

KCMAR, A.P.; KRUGLOV, S.P.; LOPATIN, I.V.

Ionization devices for the measurement of energy in  $\gamma$ -ray beams.  
Med. rad. 9 no.7:46-51. J1 '64. (MIRA 18:5)

1. Fiziko-tekhnicheskiy institut imeni Ioffe AN SSSR.

1965, 1966, 1967

1965, 1966, 1967

extra distribution curves of energy

of the plasma radiolysis, etc.

operation of a betatron or cyclotron to produce the  
equilibrium plasma, etc.



ACCESSION NR: AP4020338

8/0089/64/016/003/0258/0260

AUTHOR: Kruglov, S. P.; Lopatin, I. V.

TITLE: Measurements of energy in a bremsstrahlung beam over a range of  $E_{\text{sub Gamma max}} = 15$  to 80 Mev

SOURCE: Atomnaya energiya, v. 16, no. 3, 1964, 258-260

TOPIC TAGS: energy, bremsstrahlung beam, calorimetric measurement, ionization measurement, calorimetric method, transition curve, quantometer

ABSTRACT: The results of calorimetric and ionization measurements in a wide range of  $\gamma$  radiation energy are compared. The comparison is conducted for three methods of determining energy in a bremsstrahlung beam: (1) calorimetric; (2) by measuring transition curves; and (3) by using a quantometer. These three methods provide results which agree within the limit of measurement errors in the range of  $E_{\text{Gamma max}} = 15$  to 80 Mev.. Some systematic divergence between ionization and calorimetric measurements can be caused by inaccuracy of values. A comparison of quantometer readings with the results of measurement by transition curves indicated that the error in integration of transition curves

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by the quantometer is less than 1% during E <sup>Gamma max = 15 to 80 Mev.</sup> and about 4% during 20 Mev.. Use of the Simpson binary formula (tandem-quantometer) permits this integration to be carried out with up to 1% accuracy in the entire energy interval being examined. Orig. art. has: 2 figures.

ASSOCIATION: None

SUBMITTED: 26Aug63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: NP

NO REF SOV: 006

OTHER: 000

Card 2/2

ACCESSION NR: AP4019972

S/0020/64/154/006/1318/1320

AUTHOR: Komar, A. P. (Academician); Kruglov, S. P.; Lopatin, I. V.;  
Mus, K. F.

TITLE: Constant sensitivity quantometer for gamma radiation of  
energy above 15 Mev

SOURCE: AN SSSR. Doklady\*, v. 154, no. 6, 1964, 1318-1320

TOPIC TAGS: gamma quantometer, gamma radiation energy measurement,  
constant sensitivity quantometer, quantometer, ionization chamber,  
multiplate ionization chamber

ABSTRACT: The gamma quantometer is a multiplate ionization chamber  
used for measurement of the energy in a beam of gamma photons. Its  
ionization current depends on the partial ionization in different sec-  
tions of the chamber. The purpose of the present work is to obtain a  
constant sensitivity of the quantometer in various energy ranges of  
gamma rays. This is achieved, first, by the construction of a new  
model permitting a better integration of the ionization in different

Card: 1/2

ACCESSION NR: AP4019972

sections, and, secondly, by filling the chamber with hydrogen at 2.5 atm., instead of air. In the experimentally tested energy range from 10 to 70 Mev, the sensitivity was found to be constant. Orig. art. has: 3 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. P. Ioffe Akademii nauk SSSR (Physics-Engineering Institute, Academy of Sciences SSSR)

SUBMITTED: 23Nov63

DATE ACQ: 23Mar64

ENCL: 00

SUB CODE: PH

NO REF SOV: 002

OTHER: 001

Card 2/2

KRUGLOV, S.P., LOPATIN, I.V.

Distribution curves of energy absorbed along the depth with  
the presence of substances inhibiting irradiation. Med. rad.  
9 no.7:52-55 J1 '64. (MIRA 18:5)

1. Fiziko-tekhnicheskij institut imeni Ioffe AN SSSR.



L 26587-66 EWT(m) DIAAP

ACC NR: AP6011428

SOURCE CODE: UR/0020/66/167/004/0785/0788

AUTHORS: Komar, A. P. (Academician AN UkrSSR); Kruglov, S. P.; Lopatin, I. V.

ORG: Physicotechnical Institute im. A. F. Ioffe, Academy of Sciences, SSSR, Leningrad (Fiziko-tekhnicheskij institut Akademii nauk SSSR)

TITLE: A new instrument for determining the intensity of gamma radiation -- Gauss quantum meter

SOURCE: AN SSSR. Doklady, v. 167, no. 4, 1966, 785-788

TOPIC TAGS: gamma radiation, radiation intensity, radiation instrument, *quantum device*

ABSTRACT: The authors describe an instrument in which the intensity of  $\gamma$  radiation, as measured by its absorption in a substance, is determined integrating the area under the transition curves. The integration is by means of a quadrature formula under the main area of the curve and by means of a six-point Gaussian approximation. The thicknesses of the absorbing copper plates and the widths of the gaps between them are calculated to obtain the best quadrature integration.

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B

2

Card 1/3 UDC: 621.387.422:539.122

L 26587-66

ACC NR: AP6011428

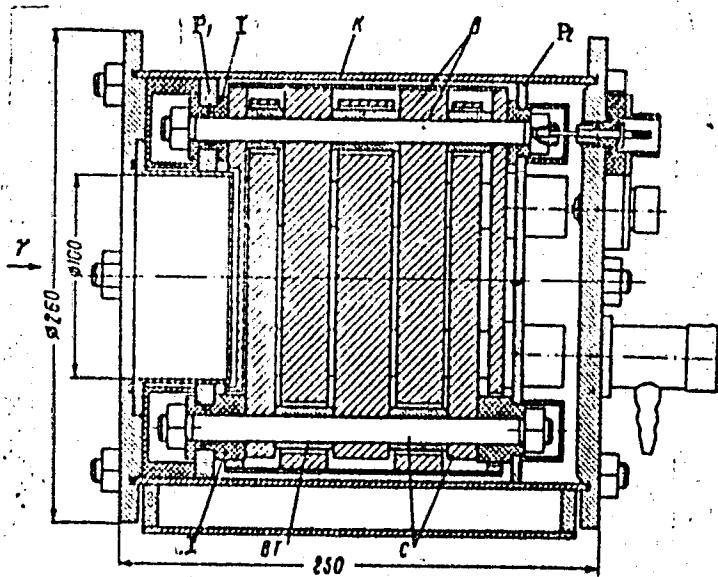


Fig. 1. Construction of new quantum meter. B -- high voltage electrodes; C -- gathering electrodes; BT -- spacer bushings; I -- insulators; K -- outer jacket; P<sub>1</sub>, P<sub>2</sub> -- front and back panels of the quantum meter.

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ACC NR: AP6011428

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The new quantum meter (Fig. 1) was experimentally checked for sensitivity against data obtained by the calorimetric method in the range of  $\gamma$  energy from 15 to 80 Mev and at 650 Mev and was found to be accurate to 2 -- 3%. The results show that the use of the Gauss quadrature formula results in a quantum meter with a smaller number of plates, with constant sensitivity at all bremsstrahlung end-point energies larger than 15 Mev, and which does not lose sensitivity at energies below 100 Mev like the Wilson quantum meter. Orig. art. has: 2 figures and 8 formulas.

SUB CODE: 20/ SUBM DATE: 18 Sep65/ ORIG REF: 003/ OTH REF: 004

Card 3/3 BLG

ACC NO: AF0031275

SOURCE CODE: UNCLASSIFIED/CONFIDENTIAL/1710/1717

AUTHOR: Komar, A.P.; Kruglov, S.P.; Lopatin, I.V.

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

TITLE: A new type of quantometer (Gauss quantometer) for measuring bremsstrahlung  
beam energies

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 9, 1966, 1710-1717

TOPIC TAGS: nuclear physics apparatus, bremsstrahlung, energy, measuring apparatus

ABSTRACT: The authors discuss the design, construction, and performance of an automatic integrating quantometer for direct measurement of the energies of bremsstrahlung beams, analogous to the quantometer of R.R.Wilson (Nucl. Instr., 1,101, 1957). The suitability of different numerical integration formulas for integrating the copper transition curve is discussed, and it is concluded that Gauss' formula is the most advantageous. The described instrument employs seven copper absorbers with thicknesses ranging between 0.405 and 2.863 cm and gaps between them ranging between 0.164 and 0.284 cm. The absorber thicknesses and gap widths were selected in accordance with Gauss' integration formula. The instrument can be hermetically sealed and is designed to accommodate a 10 cm diameter beam. When filled with air at atmospheric pressure the sensitivity of the instrument is  $0.877 \times 10^{-10}$  C/MeV. The sensitivity was found experimentally to

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UBC: 539.674.22

ACC NR: AF8031275

vary by less than 2% for bremsstrahlung beams with maximum energies from 15 to 650 MeV. The maximum beam power that can be measured with air filling is  $10^{-3}$  W/cm<sup>2</sup> at a pulse rate of 50 Hz; by using a rare gas filling the maximum power that can be measured can be increased by a factor of  $10^3$ . The instrument can also be used to measure the powers of high energy electron beams. Orig. art. has: 8 formulas, 4 figures, and 1 table.

SUB CODE: 20

SUBM DATE: 22Nov65

ORIG. REF: 005

OTH REF: 004

Card 2/2 bab

KRUGLOV, Stepan Stepanovich, personal'nyy pensioner, chlen Kommunisticheskoy partii Sovetskogo Soyuz; DUBROVINSKIY, V., red.; YEGOROVA, I., tekhn.red.

[The miracle of light] Chudo - svet. Moskva, Mosk.rabochii, 1960. 89 p. (MIRA 13:10)  
(Moscow Province--Electrification)

FRUNZEV, S. S.

"Continental Permian Deposits of the Basins of the Rivers  
Laba and Belaya in the Northern Caucasus." Cand Geol-Min Sci,  
Chair of the History of Geology and Paleontology, Geological  
Faculty, Chernovtsy State U, Min Higher Education, Chernovtsy,  
1955. (ML, No 12, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical  
Dissertations Defended at USSR Higher Educational Institutions (15)

AUTHOR: Kruglov, S.S. 11-58-4-11/16

TITLE: On Diabases of the Jentu Range and Khatsavita River in the North-West Caucasus (O diabazakh khrébtá Dzhen-tu i r. Khatsavitoy na Severo-Zapadnom Kavkaze)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1958, Nr4, pp95-96 (USSR)

ABSTRACT: The author describes some outcrops of diabases he discovered during geologic surveys in the North-West Caucasus. These outcrops were not until now marked on the geological maps of the region and can help in the study of magmatic activity in this part of the Caucasus. The composition of the diabases is given.  
There are 2 Soviet references.

ASSOCIATION: Kavkazskaya ekspeditsiya Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova (The Caucasian Expedition of the Moscow State University imeni M.V. Lomonosov)

SUBMITTED: April 11, 1957

Card 1/1 1. Geology - USSR



3(5)

SOV/20-126-5-40/69

AUTHOR:

Kruglov, S. S.

TITLE:

Bed Intrusions of the Dzhen-tu Range in the North-western Caucasus (Plastovyye intruzii khr. Dzhen-tu na severo-zapadnom Kavkaze)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 5, pp 1058 - 1061 (USSR)

ABSTRACT:

In spite of a comparatively thorough exploration of the magmatic formations of the area mentioned in the title (Refs 1-3,6,8), there are still some individual sections of their occurrence which were described very poorly or not at all. Among these are the magmatic rocks of the Dzhen-tu range in the drainage area of the river Laba. A survey of publications (Refs 6,8,12) is given. In 1956, the author especially investigated the magmatic rocks of the Dzhen-tu range as a member of the department of V. N. Robinson (with the participation of A. Ye. Shantser). These investigations confirmed the scheme by V. N. Robinson (Ref 11). Their age is lower-paleozoic (not younger than Silurian) and not Devonian (Refs 4,5) on the basis of the archaeocyathis (Ref 7) found in the containing limestones. Both the magmatic and the containing rocks are described in detail. The former

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Bed Intrusions of the Dzhenku Range in the North-western SOV/20-126-5-40/69  
'caucasus

consist of diorite-porphyrites and granite-porphyrines as well as of diabases (Ref 10). Between the two former, there are transitions of the type of granodiorite-porphyrines. The rocks described are not effusive but hypabyssal. Most probable they are extrusive facies of the complex of small intrusions (Refs 1-3). In 1957, the author investigated sedimentary deposits of granodiorite-porphyrines on the upper course of the river Urup, which are identical with those of Dzhenku. Such rocks are also known under analogous depositing conditions of the river Pshekish, already in the drainage area of the river Belaya (Ref 6). Apparently synchronous are also sedimentary deposits of different compositions on the upper course of the rivers Kyafar and Zelenchuk, finally on the upper course of the Kuban (Ref 13). The lower carboniferous system may be regarded as the lower limit of the intrusions in question. The upper limit, however, is the lower Permian system. Thus, the bed intrusions belong to the final phases of the middle-paleozoic, or to the initial phases of the upper-paleozoic magmatic cycle of the Bol'shoy Kavkaz (Great Caucasus). L. A. Vardanyants and V. P. Kostyuk looked through part of the material of the author. V. N. Robin-

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Bed Intrusions of the Dzhentu Range in the North-  
western Caucasus

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son gave some advice. There are 12 Soviet references.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy in-  
stitut g. L'vov (~~Ukrainian~~ Scientific Geological Prospecting and  
Research Institute Town of L'vov)

PRESENTED: February 3, 1959, by D. V. Shcherbakov, Academician

SUBMITTED: February 2, 1959

Card 3/3

KRUGLOV, S.S.

Nature of small dislocations in some Jurassic cliffs of the  
Eastern Carpathians. Dokl. AN SSSR 135 no.5:1195-1198 D '60.

(MIRA 13:12)

1. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy institut.  
(Zadnyey region--Geology, Structural)

KRUGLOV, S.S. [Kruhlov, S.S.]

Cretaceous volcanic formations of the Trostenets River in the eastern Carpathians. Dop. AN URSR no.10:1350-1353 '61.

(MIRA 14:11)

1. Ukrainskiy nauchno-issledovatel'skiy geologo-razvedochnyy institut. Predstavleno akademikom AN USSR O.S.Vyalovym. (Carpathian Mountains—Geology, Stratigraphic)

KRUGLOV, S.S.

Recent data on Cretaceous volcanism in the eastern Carpathians.  
Dokl. AN SSSR 140 no.1:193-196 S-O '61. (MIRA 14:9)

1. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy institut.  
Predstavleno akademikom V.S.Sobolevym.  
(Carpathian Mountains--Rocks, Igneous)

KRUGLOV, S.S.

Lower age limit of the Rakhov series in the flysch of the eastern Carpathians. Dokl. AN SSSR 140 no.4:898-901 O '61. (MIRA 14:9)

1. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy institut, g. L'vov. Predstavleno akademikom D.V.Nalivkinym.  
(Carpathian Mountains--Flysch)

KRUGLOV, S.S.

Granitic pebbles in the flysch of the Soviet Carpathians and their origin. Sov.geol. 5 no.12:127-132 D '62. (MIRA 16:2)

1. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy institut.

(Carpathian Mountains--Pebbles)



KRUGLOV, S.S.; POLEVAYA, N.I.

Absolute age of exotic granites in Soviet Transcarpathia. Inform.  
sbor. VSEGEI no.54:107-115 '62. (MIRA 17:1)

DABAGYAN, N.V.; ZHILOVSKIY, N.I.; KRUGLOV, S.S.

Microfauna and the stratigraphic position of the Shipot and  
Yalovetsk series of the Eastern Carpathians. Trudy UkrNIGRI  
no.5:106-124 '63. (MIRA 18:3)

KRUGLOV, S.S.

Mineralogical composition of the clay of the Cretaceous and  
Paleogene sediments in the inner portion of the Soviet Carpathians.  
Trudy UkrNIGRI no.5:125-141 '63. (MIRA 18:3)

KALENICHENKO, T.D. [Kalenychenko, T.D.]; KRUGLOV, S.S. [Kruhlov, S.S.];  
MIGACHEVA, Ye.Ye. [Mihachova, IE.IU.]

Stratigraphy of Middle Jurassic sediments in Soviet Transcarpathia.  
Dop. AN URSR no.9:1193-1196 '65. (MIRA 18:9)

1. Ukrainskiy nauchno-issledovatel'skiy gornorudnyy institut i  
Khar'kovskiy gosudarstvennyy universitet.

KRUGLOV, S.S.

Nature of the Marmorosh blocks of the Soviet Carpathians.  
Geol.sbor. [Lvov] no.9:41-54 '65.

(MIRA 18:12)

SHVETS, Veniamin Izrailevich; GOROKHOVSKIY, A.I., retsenzent;  
KIVROVA, Ye.P., retsenzent; KRUGLOV, S.V., retsenzent;  
LUKHOVNIY, F.N., red.

[Hoisting and conveying machinery in light industry] Pod"-  
emno-transportnye mashiny v legkoi promyshlennosti. Mo-  
skva, Legkaya industriia, 1964. 290 p. (MIRA 17:10)

RAKITSKIY, G.A.; KRUGLOV, T.A.

New mechanism for winding reserve yarn. Tekst. prom. 19 no.5:62-65  
Mg '59. (MIRA 12:10)

1.Glavnyy inzhener fabriki imeni Oktyabr'skey revolyutsii, g.Klintsy  
(for Rakitskiy). 2.Zaveduyushchiy apparatno-pryadil'nyy proizvedstven.  
fabriki imeni Oktyabr'skey revolyutsii, g.Klintsy (for Kruglov).  
(Weaving) (Textile machinery)

KRUCLOV, V., mayor

Transfer of fire from a checkpoint. Voen. vest. 42 no.4:  
114-115 Ap '63. (MIRA 17:1)



KRUGLEV, V.A.

Combined method of the classification and grouping of parts.  
Standartizatsia 28 no.7:28-29 J1 '64.

(MIRA 17:11)

KRUGLOV, V.A., inzh.; KRUGLOVA, L.V

Some problems of precision of multiple machining of parts on  
machine-tool units in instrument manufacture. Priborostroenie  
no.5:19-21 My '65. (MIRA 18:5)

ENGLISH, V.I.

Standardization of the rigidity of machine tools. Standartizatsia  
no. 2423-26. P. 105. (MIRA 184)

KRUGLOV, V.A., inzh.

Complex methods for a precision design of machining processes.  
Vest. mashinostr. 45 no.7:54-57 J1 '65. (MIRA 18:10)

10

L 06139-67 EWT(m) IJP(c)

ACC NR: AP6031170

SOURCE CODE: UR/0361/66/000,002/0003/0c15

AUTHOR: Nemenov, L. M.; Anisimov, O. K.; Arzumanov, A. A.; Golovanov, U. M.; Yezerskiy, V. F.; Kravchenko, Ye. T.; Kruglov, V. G.; Laktionov, I. A.; Meshcherov, R. A.; Meshcherova, I. V.; Popov, Yu. S.; Prokofyev, S. I.; Rybin, S. M.; Fedorov, M. D.

ORG: Institute of Nuclear Physics, AN KazSSR (Institut yadernoy fiziki AN KazSSR)

TITLE: Putting the Kazakhstan cyclotron into operation

SOURCE: AN KazSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 2, 1966, 3-15

TOPIC TAGS: cyclotron, proton accelerator, Mev accelerator, alpha particle / U1502 cyclotron

ABSTRACT: The U-150-2 cyclotron of the Institute of Nuclear Physics of the Academy of Sciences of the Kazak SSR is described. This cyclotron is designed to accelerate protons, deuterons, alpha particles, and multiply charged ions. Energies of 24 Mev are obtained with deuterons. Alpha particles and protons can be accelerated to 48 Mev and 20 Mev, respectively. Sixfold ionized carbon can be accelerated to 140 Mev. The magnetic field in the cyclotron necessary for 20 Mev deuteron production is 14000 oersteds; this is produced by a current of 800 amp. The necessary variation of the magnetic field with radius is obtained by the use of annular shims. The high frequency generator and its alignment is described. The dependence of beam current at various

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L 06139-67

ACC NR: AP6031170

final radii is plotted as a function of the potential between the "dees". The authors thank engineers V. A. Borisov, B. L. Vaysman, M. G. Gladanko, senior electronic engineer D. D. Gromov, chiefs of work shifts G. A. Obrantsov and V. E. Oshkin, and chief of service A. I. Tkachey for participation in the work of setting aright the various difficulties involved in setting up the cyclotron. Orig. art. has: 11 figures.

SUB CODE: 20/18/      SUBM DATE: none

Card 2/2 mPE

25689

S/181/61/003/007/011/023  
B102/B214

24,7700

AUTHORS: Petrusovich, V. A., Sorokin, O. V., and Kruglov, V., I.

TITLE: Applicability of the parameter of the "effective surface recombination rate" for Ge and Si

PERIODICAL: Fizika tverdogo tela, v. 3, no. 7, 1961, 2023-2030

TEXT: The object of the authors was to demonstrate experimentally that cases in which the parameter of the "effective surface recombination rate" cannot be used for the characterization of the Si surface are realizable in practice, and that this parameter can be used generally for the characterization of Ge surfaces treated by the usual etching agents. The fact that the application of the effective surface recombination rate  $S_{eff}$  is not always justified has been referred to by Shockley and Read (Phys. Rev. 87, 835, 1952). Also the conditions of applicability of this parameter were theoretically studied earlier. The authors of the present paper investigated n-type and p-type germanium with a conductivity close to intrinsic conductivity, and also n-type and p-type silicon with resistivities of 10 to 130 ohm-cm. After establishing the ohmic contacts the surfaces of the individual samples were treated differently, i. e.,  
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S/181/61/003/007/011/023  
B102/B214

Applicability of the parameter ...

etched by different agents and under different conditions. The method of measuring the field effect has been described elsewhere by Sorokin (PTE, No. 2, 68, 1959). The change  $\Delta\sigma$  of conductivity related to the change of  $\Psi$  was determined from the field effect, and thus  $S_{\text{eff}}$  was found out.

Indeed,  $S_{\text{eff}} = \frac{1}{\tau} \int_0^{\Psi} \Psi(x) dx$ , where  $\Psi(x)$  is the height of the surface potential barrier as a function of the coordinates, and  $\tau$  is the volume lifetime of the nonequilibrium carriers. The thickness  $\delta$  of the barrier is defined as the normal distance from the surface where  $\Psi = \Psi_0$  up to the place where  $\Psi = 1$ . The known theoretical relation  $\Delta\sigma = f(\Psi)$  is used for the determination of  $\Psi_0$  (J. R. Schrieffer, Phys. Rev. 97, 641, 1955). The results of the investigations are given in a table. The positive values of  $\Psi_0$  correspond to the blocking and inversion barriers, and the negative values to the anti-blocking barriers. Of particular interest are the results for Si, as only hypothetical data exist on the effects of the above-mentioned etching agents. For example, a strong blocking or even an inversion layer appears on p-type Si after it has been etched according to method 4, while either a weakly blocking or an anti-blocking barrier appears in n-type Si. All

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experiments were carried out in room atmosphere. The Table also contains data on the surface recombination rate calculated from the curves of the spectral distribution of photoconductivity. The following conclusions can be drawn from the results: 1) For sufficiently high surface potential barriers and the usual values of the diffusion length, a case is realizable in practice in which the notion of  $S_{eff}$  loses all sense. The higher the resistance of the sample, the lower is the value of  $Y_0$  for which this will be the case, because  $\phi$  increases with  $q$ . It is, therefore, to be expected that for semiconductors having a forbidden band width larger than that of germanium, the parameter  $S_{eff}$  will not be applicable for relatively small  $Y_0$ . 2) All conclusions which are based on the application of  $S_{eff}$  or  $\tau_{eff}$  should be revised, and it should be investigated whether the criteria for the applicability of  $S_{eff}$  are fulfilled. This holds, above all, for the band structure of surface semiconductors with which  $S_{eff}$  or  $\tau_{eff}$  is used as a function of  $Y_0$ . 3) It is necessary to improve the theory of

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Applicability of the parameter ...

effects in which surface properties are involved, and to determine the role of the geometry of the potential barrier. 4) The criteria for the applicability of  $S_{eff}$  should also be improved. Above all, it should be kept in mind that  $\tau$  in the surface charge layer is in general not equal to  $\tau$  in the volume of the semiconductor. The authors thank G. Ye. Pikus, and G. L. Bir for discussions. There are 4 figures, 1 table and 14 references: 9 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors, AS USSR, Leningrad)

SUBMITTED: January 14, 1961 (initially) and February 10, 1961 (after revision)

Card 4/6

Savings Banks

"Collected exercises on accounts and accounting in the operation of savings banks,"  
V. I. Stepanov, Reviewed by V. Kruglov, Sov. fin., 13, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

KRUGLOV, V

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Uchet i otchetnost' v sberegatel'nykh kassakh (Accounting and accountability  
in savings banks) Moskva, Gosf'nizdat, 1954.  
219 p. tables.

KRUGLOV, V.; KATS, L.

For basic improvement in the operation of savings banks. Fin.  
SSSR 17 no.11:36-47 N '56. (MLRA 9:12)  
(Savings banks)

KRUGLOV, Vasilii Ivanovich; DANILOV, P., otvetstvennyy red.; FILIPPOVA, E.,  
red. 1zd-va; LEBESOV, A., tekhn. red.

[Savings banks in the U.S.S.R.] Sberogatel'nye kassy v SSSR.  
Moskva, Gosfinizdat, 1958. 36 p. (MIRA 11:9)  
(Saving banks)

~~KRUGLOV, V.~~

Yesterday's and today's money. Tekh. mol. 28 no. 12:16-17  
'60.

(Money--History)

(MIRA 13:12)

KRUGLOV, V.I., dots.; NARINSKIY, A.S., starshiy prepodavatel';  
RUBINOV, M.Z., dots.; TSVETKOVA, Ye.M., prepodavatel';  
MAZURKEVICH, M., red. izd-va; TELEGINA, T., tekhn. red.

[Collected problems in accounting] Sbornik zadach po  
bukhgalterskomu uchetu. Moskva, Gosfinizdat, 1962. 262 p.  
(MIRA 15:9)

1. Leningradskiy finansovo-ekonomicheskiy institut (for  
Kruglov, Narinskiy, TSvetkova).  
(Accounting—Problems, exercises, etc.)



KRUGLOV, Vasilii Ivanovich; DRUYA, Ya.Ya., otv. red.; MAZURKEVICH, M.,  
red.izd-va; LEBEDEV, A., tekhn. red.

[Accounting in savings banks] Uchet v sberegatel'nykh kassakh.  
Moskva, Gosfinizdat, 1962. 270 p. (MIRA 15:7)  
(Savings-banks—Accounting)

ACC NR: AP7005007

SOURCE CODE: UR/0054/66/000/003/0066/0069

AUTHOR: Kruglov, V. I.; Mikandrova, G. A.; Strakhov, L. P.

ORG: none

TITLE: Photoconductivity of vitreous  $As_2Se_3$ 

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 3, 1966, 66-69

TOPIC TAGS: photoconductivity, selenide, arsenic compound

ABSTRACT: The spectral distribution of the photoconductivity of vitreous  $As_2Se_3$  was determined by means of a U1-2 amplifier with compensation of the dark current. Two maxima,  $\lambda = 0.9\mu$  and  $\lambda = 0.77\mu$ , were observed. The long-wave photoconductivity maximum is located at the edge of the fundamental absorption band. A fairly strong light scattering is observed in the same spectral range. The spectral distribution of "long-range" photoconductivity, i. e., one which is manifested when the sample is illuminated from the side of the interelectrode space, was determined. Using the concepts of direct and indirect transitions, the authors examine the nature of absorption at the edge of the fundamental absorption band. The photoconductivity at this edge and the photoconductivity in the shorter-wave range of the spectrum differ in their kinetic characteristics. Curves of photoconductivity kinetics for various wavelengths are given. At longer wavelengths, a slower rise and decrease of the photoconductivity are observed. Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 13Oct65/ ORIG REF: 006

Card 1/1

UDC: 539.213

KONDAKOV, K.P., inzh. (Chelyabinsk); KRUGLOV, V.M., inzh. (Sverdlovsk)

Conveyor tunnels in the maintenance and inspection stations.  
Zhel. dor. transp. 45 no.5:69-71 My '63. (MIRA 16:10)

1. Zamestitel' nachal'nika Yuzhno-Ural'skoy dorogi (for Kondakov).

L 43879-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) BC

ACC NR: AP6030620

SOURCE CODE: UR/0413/66/000/016/0110/0110

INVENTOR: Vorob'yeva, T. M.; Mel'nichuk, A. Ya.; Kruglov, V. N.

14  
B

ORG: none

TITLE: Digital servo, Class 42, No. 185118

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 110

TOPIC TAGS: servo\_system, logical element

ABSTRACT: This Author Certificate introduces a digital servo with a housing, a return electromagnet (spring mechanism), and electromagnets with reciprocating cores whose number is equal to the number of digits in a binary number; the air gaps between the cores are correspondingly equal to one, two, four, etc. units. To eliminate the intermediate electropneumatic (electro-hydraulic) converters and simplify the system, the electromagnets with the reciprocating cores are arranged in sequence in the non-magnetic housing so that their side surfaces touch the inner surface of the housing. [JR]

SUB CODE: 09/ SUBM DATE: 10Jun65/ ATD PRESS: 5075

Card 1/1 | blg

UDC: 681.142.07-525

KRUGLOV, V.P.; FIDLERMAN, K.N.

Shop for the production of glued bars for the frames of window and door sets. Der. prom. 12 no.6:14-15 Je '63. (MIRA 16:10)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy derevoobrabatyvayushchey promyshlennosti.

KRUGLOV, V.P.

[Technological schemes for specialized wood processing production] Tekhnologicheskie skhemy spetsializirovannykh derevoobrabatyvayushchikh proizvodstv. Moskva, TSentr. nauchno-issl. in-t informatsii i tekhniko-ekon. issledovaniy po lesnoi, tselliulozno-bumazhnoi, drevnykh obrabatyvayushchei promyshl. i lesnomu khoz., 1964. 20 p.

(MIRA 2748)

1. Glavnyy spetsialist Gosudarstvennogo instituta po proyektirovaniyu lesozagotovitel'nykh gosplavnyy i derevoobrabatyvayushchey promyshlennosti.

INDEXED, V. I.

USSR/Medicine - Veterinary

FD-1276

Card 1/1 : Pub. 137-13/17

Author : Kruglov, V. T., Candidate of Veterinary Sciences

Title : Concerning endurable doses of ASD-f2 and the role of liver in utilization of the preparation

Periodical : Veterinariya, 10, 58, October 1954

Abstract : Results of experiments, conducted on various animals, showed that liver plays an important role in rendering harmless toxic effects of large doses of ASD-f2 preparation introduced into the blood stream. It can be seen, therefore, that large doses of ASD-f2 solution may be administered intravenously to cattle without creating any marked disturbance in their physical condition. Large doses of ASD may also be administered perorally without producing toxic effects, because it easily enters the blood stream through the gastro-intestinal tract.

Institution : All-Union Institute of Experimental Veterinary Medicine

Submitted :

KRUBLOV, V.T., kandidat veterinarnykh nauk.

Biological stimulants used in veterinary surgery. Veterinariia  
32 no.1:61-66 Ja '55. (MIRA 8:2)

1. Vsesoyuznyy institut eksperimental'ney veterinarii.  
(VETERINARY SURGERY) (BIOLOGICAL PRODUCTS)



KRUGLOV, V.T., kandidat veterinarnykh nauk.

Veterinary drugs used in the German Democratic Republic. Veterina-  
riia 33 no.6:82-87 Je '56. (MLRA 9:8)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.  
(Germany, East--Veterinary materia medica and pharmacy)

*Kruglov, V. T.*

USSR / Farm Animals. General Problems. Q

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40387.

Author : Radkevich P. Ye., ~~Kruglov V. T.~~ Nikiforov,  
N. I.

Inst : Not given.

Title : Dienestrol Diacetate for the Fattening of Swine  
and Cocks.

Orig Pub: Veterinariya, 1957, No 8, 74-76.

Abstract: A comparative investigation was conducted as to the effectiveness of the use, for biological castration of swine and cocks, of the following Soviet-produced and imported preparations of dienestrol diacetate (I): folestrol (suspension I, in 2 ml. ampoules of 50 mg. I), folacopon (tablets of 25 mg. I), and platyphilline. The experiments were carried out at the kolkhoz and

Card 1/3

3

USSR / Farm Animals. General Problems.

Q

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40387.

Abstract: sovkhos farms on 1,206 pigs and 6,060 cocks. Folestrol was injected subcutaneously in a dose of 2 ml. to pigs weighing up to 100 kg., and in a dose of 4 ml. to pigs weighing over 100 kg. Platyphilline was injected thrice at intervals of 24 hours, in a dose of 1 ml. of 1% solution. Following the injection, the adult sows showed higher weight gain (by 6.4 kg. per head) and better meat quality than the control animals. The cocks used in the experimentation were approximately 2 months old, weighing 550-600 g. They were administered injections of 0.65 ml. of folestrol. Folacoapon was implanted either in the form of tablets (1-2) or as a suspension in 3% starch in the same dose as folestrol. Following the injection of folestrol

Card 2/3

K RUGLOV, V. T.

COUNTRY : USSR v  
CATEGORY : Pharmacology and Toxicology. Analeptics  
ABS. JOUR. : ZshBiol., No. 5 1959, No. 23090  
AUTHOR : Kruglov, V. T.  
INST. : All-Union Institute of Experimental Veterinary\*  
TITLE : On the Pharmacodynamics of Protoanemonin  
  
ORIG. PUB. : Tr. Vses. in-ta eksperim. veterinarii, 1957,  
20, 342-353  
ABSTRACT : The action of protoanemonin (P) upon the nervous  
system, RES, hemopoietic, cardiovascular and  
excretory system, as well as its antimicrobial  
properties, were studied on the whole organism  
and on isolated organs. Under the influence of  
P (1-2 mg/kg), the absorption ability of RES  
increases and colloidal stain disappears from  
the blood more rapidly. A proliferation and  
  
\*Medicine  
  
Card: 1/3

COUNTRY : V  
CATEGORY :  
AES. JOUR. : PZhBiol., No. 5 1959, No. 23090  
AUTHOR :  
INST. :  
TITLE :  
ORIG. PUB. :  
ABSTRACT : hyperplasia of the reticuloendothelium and lym-  
cont'd phoid tissue in the spleen, liver, lungs and  
other organs occurs. As a result of the increase  
of the regenerative function of RES, the process  
of healing of wounds is accelerated. P stimulates  
myeloid tissue, viz., the erythrocyte count, Hb,  
and leukocyte count increase, and the young forms  
of blood elements appear. P increases cardiac

Card: 2/3

COUNTRY :	V
CATEGORY :	
ABS. JOUR. :	RzhBiol., No. 5 1952, No. 23090
AUTHOR :	
INST. :	
TITLE :	
ORIG. PUB. :	
ABSTRACT cont'd :	activity, tonicizes the vasomotor center and dilates the vessels of isolated organs. Tonicizing action of P upon the gastrointestinal tract is removed by atropine. P increases diuresis. P introduced into a vein in anesthetized animals sometimes produces awakening from anesthesia. P possesses a strong antifungal action in regard to cryptococcus, a causative agent of lymphangitis. The lethal dose of the preparation exceeds by 15-25 times the maximal therapeutic dose (2 mg/kg).-- L.N. Lavrent'yev
Card:	3/3

USSR / Diseases of Farm Animals. Diseases Caused by Bacteria and Fungi R

Abs Jour: Ref Zhur-Biologiya, No 16, 1958, 74177

Author : Kruglov, V. T.

Inst : Not given

Title : Test of Treatment of Lymphangitis Epizootica in Horses with Protoanemonin

Orig Pub: Tr. Vses. eksperim. veterinarii, 1957, 20, 354-360

Abstract: Good therapeutic effectiveness of protoanemonin is reported, tested on 27 horses through local administration. Concentration of 0.18 to 0.12 percent of protoanemonin solutions proved to be the most effective.

Card 1/1

USSR / Diseases of Farm Animals. General Problems. R

Abs Jour : Ref Zhur - Biol., No 22, 1958, No 101308

Author : Kruglov, V. T.  
Inst : All-Union Institute of Experimental Veterinary  
Medicine.

Title : Treating Wounds and Ulcers with Protoanemonin.

Orig Pub : Tr. Vses. in-ta eksperim. veterinarii, 1957, 20,  
361-366

Abstract : It was demonstrated that when used locally, Proto-  
anemonin (P) activates RES [reticulo-endothelial  
system] elements within the wound. When P in  
0.5-1% castor oil solutions was used, wounds heal-  
ed twice as fast. Following application of 0.18-  
0.2% solutions, lymphagiotic ulcers healed with-  
in 7-10 days, and nodes were resorbed in 83% of  
the cases. When injuries and burns caused by

Card 1/2



USSR / Diseases of Farm Animals. General Problems.

Abs Jour : Ref Zhar - Biol., No. 22, 1958, No 101308

phosphorus compounds were treated with intravenous injections of P, good results were obtained in a number of cases. The author recommends that P should be used for treating wounds, ulcers, and lymphangioitis in horses, as well as necrobacillosis in farm animals.

Card 2/2

3

*KRUGLOV, V.T.*  
RADKEVICH, P.Ye., professor; KRUGLOV, V.T., kandidat veterinarnykh nauk;  
NIKIFOROVA, N.I., kandidat veterinarnykh nauk.

Dienestroidiacetate for fattening swine and roosters. Veterinariia  
34 no.8:74-76 Ag '57. (MLBA 10:9)

1. Vsesoyuznyy institut eksperimental'noy veterinarii (for Radkevich,  
Kruglov). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut veteri-  
narnoy sanitarii i ektoparazitologii (for Nikiforov).  
(Acetoacetic acid) (Castration)

RADKEVICH, P.Ye., professor; KRUGLOV, Y.T., kand.veterinarnykh nauk;  
NIKIFOROV, N.I., kand.veterinarnykh nauk

Folestrol as a method of biological castration for swine and roosters  
being fattened. Trudy VIEV 22:301-306 '59. (MIRA 13:10)  
(Folestrol) (Roosters) (Swine)

KRUGLOV, Y. T., kand. veterinarnykh nauk

Toxicity of the third fraction of ASD preparation and its components  
in various methods of its use in the body. Trudy VIEV 22:327-334  
'59. (MIRA 13:10)

(Tissue extracts)

KRUGLOV, V.T., kand.veterinarnykh nauk

Cytological picture of wound exudate following treatment of wounds  
with ASD preparation. Trudy VIEV 22:335-340 '59. (MIRA 13:10)  
(Wounds and injuries) (Tissue extracts)

KRUGLOV, V.T., kand. veter. nauk; TITOV, V.V., kand. veter. nauk;  
ZELEFUKIN, V.S., red.; OKOLELOVA, Z.P., tekhn.red.

[Protection of farm animals against radioactive, chemical,  
and bacteriological contamination] Zashchita sel'skokho-  
ziaistvennykh zivotnykh pri radioaktivnom, khimicheskom i  
bakteriologicheskom zarazhenii. Moskva, Sel'khozizdat,  
1963. 38 p. (MIRA 17:3)

BELOV, Ye.M., kand. veter. nauk; KRUGLOV, V.I., kand. veter. nauk;  
OSIPOVA, V.N., red.

[Protecting farm animals and plants against radioactive dust;  
safety manual for collective farm chairmen, state farm di-  
rectors, field crew foremen, and farm managers] Zashchita  
sel'skokhoziaistvennykh zivotnykh i rastenii ot radioaktiv-  
noi pyli; pamiatka dlia predsedatelei kolkhozov, direktorov  
sovkhozov, brigadirov i upravliaushchikh fermami. Moskva,  
Kolos, 1964. 16 p. (MIRA 18:5)

KRUSILOV, V. Ye.

Afforestation

Valuable experience of Sloboda mechanizors. Les i step' No. 4, April 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952 ~~1953~~, Uncl.



KRUGLOV, V. YE.

Forestry Engineering

Leading mechanics of the Kharabalinsk shelterbelt station, Les. khoz. 5 No. 3(42), 1952

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

1. KRUGLOV, V. YE.
2. USSR (600)
4. Astrakhan Province- Afforestation
7. Work practice of the Kharabali Shelterbelt Station.  
Dost. sel'khoz. no. 6, 1952.

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

KORSHUNOV, A.A., gornyy inzh.; KRUGLOV, Ye.I., gornyy inzh.; ESAULOV, V.F.,  
gornyy inzh.

Use of some new forms of timbering at the "Zolotushinskiy"  
mine. Gor. zhur. no.7:77-78 J1 '65.

(MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy gornometallurgicheskiy  
institut tsvetnykh metallov (for Korshunov, Kruglov).
2. Zolotushinskiy polimetallicheskiy rudnik (for Esaulov).

S/056/62/043/006/014/067  
B154/B102

AUTHORS: Gorodihskiy, G. M., Krizhanskiy, L. M., Kruglov, Ye. M.

TITLE: On magnitude of quadrupole interaction between  $\text{Si}^{119\text{m}}$  nuclei and the crystal lattice

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 6(12), 1962, 2050 - 2052 .

TEXT: The authors investigate the discrepancies observed between other authors' results (e.g. ZhETF, 40, 713, 1961; 41, 1347, 1961; 41, 1767, 1961 and Proc. Phys. Soc., 77, 1062, 1960; Phys. Rev., 123, 179, 1961; 120, 2211, 1960) concerning measurements of the quadrupole interaction between the  $\text{Sn}^{119\text{m}}$  nucleus and the crystal lattice. The experimental values of the resonance absorption line widths  $2\Gamma_{\text{exp}}$  varied between 0.9 and 1.8 mm/sec and the splitting constants  $\Delta$  between  $3 \cdot 10^{-8}$  ev and  $(11.0 \pm 1.5) \cdot 10^{-8}$  ev. The authors of the present paper used as source a 7.15 mg/cm<sup>2</sup> thick  $\beta$ -Sn foil (0.1%  $\text{Sn}^{112}$ ; 2.3%  $\text{Sn}^{119}$ ; 94%  $\text{Sn}^{118}$ ) irradiated by a neutron beam of integral flux  $2.1 \cdot 10^{20}$  neutrons/cm<sup>2</sup>.  $\beta$ -Sn foils of several thicknesses

Card 1/3

On magnitude of quadrupole...

S/056/62/043/006/014/067  
B154/B102

and other Sn compounds were used as absorbing media. The source as well as the absorption medium were kept at a temperature of  $T = 83^{\circ}\text{K}$ . The results for several absorbing media are tabulated. The data from evaluation of the quadrupole splitting in the  $\beta$ -Sn lattice show good agreement with the Western papers and are in contradiction to the Soviet papers cited. It is concluded that the discrepancy may be due to instrumental splitting of the line measured. There are 3 figures and 1 table. ✓

SUBMITTED: July 13, 1962

Соединение и тип решетки ①	Толщина, мк/см ②	$2\Gamma_{\text{экс}}$ , $10^{-3}$ eV ③	$\Delta$ , $10^{-3}$ eV	Измеренный сдвиг, $10^{-3}$ eV ④
Sn ( $\beta$ ), $\tau$	46	$12,6 \pm 2$	} $1,5 < \Delta < 4$	—
Sn ( $\beta$ ), $\tau$	13,9	$12,4 \pm 2$		—
SnO <sub>2</sub>	10,8	$10 \pm 1,5$		$19 \pm 3$
SnO, $\tau$	19,7	$18,2 \pm 3$		$0,7 \pm 0,5$
Cd Sn As <sub>2</sub> , $\tau$ (x)	17,8	$11,4 \pm 2$		$7,6 \pm 1,5$

Card 2/3

On magnitude of quadrupole...

S/056/62/043/006/014/067  
B154/B102

Legend to the Table: (1) Compound and the type of the lattice\*,  
(2) thickness, mg/cm<sup>2</sup>, (3)  $2I_{exp}$ , 10<sup>-8</sup> ev, (4) isomeric shift, 10<sup>-8</sup> ev.  
\* type of the lattices: T - tetragonal, T(X) - tetragonal chalco-pyrite.

Card 3/3

GORODINSKIY, G.M.; KRIZHANSKIY, L.M.; KRUGLOV, Ye.M.

Extent of quadrupole interaction between  $\text{Sn}^{119\text{m}}$  nuclei and the  
crystal lattice. Zhur.eksp.i teor.fiz. 43 no.6:2050-2052 D '62.

(MIRA 16:1)

(Nuclear interactions) (Tin-Isotopes)

KHUGLOV, Yevgeniy Nikolayevich; PINUS, Emil'-Yakov Ruvimovich; YAKOVLEVA,  
A.I., red.; GALAKTIONOVA, Ye.N., tekhn.red.; NIKOLAYEVA, L.N.,  
tekhn.red.

[Constructing joints in cement-concrete pavements] Ustroistvo shvov  
v tsementobetonnykh dorozhnykh pokrytiakh. Moskva, M-vo avtomob-  
bil'nogo transp. i shosseinykh dorog RSFSR, 1960. 29 p.  
(MIRA 13:9)

(Pavements)



KRUGLOVA, A. A.

9

Mineralogical study of Bessemer mat. (I. A. Shakhov and A. A. Kruglova. *Trudy Metall.* 20, No. 2, 401 (1947).—A Ni Bessemer mat was studied microscopically for the purpose of developing a method for estg. the quantity of metallic Ni in Bessemer mat. The compn. of the mat was Ni 77.8, S 20.7, and Fe 0.6%. Sections of the mat were etched in 1:1 HNO<sub>3</sub> or concd. NH<sub>4</sub>OH and examd. microscopically. The predominant component was light yellow, soft, and definitely anisotropic. It was nonmagnetic and slowly turned brown under the action of HNO<sub>3</sub>. This component can be accepted to be a sulfide. The 2nd component is nearly cubical, highly reflecting, soft (scratched by steel), and blackens rapidly under the action of HNO<sub>3</sub>, while NH<sub>4</sub>OH reveals its structure clearly. The 2nd component solidifies first in a molten mat. It was assumed to be metallic Ni. This was checked by taking a print of a section on gelatin paper free of AgBr, moistened with HNO<sub>3</sub> or preferably NH<sub>4</sub>OH. After 1-2 min., the paper is removed from the section and dipped in an alc. soln. of dimethylglyoxime. The intensely colored spots indicate Ni. A comparison of the chem. and mineralogical results indicates that the basic mass of sulfides in the mat is in the form of Ni<sub>3</sub>S<sub>2</sub> and that its decompn. to form NiS<sub>2</sub>, as suggested by Guertler (*C.A.* 20, 2947) is unsubstantiated. Mineralogical examn. confirms the presence of metallic Ni in the mat and also permits study of the structure.

M. Hosh

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

KRUGLOVA, A. A.

USSR/Metals  
Bessemer Process  
Sulphides  
Mar/Apr 1947  
"Mineralogical Research on Faynshteyn," Prof G. A. Shakhov, A. A. Kruglova, Engr, MinTsvetMetZoloto, 2 pp  
"Tsvetnye Metally" No 2  
Illustrated article on the chemical components of "Faynshteyn," an intermediate metal sulphide product obtained in Bessemerization.  
28161

BRUGIOT, S.I.

Calculation values of direct solar radiation on vertical surfaces.  
from.strof. 42 no.119/0-02 N 164.

(MIRA 1818)

~~KRUGLOVA, Agrippina Il'inichna, chlen Kommunisticheskoy partii Sovetskogo  
Soyusa; PITKIN, L.M., red.; TIKHONOVA, I.M., tekhn.red.~~

[To my young friends] Moim iunym druz'iam. Lenizdat, 1958. 76 p.  
(Labor and laboring classes) (MIRA 12:3)

S/050/63/000/001/005/007  
D218/D307

**AUTHORS:** Kostyanoy, G. N. and Kruglova, A. I.

**TITLE:** On the reduction of radiation errors in measurements of the temperature of air by the PK3-1A (RKZ-1A) radio-sonde

**PERIODICAL:** Meteorologiya i gidrologiya, no. 1, 1963, 47

**TEXT:** It has been found that the radiation error may be reduced to 2 - 3 degrees at a height of 30 km by using the MMT-6 (MMT-6) thermistor, instead of the previously employed MMT-1 and by painting it with a white substance consisting mainly of BaSO<sub>4</sub>. The MMT-6 has a small diameter (by a factor of 2.5), and hence the convective heat transfer coefficient is larger by a factor of 1.5, so that the radiation error is reduced by an approximately equal factor. The white coating has a reflection coefficient of 85 - 90%, and this gives rise to reduction in the radiation error by a factor of 3 to 4. A modification of the holder, aimed at reducing its effect on

Card 1/2

On the reduction of ...

S/050/63/000/001/005/007  
D218/D307

the thermistor, gave rise to a reduction in the radiation error by a factor of 1.2 - 1.5. It is stated that the RKZ-1A radiosonde, incorporating the MMT-6 thermistor, covered with the BaSO<sub>4</sub> coating and mounted on the lighter support, is comparable with, or may even be better than, the "better radiosondes employed abroad".

ASSOCIATION: Tsentralnaya aerologicheskaya observatoriya (Central Aerological Observatory)

Card 2/2

KRUGLOVA, A.I.; SHLYAKHOV, V.I.

Total radiation of the ocean waters in Antarctica and some parts  
of the Pacific and Atlantic Oceans. Trudy TSAO no.45:90-98 '62.  
(MIRA 16:10)

KRUGLOVA, A.I., INZH.

Determining the rate of precipitation falling on the walls of buildings. Prom. strai. 42 no. 71/404 105.

(MIRA 18:8)

1. Nauchno-issledovatel'skiy i konstruktivnyy fiziki i ogranichayushchikh konstruktsiy.



KRUOLOVA, A.M., inzh.

Efficiency promoters of the light industry of the White Russian  
Economic Council. Izobr.i rate. no.7:13-14 J. '58. (MIRA 11:9)  
(Efficiency, Industrial)

KRUGLOVA, A.M., inzh.

Inventors and efficiency promoters put the mechanization  
and automatization of production into practice. Kozh.-obuv.  
prom. no.10:3 0 '59. (MIRA 13:2)

(White Russia--Shoe manufacture)

(White Russia--Leather industry)

(Automatic control)

**KRUGLOVA, A.P.**

[Michurin varieties and other new fruit and berry varieties]  
Michurinskie i novye sorta plodovo-iagodnykh kul'tur. Saratov-  
skoe knizhnoe izd-vo, 1956. 97 p. (MIRA 12:3)  
(Fruit--Varieties) (Berries--Varieties)

Kruplova, A. P.

Category: DOMESTICATED PLANTS, FRUITS, BERRIES.

Doc. Jour.: IZV. ZHUR-BIOL., 21, 1968, NO. 56, 43

Author: Kruplova, A. P.

Institut:

Title: Better Raspberry Varieties for the Central Volga Area

Orig. Ref.: S. Kh. Povolzh'ye, 1967, No. 8, 27-28

Abstract : A study has been conducted of 62 raspberry varieties for the past 15 years at Saratov Experimental Station. The most productive on an average covering the 15 years has been the varieties (in kg from a single hectare): Vseeda Plodnosyashchaya 5100, Usanka 3820, Bannaya Tompsons 3065, Kaluzhanka 2965, Progress 2810, Novost' Kuz'mina 2700, Malboro 2555, and Hina 2500. Usanka and Kaluzhenka varieties have very unstable yields in some years. August shoot trimming to 10-12 cm helped to increase

Card: 1/2

KRUGLOVA, A.P., kand.sel'skokhoz.nauk

Developing Sphaerotheca-resistant varieties of gooseberries in the  
middle Volga Valley. Agrobiologiya no.3:419-423 My-Je '63.  
(MIRA 16:7)

1. Saratovskaya opytnaya stantsiya po sadovodstvu.  
(Volga Valley--Gooseberry breeding)  
(Volga valley--Mildew)

*Kruglova, A.V.*

USSR /Chemical Technology. Chemical Products  
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31528

Author : Kuznetsov A. Ya., Kruglova A.V., Kryzhanovskiy,  
B. P.

Title : Heating of Glass- and Ceramic Ware by Means of  
Semiconductor Films

Orig Pub: Zavod. laboratoriya, 1956, 22, No 8, 993-995

Abstract: It is recommended to utilize as the heating  
element semiconductor tin dioxide. Films  
consisting therefrom can be produced by treating  
the heated article with an alcohol solution of  
stannic chloride or with stannic chloride vapor.

Card 1/3

USSR /Chemical Technology. Chemical Products  
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31528

Semiconductor films adhere well to the surface of glass, porcelain and other ceramic materials, and are characterized by high mechanical durability and chemical stability. Specific conductivity of a film 1-3  $\mu$  thick is of about 1000  $\text{ohm}^{-1} \text{cm}^{-1}$ . As concerns conduction the film is similar to an intermetallic compound. The films are stable to the action of electric fields: they withstand up to 5000 v/cm, current density of up to 30 a/ $\text{mm}^2$ , wattage of up to 15 w/ $\text{cm}^2$ . Use of semiconductor films in heating of porcelain beakers, porcelain funnels, quartz crucibles, glass funnels and heaters, made it possible to raise the efficiency to 80-94%.

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USSR /Chemical Technology. Chemical Products  
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31528

Simplicity of the processes of film deposition,  
low cost of the starting products and prolonged  
stability of the coatings, indicate the necess-  
ity of their extensive utilization, as heating  
elements, in various technological fields.

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ALL NR: APOUEN10

SOURCE CODE: UR/0237/60/000/012/0007/0009

AUTHOR: Kuznetsov, A.Ya.; Kruglova, A.V.

ORG: None

TITLE: Investigation of ionic exchange reactions on glass by optical methods

SOURCE: Optiko-mekhanicheskaya promyshlennost', no.12, 1960, 7-9

TOPIC TAGS: optics, optic film, optic film property, optic coating, optical coating property, optic coating exchange reaction

ABSTRACT: This is an investigation of ionic exchange reactions on a glass surface by optical methods. Optical methods were used because of the negligible amounts of metals involved. Experimentation methods included production and stabilization of a 1000 Å thick  $\text{SiO}_2$  - containing film by etching Pyrex glass with  $\text{HNO}_3$  at elevated temperatures, followed by drying over  $\text{P}_2\text{O}_5$ . Reactions with chosen metal salts were then completed, followed by conditioning of the surface in hydrogen at 400 °C to reduce the cations to their atomic state. The spectral transparency of the glass was then measured, and the curves studied to determine the nature and the relative concentration of the cations in the film. Experimental results confirmed the decisive influence of the surface reactions upon the film's transparency. The action of hydrogen upon glasses previously processed with metal salt solutions causes a decrease in the spectral transparency curve ordinates. Each metal has its own characteristic. Reactions of mutual

Card 1/2

KRYZHANOVSKIY, B.P.; KRUGLOVA, A.V.; KUZNETSOV, A.Ya.

Conducting transparent coatings on a mica surface. Zav. lab.  
31 no.11:1366 '65. (MIRA 19:1)

5(2, 4)

S07/80-32-5-42/52

AUTHORS: Kuznetsov, A.Ya., Kruglova, A.V., Kryzhanovskiy, B.P.

TITLE: Films of Semiconductive Tin Dioxide With Raised Conductivity

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 5, pp 1161-1163 (USSR)

ABSTRACT: Transparent semiconductive films of tin dioxide on glass are widely used in aviation, sea and land transportation, photoelectric and electroluminescent devices, etc. They are prepared by treating glass heated to 600 - 650°C by alcohol solutions of tin tetrachloride, or by treating glass heated to 400°C by vapors of the products of hydrolysis of tin dichloride. The films have a resistance of several hundred ohms. For films of about ten ohms the thickness of the film must be increased, which deteriorates the transparency, or the electric conductivity must be raised. This can be attained by adding pentavalent metal atoms or fluorine atoms. The introduction of  $NH_4F$  in the amount of 3 - 10 weight % into a powder of  $SnCl_2$  yields best results. Pyrolytic treatment of the glass increases the specific conductivity to  $3 \cdot 10^3 \text{ ohm}^{-1} \cdot \text{cm}^{-1}$ . The film has a thickness of  $0.25 \mu$  and a resistance of 10 ohms. Its transparency is improved.

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Films of Semiconductive Tin Dioxide With Raised Conductivity SOV/80-32-5-42/52

There are: 1 table and 5 references, 4 of which are Soviet and 1 English.

SUBMITTED: July 10, 1958

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