RYTOV, S.M., prof.; VESELKA, Josef, dr. [translator]

What will the astronaut see and meet when flying at almost the speed of light. Pokroky mat fyz astr 5 no.6:728-733 '60.

84660

S/020/60/135/001/012/030
B006/B056

9,6130
3,9100

AUTHORS: Gringauz, K. I. and Rytov, S. M.

TITLE: The Interrelation Between the Results of Measurements Carried out With the Help of Charged Particle Traps on Soviet Cosmic Rockets and Measurements of the Magnetic Field by Means of the American Earth Satellite "Explorer VI" and the Rocket "Pioneer-V"

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 1, pp. 48-51

TEXT: The authors of the present paper first give a survey of the most essential results obtained with respect to the geomagnetic field and the external radiation belt of the Earth, obtained by means of Soviet space rockets, the "Explorer VI" and the "Pioneer-V" rocket. Using these results it is possible to draw several conclusions with respect to the drift current density and the particle fluxes in great altitudes. By means of the three-electrode charged-particle traps built into the Russian rockets, it was found (1959) that in altitudes of from 55,000 to 75,000 km, the

Card 1/4

The Interrelation Between the Results of Measurements Carried out With the Help of Charged Particle Traps on Soviet Cosmic Rockets and Measurements of the Magnetic Field by Means of the American Earth Satellite "Explorer VI" and the Rocket "Pioneer-V"

S/020/60/135/001/012/030
B006/B056

electron flux density attains $\sim 10^8$ electrons/cm^2·sec ($E_e \gtrsim 200$ ev). Herefrom, the conclusion may be drawn that the Earth is surrounded by a belt of charged particles, which is located outside the radiation belt. It is assumed that it is bounded by the lines of force of the geomagnetic field. Soviet space rockets crossed the geomagnetic equator at an altitude of 60,000 km, which is exactly where, according to American measurements, the center of the current belt is located. The maximum of the electron flux density is between about 55,000 and 75,000 km, so that it is about 20,000 km thick, whereas the zone in which an electron flux was found to exist at all, is 40,000 km thick. The authors arrive at the conclusion that in the Soviet trap experiments the total flux density of electrons was measured as amounting to $E_e > 200$ ev, whereas in the American measurements of the geomagnetic field only that component of this flux which is perpendicular to the field lines, was measured. Such a component is the consequence of the known drift of the charged particles in the inhomogeneous

The Interrelation Between the Results of Measurements Carried out With the Help of Charged Particle Traps on Soviet Cosmic Rockets and Measurements of the Magnetic Field by Means of the American Earth Satellite "Explorer VI" and the Rocket "Pioneer-V"

magnetic field. For the purpose of estimating the drift current density and the current at the traps, the authors assume that the geomagnetic field is a pure dipole field, and that the electrons have a Maxwell velocity distribution. They obtained (approximatively)

$j_{drfit} = \frac{6c\Theta NR^2}{B_o R_E^3}$ and $j_{trap} = eN\sqrt{\frac{\Theta}{2\pi m}}\, e^{-x}$, $x = eV/\Theta$; c - velocity of light, Θ - temperature, and N - electron density, R_E - Earth radius, B_o - field on the Earth's surface, B - field at the distance R from the dipole. Thus, $j_{drift}/j_{trap} = 1.55 \cdot 10^{-6}\, e^x/\sqrt{x}$ is obtained. One obtains $\Theta \cong 21$ ev and $N \cong 600$ el/cm^3. Agreement between the Soviet current density measurements and the current densities which may be assumed on the basis of American measurements of the perturbations of the geomagnetic field is quite satisfactory in view of the rough assumptions upon which the

The Interrelation Between the Results of Measurements Carried out With the Help of Charged Particle Traps on Soviet Cosmic Rockets and Measurements of the Magnetic Field by Means of the American Earth Satellite "Explorer VI" and the Rocket "Pioneer-V"

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B006/B056

estimates were based. It may therefore be assumed that the "current belt", which was discovered by the magnetic measurements, is nothing but a consequence of the inhomogeneities of the field caused by the drift current. There are 12 references: 6 Soviet, 5 US, and 1 British.

PRESENTED: October 15, 1960, by A. L. Mints, Academician

SUBMITTED: October 14, 1960

RYTOV, Sergey Mikhaylovich, prof., doktor fiziko-matem.nauk; MILLER, Vladimir Viktorovich, kand.fiziko-matem.nauk; BASOV, Nikolay Gennadiyevich, prof., doktor fiziko-matem.nauk; PROKHOROV, Aleksandr Mikhaylovich, prof., doktor fiziko-matem. nauk, laureat Leninskoy premii; FAYNBOYM, I.B., red.; ATROSHCHENKO, L.Ye., tekhn.red.

[New problems in physics] Novye problemy fiziki; sbornik statei. Moskva, Izd-vo "Znanie," 1961. 44 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.9, Fizika i khimiia, no.7) (MIRA 14:6)
(Astronautics) (Relativity)

L 04445-67 EWT(1)/FCC GW

ACC NR: AP6018922 SOURCE CODE: UR/0203/66/006/003/0568/0580

63
B

AUTHOR: Gringauz, K. I.; Kravtsov, Yu. A.; Rudakov, V. A.; Rytov, S. M.

ORG: Radioengineering Institute, AN SSSR (Radiotekhnicheskiy institut AN SSSR)

TITLE: Once more about the feasibility of local electron concentration determination by the dispersion method using artificial Earth satellites and about the new ionization maxima in the ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 3, 1966, 568-580

TOPIC TAGS: ionospheric electron density, ionospheric physics, ionospheric disturbance, ionospheric radio wave, satellite data analysis, geophysic rocket

ABSTRACT: This is the continuation of an earlier debate between the present authors and Ya. L. Al'pert et al. (see, e.g., Geomagn. i aeronomiya, 1 1965, 5, No 4, 766) concerning the feasibility of local electron concentration determination by the dispersion method using artificial Earth's satellites. The authors show once more that the electron concentration determination using such a method leads to inaccurate results because of the presence within the ionosphere of horizontal ionization gradients as well as because of the nonstationary character

 UDC: 550.388:629.198.3

L 04445-67

ACC NR: AP6018922

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of the ionosphere. In addition, the unreliability of the results of Al'pert et al. is caused also by an inaccurate method used during the processing of experimental data. [Publishing Editor's note: no further articles concerning this discussion will be published.] Orig. art. has: 9 formulas and 4 tables.

SUB CODE: 08/ SUBM DATE: 27Oct65/ ORIG REF: 023/ OTH REF: 015

Card 2/2

L 00560-66 EWT(l)/FCC/EWA(h) GW

ACCESSION NR: AP5021006 UR/0203/65/005/004/0762/0766
550.388.2:621.391.81

AUTHORS: Gringauz, K. I.; Kravtsov, Yu. A.; Rudakov, V. A.; Rytov, S. M.

TITLE: On the possibility of determining local electron concentrations using the dispersion method with the help of artificial satellites and on a new ionization maximum in the ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 4, 1965, 762-766

TOPIC TAGS: electron concentration, ionization, artificial satellite, ionosphere, Doppler shift, F layer

ABSTRACT: In order to determine whether dispersion methods for measuring N_0 in the ionosphere by means of artificial satellites are valid, the various gradient terms $\partial N/\partial x$, $\partial N/\partial y$, and $\partial N/\partial t$ must be investigated to determine if they are significant in comparison with N_0. These various gradient terms that appear in the expression for the difference in Doppler shift between frequencies ω_1 and ω_2 are given by

$$[N_R] = \frac{1}{z_\epsilon}\int_0^{z_a} N dz, \quad \left[\frac{\partial N}{\partial x}\right] = \frac{1}{z_a \cos\varphi_0 \sin\varphi_0}\int_0^{z_a}\frac{\partial N}{\partial x}z dz \quad \left[\frac{\partial N}{\partial y}\right] = \frac{1}{z_a \cos\varphi_0}\int_0^{z_a}\frac{\partial N}{\partial y}z dz.$$

Card 1/3

L 00560-66
ACCESSION NR: AP5021006

A detailed analysis is made to show that the terms $[\partial N/\partial y]_{z_c}$, $[\partial N/\partial x](r_0 + z_c/\cos\varphi_0)$, $\int_0^{z_c}(\partial N/\partial t)\,dz$ are not necessarily small in comparison to $N_0 z_c/\cos\varphi_0$. A similar statement, with even more assurance, can be made about the unsteady term $\int_0^{z_c}(\partial N/\partial t)\,dz$.

To demonstrate this, an altitude versus density curve (see Fig. 1 on the Enclosure) is shown. Here the maximum in N is above the maximum region of the F-layer if one bases the data on the local dispersion method, neglecting the gradient terms (solid curve in Fig. 1). Radio-probe methods, on the other hand, support only the lower curve (dotted curve on Fig. 1). For this reason and because dispersion measurements far from the earth are unreliable, the authors do not agree with the local concentration data reported by previous authors (e.g., Ya. L. Al'pert. Geomagn. i aeronomiya, 1964, 4, No. 3, 479). Orig. art. has: 4 formulas and 2 figures.

ASSOCIATION: Radiotekhnicheskiy institut, AN SSSR (Radio Technology Institute, AN SSSR)

SUBMITTED: 01Feb65 ENCL: 01 SUB CODE: GP, ES

NO REF SOV: 013 OTHER: 011

Card 2/3

L 00560-66

ACCESSION NR: AP5021006 ENCLOSURE: 01

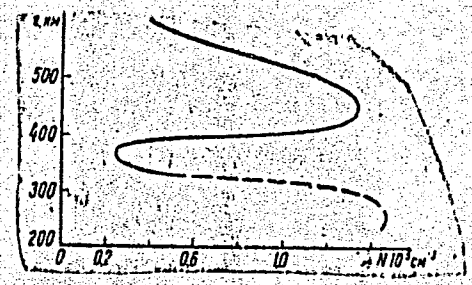

Fig. 1.

Card 3/3

ODALEVICH, G.L.; GRINGAUZ, K.I.; RUDAKOV, V.A.; RYTOV, S.M.

Effect of the ionosphere on the determination of the position of rockets. Radiotekh. i elektron. 8 no.6:942-949 Je '63. (MIRA 16:7)

(Rockets (Aeronautics)) (Electronics in navigation)

RYTOV, S.M.

Theory of the synchrotron; interaction between a particle and a clot. Trudy Fiz.inst. 18:32-54 '62. (MIRA 15:12)
(Synchrotron) (Plasma (Ionized gases))

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

L 10276-63 BDS/EWT(l)/FS(v)/EEC-2/ES(v)/ES(t)-2--AFFTC/AFMDC/
APGC/ASD/ESD-3/SSD--Pc-4/Pg-4/Pi-4/Ph-4/Pl-4/Pc-4/Pg-4 GW/BC/AR/ASD
ACCESSION NR: AP3000990 S/0109/63/008/006/0942/0949

100

AUTHOR: Gdalevich, G. L.; Gringauz, K. I.; Rudakov, V. A.; Ry*tov, S. M. 9

TITLE: Effect of the ionosphere on the position finding of space rockets /Report of the Thirteenth International Astronautical Congress held in Varna September 1962/

SOURCE: Radiotekhnika i elektronika, v. 8, no. 6, 1963, 942-949

TOPIC TAGS: space rocket, effect of ionosphere

ABSTRACT: Some ideas are set forth about calculating the errors caused by the ionosphere in determining coordinates and speed of space rockets by radio means. Assuming a geometrical-optics approximation and measurements at frequencies over 5 x 10 sup 7 cps, formulas are derived for the ionosphere-caused errors in determining range, elevation, and speed of rockets. The rocket is assumed to be in outer space, and errors due to the troposphere and interplanetary plasma are neglected. Approximation of the real altitude distribution of electron concentrations is discussed for purposes of evaluating the above errors. Western and Soviet data on electron concentrations are compared. Orig. art. has: 9 formulas and 6 figures.

Card 1/2/

RYTOV, Yuriy Aleksandrovich; KOROBOV, P.I., red.; AVDEYEVA, V.A., tekhn. red.

[Man at automatic machines] Chelovek u avtomatov. Moskva, Sovetskaia Rossiia, 1962. 162 p. (MIRA 15:7)
(Automation)

SMOLIN, D.D.; TIKHONOVA, L.I.; RYTOVA, A.A.

Synthesis of some 7-substituted 8-hydroxyquinoline-5-sulfonic acids and a physicochemical evaluation of their properties in forming complexes with Sr^{2+} and Ca^{2+} ions. Zhur.ob.khim. 32 no.8:2418-2423 Ag '62. (MIRA 15:9)
(Quinolinesulfonic acid) (Complex compounds)

16

PHASE I BOOK EXPLOITATION SOV/6177

Akademiya nauk SSSR. Institut neftekhimicheskogo sinteza

Radioliz uglevodorodov; nekotoryye fiziko-khimicheskiye problemy (Radiolysis of Hydrocarbons; Some Physicochemical Problems) Moscow, Izd-vo AN SSSR, 1962. 207 p. Errata slip inserted. 5000 copies printed.

Resp. Eds.: A. V. Topchiyev, Academician, and L. S. Polak, Doctor of Physics and Mathematics; Ed.: L. T. Bugayenko; Tech Ed.: Ch. A. Zentsel'skaya.

PURPOSE: This book is intended for physical and industrial chemists interested in the properties and behavior of irradiated hydrocarbons.

COVERAGE: The book gives a systematic presentation of the results of research on the radiolysis of hydrocarbons carried out from 1957 through 1961 at the Laboratory of Radiation Chemistry, Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petro-

Card 1/4

chemical Synthesis, Academy of Sciences USSR). Although the results were obtained for individual compounds, they may be generalized and applied to other members of the same homologous series. The following persons participated in making the experiments and in writing the text: V. G. Beryezkin, V. E. Glushnev, Yu. A. Kolbanovskiy, I. M. Kustanovich, V. D. Popov, A. Ya. Temkin, V. D. Timofeyev, N. Ya. Chernyak, V. A. Shakhray, E. B. Shlikhter, A. S. Shcherbakova, B. M. Mogodov, A. Z. Peryshkina, N. M. Rytova, T. A. Tegina, Yu. B. Emin, A. M. Brodskiy, V. V. Voyevodskiy, P. Ya. Glazunov, B. A. Smirnova, and Yu. L. Khait. References, mainly Soviet and English, follow individual chapters.

TABLE OF CONTENTS [Abridged]:

S/844/62/000/000/054/129
D204/D307

AUTHORS: Kustanovich, I. M., Polak, L. S. and Rytova, N. M.

TITLE: A study of the luminescence spectra of irradiated hydrocarbons

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 322-325

TEXT: The purpose of this work was to investigate the luminescence spectra obtained during the warming up of some saturated hydrocarbons previously irradiated at low temperatures, to obtain information regarding the source of this emission. In an example, purified n-heptane and cyclohexane were γ irradiated at -196°C, with an integral dose of 15 Mrads. The resulting spectra showed in each case 2 partly overlapping maxima, situated at ~5000 and ~5400 Å for cyclohexane and at ~5100 and ~5500 Å for n-heptane. The emission is ascribed to the recombination of free radicals of various structures, produced during irradiation and stabilized at the then low

Card 1/2

A study of the ...

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D204/D307

temperatures. The presence of such radicals was confirmed by EPR spectroscopy. No emission was observed in the absence of free radicals. Previous irradiation of the specimens with visible light did not affect the luminescent spectra. The quantum yield for irradiated cyclohexane was found to be 1.3×10^{-6} photons per radical pair, which agrees with the theoretical value of $10^{-5} - 10^{-6}$ calculated for the probability of emission during recombination reactions. In the case of cyclohexane, $\sim 10^{-4} - 10^{-3}$ M additions of benzene largely increased the emission intensity, the latter increasing linearly with $\sqrt[3]{c}$ where c is the molar fraction of benzene. There are 2 figures.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petrochemical Synthesis, AS USSR)

Card 2/2

RYTOVA, N.M.; TETERINA, M.P.; POLAK, L.S.

Infrared absorption spectra of some dodecane isomers. Neftekhimia 2 no.1:14-17 Ja-F '62. (MIRA 15:5)

1. Institut neftekhimicheskogo sinteza AN SSSR.
(Dodecane—Spectra)

L 09009-67 EWT(1)/EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/WW/GG

ACC NR: AP6030967 SOURCE CODE: UR/0181/66/008/009/2672/2678

AUTHOR: Rytova, N. S.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

61
B

TITLE: Resonance absorption of electromagnetic waves in a thin film

SOURCE: Fizika tverdogo tela, v. 8, no. 9, 1966, 2672-2678

TOPIC TAGS: resonance absorption, electromagnetic wave, electron motion, absorption coefficient, electron interaction, Green function

ABSTRACT: The author analyzes the resonance absorption of electromagnetic waves in a thin film in which an electron motion is quantized by the normal to it. The absorption coefficient of electromagnetic emission is calculated by the Green function at T = 0 for band-to-band transitions, with allowance for the electron interactions between them and charged defects randomly distributed over the film. The author thanks V. L. Bonch-Bruyevich for supervising the study. Orig. art. has: 39 formulas. [Based on author's abstract]

SUB CODE: 20/ SUBM DATE: 31Jan66/ ORIG REF: 008/

Card 1/1 LC

L 65185-65 EWT(1)/T IJP(c) GG

ACCESSION NR: AP5021273 UR/0020/65/163/005/1118/1120

AUTHOR: Rytova, N. S.

TITLE: Coulomb interaction of electrons in a thin film

SOURCE: AN SSSR. Doklady, v. 163, no. 5, 1965, 1118-1120

TOPIC TAGS: Coulomb interaction, electron interaction, semiconducting film, semiconductor theory

ABSTRACT: Existing semiconductor films are strongly doped as a rule. Interaction between current carriers in this type of semiconductor is often very important. The author examines the effect of this interaction on the spectral emission of free current carriers and of those in the film. The film is represented as a plane layer of a medium with thickness L and specific inductive capacitance ε. The z-axis is perpendicular to the plane of the film. Electron gas is distributed in this layer with an average density N per unit of area. A positive background charge is distributed evenly with the same density, so that the system as a whole is neutral. It is assumed that an electron in the film is in a homogeneous potential well with infinitely high walls. It is understood that this model is an idealization without crystal

Card 1/2

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4

L 65185-65

ACCESSION NR: AP5021273 6

lattice defects or the physical properties of an actual film surface. It is found that Coulomb interaction causes a constant downward shift in all energies. "The author expresses her sincere gratitude to V. L. Ponch-Bruyevich for proposing the subject and directing the work." Orig. art. has: 14 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 22Jan65 ENCL: 00 SUB CODE: NP, SS

NO REF SOV: 000 OTHER: 000

Card 2/2

84061

S/181/60/002/009/002/036
B004/B056

26.1631
26.1512

AUTHORS: Galkin, G. N., Rytova, N. S., Vavilov, V. S.

TITLE: Volume Recombination of Current Carriers in n-Type Silicon Containing Radiative Structural Defects

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 9, pp. 2025-2030

TEXT: The authors experimentally checked G. K. Wertheim's data (Refs. 3,4). According to a method suggested by S. G. Kalashnikov and N. A. Penin (Ref. 6), the change in the parameters of the p-n junction, caused by the changed lifetime of the minority carriers, was investigated in dependence on the alternating voltage applied. Fig. 1 shows the shape of samples made from n-type silicon single crystal, into which aluminum had been melted. The samples were irradiated with beta particles of an Sr^{90} - Y^{90} preparation at room temperature. The lifetime τ was obtained as a function of the injection level $\delta p/n_o$ within the range of 150 - 440°K. $\tau(1+\delta p/n_o)=f(\delta p/n_o)$ develops linearly within a large injection-level range (Fig.2). From $\ln(\tau_o/T^{3/2})=f(1/T)$ at high temperatures, the distance ΔE

Card 1/3

Volume Recombination of Current Carriers in n-Type Silicon Containing Radiative Structural Defects

S/181/60/002/009/002/036
B004/B056

of the recombination level E_t from the edge of one of the bands was determined. ΔE was found to be 0.16 ± 0.01 ev. By investigating the temperature dependence of τ_∞ / τ_o it was determined in which half of the forbidden band the recombination level was located. If the latter is found to be in the lower half, it is necessary that, at a critical temperature $p_1 = n_o$ and $E_t - E_v = E_c - F$ (F = Fermi level). In the samples investigated $E_c - F$ is about 0.16 ev at 240°K, τ_∞ / τ_o at this temperature equaled 10. Thus, this temperature was not the critical one. The recombination level of the radiative defects was in the upper half of the forbidden band. From the values τ_{no} and τ_{po} the trapping cross sections for electrons (σ_n) and holes (σ_p) were calculated as functions of T (Fig. 3), and from these the dependence of τ_o on 1/T was determined (Fig. 4). At 300°K, it was true that $\sigma_p = 4 \cdot 10^{-14}$ cm^2, $\sigma_n = 1 \cdot 10^{-15}$ cm^2. Fig. 5 shows the temperature dependence of n/n_o (ratio of the electron concentration in the irradiated

Volume Recombination of Current Carriers in n-Type Silicon Containing Radiative Structural Defects

sample to the electron concentration n_o in the non-irradiated sample). Within the temperature range investigated, n_o was constant and equal to $1.1 \cdot 10^{15}$ cm^{-3}. Contrary to Wertheim's data, the trapping cross sections were thus different. $E_c = -0.16$ ev is an acceptor level which can be due neither to an insulated vacancy, an interstitial atom, nor due to a "near" pair, but to the presence of oxygen. The authors thank V. M. Malovetskaya and N. A. Penin for critique and advice; and Ye. M. Divil'kovskaya, S. P. Zharov, and E. L. Nolle for their collaboration. There are 5 figures and 11 references: 3 Soviet and 9 US.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR, Moskva (Institute of Physics imeni P. N. Lebedev of the AS USSR, Moscow)

SUBMITTED: February 10, 1960

L 41723-66 EWT(l)/EWT(m)/T/EWP(t)/ETI IJP(c) JD/GG/AT

ACC NR: AP6018533 SOURCE CODE: UR/0181/66/008/006/1725/1731

AUTHOR: Rytova, N. S.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Chemical potential and density of states of non-ideal electron gas in an alloyed thin film

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1725-1731

TOPIC TAGS: electron gas, Green function, electron interaction, thermodynamic property, semiconducting film, potential well

ABSTRACT: This is a continuation of earlier work by the author (DAN SSSR v. 163, 1118, 1965) devoted to the interelectron interaction in a thin semiconducting film, where the electron is assumed to be in a one-dimensional potential well with infinitely high walls. The present article deals with the thermodynamic characteristics of a non-ideal electron gas in a non-ideal thin film, in which the motion of the electrons in a normal direction is quantized, under the assumption that only one quantum level is effectively filled and that the electron gas is doubly degenerate at this level. The Green's function method was used to obtain the density of the states and the chemical potential of the electron gas. Corrections are obtained for the spectrum and for the chemical potential with allowance for the interaction between the electrons. The density of states and the chemical potential are calculated under the

Card 1/2

assumption that the film contains randomly distributed charged defects. The results show that in thin film, just as in a bulky crystal, the Fermi level shift is due primarily to the interelectron interactions and not to interaction with the impurities. On the other hand, the interaction with the impurities affects strongly the variation of the state density. The author is deeply grateful to V. L. Bonch-Bruyevich for directing the work. Orig. art. has: 30 formulas.

SUB CODE: 20/ SUBM DATE: 01Nov65/ ORIG REF: 002

RITOVA, V.V.; ZHUKOVSKIY, A.M.

Study of vaccinal immunity in persons vaccinated by live influenza vaccines. Vop. virus 8 no.5:605-608 S-O'63 (MIRA 17:1)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva.

RYTSAREV, M.A.

Mechanized forwarding of train documents in hump yards.
Avtom., telem. i sviaz' 9 no.7:15-17 Jl '65. (MIRA 18:8)

1. Glavnyy spetsialist otdela gorok Glavnogo upravleniya signalizatsii i svyazi Ministerstva putey soobshcheniya.

BUZANOV, Stepan Petrovich, prof.; KARPOV, Aleksandr Mikhaylovich, dots.; KYTSAREV, Mikhail Alekseyevich, inzh.; PREDE, V.Yu., red.

[Design of mechanized and automated classification systems] Proektirovanie mekhanizirovannykh i avtomatizirovannykh sortirovochnykh ustroistv. Moskva, Transport, 1965. 231 p. (MIRA 18:4)

COUNTRY : POLAND
CATEGORY : General Problems of Pathology. Immunity U

ABS. JOUR. : RZBiol., No. 12 1958, No. 56217

AUTHOR : Rytsay, T.
INST. : Polish Academy of Sciences
TITLE : Specific Agglutination of Erythrocytes Covered by Antibodies

ORIG. PUB. : Bull. Pol'skoy AN. Otd.2, 1956, Vol.4, No.9, 355-359

ABSTRACT : A proposal for a modification of the hemagglutination test with erythrocytes sensitized with antibodies instead of antigens permitting the demonstration in an infected organism of antigens (such as toxins) even before the appearance of antibodies. The reaction is specific and permits detection of much smaller amounts of toxin than the biotest: diphtheria - 0.0039, tetanus - 0.78, anti-botulinus type A - 0.254 MLD for guinea pigs of 350 gm weight upon subcutaneous injection. This test may be used for the demonstration of species specificity of animal proteins; it is considerably

CARD: 1/2

ZAITKANOVA, V.S.; RYTSK, V.I.

Metamorphic rocks of the Chu-Ili Mountains. Trudy VSEGEI 111:53-68 '64. (MIRA 18:7)

RYTSK, V.I.

Gneisses of the Kendyktas Mountains. Trudy VSEGEI 94:281-292 '63. (MIRA 17:6)

RYTSK, Yu.Ye.

Effect of disjunctive dislocations on the distribution of pegmatites in the northwestern part of the White Sea region. Trudy VSEGEI 83:49-69 '62. (MIRA 16:9)

BABOSHIN, V.A.; BOROVIKOV, P.P.; ZAKHARCHENKO, A.I.; IVANOV, A.A.; NIKANOROV, A.S.; NIKITIN, V.D.; RYTSK, Yu.Ye.; SMIRNOVA, V.S.; SOKOLOV, Ya.N.; SOLOV'YEV, A.T.; TSEKHOMSKIY, A.M.

In memory of Daniil Timofeevich Misharev. Trudy VSEGEI 108:189-191 '64. (MIRA 18:2)

RYTSK, Yu.Ye.

Two genetic types of pegmatite veins in northern Karelia and in the southwestern part of the Kola Peninsula. Inform. sbor. VSEGEI no.55:51-58 '62. (MIRA 17:1)

UNKSOV, V.A.; BOROVIKOV, P.P.; RUNDKVIST, D.V.; PAVLOVA, I.G.; ALYAVDIN, V.F.; VOLOSTNYKH, G.T.; ROZINOV, M.I.; SHCHEGLOV, A.D.; IVANOVA, A.A.; KORMILITSYN, V.S.; SHCHEGLOV, A.D.; ARTEMOV, V.R.; RYTSK, Yu.Ye.; GINZBURG, A.I.; DORTMAN, N.B.; TOPORETS, S.A.; TRUNINA, V.Ya.; YAKOVLEV, I.K.; BOGDANOVA, L.A.; SARBEYEVA, L.M.

Problems of the geology and characteristics of the distribution of mineral deposits. [Trudy] VSEGEI 92:53-89 '63. (MIRA 17:4)

RYTSK, Yu. Ye., Cand of Geol-Min Sci — (diss) "Tectonic Conditions of the Formation of Micaceous Pegmatitic Veins of a Dam Site (Northern Kareliya)," Leningrad, 1959, 21 pp (Leningrad Mining Institute im G. V. Plekhanov) (KL, 5-60, 124)

SOV/91-59-1-2/26

AUTHORS: Rytslin, A.M. and D'yakov, P.I., Engineers

TITLE: On Expanding the Utilization Field of Mobile Telescopic Towers (Rasshireniye oblasti primeneniya avtoteleskopicheskikh vyshek)

PERIODICAL: Energetik, 1959, Nr 1, pp 4 - 9 (USSR)

ABSTRACT: The article is a report on new experiences in the Sergovskiy network area (belonging to the "Donbassenergo") on the expanded utilization of mobile telescopic towers. The authors describe and illustrate how such towers (mentioned are the VT-13.5 and VI-23 types installed on the ZIL-151 trucks) can be employed in exchanging some parts of the wooden power-transmission supports, in constructing power-transmission lines across RR tracks, telecommunication lines and other power-transmission lines, on how such towers may be used as truck tractors and be of help at the distributing installations of the substations. Work efficiency becomes higher. It will be the task of the plant producing

Card 1/2

On Expanding the Utilization Field of Mobile Telescopic Towers

the mobile telescopic towers (ORGRES), in cooperation with practicing electricians, to improve the present type of mobile telescopic tower. There are 2 tables and 5 diagrams.

RYTSLIN, A.M., inzh.; D'YAKOV, P.I., inzh.

Widening the field of utilization of telescope towers. Energetik 7 no.1:4-9 Ja '59. (MIRA 12:1)
(Electric lines--Repairing)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

RYTSLIN, A.M., inzh.; MAZURENKO, N.A., inzh.

Repairing transformers by means of cranes installed on trucks.
Energetik 7 no.2:19-21 F '59. (MIRA 12:1)
(Electric transformers--Maintenance and repair)

MYASNICHENKO, A.I., inzh.; RYTSLIN, A.M., inzh.

Drying insulation oil by means of dry air. Elek sta. 30 no.2:
87-88 F '59. (MIRA 12:3)
(Insulating oils--Drying)

RYTSLIN, A.M., inzh.; NIKONOV, V.I., inzh.; VOLCHKOVA, L.A., inzh.

Heating of power trnasformers with rectified current. Energetik. 13 no.4:22-24 Ap '65. (MIRA 18:6)

SOV/91-59-2-14/33

AUTHORS: Rytslin, A. M., and Mazurenko, N. A., Engineers

TITLE: The Repair of Transformers with the Help of Auto-Mounted Cranes (Remont transformatorov pri pomoshchi avtokranov)

PERIODICAL: Energetik, 1959, Nr. 2, pp 19 - 21 (USSR)

ABSTRACT: The authors describe, in an elementary way, the experience acquired by one power district of the Donbassenergo (Power Administration of the Donets basin) in using truck-mounted cranes for extracting transformer cores, and putting them back into the transformers. Good savings in labor and a speed-up of inspection and repair of transformers was accomplished. There are three tables, 1 photo and one graph.

Card 1/1

RYTSLIN, A.M.

IYERUSALIMOV, M.Ye.; RYTSLIN, A.M.; MORGIN, P.I.

Radiomateriology of high-voltage insulation used in power systems.
Izv. KPI 22:394-396 '57. (MIRA 11:3)
(Electric insulators and insulation--Testing)
(Radiology, Industrial)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4

BONDARENKO, A.K., inzh.; RYTSLIN, A.M., inzh.; KHAITON, E.I., inzh.; BATKHON, I.S., inzh.; KUZNETSOV, A.N., inzh.

Bus-tie breakers of step-down substations. Elek. sta. 29 no.2:90-92 F '58. (MIRA 11:3)

(Electric circuit breakers)

RYTSLIN, A.M., inzhener; D'YAKOV, P.I., inzhener.

Organization of electric transmission line repairs with the aid of mechanized repair stations (RMS). Energetik 5 no.4:1-6 Ap '57. (Electric lines) (MLRA 10:6)

RYTSLIN, A.M., inzhener; MAZURENKO, N.A., inzhener.

Overheating in bunched conductors and measures for its control. Energetik 5 no.1:6-8 Ja '57. (MLRA 10:2)

(Electric conductors)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

GOL'TSMAN, V.G., inzhener; RYTSLIN, A.M., inzhener.

Concerning the operating circular "More precise testing of porcelain insulators." Elek.sta. 28 no.1:91 Ja '57. (MLRA 10:3)
(Electric insulators and insulation--Testing)

GRYAZNOV, G.I., inzhener; RYTSLIN, A.M., inzhener.

Controlling the igniting of wooden utility poles. Elek.sta. 28 no.3:86-87 Mr '57. (MLRA 10:5)
(Electric lines--Poles)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4

RYTSLIN

104-3-37/45

AUTHOR: Gryaznov, G.I. and Rytslin, A.M., Engineers.

TITLE: The struggle against burning of wooden poles. (Bor'ba s vozgoraniyem derevyannykh opor.)

PERIODICAL: "Elektricheskiye Stantsii" (Power Stations), 1957, Vol.28, No. 3, pp. 86 - 87 (U.S.S.R.)

ABSTRACT: The setting fire to wooden poles of transmission lines by leakage currents is a widely experienced form of damage. It was at one time thought that the trouble occurred only in areas subject to surface contamination and in the absence of proper contact between the wooden cross bars and other fittings and the metal parts such as insulator supports. The measures taken to overcome the trouble were based on improving the contacts between wood and metal and binding the wood in appropriate places with copper wire to form a shunting path for stray currents. This led to some improvement, but not much and statistics of damage to lines protected in this way are given. It was supposed that the failures were due to bad contact caused by rusting and so more copper and galvanised parts were used. This was very expensive but still did not fully overcome the trouble and it is doubtful whether it is worth taking such expensive and laborious precautions. It is, therefore, proposed to approach the problem differently, providing full protection

Card 1/2

The struggle against burning of wooden poles. (Cont.)

only on specially important lines. On lines with an earth wire it is proposed simply to connect together by galvanised iron wire the metal parts relating to each phase and to use copper binding and galvanised parts only on lines subject to heavy industrial contamination.

There is an editorial note that the Ministry agrees with this article and that the corresponding instructions are printed in this copy of the journal.

AVAILABLE: Library of Congress

RYTSLIN, A.M., inzhener.

Experience mechanizing high-voltage transmission line work.
Elek.sta. 28 no.4:65-67 Ap '57. (MLRA 10:5)
(Electric lines)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

LAVROV, V.V.; ARKHANGEL'SKAYA-LEVINA, M.S.; FEDOROV, D.N.; IOSSET, G.Ya.; SOSNYAKOV, N.G.; BERINGER, Yu.V.; KOZACHINSKIY, R.M.; YELETSKAYA, O.I.; GOSHKINA, A.I.; MIKLASHEVSKAYA, A.V.; ZYKOV, A.A.; LEBEDEV, M.F.; DERGUNOVA, K.S.; RYTSK, Z.A.; FRENKINA, D.Z.; TSIVIN, S.S.

In memory of A.M.Zabludovskii. Khirurgiia no.12:74-75 D '53.
(MLRA 7:1)

(Zabludovskii, Anton Martynovich, 1880-1953)

RYTSLIN, A.M.

"A Complex Method of Conduction Preventive Work on Electrical Transmission Lines," Elek. Stants., No. 2, 1948;

"Repairing Switches without Disconnecting the Power," ibid., No. 5, 1949;

"Manufacturing E-3 Compound for Sealing Circuit Breaker Lead-Ins Directly from Bitumens," ibid., No. 12, 1949.

AUTHOR: Rytslin, A.M., Engineer. 104-4-19/40

TITLE: Experience of mechanisation of work on high voltage transmission lines. (Opyt mekhanizatsii rabot na vysokovoltnykh liniyakh elektroperedachi)

PERIODICAL: "Elektricheskie Stantsii" (Power Stations), 1957, Vol. 28, No.4, pp. 65-67 (U.S.S.R.)

ABSTRACT: The article describes the experience of one of the large system districts of the Donbas power system in the matter of mechanising laborious work on transmission lines during the 1956 repair season. Two mechanised repair stations were set up in 1956 and the repair work was split up between them. The method by which this was done is described and information is given about the amount of work carried out. As a result the reduction of the number of line disconnections in 1956 as compared with 1955 was 61, or 27%. The first few months experience of operating the repair stations demonstrated the real possibility of wide and extensive use of a number of the machines provided with the station. The merits of the different kinds of machine are described. Difficulties were experienced with the supply of the necessary parts. There was delay in providing the stations with some machines and some of the machines provided were defective. It is concluded that

RYTSLIN, A.M., inzhener; BLAGONADEZHDIN, V.M., inzhener; KNYAZEVSKIY, B.A., inzhener; VOL'FSON, I.V., inzhener; MUSATOV, T.P., inzhener; IOFFE, Ye.F., inzhener

Volume of instructions and operating papers for electric substations. Elek.sta. 26 no.5:37-43 My '55. (MLRA 8:7)

1. Makeyevskiy setevoy rayon Donbassenergo (f. Rytslin). 2. Elektroseti Kuybyshevenergo (f. Blagonadezhdin). 3. VVS Mosenergo (f. Knyazevskiy). 4. VVS Kirovenergo (f. Vol'fson). 5. Stalinskiy setevoy rayon Donbassenergo. 6. Gorenergo (f. Ioffe). (Electric substations)

AID P - 2412

Subject : USSR/Electricity

Card 1/1 Pub. 26 - 11/33

Authors : Rytslin, A. M., Donbass Power System
Blagonadezhdin, V. M., Kuybyshev Power System
Knyazevskiy, B. A., Moscow Power System
Vol'fson, I. B., Kirov Power System
Musatov, T. P., Donbass Power System
Ioffe, Ye. F., Gor'kiy Power System

Title : Discussions on the volume of instructions and operational documentation for power substations

Periodical : Elek sta 5, 37-43, My 1955

Abstract : The article refers to an article by Eng. G. B. Yakusha published in this periodical (No. 10, 1953) and gives a summarized account of opinions and answers received from readers. The subject of the discussion is the documentation involved in the operation of substations. The need for standard instructions and a decrease in the amount of paper work is stressed by all correspondents.

Institution: None

Submitted : No date

KNUNYANTS, I.L.; RYTSLIN, E.Ye.; GAMBARYAN, N.P.

β-Lactams. Report No. 4: Synthesis of 3,3-diphenyl-2-azetidinones. Izv. AN SSSR. Otd. khim. nauk no. 1:83-88 Ja '61. (MIRA 14:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Azetidinone)

KNUNYANTS, I.L.; RYTSLIN, E.Ye.; GAMBARYAN, N.P.

Steric factors in the reaction of dehydrobromination of amides of β-bromo-substituted acids. Zhur.ob.khim. 32 no.4:1262-1274 Ap '62. (MIRA 15:4)
(Amides) (Hydrobromic acid) (Steric hindrance)

RYTSLIN, R.E.

Stabilizing clay muds on the Zhetybay oil field. Burenie no.12:11-13 '64. (MIRA 18:5)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut, Leningrad.

SHOR, R.M.; RYTSLIN, V.A.

Automatic stopper for the discharge of solutions from frame drums. Kozh.-obuv.prom. 4 no.3:35-36 Mr '62. (MIRA 15:5)
(Leather industry--Equipment and supplies)

POLAND/Cultivated Plants. Grains. M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20282.

Author : T. Ryubenbauer
Inst : The Institute of Plant Cultivation and Acclimatization.
Title : Recent Attainments in Corn Cultivation and Study Plans for the Coming Years.
(Sovremennyye dostizheniya v oblasti vyrashchivaniya kukuruzy i plan rabot na blizhayshiye gody).

Orig Pub: Biul. Inst. hodowli i aklimat. roslin, 1956, No 11, 14-20.

Abstract: No abstract.

Card : 1/1

RYTTEL, W.

Type WI-1 impulse amplifier with frequency discriminator. p. 587

POSTEPY FIZYKI. (Polskie Towarzystwo Fizyczne)
Warszawa. Vol. 9, no. 5, 1958
Poland/

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, no. 6, June 1959
Uncl.

RYTTLOWA, Z.

Triparanol withdrawn from circulation. Farmacja Pol 19 no.8:167 25 Ap '63.

RYTTLOWA, Z.

New instrument for cancer examination. Farmacja Pol 19 no.8: 167 25 Ap '63.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4

MALINOVSKIY, V.S. (g.Kalinin); RYUKHINA, T.P. (g.Kalinin).

Lecture demonstrations for industrial use of adsorption. Khim. v shkole 10 no.1:54-55 Ja-F '55. (MLRA 8:4)
(Adsorption)

Rytslin, A.M.

AID P - 868

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 1/23

Author : Rytslin, A. M., Eng.

Title : Cutting down losses in transmission line systems

Periodical : Energetik, 10, 1-4, O 1954

Abstract : Energy losses caused by disconnection of electric transmission lines for repair are very considerable and in certain cases amounted to 1.6% of total annual losses. The author suggests that in order to cut losses, disconnection of lines for repair should be omitted as far as possible, and if not possible, duration of repair work of disconnected sectors should be greatly reduced. Two tables with drawings.

Institution : Not given

Submitted : No date

RYTSLIN, A.M., inzhener.

Reducing losses in electric power networks. Energetik 2 no.10:1-4 O '54. (MLRA 7:10)

(Electric networks)

CA

22

Use of silica gel for regeneration of transformer oil. A. M. Rytalin. *Elektrichestvo Stantsii* 17, No. 8, 58 (1940).—Silica gel prepd. at the power-generating station from equal vols. of a 1.3 sp. gr. Na silicate soln. and 30% HCl was fully satisfactory for continuous regeneration (thermosiphon method) of transformer oil. M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

RYUB, V.K.

Winter preservation of spring wheat plants sown in early fall. Agrobiologiia no.6:917-918 N-D '65.
(MIRA 18:12)

1. Chelyabinskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya.

ZAKHAROV, M.V.; NOVIKOV, I.I.; RYTVIN, Ye.I.

Mechanical and casting properties of alloys in the system Al - Si - Cu. Alium. splavy no.1:22-32 '63. (MIRA 16:11)

ZAKHAROV, M.V.; NOVIKOV, I.I.; RYTVIN, Ye.I.

High strength AL7-4 aluminum foundry alloy. Lit. proizv. no.9: 37-39 S '61. (MIRA 14:9)

(Aluminum founding)

28051 S/128/61/000/009/007/009
A054/A127

18.1210 2408

AUTHORS: Zakharov, M.V.; Novikov, I.I.; Rytvin, Ye.I.

TITLE: High-strength АЛ7-4 (AL7-4) casting aluminum alloy

PERIODICAL: Liteynoye proizvodstvo, no. 9, 1961, 37 - 39

TEXT: Based on the study of silumin-type ternary alloys a new casting aluminum alloy combining the good casting properties of the АЛ4 (AL4), АЛ5 (AL5) and АЛ9 (AL9) alloys with the high strength of the АЛ8 (AL8) and АЛ19 (AL19) alloys has been developed. Tests were carried out with ternary alloys containing 5, 6, 7, 8, 9 and 10% Si and 0.5, 1, 2, 3, 4, 5, 6 and 7% Cu. The highest σ_b and δ values were obtained with alloys containing 6 - 8% Si and 3 - 5% Cu (26 - 36 kg/mm^2 and 2 - 6%, respectively). The optimum combination of tensile strength and relative elongation was obtained with an alloy containing on an average 7% Si and 4% Cu. The new alloy called AL7-4 (Author's Certificate No. 137268) has to be heat-treated as follows: solution heat treatment for 6 h at 515 ± 5°C, water quenching (20 - 40°C), aging at 175 ± 5°C for 6 h and air-cooling. The permissible amount of iron which affects the strength and ductility of the alloy was found to be 0.25%. Tests on heat resistance showed that the strength, duct-

Card 1/3

High-strength AЛ7-4 (AL7-4) casting aluminum alloy

ility and casting properties of the AL7-4 alloy considerably exceeded those of the AL4, AL5 and AL9 alloys in the 20 - 250°C temperature range. Since modification with 40% NaF, 45% NaCl and 15% cryolithe does not improve the strength and elongation of the new alloy, this treatment could be omitted, simplifying the technology. Tests of the casting properties of the AL7-4 alloy covered mainly hot cracking on specimens 2, 3, 4, 6, 8 and 10 mm in diameter based on the assumption hot cracks in the 10-mm diameter specimens would mean that the alloy is characterized by maximum hot-shortness, while the absence of hot cracks in the 2-mm specimens would reveal minimum hot-shortness. The AL7-4 alloy was found to be highly crack-resistant (nearly as high as AL5 and much higher than AL8 and AL19). Tests to determine the temperature range of linear shrinkage in the new alloy showed shrinkage to start at 560 ± 5°C, while its solidus is at 525°C. The actual interval of solidification is not more than 35°C, and this is about half the value of the AL8 alloy. Equally favorable results were obtained with the new alloy as to fluidity and air-tightness. Modification with magnesium, manganese, zinc, antimony, cerium, titanium, lithium and beryllium did not affect the mechanical properties of the AL7-4 alloy. Modified with 0.1% antimony and 0.3% magnesium, the tensile strength of the alloy increased from 32 - 34 kg/mm^2 to 38 - 42 kg/mm^2, while elongation decreased from 4 - 6 to 1 - 2%.

SHEYNIN, A.B.; RYTVINSKAYA, M.V.; KHEYFETS, V.L. (Leningrad)

Oscillographic study of the kinetics of electrode processes.
Part 4. Zhur.fiz.khim. 38 no.11:2562-2568 N '64.
(MIRA 18:2)

1. Nauchno-issledovatel'skiy i proyektnyy institut "Gipronikel'".

BATASHEV, K.P.; PATROVA, G.I.; RYABOV, V.A.; RYTVINSKIY, A.I.

Electrolytic chromizing of titanium alloy products. Trudy LPI no.223:115-124 '63. (MIRA 17:11)

ACCESSION NR: AT4026281 S/2563/63/000/223/0115/0124

AUTHOR: Batashev, K. P.; Patrova, G. I.; Ryabov, V. A.; Ry*tvinskiy, A. I.

TITLE: Electrolytic chromium plating of titanium-alloy parts

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 223, 1963. Metallurgiya tsvetny'kh metallov (Metallurgy of nonferrous metals), 115-124

TOPIC TAGS: chromium plating, electrolytic plating, electroplating, titanium, titanium alloy, titanium electroplating, corrosion, titanium corrosion, chromium

ABSTRACT: Chromium plating of titanium and titanium alloys makes possible the elimination of one of their main disadvantages, the tendency to seizing, thus widening their field of application. However, chromium plating of Ti encounters the difficulty of poor adhesion between the Cr and the underlying surface, owing to the presence of TiO_2 film. The preliminary treatment of the Ti surface to remove this film is therefore important and has been attempted with a variety of reagents (HF, NaOH, KOH, HNO_3 + HF, dichromate + HF + $CuSO_4$, and acetic acid + HF + alternating current). In the present paper the authors discuss the preliminary pickling of the surface of Ti and VT-5 Ti alloy in some detail, as well as working out the optimal conditions for chromium plating and the heat treatment of the plated surface. Pickling with HF, HCl, or H_2SO_4 was found to be

ACCESSION NR: AT4026281

effective, but the best procedure was pickling for 5-10 minutes with 50% sulfuric acid at 50-90C, preceded by treatment with Vienna lime. Studies of the strength of the Ti-Cr bond were carried out on both bright and dull ("milky") Cr coatings 5-50 microns thick. On the basis of the phase diagram of the Ti-Cr system, the authors attempted to improve the adhesion between Ti and Cr by thermal treatment (5 minutes at 400, 600, 800, or 1000C). Studies of the microhardness and microstructure indicated that 800C was optimal. Finally, the corrosion resistance of Cr-plated Ti was studied in 5% NaCl, KOH, H_2SO_4, and HNO_3, as well as 2% HF. Determinations of the potential difference between the Cr plate and the VT-5 Ti alloy in NaCl solution showed that the Cr exerts an electrochemical protective effect. Orig. art. has: 2 figures and 5 tables.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute)

SUBMITTED: 00 ATD PRESS: 3084 ENCL: 00

SUB CODE: MM NO REF SOV: 008 OTHER: 007

Card 2/2

RYTVINSKIY, S.S.

Changes in some indices of external respiration under the influence of aminazine and a neuroplegic mixture in pulmonary tuberculosis. Kaz.med. zhur. no.2:28-33 Mr-Ap'63 (MIRA 16:11)

1. Kafedra tuberkuleza (zav. - dotsent P.L.Vinnikov) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey imeni Lenina i Kazanskiy tuberkulernyy gospital' dlya invalidov Otechestvennoy voyny (nachal'nik - N.S. Valeyev).

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

RyTw

POL

539.4.012.3 : 539.431 : 631

3402

Rylwiński S. New Principles of Mechanical Strength Computations for Machine Parts

„Nowe podstawy wytrzymałościowych obliczeń części maszynowych" Przegląd Mechaniczny, No. 5, 1954, pp. 147—151, 10 figs., 1 tab.

The author reviews various methods of computing the mechanical strength of machine parts, and discusses computations hitherto practised — those relying on the determination of rated stresses and comparing them with safe stresses. He next deals with the fatigue method of calculating the strength of machine parts. Considerable space is devoted to the new theory of the strength of materials — the theory of plasticity as advanced by H. Brendenburger. The author deals in the concluding part of his article, with the problems of mechanical strength as reviewed from the point of thermodynamics.

gpl 55K

"On a Sensible Technology in Modernized Iron and Steel Works," by S. Rytwinski. Przeglad Techniczny, No. 6, 1957. p. 201.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001440510015-4

RYTWINSKI, S.

2074 021.004.18

Rytwinski, S. National Use of Materials in the Construction of Machines and Industry Equipment.

„O racjonalne wykorzystywanie materiałów w budowie maszyn i urządzeń". Przegląd Techniczny. No. 11, 1953, pp. 416–421, 2 tabs.

The construction of machinery and industrial equipment should in future be subject to systematic control to rationalise standards for material. Materials to be used in the construction of machines and industrial equipment should be carefully improved, both prior to being used, and throughout the production cycle, until they assume the final shape. Methods of qualifying materials in constructions. Methods of ascertaining defects in materials: optical, electro-magnetic, radiography, and the method based on supersonic penetration of the metal grid. Combating corrosion in metals. New raw materials and substitutes.

RYTWIAŃSKI APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

"Rational use of materials in machine construction", p. 416 (Przeglad Techniczny. Vol. 74, no. 11, Nov. 1953, Warszawa)

Vol. 3, No. 3

SO: Monthly List of East European Accessions, Library of Congress, March 1954, Uncl.

RYUB, V.K.

Nature of form development in spring wheat in the sourthern trans-Ural region. Agrobiologiia no.5:692-695 S-O '62. (MIRA 15:11)

1. Chelyabinskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Ural Mountain region--Wheat)

g/; and with [illegible] A. F. Khlystova

M

Country : USSR
Category: Cultivated Plants. Grains.

Abs Jour: RZhBiol., No 22, 1958, No 100228

Author : Ryub, V.K.
Inst : Chelyabinsk State Agr. Experimental Station
Title : Chelyabinskaya Hard Wheat

Orig Pub: Byul. nauchno-tekhn. inform. Chelyab. gos. s.-kh. opytn. st., 1958, No 1, 4-6

Abstract: Chelyabinskaya variety of hard wheat, regionally adapted in the forest-steppe zone of the oblast', has been brought out at the Station. Chelyabinskaya is characterized by late maturity, high yield (21.6 centners/ha against 20.8 centners/ha yield of Gordeiforme 10), large grain (absolute weight of the kernels -

Card : 1/2

RYUBAKOV, B.V.

Category : USSR/Nuclear Physics - Instruments and Installations. Methods of Measurement and Investigation C-2

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 281

Author : Bogdanov, G.F., Kurashov, A.A., Ryubakov, B.V., Sidorov, B.A.
Title : Time of Flight Measurement of the Spectra of Fast Neutrons

Orig Pub : Atom. energiya, 1956, No 1, 66-74

Abstract : Description of a setup for the study of spectra of fast neutrons, formed in various nuclear reactions, using the time of flight method. The pulsed source of charged particles is a 1-1/2 meter cyclotron. The emerging beam of particles is focused by a magnetic prism at a distance of 12 meters from the cyclotron. The repetition period of the particle pulses is 112 millimicroseconds (the frequency of the accelerating voltage is 8.9 mc). The duration of the pulse of particles on the target does not exceed 5 millimicroseconds. The neutrons and gamma rays are detected by a scintillation counter, consisting of a plastic scintillator (terphenyl in polystyrol) and a photomultiplier. The instant at which the counter records the particle is shifted relative to the instant at which it leaves the target by the time of flight of the

Card : 1/2

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

AUTHORS: Kravchenko, S. and Ryubov, P. (Engineers). 66-2-10/22

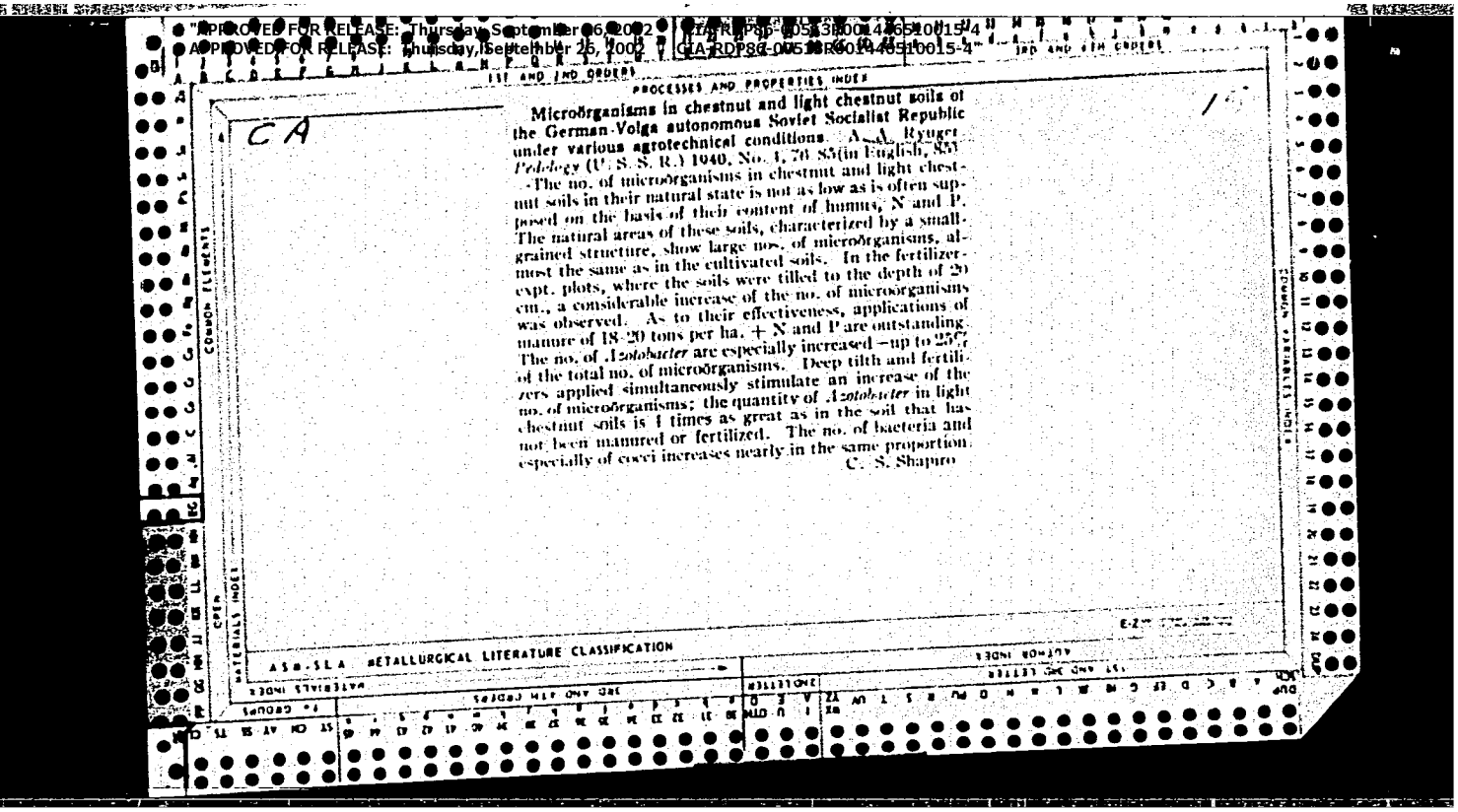
TITLE: On defreezing butter by means of a high frequency electric field. (O razmorazhivanii slivochnogo masla v elektricheskom pole vysokoy chastoty).

PERIODICAL: "Kholodil'naya Tekhnika" (Refrigeration Engineering) 1957, No.2, pp. 48 - 49 (USSR).

ABSTRACT: Preliminary defreezing during packing of butter to temperatures of 0 to -1 C by current methods takes 3 to 4 days. Experiments were carried out at the Leningrad Polytechnical Institute imeni M.I. Kalinin on defreezing briquettes of unsalted high grade butter, weighing 200 g each and blocks weighing 3 and 25.4 kg respectively. Defreezing from -10 to +1 C took 2 to 5 minutes at a frequency of 10 to 20 Mc/sec, the butter being placed between two electrodes of a tube oscillator. Uniformity of defreezing of the butter block throughout its entire body depends on a number of factors. In some cases the temperature rise is more intensive at the surface of the block and in other cases, due to non-uniform consistency and presence of moisture drops, an outflow of jets of butter from inside the block was observed. The authors recommend further experiments in this field.

Card 1/1

AVAILABLE:



PROCESSES AND PROPERTIES INDEX

CA

Microörganisms in chestnut and light chestnut soils of the German-Volga autonomous Soviet Socialist Republic under various agrotechnical conditions. A. A. Ryuger. *Pedology* (U. S. S. R.) 1940, No. 4, 70-83 (in English, 83).

The no. of microörganisms in chestnut and light chestnut soils in their natural state is not as low as is often supposed on the basis of their content of humus, N and P. The natural areas of these soils, characterized by a small-grained structure, show large nos. of microörganisms, almost the same as in the cultivated soils. In the fertilizer-expt. plots, where the soils were tilled to the depth of 20 cm., a considerable increase of the no. of microörganisms was observed. As to their effectiveness, applications of manure of 18-20 tons per ha. + N and P are outstanding. The no. of *Azotobacter* are especially increased—up to 25% of the total no. of microörganisms. Deep tilth and fertilizers applied simultaneously stimulate an increase of the no. of microörganisms; the quantity of *Azotobacter* in light chestnut soils is 4 times as great as in the soil that has not been manured or fertilized. The no. of bacteria and especially of cocci increases nearly in the same proportion.

C. S. Shapiro

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

RYUGAS, E.M. [Roigas, F.] kand. med. nauk; RUBANOVICH, I.L. (Tallin)

Effectiveness of a culture in the diagnosis of gonorrhea and trichomoniasis of the urogenital tract under the condition of a dermatovenerological dispensary. Vest. derm. i ven. 38 no.3: 65-68 Mr '64. (MIRA 18:4)

1. Sektor protozoologii i mikrobiologii (zav. - kand. med. nauk Yu.Kh. Teras [J. Teras]) Instituta eksperimental'noy i klinicheskoy meditsiny (dir. - prof. P.A. Bogovskiy) AMN SSSR i Respublikanskiy kozhno-venerologicheskiy dispanser (glavnyy vrach R. Uuetoa) Estonskoy SSR.

KREYMERMAN, G.I.; RYUGER, A.A.

Investigating the free flow characteristics of the grain mass of wheat and oats in storage. Izv.vys.ucheb.zav.; pishch. tekh. no.3:21-23 '63. (MIRA 16:8)

1. Vsesoyuznyy zaochnyy institut pishchevoy promyshlennosti, kafedra tovarovedeniya, khraneniya i elevatorno-skladskogo khozyaystva.

(Wheat--Storage) (Oats--Storage)

KREYMERMAN, G.I.; RYUGER, A.A.

Investigation of some physicomechanical properties of artificially humidified grain. Izv. vys. ucheb. zav.; pishch. tekh. no.4:18-21 '61. (MIRA 14:8)

1. Vsesoyuznyy zaochnyy institut pishchevoy promyshlennosti, kafedra khraneniya i pererabotki zerna.
(Wheat)

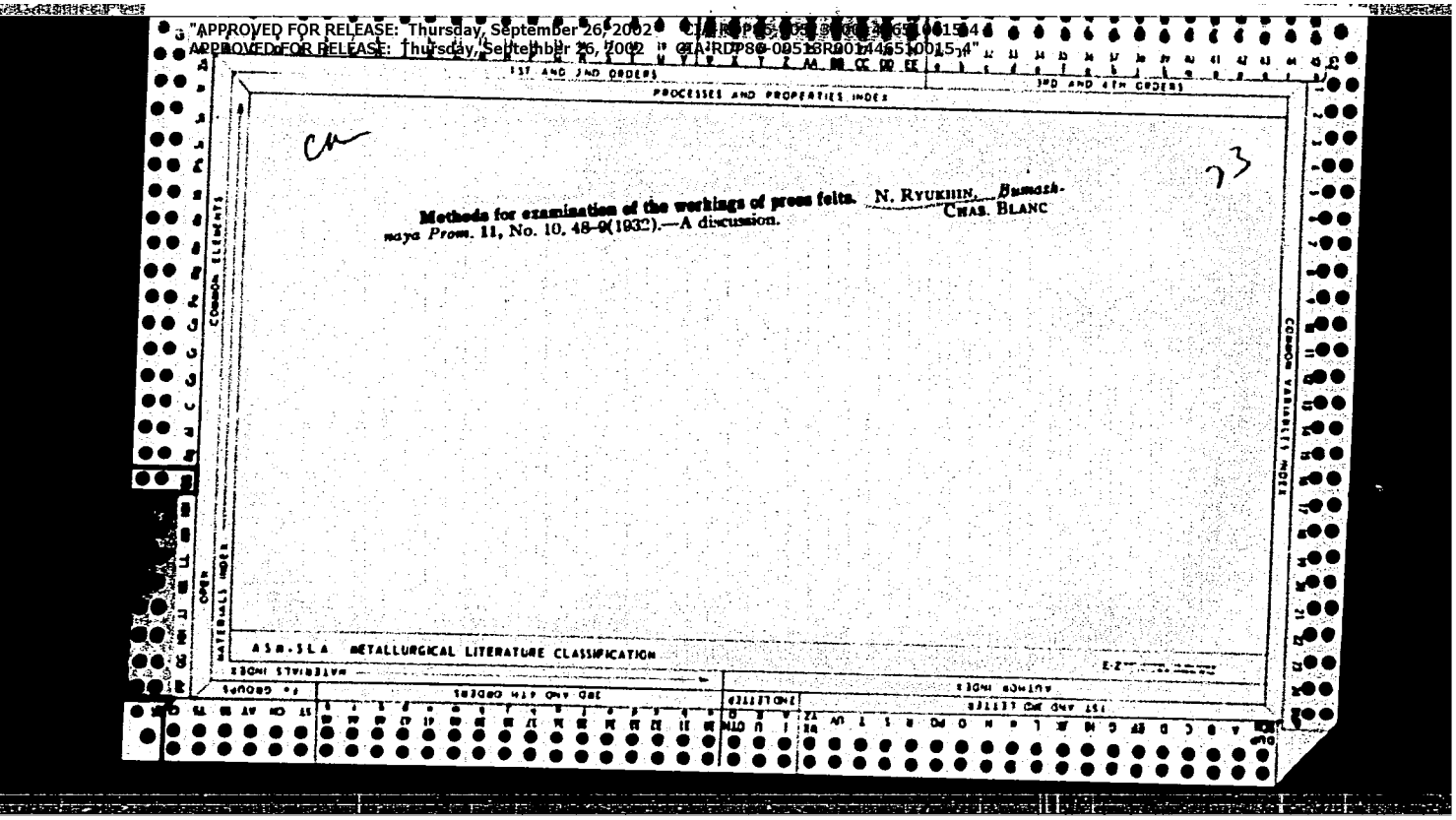
RYUGIN, A., inzh.

Simplified processing of motion-picture films. Sov.foto 20 no.3: 38 Mr '60. (MIRA 13:7)
(Motion-picture photography--Developing and developers)

RYKIN, B. I.

Control of principal forest pests. Izd- 2. (ispr. i dop.) Minsk, Gos. izd-vO BSSR, 1954. 79s.

1. Trees - Diseases and Pests.



PROCESSES AND PROPERTIES INDEX

Methods for examination of the workings of press felts. N. RYUKHIN. *Bumazh. Prom.* 11, No. 10, 48–9(1932).—A discussion. CHAS. BLANC

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

RYUKHIN,N.V.; BAKAYEVA,Ye.M.

Hygroscopic moisture in varying types of paper. Bum.prom. 30 no.5:8-10 My '55. (MLRA 8:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut bumagi.
(Paper--Testing)

ALEKSEYEV, A.A., inzhener, redaktor; ASHKENAZI, K.M., doktor tekhnicheskikh nauk, redaktor; GRABOVSKIY, V.A., kandidat tekhnicheskikh nauk, redaktor; GORBACHEV, A.N., kandidat tekhnicheskikh nauk, redaktor; IVANOV, S.N., kandidat tekhnicheskikh nauk, redaktor; LAPIN, P.S., kandidat tekhnicheskikh nauk, redaktor; LEPSKIN, N.N., doktor tekhnicheskikh nauk, redaktor; PUZYREV, S.A., kandidat tekhnicheskikh nauk, redaktor; RYUKHIN, N.V., kandidat tekhnicheskikh nauk, redaktor; FLYATE, D.M., kandidat tekhnicheskikh nauk, redaktor; SHAPIRO, A.D., kandidat tekhnicheskikh nauk, redaktor;ELIASHBERG, M.G., kandidat tekhnicheskikh nauk, redaktor; KHUDYAKOVA, A.V., redaktor; VOLKHOVER, R.S., tekhnicheskiy redaktor.

[Paper maker's handbook] Spravochnik bumazhnika (tekhnologa) Moskva, Goslesbumizdat. Vol. 1 1955. 790 p. (MLRA 8:10)
(Paper industry)

RYTOV, S.M., prof.; VESELKA, Josef, dr. [translator]

What will the astronaut see and meet when flying at almost the speed of light. Pokroky mat fyz astr 5 no.6:728-733 '60.

84660

S/020/60/135/001/012/030
B006/B056

9,6130
3,9100

AUTHORS: Gringauz, K. I. and Rytov, S. M.

TITLE: The Interrelation Between the Results of Measurements Carried out With the Help of Charged Particle Traps on Soviet Cosmic Rockets and Measurements of the Magnetic Field by Means of the American Earth Satellite "Explorer VI" and the Rocket "Pioneer-V"

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 1, pp. 48-51

TEXT: The authors of the present paper first give a survey of the most essential results obtained with respect to the geomagnetic field and the external radiation belt of the Earth, obtained by means of Soviet space rockets, the "Explorer VI" and the "Pioneer-V" rocket. Using these results it is possible to draw several conclusions with respect to the drift current density and the particle fluxes in great altitudes. By means of the three-electrode charged-particle traps built into the Russian rockets, it was found (1959) that in altitudes of from 55,000 to 75,000 km, the

Card 1/4

The Interrelation Between the Results of Measurements Carried out With the Help of Charged Particle Traps on Soviet Cosmic Rockets and Measurements of the Magnetic Field by Means of the American Earth Satellite "Explorer VI" and the Rocket "Pioneer-V"

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B006/B056

electron flux density attains $\sim 10^8$ electrons/cm^2·sec ($E_e \gtrsim 200$ ev). Herefrom, the conclusion may be drawn that the Earth is surrounded by a belt of charged particles, which is located outside the radiation belt. It is assumed that it is bounded by the lines of force of the geomagnetic field. Soviet space rockets crossed the geomagnetic equator at an altitude of 60,000 km, which is exactly where, according to American measurements, the center of the current belt is located. The maximum of the electron flux density is between about 55,000 and 75,000 km, so that it is about 20,000 km thick, whereas the zone in which an electron flux was found to exist at all, is 40,000 km thick. The authors arrive at the conclusion that in the Soviet trap experiments the total flux density of electrons was measured as amounting to $E_e > 200$ ev, whereas in the American measurements of the geomagnetic field only that component of this flux which is perpendicular to the field lines, was measured. Such a component is the consequence of the known drift of the charged particles in the inhomogeneous

The Interrelation Between the Results of Measurements Carried out With the Help of Charged Particle Traps on Soviet Cosmic Rockets and Measurements of the Magnetic Field by Means of the American Earth Satellite "Explorer VI" and the Rocket "Pioneer-V"

magnetic field. For the purpose of estimating the drift current density and the current at the traps, the authors assume that the geomagnetic field is a pure dipole field, and that the electrons have a Maxwell velocity distribution. They obtained (approximatively)

$j_{drfit} = \frac{6c\Theta NR^2}{B_o R_E^3}$ and $j_{trap} = eN\sqrt{\frac{\Theta}{2\pi m}}\, e^{-x}$, $x = eV/\Theta$; c - velocity of light, Θ - temperature, and N - electron density, R_E - Earth radius, B_o - field on the Earth's surface, B - field at the distance R from the dipole. Thus, $j_{drift}/j_{trap} = 1.55 \cdot 10^{-6}\, e^x/\sqrt{x}$ is obtained. One obtains $\Theta \cong 21$ ev and $N \cong 600$ el/cm^3. Agreement between the Soviet current density measurements and the current densities which may be assumed on the basis of American measurements of the perturbations of the geomagnetic field is quite satisfactory in view of the rough assumptions upon which the

The Interrelation Between the Results of Measurements Carried out With the Help of Charged Particle Traps on Soviet Cosmic Rockets and Measurements of the Magnetic Field by Means of the American Earth Satellite "Explorer VI" and the Rocket "Pioneer-V"

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B006/B056

estimates were based. It may therefore be assumed that the "current belt", which was discovered by the magnetic measurements, is nothing but a consequence of the inhomogeneities of the field caused by the drift current. There are 12 references: 6 Soviet, 5 US, and 1 British.

PRESENTED: October 15, 1960, by A. L. Mints, Academician

SUBMITTED: October 14, 1960

RYTOV, Sergey Mikhaylovich, prof., doktor fiziko-matem.nauk; MILLER, Vladimir Viktorovich, kand.fiziko-matem.nauk; BASOV, Nikolay Gennadiyevich, prof., doktor fiziko-matem.nauk; PROKHOROV, Aleksandr Mikhaylovich, prof., doktor fiziko-matem. nauk, laureat Leninskoy premii; FAYNBOYM, I.B., red.; ATROSHCHENKO, L.Ye., tekhn.red.

[New problems in physics] Novye problemy fiziki; sbornik statei. Moskva, Izd-vo "Znanie," 1961. 44 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.9, Fizika i khimiia, no.7) (MIRA 14:6)
(Astronautics) (Relativity)

L 04445-67 EWT(1)/FCC GW

ACC NR: AP6018922 SOURCE CODE: UR/0203/66/006/003/0568/0580

63
B

AUTHOR: Gringauz, K. I.; Kravtsov, Yu. A.; Rudakov, V. A.; Rytov, S. M.

ORG: Radioengineering Institute, AN SSSR (Radiotekhnicheskiy institut AN SSSR)

TITLE: Once more about the feasibility of local electron concentration determination by the dispersion method using artificial Earth satellites and about the new ionization maxima in the ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 3, 1966, 568-580

TOPIC TAGS: ionospheric electron density, ionospheric physics, ionospheric disturbance, ionospheric radio wave, satellite data analysis, geophysic rocket

ABSTRACT: This is the continuation of an earlier debate between the present authors and Ya. L. Al'pert et al. (see, e.g., Geomagn. i aeronomiya, 1 1965, 5, No 4, 766) concerning the feasibility of local electron concentration determination by the dispersion method using artificial Earth's satellites. The authors show once more that the electron concentration determination using such a method leads to inaccurate results because of the presence within the ionosphere of horizontal ionization gradients as well as because of the nonstationary character

 UDC: 550.388:629.198.3

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ACC NR: AP6018922

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of the ionosphere. In addition, the unreliability of the results of Al'pert et al. is caused also by an inaccurate method used during the processing of experimental data. [Publishing Editor's note: no further articles concerning this discussion will be published.] Orig. art. has: 9 formulas and 4 tables.

SUB CODE: 08/ SUBM DATE: 27Oct65/ ORIG REF: 023/ OTH REF: 015

Card 2/2

L 00560-66 EWT(l)/FCC/EWA(h) GW

ACCESSION NR: AP5021006 UR/0203/65/005/004/0762/0766
550.388.2:621.391.81

AUTHORS: Gringauz, K. I.; Kravtsov, Yu. A.; Rudakov, V. A.; Rytov, S. M.

TITLE: On the possibility of determining local electron concentrations using the dispersion method with the help of artificial satellites and on a new ionization maximum in the ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 4, 1965, 762-766

TOPIC TAGS: electron concentration, ionization, artificial satellite, ionosphere, Doppler shift, F layer

ABSTRACT: In order to determine whether dispersion methods for measuring N_0 in the ionosphere by means of artificial satellites are valid, the various gradient terms $\partial N/\partial x$, $\partial N/\partial y$, and $\partial N/\partial t$ must be investigated to determine if they are significant in comparison with N_0. These various gradient terms that appear in the expression for the difference in Doppler shift between frequencies ω_1 and ω_2 are given by

$$[N_R] = \frac{1}{z_\epsilon}\int_0^{z_a} N dz, \quad \left[\frac{\partial N}{\partial x}\right] = \frac{1}{z_a \cos\varphi_0 \sin\varphi_0}\int_0^{z_a}\frac{\partial N}{\partial x}z dz \quad \left[\frac{\partial N}{\partial y}\right] = \frac{1}{z_a \cos\varphi_0}\int_0^{z_a}\frac{\partial N}{\partial y}z dz.$$

Card 1/3

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ACCESSION NR: AP5021006

A detailed analysis is made to show that the terms $[\partial N/\partial y]_{z_c}$, $[\partial N/\partial x](r_0 + z_c/\cos\varphi_0)$, $\int_0^{z_c}(\partial N/\partial t)\,dz$ are not necessarily small in comparison to $N_0 z_c/\cos\varphi_0$. A similar statement, with even more assurance, can be made about the unsteady term $\int_0^{z_c}(\partial N/\partial t)\,dz$.

To demonstrate this, an altitude versus density curve (see Fig. 1 on the Enclosure) is shown. Here the maximum in N is above the maximum region of the F-layer if one bases the data on the local dispersion method, neglecting the gradient terms (solid curve in Fig. 1). Radio-probe methods, on the other hand, support only the lower curve (dotted curve on Fig. 1). For this reason and because dispersion measurements far from the earth are unreliable, the authors do not agree with the local concentration data reported by previous authors (e.g., Ya. L. Al'pert. Geomagn. i aeronomiya, 1964, 4, No. 3, 479). Orig. art. has: 4 formulas and 2 figures.

ASSOCIATION: Radiotekhnicheskiy institut, AN SSSR (Radio Technology Institute, AN SSSR)

SUBMITTED: 01Feb65 ENCL: 01 SUB CODE: GP, ES

NO REF SOV: 013 OTHER: 011

Card 2/3

L 00560-66

ACCESSION NR: AP5021006 ENCLOSURE: 01

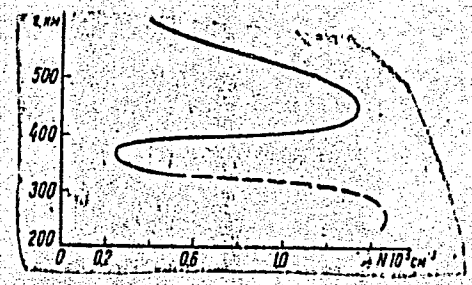

Fig. 1.

Card 3/3

ODALEVICH, G.L.; GRINGAUZ, K.I.; RUDAKOV, V.A.; RYTOV, S.M.

Effect of the ionosphere on the determination of the position of rockets. Radiotekh. i elektron. 8 no.6:942-949 Je '63. (MIRA 16:7)

(Rockets (Aeronautics)) (Electronics in navigation)

RYTOV, S.M.

Theory of the synchrotron; interaction between a particle and a clot. Trudy Fiz.inst. 18:32-54 '62. (MIRA 15:12)
(Synchrotron) (Plasma (Ionized gases))

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

L 10276-63 BDS/EWT(l)/FS(v)/EEC-2/ES(v)/ES(t)-2--AFFTC/AFMDC/
APGC/ASD/ESD-3/SSD--Pc-4/Pg-4/Pi-4/Ph-4/Pl-4/Pc-4/Pg-4 GW/BC/AR/ASD
ACCESSION NR: AP3000990 S/0109/63/008/006/0942/0949

100

AUTHOR: Gdalevich, G. L.; Gringauz, K. I.; Rudakov, V. A.; Ry*tov, S. M. 9

TITLE: Effect of the ionosphere on the position finding of space rockets /Report of the Thirteenth International Astronautical Congress held in Varna September 1962/

SOURCE: Radiotekhnika i elektronika, v. 8, no. 6, 1963, 942-949

TOPIC TAGS: space rocket, effect of ionosphere

ABSTRACT: Some ideas are set forth about calculating the errors caused by the ionosphere in determining coordinates and speed of space rockets by radio means. Assuming a geometrical-optics approximation and measurements at frequencies over 5 x 10 sup 7 cps, formulas are derived for the ionosphere-caused errors in determining range, elevation, and speed of rockets. The rocket is assumed to be in outer space, and errors due to the troposphere and interplanetary plasma are neglected. Approximation of the real altitude distribution of electron concentrations is discussed for purposes of evaluating the above errors. Western and Soviet data on electron concentrations are compared. Orig. art. has: 9 formulas and 6 figures.

Card 1/2/

RYTOV, Yuriy Aleksandrovich; KOROBOV, P.I., red.; AVDEYEVA, V.A., tekhn. red.

[Man at automatic machines] Chelovek u avtomatov. Moskva, Sovetskaia Rossiia, 1962. 162 p. (MIRA 15:7)
(Automation)

SMOLIN, D.D.; TIKHONOVA, L.I.; RYTOVA, A.A.

Synthesis of some 7-substituted 8-hydroxyquinoline-5-sulfonic acids and a physicochemical evaluation of their properties in forming complexes with Sr^{2+} and Ca^{2+} ions. Zhur.ob.khim. 32 no.8:2418-2423 Ag '62. (MIRA 15:9)
(Quinolinesulfonic acid) (Complex compounds)

16

PHASE I BOOK EXPLOITATION SOV/6177

Akademiya nauk SSSR. Institut neftekhimicheskogo sinteza

Radioliz uglevodorodov; nekotoryye fiziko-khimicheskiye problemy (Radiolysis of Hydrocarbons; Some Physicochemical Problems) Moscow, Izd-vo AN SSSR, 1962. 207 p. Errata slip inserted. 5000 copies printed.

Resp. Eds.: A. V. Topchiyev, Academician, and L. S. Polak, Doctor of Physics and Mathematics; Ed.: L. T. Bugayenko; Tech Ed.: Ch. A. Zentsel'skaya.

PURPOSE: This book is intended for physical and industrial chemists interested in the properties and behavior of irradiated hydrocarbons.

COVERAGE: The book gives a systematic presentation of the results of research on the radiolysis of hydrocarbons carried out from 1957 through 1961 at the Laboratory of Radiation Chemistry, Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petro-

Card 1/4

chemical Synthesis, Academy of Sciences USSR). Although the results were obtained for individual compounds, they may be generalized and applied to other members of the same homologous series. The following persons participated in making the experiments and in writing the text: V. G. Beryezkin, V. E. Glushnev, Yu. A. Kolbanovskiy, I. M. Kustanovich, V. D. Popov, A. Ya. Temkin, V. D. Timofeyev, N. Ya. Chernyak, V. A. Shakhray, E. B. Shlikhter, A. S. Shcherbakova, B. M. Mogodov, A. Z. Peryshkina, N. M. Rytova, T. A. Tegina, Yu. B. Emin, A. M. Brodskiy, V. V. Voyevodskiy, P. Ya. Glazunov, B. A. Smirnova, and Yu. L. Khait. References, mainly Soviet and English, follow individual chapters.

TABLE OF CONTENTS [Abridged]:

S/844/62/000/000/054/129
D204/D307

AUTHORS: Kustanovich, I. M., Polak, L. S. and Rytova, N. M.

TITLE: A study of the luminescence spectra of irradiated hydrocarbons

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 322-325

TEXT: The purpose of this work was to investigate the luminescence spectra obtained during the warming up of some saturated hydrocarbons previously irradiated at low temperatures, to obtain information regarding the source of this emission. In an example, purified n-heptane and cyclohexane were γ irradiated at -196°C, with an integral dose of 15 Mrads. The resulting spectra showed in each case 2 partly overlapping maxima, situated at ~5000 and ~5400 Å for cyclohexane and at ~5100 and ~5500 Å for n-heptane. The emission is ascribed to the recombination of free radicals of various structures, produced during irradiation and stabilized at the then low

Card 1/2

A study of the ...

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D204/D307

temperatures. The presence of such radicals was confirmed by EPR spectroscopy. No emission was observed in the absence of free radicals. Previous irradiation of the specimens with visible light did not affect the luminescent spectra. The quantum yield for irradiated cyclohexane was found to be 1.3×10^{-6} photons per radical pair, which agrees with the theoretical value of $10^{-5} - 10^{-6}$ calculated for the probability of emission during recombination reactions. In the case of cyclohexane, $\sim 10^{-4} - 10^{-3}$ M additions of benzene largely increased the emission intensity, the latter increasing linearly with $\sqrt[3]{c}$ where c is the molar fraction of benzene. There are 2 figures.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petrochemical Synthesis, AS USSR)

Card 2/2

RYTOVA, N.M.; TETERINA, M.P.; POLAK, L.S.

Infrared absorption spectra of some dodecane isomers. Neftekhimia 2 no.1:14-17 Ja-F '62. (MIRA 15:5)

1. Institut neftekhimicheskogo sinteza AN SSSR.
(Dodecane—Spectra)

L 09009-67 EWT(1)/EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/WW/GG

ACC NR: AP6030967 SOURCE CODE: UR/0181/66/008/009/2672/2678

AUTHOR: Rytova, N. S.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

61
B

TITLE: Resonance absorption of electromagnetic waves in a thin film

SOURCE: Fizika tverdogo tela, v. 8, no. 9, 1966, 2672-2678

TOPIC TAGS: resonance absorption, electromagnetic wave, electron motion, absorption coefficient, electron interaction, Green function

ABSTRACT: The author analyzes the resonance absorption of electromagnetic waves in a thin film in which an electron motion is quantized by the normal to it. The absorption coefficient of electromagnetic emission is calculated by the Green function at T = 0 for band-to-band transitions, with allowance for the electron interactions between them and charged defects randomly distributed over the film. The author thanks V. L. Bonch-Bruyevich for supervising the study. Orig. art. has: 39 formulas. [Based on author's abstract]

SUB CODE: 20/ SUBM DATE: 31Jan66/ ORIG REF: 008/

Card 1/1 LC

L 65185-65 EWT(1)/T IJP(c) GG

ACCESSION NR: AP5021273 UR/0020/65/163/005/1118/1120

AUTHOR: Rytova, N. S.

TITLE: Coulomb interaction of electrons in a thin film

SOURCE: AN SSSR. Doklady, v. 163, no. 5, 1965, 1118-1120

TOPIC TAGS: Coulomb interaction, electron interaction, semiconducting film, semiconductor theory

ABSTRACT: Existing semiconductor films are strongly doped as a rule. Interaction between current carriers in this type of semiconductor is often very important. The author examines the effect of this interaction on the spectral emission of free current carriers and of those in the film. The film is represented as a plane layer of a medium with thickness L and specific inductive capacitance ε. The z-axis is perpendicular to the plane of the film. Electron gas is distributed in this layer with an average density N per unit of area. A positive background charge is distributed evenly with the same density, so that the system as a whole is neutral. It is assumed that an electron in the film is in a homogeneous potential well with infinitely high walls. It is understood that this model is an idealization without crystal

Card 1/2

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4

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ACCESSION NR: AP5021273 6

lattice defects or the physical properties of an actual film surface. It is found that Coulomb interaction causes a constant downward shift in all energies. "The author expresses her sincere gratitude to V. L. Ponch-Bruyevich for proposing the subject and directing the work." Orig. art. has: 14 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 22Jan65 ENCL: 00 SUB CODE: NP, SS

NO REF SOV: 000 OTHER: 000

Card 2/2

84061

S/181/60/002/009/002/036
B004/B056

26.1631
26.1512

AUTHORS: Galkin, G. N., Rytova, N. S., Vavilov, V. S.

TITLE: Volume Recombination of Current Carriers in n-Type Silicon Containing Radiative Structural Defects

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 9, pp. 2025-2030

TEXT: The authors experimentally checked G. K. Wertheim's data (Refs. 3,4). According to a method suggested by S. G. Kalashnikov and N. A. Penin (Ref. 6), the change in the parameters of the p-n junction, caused by the changed lifetime of the minority carriers, was investigated in dependence on the alternating voltage applied. Fig. 1 shows the shape of samples made from n-type silicon single crystal, into which aluminum had been melted. The samples were irradiated with beta particles of an Sr^{90} - Y^{90} preparation at room temperature. The lifetime τ was obtained as a function of the injection level $\delta p/n_o$ within the range of 150 - 440°K. $\tau(1+\delta p/n_o)=f(\delta p/n_o)$ develops linearly within a large injection-level range (Fig.2). From $\ln(\tau_o/T^{3/2})=f(1/T)$ at high temperatures, the distance ΔE

Card 1/3

Volume Recombination of Current Carriers in n-Type Silicon Containing Radiative Structural Defects

S/181/60/002/009/002/036
B004/B056

of the recombination level E_t from the edge of one of the bands was determined. ΔE was found to be 0.16 ± 0.01 ev. By investigating the temperature dependence of τ_∞ / τ_o it was determined in which half of the forbidden band the recombination level was located. If the latter is found to be in the lower half, it is necessary that, at a critical temperature $p_1 = n_o$ and $E_t - E_v = E_c - F$ (F = Fermi level). In the samples investigated $E_c - F$ is about 0.16 ev at 240°K, τ_∞ / τ_o at this temperature equaled 10. Thus, this temperature was not the critical one. The recombination level of the radiative defects was in the upper half of the forbidden band. From the values τ_{no} and τ_{po} the trapping cross sections for electrons (σ_n) and holes (σ_p) were calculated as functions of T (Fig. 3), and from these the dependence of τ_o on 1/T was determined (Fig. 4). At 300°K, it was true that $\sigma_p = 4 \cdot 10^{-14}$ cm^2, $\sigma_n = 1 \cdot 10^{-15}$ cm^2. Fig. 5 shows the temperature dependence of n/n_o (ratio of the electron concentration in the irradiated

Volume Recombination of Current Carriers in n-Type Silicon Containing Radiative Structural Defects

sample to the electron concentration n_o in the non-irradiated sample). Within the temperature range investigated, n_o was constant and equal to $1.1 \cdot 10^{15}$ cm^{-3}. Contrary to Wertheim's data, the trapping cross sections were thus different. $E_c = -0.16$ ev is an acceptor level which can be due neither to an insulated vacancy, an interstitial atom, nor due to a "near" pair, but to the presence of oxygen. The authors thank V. M. Malovetskaya and N. A. Penin for critique and advice; and Ye. M. Divil'kovskaya, S. P. Zharov, and E. L. Nolle for their collaboration. There are 5 figures and 11 references: 3 Soviet and 9 US.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR, Moskva (Institute of Physics imeni P. N. Lebedev of the AS USSR, Moscow)

SUBMITTED: February 10, 1960

L 41723-66 EWT(l)/EWT(m)/T/EWP(t)/ETI IJP(c) JD/GG/AT

ACC NR: AP6018533 SOURCE CODE: UR/0181/66/008/006/1725/1731

AUTHOR: Rytova, N. S.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Chemical potential and density of states of non-ideal electron gas in an alloyed thin film

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1725-1731

TOPIC TAGS: electron gas, Green function, electron interaction, thermodynamic property, semiconducting film, potential well

ABSTRACT: This is a continuation of earlier work by the author (DAN SSSR v. 163, 1118, 1965) devoted to the interelectron interaction in a thin semiconducting film, where the electron is assumed to be in a one-dimensional potential well with infinitely high walls. The present article deals with the thermodynamic characteristics of a non-ideal electron gas in a non-ideal thin film, in which the motion of the electrons in a normal direction is quantized, under the assumption that only one quantum level is effectively filled and that the electron gas is doubly degenerate at this level. The Green's function method was used to obtain the density of the states and the chemical potential of the electron gas. Corrections are obtained for the spectrum and for the chemical potential with allowance for the interaction between the electrons. The density of states and the chemical potential are calculated under the

Card 1/2

assumption that the film contains randomly distributed charged defects. The results show that in thin film, just as in a bulky crystal, the Fermi level shift is due primarily to the interelectron interactions and not to interaction with the impurities. On the other hand, the interaction with the impurities affects strongly the variation of the state density. The author is deeply grateful to V. L. Bonch-Bruyevich for directing the work. Orig. art. has: 30 formulas.

SUB CODE: 20/ SUBM DATE: 01Nov65/ ORIG REF: 002

RITOVA, V.V.; ZHUKOVSKIY, A.M.

Study of vaccinal immunity in persons vaccinated by live influenza vaccines. Vop. virus 8 no.5:605-608 S-O'63 (MIRA 17:1)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva.

RYTSAREV, M.A.

Mechanized forwarding of train documents in hump yards.
Avtom., telem. i sviaz' 9 no.7:15-17 Jl '65. (MIRA 18:8)

1. Glavnyy spetsialist otdela gorok Glavnogo upravleniya signalizatsii i svyazi Ministerstva putey soobshcheniya.

BUZANOV, Stepan Petrovich, prof.; KARPOV, Aleksandr Mikhaylovich, dots.; KYTSAREV, Mikhail Alekseyevich, inzh.; PREDE, V.Yu., red.

[Design of mechanized and automated classification systems] Proektirovanie mekhanizirovannykh i avtomatizirovannykh sortirovochnykh ustroistv. Moskva, Transport, 1965. 231 p. (MIRA 18:4)

COUNTRY : POLAND
CATEGORY : General Problems of Pathology. Immunity U

ABS. JOUR. : RZBiol., No. 12 1958, No. 56217

AUTHOR : Rytsay, T.
INST. : Polish Academy of Sciences
TITLE : Specific Agglutination of Erythrocytes Covered by Antibodies

ORIG. PUB. : Bull. Pol'skoy AN. Otd.2, 1956, Vol.4, No.9, 355-359

ABSTRACT : A proposal for a modification of the hemagglutination test with erythrocytes sensitized with antibodies instead of antigens permitting the demonstration in an infected organism of antigens (such as toxins) even before the appearance of antibodies. The reaction is specific and permits detection of much smaller amounts of toxin than the biotest: diphtheria - 0.0039, tetanus - 0.78, anti-botulinus type A - 0.254 MLD for guinea pigs of 350 gm weight upon subcutaneous injection. This test may be used for the demonstration of species specificity of animal proteins; it is considerably

CARD: 1/2

ZAITKANOVA, V.S.; RYTSK, V.I.

Metamorphic rocks of the Chu-Ili Mountains. Trudy VSEGEI 111:53-68 '64. (MIRA 18:7)

RYTSK, V.I.

Gneisses of the Kendyktas Mountains. Trudy VSEGEI 94:281-292 '63. (MIRA 17:6)

RYTSK, Yu.Ye.

Effect of disjunctive dislocations on the distribution of pegmatites in the northwestern part of the White Sea region. Trudy VSEGEI 83:49-69 '62. (MIRA 16:9)

BABOSHIN, V.A.; BOROVIKOV, P.P.; ZAKHARCHENKO, A.I.; IVANOV, A.A.; NIKANOROV, A.S.; NIKITIN, V.D.; RYTSK, Yu.Ye.; SMIRNOVA, V.S.; SOKOLOV, Ya.N.; SOLOV'YEV, A.T.; TSEKHOMSKIY, A.M.

In memory of Daniil Timofeevich Misharev. Trudy VSEGEI 108:189-191 '64. (MIRA 18:2)

RYTSK, Yu.Ye.

Two genetic types of pegmatite veins in northern Karelia and in the southwestern part of the Kola Peninsula. Inform. sbor. VSEGEI no.55:51-58 '62. (MIRA 17:1)

UNKSOV, V.A.; BOROVIKOV, P.P.; RUNDKVIST, D.V.; PAVLOVA, I.G.; ALYAVDIN, V.F.; VOLOSTNYKH, G.T.; ROZINOV, M.I.; SHCHEGLOV, A.D.; IVANOVA, A.A.; KORMILITSYN, V.S.; SHCHEGLOV, A.D.; ARTEMOV, V.R.; RYTSK, Yu.Ye.; GINZBURG, A.I.; DORTMAN, N.B.; TOPORETS, S.A.; TRUNINA, V.Ya.; YAKOVLEV, I.K.; BOGDANOVA, L.A.; SARBEYEVA, L.M.

Problems of the geology and characteristics of the distribution of mineral deposits. [Trudy] VSEGEI 92:53-89 '63. (MIRA 17:4)

RYTSK, Yu. Ye., Cand of Geol-Min Sci — (diss) "Tectonic Conditions of the Formation of Micaceous Pegmatitic Veins of a Dam Site (Northern Kareliya)," Leningrad, 1959, 21 pp (Leningrad Mining Institute im G. V. Plekhanov) (KL, 5-60, 124)

SOV/91-59-1-2/26

AUTHORS: Rytslin, A.M. and D'yakov, P.I., Engineers

TITLE: On Expanding the Utilization Field of Mobile Telescopic Towers (Rasshireniye oblasti primeneniya avtoteleskopicheskikh vyshek)

PERIODICAL: Energetik, 1959, Nr 1, pp 4 - 9 (USSR)

ABSTRACT: The article is a report on new experiences in the Sergovskiy network area (belonging to the "Donbassenergo") on the expanded utilization of mobile telescopic towers. The authors describe and illustrate how such towers (mentioned are the VT-13.5 and VI-23 types installed on the ZIL-151 trucks) can be employed in exchanging some parts of the wooden power-transmission supports, in constructing power-transmission lines across RR tracks, telecommunication lines and other power-transmission lines, on how such towers may be used as truck tractors and be of help at the distributing installations of the substations. Work efficiency becomes higher. It will be the task of the plant producing

Card 1/2

On Expanding the Utilization Field of Mobile Telescopic Towers

the mobile telescopic towers (ORGRES), in cooperation with practicing electricians, to improve the present type of mobile telescopic tower. There are 2 tables and 5 diagrams.

RYTSLIN, A.M., inzh.; D'YAKOV, P.I., inzh.

Widening the field of utilization of telescope towers. Energetik 7 no.1:4-9 Ja '59. (MIRA 12:1)
(Electric lines--Repairing)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

RYTSLIN, A.M., inzh.; MAZURENKO, N.A., inzh.

Repairing transformers by means of cranes installed on trucks.
Energetik 7 no.2:19-21 F '59. (MIRA 12:1)
(Electric transformers--Maintenance and repair)

MYASNICHENKO, A.I., inzh.; RYTSLIN, A.M., inzh.

Drying insulation oil by means of dry air. Elek sta. 30 no.2:
87-88 F '59. (MIRA 12:3)
(Insulating oils--Drying)

RYTSLIN, A.M., inzh.; NIKONOV, V.I., inzh.; VOLCHKOVA, L.A., inzh.

Heating of power trnasformers with rectified current. Energetik. 13 no.4:22-24 Ap '65. (MIRA 18:6)

SOV/91-59-2-14/33

AUTHORS: Rytslin, A. M., and Mazurenko, N. A., Engineers

TITLE: The Repair of Transformers with the Help of Auto-Mounted Cranes (Remont transformatorov pri pomoshchi avtokranov)

PERIODICAL: Energetik, 1959, Nr. 2, pp 19 - 21 (USSR)

ABSTRACT: The authors describe, in an elementary way, the experience acquired by one power district of the Donbassenergo (Power Administration of the Donets basin) in using truck-mounted cranes for extracting transformer cores, and putting them back into the transformers. Good savings in labor and a speed-up of inspection and repair of transformers was accomplished. There are three tables, 1 photo and one graph.

Card 1/1

RYTSLIN, A.M.

IYERUSALIMOV, M.Ye.; RYTSLIN, A.M.; MORGIN, P.I.

Radiomateriology of high-voltage insulation used in power systems.
Izv. KPI 22:394-396 '57. (MIRA 11:3)
(Electric insulators and insulation--Testing)
(Radiology, Industrial)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4

BONDARENKO, A.K., inzh.; RYTSLIN, A.M., inzh.; KHAITON, E.I., inzh.; BATKHON, I.S., inzh.; KUZNETSOV, A.N., inzh.

Bus-tie breakers of step-down substations. Elek. sta. 29 no.2:90-92 F '58. (MIRA 11:3)

(Electric circuit breakers)

RYTSLIN, A.M., inzhener; D'YAKOV, P.I., inzhener.

Organization of electric transmission line repairs with the aid of mechanized repair stations (RMS). Energetik 5 no.4:1-6 Ap '57. (Electric lines) (MLRA 10:6)

RYTSLIN, A.M., inzhener; MAZURENKO, N.A., inzhener.

Overheating in bunched conductors and measures for its control. Energetik 5 no.1:6-8 Ja '57. (MLRA 10:2)

(Electric conductors)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

GOL'TSMAN, V.G., inzhener; RYTSLIN, A.M., inzhener.

Concerning the operating circular "More precise testing of porcelain insulators." Elek.sta. 28 no.1:91 Ja '57. (MLRA 10:3)
(Electric insulators and insulation--Testing)

GRYAZNOV, G.I., inzhener; RYTSLIN, A.M., inzhener.

Controlling the igniting of wooden utility poles. Elek.sta. 28 no.3:86-87 Mr '57. (MLRA 10:5)
(Electric lines--Poles)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4

RYTSLIN

104-3-37/45

AUTHOR: Gryaznov, G.I. and Rytslin, A.M., Engineers.

TITLE: The struggle against burning of wooden poles. (Bor'ba s vozgoraniyem derevyannykh opor.)

PERIODICAL: "Elektricheskiye Stantsii" (Power Stations), 1957, Vol.28, No. 3, pp. 86 - 87 (U.S.S.R.)

ABSTRACT: The setting fire to wooden poles of transmission lines by leakage currents is a widely experienced form of damage. It was at one time thought that the trouble occurred only in areas subject to surface contamination and in the absence of proper contact between the wooden cross bars and other fittings and the metal parts such as insulator supports. The measures taken to overcome the trouble were based on improving the contacts between wood and metal and binding the wood in appropriate places with copper wire to form a shunting path for stray currents. This led to some improvement, but not much and statistics of damage to lines protected in this way are given. It was supposed that the failures were due to bad contact caused by rusting and so more copper and galvanised parts were used. This was very expensive but still did not fully overcome the trouble and it is doubtful whether it is worth taking such expensive and laborious precautions. It is, therefore, proposed to approach the problem differently, providing full protection

Card 1/2

The struggle against burning of wooden poles. (Cont.)

only on specially important lines. On lines with an earth wire it is proposed simply to connect together by galvanised iron wire the metal parts relating to each phase and to use copper binding and galvanised parts only on lines subject to heavy industrial contamination.

There is an editorial note that the Ministry agrees with this article and that the corresponding instructions are printed in this copy of the journal.

AVAILABLE: Library of Congress

RYTSLIN, A.M., inzhener.

Experience mechanizing high-voltage transmission line work.
Elek.sta. 28 no.4:65-67 Ap '57. (MLRA 10:5)
(Electric lines)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

LAVROV, V.V.; ARKHANGEL'SKAYA-LEVINA, M.S.; FEDOROV, D.N.; IOSSET, G.Ya.; SOSNYAKOV, N.G.; BERINGER, Yu.V.; KOZACHINSKIY, R.M.; YELETSKAYA, O.I.; GOSHKINA, A.I.; MIKLASHEVSKAYA, A.V.; ZYKOV, A.A.; LEBEDEV, M.F.; DERGUNOVA, K.S.; RYTSK, Z.A.; FRENKINA, D.Z.; TSIVIN, S.S.

In memory of A.M.Zabludovskii. Khirurgiia no.12:74-75 D '53.
(MLRA 7:1)

(Zabludovskii, Anton Martynovich, 1880-1953)

RYTSLIN, A.M.

"A Complex Method of Conduction Preventive Work on Electrical Transmission Lines," Elek. Stants., No. 2, 1948;

"Repairing Switches without Disconnecting the Power," ibid., No. 5, 1949;

"Manufacturing E-3 Compound for Sealing Circuit Breaker Lead-Ins Directly from Bitumens," ibid., No. 12, 1949.

AUTHOR: Rytslin, A.M., Engineer. 104-4-19/40

TITLE: Experience of mechanisation of work on high voltage transmission lines. (Opyt mekhanizatsii rabot na vysokovoltnykh liniyakh elektroperedachi)

PERIODICAL: "Elektricheskie Stantsii" (Power Stations), 1957, Vol. 28, No.4, pp. 65-67 (U.S.S.R.)

ABSTRACT: The article describes the experience of one of the large system districts of the Donbas power system in the matter of mechanising laborious work on transmission lines during the 1956 repair season. Two mechanised repair stations were set up in 1956 and the repair work was split up between them. The method by which this was done is described and information is given about the amount of work carried out. As a result the reduction of the number of line disconnections in 1956 as compared with 1955 was 61, or 27%. The first few months experience of operating the repair stations demonstrated the real possibility of wide and extensive use of a number of the machines provided with the station. The merits of the different kinds of machine are described. Difficulties were experienced with the supply of the necessary parts. There was delay in providing the stations with some machines and some of the machines provided were defective. It is concluded that

RYTSLIN, A.M., inzhener; BLAGONADEZHDIN, V.M., inzhener; KNYAZEVSKIY, B.A., inzhener; VOL'FSON, I.V., inzhener; MUSATOV, T.P., inzhener; IOFFE, Ye.F., inzhener

Volume of instructions and operating papers for electric substations. Elek.sta. 26 no.5:37-43 My '55. (MLRA 8:7)

1. Makeyevskiy setevoy rayon Donbassenergo (f. Rytslin). 2. Elektroseti Kuybyshevenergo (f. Blagonadezhdin). 3. VVS Mosenergo (f. Knyazevskiy). 4. VVS Kirovenergo (f. Vol'fson). 5. Stalinskiy setevoy rayon Donbassenergo. 6. Gorenergo (f. Ioffe). (Electric substations)

AID P - 2412

Subject : USSR/Electricity

Card 1/1 Pub. 26 - 11/33

Authors : Rytslin, A. M., Donbass Power System
Blagonadezhdin, V. M., Kuybyshev Power System
Knyazevskiy, B. A., Moscow Power System
Vol'fson, I. B., Kirov Power System
Musatov, T. P., Donbass Power System
Ioffe, Ye. F., Gor'kiy Power System

Title : Discussions on the volume of instructions and operational documentation for power substations

Periodical : Elek sta 5, 37-43, My 1955

Abstract : The article refers to an article by Eng. G. B. Yakusha published in this periodical (No. 10, 1953) and gives a summarized account of opinions and answers received from readers. The subject of the discussion is the documentation involved in the operation of substations. The need for standard instructions and a decrease in the amount of paper work is stressed by all correspondents.

Institution: None

Submitted : No date

KNUNYANTS, I.L.; RYTSLIN, E.Ye.; GAMBARYAN, N.P.

β-Lactams. Report No. 4: Synthesis of 3,3-diphenyl-2-azetidinones. Izv. AN SSSR. Otd. khim. nauk no. 1:83-88 Ja '61. (MIRA 14:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Azetidinone)

KNUNYANTS, I.L.; RYTSLIN, E.Ye.; GAMBARYAN, N.P.

Steric factors in the reaction of dehydrobromination of amides of β-bromo-substituted acids. Zhur.ob.khim. 32 no.4:1262-1274 Ap '62. (MIRA 15:4)
(Amides) (Hydrobromic acid) (Steric hindrance)

RYTSLIN, R.E.

Stabilizing clay muds on the Zhetybay oil field. Burenie no.12:11-13 '64. (MIRA 18:5)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut, Leningrad.

SHOR, R.M.; RYTSLIN, V.A.

Automatic stopper for the discharge of solutions from frame drums. Kozh.-obuv.prom. 4 no.3:35-36 Mr '62. (MIRA 15:5)
(Leather industry--Equipment and supplies)

POLAND/Cultivated Plants. Grains. M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20282.

Author : T. Ryubenbauer
Inst : The Institute of Plant Cultivation and Acclimatization.
Title : Recent Attainments in Corn Cultivation and Study Plans for the Coming Years.
(Sovremennyye dostizheniya v oblasti vyrashchivaniya kukuruzy i plan rabot na blizhayshiye gody).

Orig Pub: Biul. Inst. hodowli i aklimat. roslin, 1956, No 11, 14-20.

Abstract: No abstract.

Card : 1/1

RYTTEL, W.

Type WI-1 impulse amplifier with frequency discriminator. p. 587

POSTEPY FIZYKI. (Polskie Towarzystwo Fizyczne)
Warszawa. Vol. 9, no. 5, 1958
Poland/

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, no. 6, June 1959
Uncl.

RYTTLOWA, Z.

Triparanol withdrawn from circulation. Farmacja Pol 19 no.8:167 25 Ap '63.

RYTTLOWA, Z.

New instrument for cancer examination. Farmacja Pol 19 no.8: 167 25 Ap '63.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4

MALINOVSKIY, V.S. (g.Kalinin); RYUKHINA, T.P. (g.Kalinin).

Lecture demonstrations for industrial use of adsorption. Khim. v shkole 10 no.1:54-55 Ja-F '55. (MLRA 8:4)
(Adsorption)

Rytslin, A.M.

AID P - 868

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 1/23

Author : Rytslin, A. M., Eng.

Title : Cutting down losses in transmission line systems

Periodical : Energetik, 10, 1-4, O 1954

Abstract : Energy losses caused by disconnection of electric transmission lines for repair are very considerable and in certain cases amounted to 1.6% of total annual losses. The author suggests that in order to cut losses, disconnection of lines for repair should be omitted as far as possible, and if not possible, duration of repair work of disconnected sectors should be greatly reduced. Two tables with drawings.

Institution : Not given

Submitted : No date

RYTSLIN, A.M., inzhener.

Reducing losses in electric power networks. Energetik 2 no.10:1-4 O '54. (MLRA 7:10)

(Electric networks)

CA

22

Use of silica gel for regeneration of transformer oil. A. M. Rytalin. *Elektrichestvo Stantsii* 17, No. 8, 58 (1940).—Silica gel prepd. at the power-generating station from equal vols. of a 1.3 sp. gr. Na silicate soln. and 30% HCl was fully satisfactory for continuous regeneration (thermosiphon method) of transformer oil. M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

RYUB, V.K.

Winter preservation of spring wheat plants sown in early fall. Agrobiologiia no.6:917-918 N-D '65.
(MIRA 18:12)

1. Chelyabinskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya.

ZAKHAROV, M.V.; NOVIKOV, I.I.; RYTVIN, Ye.I.

Mechanical and casting properties of alloys in the system Al - Si - Cu. Alium. splavy no.1:22-32 '63. (MIRA 16:11)

ZAKHAROV, M.V.; NOVIKOV, I.I.; RYTVIN, Ye.I.

High strength AL7-4 aluminum foundry alloy. Lit. proizv. no.9: 37-39 S '61. (MIRA 14:9)

(Aluminum founding)

28051 S/128/61/000/009/007/009
A054/A127

18.1210 2408

AUTHORS: Zakharov, M.V.; Novikov, I.I.; Rytvin, Ye.I.

TITLE: High-strength АЛ7-4 (AL7-4) casting aluminum alloy

PERIODICAL: Liteynoye proizvodstvo, no. 9, 1961, 37 - 39

TEXT: Based on the study of silumin-type ternary alloys a new casting aluminum alloy combining the good casting properties of the АЛ4 (AL4), АЛ5 (AL5) and АЛ9 (AL9) alloys with the high strength of the АЛ8 (AL8) and АЛ19 (AL19) alloys has been developed. Tests were carried out with ternary alloys containing 5, 6, 7, 8, 9 and 10% Si and 0.5, 1, 2, 3, 4, 5, 6 and 7% Cu. The highest σ_b and δ values were obtained with alloys containing 6 - 8% Si and 3 - 5% Cu (26 - 36 kg/mm^2 and 2 - 6%, respectively). The optimum combination of tensile strength and relative elongation was obtained with an alloy containing on an average 7% Si and 4% Cu. The new alloy called AL7-4 (Author's Certificate No. 137268) has to be heat-treated as follows: solution heat treatment for 6 h at 515 ± 5°C, water quenching (20 - 40°C), aging at 175 ± 5°C for 6 h and air-cooling. The permissible amount of iron which affects the strength and ductility of the alloy was found to be 0.25%. Tests on heat resistance showed that the strength, duct-

Card 1/3

High-strength AЛ7-4 (AL7-4) casting aluminum alloy

ility and casting properties of the AL7-4 alloy considerably exceeded those of the AL4, AL5 and AL9 alloys in the 20 - 250°C temperature range. Since modification with 40% NaF, 45% NaCl and 15% cryolithe does not improve the strength and elongation of the new alloy, this treatment could be omitted, simplifying the technology. Tests of the casting properties of the AL7-4 alloy covered mainly hot cracking on specimens 2, 3, 4, 6, 8 and 10 mm in diameter based on the assumption hot cracks in the 10-mm diameter specimens would mean that the alloy is characterized by maximum hot-shortness, while the absence of hot cracks in the 2-mm specimens would reveal minimum hot-shortness. The AL7-4 alloy was found to be highly crack-resistant (nearly as high as AL5 and much higher than AL8 and AL19). Tests to determine the temperature range of linear shrinkage in the new alloy showed shrinkage to start at 560 ± 5°C, while its solidus is at 525°C. The actual interval of solidification is not more than 35°C, and this is about half the value of the AL8 alloy. Equally favorable results were obtained with the new alloy as to fluidity and air-tightness. Modification with magnesium, manganese, zinc, antimony, cerium, titanium, lithium and beryllium did not affect the mechanical properties of the AL7-4 alloy. Modified with 0.1% antimony and 0.3% magnesium, the tensile strength of the alloy increased from 32 - 34 kg/mm^2 to 38 - 42 kg/mm^2, while elongation decreased from 4 - 6 to 1 - 2%.

SHEYNIN, A.B.; RYTVINSKAYA, M.V.; KHEYFETS, V.L. (Leningrad)

Oscillographic study of the kinetics of electrode processes.
Part 4. Zhur.fiz.khim. 38 no.11:2562-2568 N '64.
(MIRA 18:2)

1. Nauchno-issledovatel'skiy i proyektnyy institut "Gipronikel'".

BATASHEV, K.P.; PATROVA, G.I.; RYABOV, V.A.; RYTVINSKIY, A.I.

Electrolytic chromizing of titanium alloy products. Trudy LPI no.223:115-124 '63. (MIRA 17:11)

ACCESSION NR: AT4026281 S/2563/63/000/223/0115/0124

AUTHOR: Batashev, K. P.; Patrova, G. I.; Ryabov, V. A.; Ry*tvinskiy, A. I.

TITLE: Electrolytic chromium plating of titanium-alloy parts

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 223, 1963. Metallurgiya tsvetny'kh metallov (Metallurgy of nonferrous metals), 115-124

TOPIC TAGS: chromium plating, electrolytic plating, electroplating, titanium, titanium alloy, titanium electroplating, corrosion, titanium corrosion, chromium

ABSTRACT: Chromium plating of titanium and titanium alloys makes possible the elimination of one of their main disadvantages, the tendency to seizing, thus widening their field of application. However, chromium plating of Ti encounters the difficulty of poor adhesion between the Cr and the underlying surface, owing to the presence of TiO_2 film. The preliminary treatment of the Ti surface to remove this film is therefore important and has been attempted with a variety of reagents (HF, NaOH, KOH, HNO_3 + HF, dichromate + HF + $CuSO_4$, and acetic acid + HF + alternating current). In the present paper the authors discuss the preliminary pickling of the surface of Ti and VT-5 Ti alloy in some detail, as well as working out the optimal conditions for chromium plating and the heat treatment of the plated surface. Pickling with HF, HCl, or H_2SO_4 was found to be

ACCESSION NR: AT4026281

effective, but the best procedure was pickling for 5-10 minutes with 50% sulfuric acid at 50-90C, preceded by treatment with Vienna lime. Studies of the strength of the Ti-Cr bond were carried out on both bright and dull ("milky") Cr coatings 5-50 microns thick. On the basis of the phase diagram of the Ti-Cr system, the authors attempted to improve the adhesion between Ti and Cr by thermal treatment (5 minutes at 400, 600, 800, or 1000C). Studies of the microhardness and microstructure indicated that 800C was optimal. Finally, the corrosion resistance of Cr-plated Ti was studied in 5% NaCl, KOH, H_2SO_4, and HNO_3, as well as 2% HF. Determinations of the potential difference between the Cr plate and the VT-5 Ti alloy in NaCl solution showed that the Cr exerts an electrochemical protective effect. Orig. art. has: 2 figures and 5 tables.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute)

SUBMITTED: 00 ATD PRESS: 3084 ENCL: 00

SUB CODE: MM NO REF SOV: 008 OTHER: 007

Card 2/2

RYTVINSKIY, S.S.

Changes in some indices of external respiration under the influence of aminazine and a neuroplegic mixture in pulmonary tuberculosis. Kaz.med. zhur. no.2:28-33 Mr-Ap'63 (MIRA 16:11)

1. Kafedra tuberkuleza (zav. - dotsent P.L.Vinnikov) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey imeni Lenina i Kazanskiy tuberkulernyy gospital' dlya invalidov Otechestvennoy voyny (nachal'nik - N.S. Valeyev).

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

RyTw

POL

539.4.012.3 : 539.431 : 631

3402

Rylwiński S. New Principles of Mechanical Strength Computations for Machine Parts

„Nowe podstawy wytrzymałościowych obliczeń części maszynowych" Przegląd Mechaniczny, No. 5, 1954, pp. 147—151, 10 figs., 1 tab.

The author reviews various methods of computing the mechanical strength of machine parts, and discusses computations hitherto practised — those relying on the determination of rated stresses and comparing them with safe stresses. He next deals with the fatigue method of calculating the strength of machine parts. Considerable space is devoted to the new theory of the strength of materials — the theory of plasticity as advanced by H. Brendenburger. The author deals in the concluding part of his article, with the problems of mechanical strength as reviewed from the point of thermodynamics.

gpl 55K

"On a Sensible Technology in Modernized Iron and Steel Works," by S. Rytwinski. Przeglad Techniczny, No. 6, 1957. p. 201.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001440510015-4

RYTWINSKI, S.

2074 021.004.18

Rytwinski, S. National Use of Materials in the Construction of Machines and Industry Equipment.

„O racjonalne wykorzystywanie materiałów w budowie maszyn i urządzeń". Przegląd Techniczny. No. 11, 1953, pp. 416–421, 2 tabs.

The construction of machinery and industrial equipment should in future be subject to systematic control to rationalise standards for material. Materials to be used in the construction of machines and industrial equipment should be carefully improved, both prior to being used, and throughout the production cycle, until they assume the final shape. Methods of qualifying materials in constructions. Methods of ascertaining defects in materials: optical, electro-magnetic, radiography, and the method based on supersonic penetration of the metal grid. Combating corrosion in metals. New raw materials and substitutes.

RYTWIAŃSKI APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

"Rational use of materials in machine construction", p. 416 (Przeglad Techniczny. Vol. 74, no. 11, Nov. 1953, Warszawa)

Vol. 3, No. 3

SO: Monthly List of East European Accessions, Library of Congress, March 1954, Uncl.

RYUB, V.K.

Nature of form development in spring wheat in the sourthern trans-Ural region. Agrobiologiia no.5:692-695 S-O '62. (MIRA 15:11)

1. Chelyabinskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Ural Mountain region--Wheat)

g/; and with [illegible] A. F. Khlystova

M

Country : USSR
Category: Cultivated Plants. Grains.

Abs Jour: RZhBiol., No 22, 1958, No 100228

Author : Ryub, V.K.
Inst : Chelyabinsk State Agr. Experimental Station
Title : Chelyabinskaya Hard Wheat

Orig Pub: Byul. nauchno-tekhn. inform. Chelyab. gos. s.-kh. opytn. st., 1958, No 1, 4-6

Abstract: Chelyabinskaya variety of hard wheat, regionally adapted in the forest-steppe zone of the oblast', has been brought out at the Station. Chelyabinskaya is characterized by late maturity, high yield (21.6 centners/ha against 20.8 centners/ha yield of Gordeiforme 10), large grain (absolute weight of the kernels -

Card : 1/2

RYUBAKOV, B.V.

Category : USSR/Nuclear Physics - Instruments and Installations. Methods of Measurement and Investigation C-2

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 281

Author : Bogdanov, G.F., Kurashov, A.A., Ryubakov, B.V., Sidorov, B.A.
Title : Time of Flight Measurement of the Spectra of Fast Neutrons

Orig Pub : Atom. energiya, 1956, No 1, 66-74

Abstract : Description of a setup for the study of spectra of fast neutrons, formed in various nuclear reactions, using the time of flight method. The pulsed source of charged particles is a 1-1/2 meter cyclotron. The emerging beam of particles is focused by a magnetic prism at a distance of 12 meters from the cyclotron. The repetition period of the particle pulses is 112 millimicroseconds (the frequency of the accelerating voltage is 8.9 mc). The duration of the pulse of particles on the target does not exceed 5 millimicroseconds. The neutrons and gamma rays are detected by a scintillation counter, consisting of a plastic scintillator (terphenyl in polystyrol) and a photomultiplier. The instant at which the counter records the particle is shifted relative to the instant at which it leaves the target by the time of flight of the

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510015-4"

AUTHORS: Kravchenko, S. and Ryubov, P. (Engineers). 66-2-10/22

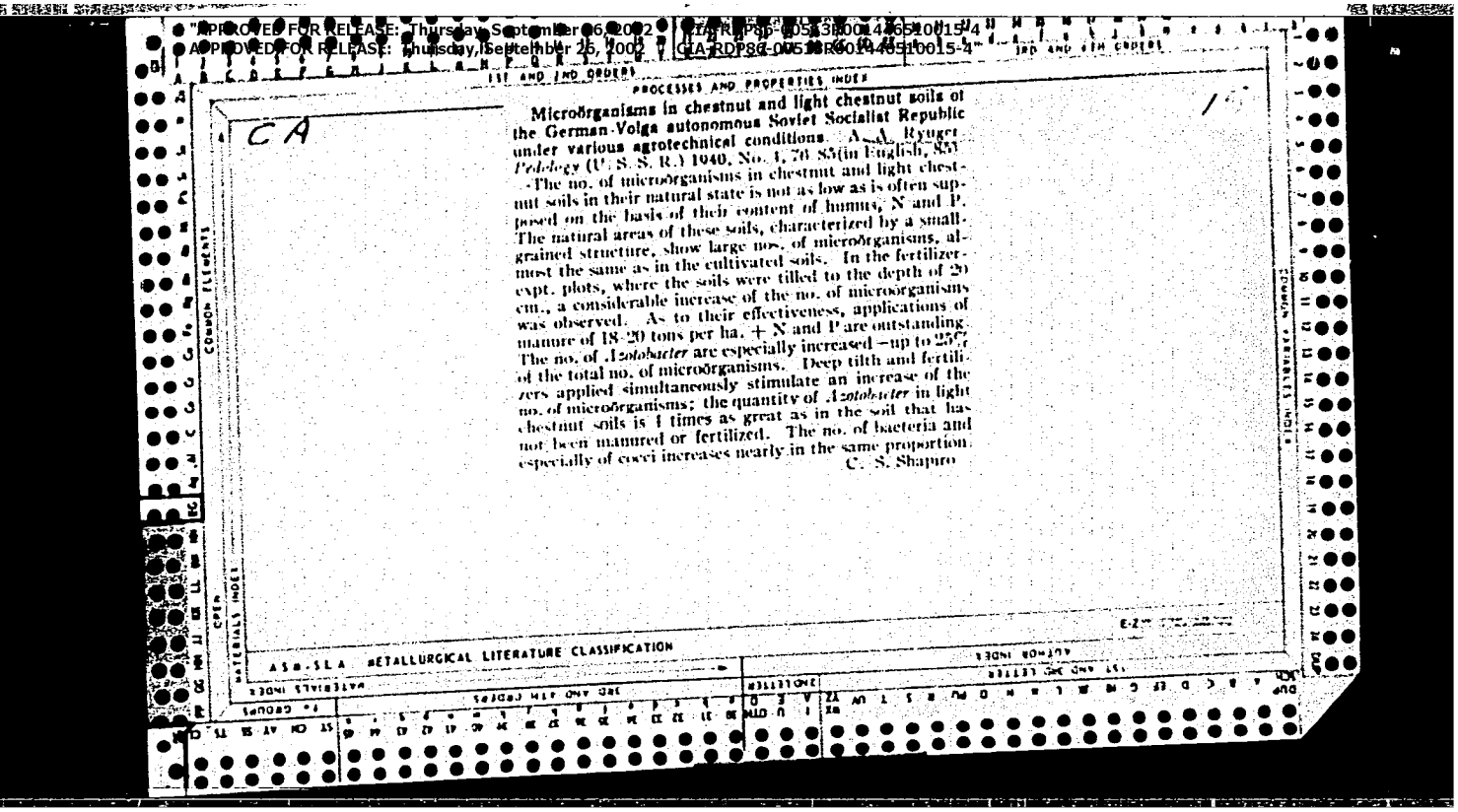
TITLE: On defreezing butter by means of a high frequency electric field. (O razmorazhivanii slivochnogo masla v elektricheskom pole vysokoy chastoty).

PERIODICAL: "Kholodil'naya Tekhnika" (Refrigeration Engineering) 1957, No.2, pp. 48 - 49 (USSR).

ABSTRACT: Preliminary defreezing during packing of butter to temperatures of 0 to -1 C by current methods takes 3 to 4 days. Experiments were carried out at the Leningrad Polytechnical Institute imeni M.I. Kalinin on defreezing briquettes of unsalted high grade butter, weighing 200 g each and blocks weighing 3 and 25.4 kg respectively. Defreezing from -10 to +1 C took 2 to 5 minutes at a frequency of 10 to 20 Mc/sec, the butter being placed between two electrodes of a tube oscillator. Uniformity of defreezing of the butter block throughout its entire body depends on a number of factors. In some cases the temperature rise is more intensive at the surface of the block and in other cases, due to non-uniform consistency and presence of moisture drops, an outflow of jets of butter from inside the block was observed. The authors recommend further experiments in this field.

Card 1/1

AVAILABLE:



PROCESSES AND PROPERTIES INDEX

CA

Microörganisms in chestnut and light chestnut soils of the German-Volga autonomous Soviet Socialist Republic under various agrotechnical conditions. A. A. Ryuger. *Pedology* (U. S. S. R.) 1940, No. 4, 70-83 (in English, 83).

The no. of microörganisms in chestnut and light chestnut soils in their natural state is not as low as is often supposed on the basis of their content of humus, N and P. The natural areas of these soils, characterized by a small-grained structure, show large nos. of microörganisms, almost the same as in the cultivated soils. In the fertilizer-expt. plots, where the soils were tilled to the depth of 20 cm., a considerable increase of the no. of microörganisms was observed. As to their effectiveness, applications of manure of 18-20 tons per ha. + N and P are outstanding. The no. of *Azotobacter* are especially increased—up to 25% of the total no. of microörganisms. Deep tilth and fertilizers applied simultaneously stimulate an increase of the no. of microörganisms; the quantity of *Azotobacter* in light chestnut soils is 4 times as great as in the soil that has not been manured or fertilized. The no. of bacteria and especially of cocci increases nearly in the same proportion.

C. S. Shapiro

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

RYUGAS, E.M. [Roigas, F.] kand. med. nauk; RUBANOVICH, I.L. (Tallin)

Effectiveness of a culture in the diagnosis of gonorrhea and trichomoniasis of the urogenital tract under the condition of a dermatovenerological dispensary. Vest. derm. i ven. 38 no.3: 65-68 Mr '64. (MIRA 18:4)

1. Sektor protozoologii i mikrobiologii (zav. - kand. med. nauk Yu.Kh. Teras [J. Teras]) Instituta eksperimental'noy i klinicheskoy meditsiny (dir. - prof. P.A. Bogovskiy) AMN SSSR i Respublikanskiy kozhno-venerologicheskiy dispanser (glavnyy vrach R. Uuetoa) Estonskoy SSR.

KREYMERMAN, G.I.; RYUGER, A.A.

Investigating the free flow characteristics of the grain mass of wheat and oats in storage. Izv.vys.ucheb.zav.; pishch. tekh. no.3:21-23 '63. (MIRA 16:8)

1. Vsesoyuznyy zaochnyy institut pishchevoy promyshlennosti, kafedra tovarovedeniya, khraneniya i elevatorno-skladskogo khozyaystva.

(Wheat--Storage) (Oats--Storage)

KREYMERMAN, G.I.; RYUGER, A.A.

Investigation of some physicomechanical properties of artificially humidified grain. Izv. vys. ucheb. zav.; pishch. tekh. no.4:18-21 '61. (MIRA 14:8)

1. Vsesoyuznyy zaochnyy institut pishchevoy promyshlennosti, kafedra khraneniya i pererabotki zerna.
(Wheat)

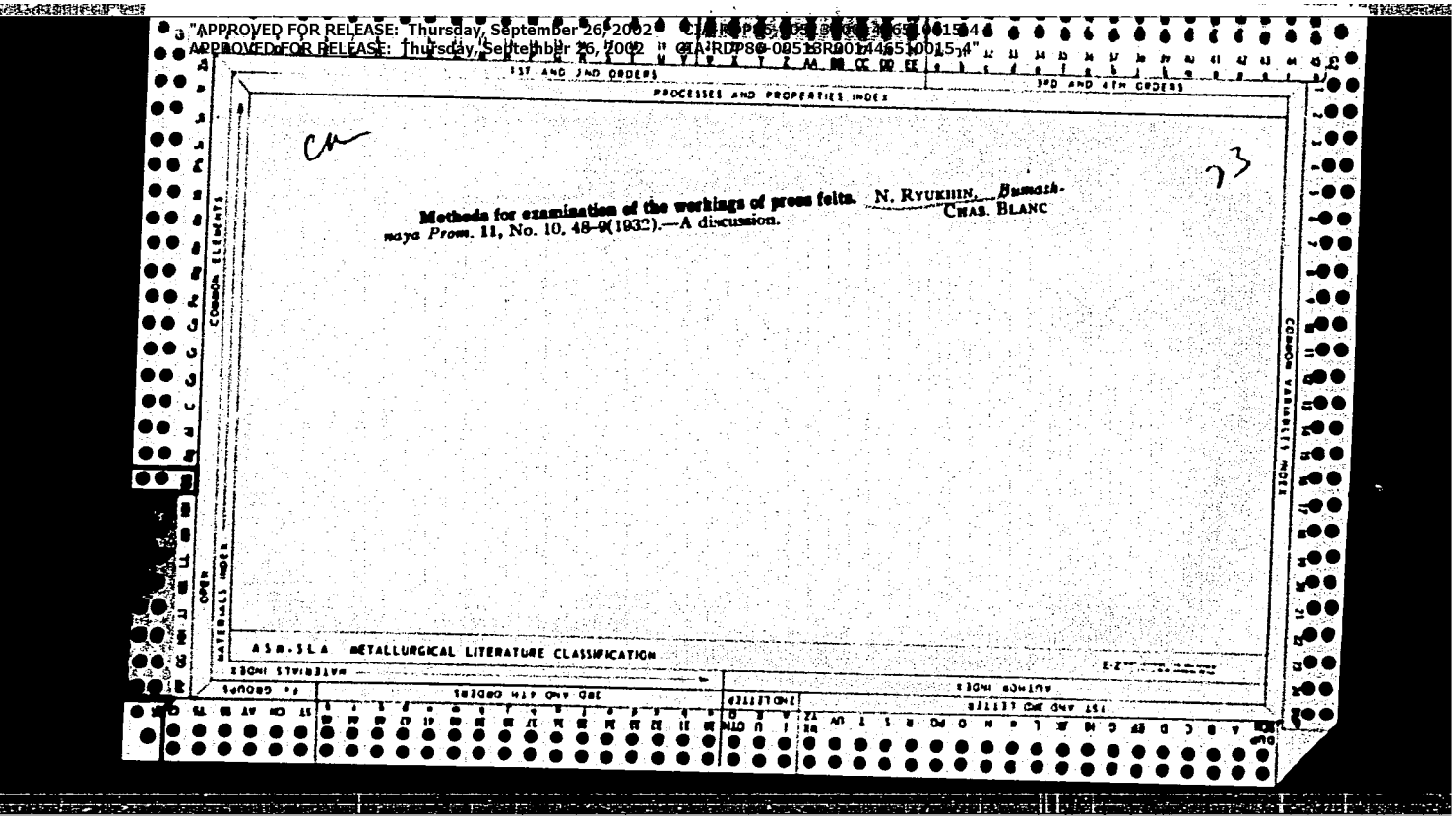
RYUGIN, A., inzh.

Simplified processing of motion-picture films. Sov.foto 20 no.3: 38 Mr '60. (MIRA 13:7)
(Motion-picture photography--Developing and developers)

RYKIN, B. I.

Control of principal forest pests. Izd- 2. (ispr. i dop.) Minsk, Gos. izd-vO BSSR, 1954. 79s.

1. Trees - Diseases and Pests.



PROCESSES AND PROPERTIES INDEX

Methods for examination of the workings of press felts. N. Ryukhin. *Bumazh. Prom.* 11, No. 10, 48–9(1932).—A discussion. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

RYUKHIN,N.V.; BAKAYEVA,Ye.M.

Hygroscopic moisture in varying types of paper. Bum.prom. 30 no.5:8-10 My '55. (MLRA 8:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut bumagi.
(Paper--Testing)

ALEKSEYEV, A.A., inzhener, redaktor; ASHKENAZI, K.M., doktor tekhnicheskikh nauk, redaktor; GRABOVSKIY, V.A., kandidat tekhnicheskikh nauk, redaktor; GORBACHEV, A.N., kandidat tekhnicheskikh nauk, redaktor; IVANOV, S.N., kandidat tekhnicheskikh nauk, redaktor; LAPIN, P.S., kandidat tekhnicheskikh nauk, redaktor; LEPSKIN, N.N., doktor tekhnicheskikh nauk, redaktor; PUZYREV, S.A., kandidat tekhnicheskikh nauk, redaktor; RYUKHIN, N.V., kandidat tekhnicheskikh nauk, redaktor; FLYATE, D.M., kandidat tekhnicheskikh nauk, redaktor; SHAPIRO, A.D., kandidat tekhnicheskikh nauk, redaktor;ELIASHBERG, M.G., kandidat tekhnicheskikh nauk, redaktor; KHUDYAKOVA, A.V., redaktor; VOLKHOVER, R.S., tekhnicheskiy redaktor.

[Paper maker's handbook] Spravochnik bumazhnika (tekhnologa) Moskva, Goslesbumizdat. Vol. 1 1955. 790 p. (MLRA 8:10)
(Paper industry)