"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

85866

Some Electrical Properties of Barium-titanate Activated With Rare Earths

S/048/60/024/011/002/036
B006/B056

Smaller peaks were observed also in samples which contained 0.3% Tb, 0.3% Nd, 0.3% Er, and 0.3% Tu. It was further found that in the resistivity peak (at Curie point) the current not only dropped to zero, but also reversed its direction, which is considered to be a consequence of a marked change in polarization. This effect was particularly marked in $BaTiO_3$ samples with 0.1 mole% Sm_2O_3, Nd_2O_3, Er_2O_3, and Tb_2O_3. Greater or smaller additions produced no effect; the possible practical importance is finally pointed out. There are 2 figures, 1 table, and 4 references: 2 Soviet, 1 US, and 1 Japanese.

ASSOCIATION: Fiziko-matematicheskiy fakul'tet Rostovskogo-na-Donu gos. universiteta (Department of Physics and Mathematics of Rostov-na-Donu State University)

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85867

S/048/60/024/011/003/036
B006/B056

24.7500 (1043, 1145, 1160)

AUTHORS: Yatsenko, A. F. and Rabkin, L. M.

TITLE: Sounding of the Crystal Field of the $BaTiO_3$ Lattice by Rare-earth Ions

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 11, pp. 1314 - 1317

TEXT: The present paper is a reproduction of a lecture delivered on the 3rd Conference on Ferroelectricity which took place in Moscow from January 25 to 30, 1960. As it is of great importance for clearing up the nature of ferroelectricity to know the lattice field acting upon a single ion, the authors suggest a method by means of which it is possible to sound these fields. This method may, at the same time, be used for the purpose of detecting the lattice vibration frequencies from observed electron-vibrational transitions. The authors used rare-earth elements (denoted by TR), which are added in small quantities (< 0.5 mole%), and served as "voltmeter probes". For this purpose the fact was made use of that the TR furnish linear luminescence spectra also in the solid state.

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85867

Sounding of the Crystal Field of the $BaTiO_3$ Lattice by Rare-earth Ions

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From the level splitting observed from the decrease of all terms and the displacement toward infrared of the entire spectrum resulting herefrom, conclusions may be drawn with respect to the lattice field. The distortions due to introduction of the impurity ions are discussed in the introduction; the experimental observations indicate that the TR-ions occupied lattice nodes with the point symmetry O_h (above Curie point); during passage through Curie point the symmetry decreases from O_h to C_{4v}, and the inversion centrum is lost. For the statistical potential a formula is given (expansion in series with respect to spatial harmonics), in which terms from the 6-th order on are neglected; the quantities necessary for calculating this potential may be determined from the spectrum. Fig. 1 shows luminescence spectra of Ba-, Sr-, and Ca-titanates activated with Sm and Pr. As may be seen herefrom, the general shape of the spectra of Ba- and Sr-titanate remains conserved, but intensity changes and line shifts are found to occur; the brightness of the former is a multiple of the latter. A multiple of details of the observed spectra is given; the following summary may be given of the results obtained: 1) By means of the method of rare earth probes it is possible to

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8 5867

Sounding of the Crystal Field of the $BaTiO_3$ Lattice by Rare-earth Ions

S/048/60/024/011/003/036
B006/B056

determine the potential function of the crystal field (with respect to amount and symmetry). 2) The existence of a distinct luminescence spectrum is a good criterion for the formation of a solid solution $Ba(TRTi)O_3$. 3) Also qualitative considerations make it possible to compare the fields in $BaTiO_3$, $SrTiO_3$, and $CaTiO_3$, and to observe changes in phase transitions. Among other things, it was found that above Curie point the electron cloud of the central ion of the octahedron is considerably polarized. 4) This method may be used for the purpose of solving technological problems as well as, together with X-ray structural analysis or similar methods for studying crystal structures. There are 3 figures and 7 references: 6 Soviet and 1 Hungarian.

ASSOCIATION: Fiziko-matematicheskiy fakul'tet Rostovskogo-na-Donu gos. universiteta (Department of Physics and Mathematics of Rostov-na-Donu State University)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

S/196/63/000/003/006/012
A052/A126

AUTHOR: Yatsenko, A.F.

TITLE: On the problem of an atom model of ferroelectricity in $BaTiO_3$

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no. 3, 1963, 13, abstract 3B80. (In collection "Segnetoelektriki" Rostov-na-Donu, Rostovsk. un-t, 1961, 55 - 60)

TEXT: The six-hole model for ferroelectricity of the $BaTiO_3$ type proposed by Mason enables one to explain many phenomena of ferroelectricity. However, by this model can not be explained the turns of the axis of spontaneous polarization from the direction (0,0,1) to (0,1,1) at 273°K (0°C) and to (1,1,1) at 193°K (-80°C) as well as the fact that in the direction of the axis c, unlike the direction of the axis a, ε is relatively small ($\varepsilon_c \approx 300$) and, without considering the region near the transition temperatures, depends slightly on temperature (at 293°K or 20°C, ε_a = 4,600 and highly depends on temperature). The qualitative development of a model with a variable number of potential holes has been done. This made it possible to explain some characteristics of ferroelectric phenomena in $BaTiO_3$. The prob-

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On the problem of an atom model of... S/196/63/000/003/006/012
A052/A126

lems are discussed of a sharp difference between ε_0 and ε_α of their temperature dependence, of the dispersion of ε in the cm-wave region, of phase transitions. There are 2 figures and 7 references.

B. Matsonashvili

[Abstracter's note: Complete translation]

Card 2/2

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

36474
S/181/62/004/003/014/045
B142/B102

24.7800
24.6111

AUTHORS: Myasnikova, T. P., and Yatsenko, A. F.

TITLE: Changes in the infrared spectra of NH_4HSO_4, $RbHSO_4$ and $(NH_4)_2SO_4$ on transition into the ferroelectric state

PERIODICAL: Fizika tverdogo tela, v. 4, no. 3, 1962, 653-656

TEXT: The reasons for the occurrence of ferroelectricity in NH_4HSO_4, $RbHSO_4$ and $(HNH_4)_2SO_4$ were explained by means of the changes in the infrared spectra. For this purpose the purified substances (recrystallization in aqueous solution with NH_4HSO_4 and $(NH_4)_2SO_4$ and growing from an aqueous equimolar solution of Rb_2SO_4 and H_2SO_4 with $RbHSO_4$) were cooled below the corresponding Curie points. NH_4HSO_4 is ferroelectric between -3° and -119^oC, $RbHSO_4$ below -15^oC and $(NH_4)_2SO_4$

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below -50°C. The SO_4^{--} group with NH_4HSO_4 and $RbHSO_4$ (ionic vibrations 800 - 1400 cm^{-1}) showed no changes in the spectrum except for a splitting of the 867 cm^{-1} band with NH_4HSO_4 above the Curie point. Hence the SO_4^{--} radical does not influence ferroelectricity. It was found that the 3165 cm^{-1} band of NH_4HSO_4 splits into the components 3100 cm^{-1} and 3190 cm^{-1}; with $RbHSO_4$ the 3200 cm^{-1} band splits into two (3100 cm^{-1} and 3200 cm^{-1}). The splitting can be calculated from the crystallographic structure of the unit cells and the resulting ionic symmetry. Comparison of the measured and the calculated band confirms the space groups of the isomorphous crystals of NH_4HSO_4 and $RbHSO_4$. The occurrence of the 3100 cm^{-1} and 3200 cm^{-1} bands in both crystals below the Curie point suggests a proton tunneling along the O-H-O bond. Hence it can be

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concluded that the H-bond in O-H-O causes ferroelectricity in $RbHSO_4$ and NH_4HSO_4. In the range of SO_4^{--} ionic vibrations above the Curie point the spectrum of $(NH_4)_2SO_4$ shows a splitting of the broad band with its center at 1080 cm^{-1} into the components 1035 cm^{-1}, 1100 cm^{-1}, and 1143 cm^{-1} and and intense, narrow 963 cm^{-1} band. In the frequency range of the H bond the 3235 cm^{-1} band splits into two (3190 cm^{-1} and 3290 cm^{-1}), from which a proton tunneling along the N-H-O bond can be concluded. The 963 cm^{-1} band and the failing of a shift in the Curie point at deuteration contradicts the assumption that the H-bond causes ferroelectricity in $(NH_4)_2SO_4$. There are 6 figures, 2 tables, and 13 references: 5 Soviet and 8 non-Soviet. The four most recent references to English-language publications read as follows: R. Pepinsky, K. Vedam. Phys. Rev., 114, 1502, 1960. R. Pepinsky, K. Vedam. Phys. Rev., 114, 1217, 1959. R. Pepinsky et al., Phys. Rev. 111, 1508, 1958. S. Hoshino et al., Phys. Rev. 112, 405, 1958.

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Changes in the infrared ... S/181/62/004/003/014/045
B142/B102

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-na-Donu State University)

SUBMITTED: October 27, 1961

Card 4/4

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

S/181/62/004/003/020/045
B125/B108

AUTHORS: Yatsenko, A. F., Kulyupin, Yu. A., and Rabkin, L. M.

TITLE: Discrete structure of the self-absorption edge of sodium nitrite

PERIODICAL: Fizika tverdogo tela, v. 4, no. 3, 1962, 692-696

TEXT: The authors studied the discrete structure of the self-absorption edge in a ferroelectric sodium nitrite crystal in polarized light of 3250-3900 Å for the three crystallographic directions a, b, and c by means of ДФС-4 (DFS-4) and ИСП-28 (ISP-28) spectrographs. For low-temperature measurements, the samples were directly immersed in liquid nitrogen. The crystals were prepared by evaporating the aqueous solution, by pricking the crystal out of the solidified melt, or by solidifying a film of melt on a backing or between two transparent backings. At room temperature and with very thick crystals (d~1 mm), the edge of the transmission curve is in the region of 4000, 3950, and 4050 Å for the axes a, b, and c, respectively. With decreasing concentration, the longwave edge of the

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transmission curve of the band of the first electron transition of the aqueous $NaNO_2$ solution shifts toward ultraviolet. Similar observations have been made also for thinner crystals. Fig. 2 shows the transmission curves for thin crystals (d = 10-20μ) and for an aqueous solution of low concentration at room temperature. In the spectrum along the a axis, the absorption ranges from 3850 to 3250 Å with a distinct vibrational structure with $\nu \sim 630$ cm^{-1}; this consists of the series $\nu = \nu_{00} + n\nu_2$, $\nu'_n = \nu_{00} + \nu_1 + n\nu_2$, and $\nu'' = \nu_{00} + n\nu_1$. The spectrum for the b axis has no structure. The absorption which increases more slowly with increasing frequency attains its maximum at $\lambda \sim 3000$ Å. The b-spectrum of thick crystals ($d \sim 0.5$ mm) contains no 0-0 band and no vibrational bands caused by electrons, but it shows a distinct series $\nu'''_n = \nu_{00} + n\nu_2 + \nu$ with $\nu = 56\pm2$; 104 ± 2; 204 ± 2, and 515 ± 10 cm^{-1}. The c-spectrum is similar to the a-spectrum, but the relative intensities of its bands differ from the a-spectrum. The weak low-frequency lines are caused by lattice vibrations. There are 4 figures, 1 table, and 13 references: 4 Soviet and 9 non-Soviet. The four most recent references to English-language publications read as

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

follows: S. Sawada, et al. Phys. Rev. Lett. 1, 320, 1958; J. W. Sidman. J. Amer. Chem. Soc., 78, 2911, 1956; J. W. Sidman. J. Amer. Chem. Soc., 79, 2669, 1957; W. D. Trawick, W. H. Eberhardt, J. Chem. Phys., 22, 1462, 1954.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-na-Donu State University)

SUBMITTED: March 27, 1961 (initially). November 9, 1961 (after revision)

Fig. 2. Transmission curves at room temperature. Legend: (1) along the a-axis, (2) along the b-axis, (3) along the c-axis, (4) $NaNO_2$ aqueous solution, (5) transmission, %.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

KULYUPIN, Yu.A. ; YATSENKO, A.F.

Absorption spectrum of sodium nitrite crystals at 20° K. Fiz. tver. tela 5 no.10:2756-2765 O '63. (MIRA 16:11)

1. Institut fiziki AN UkrSSR, Kiyev.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

KULYUPIN, Yu.A.; YATSENKO, A.F.

Luminescence of gamma-irradiated KNO_3. Fiz. tver. tela 5 no.11: 3334-3336 N '63. (MIRA 16:12)

1. Institut fiziki AN UkrSSR, Kiyev.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

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L 10155-63 EPF(c)/EWT(1)/EPF(n)-2/BDS--AFFTC/ASD/SSD--
Pr-4/Pu-4
ACCESSION NR: AP3000321 S/0048/63/027/005/0679/0682
68
64

AUTHOR: Yatsenko, A. F.; Kulyupin, Yu. A.

TITLE: Luminescence of sodium nitrite at low temperatures [Report; Eleventh Conference on Luminescence held at Minsk 10-15 Sept. 1962]

SOURCE: Izvestiya AN SSSR. Seriya fizicheskaya, v. 27, no. 5, 1963, 679-682

TOPIC TAGS: luminescence, absorption, sodium nitrite, nitrites

ABSTRACT: Interest in nitrites, particularly sodium nitrite, has been aroused owing to discovery of a ferroelectric phase transition in NaNO sub 2 at 162°C. Sodium nitrite crystallizes in the NaCl type lattice with the Cl replaced by the NO sub 2 ion. The vibrational frequencies of this ion are known from numerous Raman and infrared absorption studies. The only previous study of the luminesence of sodium nitrite has been by Sidman, J. W. (J. Amer. Chem. Soc., 79, 2669, 1957); in the present study Sidman's results have been confirmed and some new details brought out. The spectra were photographed on an ISP-51 spectrograph with excitation by the 3650 Angstrom Hg line. The luminescence spectrum is faint at room temperature, more intense at 77°K and very intense at 20.4°K (liquid nitrogen

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L 10155-63
ACCESSION NR: AP3000321

temperature). The Na nitrite luminescence spectrum at 20.4°K is described, analyzed and compared with the spectra of Li, K, Cs, Ag and Tl nitrites. (The other investigated nitrites were prepared by L. N. Venerovskaya and N. A. Bry'kov in the laboratory of Prof. P. I. Protsenko at Rostov-on-the-Don State University.) It is inferred from coincidences of the 0-0 transition bands in the absorption and luminescence spectra, the mirror symmetry of these spectra and other evidence that the luminescence is intrinsic (not impurity) and is emitted by the nitrite ion. It is impossible to decide on the basis of the present data whether the discrete spectrum is due to excitons or to the emission of some kind of discrete centers. "The authors express their gratitude to A. F. Prikhot'ko, V. L. Broude, and M. T. Shpak for making possible the investigation and for their interest in the work." Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki Akademii nauk SSSR (Institute of Physics, Academy of Sciences, USSR)

SUBMITTED: 00 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: PH,CH NR REF SOV: 005 OTHER: 007

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L 33585-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AR6016211 SOURCE CODE: UR/0058/65/000/011/D059/D059

58

B

AUTHORS: Yatsenko, A. F.; Rabkin, L. M.

TITLE: Luminescence spectra of rare earth elements in perovskite lattices

27

SOURCE: Ref. zh. Fizika, Abs. 11D454

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 552-562

TOPIC TAGS: luminescence spectrum, line spectrum, ferroelectric material, titanate, rare earth element, spectral analysis, nuclear energy level

ABSTRACT: The authors discuss the possibility of using line luminescence of rare earth ions for the study of the crystalline field in the ferroelectric $BaTiO_3$, and also in $CaTiO_3$ and $SrTiO_3$. The luminescence spectra and absorption spectra of Pr, Sm, Eu, Tb, Dy, He, and Er were investigated in the indicated lattices at room, liquid-nitrogen, and liquid-hydrogen temperatures. The structure of the luminescence center and the energy level scheme are considered. From an analysis of the structure of the spectra, certain conclusions are drawn regarding the symmetry and magnitude of the crystalline field in perovskite lattices. [Translation of abstract]

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Card 1/1 80

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

BROUDE, V.L.; POGORELYY, A.N. [Pohorielyi, O.M.]; SOSKIN, M.S.; STETSENKO, B.V. YATSENKO, A.F. [IAtsenko, O.F.]

Fluctuations in the emission from an optical maser in a pulsed mode. Ukr. fiz. zhur. 9 no.11:1267-1268 N '64 (MIRA 18:1)

1. Institut fiziki AN UkrSSR, Kiyev.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.F.; KOPAS', N.F.; MIROSHNICHENKO, L.S.

Manufacture of autoelectronic emitters from high electric resistance materials. Prib. i tekh. eksp. 10 no.1:222-223 Ja-F '65. (MIRA 18:7)

1. Institut fiziki AN UkrSSR.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

KULYUPIN, Yu.A.; YATSENKO, A.F.

Spectroscopy of NO^-_2 ions and the nature of ferroelectric phase transitions in $NaNO_2$. Izv. AN SSSR. Ser. fiz. 29 no.6:917-919 Je '65. (MIRA 18:6)

1. Institut fiziki AN UkrSSR.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

L 10976-66 EWT(1)/EWA(j)/EWA(b)-2 JK

ACC NR: AP5028391 SOURCE CODE: UR/0016/65/000/009/0021/0024

35

B

AUTHOR: Yatsenko, A. F.; Korobov, L. I.; Shafran, L. M.

ORG: Basin Sanitation and Epidemiological Station of the Black Sea-Azov Sea Maritime Health Department, Odessa (Basseynovaya sanepidstantsiya Chernomorsko-Azovskogo vodzdravotdela)

TITLE: Smallpox immunity in sailors

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 9, 1965, 21-24

TOPIC TAGS: infective disease, disease incidence, epidemiology

ABSTRACT: The authors studied the state of smallpox immunity of Soviet sailors and compared it with the immunity of sailors of other countries of Europe, Asia, and Africa. As a result of the investigation, the authors establish that the percent of those reacting positively to inoculation varies in relation to the number of revaccinations in the past, the age of the person inoculated, and the individual reactivity of the person. Appreciable differences were noted between the number of positive reactions in Soviet and foreign sailors: 26% of the Soviet sailors had a positive reaction, 73.2% of the European sailors, and 61.9% of the Asian and African sailors. The percent of those who had a positive reaction in the 30 to 50-year-old age group was much higher (17 — 35% among Soviet sailors and 60 — 70% among foreign sailors) than those aged 20 — 30 years. The author concludes that great care should be

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ACC NR: AP5028391

taken to prevent the importation of smallpox into the USSR by the crew and passengers of foreign vessels. Orig. art. has: 1 table

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

ARTYUKHOVSKAYA, L.M.; KHEMENCHUGSKIY, L.S.; MAL'NEV, A.F.; SAMOYLOV, V.B.; YATSENKO, A.F.

Use of the pyroelectric effect in barium titanate ceramics in recording weak thermal radiation fluxes. Izv. AN SSSR, Ser. fiz. 29 no.11:2110-2112 N '65. (MIRA 18:11)

1. Institut fiziki AN UkrSSR.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

SAVITSKIY, I.V. [Saryts'kyi, I.V.]; ZARETSKAYA, I.V. [Zarets'ka, I.V.]; YATSENKO, A.F. [Yatsenko, O.F.]; SHAFRAN, L.M.

Change in proteins and properdin activity of the blood in the process of adapting the organism of seamen to the conditions of Antarctic sailing. Ukr. biokhim. zhur. 37 no.4:501-509 '65. (MIRA 18:9)

1. Kafedra biokhimii Odesskogo meditsinskogo instituta i Sanitarno-karantinnyy otdel porta Odessa.

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L 28432-66 FBD/EWT(1)/EEC(k)-2/T/EWP(k) IJP(c) WG/GD

ACC NR: AT6015147 SOURCE CODE: UR/0000/66/000/000/0322/0326

AUTHOR: Yatsenko, A. F.; Kulyupin, Yu. A.; Stetsenko, B. V.

ORG: Institute of Physics AN UkrSSR (Institut fiziki AN UkrSSR)

TITLE: Using lasers for studying the kinetics of photoelectric field emission

SOURCE: Respublikanskiy seminar po kvantovoy elektronike. Kvantovaya elektronika (Quantum electronics); trudy seminara. Kiev, Naukova dumka, 1966, 322-326

TOPIC TAGS: photoelectric effect, field emission, laser application, silicon, laser, pulse generator

ABSTRACT: A method is proposed for using a continuous-duty helium-neon laser to produce short intense light pulses. An example is given illustrating use of these light pulses for studying the kinetics of photoelectric field emission from high-resistance silicon. Two methods were used in this study: 1. measurement of the drop in photoelectric field emission under pulsed illumination, and 2. determination of the variable and constant components of field emission current under illumination by a sinusoidally modulated light. The short light pulses were produced by a mechanical system with a rotating prismatic mirror (see figure). The light source was an LAK-1 He-Ne laser (λ=6328 Å, power 100-300 μw, divergence angle less than 10'). The installation gave a pulse duration of $2 \cdot 10^{-7}$ sec with a 1 cm light spot at the pickup. The

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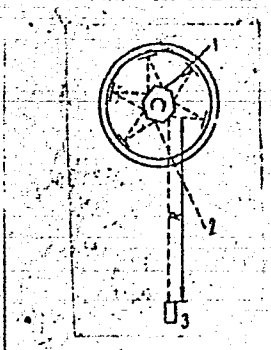
L 28432-66

ACC NR: AT6015147



Mechanical generator of short light pulses: 1--prismatic mirror; 2--light source; 3--light receiver

distance between pulse generator and receiver may be increased by an order of magnitude and a long-focus lens may be used to reduce the spot diameter to 0.1 cm or less. These measures would make it possible to reduce the pulse duration to 10^{-9} sec. The variable and constant component of photoelectric field emission produced by exposing an emitter to light modulated with a frequency of 4.6 Mc were measured to study the fast component of relaxation. The modulating element was a KDP crystal placed between the laser and a polarization prism. A block diagram of the experimental installation is given. An attempt was made to establish the upper limit of frequencies which may be recorded by a photoelectric field emitter. The experiments yielded satisfactory agreement between calculated and observed frequencies although the photoelectric field emitter was not able to record a signal at 67 Mc, apparently due to inperfections in the method. Further attempts in this direction are being made. Orig. art. has: 3 figures. [14]

SUB CODE: 20/ SUBM DATE: 12Feb66/ ORIG REF: 002/ OTH REF: 008/
ATD PRESS: 5005

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.F.; KOROBOV, L.I.; SHAFRAN, L.M.

Smallpox immunity in sailors on a long voyage. Zhur.mikrobiol., epid. i immun. 42 no.9:21-24 S '65. (MIRA 18:12)

1. Basseynovaya sanitarno-epidemiologicheskaya stantsiya Chernomorsko-Azovskogo vodzdravotdela, Odessa. Submitted April 30, 1964.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

L 10247-66 EWT(1)/EWP(e)/EWT(m)/EPF(n)-2/EWP(t)/EWP(b) IJP(c) JJ/WW/WH

ACC NR: AP5028133 SOURCE CODE: UR/0047/65/029/011/2110/2112

AUTHOR: Artyukhovskaya, L.M.; Kremenchugskiy, L.S.; Mal'nev, A.F.; Samoylov, V.B.; Yatsenko, A.F.

ORG: Institute of Physics, Academy of Sciences, UkrSSR (Institut fiziki Akademii nauk UkrSSR)

TITLE: Use of the pyroelectric effect of barium titanate ceramics to record low fluxes of thermal radiation [Report, Fourth All-Union Conference on Ferroelectricity held at Rostov-on-the-Don 12-18 September, 1964]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 11, 1965, 2110-2112

TOPIC TAGS: pyroelectricity, pyroelectric detector, barium titanate, ceramic material, transducer, thermal radiation, heat flux pickup

ABSTRACT: A number of thin barium titanate ceramic wafers were produced and tested as pyroelectric detectors of minute, rapidly changing thermal fluxes. Details of the preparation of the detectors are not given. The sensitivity and the noise level were both inversely proportional to the frequency, and the minimum detectable power was nearly independent of frequency for frequencies up to 2 kc. The intrinsic noise of the pyroelectric detector exceeded the Johnson noise of the equivalent RC circuit by not more than 50%. The intrinsic noise of the detector decreased more rapidly with increasing frequency than did the noise level of the input circuit; in designing input circuits for use with pyroelectric detectors, therefore, it is desirable to take par-

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L 10247-66

ACC NR: AP5028133

ticular pains to reduce the noise level at frequencies above 100 cps. The temperature dependence of the dynamic pyroelectric constant was determined by the method of A.G. Chinoweth (J. Appl. Phys., 27, No.1, 78, (1956)). An aging effect was observed when cycling the detectors between room temperature and 70C; the aging was completed within a few cycles, however, and thereafter the temperature dependence of the pyroelectric constant was reproducible within 5%. The pyroelectric constant reached a maximum at about 90C of from 2.5 to 3 times its room temperature value. Since the dielectric constant also increases with temperature, however, the detectors were only slightly more sensitive at 90° than at room temperature. A preliminary investigation of the stability of the detectors showed no significant changes over a period of six months. The sensitivity threshold of the detectors was between 2×10^{-9} and $5 \times 10^{-}$ W/cps, the time constant was less than 50 μsec, and the Jones figure of merit M was greater than 0.5. Orig. art. has: 3 figures. [15]

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 006/ ATD PRESS: 4161

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Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

L 01277-66 EWT(1) IJP(c)

ACCESSION NR: AP5020810 UR/0048/65/029/008/1407/1409

AUTHOR: Kulyupin, Yu. A.; Yatsenko, A. F.

TITLE: On the mirror similarity of luminescence and absorption spectra [Report, 13th Conference on Luminescence held in Khar'kov 25 June to 1 July 1964]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 8, 1965, 1407-1409, and top half of insert facing p. 1408

TOPIC TAGS: absorption spectrum, luminescence spectrum, nonlinear vibration, nitrite, crystal impurity, crystal lattice vibration

ABSTRACT: The authors briefly discuss violation of mirror similarity of the luminescence and absorption spectra of the NO_2^- ion. This ion has three internal vibrations which give rise to three series of lines in the luminescence and absorption spectra. In $NaNO_2$ these series are of roughly equal intensity in the absorption spectrum but they differ greatly in intensity in the luminescence spectrum. Similar results are obtained with other nitrites and with impurity nitrite ions in nitrates. These results can be understood as consequences of anharmonicity of the vibrations with the aid of the theory of A.F.Lubchenko (Phys. Stat. Sol., 6, 319, 1964), which was developed to describe the behavior of impurities but can be ex-

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ACCESSION NR: AP5020810

3

tended to apply to pure crystals. The vibronic bands of $NaNO_2$ at 20°K due to lattice vibrations conform very nearly to the mirror similarity rule, but the structures of the corresponding luminescence and absorption bands of KNO_2 differ considerably from each other. Similar results are obtained for impurity NO_2^- ions in KNO_3. This behavior can be qualitatively understood in terms of the theory of A.F.Lubchenko and B.M.Pavlik (Phys. Stat. Sol., 7, 105, 443, 1964). It is concluded that anharmonicity is one of the factors that can lead to violation of mirror similarity of luminescence and absorption spectra, but that there are few quantitative characteristics that admit an obvious theoretical interpretation. Further work in this direction is desirable. Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki Akademii nauk UkrSSR (Physics Institute, Academy of Sciences, UkrSSR)

44,55

SUBMITTED: 00 ENCL: 00 SUB CODE: OP, SS

NO REF SOV: 007 OTHER: 003

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

L 45441-65 SWT(m)/EWP(t)/EWP(b) LJP(c) JD

ACCESSION NR: AP5007068 S/ 0120/65/000/001/0222/0223

AUTHOR: Yatsenko, A. F.; Lopas', N. F.; Miroshnichenko, L. S.

B

TITLE: Preparation of field emitters from high-resistivity materials

SOURCE: Priborv i tekhnika eksperimental, no. 1, 1965, [illegible]

TOPIC TAGS: field emitter, germanium emitter, silicon emitter, cadmium sulfide emitter

27 27 27 27

ABSTRACT: Ge, Si, or CdS 1-mm diameter, 7-mm height conical billets were finally shaped by a slow-acting etchant (SP-4 with acetic acid) under a microscope. Points [illegible] radius were obtained by this method. A field photo-emission current [illegible] was obtained [illegible] volt [illegible].

ORGANIZATION: Institut fiziki AN UkrSSR (Institute of Physics, AN UkrSSR)

SUBMITTED: 06Jan64 ENCL: 00 SUB CODE: [illegible]

NO REF SOV: 001 OTHER: 000

1/1

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

electric phase tran... ion in sodium nitrite [...]
Conf. on Ferroelectricity held in Rostov-on-the-Don 12-18 Sep 1964/

... Dnieprovskaya v.29, no.6, 1965, 917-919

... served at 200K with a big dispersion spectrograph of the lines corre-
... to pure electron or vibronic transitions. These lines are
slightly asymmetric triplets. The separation ...
... from 15 cm^{-1}. The short

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

ACCESSION NR: AP5016119

[illegible] is very narrow and is farther from the central [illegible]

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A. I.

Country : USSR

Category : CULTIVATED PLANTS. COMMERCIAL. Oleiferous. Sugar-Bearing.

Abs. Jour. : REF ZHUR-BIOL., 21, 1958, NO-96076

Author : Yatsenko, A.I.

Institut. : [redacted]

Title : A Comparative Evaluation of Narrow Row and the Ordinary Method of Sowing Maternal Sugar Beets

Orig. Pub. : Sakharnaya prom-st', 1957, 31, No.7, 56-59

Abstract : At Ivanovo Experimental-Selection Station the effect of a dense sugar beet stand was studied on the weight of the root and the output of planted material in both ordinary planting (44.5 cm) and with tight (28.5 cm) spaces between rows with identical mechanized thinning. Planting with 44.5 cm between the rows with a 7.5cm cut and a 8.5 cm thinning strip gives a rather high coefficient (1.1) of output for the planted material with an average root weight of 510 g; with other methods

Card: 1/2

Ivanovskaya opytno-selektsionnaya stantsiya

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

Country :
Category : CULTIVATED PLANTS. COMMERCIAL M
Abs. Jour. : REF ZHUR-BIOL.,21,1958,NO-96076
Author :
Institut. :
Title :

Orig. Pub. :

Abstract : of mechanical thinning the output coefficient of the maternal roots was lowered. Sowing in narrow rows (28.5 cm), although it heightened the root output factor to 5.4, drastically reduced the average weight of the root.--G.Yu. Dinesman

Card: 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

BUNIN, K.P.; GRECHNYY, Ya.V.; MALINOCHKA, Ya.N.; TARAN, Yu.N.; BEL'CHENKO, G.I.; POGREBNYY, E.N.; DANIL'CHENKO, N.M.; YATSENKO, A.I.; REPIN, A.K.; BARANOV, A.A.; SHPAK, T.M.

Is metastable austenite possible at a point higher than A_1?
Izv.vys.ucheb.zav.; chern.met. no.10:143-144 O '58.
(MIRA 11:12)

1. Dnepropetrovskiy metallurgicheskiy institut i Institut chernoy metallurgii AN USSR.
(Austenite) (Phase rule and equilibrium)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.I. [Iatsenko, O.I.]

Chemical microinhomogeneity in forged iron dies. Dop.AN URSR no.2:192-195 '60. (MIRA 13:6)

1. Institut chernoy metallugii AN USSR. Predstavleno akademikom AN USSR V.N.Svechnikovym [V.M.Sviechnykovym].
(Cast iron--Metallography)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

BUNIN, K.P.; YATSENKO, A.I. [IAtsenko, O.I.]

Mosaic structure of ferrite in magnesium cast iron. Dop.AN URSR no.4:451-455 '60. (MIRA 13:7)

1. Institut chernoy metallurgii AN SSSR. Chlen-korrespondent AN USSR (for Bunin).
(Ferrite)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A. I.

Cand Tech Sci - (diss) "Structural changes in ferrite magnesium cast iron in heating." Dnepropetrovsk, 1961. 15 pp; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Dnep Order of Labor Red Banner Metallurgical Inst imeni I. V. Stalin); 180 copies; price not given; (KL, 7-61 sup, 249)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A. I.

PHASE I BOOK EXPLOITATION SOV/5511

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Kiyevskoye oblastnoye pravleniye.

Metallovedeniye i termicheskaya obrabotka (Physical Metallurgy and Heat Treatment of Metals) Moscow, Mashgiz, 1961. 330 p. Errata slip inserted. 5,000 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov UkrSSR. Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Kiyevskoye oblastnoye pravleniye.

Editorial Board: M. P. Braun, Doctor of Technical Sciences, I. Ya. Dekhtyar, Doctor of Technical Sciences, D. A. Draygor, Doctor of Technical Sciences, I. S. Kamenichnyye, Engineer, Ye. A. Markovskiy, Candidate of Technical Sciences, V. G. Pernyakov, Doctor of Technical Sciences, and A. V. Chernovol, Candidate of Technical Sciences; Ed.: M. S. Soroka; Tech. Ed.: M. S. Gorncstaypol'skaya; Chief Ed., Mashgiz (Southern Dept.): V. K. Serdyuk, Engineer.

Card 1/10

PURPOSE: This collection of articles is intended for scientific workers and technical personnel of research institutes, plants, and schools of higher technical education.

COVERAGE: The collection contains papers presented at a convention held in Kiyev on problems of physical metallurgy and methods of the heat treatment of metals applied in the machine industry. Phase transformations in metals and alloys are discussed, and results of investigations conducted to ascertain the effect of heat treatment on the quality of metal are analyzed. The possibility of obtaining metals with given mechanical properties is discussed, as are problems of steel brittleness. The collection includes papers dealing with kinetics of transformation, heat treatment, and properties of cast iron. No personalities are mentioned. Articles are accompanied by references, mostly Soviet.

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

BUNIN, K.P.; YATSENKO, A.I., inzh.

Dissolution of graphite in magnesium cast iron under the the effect of heating. Metalloved. i term. obr. met. no.5:34-36 My '61. (MIRA 14:5)

1. Institut chernoy metallurgii AN USSR. 2. Chlen-korrespondent AN USSR (for Bunin).

(Cast iron—Heat treatment)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

POLYAKOV, S.N., kand.tekhn.nauk; YATSENKO, A.I., inzh.; KARP, S.F.,

Effect of silicon on the reversible temper brittleness of steel.
Trudy Inst.chern.met.AN UKSR no.14:24-29 '61. (MIRA 14:10)
(Steel--Brittleness) (Silicon)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.I., inzh.

Structural changes in magnesium cast iron during silicon loss in conditions of oxidizing heating. Trudy Inst.chern.met.AN UKSR no.14:118-123 '61. (MIRA 14:10)
(Cast iron--Metallography) (Metals, Effect of temperature on)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.I., inzh.

Effect of subcritical temperatures on the structure of ferrite grain boundaries in magnesium cast iron. Trudy Inst.chern.met. AN URSR no.14:129-132 '61. (MIRA 14:10)
(Cast iron--Metallography) (Annealing of metals)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.I., kand.tekhn.nauk

Effect of arsenic on the formation of austenite in gray cast iron. Metalloved. i term. obr. met. no.8:6-9 Ag '62. (MIRA 15:11)

1. Institut chernoy metallurgii AN UkrSSR.
(Cast iron--Metallography)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.I., kand.tekhn.nauk

Effect of arsenic on structural transformations during the heating of cast iron. Trudy Inst. chern. met. AN URSR 18: 131-139 '62. (MIRA 15:9)

(Cast iron--Metallography)
(Metals, Effect of temperature on)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.I. (Dnepropetrovsk); OSADA, N.G. (Dnepropetrovsk)

Distribution of silicon in the structural components of cast iron. Izv. AN SSSR. Otd. tekh. nauk. Met. i gor. delo no.1:121-128 Ja-F '63. (MIRA 16:3)

(Cast iron—Metallography) (Silicon)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

BELAY, G.Ye.; GERASIMOVA, T.I.; YATSENKO, A.I.

Kinetics of the graphitization of cerium cast iron. Lit.proizv. no.7:22-23 Jl '64. (MIRA 18:4)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

TARAN, Yu.N. (Dnepropetrovsk); LEV, I.Ye. (Dnepropetrovsk); YATSENKO, A.I. (Dnepropetrovsk); BELAY, G.Ye. (Dnepropetrovsk); Prinimali uchastiye: GERASIMOVA, T.I., inzh.; KURASOV, A.N.

Specific features of the eutectic crystallization of cast iron inoculated with cerium. Izv. AN SSSR. Met. no.3:131-139 My-Je '65. (MIRA 18:7)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

LEV, I.Ye.; BELAY, G.Ye.; TARAN, Yu.N.; YATSENKO, A.I.

Investigating the distribution of cerium in cast iron with the help of an electron probe. Fiz. met. i metalloved. 20 no.2:236-242 Ag '65. (MIRA 18:9)

1. Dnepropetrovskiy metallurgicheskiy institut i Nauchno-issledovatel'skiy institut chernoy metallurgii, Dnepropetrovsk.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

L 17599-66

ACC NR: AP6000572 SOURCE CODE: UR/0109/65/010/012/2273/2275

AUTHOR: Kononenko, K. I.; Movchan, S. P.; Yatsenko, A. I.

ORG: none

21
B

TITLE: One method for reducing gas-discharge-plasma noise

SOURCE: Radiotekhnika i elektronika, v. 10, no. 12, 1965, 2273-2275

TOPIC TAGS: noise, discharge plasma

ABSTRACT: An experimental proof is offered that the reduction of ion density in the near-cathode region of a gas discharge results in a reduction of current-caused noise, i.e., of fluctuation of voltage across the cathode-probe gap, such phenomenon corresponding to this formula: $(I)_{cp}^2 = \left\{\frac{4kT}{R} + 4\frac{I^2}{N}\frac{\nu(\omega^2+3\nu^2)}{(\omega^2+\nu^2)^2}\right\}$; the formula was advanced by S. Kojima and K. Takayama (Phys. Rev., 1950, 80, 5, 907). A 60-mm long 10-mm diameter gas-discharge tube with Mo electrodes was filled with pure Ne at 16 torr. A negative bias of −1—15 v was applied to the grid. The noise was investigated at frequencies up to 40 Mc. It was found that: (1) The gas-discharge noise level decreases by 4 times with the decreasing of the grid bias down to −15 v; (2) The noise power is proportional to the discharge current. Orig. art. has: 3 figures and 2 formulas.

SUB CODE: 09 / SUBM DATE: 25Dec64 / ORIG REF: 003 / OTH REF: 003

UDC: 621.385:621.391.828

Card 1/1 nst

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.P.; KURUMCHIN, Kh.A.; ZOLOTAVIN, V.L.

Obtaining pure vanadium pentoxide during the hydrolysis of industrial solutions. TSvet. met. 37 no.10:54-58 O '64. (MIRA 18:7)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.V.

Rychazhanyy Prabor Dlya Opredeleniya Kreposti Gornykh Porod, Gornyy Zhurnal, No. 9, 1934, Str. 7-11, No. 11, Str. 15-21. Abs in Goryuchiye Slantsy, 1935, No. 5, 78.

SO: Goryuchiye Slantsy No. 1934-35 TN. 871
G74

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.Ye.

Developing lines with a high butterfat percentage by crossing Lebedin and Jersey cattle. Zhivotnovodstvo 23 no.3:68-74 Mr '61. (MIRA 17:1)

1. Institut zhivotnovodstva lesostepi i Poles'ya UkrSSR. Chlen-korrespondent Ukrainskoy akademii sel'skokhozyaystvennykh nauk.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, Anatoliy Yevdokimovich, inzh. [deceased]; STRONGIN, Izrail' Yakovlevich, inzh., nauchn. sotr. Prinimali uchastiye: BELEVICH, V.P., inzh.; GOLUB L.G., inzh.; MITNIK, I.L., inzh. BOLOBAN, N.A., kand.tekhn.nauk, nauchn.red.

[Erecting exterior wall elements of industrial buildings] Montazh stenovykh ograzhdaiushchikh konstruktsii promyshlennykh zdanii. Moskva, Stroiizdat, 1965. 295 p. (MIRA 18:5)

1. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (for Yatsenko, Strongin).

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A. Ye.

Lebedinskaia poroda krupnogo rogatogo skota [Lebedinsk cattle breed]. Moskva, Sel'khozgiz, 1953. 120 p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 12 March 1954.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.Ye.

Onbreeding in the Lebedinsk cattle breed. Zhivotnovodstvo 21 no.7:42-57 Je '59. (MIRA 12:9)

1. Institut zhivotnovodstva Lesostepi i Poles'ya USSR, Chlen-korrespondent Ukrainskoy akademii sel'skokhozyaystvennykh nauk.
(Ukraine--Cattle breeding)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, A.Ye., inzh.

Assembling a gantry crane. Mont.i spets.rab.v stroi. 22 no.6: Jl '60. (MIRA 13:7)

1. Stroitel'no-montazhnoye upravleniye No.1 tresta Stal'montazh.
(Cranes, derricks, etc.)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, B.

Problems of economic regionalization in modern Japanese geographical literature. Izv. AN SSSR. Ser. geog. no.6: 107-112 N-D '65. (MIRA 18:11)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

NIKITENKO, V.F.; YATSENKO, B.G., inzh. lesnogo khozyaystva

Protective tree belts; readers continue the discussion. Put' i put. khoz. 7 no.5:39 '63. (MIRA 16:7)

1. Dolgintsevskaya distantsiya Pridneprovskoy dorogi (for Nikitenko). 2. Stantsiya Pologi, Pridneprovskoy dorogi (for Yatsenko).

(Windbreaks, Shelterbelts, Etc.)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, D.V. (Krasnoyarsk)

Stabilization of macroporous soils. Osn., fund.i mekh.grun. 2 no.1:30 '60. (MIRA 13:5)
(Krasnoyarsk--Soil stabilization)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, D.V. (Krasnoyarsk)

Consolidating foundations with thermokarst cavities. Osn., fund.i mekh.grun. 2 no.4:27-28 '60. (MIRA 13:7)
(Foundations) (Karst)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

GUTSALYUK, V.G.; YATSENKO, E.A.

Adsorption of resinous substances from petroleum by paraffin.
Izv. AN Kazakh. SSR. Ser.khim. no.1:91-98 '58. (MIRA 12:2)
(Adsorption) (Gums and resins)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, E.A.; GUTSALYUK, V.G.

Adsorption of tarry substances of Munayly petroleum on paraffin. Izv. AN Kazakh. SSR.Ser. khim. no.1:100-104 '60. (MIRA 13:11)
(Paraffins) (Petroleum products)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

AUTHOR: [illegible]

[illegible] the structure of asphaltenes

SOURCE: AN KazSSR. Institut khimicheskikh nauk. Trudy, v. 11, 1964. Sintez i issledovaniye vysokomolekulyarnykh soyedineniy (Synthesis and research of high-molecular compounds), 130-140

TOPIC TAGS: asphaltene, asphaltene structure, petroleum resin, asphaltene physical [illegible]

Card 1/2 [illegible] hydrogen radicals and the [illegible] of free radicals

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

ACCESSION NR: [illegible]

[illegible] and its partial removal causes a increase in the [illegible] The increase in the molecular weight of [illegible] asphaltenes formed during the sorption process have higher [illegible] [illegible] concentration [illegible] ester [illegible]

NO REF SOV: 028 OTHER: 019

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

S/048/63/027/001/037/043
B125/B102

AUTHORS: Yatsenko, E. A., Gutsalyuk, V. G., and Rafikov, S. R.

TITLE: Investigation of the tarry substances in mineral oils from their infrared absorption spectra

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 1, 1963, 107 - 110

TEXT: The relationship between the tarry substances in different types of crude oil from the Ural deposition Munayly and Karaton and their infrared absorption spectra is described. Such spectra were taken of 5% solutions of these mineral oils in CCl_4, on plates 30 μ thick, using an UKS-14 (IKS-14) spectroscope. Strong absorption bands exist at 2861, 2926, 2956 cm^{-1} in the region of the stretching vibrations of the C-H bonds in the spectra of the tarry fractions. The fractions precipitated from solutions in carbon tetrachloride show more intense absorption bands than those precipitated from alcohol-benzene solutions. The aliphatic chains of the tar fractions precipitated with acetone have the highest degree of ramification, the tars of

Card 1/2

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

Investigation of the tarry ... S/048/63/027/001/037/043
B125/B102

the alcohol-benzene fraction the lowest. The narrow band at 1050 cm^{-1} is probably due to the components with saturated cycles. Other bands indicate the existence of arylalkyl ketone, diaryl ether, and substituted mono and polycyclic aromatic structures. The most important structural elements of the tar molecules are probably bi- and polycondensated aromatic groups. Various tar fractions differ by the amount and the structure of their aromatic structures. There are 3 figures and 1 table.

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, E.Ya.; GUTSALYUK, V.G.

Infrared spectroscopy study of asphaltene-tar substances in Munaily oil. Izv.AN Kazakh. SSR. Ser.khim. no.1:99-106 '61. (MIRA 16:7)

(Petroleum products--Spectra)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

GUTSALYUK, V.G.; YATSENKO, E.A.; NEVSKIY, V.M.; KOZHINSKIY, I.S.

Oxidation of the tarry matters of Emba petroleum. Trudy Inst. khim. nauk AN Kazakh. SSR 11:122-129 '64. (MIRA 17:11)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, E.A.; GUTSALYUK, V.G.; SDOBNOV, Ye.I.

Structure of asphaltenes. Trudy Inst. khim. nauk AN Kazakh. SSR 11: 130-140 '64. (MIRA 17:11)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, E.A.; GUTSALYUK, V.G.; KARTSEVA, I.I.

Solubility of petroleum resins in acetone. Trudy Inst. khim. nauk An Kazakh. SSR 11:151-155 '64. (MIRA 17:11)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

SHADRIN, V. (Barnaul); NECHAYEV, V. (Barnaul); YATSENKO, F. (Omsk)

Readers conference by correspondence. Okhr.truda i sots.strakh. 5 no.3:27 Mr '62. (MIRA 15:4)

1. Tekhnicheskiye inspektora Altayskogo krayevogo soveta professional'nykh soyuzov (for Shadrin, Nechayev).
(Industrial hygiene—Periodicals)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, F. I.

57/49T95

USSR/Medicine - Ticks
Medicine - Virus Diseases

Apr 49

"The Finding of Pasture Ticks in the Center of L'vov," F. I. Yatsenko, ½ p

"Priroda" No 4

Reports on pasture tick found 18 May 48 on a L'vov dog which had never been outside the city. Assumed to have been acquired in a city park or square, probably brought in by rodents. Of importance as possible carrier of encephalitis virus.

[redacted]

57/49T95

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

STEPANOVA, O.S.; DROZDOVSKAYA, A.I. [Drozdovs'ka, A.I.]; YATSENKO, G.A. [IAtsenko, H.A.]

Synthesis of alkoxymethylalkylmalonic esters and acids. Khim. prom. [Ukr.] no.2:49-51 Ap-Je '63. (MIRA 16:8)

1. Odesskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, G. B.

USSR / Human and Animal Morphology (Normal and Pathological). Excretory System. S

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3617

Author : Yatsenko, G. B.
Inst : First Moscow Medical Institute
Title : Effect of Partial Removal and Chronic Irritation of Cortex of Large Hemispheres on the Process of Post-Traumatic Inflammation and Regeneration of the Kidney

Orig Pub : Tr. 1-go Mosk. med. in-ta, 1957, 2, 114-123

Abstract : Portions of cortical substance (3 mm) from the superior pole of the kidney were removed with a trocar from anesthesized white rats. Histological studies were performed at various intervals following trauma. Under conditions of disturbance of normal function of the cortex of animals during the period of post-

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

USSR / Human and Animal Morphology (Normal and Pathological). Excretory System. S

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3017

traumatic inflammation and regeneration, a series of morphologic changes take place but the consecutiveness of basic stages of the healing process are not disturbed. With partial removal of the cerebral cortex some processes have a greater extent as compared with the control animal. Leukocytic and macrophagic reactions are accelerated. The fibroblastic reaction is retarded, and formation of fibrous bundles is slowed down. With chronic irritation of the cerebral cortex the leukocytic and macrophagic reactions are also accelerated. The fibroblastic reaction, in contrast with the previous group of animals, is similarly accelerated, as is the formation of fibrous bundles. The amount of cellular elements diminishes sharply. In control animals with trepanation of the skull only,

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

USSR / Human and Animal Morphology (Normal and Pathological). Excretory System. S

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3017

but with no disturbance of cortical function, some deviation from the normal is observed only in the first few hours following surgery, after which the process is entirely normalized.

Card 3/3

60

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

KAZANOVICH, Grigoriy Yakovlevich; TAYTS, A.A., red.; YATSENKO, G.G., otv. za vypusk; SUKHAREVA, R.A., tekhn.red.

[New high-voltage blocks of electrical equipment] Novoe vysokovol'tnoe komplektnoe elektrooborudovanie. Moskva, 1959. (Moskovskii Dom nauchno-tekhnicheskoi propagandy. Peredovoi opyt proizvodstva. Seriia: Elektroenergetika, no.7).

(MIRA 14:1)

(Electric power plants--Equipment and supplies)
(Electric power distribution)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

NOVIKOV, G.G.

NOVIKOV, Mikhail Leont'yevich, doktor tekhn.nauk [deceased]. Prinimal uchastiye FEDYAKIN, R.V., kand.tekhn.nauk. CHESNOKOV, V.A., red.; YATSENKO, G.G., otv. za vypusk; SUKHAREVA, R.A., tekhn.red.

[New system of gear meshing] Novaia sistema zubchatogo zatsepleniia. Moskva, Mosk.dom nauchno-tekhn.propagandy im. F.E. Dzerzhinskogo, 1959. 39 p. (Peredovoi opyt proizvodstva. Ser. "Tekhnologiia mashinostroeniia," no.27. Novye tekhnologicheskie protsessy] (MIRA 13:1)

(Gearing)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

KHOMYAKOV, Mikhail Vasil'yevich; STARIKOV, Yevgeniy Sergeyevich; TAYTS, A.A., red.; YATSENKO, G.G., otv. za vypusk; SUKHAREVA, R.A., tekhn.red.

[Concerning the operation of electric substations and networks at industrial enterprises] Voprosy ekspluatatsii setei i podstantsii promyshlennykh predpriiatii. Moskva, 1959. 59 p. (Moskovskii dom nauchno-tekhnicheskoi propagandy. Peredovoi opyt proizvodstva. Seriia: Elektroenergetika, vyp. 6). (MIRA 14:1)

(Electric substations)
(Electric power distribution)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

BULGAKOV, Aleksey Alekseyevich; SOKOLOV, Mikhail Mikhaylovich; SHINYANSKIY, Aleksandr Viktorovich; TATTS, A.A., red.; YATSENKO, G.G., otv. za vypusk; SUKHAREVA, R.A., tekhn.red.

[Automated electric drive] Avtomatizirovannyi elektroprivod. Moskva, 1959. 69 p. (Moskovskii dom nauchno-tekhnicheskoi propagandy. Perodovoi opyt proizvodstva. Seriia: Elektroenergetika, no.3). (MIRA 13:10)

(Electric driving) (Automatic control)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

Yatsenko, G. G.

PHASE I BOOK EXPLOITATION SOV/3857

Moscow. Dom nauchno-tekhnicheskoy propagandy imeni F. E. Dzerzhinskogo

Vysokoproizvoditel'naya tekhnologicheskaya osnastka (High-Productivity Auxiliary Processing Equipment) Moscow, Mashgiz, 1960. 17[illegible] 8,000 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR.

Ed. (title page): V. V. Kuz'min; Ed. (inside book): S. L. Martens; Tech. Ed.: L. P. Gordeyeva; Managing Ed. for Literature on Metal-working and Machine-Tool Construction (Mashgiz): V. V. Rzhevinskiy, Engineer.

PURPOSE: This collection of articles is intended for technical personnel engaged in the development of auxiliary equipment for metal processing.

COVERAGE: This collection contains articles dealing with modern machine-tool auxiliary equipment, methods of manufacture, and data on the introduction of such equipment into production. The engineering and economic aspects of the use of standardized auxiliary equipment are also discussed. No personalities are mentioned. References follow each article.

Cherryshev, V. M. Standard-Unit Machine-Tool Fixtures for Lot Production 62
The author discusses the advantages of group machining of parts employing fixtures assembled from standard parts and subassemblies.

Kuznetsov, V. S., and V. A. Ponomarev. Experience Gained in the Use of Standard-Unit Fixtures in Experimental and Lot Production 70
The authors discuss organization of the workplace for the assembly of universal standard-unit fixtures. Mounting methods are also discussed.

Yatsenko, G. G. Pneumatic Clamping Devices for Universal Standard-Unit Fixtures 84

Kuritsyn, I. A. Development and Introduction of Adjustable Machine-Tool Fixtures 91
The author describes fixtures which can be easily adapted for use on similar parts by rapid replacement of certain elements of the fixtures.

Sokun, V. B. Trend Toward Standardization of Machinery-Manufacturing Processes 105
The author advocates the speeding up of standardization progress in the planning, designing, and manufacturing of parts and machinery. He also urges the reduction of time-consuming practices of individual adjustment.

Bogdanov, V. M. Introduction of Step-by-Step Stamping Into Experimental and Small-Lot Production 127
The author describes a method of cutting by stamping with specially constructed dies of his own design. By means of combination a set of 8 to 10 dies can produce a large variety of parts.

Levtsyev, Yu. P. [Engineer]. Universal Auxiliary Processing Equipment for Experimental and Piece Production 130
In this article consecutive stamping of sheets for electrical machines and the manufacture of parts from plastics are described.

D'yakov, B. A. [Engineer], and Yu. M. Ivanov [Engineer]. Use of Non-metallic Materials for Machine-Tool Auxiliary Processing Equipment 139
The author describes the use of such materials as cement, plastics, silicon-organic compounds, and rubber in the manufacture of standard-unit equipment.

Khropik, B. A. Standardization of Fixtures for Welding and Assembly Work 145
The article deals with classification of standard-unit fixtures for welding and assembly work. Rapid locating with hydraulic, mechanical, and pneumatic clamping devices is described.

Petsya, D. P. Use of Reinforced Concrete for Making Scaffolds for Erection Work 157
The article deals with the use of reinforced-concrete prefabricated blocks for scaffolding in erection work. The use of such blocks affords considerable economy of metals, ordinarily used for scaffolding.

Shatin, V. P. Standardization of Metal-Cutting and Auxiliary Tools 168
The article deals with the standardization of carbide-tipped and single cutters for boring bars and milling heads. The standardization of other types of tipped cutting tools is also discussed.

(13)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

S/028/60/000/009/003/006
B015/B058

AUTHOR: Yatsenko, G. G.

TITLE: Adjustable Foundry Equipment

PERIODICAL: Standartizatsiya, 1960, No. 9, pp. 20- 22

TEXT: Less expensive and more suitable equipment for technological processes has been introduced in the last years in machine-construction plants for small-scale- and series production, i.e., quickly adjustable equipment. The present paper deals with suitable foundry equipment which permits raising the technology of small-scale- and series production to the level of large-scale production. Quickly adjustable pattern sets and molds belong here. The standardization of this equipment is closely connected with the standardization of the technological processes and is to be carried out according to three special directives: standardization of the production of casting alloys, standardization of the final treatment of castings. An arrangement into groups according to design and technological characteristics serves as a basis for a classification of castings. The following

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

Adjustable Foundry Equipment

S/028/60/000/009/003/006
B015/B058

classification can be recommended for the production of small series: according to the type of casting material (metal, alloys), design characteristics, type of production, as well as according to production machinery and equipment used. The group of castings which may be manufactured with the same molding machines and the same adjustable equipment, is the smallest. A system was elaborated by the VPTIStroydormash for equipping small-scale- and series production of foundry products, and a group of bottom boards with quickly exchangeable adjusting devices for molding machines of the type 271, 242, 243, 265, 266, 253, 255, 232, and 233 was laid down. A bottom board for which the adjustment of the board takes 2 to 5 minutes, is shown in Fig. 1. The adjustable plates were introduced at the Tyumenskiy zavod stroitel'nykh mashin (Tyumen' Plant for Building Machinery), while plates with quickly exchangeable inserts were introduced at the Orlovskiy zavod dorozhnykh mashin (Orel Plant for Road-construction Machines). There are 2 figures.

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, G.G.

PHASE I BOOK EXPLOITATION SOV/5935

Bel'chenko, Anatoliy Yakovlevich, and Georgiy Gavrilovich Yatsenko

Gruppovyye metody obrabotki detaley mashin (Group Methods in Processing Machine Parts) Moscow, Mashgiz, 1961. 182 p. 12,000 copies printed.

Reviewer: P. Ye. Dudnik, Engineer; Ed.: R. A. Nikiforova, Engineer; Tech. Ed.: M.S. Gornostaypol'skaya; Chief Ed.: Mashgiz (Southern Dept.): V.K. Serdyuk, Engineer.

PURPOSE: This book is intended for technical personnel of machine-building plants and engineering, design, and planning organizations.

COVERAGE: The book presents the scientific basis of group methods for processing machine parts. Group methods for manufacturing semiproducts and parts are described. Discussed are problems of planning and organizing group production methods, engineering standardization, accounting, and the determination of the economic advantage of these production methods. No personalities are mentioned. There are 14 references, all Soviet.

Card 1/5

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, G.G.

Consulation is one of the most effective means of publicizing the achievements of Science and Technology. NTI no.2:7-8 '65. (MIRA 18:6)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

YATSENKO, G.G.

Basic principles in the organization of science and technology sections at the science and technology information centers. (MIRA 18:9)
NTI no.6:14-16 '65.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

GRITSENKO, A.P.; DOGOTAR', V.N.; YATSENKO, G.I.

Induction differential transmitter of an automatic device for measuring cardboard thickness. Izm.tekh. no.2:7-8 F '62. (MIRA 15:2)

(Thickness measurement)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962310002-7

ACCESSION NR: AP4031175 S/0056/64/046/004/1476/1477

AUTHOR: Rakivenko, Yu. N.; Skakun, Ye. A.; Yatsenko, G. I.; Klyucharev, A. P.

TITLE: Multipolarity of isomeric transition in the nucleus 58-Ce-138

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1476-1477

TOPIC TAGS: cerium, isomeric transition, multipolarity, decay scheme, conversion electron spectrum

ABSTRACT: The decay of the metastable state of the Ce^{138} nucleus, produced in the La^{139} (p, 2n)Ce^{138m} reaction when a lanthanum target is bombarded with protons at ~ 20 MeV energy, was investigated with a magnetic β spectrometer. The electron detector was anthracene crystal 0.5 mm thick with a photomultiplier. The internal conversion electron spectrum yielded a value of 301 + 1 kV for the transition energy, in agreement with data by others. The ratio of the K and L internal conversion coefficients, 2.44 + 0.20, comes closest to the rated value for the E3 transition, 2.58. It is deduced that the isomer state has a spin value of 7 and negative parity, so that the 2.14 MeV level can be regarded as a two-particle excitation caused by the breakup by a neutron pair and the transition of one neutron from the $h_{11/2}$

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state to the $d_{3/2}^{o}$ state. The decay scheme is deduced from the measurements. Orig. art. has: 2 figures.

ASSOCIATION: None

SUBMITTED: 20Jul63 DATE ACQ: 07May64 ENCL: 01

SUB CODE: NP NR REF SOV: 001 OTHER: 001

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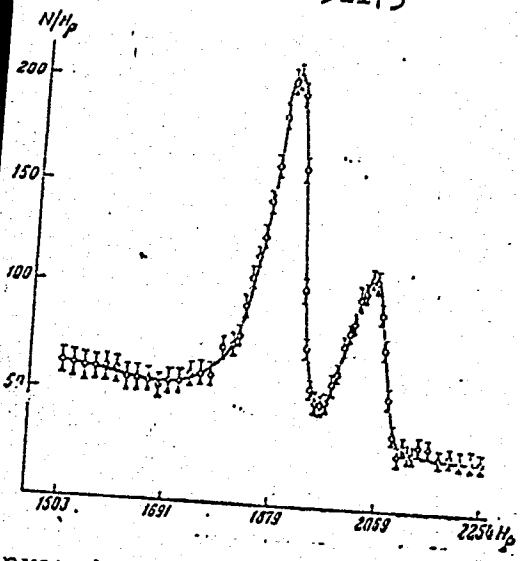
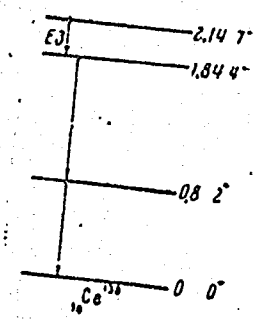
ENCLOSURE: 01



Conversion electron spectrum of transition E_γ = 301 keV



Decay scheme of $_{58}Ce^{138m}$

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RYABCHENKO, Averin, agronom-entomolog; BOGOVIK, I.V., kand.biol.nauk; ROGACHEV, V.L., starshiy nauchnyy sotrudnik; MARAKULIN, A.I., mladshiy nauchnyy sotrudnik; YATSENKO, G.K.; RUPAYS, A.A., agronom-entomolog; CHIKVILADZE, I.D., kand.sel'skokhozyaystvennykh nauk; SEMENOV, A.Ye., kand.sel'skokhozyaystvenykh nauk; MANUKYAN, V.V.

Brief reports. Zashch.rast.ot vred.i bol. 4 no.3:54-56 My-Je '59. (MIRA 13:4)

1. Nachal'nik Pavlodarskogo otryada po bor'be s vreditelyami (for Ryabchenko). 2. Zaporozhskaya opytnaya stantsiya (for Rogachev). 3. Bostandykskoye opytnoye pole Uzbekskogo instituta sadovodstva i vinogradarstva (for Marakulin). 4. Starshiy agronom Khabarovskoy karantinnoy inspektsii (for Yatsenko). 5. Zaveduyushchiy sektorom sluzhby ucheta i prognozov Ministerstva sel'skogo khozyaystva ArmSSR (for Manukyan).
(Plant diseases) (Agricultural pests)

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L 06199-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG/JH

ACC NR: AP6031723 SOURCE CODE: UR/0370/66/000/005/0137/0147

AUTHOR: Nagorskaya, N. D. (Moscow); Gol'denberg, A. E. (Moscow); Novoselova, A. V. (Moscow); Borisova, A. P. (Moscow); Fridlyander, I. N. (Moscow); Yatsenko, K. P.

ORG: none

TITLE: Partial phase diagram of the Al-Be-Mg system

SOURCE: AN SSSR. Izvestiya. Metally, no. 5, 1966, 137-147

TOPIC TAGS: aluminum beryllium magnesium system, aluminum beryllium magnesium alloy, MAGNESIUM CONTAINING ALLOY, ALLOY phase diagram, phase composition, alloy structure, METAL CRYSTALLIZATION, ALLOY SYSTEM, BERYLLIUM CONTAINING ALLOY, ALUMINUM CONTAINING ALLOY

ABSTRACT: A partial phase diagram of the aluminum-beryllium-magnesium system (see Fig. 1) has been plotted on the basis of data obtained by physicochemical analysis of 30 alloys containing 0—90% aluminum, 7.17—56.28% beryllium and 0—27.73% magnesium. Alloys were melted from AB-000-grade aluminum (99.99%-pure), MG-1 grade magnesium (99.91%-pure) and sublimated beryllium (99.4%-pure). It was found that three phases crystallize in the partial Al-β_{Al-Mg}-Be system: aluminum-base solid solution (α_{Al}); beryllium-base solid solution (B); and $\beta_{Al-Mg-Be}$ phase. At 445C the ternary eutectic solidifies according to the following reaction:

$$L \rightleftarrows B + \alpha_{Al} + \beta_{Al-Mg-Be}$$

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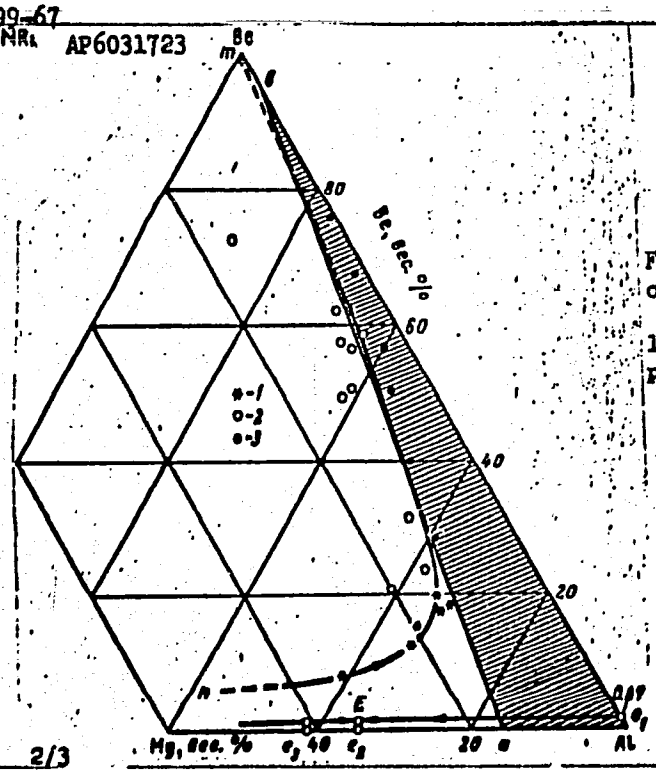

Fig. 1. Partial phase diagram of the Al-Be-Mg system

1 - Boundary line; 2 - two liquid phases; 3 - one liquid phase.

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Ternary eutectic contains 35% Mg and slightly over 0.6% Be. A decomposition of the liquid phase into two mutually immiscible liquids occurs in a wide range of compositions. Orig. art. has: 5 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: 27Mar65/ ORIG REF: 008/ OTH REF: 017

Card 3/3 afs

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