A.; POPOV, A.M.

Electric properties of bismuth-antimony alloys. Fiz. tver tela 5
no.9:2409-2419 S '63. (MIRA 16:10)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut im.
A.I.Gertsena.

SHIROBOKOV, N.M., general-mayor aviatsii, voyenny letchik pervogo klassa,
KUZNETSOV, V.A. polkovnik, voyenny letchik pervogo klassa,
POPOV, A.M., polkovnik; VAZHIN, F.A., podpolkovnik; NAZAROV, O.A.,
mayor, Prinimali uchastiye: MARKOV, S.I., podpolkovnik, dotsent,
kand. voyennykh nauk; D'YACHENKO, Yu.T., podpolkovnik, kand.
voyennykh nauk; D'YACHENKO, G.Kh., mayor zapasa.

Other command posts could also operate this way. Vest.Vozd.Fl.
no.10:2-21 0 '60. (MIRA 13:11)

(Aerial warfare)

POPOV, A.M.

The use of vitamin concentrates and salts of cobalt in feeding cattle. Latvijas
PSR Zinātņu Akad. Vēstis '51, 421-3. (MLRA 5:10)
(CA 47 no.22:12550 '53)

POPOV, A.M.

on p. 2

USSR

The application of vitamins to animal husbandry. Providing cattle with vitamin A. I. M. Zakharchenko. *Vitaminizatsiya Resursy i Ispol'zovanie, Akad. Nauk S.S.S.R., Inst. Bzhim. im. A. N. Bakha, Sbornik 2, 1-34 (1951)*.—The carotene (I) content of summer green fodder is high in the early stages of growth. In the period of maturity it is reduced to 1/4-1/5. Summer green fodder should, therefore, be harvested and dried before such I reduction sets in. If permitted to dry in the sun as it is mowed down, summer green fodder suffers an intense breakdown of the I, which can be prevented to a considerable degree by raking the grass into rolls or shocks. When stacked in the open for 9 months (August-April), green fodder loses 36.1-68.2% and 87.4-89.7% of the I, depending upon the nature of the green fodder. Even with such great loss of I, enough of the vitamin remains to prevent harmful consequences in cattle. When preserved as silage, corn lost 35.9%, sorghum 28%, and African millet 40.8% of their vitamin. This constitutes less of a loss than by the best method of drying. Red carrots and squash are particularly rich in vitamin A even though they lose 42-61.2% of it during winter storage. The most suitable methods for summer and winter feeding of milk and dry cows and pedigree and nonpedigree calves are discussed. Raising calves on mixtures of whole milk by supplementing the basic ration with vitamins A and D. J. Berzins (Inst. Zootech. and Zoohyg. Acad. Sci. Latv. S.S.R.). *Ibid.* 36-59.—High grade pedigree calves were raised by feeding them skimmed-milk rations supplemented by a mix. of whole milk and green fodder rich in vitamins A and D. The addition of vitamin A concentrate to the ration of high milk producers. V. E. Kondyrev (All-Union Sci. Research

1/8

0087

abkhanchenko

(Inst. Agr. Animal Feeding). *Ibid.* 60-7. — Increase of the content of the animal ration to 600-800 mg. assures a vitamin A milk activity equal to 1.5-2.0 I.U. per ml. of milk, or a level high enough for high-producing milch cows. The use of vitamin concentrates and of cobalt salts in cattle fattening. A. M. Popov (Inst. Zootech. and Zoohyg., Acad. Sci. Latv. S.S.R.). *Ibid.* 68-70. — Three groups of 9 cows each were fed the same basic ration. Group 1 received in addn. 30,000 I.U. of vitamin A, 1000 I.U. of vitamin D, and 40 mg. of CoCl₂/cow/day. Group 2 received vitamins A and D as above, but no CoCl₂. Group 3, the control group, was given the basic ration only. Feeding expts. extended over 70 days. The av. daily wt. increase of group 1 was 32.3%, and of group 2, 13.5% above that of group 3. D-hypovitaminosis in calves. A. N. Melyukov (Agr. Inst., Ivanovo). *Ibid.* 71-6. — Four groups of 12-13 pregnant cows each were fed a daily prescribed basic ration. Group I received in addn. 33,000 I.U. of vitamin D per head per day; group II received in addn. 50 g. of chalk per head per day; group III received both the vitamins and the chalk; animals of group IV, as the control group, received the basic exptl. ration only. Blood of all animals was examd. for Ca and inorg. P. Expts. extended over 6 months. The Ca and inorg. P level of the blood of the cows of group III throughout the exptl. period was higher than in the cows of the control group. Clinically the cows of the control group presented a picture of ill health, but not those of groups I and III. Calves born to cows of the control group weighed on the av. 4.7 kg. less than those of the other groups and their progressive gain in wt. was of a lesser magnitude. It was concluded (1) that in gestating cows and young calves the serum Ca and inorg. P can be used as an indicator of sufficiency or insufficiency of the dietary vitamin D; (2) that the rations of gestating barn-confined cows must be well balanced as regards the mineral and vitamin content; and (3) that during the winter period it may be necessary to

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USSR/Farm Animals. Cattle.

Abs Jour: Ref Zhur-Biol., No 4, 1958, 16800.

Author : Popov A.M.

Inst :

Title : The Intensive Raising and Fattening of the Supernumerary Youngs of the Brown Latvian Cattle (Intensivnoye vyrashchivaniye i otkorm sverkhremontnogo molodnyaka burogo latviyskogo skota.)

Orig Pub: Izv. AN LatvSSR, 1956, No 1, 65-74.

Abstract: An experiment was carried out on 3 groups of young cattle (11 heifer-calves and 15 bull-calves) of the Brown Latvian breed. The experiment with heifers was ended at 6 months of age and that with young bulls was continued until 8 months of age, with 2 control slaughterings at 6 months 23 days

Card : 1/2

USSR / Farm Animals. Cattle. 2

Abs Jour: Ref Zhur-Biol., No 9, 1956, 40413.

Author : Popov A. M., Aleynikov G. S.

Inst : Not given.

Title : The Effects of The Frequency of Milking on the Performance of Cows.

Orig Pub: Sb. tr. In-ta zootekhn. i zoogigiyeny. AN LatvSSR, 1956, 8, 53-62.

Abstract: At the sovkhos "Yelgavskiy" and at the kolkhoz "Lachplesis", experiments were conducted as to the effect of the twofold and threefold milking of cows of the Brown Latvian breed upon their milk production. With the milk yield averaging 9-10 liters per 24 hours, the switching of cows from threefold to twofold milking produced

Card 1/2

ACC NR: AR6033792

SOURCE CODE: UR/0058/66/000/007/E103/E103

AUTHOR: Glukhova, T. I.; Grabov, V. M.; Ivanov, G. A.; Popov, A. M.

TITLE: Electrical properties of quasi-binary alloys (Bi-Sb)-Te

SOURCE: Ref. zh. Fizika, Abs. 7E773

REF SOURCE: Uch. zap. Leningr. gos. ped. in-ta im. A. I. Gertsena, v. 265, 1965, 234-241

TOPIC TAGS: Hall effect, thermoelectromotive force, bismuth alloy, antimony alloy, tellurium alloy, temperature dependence, quasibinary alloy, binary alloy, conduction band

ABSTRACT: On the basis of investigation of the Hall effect, the specific resistance (ρ) and the thermoelectromotive force, a study is made of the structure of the conduction band in single and polycrystalline alloys (Bi-Sb)-Te, containing 3, 6, 8, 10, 15, and 20 at % of Sb, and 0.1, 0.2, and 0.3 at % of Te. It is found that the addition of T lowers ρ , while the addition of Sb raises it in comparison with the ρ of initial Bi-Sb alloys. The values of effective electron masses found (m^*) correspond to the values m^* in the initial alloys. Depending on the concentra-

Card 1/2

ACC NR: AR6033792

tion of Sb at 300K, the character of the m^* changes is in accord with the data of Smith [RZhFiz., 1963, 7E617], obtained at 1.3K, which indicates a low temperature dependence of m^* of the alloys investigated. [Translation of abstract] [GC]

SUB CODE: 20, 11/

Card 2/2

L-27247-66 EWP(k)/EWI(d)/EWI(m)/EWP(h)/T/EWP(l)/EWP(v)/EWP(t) IJP(c) JD

AGG NR: AP6009881

SOURCE CODE: UR/0413/66/000/004/0071/0072

AUTHORS: Lisin, V. Z.; Chuyev, V. G.; Popov, A. M.; Korobov, V. I.

33
B

ORG: none

18 21
TITLE: Device for induction annealing of copper wire. Class 40, No. 178996
[announced by Independent Construction Technology Bureau for Microconductors
(Samostoyatel'noye konstruktorsko-tekhnologicheskoye byuro po mikroprovodam)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966,
71-72

TOPIC TAGS: annealing, copper, wire

14
ABSTRACT: This Author Certificate presents a device for induction annealing of copper wire, which consists of a transformer, contact rollers, a protective steam storage chamber, and a cooling chamber. To anneal bunches of copper wires in one transformer, the device has a system of lower and upper contact units consisting of two electrically insulated contact rollers (see Fig. 1). The protective steam storage chamber is in the form of a glass tube whose upper end has the form of a flange with a hole. The hole diameter is 2-3 times the annealed wire

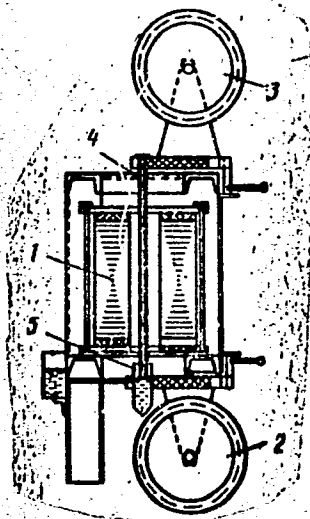
Card 1/2

UDC: 621.365.51:621.785.3-426:669.3

L-27247-66

ACC NR: AP6009881

Fig. 1. 1 - transformer; 2 - lower contact rollers; 3 - upper contact rollers; 4 - protective steam storage chamber; 5 - cooling chamber.



diameter to decrease steam loss. Orig. art. has: 1 diagram.

SUB CODE: 11, 13/ SUBM DATE: 21Dec64

Card 2/2 CC

POPOV, A.N.

CA

2

Rate of transformation of ammonium nitrate from α - to β -form. V. K. Porshe and A. N. Popov. *J. Gen. Chem.* (U. S. S. R.) 7, 3081 (1937) *Chem. Abstr.* 31, 259, 1707, 2100. The rate of transformation increases in the presence of moisture and with increase in number of transformation centers. It increases in direct proportion to the difference between the temp. at which transformation is taking place and the true transformation temp. which was found to be 32.0-32.5°. S. L. Madorsky

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

Popov, A.N.

Application of radioactive sulfur (S^{35}) for the determination of sulfo groups in sulfocarbon. N. P. Drozdov and A. N. Popov. *Zhur. Priklad. Khim.* 30, 1074-6 (1957).
Particles of coal, 0.25-0.6 mm., were treated with $H_2S^{36}O$, contg. 27% excess SO_2 for 3 hrs. at 20, 100, 200°, and 20 min. at 150°. The sulfocarbon was then washed with H_2O , 12% HCl , and again H_2O till neutral to methyl orange and dried at 100°. Preliminary expts. showed that S originally in C was not oxidized to SO_3H . These formed from the oleum. The content of SO_3H groups in sulfocarbon prepd. at 100 or 150° was practically equal to the exchange capacity at $pH = 7$; those prepd. at 20° exhibited a capacity smaller than the SO_3H group content and that of those prepd. at 200° was greater. I. Benowitz

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Rmt

5(4)

SOV/76-32-11-14/32

AUTHORS:

Matorina, N. N., Popov, A. N.

TITLE:

The Effect of Temperature on the State of the Ion Exchange Equilibrium (Vliyaniye temperatury na sostoyaniye ionoobmenogo ravnovesiya) I. The Basic Factors Determining the Changes of Ion Exchange Adsorption With Temperature (I. Osnovnyye faktory, opredelyayushchiye izmeneniya ionoobmennoy adsorbtsii s temperaturou)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 11, pp 2557-2560 (USSR)

ABSTRACT:

After this work had been received by the board of editors, some papers on the thermodynamics of the ion exchange were published. The papers by E. H. Cruikshank, P. Meares and O. D. Bonner, L. L. Smith are said to be of special interest. Griessbach (Grissbakh) (Refs 7,8) on the basis of the equation (1) by Gregor-Glueckauf (Glyukauf) arrives at the conclusion that the coefficient of selectivity always changes with an increase in temperature. It is assumed that of two ions in the adsorbent the one that is more hydrated in the solution will be hydrated to a greater extent. This agrees with the experimental results

Card 1/3

SOV/76-32-11-14/32

The Effect of Temperature on the State of the Ion Exchange Equilibrium.
I. The Basic Factors Determining the Changes of Ion Exchange Adsorption With Temperature

by Glueckauf and Kitt (Ref 12). Thus, the heat effect of the ion exchange adsorption on a certain cationite depends to a great extent on the hydration heat of the adsorbed ions. It was found that changes in temperature of the volumes of the adsorbed ions can have an effect on the temperature changes of the ion exchange adsorption, as well as changes of the swelling pressure and of the ratio between the activity coefficient of the ions in the solution and in the sorbent. A change of the composition of the ion exchange resin can also have an effect on the extent of the temperature changes of the ion exchange adsorption. The experimental data concerning the above-mentioned statements will be given in the next paper to be published. There are 12 references, 1 of which is Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut fizicheskoy khimii, Moskva
(Academy of Sciences, USSR, Institute of Physical Chemistry, Moscow)

Card 2/3

5(4)

AUTHORS:

Katorina, N. N., Popov, A. N.

SOV/76-32-12-13, 32

TITLE:

The Temperature Influence on the State of the Ion Exchange
(Vliyaniye temperatury na sostoyaniye ionoobmennogo rav-
novesiya) II. Temperature-Conditioned Changes in the Ion-
Adsorption in Sulfo-Synthetic Resins (II. Temperaturnyye
izmeneniya ionoobmennoy adsorbtsii na sul'fosmolakh)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 12,
pp 2772 - 2779 (USSR)

ABSTRACT:

This is an investigation of the sulfo-polystyrene cationite
SM -12 with a varying content of divinyl benzene (4, 8, 16
and 20%) and the cationite KU -2. The selectivity coeffi-
cient in the exchange of the ion-pairs H^+-Ca^{++} , H^+-Sr^{++} ,
 $Sr^{++}-Ca^{++}$, H^+-Ce^{+++} , K^+-Ce^{+++} and H^+-Cs^+ was determined.
The ion concentrations were determined radiometrically
by means of tracer atoms (Cs^{137} , Ca^{45} , Sr^{89} , Ce^{144}). The
state of the ion-exchange was established for two temper-
atures. The heats of reaction in the ion-exchange are
proportional to the heats of hydration of ions in solution.
Their sizes and signs depend on the relation of the heat

Card 1/2

The Temperature Influence on the State of the Ion SOV/76-32-12-18/32
Exchange. II. Temperature-Conditioned Changes in the Ion-Adsorption in
Sulfo-Synthetic Resins

of hydration of the ion in solution to that in the cationite. In the exchange of hydrogen ions apparent divergencies are noticed, but can be explained by the fact that the H^+ -ion is always represented in water as a hydroxonium ion (H_3O^+). On the basis of the calculations a quantitative prediction of the temperature-conditioned changes in the ion-exchange in sulfo-synthetic resins is possible. There are 8 figures, 3 tables, and 7 references, 1 of which is Soviet.

ASSOCIATION: Akademiya nauk SSSR (Academy of Sciences, USSR) Institut
fizicheskoy khimii, Moskva (Physico-Chemical Institute, Moscow)

SUBMITTED: May 10, 1957

Card 2/2

BARDIN, I.P., akademik, glavnyy red. [deceased]; VOL'FKOVICH, S.I., akademik, otv.red.toma; UVAROV, G.V., red.toma; KOMAROV, V.P., dotsent, red.toma; LAVRENT'YEV, M.A., akademik, red.; DIKUSHIN, V.I., akademik, red.; NEMCHINOV, V.S., akademik, red.; VEYTS, V.I., red.; LEVITSKIY, O.D., red.; NEKRASOV, N.N., red.; PUSTOVALOV, L.B., red.; KHACHATUROV, T.S., red.; ROSTOVTSSEV, N.F., akademik, red.; POPOV, A.N., red.; GRAFOV, L.Ye., red.; GASHEV, A.D., red.; PROBST, A.Ye., prof., red.; VASYUTIN, V.F., prof., red.; KROTOV, V.A., prof., red.; VASIL'YEV, P.V., doktor ekonom.nauk, red.; LYUDOGOVSKIY, G.I., kand.tekhn.nauk, red.; LETUNOV, P.A., kand.geol.-mineral.nauk, red.; SHKOL'NIKOV, M.G., kand.ekonom.nauk, red.; BANKVITSER, A.L., red. izd-va; BRUZGUL', V.V., tekhn.red.

[Chemical industry] Khimicheskaya promyshlennost'. Moskva, 1960.
202 p. (MIRA 13:7)

1. Akademiya nauk SSSR. Sovet po izucheniyu proizvoditel'nykh sil. Sibirskoye otdeleniye. 2. Chleny-korrespondenty AN SSSR (for Veyts, Levitskiy, Nekrasov, Pustovalov, Khachaturov). 3. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Rostovtsev). 4. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Popov). 5. Zamestitel' predsedatelya Gosplana RSFSR (for Grafov). 6. Chlen Gosplana RSFSR (for Gashev). 7. Zamestitel' predsedatelya Gosudarstvennogo komiteta Soveta Ministrov SSSR po khimii (for Uvarov).

(Chemical industries)

BARDIN, I.P., akademik, glavnyy red. [deceased]; NEKRASOV, N.N., otv. red.toma; SLAVIN, S.V., doktor ekon.nauk, red.toma; SHKOL'NIKOV, M.G., kand.ekon.nauk, red.toma; LAVRENT'YEV, M.A., akademik, red.; VOL'PKOVICH, S.I., akademik, red.; DIKUSHIN, V.I., akademik, red.; NEMCHINOV, V.S., akademik, red.; VEYTS, V.I., red.; LEVITSKIY, O.D., red.; PUSTOVALOV, L.V., red.; KHACHATUROV, T.S., red.; ROZOVITSEV, N.F., akademik, red.; POPOV, A.N., red.; GRAFOV, L.Ye., red.; GASHEV, A.D., red.; PROBST, A.Ye., prof., red.; VASYUTIN, V.F., prof., red.; KROTOV, V.A., prof., red.; VASIL'YEV, P.V., doktor ekon.nauk, red.; LYUDOGOVSKIY, G.I., kand.tekhn.nauk, red.; LETUNOV, P.A., kand.geol.-mineral.nauk, red.; MAZOVER, Ya.A., red. izd-va; KASHINA, P.S., tekhn.red.

[Comprehensive regional and interregional problems; [conference reports]] Raionnye i mezhraionnye kompleksnye problemy; [trudy konferentsii]. Moskva, Izd-vo Akad.nauk SSSR, 1960. 190 p.

(MIRA 14:1)

1. Konferentsiya po razvitiyu proizvoditel'nykh sil Vostochnoy Sibiri. 1958. 2. Chleny-korrespondenty AN SSSR (for Nekrasov, Veyts, Levitskiy, Pustovalov, Khachaturov). 3. Sovet po izucheniyu proizvoditel'nykh sil pri Prezidiume Akademii nauk SSSR (for Nekrasov, Shkol'nikov, Slavin). 4. Predsedatel' Soveta po izucheniyu proizvoditel'nykh sil pri Prezidiume AN SSSR (for Nemchinov). 5. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Rostovtsev). 6. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Panov). (Siberia, Eastern--Economic policy)

POPOV, A.N.; SPIVAK, A.I.; MAVLYUTOV, M.R.; Prinimali uchastiyer: KOROZKOV, L.I.,
student; SAMNIKOV, R.Kh., student

Analyzing a regime for the turbine drilling of wells. Burenis
no.5:6-8 '64.

(MIRA 18:5)

L 55084-65 EWT(d)/EPA(s)-2/EWT(m)/EWP(w)/EPP(c)/EWG(s)-2/EWP(v)/EPR/T/
EWP(j)/EWP(k)/EWA(h) Pc-4/Pf-4/Pr-4/Ps-4/Pt-7/Peb/Pw-4 WW/EM/RM
ACCESSION NR: AP5018103 UR/0097/64/000/009/0412/0416

AUTHOR: Mikhaylov, K. V. (Candidate of technical sciences); Popov, A. N.
(Candidate of technical sciences); Pustovoytov, V. P. (Engineer)

54
B

TITLE: Concrete pressure pipes with continuous fiberglass reinforcement

SOURCE: Beton i zhelezobeton, no. 9, 1964, 412-416

TOPIC TAGS: reinforced concrete, pipe, fiberglass

ABSTRACT: Several years ago the Scientific Research Institute of Reinforced Concrete of Gosstroy, USSR, together with the Khar'kov Institute of Municipal Construction Engineers, organized investigations of the development of technology and determination of the behavior under load of concrete pressure pipes, in which a steel-shell reinforcement was replaced by fiberglass filaments combined with synthetic resin. The results of these investigations are presented in the present article.
The delivery pipe with continuous fiberglass reinforcement consists of a reinforced concrete core prestressed longitudinally, and a fiberglass shell.

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ACCESSION NR: AP5018103

The shell is formed by winding onto this core several layers of prestressed fibreglass reinforcement in the form of tape. To join the separate turns of tape and to ensure joint action of the fibreglass shell and core, a synthetic binder is used, which can be epoxy, phenol-formaldehyde, polyester, etc., resin.

The following conclusions are made by the authors. In a series of cases it is possible to replace steel wire with fibreglass reinforcement in the production of reinforced concrete delivery pipes, which is expedient when pipes are layed in ground with a high saturation of stray currents and chemically active corrosive salts. This is because fibreglass, under certain conditions, does not deteriorate under these conditions.

Orig. art. has: 7 figures, 1 graph, 1 table.

ASSOCIATION: none

SUBMITTED: 00

NR REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: MT

JPRS

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ПОПОВ, А. Н.

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Akademii arkhitektury SSSR.

[Capital construction in the building materials industry; organization and planning] Kapital'noe stroitel'stvo v promyshlennosti stroitel'nykh materialov; organizatsiia i planirovanie. Pod red. A.N. Popova. Izd.2., dop. i perer. Moskva, Gos. izd-vo lit-ry po stroit. materialam, 1954. 342 p. (MLRA 7:7)
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POPOV, A.N.

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(Prestressed concrete)
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POPOV, A.N., professor; BEGAK, B.A., redaktor izdatel'stva; MEDVEDEV, L.Ya.,
tehnicheskii redaktor; PERSON, M.N., tekhnicheskii redaktor

[Large silicate and foam silicate products; a collection of articles]
Krupnorazmernye silikatnye i penosilikatnye izdeliia; sbornik statei.
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tekture, 1956. 226 p. (MIRA 10:1)

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stroitel'stva i arkhitektury SSSR (for Popov)
(Building materials)

Popov, A.N.
KAZINITSKIY, Mikhail Il'ich; POPOV, A.N.; SEDOV, A.P., nauchnyy redaktor;
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dlya malocetazhnykh zhilykh domov. Pod red. A.N.Popova. Moskva,
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SSSR (for Popov)
(Building materials)

POPOV, A. N.

AUTHOR: Idashkin, V. I. (Engineer). 97-57-9-15/17
TITLE: All-Union Congress on Large Panel and Large Block Construction
(Vsesoyuznoye soveshchaniye po krupnopanel'nomu i
krupnoblochnomu stroitel'stvu).
PERIODICAL: Beton i Zhelezobeton, 1957, Nr.9. p. 376. (USSR).

ABSTRACT: The Scientific and Technical Association of the Building Industry of USSR (Nauchno-tekhnicheskoye obshchestvo stroitel'noy promyshlennosti SSSR) and the Union of Architects of USSR (Soyuz arkhitektorov SSSR) organized this Congress to generalize experience of large panel and large block methods of residential building, and to further the development of this type of construction in USSR. The Congress was held from 4th - 10th June, 1957 in Chelyabinsk. Six hundred delegates attended, representing building organizations, planning and scientific organizations and factories manufacturing building materials. The Congress was opened by the Secretary of the Chelyabinsk KPSS, N. V. Laptev. A paper on "The Present Position and Future Developments in the Use of Large Panel and Large Block Construction" was read by G. F. Kuznetsov, a member of the Academy of Building and Architecture of USSR (Akademii stroitel'stva i arkhitektury SSSR). A paper on

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All-Union Congress on Large Panel and Large Block Construction

"Material Resources for Large Panel and Large Block Construction Methods" was read by A. N. Popov, also a member of the above Academy, and contributions on this subject were also made by the following: V. I. Bogomolov (Member of the Academy of Building and Architecture, USSR), Engineers P. F. Panfilov, V. M. Kopp and L. S. Raynus (Leningrad), A. B. Strutinskiy and V. A. Mikheylov (Kiev), E. D. Samoylovich (Chelyabinsk), A. S. Krivorotov (Magnitogorsk), Candidate of Technical Sciences I. L. Zhodzhishkiy (Sverdlov), Engineer V. N. Popko (Krasnotur'insk), and V. G. Lelichenko (Zhdanov). Papers on the results of investigations into the subject of large panel and large block building methods were read by:- Member of the Academy of Building and Architecture of USSR L. I. Onishchik, and A. V. Elkin; Doctor of Technical Sciences Prof. A. E. Desov; Candidates of Technical Sciences N. Ya. Spivak and E. M. Berzon, and Engineer A. A. Liberman read papers on the Technology of the production of large panels and blocks. It was generally agreed that large panels and blocks are too heavy. The answer lies in the technology of new building materials, especially in light aggregates and concretes. The high proportion of defective units damaged during transport and

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assembly causes concern. The Congress made a number of recommendations for expansion, improvement in quality and reduction in costs. Lightweight aggregates such as Keramzit and Termozit, etc., are advocated, together with clinker and furnace slag. Highly active, quick-hardening cement should be used. Further investigations should be carried out on aerated concrete. Study and experience of large panel and large block construction shows that it is possible to reduce the assembly time by at least 20 - 30% by using the continuous method of assembly by employing two or three shifts, and by improved methods of assembly. The Academy of Building and Architecture of USSR was approached by the Congress to study types of cranes suitable for this particular assembly work.

AVAILABLE: Library of Congress.

1. Building industry-Conference

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POPOV, A.N.

BARANOV, N.V., red.; GALKIN, Ya.G., red.; KUZNETSOV, G.F., red.; OVSYANKIN, V.I., red.; POPOV, A.N., red.; RUBANENKO, B.R., red.; SKRAMTAYEV, B.G., red.; GERASIMOVA, G.S., red. izd-va; EL'KINA, E.M., tekhn. red.

[Proceedings of the second session of the Academy of Construction and Architecture of the U.S.S.R. on problems of housing construction] Trudy II sessii Akademii stroitel'stva i arkhitektury SSSR po voprosam zhilishchnogo stroitel'stva, 15-20 maia 1957. g. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1958. 725 p. (MIRA 11:5)

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(Housing)