"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

L 17913-63 EWT(d)/FCC(w)/BDS ASD/ESD-3/APGC/IJP(C) Pg-4/Pk-4/Po-4/
Pq-4 GG

ACCESSION NR: AP3005679 S/0146/63/006/004/0063/0070

AUTHOR: Balashov, Ye. P.; Genkin, V. L.; Sorokin, M. S.

TITLE: Magnetic internal storage of high reliability

SOURCE: IVUZ. Priborostroyeniye, v. 6, no. 4, 1963, 63-70

TOPIC TAGS: storage, memory, internal storage

ABSTRACT: A diode-digit-access internal storage of rectangular-hysteresis-loop ferrite-core type is described. The recording and readout of information are carried out by full currents which substantially reduces the stability requirement of the current source and increases the reliability of the storage. A storage block diagram is presented and discussed. Experiments were carried out with a 32-address, 30-digit storage. P13A and P201A transistors and VT-5 ferrites were used. The storage is eventually intended for a "special-purpose digital computer." Orig. art. has: 4 figures.

ASSN: Leningrad Electrotechnical Institute.

Card 1/1

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SOROKIN, M.S.

Attachment for stamping the oil packing rings of shaft drives. Rats. predl. na gor. elektrotransp. no.9:35-36 '64. (MIRA 18:2)

1. Upravleniye tramvaya Arkhangel'ska.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N., inzh.

New system of additional winding for ES generator stators. Prom.Arm. 5 no.5:47 My '62. (MIRA 15:7)
(Electric generators)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

LYSOV, B.; SOROKIN, N.

Efficiency is the main thing. Fin. SSSR 37 no.8:72-78 Ag '63. (MIRA 16:9)

1. Glavnyy kontroler-revizor kontrol'no-revizionnogo upravleniya Ministerstva finansov RSFSR po Saratovskoy oblasti (for Lysov).
2. Starshiy kontroler-revizor kontrol'no-revizionnogo upravleniya Ministerstva finansov RSFSR po Saratovskoy oblasti (for Sorokin).
(Saratov Province--Auditing and Inspection)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N., gornyy inzh.

Readers' response to the article by N.G.Petrov and I.P.Sumin "Continue improveing the organization of blasting operations.", 1963, No.6. Ugol' 39 no.1:66 Ja 64. (MIRA 17:3)

1. Nachal'nik uchastka burovzryvnykh rabot, shakhta "Baydayevskaya".

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

ALEKSEYEV, I.V.; SOROKIN, N.A.

On the new path. Politekh.obuch. no.1:21-28 Ja '59. (MIRA 12:2)

1. Srednyaya shkola No.2, g.Morshansk (for Alekseyev). 2. Tambovskiy pedinstitut (for Sorokin).
(Morshansk--Education, Cooperative)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.A., inzh.

Discharging of storage batteries with compesating charges from a direct current generator. Energetik 8 no.5:24-25 My '60.
(MIRA 13:8)

(Storage batteries)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SAVIN, V.I., inzh.; SOROKIN, N.A.

Combined professions on cargo motorboats. Proizv.-tekh. sbor no.1:42-50 '59. (MIRA 13:9)

1. Volzhskoye ob"yedinennoye parakhodstvo.
(Inland water transportation—Employees)
(Seamanship)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SARATOV, Vladimir Fadeyevich; SOROKIN, N.A., retsenzent; AGAPOV, V.P., red.; MAKRUSHINA, A.N., red.izd-va; POKHLEBKINA, M.I., tekhn. red.

[River and lake ship navigation] Rechnoe i ozernoe sudovozhdenie. Moskva, Izd-vo "Rechnoi transport," 1961. 226 p. (MIRA 14:11)
(Inland navigation)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

LEVIN, A.V., doktor tekhn. nauk; LISNYANSKIY, F.A., inzh.;
SOROKIN, N.A., inzh.

The VK-100-6 turbine manufactured by the Leningrad Metal-working Plant (22d Congress of the CPSU). Elek. sta. 35 no.2:15-20 F '64. (MIRA 17:6)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

L 52101-65 EPF(c)/EWT(m)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AP5015271 UR/0286/65/000/009/0051/0051

AUTHORS: Arkin, Ye.-S. A.; Chernyy, V. Ya.; Vnukovskiy, Ye. T.; Sorokin, N. A.; Kuvaldin, A. I.; Saryaeva, E. G.; Rysakov, G. V.; Vasilevskiy, P. F.; Stolypin, A. B.; Pautov, A. V.

31
30
B

TITLE: A turbomolecular high-vacuum pump. Class 27, No. 170609

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 51

TOPIC TAGS: vacuum pump, turbomolecular vacuum pump

ABSTRACT: This Author Certificate presents a turbomolecular vacuum pump with a 2-stream rotor and an electric drive mounted in the fore-vacuum chamber (see Fig. 1 on the Enclosure). To increase its reliability, efficiency, and the power coefficient, the electric drive consists of two auxiliary high-frequency electric motors of equal power, mounted on the shaft brackets. These motors may be switched in to work together in accelerating the shaft up to its full rpm in a desired period of time, whereupon one of them is disconnected. To strengthen the insulation and to diminish the gas separation, the winding and the core of the electric motor stators are coated with an epoxy resin with a filler of low vapor tension. To diminish the vibrations and to increase the reliability of bearing supports, the latter are

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

L 52101-65

ACCESSION NR: AP5015271

mounted in rigid metallic ring clips. Orig. art. has: 1 figure.

ASSOCIATION: Konstruktorskoye byuro-5 Leningradskogo Kirovskogo zavoda (Construction Bureau-5 of the Leningrad Kirovskiy Plant)

SUBMITTED: 17Jun63 ENCL: 01 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 2/3

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

L 52101-65

ACCESSION NR: AP5015271 ENCLOSURE: 01

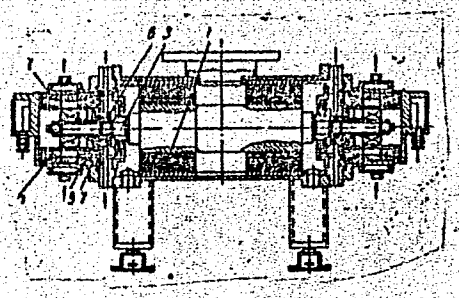

Fig. 1. 1- rotor; 2- fore-vacuum chamber; 3- shaft; 4- electric motor; 5- epoxy resin; 6- bearing supports; 7- ring clip

Card 3/3

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

ZEL'TSER, I.G.; KAMENEV, Yu.S.; SOBOLEV, S.K.; KARNAUKHOV, V.V.; SOROKIN, N.A.

Temperature measurement in a converter bath. Metallurg 10 no.6:22-23 Je '65. (MIRA 18:6)

1. Zavod im. Il'icha i Kiyevskiy institut avtomatiki.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

ACC NR: AP6035913 SOURCE CODE: UR/0413/66/000/020/0158/0158

INVENTOR: Chernyy, V. Ya.; Sorokin, N. A.; Rysakov, G. V.; Romanenko, G. P.

ORG: none

TITLE: Measuring device for pneumatic (hydraulic) regulators. Class 42, No. 187421

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 158

TOPIC TAGS: flow regulator, pressure regulator, pneumatic control, pneumatic device, hydraulic device

ABSTRACT: An Author Certificate has been issued for a measuring device for pneumatic regulators, which contains a measuring bellows, a rod with a stirrup, a measuring stylus, and a two-shouldered lever. To increase sensitivity, the measuring stylus has one end resting on the stirrup's inner surface and the other end supports the two-shouldered lever. Orig. art. has: 1 figure. [WA-98]

SUB CODE: 14/ SUBM DATE: 10Apr65/

Card 1/1 UDC: 621-525-55.45

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

L 1865-66 EWT(1) GW

ACCESSION NR: AP5025623

UR/0033/65/042/005/1070/1074
52.30.12

10
8
B

AUTHOR: Sorokin, N. A.

TITLE: On the relative orientation of the terrestrial equator and the lunar orbit in the remote past

12,55

SOURCE: Astronomicheskiy zhurnal, v. 42, no. 5, 1965, 1070-1074

TOPIC TAGS: earth rotation axis, lunar orbit plane, lunar angular velocity, lunar longitude, earth moon system, solar perturbation, inclination angle

ABSTRACT: The problem of the variation of the inclination of the earth's rotation axis to the plane of the lunar orbit in the remote past is solved by many authors and various methods. Taking the earth-moon system to consist of a spherical earth and a point-like moon, changes in the components of the terrestrial rotation velocity were determined by the lunar angular velocity in orbit, the breaking moment of the tides, and the lunar longitude. The system of equations for the rotation change was broadened by adding two equations, transformed, and solved. The present numerical values of terrestrial and lunar parameters were used for determining the rotation change. The earth-moon system is not an isolated-body system, and the total rotating moment is variable because of the

Card 1/2

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L 1865-66
ACCESSION NR: AP5025623

2

precession of the lunar orbital axis around the axis of the ecliptic and the solar perturbations of the semimajor axis of the lunar orbit. The retardation angle of the solid tides is introduced from two points of view: (a) the angle as a function of time is taken as a constant equal to 1°, and (b) the angle is taken equal to 1.7° and corrected for a temporal change which must reduce it to zero after 4.5 billion years. Time is reckoned backward. The results of computations are given in a table in the original article. The distance of the moon from the Earth decreased in the past, reaching the minimum point 3.5 billion yr ago according to (a) and 3.9 billion yr ago according to (b). The shortest distance was 2.4 times the earth's radius. The change in the inclination angle between the plane of the lunar orbit and the terrestrial equator is represented graphically in the original article as depending upon the change in the distance between the earth and the moon. Orig. art. has: 1 table, 1 figure, and 10 formulas. [EG]

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gos. universiteta. Kafedra nebesnoy mekhaniki i gravimetrii (College of Physics, Moscow State University, Department of Celestial Mechanics and Gravimetry)

55

SUBMITTED: 28Dec64 ENCL: 00 SUB CODE: AA, ES
NO REF SOV: 001 OTHER: 005 ATD PRESS: 4112

Card 2/2

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

L 29798-66 EWT(m)/EWP(t)/ETI IJP(c) JD/GD/JH

ACC NR: AT6016425 (A) SOURCE CODE: UR/0000/65/000/000/0173/0178

AUTHORS: Zakharov, Ye. D.; Sorokin, N. A.; Kuznetsov, A. N.; Sinyavskiy, V. S.; Gusev, V. P.; Kuznetsova, K. N.; Tsay, A. F.; Yegorova, L. S. 54 B+1

ORG: none

TITLE: Dependence of the stability of the solid solution in the alloy D16 on the chemical composition

SOURCE: AN SSSR. Institut metallurgii. Metallovedeniye legkikh splavov (Metallography of light alloys). Moscow, Izd-vo Nauka, 1965, 173-178

TOPIC TAGS: aluminum ~~containing~~ chemical composition, metal property, alloy, solid solution, magnesium containing alloy, copper containing alloy, manganese containing alloy / D16 aluminum alloy

ABSTRACT: The stability of solid solution in D16 type aluminum alloys was studied as a function of the alloy composition. The stability of the solid solutions was determined by the method of step-wise tempering at 250, 300, 350, 400, and 450C for periods of 0.5, 1, 2, 3, 5, 7, 10, 20, and 60 min. After tempering, the specimens were naturally aged for a period of 10 days, then their electrical conductivity, strength limit, relative elongation, and flow limit were determined. The experimental results are shown graphically (see Fig. 1). On the basis of the experimental data C-curves for the stability of solid solution were constructed (see Fig. 2). The optimum alloy composition results from: less than 6% total copper

Card 1/3

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L 29798-66

ACC NR: AT6016425

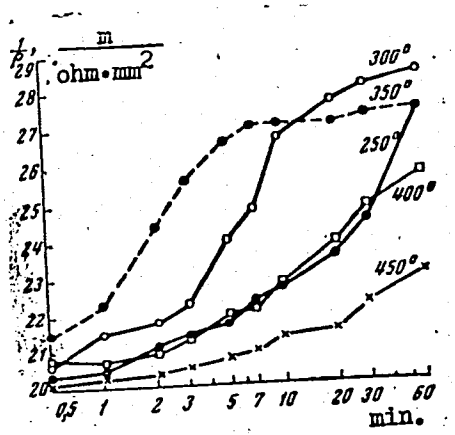

Fig. 1. Change in the electrical conductivity of alloy No. 1 (3.91% Cu; 1.2% Mg; 0.5% Mn) as a function of the duration of isothermal tempering at intermediate temperatures.

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L 29798-66

ACC NR: AT6016425

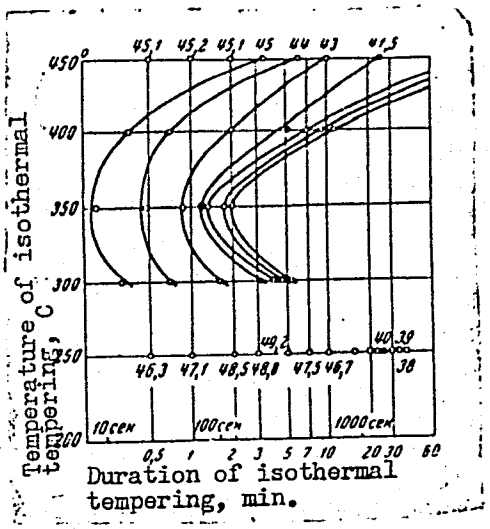

Fig. 2. C-type diagram for the stability of the solid solution in alloy No. 1, constructed from data for the change in the strength limit (for normal tempering σ_f = 45.1 kg/mm^2).

and magnesium content for a total of less than 4.8% copper content. The manganese content should be less than 0.6%. Orig. art. has: 1 table and 5 figures.

SUB CODE: 11/ SUBM DATE: 16Sep65/ ORIG REF: 001/ OTH REF: 002

Card 3/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

BURDOV, Aleksey Ivanovich; KUZNETSOV, Sergey Nikiforovich; SOROKIN, Nikolay Aleksandrovich; NAZAROV, P.P., redaktor; YEZDAKOVA, M.L., redaktor izdatel'stva; SHPAK, Ye.G., tekhnicheskiy redaktor

["Uralets" BU-2 boring machinery; textbook for master workman schools and courses] Burovoi stanok "Uralets" BU-2; uchebnoe posobie dlia shkol i kursov masterov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 106 p. (MIRA 9:10)
(Boring machinery)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

ALEKSYUK, I.M., inzh.; KOZLOV, V.Ya., kand. tekhn. nauk; SOBOLEV, G.P., kand. tekhn. nauk; SOLDATOV, G.A., inzh.; SOROKIN, N.F., inzh.

Centrifugal mill for the grinding of clay materials. Stek. i ker. 22 no.7:27-30 Jl '65. (MIRA 18:9)

1. Khar'kovskiy politekhnicheskiy institut imeni Lenina (for Aleksyuk, Kozlov, Sobolev). 2. Khar'kovskiy plitochnyy zavod (for Soldatov, Sorokin).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.G.; AKSEL'ROD, V.S.

New developments in the dispatching systems of clothing factories. Shvein.prom. no.5:20-21 S-O '62. (MIRA 15:10)
(Clothing industry—Equipment and supplies)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.I., (g.Stanislav)

New developments in the operation of approach tracks.
Zhel.-dor.transp. 43 no.9:71-72 S '61. (MIRA 14:8)

1. Nachal'nik otdela transporta i planirovaniya perevozok Stanislavskogo sovnarkhoza.
(Railroads--Joint use of facilities)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N. I.

Sorokin, N. I. - "Healing extensive cuts in the ureter and bladder", (Experimental investigations), Trudy Astrakh. gos. med. in-ta, Vol. IX, 1948, p. 155-60.

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N. I.

"Einige Ergebnisse zur Technologie der Brikettierung alter Braunkohlen auf Strangpressen."

paper presented at the Colloquium on Briquetting, Freiberg, 28-29 Nov 1957.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.I., inzh.

Improving the properties of Raychikhinsk deposit brown coal by steam treatment in an autoclave. Nauch.trudy po obog.i brik.ugl. no.1:196-206 '58. (MIRA 12:10)
(Raychikhinsk region--Coal preparation)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.I., insh.

Role of moisture in the process of briquetting lignites. Obog. i brik. ugl. no.6:3-15 '58. (MIRA 12:7)
(Briquets (Fuel)) (Lignite)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOV/65-58-12-16/16

AUTHORS: Fedorov, V. S; Ryabchikov, V. R; Polyakov, I. S; Sorokin, N. I. et al.

TITLE: Smirnov, Petr Aleksandrovich.

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr 12, pp 68 (USSR)

ABSTRACT: Petr Aleksandrovich Smirnov died on 28th September, 1958. He was head of the technical section of Giproneftezavod and worked in the petroleum refining industry for the last 25 years. He developed a number of important technical processes which are widely used in petroleum refining plants, and also published many articles on this subject. He received numerous decorations for his outstanding work.

Card 1/1

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APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOV/65-59-4-1/14

AUTHORS: Arefyev, A.P., Krupitskiy, B.B. and Sorokin, N.I.

TITLE: Development of New Improved Technological Schemes and Reducing Specific Capital Costs in Refining of Petroleum Is the Most Important Problem of the Seven-Year Plan of Development of the Soviet Petroleum Industry (Sozdaniye novykh sovershennykh tekhnologicheskikh skhem i umen'sheniye udel'nykh kapital'nykh zatrat v pererabotku nefti - vazhneyshaya zadacha semiletnego plana razvitiya neftyanoy promyshlennosti SSSR)

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1959, Nr 4, pp 1-6 (USSR)

ABSTRACT: In accordance with the directives of the Twentieth Party Congress, the Gosudarstvennyy institut po proyektirovaniyu neftepererabatyvayushchikh zavodov (State Institute for Planning Oil Refineries) (Giproneftezavod) jointly with numerous other project and research institutes carried out in 1956 and 1957 major work on revising completely the projects and plans for several petroleum refineries. Plans for small capacity refineries were substituted by plans for larger units, automation has been introduced on an extensive

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOV/65-59-4-1/14

Development of New Improved Technological Schemes and Reducing Specific Capital Costs in Refining of Petroleum Is the Most Important Problem of the Seven-Year Plan of Development of the Soviet Petroleum Industry

scale and the floor space and the number of required personnel have been greatly reduced compared to previously drawn-up plans. These changed projects provide a good basis for the projects for building new refineries during the 1959/1965 period. Due to the fact that the eastern areas of the Soviet Union possess very large resources of cheap coal, whilst petroleum to these regions has to be transported from the very distant Tataria and Bashkiria, the policy is to use in these regions refinery processes resulting in a minimum production of boiler fuel. On the other hand, in the European part of the Soviet Union and the Urals there is a shortage of coal and the coal costs are high. Therefore, the main aim is to increase the use of oil and gaseous fuels and to use refining processes which yield a high proportion of liquid boiler fuel; this also permits reducing the costs and the time of building

Card 2/5

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOV/65-59-4-1/14

Development of New Improved Technological Schemes and Reducing Specific Capital Costs in Refining of Petroleum Is the Most Important Problem of the Seven Year Plan of Development of the Soviet Petroleum Industry

refineries. Up until recently the optimum size of a refinery was considered to be one with a capacity of 6 million tons/annum. The present views are that the optimum size is considerably larger than this figure. In 1957/58, VNII NP jointly with Giproneftezavod carried out preliminary planning work for refineries of larger unit sizes intended for producing a higher percentage of boiler fuels. Such a refinery is to consist of two or more blocks of the highest unit sizes and it is intended that each refinery will process the entire quantity of raw materials becoming available at each stage of the refining process. Centralised control is to be introduced for the entire technological process, i.e. atmospheric-vacuum distillation and catalytic cracking, catalytic reforming and hydro-purification, gas fractionation, alkylation and polymerisation. The method used in this new plant consists in subjecting the petroleum to stabilisation, dehydration and processing

Card 3/5

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOV/65-59-4-1/14

Development of New Improved Technological Schemes and Reducing Specific Capital Costs in Refining of Petroleum Is the Most Important Problem of the Seven Year Plan of Development of the Soviet Petroleum Industry

it in an atmospheric-vacuum plant (annual capacity 6 million tons). The gasoline distillates are partly used for reforming and partly for the manufacture of kerosine. The 240 to 350°C fraction is utilised in winter and summer diesel fuels. Both types of fuel are desulphurised by hydro-purification but the winter grade is also subjected to de-paraffination. The heavy distillates, obtained by fractional distillation, are further processed. The dried gas is desulphurised and the C_3, C_4 and C_5 stabilised light fractions led into the gas fractionation plant where they are separated into the propane-propylene, butane-butylene and pentane-amylene fractions. The first two fractions are used for polymerisation and alkylation processes. Asphalt and sulphuric acid are also to be produced. A 65% separation of light fractions and 20% separation of boiler fuel and petroleum asphalt will be achieved. The quality of

Card 4/5

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SOV/65-59-4-1/14

Development of New Improved Technological Schemes and Reducing Specific Capital Costs in Refining of Petroleum Is the Most Important Problem of the Seven Year Plan of Development of the Soviet Petroleum Industry

gasoline is to be considerably improved, the octane number of the pure gasoline is to be increased to 75-76 (86-87 when adding TEL) and the sulphur content will not exceed 0.1%. The summer diesel fuel will have a sulphur content of 0.72% and a cetane number of 47. The most important modifications of the plants are discussed in detail. The yield of light fractions and boiler fuel, obtained by the proposed process, is compared with yields obtained by American methods. There is 1 table.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.I., inzh.

Efficiency of high speed die presses. Obog. i brik. ugl. no.9:49-52 '59. (MIRA 12:9)

(Hydraulic presses) (Briquets (Fuel))

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N. I. Cand Tech Sci -- (diss) "Investigation of the role of moisture in the process of briquetting lignites," Moscow, 1960, 13 pp, 200 cop. (Moscow Mining Institute im I. V. Stalin) (KL, 42-60, 114-115)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.I.; SLAVINSKIY, D.M.

Atmospheric-vacuum pipe still unit high production capacity. Khim.i tekh. topl.i masel 6 no.2:1-5 F '61. (MIRA 14:1)

1. Giproneftezavod.
(Petroleum refineries—Equipment and supplies)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SALMANOV, M.A.; SOROKIN, N.I.

Primary production of Kuybyshev Reservoir. Izv.AN SSSR.Ser.biol. 27 no.4:603-613 Jl-Ag '62. (MIRA 15:9)

1. Institute of Biology of Reservoirs, Academy of Sciences of the U.S.S.R., Borok.
(KUYBYSHEV RESERVOIR--PHYTOPLANKTON)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N. M.

"Some Regularities in the Metastasis of Malignant Tumors," Khirurgiya, No. 3, 1949.
Mbr., Surgical Clinic, Ukr. Central Roentgeno-Radiology & Oncology Inst., -c1949-.
Mbr., Chair Oncology, Ukr. Inst., Advance & Training for Physicians, -c1949-.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.M., kandidat meditsinskikh nauk, zaveduyushchiy; STELLING, Ye.V., glavnyy vrach; GUREVICH, G.M., professor, zasluzhennyy deyatel' nauki; BAZLOV, Ye.A., dotsent, direktor.

Diagnostic value of roentgenological and cytological method of examination of tumors and tumor-like neoplasms in the parotid gland. Vest.rent.i rad. no.3:7-13 My-Je '53. (MLRA 6:8)

1. Khirurgicheskoye otdeleniye Stalinskogo oblonkodispansera (for Sorokin). 2. Stalinskiy oblonkodispanser (for Stelling). 3. Khirurgicheskaya klinika Khar'kovskogo rentgeno-radiologicheskogo i onkologicheskogo instituta (for Gurevich). 4. Khar'kovskiy rentgeno-radiologicheskiy i onkologicheskiy institut (for Bazlov). (Parotid glands--Tumors) (Diagnosis--Radioscopic)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.M.

Article by G.P.Kovtunovich on the "Technique of removing tumors of the parotid gland." Khirurgiia no.10:93 O '54. (MLRA 8:1)
(PAROTID GLANDS--TUMORS)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N. M.

SOROKIN, N.M., kandidat meditsinskikh nauk, Stalino

Therapeutic use of embichin. Klin. med. 32 no.6:75-77 Je '54. (MLRA 7:8)

1. Iz khirurgicheskogo otdeleniya Stalinskogo oblastnogo onkologicheskogo dispansera.
(HEMOPOIETIC SYSTEM, diseases
*ther., embichin)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.M., kand.med.nauk

Diagnosis of tumors of the parotid gland. Khirurgiia Supplement: 59-60 '57. (MIRA 11:4)

1. Iz khirurgicheskogo otdeleniya Stalinskogo oblastnogo onkologicheskogo dispansera i Ukrainskogo rentgenoradiologicheskogo i onkologicheskogo instituta.
(PAROTID GLANDS--TUMORS)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.M.

Role of scientists of the Kazan Medical Institute in the control of malignant neoplasms. Nauch. trudy Kaz. gos. med. inst. 14: 49-51 '64. (MIRA 18:9)

1. Kafedra gospital'noy khirurgii No.1 (zav. - dotsent R.A. Vyaselov) Kazanskogo meditsinskogo instituta.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

VYASELEV, R.A.; SOROKIN, N.M.

Some characteristics of the course of peritonitis in patients with neoplasms. Nauch. trudy Kaz. gos. med. inst. 14:399-401 '64. (MIRA 18:9)

1. Kafedra gospital'noy khirurgii No.1 (zav. - dotsent R.A. Vyaselev) Kazanskogo meditsinskogo instituta.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.N.

"Utilization of Aerial Photograph in Field Surveying Operations." (Ispol'zovaniye aero_fotosnimkov v polevykh trassirovochnykh partiyakh) M. Transzheldorizdat, 1955

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

BUNAKOV, Yu.L.; VINNIKOV, N.P.; SOROKIN, N.N., red.; KANDYKIN, A.Ye., tekhn. red.

[Maintenance of the roadbed; practices of the maintenance forces of the Southern Railroad] Tekushchee soderzhanie zemlianogo poloteta; opyt puteitsev IUzhnoi dorogi. Moskva, Transzheldorizdat, 1952. 41 p. (MIRA 16:8)
(Railroads—Maintenance and repair)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.N.; inzhener; redaktor. VERINA, G.P.; tekhnicheskiy redaktor.

Problems in the stability of railway roadbeds. Trudy TSNII MPS no. 89:3-86 '54. (MIRA 8:2)
(Railroad engineering)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, Nikolay Nikolayevich, inzhener; POTOTSKIY, G.I., inzhener, redaktor; VERINA, G.P., tekhnicheskiy redaktor

[Manual for the section foreman] Rukovodstvo brigadiru putei. Izd. 5-oe, perer. Moskva, Gos. transp.zhel-dor. izd-vo, 1956. 334 p. (Railroads--Track) (MLRA 9:12)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

RAK, S.M., kandidat tekhnicheskikh nauk; SOROKIN, N.N., inzhener; KHITROV, P.A., tekhnicheskiy redaktor.

[Soil compaction methods for embankments. Rock excavation in boring and blasting work; practices in foreign countries] Metody uplotneniia nasypei. Skal'nye i buro-vzryvnye raboty; iz opyta stroitel'stva za rubezhom. Moskva, Gos.transp.zhel-dor.izd-vo, 1957. 166 p. (MIRA 10:11)

1. Moscow. Vsesoiuznyy nauchno-issledovatel'skiy institut transportnogo stroitel'stva.
(Boring) (Earthwork) (Blasting)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

BOLOTIN, Vasiliy Ivanovich; ZHEREBIN, Mikhail Isakovich; SOROKIN, Nikolay Nikolayevich; OSIPOV, M.I., inzh., retsenzent [deceased]; POTOTSKIY, G.I., inzh., red.; USENKO, L.A., tekhn. red.

[Manual for a track foreman] Posobie brigadiru puti. Moskva, Transzheldorizdat, 1962. 346 p. (MIRA 15:6)
(Railroads--Maintenance and repair)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.N., red.

[Construction and operation of roadbeds made from silty soils; transactions of a conference held in Irkuts in September 1962] Sooruzhenie i ekspluatatsiia zemlianogo polotna iz pylevatykh gruntov; trudy soveshchaniia v g. Irkutske v sentiabre 1962 g. Moskva, Transport, 1964. 222 p. (MIRA 17:11)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.P., inzhener.

New sewing plants. Leg.prom.14 no.12:12-14 D '54. (MLRA 8:2)
(Clothing industry)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

YEFUNI, Yu. N.; KARYAKIN, A. V.; SOROKIN, N. P.; DOLGINOV, I. Ye.

Portable luminescent illuminator. Vest. otorin. no.2:89-90 '62. (MIRA 15:2)

1. Iz Nauchno-issledovatel'skogo instituta ukha, gorla i nosa Ministerstva zdravookhraneniya RSFSR (dir. - prof. N. A. Bobrovskiy) i ordena Lenina klinicheskoy bol'nitsy imeni S. P. Botkina, Moskva.

(OTORHINOLARYNGOLOGY--EQUIPMENT AND SUPPLIES)
(ULTRAVIOLET RAYS)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, Nikolay Stepanovich, slesar'-mekhanik; GLEBOVA, L., red.; TYUNEYEVA, A., tekhn.red.

[A story about workers' pride] Rasskaz o rabochei gordosti. Moskva, Gos.izd-vo polit.lit-ry, 1962. 54 p. (MIRA 15:4)

1. Baltiyskiy sudostroitel'nyy zavod imeni Sergo Ordzhonikidze, Leningrad.
(Leningrad—Shipbuilding)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N. S.

"Comparative Analysis of a system of Air Exchange in Textile Factories."
Sub 28 Jun 51, Moscow Textile Inst.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N. S.

Ventiliatsiia, uvlazhnenie i otoplenie na tekstil'nykh fabrikakh (Ventilation, humidifying and heating in textile factories). Izd. 2-e, pererab. i dop. (n.p.) Gizlegprom, 1953. 356 p.

SO: Monthly List of Russian Accessions, Vol. 7, No. 6, Sep. 1954

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N. S.

4570. SOROKIN, N. S. voprosy proyektirovaniya i ekspluatatsii sistem vozdukhoobmena na tekstil'nykh fabrikakh. /m./, profizdat, 1954. 88 s. s ill. 22 sm. 3.000 ekz. 2 r. 55 k.-/54-58093/p

677:697.9

SO: Knizhnaya Letopis', Vol. 1, 1956

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

PUZYREV, Aleksandr Vasil'yevich, kandidat tekhnicheskikh nauk; SOROKIN, N.S., doktor tekhnicheskikh nauk, redaktor; VESELKINA, A.A., redaktor; KIRSANOVA, N.A., tekhnicheskiy redaktor.

[Examination and adjustment of ventilating equipment in enterprises] Issledovanie i naladka ventiliatsionnykh ustanovok na predpriiatiiakh. Moskva. Izd-vo VTsSPS profizdat, 1955. 141 p. (Ventilation) (MLRA 9:5)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.S.

Results of the All-Union contest for the best scientific work of students in Soviet textile institutes. Izv.vys.ucheb.zav.;tekh.tekst. prom. no.4:171-172 '60. (MIRA 13:9)

1. Ivanovskiy tekstil'nyy institut im. M.V. Frunze.
(Textile schools--Competitions)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

KUTANIN, Anatoliy Fedorovich; KASHIN, Vatslav Aleksandrovich; SMIRNOV, Gennadiy Nikolayevich; DMITRIYEVSKAYA, Nina Petrovna; PUZYREV, A.V., kand.tekhn.nauk, red.; SOROKIN, N.S., retsenzent; SHUB, L.S., retsenzent; VERBITSKAYA, Ye.M., red.; VINOGRADOVA, G.A., tekhn.red.

[Safety measures in dying and finishing shops] Tekhnika bezopasnosti v krasil'no-otdelochnom proizvodstve. By A.F.Kutanin and others. Moskva, Izd-vo nauchno-tekhn.lit-ry RSFSR, 1961. 147 p. (MIRA 14:12)

(Textile industry--Safety measures)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, Nikolay Stepanovich; LEVIN, S.R., dots., retsenzent; KAVALERCHIK, M.ya., inzh., retsenzent; SOKOLOVA, V.Ye., red.; BATYREVA, G.G., tekhn. red.

[Suction apparatus and pneumatic conveying in textile manufacture] Aspiratsiia mashin i pnevmaticheskii transport v tekstil'nom proizvodstve. Moskva, Gizlegprom, 1963. 216 p. (MIRA 17:2)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.S., prof.

"Pneumatic transportation in the enterprises of the textile industry" by M.IA. Kovalerchik. Reviewed by N.S. Sorokin. Tekst. prom. 23 no.6:84-85 Je '63. (MIRA 16:7)

1. Ivanovskiy tekstil'nyy institut imeni M.V. Frunze.
(Textile industry) (Pneumatic conveying)
(Kovalerchik, M.IA.)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, Nikolay Stepanovich; RATTEL', K.N., inzh., retsenzent; BEKETOV, A.G., kand. tekhn. nauk, retsenzent; SOKOLOVA, V.Ye., red.

[Ventilation, heating and air conditioning in textile factories] Ventiliatsiia, otoplenie i konditsirovanie vozdukha na tekstil'nykh fabrikakh. Izd.4., perer. i dop. Moskva, Legkaia industriia, 1965. 342 p. (MIRA 18:7)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.V.

Eccentric press of new design. Vest.mash.35 no.10:22-23 O '55.
(Power presses) (MLRA 9:1)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N., inzhener.

Construction of grain elevators in the East. Muk.-elev.prom. 22 no.1:22-26 Ja '56. (MLRA 9:5)

1. Trest Vostokzagotstroy.
(Soviet Far East--Grain elevators)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

KHOROSHIY, I., inzhener; SOROKIN, N., inzhener.

Constructing grain drying and cleaning towers using moving forms. Muk.-elev.prom. 22 no.4:7-10 Ap '56. (MLRA 9:8)

1. TSentral'naya nauchno-issledovatel'skaya lavoratoriya Glavzagotstroya.
(Grain elevators) (Concrete construction--Formwork)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N., inzhener.

Elevator bins made of prestressed concrete rings. Muk.-elev. prom. 23 no.4:11-13 Ap '57. (MLRA 10:5)

1. Tsentral'naya nauchno-issledovatel'skaya laboratoriya Glavelevatormel'stroya.
(Grain elevators)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.V., inzh.; SHLEYMOVICH, S.A., inzh.

Small one-cylinder hydraulic jack for mechanized lifting of sliding forms. Nov. tekh. i pered. op. v stroi. 20 no.2:16-19 F '58. (MIRA 11:2)

(Hydraulic jacks)
(Concrete construction)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

KHOROSHIY, I., inzh.; SOROKIN, N., inzh.

Building plan for grain procurement stations with grain drying and cleaning towers and silos of lightweight concrete. Muk.-elev. prom. 24 no.1:3-5 Ja '58. (MIRA 11:2)

1.TSentral'naya nauchno-issledovatel'skaya laboratoriya po stroitel'-stvu.

(Grain elevators)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

TUBENSHLYAK, Z.L.; SOROKIN, N.V.

Automatic checking of roll diameters for steel-bushed roller chains. Trakt. i sel'khozmash. no.2:39-41 F '59. (MIRA 12:1)

1. Nauchno-issledovatel'skiy institut Traktorsel'khozmash.
(Chains--Testing)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

TUBENSHLYAK, Z.L.; SOROKIN, N.V.

Automatic adjustment of ferroaluminum tractor bushings. Trakt. i sel'khozmash. 30 no.2:42-45 F '60. (MIRA 13:5)
(Bearings(Machinery))

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SHUKHMAN, Z.S., inzh.; KHOROSHIY, I.S., inzh.; SOROKIN, N.V., inzh.

Construction of grain elevators made of precast and prestressed concrete. Bet.i zhel.-bet. no.8:349-353 Ag '61. (MIRA 14:8)
(Grain elevators) (Precast concrete construction)
(Prestressed concrete construction)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

KHOROSHIY, Izrail Samoylovich; SOROKIN, Nikolay Vasil'yevich; KALAKUTSKIY, Vladimir Aleksandrovich; SHPOLYANSKAYA, L.M., otv. za vyp.; AVERINA, T.I., red.; SHEVTSOV, V.D., red.; GOLUBKOVA, L.A., tekhn. red.

[Assembling precast reinforced concrete structures of the silo housing of elevators] Montazh sbornykh zhelezobetonnykh konstruktsii silosnykh korpusov elevatorov. Pod red. V.D.Shevtsova. Moskva, Zagotizdat, 1962. 83 p. (MIRA 17:2)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, Nikolay Yakovlevich, prepodavatel'; KREMENETSKAYA, I.I., red.

[Stimulation of students in classes on the specialized technology of machining on lathes] Aktivizatsiia uchashchikhsia na urokakh spetsial'noi tekhnologii tokarnogo dela. Moskva, Vysshaia shkola, 1965. 52 p. (MIRA 18:12)

1. Professional'no-tekhnicheskoye uchilishche No.45, Leningrad (for Sorokin).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, N.Z.

Hard-alloy cutters with inserted teeth. Stan. i instr. 29 no.2:37 F '58. (MIRA 11:3)

(Cutting tools)

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SOROKIN, Nikolay Yakovlevich; ALFIMOVA, I.A., nauchn. red.; TIKHONOVA, N.V., red.; DORODNOVA, L.A., tekhn. red.

[Teaching special turning technology in a school] Prepodavanie spetsial'noi tekhnologii tokarnogo dela v uchilishche. Moskva, Proftekhizdat, 1962. 61 p. (MIRA 16:12)

1. Prepodavatel' tekhnicheskogo uchilishcha No.14 Leningrada (for Sorokin).

(Turning--Study and teaching)

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Sorokin, O.G.

SOROKIN, O.G.

Square-law detection with the use of a semiconductor. Radiotekh. i elektron. 2 no.10:1293-1294 O '57. (MIRA 10:11)
(Semiconductors)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, O.I.

Heterocyclic compounds. XLIII. Synthetic analgesic substances. 8. 1-Alkyl-2,5-dimethyl-4-phenyl-4-piperidinols. I. N. Nazarov, N. I. Shvetsov, and O. I. Sorokin (Inst. Org. Chem., Moscow), *Zhur. Obshchei Khim.* 26, 3167-69(1956); cf. *C.A.* 51, 8088b.—Particulated Li (45.8 g.) in 500 ml. Et_2O under N was treated with 20 g. PhBr, and after commencement of the reaction 498 g. PhBr in 550 ml. Et_2O was added slowly to maintain reflux; the soln. of LiPh, refluxed 1.5 hrs. longer, cooled with ice, treated over 3 hrs. with 352 g. 1,2,5-trimethyl-4-piperidone (I) in 550 ml. Et_2O, and the mixt. refluxed 2 hrs. on the following day and treated with H_2O yielded from the org. layer 165 g. *γ-isomer* of *1,2,5-trimethyl-4-phenyl-4-piperidinol* (II), m. 108-9°, 9.2 g. *β-isomer*, m. 102-3°, and 14.5 g. *α-isomer*, m. 106-7°, after distn. (b_1 102-34°) and crystn. from ligroine. I (21.3 g.) with EtMgBr gave but 2.5 g. *4-Et analog* of II, b_5 105-10°. PhLi with 140 g. 1-ethyl-2,5-dimethyl-4-piperidone (III) gave 114.8 g. mixed isomers of *1-ethyl-2,5-dimethyl-4-phenyl-4-piperidinol* (IV), m. 70.5-92°, from which was isolated 44.5 g. *γ-isomer*, m. 101-1.5°, while the residual isomers treated with Et_2O-HCl gave the *β-isomer HCl salt*, m. 212° (free base, m. 97°), and the low-melting *α-isomer*, m. 91° (*HCl salt*, m. 211-12°), sepd. after distn. (b_1 117-37°) and crystn. from ligroine; only 0.8 g. of the last isomer was isolated. PhLi and the 1-Pr homolog of III (150 g.) similarly gave: 61 g. *γ-isomer* of *1-Pr homolog* of IV, m. 93-4° (*HCl salt*, m. 174-5°; *picrate*, m. 173-4°; *methiodide*, m. 281-2°), 43.5 g. *β-isomer*, m. 53.5-5° (*HCl salt*, m. 201.5-2°; picrate, m. 119-20°), and 1.8 g. *α-isomer*, oil, $b_{1.5}$ 124-5° (HCl salt, m. 191-5°). PhLi and 139 g. 1-allyl analog of III similarly gave 18 g. *γ-isomer* of the *1-allyl analog* of IV, m. 93-4° (*allobromide*, m. 210-11°), 43 g. *β-isomer*, m. 71-2° (*HCl salt*,

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NAZAROV, I.N.; SHVETSOV, N.I.; SOROKIN, O.I.

m. 186-7°), and 60 g. unresolved mixt. Hydrogenation of the γ-isomer over Raney Ni in MeOH gave γ-isomer of the 1-Pr analog, m. 93-4°, identical with that described above; similar hydrogenation of the crude β-isomer of the 1-allyl compd. gave the γ-, m. 93-4°, and the β-isomer of the 1-Pr analog (HCl salt, m. 201-2°). Hydrogenation of the unresolved isomer mixt. of 1-allyl compds. gave after many crystns. a small amt. of the liquid α-isomer of the 1-Pr analog (HCl salt, m. 193-5°). PhLi and 177 g. 1-iso-Pr homolog of III gave 80 g. γ-isomer of the 1-iso-Pr homolog of IV, m. 100-7° (HCl salt, m. 216-18°), 30 g. β-isomer, m. 67-9° (HCl salt, m. 203-70°), and 6 g. α-isomer, m. 63-5° (HCl salt, m. 236-8°). PhLi and the 1-Bu homolog of III (101 g.) gave 34.5 g. γ-isomer of 1-Bu homolog of IV, m. 90-6.5° (HCl salt, m. 161-2°), 16 g. β-isomer, m. 71-2° (HCl salt, m. 193-4.5°), and 50 g. unresolved mixt. PhLi and 129 g. 1-iso-Bu homolog of III gave 40 g. γ-isomer of the 1-iso-Bu homolog of IV, m. 72-3° (HCl salt, m. 180-1°), 57 g.

β-isomer, m. 27-9°, b. 149-50° (HCl salt, m. 219-20°), and 11 g. unresolved mixt. PhLi and 240 g. 1-iso-Am homolog of III gave 83 g. γ-isomer of the 1-iso-Am homolog of IV, m. 109-10° (HCl salt, m. 112-18°), 62 g. β-isomer, m. 83-4° (HCl salt, m. 182-3.5°), and 65 g. unresolved mixt. PhLi and 60 g. 1-cyclohexyl analog of III gave only 1 isomer, 53.5 g. 1-cyclohexyl analog of IV, m. 114.5-15°. PhLi and 13 g. 1-benzyl analog of III gave a little individual isomer of the 1-benzyl analog of IV, m. 94-4.5°, and much unseparable mixt. of isomers, m. 100-78°. XLIV. Synthetic analgesic substances. 9. Esters of 1-alkyl-2,5-dimethyl-4-phenyl-4-piperidinols. Homologs of promedol and isopromedol. I. N. Nazarov and N. I. Shvetsov. *Ibid.* 3170-81.—Treatment of the 1-alkyl-2,5-dimethyl-4-phenyl-4-piperidinols (I) with acyl chlorides in $(CH_2Cl)_2$ or in C_6H_6 in the presence of

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NAZAROV, I.N. SHVETSOV, N.I.; SOROKIN, D.I.

a little Mg shavings gave the following *esters* (*1-alkyl* of the piperidinol and *acyl* group of the ester, the *ester isomers* (α, β, γ), their b.p., and, in parentheses, the m.p. of their *HCl salts* given). *Me, EtCO:* α, $b_{3.5}$ 151–2° (106–7°); β, — (183–4°); γ, — (220–1°). *Me, Ac:* β, — (185.5–6.0°). *Et, EtCO:* α, — (176.5–7.0°); β, b_5 150–5° (201.5–2.5°); γ, $b_{3.5}$ 127.5–32° (210°). *Et, Ac:* β, b_5 138.5–41° (182°); γ, $b_{3.5}$ 131–5° (212°). *Pr, EtCO:* β, $b_{3.5}$ 137–45° (196–7°); γ, $b_{3.5}$ 135–45° (182.3°). *Pr, Ac:* β, $b_{3.5}$ 134–7° (215–16°); γ, b_5 143–5° (191–1.5°) (also formed from the piperidinol and Ac_2O in pyridine at 162° in 7 hrs.) [PhLi with 1-propyl-2,5-dimethyl-4-piperidone, followed by treatment of the isomer mixt. of the I (1-alkyl = Pr) with AcCl in Et_2O gave mixed isomers of the corresponding acetates, from which was isolated a little *β-isomer* of I (alkyl = Pr), as the HCl salt, m. 201.5–2°]. *Iso-Pr, EtCO:* α, — (177–8°); β, — (194–5°); γ, b_5 135–45° (145–7°). *Allyl, EtCO:* β, $b_{3.5}$ 141–2° (163–8.5°); γ, b_5 149–51° (182–3°). *Allyl, Ac:* β, $b_{3.5}$ 133–45° (196–7°); γ, $b_{3.5}$ 137–41° (204–5°). *Bu, EtCO:* β, b_5 152–8° (209–10°); γ, b_5 130–40° (185–6°). *Bu, Ac:* β, — (222–3°); γ, b_5 140–50° (190–6.5°). *Iso-Bu, EtCO:* β, b_5 135–40° (170–1°); γ, $b_{3.5}$ 140–50° (100–1°). *Iso-Am, EtCO:* β, b_5 155–62° (176–7°); γ, — (179–80°). *Cyclohexyl, EtCO:* —, m. 85–92° (220.5–1.5°). *Cyclohexyl, Ac:* —, m. 100–8° (224.5–5.0°). All acetates are weaker analgesics than the propionates in this series; the β-isomers are invariably the most active (isopromedol type), being 2–3 times more effective than the γ-isomers (promedol type). All the above esters show higher toxicity and lower analgesic ability than promedol or isopromedol, indicating that a 1-Me group is most desirable. XLV. Cyanohydrins of γ-piperidones, tetrahydro-γ-pyrones, and tetrahydro-γ-thiopyrones. Stereochemistry of cyanohydrin

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NAZAROV, I.N.; SHVETSOV, N.I. SOROKINA, L.

synthesis. I. N. Nazarov and B. V. Unkovskii. *Ibid.* 3181-91.—HCN with 1-alkyl-2,5-dimethyl-4-piperidones yields but 1 of 4 possible stereoisomers because the ketones react in but 1 stereoisomeric form and the addn. of HCN takes place from the least hindered side of the CO group. The formation of isomers in other reactions of these ketones in alk. solns. indicates isomerization of the piperidones owing to the possibility of enolization. 2,5-Dimethyl-4-piperidone (44.6 g.) in 160 ml. 15% HCl treated with ice cooling in 1 hr. with 29.4 g. NaCN in 50 ml. H_2O gave after 2 hrs. at room temp. 26.1 g. *2,5-dimethyl-4-cyano-4-piperidol* (I), m. 103.5-4.0° (from EtOAc); with extn. of the residual soln. with Et_2O the total yield rose to 85%. Similarly were obtained the following *1-alkyl deriv.* of I [*alkyl*, m.p., and, in parentheses, m.p. of the *methiodide*): *Me* (97.2%), 128-9°; *Et*, 98-9°; *Pr*, 93-4° (172-4°); *iso-Pr*, 106-8°; *allyl*, 74-6° (164-6°); *Bu*, 82-3°; *iso-Bu*, crude undistillable oil; *iso-Am*, 85-7° (166-7°); *cyclohexyl*, 108-9° (184°); *Ph*, 143-4°. The following cyanohydrins were prepd. similarly from the appropriate oxo compds.: *1,2-dimethyl-4-hydroxy-4-cyanodecahydroquinoline*, m. 110-20° (*methiodide*, m. 176-7°); *1,2-dimethyl-4-hydroxy-4-cyanoperhydropyrindane*, m. 135-6°; *2,2-dimethyl-4-cyanotetrahydropyran-4-ol*, m. 84-5° (prepd. from the pyrone and aq. $NaHSO_3$ in the presence of NaCN); *2,2-dimethyl-4-cyanotetrahydrothiopyran-4-ol* (prepd. as the previous compd.), m. 76-6.5°.

G. M. Kosolapoff

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NAZAROV, I.N.; SOROKIN, O.I.

Synthetic anesthetics. Report No.32: Cis-1,2,6-trimethyl-4-piperidone and its derivatives. Izv.AN SSSR Otd.khim.nauk no.5:872-878 My '60. (MIRA 13:6)

1. Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR.

(Piperidone) (Lithium)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, O.I.

Synthetic anesthetics. Report No.33: 1, 3, 5-trimethyl-4-piperidone and some of its derivatives. Izv.AN SSSR Otd.khim.nauk no.3:460-466 Mr '61. (MIRA 14:4)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.
(Piperidone)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, O.I.

Apparatus for the continuous extraction of liquids. Zav.lab. 27 no.1:117-118 '61. (MIRA 14:3)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSR.
(Chemical apparatus)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

MAYRANOVSKIY, S.G.; DZHAPARIDZE, D.I.; SORCKIN, O.I.

Polarographic study of some derivatives of γ-piperidone. Izv.AN.SSSR.Ser.khim. no. 5:795-799 My '64. (MIRA 17:6)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

AUTHOR: Sorokin, O. M. SOV/ 57-28-7-9/35

TITLE: Photoelectric Emission of Mercury Selenide (Fotoelektronnaya emissiya s selenida rtuti)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Vol. 28, Nr 7, pp. 1413 - 1423 (USSR)

ABSTRACT: The external photoeffect of mercury selenide (HgSe) is investigated. The admixtures in the latter exercise apparently a considerable influence on the photoemission. HgSe belongs to the group (Ref 1) of compounds with a structure of the ZnS type and is characterized by a great mobility of the current carriers (Ref 2). The dependence of the electric conductivity and the Hall concentration of the current carriers on the temperature has in the case of HgSe in solid state (Ref 1) a typically "metallic" character. According to the data (Refs 2-4) the energetic spectrum of the HgSe compounds is, however, bound to have an energy forbidden zone of certain width. It is tried to explain this discrepancy. The investigation of the photoelectric emission was carried out on the basis of samples of coarse crystalline plates and layers. The volt-ampere characteristics, the quantum yield, optical absorption, photoconductivity, and

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SOV/ 57 23-7-9/35

Photoelectric Emission of Mercury Selenide

the photoelectromotive force were measured. It is shown that 1) HgSe has a considerable quantum yield in the photoemission ($\sim 10^{-3}$ el/qu); 2) There are two groups of photoelectrons in the distribution of photoelectrons; the one (f) is similar to the distribution in metals (Ref 8), the other (s) is similar to that in semiconductors, as Te and PbS(Refs 8,12 and 15). 3) The photoelectric emission work has in the case of HgSe a constan value (~4,45 eV) in the range of the photon energy of from 4,8o to 5,4o eV; this value coincides with the emission work of the thermoelectrons. In the range of $h\nu > 5,4o$ eV it rises rapidly up to 5,13 eV, at $h\nu = 6,4o$ eV. The emission work at the red boundary of the photoeffect amounts to 4,5o ± o,o6 eV; 4)The thermal treatment and the heating of the HgSe layers and plates in the liquid mercury influence to a great extent the amount of the f-maximum of the photoelectrons and to a small extent the amount of the s-maximum. The analysis of the results shows that pure HgSe is apparently a semiconductor, no metal or metalloid. The width of the energy forbidden zone, evaluated on the margin of the energy absorption, amounts to o,7o ± o,1o eV. In and according to the volt-ampere curves to ~o,7o ± o,o5 the case of the usual kind of production (Ref 1) the HgSe is

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Photoelectric Emission of Mercury Selenide SOV/ 57-28-7-9/35

obtained by means of an admixture (most probably mercury) which produces donor levels. The activation energy of such levels causes the fact that all "donor" electrons in the guiding zone are at room temperature and thus cause the metallic properties of HgSe. A continuous combustion of HgSe at 200° C eliminates the admixture mercury from the lattice and the substance according to its properties approaches the stoichiometric composition. Viceversa, a gentle heating in liquid mercury favors the reverse diffusion of the mercury atoms in the HgSe depth. The occurrence of the "metallization" of the properties in the sample is the consequence. The problem of the exciter mechanism in the photoemission of HgSe is, according to the author's opinion, worth discussion. The results of the paper show that in the case of a photoelectric emission variations of the photoelectric emission work with the wave length are possible. This has to be taken into account in using the semiconductor photocathodes, even if these have no internal photoeffect. The present paper was suggested by A. A. Lebedev, Member, Academy of Sciences, USSR, and carried out under his direction at the chair of electrophysics at the NIFI LGU.

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Photoelectric Emission of Mercury Selenide SOV/57-28-7-9/35

There are 12 figures, 2 tables, and 22 references, 8 of which are Soviet.

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

SUBMITTED: April 10, 1957

1. Mercury selenide--Photoconductivity

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

SOROKIN, O.M., Candidate Phys-Math Sci (diss) -- "Photoelectronic emission from the selenide and telluride of mercury". Leningrad, 1959. 14 pp (Leningrad Order of Lenin State U im A. A. Zhdanov), 150 copies (KL, No 23, 1959, 160)

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B019/B070

9.4175

AUTHOR: Sorokin, O. M.

TITLE: Photoelectron Emission From Mercury Telluride

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 10, pp. 2349-2353

TEXT: The external photoeffect of HgTe is studied in the present paper. This substance has the same type of structure as zinc blende. The experimental arrangement and the preparation of the samples (coarsely crystalline blocks and evaporated layers) has been described in a previous paper of the authors (Ref. 1). Similarities in the electrical properties of HgTe and mercury selenide are pointed out in the introduction, and it is shown that the volt-ampere characteristics of HgTe for different photon energies are practically coincident (Fig. 1). There are also two groups of photoelectrons. However, HgTe does not show the parabolic form of the decline of the photocurrent, which is a characteristic of the selenide (Fig. 2). The spectral distribution of the quantum yield, the work function of the photoelectrons as a function of the photon energies, and the optical absorption in the infrared are graphically represented

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33310
S/560/61/000/010/008/016
D299/D302

9.6150 (also 1482)

AUTHORS: Shuba, Yu. A., Tyutikov, A. M., and Sorokin, O. M.

TITLE: Photocathodes for studying the short-wave radiation of the sun

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. no. 10. Moscow, 1961, 55-60

TEXT: The photocathodes of electron multipliers used in studying the short-wave radiation of the sun in the range of 1 - 1300 Å ought to satisfy the following requirements: (1) high stability of spectral characteristics with respect to external disturbances, (2) high quantum yield for wavelengths shorter than 1300 Å, (3) low sensitivity in the visible and near-ultraviolet range, which also ensures that the level of the dark current is low at working temperatures. It is also necessary

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Photocathodes for...

that the spectral characteristic of the photocathode should decrease by at least 8 orders of magnitude in the range of 1200 to 4000 Å. The above requirements are met by alkali-halide compounds, halides and oxides of alkali-earth metals. In preparing the photocathodes of metallic oxides, the best results were obtained by surface oxidation of halide compounds and also by using alloys of copper and beryllium and magnesium respectively. Measurement of the photoelectric quantum yield was carried out by a method involving the use of a quartz and a vacuum monochromator. This method ensures sufficient accuracy for quantum yield measurements of up to 10^{-12} - 10^{-14} electron/quant. A figure shows the quantum yield for the most stable photocathodes in the spectral region from 850 - 3800 Å. For wavelengths between 1200 - 3800 Å, the cathodes made of MgO and BeO have the steepest slope; the quantum-yield curves for

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Photocathodes for...

SrF_2 and CsJ cathodes are fairly even in the long-wave range. The SrF_2-cathode was found to be the more stable. In order to determine the accuracy of measurement of the HL_α-line on the background radiation, the expected counting-rate was estimated by a photocathode with LiF and CaF_2 filters. A figure shows the spectral sensitivity of a detector with MgO-photocathode and LiF and CaF_2 filters, and the expected distribution of the counting-rate. From a table, it is evident that the ratio of the signal (due to the L_α-line) to the total background level equals 7.02 for an MgO-cathode with LiF-filter and 3.21 without the filter. Analogous computations were carried out for BeO, SrF_2 and CsJ photocathodes having the same filters. These photocathodes were studied in the soft X-ray region of the spectrum. It was found that the efficiency of multipliers with

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Photocathodes for...

MgO and BeO photocathodes is the order of several percent, whereas with CsJ and SrF_2 multipliers it reaches several tens of percent. Conclusions: The use of a MgO or BeO photocathode with adequate filters permits recording (by an electron multiplier) the sun's radiation over a wide range of wavelengths. For greater recording-efficiency of X-rays, photocathodes of SrF_2 and CsJ can be used; but, thereby, the accuracy of determination of the hydrogen line L_α decreases. There are 3 figures, 1 table and 10 references: 8 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: H. Friedman, Trans. Intern. Astr. Un., 10, 706, 1960, Cambridge Univ. Press; W. C. Walkes, N. Wainfan, G. L. Weissler, J. Appl. Phys., 26, 1367, 1955.

SUBMITTED: April 10, 1961

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APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001652510010-0

ACCESSION NR: AP4011496 S/0051/64/016/001/0139/0142

AUTHOR: Sorokin, O.M.

TITLE: Photoelectric detection of radiation with wavelengths shorter than 1200 Angstroms with the aid of metallic light filters

SOURCE: Optika i spektroskopiya, v.16, no.1, 1964, 139-142

TOPIC TAGS: short ultraviolet, ultraviolet detectors, radiation detectors, metallic lightfilters, ultraviolet pass filters

ABSTRACT: One of the problems that must be solved by investigators working in the field of photometry of the far ultraviolet is creation of radiation detectors with good efficiency in the region beyond 1200 Å, yet insensitive to longer wavelengths. Such detectors, for example, should be valuable for studying the nightglow and the radiation from gaseous nebulae. Most extant UV detectors with the requisite sensitivity unfortunately also respond to longer wavelength radiation, particularly the often strong emission in the region of 1216 Å. In the present paper the author proposes the use, in conjunction with appropriate photoelectric cells, of thin metal light filters of aluminum, tin, and indium with transmission in the re-

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ACC.NR: AP4011496

gion below 1200 Å. For evaluating the feasibility of this application, the author measured the transmittance of films of these metals of different thickness (mostly 1400 and 2000 Å thick) with the aid of a modified normal-incidence UV monochromator. The radiation source was a flow-through type discharge tube; using hydrogen, argon, neon, or helium it was possible to obtain radiations with wavelengths in the range from 1800 to 580 Å. The radiation detectors employed included a photomultiplier coupled to a dc amplifier and a sensitive open-type electron multiplier. The metal filters were prepared by depositing the metal over an undercoating of potassium chloride on glass microscope slides. Several transmittance versus wavelength graphs are presented; many of the curves show effective cut-off in the 1200-Å region. Thus, by combining multipliers with different photocathodes with different metal filters one can obtain radiation detectors with different spectral characteristics. "The author is grateful to A.P.Naumov and O.G.Sokolova for assistance in the work." Orig.art.has: 3 figures.

ASSOCIATION: none

SUBMITTED: 28Jan63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: PH NR SOV REF: 003 OTHER: 004

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L 22344-66 EWT(d)/EWP(e)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(l) IJP(c) JD/WH
ACC NR: AP6013524 SOURCE CODE: UR/0120/66/000/002/0187/0190

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AUTHOR: Sorokin, O. M.; Dzhioyeva, D. I.

ORG: Leningrad State Optical Institute (Gosudarstvennyy opticheskiy institut)

TITLE: Measuring the thickness of thin films as they are produced in a vacuum

SOURCE: Pribory i tekhnika eksperimenta, no. 2, 1966, 187-190

TOPIC TAGS: measuring instrument, vacuum measurement, thin film

ABSTRACT: A portable instrument designed to control the thickness of thin films as they are produced is described. It is based on the change in resonant frequency of a crystal oscillator occurring while a thin film is deposited on a quartz crystal. The instrument contains two crystal oscillators which serve in turn either as measuring or comparing device. This doubles the operating frequency band and, consequently, the range of thicknesses which may be measured. A circuit was developed to separate the difference frequencies of the oscillators and to convert sinusoidal voltage into pulse voltage. This arrangement facilitates operation of a standard counting-rate meter. The transconductance of the instrument is about 3.6 cps/Å for gold, 1.7 cps/Å for silver, and 0.9 cps/Å for aluminum. Layers of these metals may be measured using this instrument with sensitivities of about 1, 2, and 4 Å respectively. Orig. art. has: 4 figures. [DW]

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GOL'DENBLAT, I.I. [author]; ODING, I.A.; SOROKIN, O.V. [reviewers].

"Introduction to the theory of creep in building materials." I.I.Gol'denblat. Reviewed by I.A.Oding, O.V.Sorokin. Sov.kniga no.8:42-43 Ag '53. (MLRA 6:8)

(Strength of materials) (Gol'denblat, I.I.)

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