BARANOV, B.K.

Choice of a system for regulating rectified voltage of electric locomotives with static converters. Sbor. nauch. trud. ElNII 3:93-103 '63. (MIRA 17:4)

TULUPOV, V.D., kand. tekhn. nauk; BARANOV, B.K., inzh.;
MINOV, D.K., doktor tekhn. nauk

Optimum automatic control system for regulating the traction power of rectifier locomotives. Elektrotekhnika 34 no.11:30-35 N '63. (MIRA 17:2)

BARANOV, B.K., inzh.

Voltage regulation on a.c.locomotives. Zhel.dor.transp. 46 no.12:43-45 D '64.

(MIRA 19:1)

BARANOV, B.K., inzh.; RUTSHTEYN, A.M., inzh.

Use of static electromatnetic systems for the rolling stock of electric railroads. Zhel. dor. transp. 46 no.1:31-33 Ja '64.
(MIRA 17:8)

BARANOV, Boris Mikhaylovich

[Practices of Kalinin flax growers] Opyt Kalininskikh l'novodov. Kalinin, Knizhnoe izd-vo, 1956. 193 p. (MIRA 11:2)
(Kalinin Province--Flax)

BARANOV, B. M.

"Experience of Operating Compensated Cable Networks of MKS (Moscow Cable Network) of Mosenergo," "Operation of Cables and Cable Networks" (Eksploatatsiya kabeley i kabel'nykh setey), collection of articles under editorship of I. A. Syromyatnikov, Gosenergoizdat, 1949, 384 pp.

BaRANOV, B.M., kandidat tekhnicheskikh nauk, dotsent.

Devices for rapid machining. [Izd] LONITOMASH 24:189-198 '51. (MIRA 8:2)

1. Ural'skiy politekhnicheskiy institut.
(Lathes--Accessories and attachments)

BARANOV, B. [M]

USSR/Radio - Television
Long-Distance Reception

Dec 51

"Long-Distance Reception of Television Transmissions," B. Baranov, G. Samoylov

"Radio" No 12, pp 44, 45

Describes expts conducted by the Moscow Admn of the Television Network on long-distance reception in Dmitrov (70 air-line km), Kimry (130 km), and Kaluga (170 km). A modified KVN-49(B) receiver and a 5-element (3 directors and a reflector) antenna were used in the expts. Reception was stable at

208T95

USSR/Radio - Television
(Contd)

Dec 51

Dmitrov but unstable at Kimry and Kaluga. Recommends continuation of expts, possibly with use of a large rhombic antenna and an addnl grounded-grid rf amplifier mounted directly on the antenna mast.

208T95

Subject : USSR/Electricity AID P - 1200

Card 1/1 Pub. 29 - 22/27

Author : Baranov, B. M.

Title : Testing of electric cables with a d-c rectified high-voltage. (Letters from readers)

Periodical : Energetik, 12, 31-32, D 1954

Abstract : In reply to a question from a reader, the author explains that in practical conditions testing is accomplished by the rectified condenser charging-current method with kenotrons or specially designed thermionic valves. For new cables for 1 to 10-kv the testing voltage applied is six-fold. The author explains details of the testing and its theory.

Institution : None

Submitted : No date

BARANOV, B M

SUBJECT: USSR/Luminescence 48-5-51/56

AUTHOR: Baranov B.M.

TITLE: Application of Luminescent Paints in the Theater (Primeneniye svetyashchikhsya krasok v teatre)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21, #5, pp 771-773 (USSR)

ABSTRACT: The first attempts to apply luminescent painting on the Soviet stage were based on the results obtained by the Leningrad Theatrical Laboratory and State Optical Institute.

Later on, a laboratory of luminescent decorative painting, headed by Mandel'berg, was established in Moskva.

In Leningrad the application of luminescent paints was developed by D.N. Lazarev.

The luminescent decorative painting became an inalienable part of theatrical decoration.

The author, being an artist, concluded his speech with a request to scientists, laboratories and industrial enterprises

Card 1/2

TITLE: Application of Luminescent Paints in the Theater (Primeneniye svetyashchikhsya krasok v teatre) 48-5-21/56

for suggestions as to improvement of theatrical illumination equipment and luminescent paints.
No references are cited.

INSTITUTION: Not indicated

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress.

Card 2/2

KOZLOV, V.A., inzhener.; AYZENBERG, B.I., kandidat tekhnicheskikh nauk.; BOBOVICH, L.I., inzhener.; ZAKHARZHEVSKAYA, Ye.G., inzhener.; BARANOV, B.M., inzhener.

Urgent problems in the theory of urban networks. Elektrichestvo no.3:77-80 Mr '57. (MLRA 10:4)

1. Leningradskaya kabel'naya set' (for Kozlov). 2. Leningradskiy inzhenerno-ekonomicheskiy institut im. Molotova (for Ayzenberg). 3. Uzbekenergo (for Bobovich, Zakharzhevskaya). 4. Moskovskaya kabel'naya set' (for Baranov).
(Electric networks)

BARANOV, Boris Mikhaylovich; POKLAD, Petr Grigor'yevich; SMIRNOV, Leonid Petrovich; FOMICHEV, Grigoriy Ivanovich; FRIDKIN, Iosif Aronovich; FAYERMAN, A.L., red.; BORUNOV, N.I., tekhn.red.

[Construction and use of cable lines] Sooruzhenie i ekspluatatsiia kabel'nykh linii. Moskva, Gos.energ.izd-vo, 1959. 542 p. (MIRA 13:3)

(Electric cables)

AVINOVITSKIY, I.Ya.: ALEKSEYEV, S.V.; BARANOV, B.M.; GEL'MAN, R.Ye.; DVOSKIN, L.I.; DOLGINOV, A.I.; YERMILOV, [illegible]; ZALESSKIY, Yu.Ye.; KAMENEVA, V.V.; KLIMIKSEYEV, V.N.; KLYAZEVSKIY, [illegible]; KUZNETSOV, P.V.; RIVKIN, G.A.; FEDOROV, A.A.; SERBINOVSKIY, G.V., red.; BOL'SHAM, Ya.M., red.; BRANDENBURGSKAYA, E.Ya., red.; VORONIN, K.P., tekhn. red.

[Manual for power engineers of industrial enterprises in four volumes] Spravochnik energetika promyshlennykh predpriiatii v chetyrekh tomakh. Moskva, Gosenergoizdat. Vol.1. [Electric power supply] Elektrosnabzhenie. Pod obshchei red. A.A.Fedorova, G.V. Serbinovskogo i IA.M.Bol'shama. 1961. 840 p. (MIRA 15:6)
(Electric engineering)

34790

S/081/62/000/003/070/090
B149/B101

11.0132

AUTHORS: Tereshchenko, Ye. K., Tarakyshkin, M. Ye., Turov, A. I., Orlov, V. A., Aramov, B. N.

TITLE: Thermal stability and corrosive activity of sulfur-containing fuels at elevated temperatures

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 489, abstract 3M143 (Sb. "Khimiya seraorgan. soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh. v. 4"., M., Gostoptekhizdat, 1961, 31 - 335)

TEXT: The following fuels were investigated: standard TC-1 (TS-1), TS-1 purified by hydrotreating, TS-1 with high mercaptan content, and a T-2(T-2) type fuel from a wide fraction containing components of thermal cracking. The thermal stability and corrosive activity of the sulfur-containing fuels were studied under static conditions in a bomb; and also when the fuel was pumped through a filter and through an actual fuel system of a motor. It was shown that of the fuels investigated, T-2 containing cracking components and TS-1 with a high mercaptan content had the lowest thermal stability at

Card 1/2

Thermal stability and ...

S/081/62/000/003/070/090
B149/B101

100°C. Pumping of these fuels at the temperature mentioned results in rapid clogging of the filter and is accompanied by the formation of a deposit on the fuel-utilizing components of the unit. TS-1 with a high content of mercaptans (0.03%) had the highest corrosive activity; T-2 had low corrosive activity. TS-1 purified by hydrotreating had the best thermal stability and insignificant corrosive activity. It was shown that hydrotreating during the production of fuels of the TS-1 type resulted in considerably higher thermal stability and in lowered corrosive activity of fuels obtained from Eastern petroleums. [Abstracter's note: Complete translation.]

Card 2/2

BARANOV, B.M., inzh.

Tests in the preventative maintenance of the insulation of cable networks. Elek. sta. 32 no.2:55-59 F '61. (MIRA 16:7)
(Electric cables--Testing)
(Electric insulators and insulation--Testing)

BARANOV, B.M., inzh.; KUZNETSOV, K.S., inzh.; MIRER, G.V., inzh.; PEREPELITSKIY, S.G.

Concerning the loads on the electric network caused by housing construction work in Moscow. Elek. sta. 32 no. 5:57-62 My '61. (MIRA 14:5)

(Moscow--Electric power distribution)

LINDORF, L.S.; FUFURIN, P.N.; ULITSKIY, M.S.; USTINOV, P.I.; ZEYLIDZON, Ye.D.; MININ, G.P.; KOTS, A.Ya.; KHAVIN, N.Z.; MURAVLEVA, N.V.; LIBERMAN, A.Ya.; BARANOV, B.M.; ZVENIGORODSKIY, I.S.; IVANOV, V.S.; IOFFE, F.Ye.; BURLAKOV, B.M.; MIRENBURG, L.A.; FAYERMAN, A.L., red.; BORUNOV, N.I., tekhn. red.

[Study manual on the technical operation of electric networks and power plants; electrical section of electric power plants and electric power distribution networks]Posobie dlia izucheniia pravil tekhnicheskoi ekspluatatsii elektricheskikh stantsii i setei; elektricheskaia chast' elektrostantsii i elektricheskie seti. Moskva, Gosenergoizdat, 1962. 558 p. (MIRA 15:8)

(Electric power plants--Handbooks, manuals, etc.)
(Electric power distribution--Handbooks, manuals, etc.)

LINDORF, L.A.; FUFURIN, N.P.; ULITSKIY, M.S.; USTINOV, P.I.; ZEYLIDZON, Ye.D.; MILIN, G.P.; KOTS, A.Ya.; KHAN, N.Z.; MURAVLEVA, N.V.; LIBERMAN, A.Ya.; BARANOV, B.M.; ZVENIGORODSKIY, I.S.; IVANOV, V.S.; IOFFE, F.Ye. [deceased]; BURLAKOV, B.M.; MIRENBURG, L.A. [deceased]; FAYERMAN, A.L., red.

[Aid for studying engineering regulations governing the operation of electric power plants and networks] Posobie dlia izucheniia pravil tekhnicheskoi ekspluatatsii elektricheskikh stantsii i setei. Izd.2., peresmotrennoe. Moskva, Energiia, 1965. 551 p. (MIRA 18:6)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy proizvodstvennyy komitet po energetike i elektrifikatsii.

BARANOV, Boris Mikhaylovich; POKLAD, Petr Grigor'yevich; SMIRNOV, Leonid Petrovich; FOMICHEV, G.I.; FRIDKIN, I.A.; FEDOSENKO, R.Ya., nauchn. red.; SHUMILOVA, Ye.M., red.

[Construction and operation of municipal cable networks] Sooruzhenie i ekspluatatsiia gorodskikh kabel'nykh setei. Moskva, Vysshaia shkola, 1965. 321 p. (MIRA 18:7)

L 7955-65 EWT(l)/EWA(h)

ACC NR: AP5025748 SOURCE CODE: UR/0286/65/000/018/0095/0095

AUTHORS: Zakharenko, A. S.; Baranov, B. M.; Petrov, V. G.

ORG: none

TITLE: Phase sensitive amplifier. Class 42, No. 174859 [announced by State Committee for Radio Electronics, SSSR (Organizatsiya gosudarstvennogo komiteta po radioelektronike SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 95

TOPIC TAGS: transistorized amplifier, solid state amplifier

ABSTRACT: This Author Certificate presents a phase-sensitive ac amplifier made of semiconductor elements with negative feedback according to the quadrature component for slave systems with reactive detectors. To decrease the rise time and power requirement, a linear bridge of four stabilitrons is connected in the amplifier feedback circuit. The end of the bridge diagonal, which is connected to the junction of the stabilitron cathodes, is connected through a resistor and capacitor to ground. The other end, which is connected to the junctions of the

Card 1/2

UDC: 681.14

L 7955-66

ACC NR: AP5025748

stabilitron anodes, is connected through a resistor to the amplifier power supply to obtain a constant reference bias current and to the base of the amplifier stage. The other diagonal is connected at one end to the phase-sensitive rectifier of the quadrature component of the amplifier output signal to unbalance the bridge according to the variable current. The other end is connected to the signal source of the variable current in phase with the quadrature component.

SUB CODE: EC/ SUBM DATE: 23Jul64

EC

Card 2/2

BARANOV, B.N.; PAVLOVICH, I.P.

Configuration statistics of high-molecular chains. Dokl. AN SSSR 157 no.5:1077-1079 Ag '64. (MIRA 17:9)

1. Predstavleno akademikom N.N. Bogolyubovym.

ACCESSION NR: AP4043830 S/0020/64/157/005/1077/1079

AUTHOR: Baranov, B. N.; Pavlotskiy, I. P.

TITLE: On the configuration statistics of high polymer chains

SOURCE: AN SSSR. Doklady*, v. 157, no. 5, 1964, 1077-1079

TOPIC TAGS: statistical analysis, polymer chain, configuration integral, polymeric structure

ABSTRACT: A method is presented for accurately calculating the configuration integral of high-molecular chains for potentials that depend only on the differences between the spatial angles between the planes passing through pairs of neighboring links. An approximate calculation of the integral was given by R. Kubo (J. Phys. Soc. Japan, v. 2, 47, 1947). In addition, the authors consider a plane polymer chain of the type analyzed by S. Ye. Bresler and Ua. I. Frenkel' (ZhETF, v. 9, 1094, 1939). "The authors thank A. B.

Card 1/2

ACCESSION NR: AP4043830

Almazov and G. F. Liman for many valuable remarks, and N. N. Bogolyubov and S. V. Tyablikov for interest in the work and for a discussion of the results." This report presented by N. N. Bogolyubov. Orig. art. has: 2 figures and 8 formulas.

ASSOCIATION: None

SUBMITTED: 25Mar64 ENCL: 00

SUB CODE: GC NR REF SOV: 002 OTHER: 002

Card 2/2

BARANOV, B.N. (Moskva); PAVLOTSKIY, L.P. (Moskva)

Self-consistent potential of a dense low-temperature plasma. PMTF no. 6:13-18 N-D '63. (MIRA 17:7)

Baranov, B.P.

25(1)

PHASE I BOOK EXPLOITATION SOV/2050

Svarka sbornik statey, [vyp.] 1 (Welding; Collection of Articles, Nr 1) Leningrad, Sudpromgiz, 1958. 246 p. 4,000 copies printed.

Resp. Ed.: G. I. Kapyrin, Candidate of Technical Sciences; Ed.: I. A. Zhirmunskaya; Tech. Ed.: K. M. Volchok.

PURPOSE: This collection of articles is intended for use in research institutes, institutes of higher learning, design offices, and plants.

COVERAGE: These technical papers deal with the results of research in welding technology. The main purpose of this work was to investigate the effects of various welding regimes and heat treatments on the mechanical properties of welds of austenitic and perlitic composition. A number of experiments also dealt with the welding properties and weldability of titanium-base alloys and a number of nonferrous metals. One of the objects of the research was to establish the relationship between the geometry of the weld seam and its physical properties. The crystallization of the weld, its mechanical properties, and the various factors affecting the grain structure of the metal were studied by a number of scientists. Of special practical interest is the study of the behavior of a welded structure in which the elasticity of the material and of the welded joint are not within the same range. These considerations lead to experiments with mechanically induced changes in the properties of the weld seam. Another problem which presents many difficulties in welding is the behavior and changes in the heat-affected zone next to the welded joint. One of the papers deals with experiments in this field. A description is given of the equipment and the technique used in electroslag welding, which is regarded as one of the major advances in modern welding technology. Several papers deal with welding techniques of nonferrous alloys and with the use of special fluxes for this work. Most of the papers are profusely illustrated with graphs, diagrams, and photographs. References are given after each article.

TABLE OF CONTENTS:

Welding (Cont.) SOV/2050

Card 4/6

BARANOV, B.P., inzh.; KOZLOV, R.A.

Effect of the kind of current used on the quality of automatically welded joints. Svarka 1:86-94 '58. (MIRA 12:8)
(Electric welding--Equipment and supplies)
(Welding--Testing)

BYKANOV, B. S.

"Study of the Process of Briquetting of Straw with the Purpose of Using Briquets as a Power Source in Agriculture." (Dissertation for Degree of Candidate of Technical Sciences) Joint Learned Council of the All-Union Sci Res Inst of Mechanization of Agriculture (VIM) and the All-Union Sci Res Inst of Electrification of Agriculture (VIESh), Moscow, 1955

SO: M-1036 23 Mar 56

BARANOV, B.V.; GORYUNOVA, N.A.

Production of homogeneous solid solutions in the system AlSb - InSb. Fiz. tver. tela 2 no.2:284-287 F '60. (MIRA 14:8)

1. Fiziko-tekhnicheskiy institut AN SSSR, Leningrad.
(Solutions, Solid) (Aluminum antimonide)
(Indium antimonide)

ACC NR: AR6030494 SOURCE CODE: UR/0275/66/000/006/B014/B014

AUTHOR: Goryunova, N. A.; Baranov, B. V.; Grigor'yeva, V. S.; Kradinova, L. V.; Kryukova, I. V.; Prochukhan, V. D.

TITLE: Production and investigation of GaP--GaAs and GaAs--InAs solid solutions

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 6B93

REF SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 7-8

TOPIC TAGS: single crystal growing, semiconductor crystal, solid solution

ABSTRACT: Single crystals from solid solutions of GaP--GaAs and GaAs--InAs systems were grown by the method of gas-transport reactions in a closed space. Effects of vaporization-zone temperature, crystallizer temperature, temperature difference between the cold and hot zones, geometric factors, and chemical nature were investigated. Also the problems of crystal doping in gas-transport reactions were clarified. GaP--GaAs and GaAs--InAs single crystals were produced in a wide concentration range. Optimal conditions for producing single crystals of desirable habitus were found. A possibility of doping single crystals in the gas-transport reaction was found. Some electric properties of single crystals were measured. N. G. and others. [Translation of abstract]

SUB CODE: 20

Card 1/1

UDC: 621.315.592.4:541.412

24.7500
9.4300

81775
S/181/60/002/02/17/033
B006/B067

AUTHORS: Baranov, B. V., Goryunova, N. A.

TITLE: Preparation of Homogeneous Solid Solutions in the System AlSb - InSb

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 2, pp. 284-287

TEXT: On their search for new semiconducting materials with optimum electrical parameters the authors report on investigations of solid solutions of the system AlSb-InSb; the first component shows a considerable width of the forbidden band, the second one high carrier mobility. The first experiments showed that no homogeneous solid solutions of this system could be obtained by ordinary methods. The results of attempts of homogenizing the alloys are discussed in the following. Table 1 indicates the purity of the initial substances. The alloys were synthesized in closed graphite crucibles which had been boiled in concentrated nitric acid, washed in distilled water, and heated at 1100°C. The crucibles with the substance were put into quartz ampoules filled with spectrally pure argon, heated up to 1100°C, and then slowly cooled in

Card 1/3

Preparation of Homogeneous Solid Solutions in the System AlSb - InSb

81775
S/181/60/002/02/17/033
B006/B067

the furnace. The alloy obtained was coarsely crystalline (Fig. 2), and the X-ray pictures showed broad bands corresponding to the nonequilibrium solid solution. After a tempering for 120 to 500-700 hours between 540 and 600°C small dark crystals were observed (Figs. 5, 6), and the X-ray pictures showed line systems indicating a change in the lattice parameters (Fig. 8, Table 2). Heating above 600°C led to volatilization of antimony, a prolonged heating did not improve the homogenization. Further investigations showed that the microhardness of the visible crystal deviated essentially from the microhardness of the two components (e.g., 800 kg/mm^2 - AlSb: 420, InSb: 220 kg/mm^2). The authors explain this by the fact that the presence of an eutectic in the alloys is connected with the formation of aluminum carbide. The homogeneous solid solutions obtained also showed higher corrosion resistance. In contrast to the non-homogenized samples which easily decompose in air or water, the homogenized samples were not affected by air and water even over a longer period. Also a treatment with 0.01 N HCl for 500 hours did not etch the surface of the homogenized samples; 0.1 N HCl had no noteworthy influence on corrosion resistance. Hence, the authors succeeded in

Card 2/3

81775

Preparation of Homogeneous Solid Solutions in the System AlSb - InSb

S/181/60/002/02/17/033
B006/B067

obtaining solid solutions by tempering with subsequent cooling at a temperature which was much higher than the melting point of the most easily meltable component. In conclusion, the authors thank Professor D. N. Nasledov for discussions and his interest in this work. There are 10 figures, 2 tables, and 9 references: 3 Soviet, 5 German, and 1 British.

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

SUBMITTED: May 13, 1959

Card 3/3

BARANOV, B.V. (Moskva)

Acceleration of a conductive gas by a traveling magnetic field. Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.4:14-18 Jl-Ag '60.

(Magnetohydrodynamics) (MIRA 13:8)

L 12105-66 EWT(l)/EWP(e)/EWT(m)/EWP(t)/EWP(b) LJP(c) JD

ACC NR: AP6001663 SOURCE CODE: UR/0051/65/019/006/0987/0989

AUTHOR: Baranov, B. V.; Oksman, Ya. A.; Prochukhan, V. D.; Smirnov, V. N.

ORG: none

TITLE: High-frequency electroluminescence of polycrystalline boron phosphide

SOURCE: Optika i spektroskopiya, v. 19, no. 6, 1965, 987-989

TOPIC TAGS: electroluminescence, boron compound, phosphide, crystal property

ABSTRACT: The authors note that the use of high-frequency excitation of electroluminescence is of particular interest in the study of high-temperature crystals of the type A_3B_5, since the quality of the crystals and technological difficulties often make it difficult to obtain p-n junctions on these crystals, with the result that observation of injected electroluminescence is complicated. Such material includes, in particular, boron phosphide, information on the properties of which is as yet extremely limited. A study was made of the high-frequency electroluminescence of BP in order to determine and assess methodological possibilities and to obtain information regarding emission-related processes taking place in this material. It was determined that BP dissolves in a Cu_3P melt. The basic admixtures in the BP crystals were Cu and Si, with traces of Cr and Mg. Figures are given illustrating the dependence of the integral intensity of electroluminescence on the amplitude of the HF field intensity, averaged

Card 1/2

UDC: 535.376

L 12105-66

ACC NR: AP6001663

for volume, and also the spectral distribution of HF electroluminescent emission. Observations of photoconductivity by a no-contact method revealed that the set-up time of photocurrent in the samples considered was in the order of several seconds, indicating a high concentration of traps. Orig. art. has: 2 figures.

SUB CODE: 07, 20 / SUBM DATE: 19May65 / ORIG REF: 002 / OTH REF: 003

Card 2/2

ACC NR: AP6030610 (A, N) SOURCE CODE: UR/0413/66/000/016/0101/0101

INVENTOR: Goryunova, N. A.; Baranov, B. V.; Prochukhan, V. D.

ORG: none

TITLE: A method of growing boron-phosphide single crystals. Class 40, No. 185087 [announced by the Physicotechnical Institute im. A. F. Ioffe (Fiziko-tekhnicheskiy institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 101

TOPIC TAGS: single crystal growing, boron, phosphide, single crystal, boron phosphide crystal growing

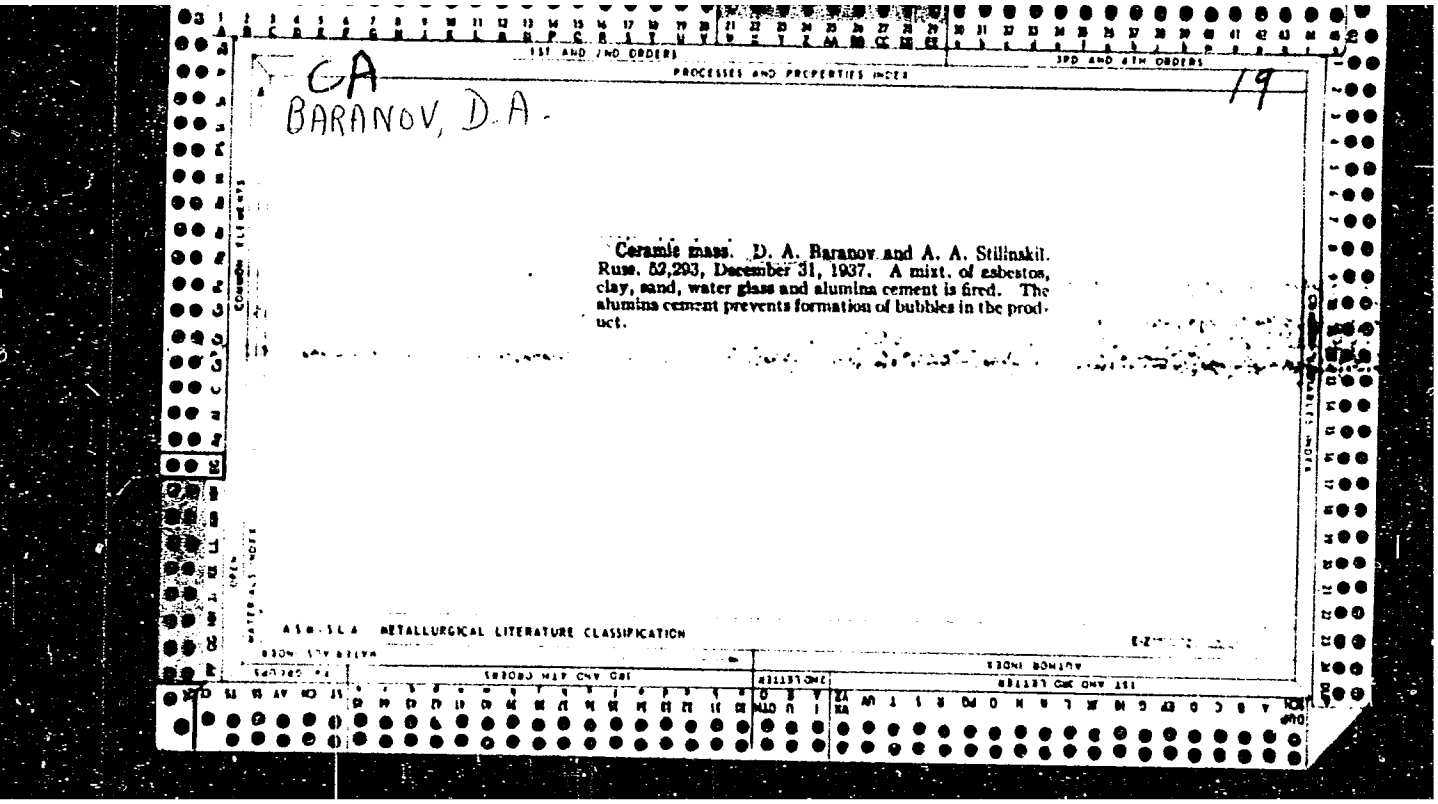
ABSTRACT: This Author Certificate introduces a method of growing boron-phosphide single crystals. Growing seeds at lowered temperature of the melt is combined with growing single crystals from the seeds at a temperature gradient in the melt. In order to obtain single crystals large enough for practical use, the crystals are grown in a BP-Cu_3P-system melt. [WW]

SUB CODE: 11/ SUBM DATE: 08Mar65/ ATD PRESS: 5076

Card 1/1 UDC: 546.181.1

BARANOV, D.; SOKOLOVSKIY, A. (Karaganda)

Problems of reducing costs. Vop. ekon. no.3:154-155 Mr '61.
(MIRA 14:3)
(Karaganda Province—Costs, Industrial)



CA

BARANOV, D.A.

19

Ceramic mass. D. A. Baranov and A. A. Stilinskil. Russ. 52,293, December 31, 1937. A mixt. of asbestos, clay, sand, water glass and alumina cement is fired. The alumina cement prevents formation of bubbles in the product.

BARANOV, Dmitriy Andrianovich; TRIFSIK, G.B., red.

[Theory of amortization and technological progress]
Teoriia amortizatsii i tekhnicheskii progress. Moskva, Ekonomika, 1965. 123 p. (MIRA 18:8)

BARANOV, D. I., jt. au.

Navigational directions for the Oka River Moskva, Izd-vo Narkomrechflota SSSR, 1943. 99 p. (50-21377)

VK997.O5B5

AUTHORS: Levchenko, M. I., Kondakova, M. N., Vinogradov, N. A., Baranov, D. I. SOV/72-59-11-14/15

TITLE: Apparatus for the Production of Bent Glass (Ustanovka dlya proizvodstva gnutogo stekla)

PERIODICAL: Steklo i keramika, 1958, Nr 11, pp 44-46 (USSR)

ABSTRACT: The apparatus was developed and introduced by a group of engineers in the Gusevskiy Factory. It consists mainly of an electro-furnace (see figure). The mount for molding (mollirovaniye) possesses the desired form for the bent glass and is constructed of heat-resistant steel. It is fastened to a slide, which can be moved along rails in the furnace. On this molding form bent wind shields for the "Volga" and "Moskvich" automobiles are produced. The glass packets are prepared in regard to size and strength, and are exactly aligned and attached securely to the slide, and then is introduced into the furnace through a fore-hearth of the furnace. At a furnace temperature of 590-620° the glass becomes deformed and assumes the shape of the molding form. This process lasts 6 to 8 minutes and can be

Card 1/2

watched through an aperture in the furnace door. Afterward the glass is allowed to stand at the open furnace door for about 4 minutes, and then it is removed from the furnace and allowed to cool completely. After cleaning and testing the glass objects are brought to the factory for the assembly. The glass for the"Moskvich" automobiles is further hardened on a formed blast grill beside the furnace. There is 1 figure.

ASSOCIATION: Gusevskoy stekol'nyy zavod imeni Dzerzhinskogo
(Gusevskoy Glass Works imeni Dzerzhinskiy)

BARANOV, D.I.; SEMKIV, V.I.

Reservoir rock properties of the Lower Cretaceous prospecting areas in Turkmenistan. Trudy Turk. fil. VNII Part 2 no.6 p21-29 '63
(MIRA 17:7)

BARANOV, Dmitriy Petrovich; KIRZHNER, D.M., nauchnyy redaktor; KONTSEVAYA, E.M., redaktor; OSTRIROV, N.S., tekhnicheskiy redaktor

[Progressive methods of working longwalls with coal cutter-loaders] Peredovye metody raboty v kombainovykh lavakh. Moskva, Vsesoiuznoe uchebno-pedagog. izd-vo Trudrezervizdat, 1954. 55 p. (MLRA 8:3)
(Coal-mining machinery) (Coal mines and mining)

BARANOV, D.S.

Designing multichannel strain-measuring units for simultaneous observation and registration of a sequence of processes. [Izd.] IONITOMASH 51:79-91 '59. (MIRA 12:12)
(Strain gauges)

BARANOV, D.S., inzh.; TAKHTAMYSHEV, S.G., kand.tekhn.nauk, nauchnyy red.; SOKOLOV, N.I., tekhn.red.

[Measuring instruments, methods, and some results of studies on the distribution of pressure in sand] Izmeritel'nye pribory, metodika i nektotorye rezul'taty issledovaniia raspredeleniia davlenii v peschanom grunte. Moskva, 1959. 60 p. (Akademiia stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. Nauchnoe soobshchenie, no.6) (MIRA 12:9)
(Sand) (Dynamometer) (Soil mechanics)

BARANOV, D.S.

Errors in measuring pressures in soils. Osn., fund.i mekh.grun. 4 no.2:21-23 '62. (MIRA 15:8)
(Earth pressure--Measurement)

BARANOV, D.S.

The precision of the measurement of lateral pressure in triaxial apparatus. Osn., fund. i mekh. grun. 4 no.6:26-27 '62.
(MIRA 16:1)

(Soils--Testing)

BARANOV, D. S., inzh.

Choosing the basic parameters of soil dynamometers from conditions of the least distortion of the pressures being measured. Trudy TSNIISK no.14:40-84 '62. (MIRA 15:10)

(Dynamometer) (Earth pressure)

BARANOV, D. S., inzh.

Electronic 24-channel line strain gauge. Trudy TSNIISK no.14: 85-95 '62. (MIRA 15:10)

(Strain gauges)

KOSSOV, V.V.; BARANOV, E.F.; VOLODIN, L.N.; LEYDKIND, Yu.R.; MIKHALEVSKIY, B.N.; SUVOROV, B.P.; DETNEVA, E.V.

[The interbranch balance of production and production distribution of an economic region] Mezhotraslevoi balans proizvodstva i raspredeleniia produktsii ekonomicheskogo raiona. Moskva, Izd-vo "Nauka," 1964. 209 p. (MIRA 17:5)

1. Akademiya nauk SSSR. TSentral'nyy ekonomiko-matematicheskiy institut.

21(1), 11(6)

AUTHOR: Baranov, E. N.

SOV/89-5-6-19/25

TITLE: On the Nature of the Reddening of Rock Inclusions of the Hydrothermal Deposits of Uranium (O prirode pokrasneniya vmeshchayushchikh porod gidrotermal'nykh mestorozhdeniy urana)

PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 6, pp 662-663 (USSR)

ABSTRACT: On the strength of a thorough investigation of a Soviet uranium deposit and the data available in publications, it may be said that reddening is probably due to the following causes:

1) Radioactivity of the uranium
2) Oxidation of iron
3) Radiation-chemical reactions in the hydrothermal solutions containing uranium.

It was found that free H, OH, H_2O_2, and H_2O - radicals were experimentally confirmed as occurring in various processes of the gaseous phase. The formation of H_2 and H_2O in the liquid phase has also been experimentally confirmed. Under the influence of γ-radiation strong oxidizing agents (OH, HO_2, H_2O_2) and reducing agents (H) are thus formed in water

Card 1/3

and in the aqueous solutions. If, therefore, the irradiated solution contains elements with varying valence, various oxidation- and reduction processes occur.
The oxidation of iron may take place according to the following scheme:

$$3\ Fe^{2+} + HO_2 + 3H^+ \longrightarrow 3\ Fe^{3+} + 2H_2O \quad \text{or}$$

$$4\ Fe^{2+} + O_2 + 4H^+ + H_2O \longrightarrow 4Fe^{3+} + 3H_2O \quad \text{or}$$

$$2\ Fe^{2+} + He^3 \longrightarrow 2Fe^{3+} + He\ .$$

Hydrothermal uranium and solutions containing its metabolons are enriched with products of water-radiolysis. These and other components of hydrothermal solutions reach the inclusions in the rock through percolating water, where they oxidize the acidified iron and remove it from dark-colored minerals. If uranium is present in the solution in an ionized state, it also volatilizes into the inclusions in the rock and in this way causes oxidation of the iron. If uranium

occurs in colloidal form in the solution, it does not penetrate into the inclusions. This is the case only with radiolyzed water products.
As a consequence of oxidation and following hydrolysis, the iron is precipitated as hematite or hydroxide. It forms extremely fine colloidal particles which settle in the microflaws of the rock. There are 5 references, 4 of which are Soviet.

SUBMITTED: June 5, 1958

BARANOV, E.N.; VERTEPOV, G.I.; GLADYSHEV, G.D.

Wall rock alternations of a uranium deposit. Geol.rud.mestorozh. no.6:33-45 N-D '62. (MIRA 15:12)
(Metamorphism (Geology))
(Uranium ores)

BARANOV, E.N.

Martite aureoles of uraninite in [illegible]. Zap.Vses.min.ob-va 92 no.1: 91-93 '63. (MIRA 16:4)

(Mineralogy

YANISHEVSKIY, Ye.M.; GRIGORYAN, S.V.; BARANOV, E.N.; VERTEPOV, G.I.; KABLUKOV, A.D.; FEDOTOVA, A.I., red.izd-va; BYKOVA, V.V., tekhn. red.

[Endogenic dispersion holes of some hydrothermal deposits] Endogennye oreoly rasseianiia nekotorykh gidrotermal'nykh mestorozhdenii. [By]E.M.IAnishevskii i dr. Moskva, Gosgeoltekhizdat, 1963. 121 p. (MIRA 16:3)
(Geochemical prospecting) (Ore deposits)

SOCHEVANOV, N.N.; KABLUKOV, A.D.; MARANOV, E.K.; NOGOLYUBOV, A.N.; VERTEPOV, G.I.; GRIGORYAN, S.V.; MAYOROVA, Ye.A.; RAZUMOVSKIY, N.K.; TULIN, V.N.; YANISHEVSKIY, Ye.M.; SOLOVOV, A.I., red.

[Using dispersion halos and accompanying elements in prospecting for hydrothermal uranium deposits; methodological handbook] Ispol'zovanie oreolov rasseianiia urana i elementov-sputnikov pri poiskakh i razvedke gidrotermal'nykh uranovykh mestorozhdenii; metodicheskoe rukovodstvo. Moskva, Nedra, 1964. 194 p. (MIRA 17:9)

1. Russia (1923- U.S.S.R.) Geologicheskiy komitet.

AM5002725 BOOK EXPLOITATION UR/

Kablukov, A. D.; Sochevanov, N. N.; Baranov, E. N.; Bogolyubov, A. N.; Vertepov, G. I.; Grigoryan, S. V.; Mayorova, Ye. A.; Razumovskiy, N. K.; Tulin, V. N.; Yanishevskiy, Ye. M.; comps.

Use of diffusion aureoles of uranium and associated elements in prospecting and surveying for hydrothermal uranium deposits; methodologic handbook (Ispol'zovaniye oreolov rasseyaniya urana i elementov-sputnikov pri poiskakh i razvedke gidrotermal'nykh uranovykh mestorozhdeniy; metodicheskoye rukovodstvo) Moscow, Izd-vo "Nedra", 1964. 194 p. illus., biblio., append. 2350 copies printed. (At head of title: Gosudarstvennyy geologicheskiy komitet SSSR). Managing editor: for the publishing house: F. N. Chumakova; Technical editor: T. M. Shmakova; Proofreader: A. A. Sivakova

TOPIC TAGS: geochemical prospecting, hydrothermal uranium deposit, primary uranium diffusion aureole, radiometric anomaly, secondary uranium diffusion aureole, uranium ore deposit

PURPOSE AND COVERAGE: The purpose of this handbook is to describe the laws governing the distribution of uranium and associated elements in the indigenous rocks

Card 1/3 UDC: 553.495:552.142

AM5002725

around hydrothermal uranium-ore bodies and in the river deposits above them; to demonstrate the possibility, the role, and the place of geochemical methods in solving such problems; and to describe the results of work on the development of primary and secondary diffusion aureoles of uranium and its associated elements. In addition to their own work, the authors used data from A. G. Vetrov, N. A. Voroshilov, V. S. Golubov, O. D. Gorbunov, M. Ya. Dar, V. M. Konstantinov, M. V. Kutenkov, L. T. Mishin, Ye. A. Sizov, and others. Most of the spectral and luminescent analyses were performed by L. F. Davydova, Yu. T. Donets, B. M. Yeloyev, E. V. Mozolevskaya, and R. V. Timofeyeva.

TABLE OF CONTENTS:

Card 2/3

AM5002725

SUB CODE: 08 /SUBM DATE: 09Jul64 /SOV REF:084 /OTH REF:011

Card 3/3

L 11172-63 EPF(c)/EPR/EWP(j)/EWT(m)/BDS--Ps-4/Pr-4/Pc-4--RM/WW/JW

ACCESSION NR: AP3002796 S/0051/63/014/006/0827/0829

AUTHOR: Kholmogorov, V. Ye.; Baranov, E. V.

TITLE: EPR spectra of the products of photo-oxidation of diphenylamine in frozen solutions at 77°K

SOURCE: Optika i spektroskopiya, v. 14, no. 6, 1963, 827-829

TOPIC TAGS: photo-oxidation of diphenylamine, electron paramagnetic resonance, absorption

ABSTRACT: The purpose of the work was to investigate the products of photo-oxidation of diphenylamine (DPA) in different solvents at 77°K; the solvents used were a 2 to 1 alcohol-ether mixture, toluene (toluene solutions were also used at 20°) and sulfuric acid. The concentrations were 10 sup -2 mole/liter. The absorption spectra were recorded on an SF-2 spectrophotometer; the electron paramagnetic resonance spectra on a RE-1301 radiofrequency spectrometer. The solutions were not outgassed. Quartz containers were employed. Comparison of the absorption and EPR spectra of the colored products of DPA photo-oxidation made it possible to identify unambiguously a number of free radicals and ions. There were repeated the experiments of G. N. Lewis and D. Lipkin (J. Am. Chem. Soc., 64, 2801, 1942)

Card 1/2

L 11172-63
ACCESSION NR: AP3002796

3

which showed that a DPA solution in alcohol-ether mixture acquires a purple color, which weakens with further irradiation; the solution gradually turns green (peak at 690 mmicrons); its blue phosphorescence fades and white fluorescence appears. The EPR spectra disclose the presence of ethanol radicals. Lewis and Lipkin identified the substance absorbing at 690 mmicrons as the DPA ion; the present measurements confirm this and indicate that the absorption at 460 mmicrons is due to the diphenylnitrogen radical. The EPR spectra are reproduced and described. "The authors are grateful to A. N. Terenin, under whose guidance the work was performed, and to Ye. I. Kotov for supplying the aluminosilicate catalysts with adsorbed DPA." Orig. art. has: 1 figure.

1

ASSOCIATION: none

SUBMITTED: 11Jan63	DATE ACQD: 15Jul63	ENCL: 00
SUB CODE: 00	NO REF SOV: 006	OTHER: 002

Card 2/2 lb/wm

S/020/62/146/001/014/016
B101/B144

AUTHORS: Baranov, E. V., Kholmogorov, V. Ye., Terenin, A. N., Academician

TITLE: Photoinduced epr signals in zinc oxide

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 146, no. 1, 1962, 125 - 128

TEXT: ZnO samples were exposed to ultraviolet or visible light in vacuo or in air at room temperature or at 77°K and the epr signals were measured. Results: (1) ZnO not annealed and ZnO annealed in air at 500°C showed no epr signals at 20°C either in the dark or when exposed to light. (2) Irradiation at 77°K produced a line with $g = 1.964$ (line I), $\Delta H = 4.5$ oersteds, and a line with $g = 2.018$ (line II), $\Delta H = 3.0$ oersteds, both in air and in vacuo. Both lines are preserved at 77°K in the dark, but disappear at 20°C in the sample illuminated in air. (3) In vacuo, line II disappears and line I becomes weaker. The effect is repeatable. (4) At 77°K, the epr signals occur not only on irradiation with $\lambda = 365$ mμ, but also on irradiation with visible light; their intensity, however, decreases if the wavelength increases. (5) ZnO which had been in a

Card 1/2

Photoinduced epr signals...

10^{-4} mm Hg vacuum at 20°C for 2 hrs gave no signal in the dark but an intensive line I with ΔH = 7.5 oersteds on illumination; the conductivity of the sample increased. (6) ZnO annealed at 450°C in vacuo and not illuminated gave an intensive line I, ΔH = 7.5 oersteds, the conductivity increasing strongly. Oxygen supplied at 10^{-3} mm Hg reduced the signal intensity. (7) Contact of O_2 with ZnO heated to 100-250°C produced an intensive signal with g = 2.004 (line III). Adsorption of O_2 at 20°C gave an asymmetric signal with $g_\perp$ = 2.003, $g_\parallel$ = 2.008. An increase of p_{O_2} from 10^{-3} to 100 mm Hg made line I disappear. Conclusions: Line I corresponds to photodesorption of O_2 from the ZnO surface. Line III corresponds to chemisorption of atomic oxygen having an unpaired electron. The cause of line II remains unexplained. Preliminary experiments have shown that epr signals are also produced on addition of organic dyes whose spectral absorption range is different from that of ZnO. There are 2 figures and 1 table.

SUBMITTED: April 20, 1962

Card 2/2

S/020/63/149/001/021/023
B101/B144

AUTHORS: Kholmogorov, V. Ye., Baranov, E. V., Terenin, A. N., Academician

TITLE: Study of the sensibilization of photo-dehydrogenation of alcohols at 77°C using the epr method

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 1, 1963, 142-145

TEXT: On taking the epr spectrum of the photo reaction that attends the stripping of one electron from aromatic amines at 77°K in alcohol-ether solution, (this reaction occurring under the effect of $\lambda\lambda < 313$ mμ) an intensive formation of alcohol radicals was observed at UV wavelengths $\lambda\lambda > 334$ mμ. This effect was studied in 10^{-3} - 10^{-1} mole/l solutions of aniline, diphenyl amine, triphenyl amine, carbazole, fluorene and naphthalene in methanol, ethanol, i-propanol, n-butanol, and i-butanol at 77 and 90°K. Results: When the solvents alone were irradiated with UV light at 77 or 90°K, merely small amounts of radicals characteristic of the respective alcohol formed. In the presence of aromatic amines and of carbazole 10^{-4} - 10^{-3} mole/l radicals formed within a few seconds. The epr

Card 1/2

Study of the sensibilization of ...

spectra showed that the radicals are formed by the knocking-out of one H atom in α position. The radicals are unstable and their spectrum changed in the dark when the temperature was increased. When the solution was not degassed, peroxide radicals formed at 90°K. Presumably photo-dehydrogenation of alcohols is caused by excitation of the singlet level of the amines and the carbazole, which turns into the phosphorescent triplet state. This could be proved by selective desactivation of the triplet state by naphthalene. Naphthalene solution in itself did not phosphoresce at 77°K. In the presence of triphenyl amine or carbazole, intensive phosphorescence sets in and alcohol radicals form, but only 20 % of the quantity observed in the absence of naphthalene. There are 3 figures and 2 tables.

SUBMITTED: December 11, 1962

Card 2/2

KHOLMOGOROV, V.Ye., BARANOV, E.V.; TERENIN, A.N., akademik

Role of the triplet state of aromatic amines in the photochemical reaction of dehydrogenation of alcohols at 77°K. Dokl. AN SSSR 152 no.6:1399-1402 O '63. (MIRA 16:11)

BARANOV, E.V.; AKIMOV, I.A.

Photoconductivity of photographic layers at 10^{10} cycle frequency. Dokl. AN SSSR. 154 no.1:184-187 Ja'64. (MIRA 17:2)

1. Predstavleno akademikom A.N. Tereninym.

YAKOVLEV, N., inzh.; BARANOV, F., inzh.

Experience putting the Angarsk Refrigeration Plant into operation. Khol. tekh. 34 no.4:21-23 O-D '57. (MIRA 11:1)
(Angarsk--Refrigeration and refrigerating machinery)

AUTHOR: Baranov, F., Engineer SOV/66-59-1-17/32

TITLE: Vibrator (Vibrator)

PERIODICAL: Kholodil'naya tekhnika, 1959, Nr 1, pp 59-60 (USSR)

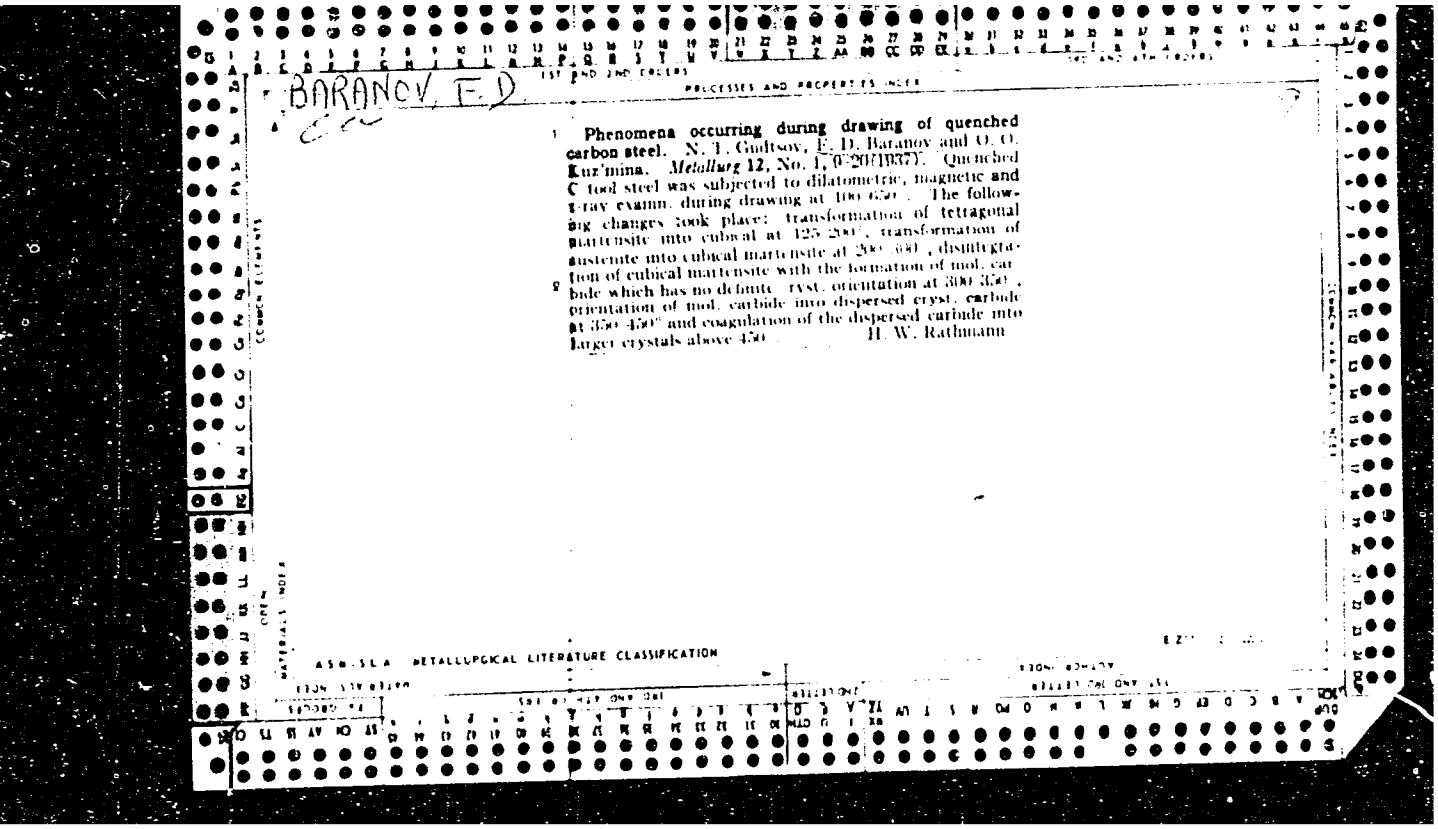
ABSTRACT: The filling of cups with ice cream was usually done in a rather primitive manner, by hand, in the Angarskiy cold storage house. Due to the viscous consistency of the ice cream the cups were only partly and unevenly filled. In accordance with the new system, whereby the ice cream is filled automatically into the cups, a vibrator shakes it down, filling the cups in a uniform way.

Card 1/1

BARANOV, F.

Urgent objective of party and trade-union organizations. NTO 2 no.11:44-45 N '60. (MIRA 13:11)

1. Sekretar' Kalininskogo obkoma Kommunisticheskoy partii Sovetskogo Soyuza.
(Research, Industrial)



BARANOV, E.D.

PROCESSES AND PROPERTIES INDEX

1 **Phenomena occurring during drawing of quenched carbon steel.** N. T. Gudtsov, E. D. Baranov and O. O. Kuz'mina. *Metallurg* **12**, No. 1, 0-20(1937). Quenched C tool steel was subjected to dilatometric, magnetic and x-ray examn. during drawing at 100-650°. The following changes took place: transformation of tetragonal martensite into cubical at 125-200°, transformation of austenite into cubical martensite at 200-300°, disintegration of cubical martensite with the formation of mol. carbide which has no definite cryst. orientation at 300-350°, orientation of mol. carbide into dispersed cryst. carbide at 350-450° and coagulation of the dispersed carbide into larger crystals above 450°. H. W. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SOV/124-58-10-11104

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 10, p 57 (USSR)

AUTHOR: Baranov, F. I.

TITLE: Conditions of Similarity of Commercial Fishing Implements (Usloviya podobiya rybolovnykh orudiy)

PERIODICAL: Tr. Mosk. tekhn. in-ta rybn. prom-sti i kh-va, 1957, Nr 8, pp 127-132

ABSTRACT: The author formulates and discusses rules for model testing of the working conditions of commercial fishing implements (trawls fishing nets, etc.). Inasmuch as the requirements of complete geometrical similarity are sometimes impossible to fulfill (for example, it is impossible to use on a model the extra-thin threads of which a net is made up), the author suggests certain considerations which, in his opinion, permit doing away, in model testing with the execution of details of the model in geometric similarity to the full-scale dimensions. All this is done on the assumption that the drag coefficient of the implement does not depend upon the Reynolds number. At the end of his paper the author asserts that in varying the speed of the motion of an implement in the

Card 1/2

water it is necessary, in order to attain the condition of similarity, to vary not only the dimensions but also the shape of the body (i.e., the relationship of characteristic linear dimensions), so that each velocity should require its own corresponding shape. This assertion is erroneous.

S. S. Grigoryan

BARANOV, Fedor Il'ich, prof., doktor tekhn.nauk, zasluzhennyy deyatel' nauki i tekhniki; KOSSOVA, O.N., red.; KISINA, Ye.I., tekhn.red.

[Commercial fishing techniques] Tekhnika promyshlennogo rybolovstva. Moskva, Pishchepromizdat, 1960. 695 p.
(MIRA 13:12)

(Fisheries)

YARRE, D.D., inzh., rukovoditel' brigady kommunisticheskogo truda; KHARRASOV, N.L., radiomekhanik, udarnik kommunisticheskogo truda; LARIONOV, M.I., monter, udarnik kommunisticheskogo truda; BARANOV, F.M., brigadir

Leading workers in the fields of wire broadcasting, district telephone communications, and television receiving networks exchange their experience. Vest. sviazi 21 no.9:19-23 S '61. (MIRA 14:9)

1. Moskovskaya gorodskaya radiotranslyatsionnaya set' (for Yarre). 2. Teleatel'ye No.1 g. Ufy (for Kharrasov). 3. Smolenskiy radiouzel (for Larionov). 4. Stroitel'no-montazhnoye upravleniye radiofikatsii Voronezhskoy direktsii radiotranslyatsionnykh setey (for Baranov).
(Telecommunication--Employees)

BARANOV, F.V.

Expand the use of scrap refractories. Ogneupory 25 no.7:334-335 '60. (MIRA 13:8)

1. Moskovskaya kontora Rosogneuporsnabsbyta.
(Refractory materials)

[illegible]ANOVSKIY, A.V.; BALA[illegible]V, F.Ya.

Method for n[illegible]ing carbon-steel parts. Biul. tekh.-ekon. inform. Gos. nauch.-[illegible]. nauch. i tekh. inform. 17 no.9:3[illegible]-33 S '64. (MIRA 18:1)

L 5485]-65 EWT(m)/EWP(w)/EWA(d)/T/EPR/EWP(t)/EWP(z)/EWP(b) Ps-4 IJP(c) JD

ACCESSION NR: AP5017986 UR/0286/64/000/019/0020/0020

AUTHOR: Nazarovskiy, A. V.; Baranov, F. Ya.

TITLE: Method of nitriding carbon steels. Class 18, No. 165479

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1964, 20

TOPIC TAGS: nitridation, carbon steel, metal durability

ABSTRACT: A method of nitriding carbon steels to increase hardness and wear resistance has aluminum sprayed on the surface prior to the nitriding process.

ASSOCIATION: none

SUBMITTED: 08Jul63 ENCL: 00 SUB CODE: MM, GC

NO REF SOV: 000 OTHER: 000 JPRS

Card 1/1

KUZ'MIN, I.I., dotsent, kand.istorich. nauk, kapitan 1-go ranga; GAVRILYUK, V.K., dotsent, kand.pedagog. nauk, podpolkovnik; BARANOV, G.A., kapitan 2-go ranga; VOROB'YEV, A.M., gvardii kapitan 3-go ranga; CHERNAVSKIY, V.A., podpolkovnik

Reviews and bibliography. Mor. sbor. 48 no.1:87-93 Ja '65.
(MIRA 18:4)

BARA'OV, G. G.

Materialy k proektirovaniiu ubiraiushchikhsia shassi. (Tekhnika vozdushnogo flota, 1940, no. 10-11, p. 38-49, diagrs.)

Title tr.: Materials for retractable landing gear design.

TL504.T4 1940

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

BARANOV, G. G.

Baranov, G. G. On the solution of Reynolds' equation for a bearing of finite length. Akad. Nauk SSSR. Trudy Sem. Teorii Mašin i Mehanizmov 1, 153–178 (1947). (Russian)

L'auteur utilise la méthode de Reynolds, moins exacte que celle de Joukovsky, mais applicable aux coussinets de longueur finie. Soit

$$(1)\qquad \frac{\partial}{\partial\alpha}\left[(\epsilon-\cos\alpha)^3\frac{\partial p}{\partial\alpha}\right]+r^2(\epsilon-\cos\alpha)^3\frac{\partial^2 p}{\partial z^2}+h\sin\alpha=0$$

l'équation de Reynolds, avec p = pression hydrodynamique, α = angle de position, z, $-b<z<b$, la distance d'une section normale du centre de l'axe du coussinet, $2b$ = longueur du coussinet, ϵ, r, h paramètres connus. La solution doit s'annuler pour $\alpha=0$, $\alpha=\pi$, quel que soit z, et pour $z=\pm b$, quel que soit α. En supposant d'après G. Duffing, $p=A_0(\alpha)+\sum A_k(\alpha)Z_k(z)$, on trouve

$$(2)\qquad \frac{d}{d\alpha}\left[(\epsilon-\cos\alpha)^3\frac{dA_0}{d\alpha}\right]+h\sin\alpha=0,$$

$$(3)\qquad \frac{d^2Z_k}{dz^2}=m_k^2Z_k,$$

$$(4)\qquad \frac{d}{d\alpha}\left[(\epsilon-\cos\alpha)^3\frac{dA_k}{d\alpha}\right]+r^2m_k^2(\epsilon-\cos\alpha)^3A_k.$$

La résolution de (2) et (3) est facile. Pour trouver la solution approchée de (4) l'auteur pose dans (4)

$$(5)\qquad A_k=(\epsilon^2-1)^{\frac{1}{2}}\sin\alpha[\epsilon-\cos\alpha+a_k(1-\epsilon\cos\alpha)](\epsilon-\cos\alpha)^{-2}$$

et détermine a_k et m_k par la méthode des moindres carrés, en intégrant [le résultat de substitution]^2 de 0 à π. Il montre que la formule approchée (5) donne des meilleurs résultats que d'autres procédés. Le mémoire contient les tables numériques et les graphiques nécessaires dans les applications.

V. A. Kostitzin (Paris).

Source: Mathematical Reviews, Vol 13 No. 3

ZALANOV, G. G.

USSR

ZALANOV, G. G. Classification, structure, kinematics and kinetostatics of plane mechanisms with pairs of the first kind. Akad. Nauk SSSR. Trudy Sem. Teorii Mašin i Mehanizmov 12, no. 46, 15–39 (1952). (Russian)

L. V. Assur [Issledovanie ploskih steržnevyh mehanizmov s točki zreniya ih struktury i klassifikacii, Izdat. Akad. Nauk SSSR, Moscow, 1952, reprinted from Izv. Sankt-Peterburg. Politekh. Inst. 20, 329–385 (1912), 581–635 (1913); 21, 187–283 (1914)] designated linkages to be of the kth class if they consisted of $2k$ members joined by $3k$ pinned rotary joints. The addition of another member, with no increase in the number of joints, converts the linkage into a rigid truss of the kth class. Let the truss have n_2 bars, n_3 triangles, n_4 quadrilaterals, etc., where the subscript is the number of pins in a member. Then

$$n_2+n_3+n_4+\cdots=2k+1 \quad \text{and} \quad 2n_2+3n_3+4n_4+\cdots=6k,$$

from which $n_2=3+n_4+2n_5+3n_6+\cdots$. Therefore, in a truss without redundant constraints, there are at least 3 bars. The

1-F/W

BARANOV, G.G.

Problem of setting in motion masses and forces by taking into account friction losses. Trudy Sem.teor.mash. 12 no.47:46-51 '52. (MLRA 6:6)
(Kinematics) (Friction)

BARANOV, G. G.

Baranov, G. G. On the solution of some problems of Čebyšev. Akad. Nauk SSSR. Trudy Sem. Teorii Mašin i Mehanizmov 5, no. 20, 78–107 (1948). (Russian)

In order to popularize Chebyshev's ideas, the author presents solutions of four guidance problems in which the application of Chebyshev's criterion of best approximation calls only for elementary analytic geometry. This criterion requires, for the best approximating curve, a maximum number of oscillations, all of the same amplitude. In this paper's problems the approximating curves can be fully analyzed for the most general case by elementary means, and then specialized to meet the conditions. The problems are: (1) Rectilinear guidance; "lambda" four-hinge linkage ($OABC$, OC fixed, $BA = BC = BM$, M tracing point on AB). As limit cases, third- and fifth-order contact with a straight line are obtained. (2) Rectilinear guidance; turning-block linkage OAC, OC fixed, OA constant, A hinge, C slider-crank; tracing point M on AC. (3) Uniform straight-line motion; turning-block linkage (2) with $\tan OCA$ as the generated function of time. (4) Uniform straight-line motion; Oldham's linkage: two fixed slider cranks O and C guiding the arms of a rigid right angle BAB'. The distance of B from OC is the generated linear function. In each problem the length of the approximation stretch and the magnitude of the deviation are carefully computed.

A. W. Wundheiler (Chicago, Ill.).

Source: Mathematical Reviews, Vol 12 No. 7

LEVENSON, L.B., doktor tekhnicheskikh nauk, professor; KALUZHNIKOV, A.N., doktor tekhnicheskikh nauk, retsenzent; BARANOV, G.G., doktor tekhnicheskikh nauk, redaktor; POPOVA, S.M., tekhnicheskiy redaktor; MODEL', B.I., tekhnicheskiy redaktor.

[Theory of mechanisms and mashines; kinematics and dynamics of mechanisms] Teoriia mekhanizmov i mashin; kinematika i dinamika mekhanizmov. Izd. 2-e, perer. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 504 p. (MLRA 7:11)
(Mechanical engineering)

БАРАНОВ, Г. Г.

123-1-736

Translation from: Referativnyy Zhurnal, Mashinostroyeniye, 1957, Nr 1, p.110 (USSR)

AUTHORS: Baranov, G. G., Rubin, S. B., Fil'kin, V. P.

TITLE: On the Theory of Through Centerless Grinding (K teorii skvoznogo bestsentrovogo shlifovaniya)

PERIODICAL: Sbornik: Tochnost' izgotovleniya sharikovykh i rolikovykh podshipnikov na avtomat. liniyakh. Moscow, AN SSSR, 1955, pp. 19-59

ABSTRACT: The authors analyse the shape of the regulating wheel providing maximum accuracy of the machined pieces, and the slippage of single points of the workpiece in relation to the regulating wheel during the through grinding. Because the work resting between the wheels is cone-shaped, the regulating wheel must have the shape of an enveloping surface of the cone family and not of a body (as previously assumed) of a tangent cylinder, which axis crosses the axis of this rotating body. In order to obtain maximum similarity of shape of the regulating wheel in relation to the profile desired in the work, the diamond point

Card 1/2

On the Theory of Through Centerless Grinding (Cont.)

attachment is turned in the vertical plane an additional angular amount (a turning device to shape the wheel to a hyperboloid-in-rotation profile is used on the subject machines). The magnitude of this angle is computed. The variability of the diameter of the regulating wheel (in terms of its length) creates variable speeds of the longitudinal travel of the work, which increase as the work travels thru the machine. This fact produces a play between the ground rings fed simultaneously between the wheels. This disruption increases with the angle at which the regulating wheel is set. In order to obtain a compact stock of workpieces, supports of ground rings are built up on one or both ends. Forces acting on the ground rings are examined, and the required resistance of the support is calculated. This force depends upon the condition of the face of the regulating and grinding wheel. A dull grinding wheel increases and a dull regulating wheel decreases the forces acting on the ring support.

Card 2/2

BARANOV G.G. (Dr. Tech. Sci.)

Bearings and the technology of their automatic production

paper read at the Session of the Acad. Sci. USSR, on Scientific Problems of Automatic Production, 15-20 October 1956
Avtomatika i telemekhanika, No. 2 p. 182-192, 1957

9015229

BARANOV, G.G.

Selecting tolerances guaranteeing given precision of mechanisms and minimum manufacturing cost. Trudy Inst. mash. Sem. po toch. v mash. i prib. no.11:3-17 '57. (MIRA 10:12)
(Mechanical engineering)

PHASE I BOOK EXPLOITATION 1028

Baranov, Georgiy Georgiyevich

Kurs teorii mekhanizmov i mashin (Course in the Theory of Mechanisms and Machinery) 2d ed., rev. and abr. Moscow, Mashgiz, 1958. 488 p. 25,000 copies printed.

Reviewers: Reshetov, L. N., Doctor of Technical Sciences, Professor, Head, Dept. of Theory of Mechanisms and Machinery, Moscow Higher Technical School, and Yudin, V.A., Doctor of Technical Sciences; Ed. of Publishing House: Stupin, A.K., and Korableva, R.M.; Tech. Ed.: Model', B.I.; Managing Ed. for literature on general technical and transport machine building (Mashgiz): Ponomareva, K.A., Engineer.

PURPOSE: This book is approved by the Ministerstvo vysshego obrazovaniya SSSR (Ministry of Higher Education of the USSR) as a textbook for students of machine-building and aviation vuzes. It may also be useful to engineers and designers engaged in the design of mechanisms.

Card 1/13

Course in the Theory of Mechanisms and Machinery 1028

COVERAGE: The author examines all the basic problems of the investigation of mechanisms and machines, and the most important problems of the design of mechanisms for given conditions. Methods of kinemetic and of power investigations of plane mechanisms, as applicable to the design of simple mechanisms, appear in separate chapters. The investigation of plane multilink mechanisms, based on the ideas of Professor L.V.Assur, are also treated separately. Kinematic pairs of plane and space mechanisms are studied together. The author states that this 2nd edition of the book contains the following new material: 1) the graphical kinematics of planetary transmissions according to Professor L.P.Smirnov's method; 2) general information on gearing, given by Professor M.L.Novikov; 3) numerical integration of the differential equation of the motion of a mechanism, and other problems. The author acknowledges the assistance of the reviewers, Professors Reshetov and Yudin, and of Docent V.D.Karlin. The author also gives a historical outline of the development of the theory of mechanisms. There are 6 Soviet references.

Card 2/13

BARANOV, G. G., (Prof.)

Prof. G. G. Baranov, "On a Newly Developed Gear Deive of M. L. Nowikow."

paper presented at the 2nd All-Union Conf. on Fundamental Problems in the Theory of Machines and Mechanisms, Moscow, USSR, 24-28 March 1958.

AUTHOR: G.G. Baranov SOV/24-58-6-33/35

TITLE: Comments on I.I. Murashov's paper "Increasing the Accuracy in Instrument Making" (Zamechaniya po stat'ye I.I. Murashova 'O povyshenii tochnosti v priborostroyenii)(Izv. An SSSR, Otn, Nr 7, 1956)

PERIODICAL: Izvestiya akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, Nr 6, pp 153-155 (USSR)

ABSTRACT: The article in question appeared in issue Nr 7 of the journal for 1956 and dealt, so far as can be established, with primary and derivative errors in instruments. Primary errors are those in the dimensions of the parts in a mechanism, for example; derivative errors are those caused by the primary errors. It is shown that the simple treatment of the original article is inappropriate to mechanisms in which the displacements are finite (eg in a piston and crank mechanism). Another concept (functional error) is also discussed: it is difficult to know what the original author meant by this, though it would seem to be a systematic error that varies according to some regular law from one section of a part to

Card 1/2

Comments on I.I. Murashov's paper 'Increasing the Accuracy in Instrument Making" SOV/24-58-6-33/35

another (eg deviation from true form in a cylinder turned on a lathe). It is shown that errors may or may not be functional, according to the way one looks at them, though the results from any calculation on the errors must of course be independent of the approach. Some other more general criticisms are made, which amount to saying that it is impossible to classify the vast variety of errors that can occur under a few simple heads, as Murashov does, and that it is unsound to assume that the errors in any manufactured component are mainly systematic in character. The general cohesion of the article is also criticized.
There are 2 references, both Soviet.

SUBMITTED: June 15, 1957

Card 2/2

BARANOV, Georgiy Georgiyevich; YUDIN, V.A., doktor tekhn.nauk, retsenzent; MODEL', B.I., tekhn.red.

[Course of the theory of mechanisms and machines] Kurs teorii mekhanizmov i mashin. Izd.3., ispr. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1959. 488 p. (MIRA 12:8)
(Mechanical engineering)