NABELEK, I.; KRUTEL, J.

Effect of some parameters on the earphone characteristics measured on human and artificial ears. El tech cas 14 no.5. 374-382 '63.

NABELEK, Igor

Telephone apparatus for measuring acoustic impedance. Mat fyz cas SAV 13 no.4:303-314 '63.

1. Ceskoslovenska akademie ved, Fyzikalni ustav Slovenskej akademie vied, Bratislava.

NABELEK, Igor

Third Conference on Acoustics. Vestnik CSAV [illegible]
281 '64.

NABELEK, Igor, inz., ScC

Artificial ear of a new design. Slaboproudy obzor 24 no.6: 351-355 Je '63.

1. Ceskoslovenska akademie ved, Laboratorium fyziky Slovenskej akademie vied, Bratislava.

NABELEK, L.; PEC, J.

Fournier's gangrene. Rozhl. chir. 37 no.5:305-310 May 58.

1. Urologicke oddelenie OUNZ v Martine, prednosta MUDr. J. Pec.
Venovane k 50. narodeninam prim. MUDr. P. Steinera.
(SCROTUM, dis.
Fournier's dis., case report (Cz))

PEC, J.; NABELEK, L.

Personal experience with anuria caused by ureteral obstruction with a solitary kidney. Rozhl. chir. 37 no.5:347-350 May 58.

1. Urologicke oddelenie OUNZ v Martine, prednosta MUDr. J. Pec. Venovane k 50. narodeninam prim. MUDr. P. Steinera.

(ANURIA, etiol. & pathogen.
ganglioneuroma of ureter & solitary kidney, case report (Cz))
(URETERS, neoplasms
ganglioneuroma with involvement of solitary kidney causing anuria, case report (Cz))
(KIDNEYS, neoplasms
ganglioneuroma of solitary kidney with ureteral involvements causing anuria, case report (Cz))

HABELEK, L.

The use of cortisone in the treatment of strictures of the urethra.
Rozhl.chir.39 no.7:490-494 Jl'60.

1. Urologicke oddelenie OUNZ v Martine, prednosta MUDr. J.Pec.
(URETHRA dis)
(CORTISONE ther)
(ADHESIONS ther)

NABELEK, V.

KLECZEK, J.; NABELEK, V. "Solar Asymmetry. VI." p. 193.
(Biulleten Astronomicheskikh Institutov Chekhoslovakii. Bulletin of the Astronomical Institutes of Czechoslovakia. Vol. 4, no. 6, Dec. 1953. Praha).

SO: Monthly List of East European Accessions, Vol. 3, No. 6, Library of Congress, June 1954, Uncl. 4

NABELKIN, F.

Machine-tractor stations and their role in the rise of agricultural production. Moskva. Moskovskii rabochii, 1951. 78 p.

KNOTZ, F.; HANELKOVA, D.; KLIMA, R.

Clinical experiences with fluothane. Preliminary report. Rozhl. chir.39 no.10:683-687 O'60.

1. Vyskumny ustav onkologicky v Bratislave, Krajsky ustav narodneho zdravia v Trnave, Chirurgicka klinika v Kosiciach.
(ANESTHETICS)

NABELKOVA-MONCOLOVA, D.

Our successful cardiac resuscitation. Rozhl. chir. 38 no.9:601-606 S '59

1. Klinicka zakladna SUDL v Martine, prednosta MUDr. P. Steiner.
(HEART ARREST, ther.)

83160

S/115/60/000/008/010/013
B019/B063

24.3600 9.5300
6.4780 2801

AUTHORS: Simkin, G. S., Naberezhnykh, V. P., Lukin, I. V.

TITLE: High-frequency Light Modulation (10^{10} cps)

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 8, pp. 41-43

TEXT: The authors of the present paper give a report on an investigation carried out at the Khar'kovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Khar'kov State Institute of Measures and Measuring Instruments) for the purpose of studying the possibility of light modulation with a frequency of 10^{10} cps by means of a Kerr cell filled with nitrobenzene. The Kerr condenser in the experimental arrangement (Fig. 1) is a piece of a special right-angled waveguide. The high-frequency field is transferred to the Kerr condenser by means of two waveguides flanged to the Kerr cell. The high-frequency field was applied to the Kerr cell in the form of pulses with a pulse-recurrence frequency of 1200 cps. The pulses were generated by a magnetron oscillator. These high-frequency pulses led to the propagation of sound waves in the nitrobenzene, which entailed a change in the refractive index of the nitrobenzene. The change

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High-frequency Light Modulation (10^{10} cps)

83160

S/115/60/000/008/010/014
B019/B063

in the refractive index with pulse-recurrence frequency led to an additional undesired light modulation which was eliminated with the help of the experimental arrangement reproduced in Fig. 2. Assuming that the pulses observed with the experimental arrangement described here are actually caused by the Kerr effect, it is noted that the voltage dependence of the amplitudes of these pulses is the same as in the case of low-frequency light modulations, and that the pulses exhibit different polarization for parallel- and crossed Nicols prisms. The relaxation time of the nitrobenzene molecules is estimated to be $3 \cdot 10^{-11}$ sec, and a depth of modulation of about 1% was determined for the capacity of the oscillator (50 kw). This small modulation effect is ascribed to the fact that the phase of the high-frequency field changes considerably during the passage of light through the Kerr cell. There are 2 figures, 1 table, and 3 references: 2 Soviet and 1 German.

Card 2/2

25207

24,7900

AUTHORS: Galkin, A. A., Naberezhnykh, V. [illegible]

TITLE: Paramagnetic resonance in metallic [illegible]

PERIODICAL: Zhurnal eksperimentalnoy i teoreticheskoy fiziki, v. [illegible], no. 6, 1961, [illegible]

TEXT: The authors describe experiments made for the [illegible] of paramagnetic electron absorption in monocrystalline aluminum with a remanent resistance [illegible] 10^{-5} which corresponds to a mean free [illegible] of the electron. The electrolytically polished [illegible] diameter of [illegible] resonant cavity in which oscillations of the type [illegible] In view of the sufficiently perfect surface [illegible] oscillations of the cyclotron resonance [illegible] dependence of absorption on the magnetic field strength [illegible] means of a [illegible] sitive spectrometer [illegible] temperature interval [illegible] - 4.2°K. At [illegible] and [illegible]°K a wide symmetrical [illegible] with weak temperature-dependent intensity became visible. For [illegible] absorption

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25207

S/[illegible]

Paramagnetic resonance in metallic [illegible]

probably is due to electrons. This line [illegible] hydrogen temperatures which [illegible] The figure shows dR/dH [illegible] T = 4.2°K. The results of the [illegible] fourth order is perpendicular to the [illegible] is constantly 40 oersteds in the temperature range [illegible] corresponds to a spin relaxation time of T [illegible] measurements made by B.I. Alekzandrov, the static resistivity of aluminum strongly changes in the temperature range of 1 - 4°K. This change and the weak temperature dependence of the line width suggest that the spin relaxation time is determined by impurities with strong spin-orbit coupling. The lacking of an anisotropy of the line width and the g-factor which is equal to 2.06) can be explained by the widening of the line as a result of the strong degree of impurities. The shape of the absorption line has hitherto not been explained. With alkali metals the positive part of the derivative dR/dH is much greater than the negative one. With aluminum and copper the opposite is the case. This is formally explained by the participation of particles with inverse spin sign in paramagnetic resonance. Probably, the theory by F. J. Dyson (Phys.Rev., 98, 349, 1955) in this case does not fully correspond to the facts because $\mu H \approx kT$ holds and because

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τ_{spin} is of the same order of magnitude as the impact time. The authors also observed a dependence of the signal intensity on the inclination of the magnetic field relative to the surface of the sample. The change of the signal amplitude is in qualitative agreement with the theory by M. Ya. Azbel', V. I. Yeremenko, I. M. Lifshits (ZhETF, 32, 1212, 1957; 35, 691, 1957). There are 1 figure and 8 references: 2 Soviet-bloc and 6 non-Soviet-bloc. The two most recent references to English-language publications read as follows: G. Feher, A. F. Kip. Phys.Rev., 98, 337, 1955; F.J. Dyson. Phys.Rev., 98, 349, 1955.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur Akademii nauk Ukrainskoy SSR (Physicotechnical Institute for Low Temperatures of the Academy of Sciences of the Ukrainskaya SSR)

SUBMITTED: April 12, 1961

S/181/63/005/001/031/064
B102/B186

AUTHORS: Galkin, A. A., Naberezhnykh, V. P., and Mel'nik, V. L.

TITLE: Cyclotron resonance in aluminum

PERIODICAL: Fizika tverdogo tela, v. 5, no. 1, 1963, 201 - 210

TEXT: Langenberg and Moore (Phys. Rev. Letters, 3, 137, 1959) and Fawcett (Phys. Rev. Letters, 3, 139, 1959) have obtained divergent results on studying cyclotron resonance in aluminum. Therefore the crystallographic planes (001), (110) and (111) of aluminum were more thoroughly studied. The measurements were made with 8-mm radiospectroscope at $3.6 \cdot 10^{10}$ cps; its sensitivity was $\sim 6 \cdot 10^{-12}$ moles diphenylpicrylhydracyl at 300°K that corresponds to $\Delta R/R \sim 5 \cdot 10^{-7}$. The constant magnetic field strength could be changed between 0 and 11 koe; magnetic field modulation was carried out at 33 cps with a sound generator. The main part of the measuring arrangement consisted of the electromagnet in whose gap a cylindrical resonator with high-quality H_{011} mode and Hall transmitter were placed. The latter was connected with recorder and oscilloscope. The magnet could be rotated

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Cyclotron resonance ...

by an electromotor in the sample plane over the full angle. All measurements were made at 4.2°K with electrolytically polished samples having a reduced resistivity of $\rho_{4.2^\circ K}/\rho_{300^\circ K} = (6\text{-}7)\cdot 10^{-5}$. From the cyclotron resonance spectra it could be seen that there was a relation between the number of oscillations observed and the electron mass: For electrons with ~1.5 m_o 8 - 9 harmonics arose and for ~3.2 m_o up to 13. For electrons with masses below 0.5 m_o only the fundamental resonances exist. All resonances observed belong to orbits of the large Fermi surface of holes of the second Brillouin zone. The orbits were identified by using the results of a detailed study of the effective mass anisotropies on the planes (001), (110) and (111). This identification agrees well with the model of a multiply connected Fermi surface of the third Brillouin zone (Harrison, Phys. Rev. 116, 5, 555, 1959; 118, 5, 1182, 1960). There are 8 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur AN USSR, Khar'kov (Physicotechnical Institute of Low Temperatures AS UkrSSR, Khar'kov)

SUBMITTED: July 27, 1962

Card 2/2

S/185/63/008/001/012/024
D234/D308

AUTHORS: Halkin, O. O., Naberezhnykh, V. P. and Mel'nyk, V.L.

TITLE: Anisotropy of effective masses of the basic group of electrons in aluminum

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 1, 1963, 81-86

TEXT: The authors give the results of an experimental study of large effective masses in the (001) plane, corresponding to electrons on the large Fermi surface of the second zone. All experiments were carried out at 3.6×10^{10} c/s and 4.2°K. The results agree qualitatively with the model of Fermi surface proposed by Harrison (Phys. Rev., 118, 1182, 1960). There are 6 figures.

ASSOCIATION: Fizyko-tekhnichnyy instytut nyz'kykh temperatur AN URSR (Physico-Technical Institute of Low Temperatures of the AS UkrSSR), Kharkiv

SUBMITTED: October 2, 1962

Card 1/1

S/056/63/044/001/023/067
B104/B144

AUTHORS: Galkin, A. A., Naberezhnykh, V. P., Mel'nik, V. A.

TITLE: Effective masses of electrons responsible for the de Haas - van Alphen effect in aluminum

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 1, 1963, 127-129

TEXT: The cyclotron resonance was determined at 4.2°K on three Al single crystals, the surface of which lay in the (001), (110), and (111) planes with an accuracy of a few degrees. The resistance of the specimens was $\varrho_{4.2^\circ K}/\varrho_{300^\circ K} \approx 6 \cdot 10^{-5}$. The angular dependences of the effective masses of electrons obtained from the cyclotron resonances of electrons in the three principal crystallographic planes agree with the angular dependences of the periods of oscillations of the de Haas - van Alphen effect (E.M.Gunnersen. Phil. Trans. Roy. Soc., A249, 299, 1957). The oscillations of the de Haas - van Alphen effect and the cyclotron resonance are assumed to occur on the same Fermi surfaces. This

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assumption is confirmed by the agreement between the effective masses determined by the cyclotron resonance method and from the temperature dependence of oscillations of the de Haas - van Alphen effect. Besides this, maximum effective masses were observed corresponding to orbits for which, whatever the reason, no oscillations of the de Haas - van Alphen effect could be found. The form of the Fermi surface cannot be determined from the angular dependence of the effective masses, but the electron orbits responsible for the angular dependence of the two effects can be identified. There is 1 figure.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur Akademii nauk Ukrainskoy SSR (Physicotechnical Institute of Low Temperatures of the Academy of Sciences Ukrainskaya SSR)

SUBMITTED: August 8, 1962

ACCESSION NR: AP4012518 S/0056/64/046/001/0018/0027

AUTHORS: Naberezhny*kh, V. P.; Tolstoluzhskiy, V. P.

TITLE: Concerning the Fermi surface of aluminum

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 18-27

TOPIC TAGS: aluminum, aluminum Fermi surface, aluminum majority carriers, cyclotron resonance, effective mass anisotropy, Fermi surface topology, Fermi hole surface, pocket of holes model, deHaas vanAlphen effect

ABSTRACT: The effective-mass anisotropy of the majority carriers in aluminum is derived from a study of cyclotron resonance in the three principal crystallographic planes. To obtain a more reliable interpretation of the experimental effective masses, a detailed electronic-computer calculation was made of all possible resonance orbits using the model of "nearly free electrons." Most of the experimentally observed effective masses can be identified with the calculated masses for various orbits, thus offering good confirmation of many topological properties of the Fermi surface. The anisotropy of the

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ACCESSION NR: AP4012518

experimental cross section areas measurable from the deHaas-van Alphen effect was also calculated and it is concluded that cyclotron resonance can sometimes yield more information than the deHaas-vanAlphen effect. "The authors wish to thank Corresponding Member of AN UkrSSR A. A. Galkin for his continuous interest, as well as M. K. Gol'dberg, A. I. Kononenko, E. M. Lifshits, and V. D. Mil'man of the Division of Functional Analysis and Computation Mathematics of the Fiziko-tekhnicheskiy institut nizkikh temperatur (Physicotechnical Institute of Low Temperatures) AN UkrSSR for compiling the algorithm and programming the problem. Orig. art. has: 8 figures and 4 formulas.

ASSOCIATION: Fizikotekhnicheskiy institut nizkikh temperature AN UkrSSR (Physicotechnical Institute of Low Temperatures, AN UkrSSR)

SUBMITTED: 22May63	DATE ACQ: 26Feb64	ENCL: 00
SUB CODE: PH	NO REF SOV: 002	OTHER: 002

Card 2/2

L 11954-65 EWT(m)/EWP(t)/EWP(b) LJP(c)/AS(mp)-2/RAEM(a)/ESD(gs)/ESD(t) JD

ACCESSION NR: AP4046401 S/0056/64/047/003/0873/0877

AUTHORS: Naberezhny*kh, V. P.; Mel'nik, V. L.

TITLE: Cyclotron resonance in zinc

B

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 3, 1964, 873-877

TOPIC TAGS: zinc, cyclotron resonance, Fermi surface, effective mass anisotropy, surface resistance

ABSTRACT: In order to obtain more information on the effective-mass anisotropy in the case of the Fermi surface of zinc, the authors studied the anisotropy of the cyclotron resonance in three principal crystallographic planes of zinc (0001), (10$\bar{1}$0), and (11$\bar{2}$0). The investigations were made at 3.6×10^{10} cps, using a superheterodyne spectroscope described by the authors earlier (with A. A. Galkin, FTT, v. 5, 1, 1963), and in magnetic fields up to 10 kG. The inves-

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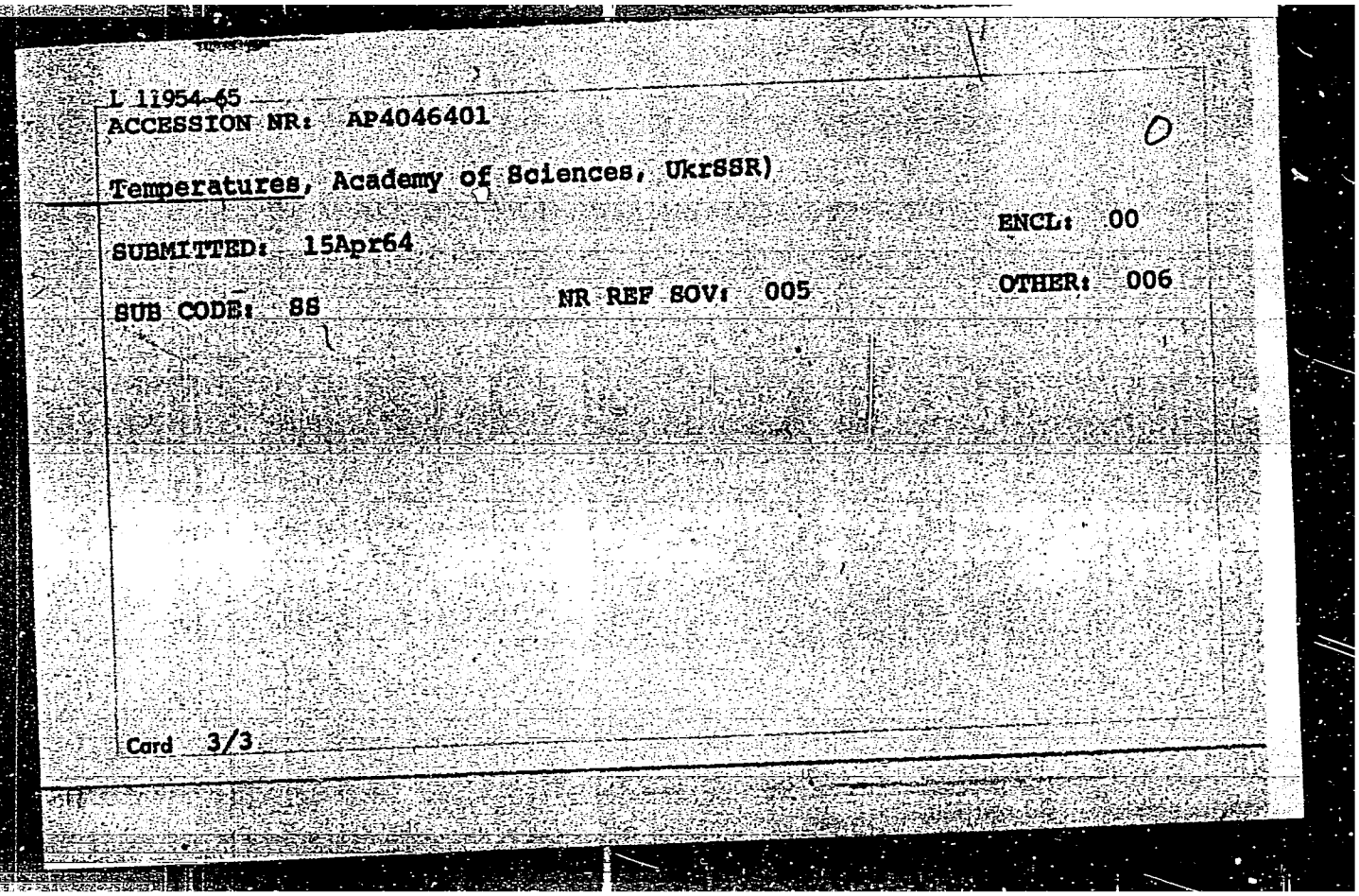
tigations were carried out in both cylindrical and rectangular cavities (H_{011} and H_{102} modes, respectively). The anisotropy obtained for some of the effective masses agrees qualitatively with the lens-shaped electron Fermi surface for the third zone, calculated in the "almost free electron" approximation. Oscillations of the surface resistance were observed, with a period of 2.8×10^{-5} Oe, when the direction of the magnetic field was close to that of the [0001] axis. The origin of these oscillations is not yet clear, and they may be connected with magnetic breakdown and due to the Shubnikov-deHaas effect. "In conclusion the authors thank corresponding member A. N. UkrSSR A. A. Galkin for continuous interest in the work, and I. P. Okhrimenko for technical assistance." Orig. art. has: 5 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur Akademii nauk Ukrainskoy SSR (Physicotechnical Institute of Low



L 11954-65
ACCESSION NR: AP4046401

Temperatures, Academy of Sciences, UkrSSR)

SUBMITTED: 15Apr64 ENCL: 00

SUB CODE: 88 NR REF SOV: 005 OTHER: 006

Card 3/3

L 26952-65 EWT(l)/EWT(m)/EEC(t)/EWP(t)/EWP(b) Peb IJP(c) JD

ACCESSION NR: AP5003444 S/0181/65/007/001/0258/0262

AUTHORS: Naberezhnykh, V. P.; Mel'nik, V. L.

TITLE: Resonance effect in zinc in an inclined magnetic field

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 258-262

TOPIC TAGS: cyclotron resonance, diamagnetic resonance, zinc, Fermi surface

ABSTRACT: After pointing out that although cyclotron resonance is usually observed in metals with the magnetic field parallel to the surface of the sample, there are cases when cyclotron resonance can be observed for large angles between the field and the surface. The authors therefore attempted to observe resonance in zinc and were able to detect two types of resonances: a single resonance without harmonics, which probably corresponds to a resonance previously observed by J. K. Galt et al (Phys. Rev. Lett. v. 2, 292, 1959) and

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ACCESSION NR: AP5003444

which is not similar to ordinary cyclotron resonance, and a resonance similar to cyclotron resonance, with up to 6 harmonics. The experiments were made with single-crystal zinc with a resistance ratio $\rho_{4.2°}/\rho_{300°} \simeq (5\text{--}7) \times 10^{-5}$. The surface of the sample was inclined $5 \pm 1°$ to the (1010) surface. The sample served as the bottom of a cylindrical cavity excited in the H_{011} mode, with an axis that could be set at arbitrary angle to the magnetic field, which had an intensity 10^4 Oe. The resonance spectrum was recorded with a superheterodyne spectroscope at 3.6×10^{10} cps, with the main measurements made at 4.2K. The tests have shown that for zinc there is an entire region of directions of the magnetic field in which resonance is observed independently of the angle of inclination of the field to the surface of the sample. Various features of this cyclotron resonance are discussed, and it is concluded that the most probable section of the Fermi surface responsible for the resonance is a central "lens shaped" section of the third zone in the almost-free-electron model, but to reconcile this surface with

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ACCESSION NR: AP5003444

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the theoretical data it must be distorted so as to change its curvature. The other single-resonance line observed has a behavior such that it is more likely due not to spin splitting but to the orbital motion of the electron. "The authors are deeply grateful to corresponding member of AN UkrSSR A. A. Galkin for continuous interest in the work, to M. Ya. Azbel' for a discussion of the work, and to I. P. Okhrimenko for technical help." Orig. art. has: 6 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR, Khar'kov (Physicotechnical Institute of Low Temperatures AN UkrSSR)

SUBMITTED: 06Apr64 ENCL: 00 SUB CODE: NP, SS

NR REF SOV: 002 OTHER: 004

Card 3/3

L 24390-66 EWT(1) IJP(c) AT

ACC NR: AP6010435 SOURCE CODE: UR/0386/66/003/005/0205/0208

AUTHOR: Mar'yakhin, A. A.; Naberezhnykh, V. P.

ORG: Physicotechnical Institute of Low Temperatures, AN UkrSSR (Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR)

TITLE: Size effect on "ineffective" electrons of open sections

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 5, 1966, 205-208

TOPIC TAGS: cadmium, surface property, electric impedance, electron spectrum, electron interaction, magnetoresistance, harmonic oscillation

ABSTRACT: The authors present the results of a study of a radio-frequency size effect which results in harmonic oscillations of surface impedance of cadmium plates such that the electrons do not interact effectively with field-spectrum harmonics whose wavelength is an integer fraction of the length of the extremal displacement of the electrons in the interior of the metal. The experiment was made with a cadmium sample 0.4 mm long, with a plane normal to the [11$\bar{2}$0] direction. The sample was grown in a dismountable glass mold by a method described by Yu. V. Sharvin and V. F. Gantmakher elsewhere (PTE No. 6, 165, 1963). Harmonic oscillations of the derivative of the surface resistance with respect to the magnetic field were observed in a magnetic field lying in the plane of the sample and directed along the [10$\bar{1}$0] axis. Arguments are advanced to show that this effect is due to electrons of the

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periodic open sections of the Fermi surface, and that these electrons are "ineffective." When the field is rotated 2.5° from the [10$\bar{1}$0] axis in the plane of the sample, sharp lines appear in the plot of dR/dH, in addition to the oscillations, and the number of the oscillations decreases sharply. Starting with 4°, the oscillations are replaced by the sharp satellite lines connected with the presence of strongly elongated closed orbits passing through several zones. The shape of the particular section of the Fermi surface was established by the authors by studying the angle intervals in which the individual lines of this type can exist and by determining the corresponding diameters in momentum space. It is concluded that the observed oscillations constitute a size effect on the electrons of the open surface and that the harmonic character of these oscillations offers evidence that these electrons are "ineffective." The authors thank V. I. Konovalov for help with growing the sample and E. I. Ol'khovskiy for help with the experiment. The authors are also grateful to B. N. Aleksandrov for supplying the pure cadmium. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 15Jan66/ ORIG REF: 005/ OTH REF: 001

[illegible], A. [illegible] Master Bio. Sc. [illegible] -- The [illegible] reservoir as a component part [illegible] the [illegible] base [illegible] USSR". Dnepropetrovsk, 1959. [illegible]6 pp (Min Higher Educ Ukr SSR, Dnepropetrovsk State [illegible] im 300th Anniversary of the Unification of the Ukraine with Russia), 150 copies (KL, No [illegible], 1959, [illegible])

NABEREZHNYY, A.I.; VAL'KOVSKAYA, O.I.; KUBRAK, I.F.; DEDYU, I.I.

Food of the lavaret from Lake Peipus introduced into Moldavian ponds. Trudy Inst. biol. Mold. fil. AN SSSR 2 no.2:59-76 '60. (MIRA 15:7)

(Moldavia—Whitefishes) (Fishes—Food)

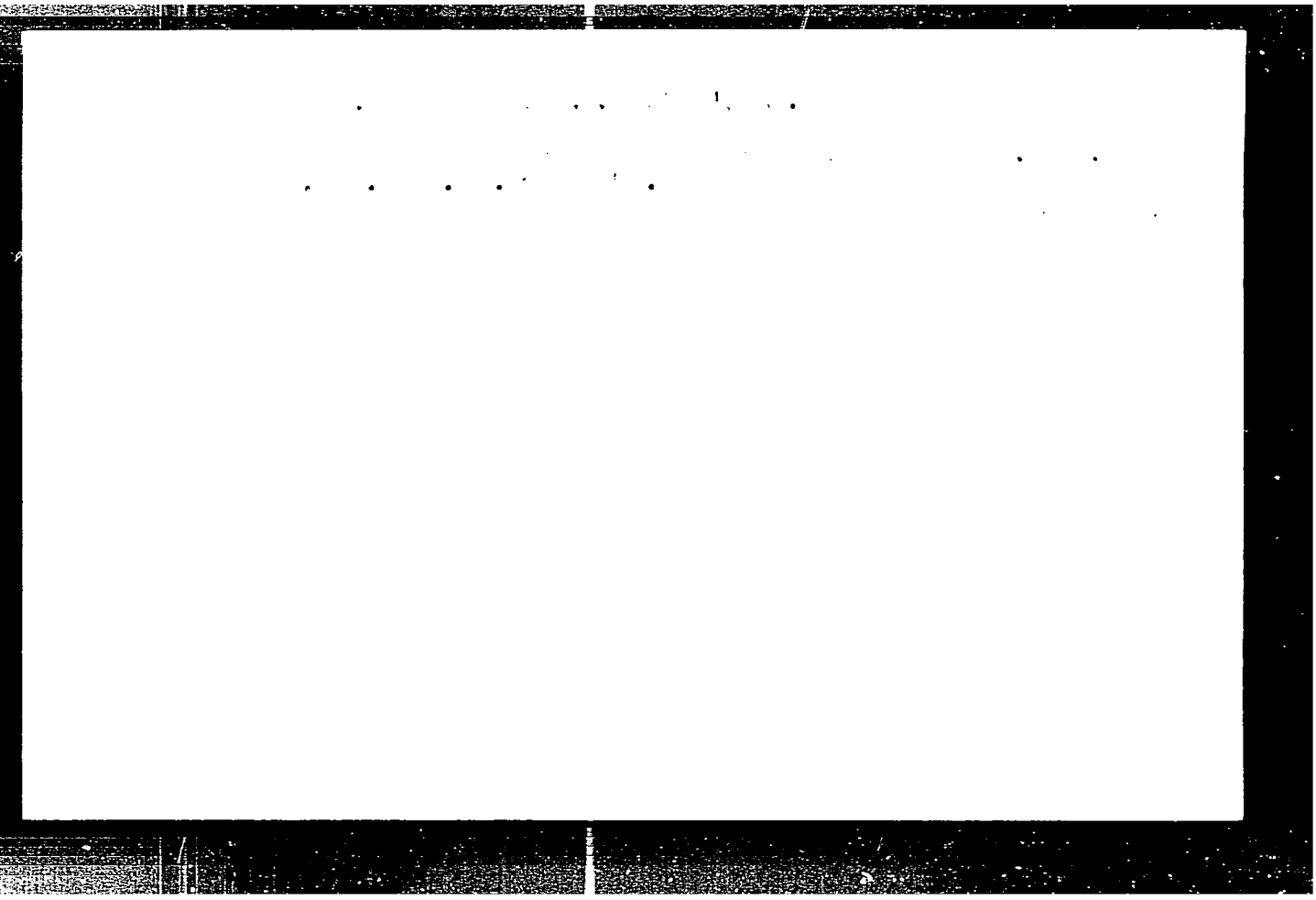
NABEREZHNYY, A.I.

Dynamics of the abundance of zooplankton in Dubossary Reservoir.
Vop. ekol. 5:141-143 '62. (MIRA 16:6)

1. Institut biologii AN Moldavskoy SSR, Kishinev.
(Dubossary Reservoir--Zooplankton)

YAROSHENKO, M.F.; TOMNATIK, Ye.N., NABEREZHNYY, A.I.; VAL'KOVSKAYA, O.I.; KARLOV, V.I.

Food interrelationships of some species of fishes in Lubossary Reservoir. Trudy Inst.biol.Mold.fil.AN SSSR 2 no.1:35-68 '60. (MIRA 16:4)
(DUBOSSARY RESERVOIR--FISHES--FOOD)

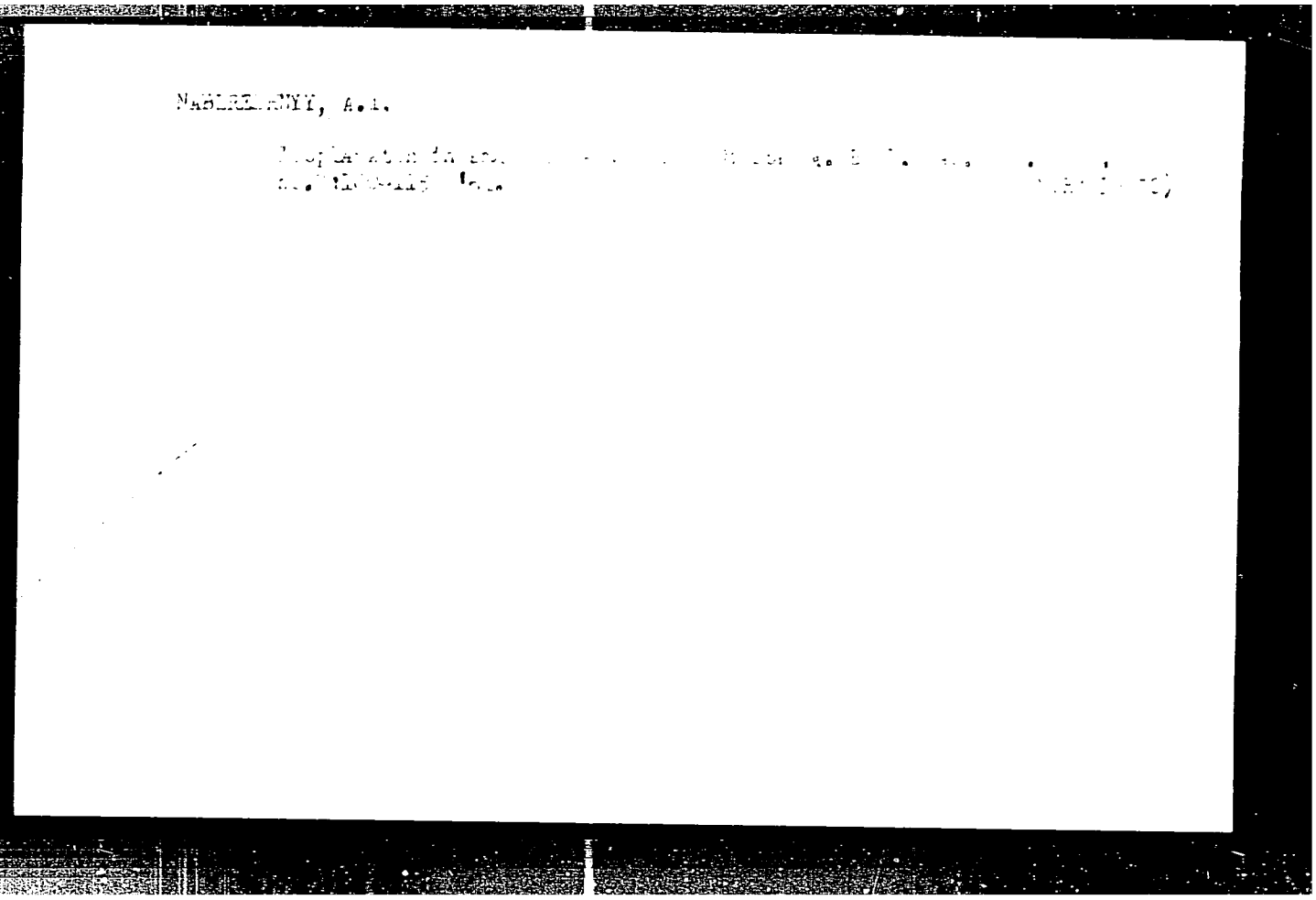


APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135910004-7"

BYZGU, S.Ye., mlad. nauchn. sotr.; DYMCHISHINA-KRIVENTSOVA, T.F., mlad. nauchn. sotr.; NABEREZHNYY, A.I., kand. biol. nauk; TOMMATIK, Ye.N., kand. biol. nauk; SHALAR', V.M., mlad. nauchn. sotr.; YAROSHENKO, M.F., doktor biol. nauk;

[Dubossary Reservoir; development and piscicultural significance] Dubossarskoe vodokhranilishche; stanovlenie i rybokhoziaistvennoe znachenie. [By] S.E.Byzgu i dr. Moskva, Nauka, 1964. 228 p. (MIRA 18:3)

1. Chlen-korrespondent Akademii nauk Moldavskoy SSR (for Yaroshenko).



ZHOKH, V.P.; NABEREZHNYY, N.M., elektromekhanik

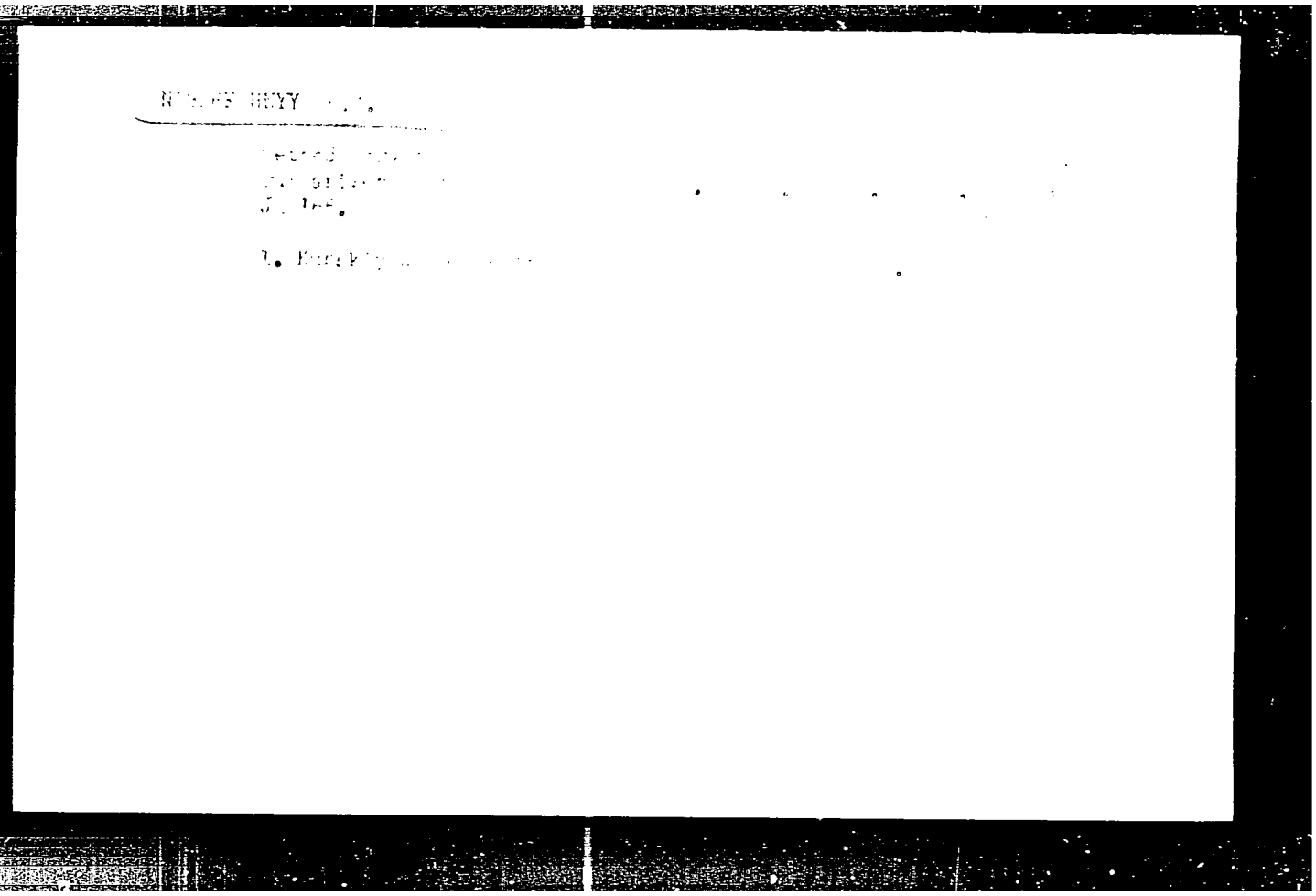
Special features in the operation of a duplex amplifier with a coil loaded cable. Avtom. telem. i sviaz' 8 no.2:31-32 F '64. (MIRA 17:6)

1. Nachal'nik laboratorii signalizatsii i svyazi Pridneprovskoy dorogi (for Zhokh). 2. Laboratoriya signalizatsii i svyazi Pridneprovskoy dorogi (for Naberezhnyy).

NABEREZHNYY, P.M.

New method for calculating the production norms in manual rubber coating of shafts. Kauch. i rez. 22 no.11:32-35 N '63.
(MIRA 17:2)

1. Kurskiy zavod rezinovykh tekhnicheskikh izdeliy.



NABERUKHIN, Yu.I.; SUSHCHINSKIY, M.M.

Second-order lines on the Raman spectra of hydrocarbons. Opt. i spektr. 9 no.5:576-581 N '60. (MIRA 13:11)
(Cyclohexane--Spectra) (Butene--Spectra)
(Raman effect)

TUMERMAN, L.A.; MOROZOV, Yu.V.; NABERUKHIN, Yu.I.

Verification of the experimental principles of A. Szent-Györgyi's bio-energy concepts. Biofizika 6 no.5:556-562 '61. (MIRA 15:3)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR, Moskva.

(BIOPHYSICS)

BURSHTEYN, A.I.; NABERUKHIN, Yu.I.

Biradical paradox. Dokl. AN SSSR 140 no.5:1106-1109 O '61.
(MIRA 15:2)

1. Institut khimicheskoy kinetiki i goreniya Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom V.N.Kondrat'yevym.
(Radicals(Chemistry)--Spectra)

24 6200

S/181/62/004/004/017/042
B104/B108

AUTHORS: Naberukhin, Yu. I., and Barshteyn, A. I.

TITLE: The hyperfine structure of electron paramagnetic resonance spectra of an electron, displaced within a system of equivalent potential wells

PERIODICAL: Fizika tverdogo tela, v. 4, no. 4, 1962, 956 - 962

TEXT: The hyperfine structure of electron paramagnetic resonance is calculated for a system with three or four equivalent locations of the electron. The electrons are assumed to be localized by hyperfine spin interaction. It is shown that any other interaction causing a sufficiently great nonequivalence of the potential wells produces the same effect. Therefore, in real systems electrons are localized by that interaction which produces the greatest nonequivalence. With reference to a paper by H. M. McConnell (Preprint) it is shown that the spectrum produced by two potential wells equals the spectrum obtained by assuming a dynamic dislocation of the electrons. In the presence of three potential wells, the

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hyperfine structure of the electron paramagnetic resonance of an electron displaced by relaxation processes can experimentally be distinguished from that produced by a dynamically displaced electron. V. V. Voyevodskiy, Corresponding Member AS USSR, and G. M. Zhidomirov are thanked for discussions. There are 5 figures.

ASSOCIATION: Institut khimicheskoy kinetiki i gorenlya SO AN SSSR, Novosibirsk (Institute of Chemical Kinetics and CO Combustion AS USSR, Novosibirsk)

SUBMITTED: November 28, 1961

MOROZOV, Yu.V.; NABERUKHIN, Yu.I.; GURSKIY, G.V.

Effect of the crystallization of a solvent on the luminescence of dyes. Opt.i spektr. 12 no.5:599-605 My '62. (MIRA 15:5)
(Dyes and dyeing) (Luminescence)

NABEREUKHIN, Yu.I.

Effect of the illumination geometry on the intensities observed and the degree of depolarization of Raman spectrum lines. Opt. i spektr. 13 no.4:498-504 O '62. (MIRA 16:3)
(Raman effect)

BURSHTEYN, A.I.; NABERUKHIN, Yu.I.

Use of the perturbation method in solving problems involving phase relaxation and line shapes in gases. Zhur. prikl. spektr. 3 no.5:461-463 N '65. (MIRA 18:11)

L 3377-66 EWT(m)/EPF(c)/EWP(j)/T/ETC(m) WW/RM

ACCESSION NR: AP5017203 UR/0020/65/162/006/1262/1264

AUTHORS: Burshteyn, A. I.; Naberukhin, Yu. I. 25 24 B

TITLE: Role of the molecule intrinsic volume in the theory of impact broadening of spectral lines in gases

SOURCE: AN SSSR. Doklady, v. 162, no. 6, 1965, 1262-1264

TOPIC TAGS: line broadening, spectral line, adiabatic process, perturbation method

ABSTRACT: The authors show first that the exact and approximate formulas for the line broadening cannot be reconciled without foregoing the customarily-made assumption that the molecules are pointlike. This is primarily due to divergences which arise when the limit of integration is allowed to approach zero. To determine the correlation characteristics of the perturbation acting on the molecules and causing the line broadening, and to employ the perturbation method for estimates of the line width, it is necessary to assume that the molecules have finite dimensions. It is pointed out, however, that the custom-

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L 3377-66

ACCESSION NR: AP5017203

arily employed rigid-sphere model also has to be handled with caution, for this model leads to an incorrect temperature dependence of the line width. Another reason for foregoing the model of pointlike molecules is that the usual approximations for the adiabatic line broadening due to impacts is applicable for weak perturbations, whereas in atomic spectroscopy the perturbations are usually regarded as strong. This is not the case for the non-adiabatic perturbations, for which the approximate formulas can be used, provided the finite dimensions of the molecule are taken into account. This report was presented by G. I. Budker. Orig. art. has: 6 formulas

ASSOCIATION: Institut khimicheskoy kinetiki i goreniya Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Chemical Kinetics and Combustion, Siberian Department, Academy of Sciences SSSR)

SUBMITTED: 28Dec64 ENCL: 00 SUB CODE: GP, OP

NR REF SOV: 003 OTHER: 000

Card 2/2 mk

NABERUKHIN, Yu.I.; MOLIN, Yu.N.; KNORRE, V.L.; RYKOVA, V.I.; SALGANIK, R.I.

Causes of signal broadening of water proton resonance in DNA solutions. Biofizika 10 no.3:408-412 '65. (MIRA 18:10)

1. Institut khimicheskoy kinetiki i goreniya, Novosibirsk i Institut tsitologii i genetiki Sibirskogo otdleneiya AN SSSR, Novosibirsk. Submitted Dec. 1, 1964.

L 42903-66 EWT(1)/EWA(m)

ACC NR: AP6018434 SOURCE CODE: UR/0051/66/020/006/0936/0943

AUTHOR: Burshteyn, A. I.; Naberukhin, Yu. I.

ORG: none

TITLE: An adiabatic theory of the shape of spectral lines in gases using the model of rigid spheres

SOURCE: Optika i spektroskopiya, v. 20, no. 6, 1966, 936-943

TOPIC TAGS: adiabatic process, spectral line, asymptotic property, gas dynamics

ABSTRACT: The effect of near transits of molecules was analyzed in detail using a somewhat simplified model of rigid spheres. A restriction was imposed prohibiting the approaches of molecules at distances smaller than the van der Waals diamter. As a consequence of this assumption, the obtained results are purely qualitative; nonetheless, it was possible to follow the effects of near transits upon the shape of the asymptotic parts of the curve, to establish some peculiarities of the pattern at high temperatures, and to evaluate moments of the spectral line and correlation characteristics of the disturbing noise. Correlation functions were developed for the calculation of the correlation characteristics of the gas kinetic perturbances of the frequency, and for the calculation of the asymptotic parts and the moments of the adiabatic curve. The temperature transformation of the adiabatic curve was traced: at

Card 1/2 UDC: 535.338.001.1

L 42903-66

ACC NR: AP6018434

low temperatures it is defined by a static contour; at higher temperatures the center part gradually takes on the shape of a Lorentz curve. The center spreads while the asymptotic parts at the edges are retained. When $\bar{\nu}$ reaches the critical value of ν_0, the remainders of the static contour disappear and the curve begins to narrow. Notably, all moments of the curve beginning with the fourth (the first three moments are static) continue to increase with temperature. The increasing temperature causes a shift of the poorly converging asymptotic parts of the Lorentzian curve into the higher frequency band despite the simultaneously decreasing halfwidth. Orig. art. has: 27 formulas, 1 figure.

SUB CODE: 20/ SUBM DATE: 27Jan65/ ORIG REF: 006/ OTH REF: 003

Card 2/2

NABIBEKOV, Ch.K.

Phase compounding of synchronous generators with machine exciters. Izv. AN Azerb. SSR Ser. fiz.-mat. i tekh. nauk no.3:99-106 '60. (MIRA 13:11)

(Electric generators)

GUSEYNOV, F.G.; NABIBEKOV, Ch.K.

Use of a MPT-9-type computer in studying the stability of the parallel operation of a compound generator. Izv. AN Azerb. SSR. Ser. fiz.-mat. i tekh. nauk no.6:119-124 '62. (MIRA 16:6)
(Electric generators) (Automatic control) (Electronic computers)

[illegible]	: Hungary
[illegible]	: H-13
[illegible]	: RZKhim., No. 21 1959, No. 75519
[illegible]	: Szontag, L. and Knoicht, E.
[illegible]	: Not given
[illegible]	: Kobanyai Porcelain Plant Installs New Kiln
[illegible]	: Magyar Epitoipar, 8, No 4, 210-213 (1959)
[illegible]	: No abstract.

CARD: 1/1

NABICHVRISHVILI, M.A.

Effect of thermal treatment on stability of manganese-carbon alloys. P. N. Tavadze, K. A. Dolnashvili, and M. A. Nabichvrishvili (Inst. Metal and Mining, Tiflis). *Soobshcheniya Akad. Nauk Gruzin. S.S.R.* 16, No. 6, 477–82(1955). —Heating Mn-C alloys to 1100° for 5 hrs. followed by rapid cooling in machine oil increased their mech. stability, heating 24 hrs. to 1100° followed by slow cooling in the furnace lowered the mech. index. The heat-treatment produced less and less effect as the content of C was lowered and became nil at 7% C. The results are shown graphically.
G. M. Kosolapoff

TAVADZE, F.N.; NABICHVRISHVILI, M.A.

Solubility of carbon in manganese silicide. Trudy Inst.met. AN Gruz.SSR 9:83-88 '58. (MIRA 12:8)
(Manganese silicide) (Carbon) (Solutions, Solid)

TAVADZE, F.N.; NIKOLAYEV, O.B.; NABICHVRISHVILI, M.A.; TSURKAVA, G.A.

Increasing the durability of molds by means of cast steel bands. Trudy Inst.met. AN Gruz.SSR 9:107-116 '58.
(MIRA 12:8)

(Molding (Founding))

Translation from: Referativnyy [illegible], Metallurgiya, [illegible]
27246

AUTHORS: [illegible], F. [illegible], [illegible], Malichavrishvili, M.A.

TITLE: The Effect of Carbon and Silicon on Heat and [illegible] of Alloys of the Iron-Chrome-[illegible]

PERIODICAL: Dokl. Nauchno-proizv. konferentsii mashinostroiteley i [illegible]stroiteley, Leningrad, [illegible]

TEXT: The authors studied the joint effect of [illegible] resistance in cast and heat treated state of a series of alloys [illegible] C [illegible] - 3.[illegible]; [illegible] 13.1[illegible] - 15.[illegible]; [illegible] - [illegible] (I); [illegible].25 - 3.[illegible]; [illegible] - 15.[illegible]; [illegible] - 45.[illegible]; [illegible] (II); heat treatment was conducted in vacuum [illegible] following two ways: 1) [illegible] for [illegible] hrs; [illegible] at 1,050 - 500°C [illegible] for 350 hrs. It was established [illegible]

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[illegible]

The Effect of Carbon and Silicon on Heat and Scale Resistance of All[illegible] of the Iron-Chrome-Manganese System

tion an increased C and Si content [illegible] heat resistance [illegible] formation of non-stable phases, namely [illegible] ferrite and carbides. During [illegible] the alloys I show increased heat resistance, if their [illegible] content is 3.[illegible] - [illegible]; the alloys II have 2 maxima of heat resistance: at 1.8 - 2.[illegible] C; [illegible] - 1.[illegible] Si and at 0.4 - 1.0% C and 6.0 - 7.0% Si. The alloys II show higher heat resistance after homogenization. The alloys investigated show satisfactory resistance [illegible] oxidation up to 750°C and are not subjected to "growth" up to [illegible]. C impairs scale resistance of II and has no effect on I. Si [illegible] scale [illegible] II. There are [illegible] references.

A.S.

Translator's note: This is the full translation of the original [illegible].

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TAVADZE, F.N.; MANICHVRIANTVILI, L.A.

Some properties of alloys of the system Fe - Cr- Ni-Si-C.
Trudy Inst. met. AN Gruz. SSR 11:125-130 '61. (MIRA 14:10)
(Iron-chromium-nickel alloys)

S/808/61/011/000/003/006

AUTHORS: Tavadze, F.N., Nabichvrishvili, M.A.

TITLE: The refractoriness of alloys of the system Fe-Cr-Ni-Si-C.

SOURCE: Akademiya nauk Gruzinskoy SSR. Institut metallurgii. Trudy, v. 11, 1961, 131-152.

TEXT: The paper reports the results of an experimental investigation of the refractory properties of cast irons of the Cr-Ni systems, with contents of Ni and Cr from 0-25% each. 18 alloys were tested (compositions are tabulated). All alloys contained 0.3% Mn, $\leq$ 0.04% P, and $\leq$ 0.03% S. The alloys were melted in a high-frequency equipment in magnesite crucibles under a layer of slag. The refractoriness (fusion-temperature) characteristics were investigated, as well as the microstructure of the alloys. Tests were made on alloys which had undergone 350 hrs of homogenizing stepwise anneal and alloys which had undergone a short-term stabilizing anneal at test temperature for 50 hrs. The fusion-temperature tests were performed by the centrifugal method of Prof. I. I. Kornilov at T = 700, 750, and 800° and loadings of 5, 10, and 15 kg/mm^2. The deflections measured are graphed versus % Ni content with the testing time as a parameter. It is concluded that the refractoriness (fusion temperature) increases with an increase in Cr and Ni content.

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The highest fusion temperature is exhibited by cast irons of which the parent metal exhibits the character of a γ solid solution at the testing T. With increasing T the austenite regions expand toward the smaller Ni contents. Specimens which have undergone a short-term anneal at the testing T exhibit a greater refractoriness than specimens subjected to the stepwise anneal. The Cr-containing cast irons exhibiting the highest refractoriness are those containing 15% Cr. There are 13 figures, 2 tables, and 6 Russian-language Soviet references.

TAVADZE, F.N.; MANDZHGALADZE, S.N.; NABICHVRISHVILI, M.A.; DASHNIANI, T.S.; LORDKIPANIDZE, I.N.

Chemical properties of cast iron in the system iron - chromium - nickel - silicon - carbon. Trudy Inst.met. AN Gruz. SSR 12:137-144 '62. (MIRA 15:12)
(Cast iron—Thermal properties) (Corrosion and anticorrosives)

S/056/62/043/005/007/058
B163/B186

AUTHORS: Afonin, O. F., Gangrskiy, Yu. P., Lemberg, I. Kh., Nabichvrishvili, V. A.

TITLE: Cascade Coulomb excitation of rotational levels with 4^+ and 6^+ spins

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 5(11), 1962, 1604-1610

TEXT: Cascade Coulomb excitation of some of the levels of the basic rotational band is possible in a deformed nucleus if the energy of the primary particles is sufficient. The measurement of the excitation cross sections makes it possible to check the theory of cascade Coulomb excitation and to gain information on the induced transition probabilities for the excited states. Targets enriched with Sm, Gd, Er, and W isotopes (Sm, Gd, and Er as oxides, W metallic) were bombarded with 50 Mev $N^{14+++++}$ ions from a cyclotron. The γ spectra and coincidences of γ quanta emitted in consequence of Coulomb excitation and inelastically scattered ions were measured. The quanta were recorded by means of a

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Cascade Coulomb excitation of ...

scintillation spectrometer with a NaI (Tl) crystal. The scattered N^{14} ions were recorded by silicon p-n-detectors arranged at an angle corresponding to 155° scattering. Their voltage was so chosen that α particles and protons could easily be separated from the N^{14} ions. Table 1 gives the energy differences for the observed 0→2, 0→4, and 0→6 transitions of a number of even-even-nuclei. Most of them were already known, but the second and third level of Sm^{154}, the second level of Er^{170} and the third level of Gd^{160} were not yet known. In Table 2 the yield ratios of the 0→2, 0→4, and 0→6 transitions are listed and compared with the theory of Alder and Winter (Mat. Fys. Medd. Dan. Vid. Selsk. 32, 8, 1960). The agreement is good except for the cases of the W isotopes and Gd^{154} for which the observed yields are lower. There are 6 figures and 2 tables.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Leningrad Physicotechnical Institute imeni A. F. Ioffe of the Academy of Sciences USSR)

Cascade Coulomb excitation of ...

SUBMITTED: June 5, 1962

Legend of Table 1: First column: Isotope.

Legend of Table 2: First column: Isotope, 3rd and 5th column: experiment, 4th and 6th column: theory

Table 1

Изотоп	ΔE (0 → 2), keV	ΔE (0 → 4), keV	ΔE (0 → 6), keV
Sm^{154}	82	270	534
Gd^{154}	123	370	
Gd^{156}	89	295	
Gd^{158}	79	260	
Gd^{160}	75	246	503
Er^{164}	90	290	
Er^{166}	81	266	
Er^{168}	80	263	
Er^{170}	79	261	
W^{182}	100	326	
W^{184}	111	357	
W^{186}	123	393	

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Table 2

Изотоп	q	$Y(0 \to 2)/Y(0 \to 4)$		$Y(0 \to 4)\ Y(0 \to 6)$	
		опыт	теория	опыт	теория
Sm^{154}	2,13	5,85	5,02	16,2	14,9
Gd^{154}	1,72	12,60	8,25		
Gd^{156}	1,99	5,12	6,17		
Gd^{158}	2,18	6,40	4,92		
Gd^{160}	2,25	4,25	4,61	11,4	13,9
Er^{164}	1,87	7,00	6,86		
Er^{166}	1,99	8,10	6,17		
Er^{168}	2,00	6,67	6,11		
Er^{170}	1,96	7,40	6,39		
W^{182}	1,52	16,67	11,35		
W^{184}	1,49	20,7	11,70		
W^{186}	1,35	28,9	14,65		

S/056/62/043/006/003/067
B163/B186

AUTHORS: Afonin, O. F., Gangrskiy, Yu. P., Lemberg, I. Kh., Nabichvrishvili, V. A., Udralov, Yu. I.

TITLE: Investigation of Coulomb excitation of the first Mo^{92} level

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 6(12), 1962, 1995 - 1997

TEXT: The Coulomb excitation cross section of Mo^{92}, which is an even-even nucleus with a closed neutron shell (N = 50), is so small that direct observation of the Coulomb excitation by recording the γ-spectrum is impeded by the background γ-radiation from nuclear reactions with light impurity atoms such as C and O. To reduce this background, coincidences were counted of inelastically scattered bombarding particles and γ-quanta emitted in the decay of the first excited state. A metallic target enriched with the Mo^{92} isotope to more than 5 times its natural content was bombarded with N^{14} ions accelerated to 40 Mev in the FTI AN SSSR cyclotron. The scattered ions were recorded by means of 4 silicon pn-detectors with

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a total surface of 100 mm^2. More details of the experimental procedure were given in an earlier paper (O. F. Afonin et al., ZhETF 43, 1604, 1962). The first level 2^+ of Mo^{92} is at 1.52±0.03 Mev. The reduced transition probability B(E2) is found to be $(0.19\pm0.08)\ e^2 \cdot 10^{-48}\ cm^4$ by comparison with the γ yield of the decay of the first excited level of Mo^{98} at 0.78 Mev which is well observable in the direct γ spectrum as well as in the γN coincidence spectrum. There are 2 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of the Academy of Sciences USSR)

SUBMITTED: June 5, 1962

ALKHAZ[illegible], D. G.; VASIL'YEV, V. D.; GUSINSKIY, G. M.; LEMBERG, I. Kh.; NABICHVRISHVILI, V.A.

'Angular Distributions of Gamma-rays Emitted in the Case of Coulomb-Excitation of Nuclei with Odd-A."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

FTI (Physico Technical Inst)

, E. G.; GAL'PERIN, L. N.; GUSIN[illegible]IY, [illegible] M.; LEMBERG, I. Kh.; NABICHVRISHVILI,

"Investigations of the Polarization of Gamma Radiation Emitted in the Case of Coulomb-Excitation of Some Nuclei with Odd-A."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

FTI (Physico Technical Inst)

L 14486-65 EWT(m) DIAAP/ASD(a)-5/SSD/BSD/AFWL/AS(mp)-2/ASD(p)-3/ESD(gs)/ESD(t)
ACCESSION NR: AP4048639 S/0048/64/028/010/1683/1694

B

AUTHOR: Alkhazov, D.G.; Vasil'yev, V.D.; Gusinskiy, G.M.; Lomberg, I.Kh.; Nabichvrishvili, V.A.

TITLE: Angular distribution of gamma-radiation emitted in Coulomb excitation of odd-A nuclei /Report, Fourteenth Annual Conference on Nuclear Spectroscopy held in Tbilisi 14-22 Feb 1964/ 19

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v.28, no.10, 1964, 1683-1694

TOPIC TAGS: nuclear physics, odd even nucleus, excited state, coulomb field, ion bombardment, gamma emission, nuclear spectroscopy

ABSTRACT: The angular distribution of the γ-rays resulting from Coulomb excitation of the following odd nuclei was investigated: Ne^{21}, Sc^{45}, Ti^{47}, Fe^{57}, Zn^{67}, Ga^{69}, Se^{77}, Rb^{85}, Rb^{87}, Pd^{105}, Sb^{123}, Te^{123}, I^{127}, Cs^{133} and Sm^{147}. All the nuclei except Ne^{21} were excited by bombardment with 16.1 MeV nitrogen ions. The Ne^{21} γ-rays were obtained by bombarding an aluminum target with 24 MeV Ne^{21} ions. The γ-radiation was recorded at 0, 30, 60 and 90° with four NaI scintillators, the relative efficiencies of which were determined by counting the γ-rays from standard radioactive

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sources located at the target position. The coefficients of second and fourth degree Legendre polynomials in the expansion of the angular dependence of the intensity were obtained by the method of least squares, but the coefficients of the fourth degree polynomials were so small that they are disregarded in subsequent analyses. The portion of the anisotropy due to the Coulomb excitation process was calculated by a standard method, and the remaining anisotropy, after correction for instrumental effects, is ascribed to γ-γ correlations in cascade processes. From this the residual anisotropy, the spin and parity of the residual state and the E2 and M1 transition branching ratio were determined (in some cases tentatively), and the results are tabulated. Reduced M1 transition probabilities were obtained for 11 of the nuclei, and these and the corresponding theoretical single-particle values are tabulated. The data concerning each of the nuclei are discussed in detail with numerous references to the literature. Orig.art.has: 5 formulas, 2 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00

SUB CODE: NP NR REF SOV: 011 OTHER: 026

2/2

ALKHAZOV, D.G.; GAL'PERIN, L.N.; GUSINSKIY, G.M.; LEMBERG, I.Kh.; NABICHVRISHVILI, V.A.

Polarization of gamma rays emitted in the Coulomb excitation of certain nuclei with odd A. Izv. AN SSSR. Ser. fiz. 29 no.5:787-793 My '65. (MIRA 18:5)

L 25742-66 EWT(m) DIAAP JD/JG

ACC NR: AP6016391 SOURCE CODE: UR/0048/65/029/007/1103/1106

AUTHOR: Yerokhina, K. I.; Lemberg, I. Kh.; Nabichvrishvili, V. A. 34 B

ORG: none

TITLE: Coulomb excitation of the levels of Gd sup 155, Dy sup 161, and Yb sup 171

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 7, 1965, 1103-1106

TOPIC TAGS: ytterbium, dysprosium, gadolinium, coincidence counting, inelastic scattering, Coulomb excitation

ABSTRACT: This article is a further analysis of results from an experiment in which the coincidences of γ-quanta with inelastically scattered nitrogen ions were measured for the purpose of studying the Coulomb excitation of the levels of Gd^{155}, Dy^{161}, and Yb^{171}. The method used in taking the measurements and processing the results has been described in earlier works. In this article the discussion is directed toward the higher collective levels of those nuclei which do not belong to the basic rotational band. Data is presented for these levels and comparisons made with different levels using the Berson calculated results. It is concluded that more detailed and accurate processing of the experimental data does not change the conclusion about the collective nature of the investigated levels of Gd, Dy, and Yb. Orig. art. has: 3 figures and 1 table. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 005

Card 1/1

L 26655-66 EWT(m) DIAAP JD

ACC NR: AP6017118 SOURCE CODE: UR/0048/65/029/012/2231/2234

AUTHOR: Andreyev, D. S.; Gangrskiy, Yu. P.; Lemberg, I. Kh.; Mabichvrishvili, V. A.

ORG: none

TITLE: Coulomb excitations of lower levels in the isotopes Pb sup 204, sup 206, sup 207 and Bi sup 209 /This paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and the Structure of the Atomic Nucleus, held in Minsk from 25 January to 2 February 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 12, 1965, 2231-2234

TOPIC TAGS: Coulomb excitation, lead, bismuth, nucleon, nitrogen cyclotron, magnetic field, gamma quantum, even nucleus, neutron proton

ABSTRACT: In order to determine the effective nucleon charge it is especially important to know transition probabilities for nuclei having one nucleon (or one hole) above the filled shell. Accurate data on this problem are lacking because the Coulomb output of the excited levels of such nuclei are very small even when bombardment particle energies are very high. Nitrogen ions ($N^{14.5+}$) were accelerated in the FII cyclotron up to 66.5 Mev by enhancing the magnetic field. Gamma quanta ejected forward from a Bi-enriched lead target were recorded. Nitrogen ions of 66.5 Mev energy were used to study the Coulomb excitation of Pb^{207} and Bi; and 63 Mev ions, for Pb^{204} and Pb^{206}.

Spectra of γN-coincidence are shown in figures and the results of

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L 26655-66

ACC NR: AP6017118 2

Coulomb excitation are tabulated. These results are compared with those of other authors. The values of B(E2) are adversely affected by inadequate correction for angular correlation, and though the error is not more than 25% for the 0.57 Mev level of Pb^{207}, it reaches 35 to 40% for the 0.89 Mev level of Pb^{207} and the 0.91 Mev level of Bi^{209}. The effective neutron charge is found to be close to unity, whereas that for the proton is unexpectedly large: 2.6 to 3.0. Speculations are advanced briefly on the effect of level excitation by giant resonance and effects of possible secondary processes. The general rule is drawn: for spherical even-even nuclei the farther the closed shell is from the nucleus, the lower is the energy of the first 2+ level and the greater is the value of B (Ez) for the transition to this level; but this rule does not hold completely for even isotopes of lead. Orig. art. has: 4 figures, 1 formula, and 1 table. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 006

Card 2/2

L 44038-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG
ACC NR: AP6032230 SOURCE CODE: UR/0367/66/003/005/0794/0797

AUTHOR: Gangrskiy, Yu. P.; Lemberg, I. Kh.; Nabichvrishvili, V. A.

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

TITLE: Coulomb excitation of levels in the beta- and gamma-vibrational bands of the Sm sup 152 and W sup 186 nuclei

SOURCE: Yadernaya fizika, v. 3, no. 5, 1966, 794-797

TOPIC TAGS: Coulomb excitation, gamma quantum

ABSTRACT: The Coulomb excitation of nuclear levels in Sm^{152} and W^{186} was investigated using the method of coincidences between γ-quanta and inelastically scattered N^{14} ions. The 0^+, 2^+, and 4^+ levels in the β-vibrational band and 2^+ level in the γ-vibrational band of Sm^{152} and also the 2^+ and 4^+ levels in the W^{186} γ-vibrational band were excited. The values of the probability of the electric quadrupole transition from the ground state to the 2^+ levels of the β- and γ-vibrational bands in Sm^{152} and W^{186} were determined. Orig. art. has: 4 figures, 1 formula and 3 tables. [Based on authors' Eng. abst.] [JPRS: 38,712]

SUB CODE: 20 / SUBM DATE: 06Jul65 / ORIG REF: 003 / OTH REF: 004

Card 1/1 blg

0919 1255

STEFANESCU, Sabba S.; NABIGHIAN, Misac N.

Lines of the magnetic field of two equal rectilinear electric currents. Studii cerc fiz 11 no.3:563-583 '60. (EEAI 10.2)
(Electric currents) (Magnetic fields)

NABIKANOVA, M.V., inzh.

Calculating ship deck spans. Sudostroenie 24 no.5:6-11 My '58.
(MIRA 11:6)

(Naval architecture)

NABIKANOVA, M. V., Candidate Tech Sci (diss) -- "The computation of covering systems for a ship hull". Moscow, 1959. 6 pp (Kaliningrad Tech Inst of the Fish Industry and Economy), 135 copies (KL, No 24, 1959, 139)

NABIKANOVA, M.V., inzh.

Coefficients of cross bracing couples. Trudy TSNIIRF no.40: 79-84 '59. (MIRA 13:6)
(Bulkheads (Naval architecture))

NABIKHODZHAYEV, S.

Chemical Abst.
Vol. 48 No. 3
Feb. 10, 1954
Synthetic Resins and Plastics

Swelling process in high-polymer compounds. K. S. Akhmedov and S. Nabikhodzhaev. *Doklady Akad. Nauk Uzbek.S.S.R.* 1949, No. 4, 13–18(in Russian).—The swelling process of high-mol. compds. was studied in an app. constructed of 2 calibrated parallel tubes which are both connected at one end with a vessel in which the swelling takes place, while at the other end the tubes are connected to a vessel for the swelling liquid used in the expt. The expt. is performed by suitable placement of the app. so as to establish the original vol., after which the app. is turned over and the swelling is readily measured by the calibrations on the connecting tubes. Polyvinyl chloride was studied in $ClCH_2CH_2Cl$, $PhNO_2$, pyridine, furfural, and xylene at 31.2°, the variable rates of swelling being given in tabular form. Comparison of the data for $ClCH_2CH_2Cl$ at 31.2° and 40° permits an estn. of the change of bond energy of the polymer in this temp. interval at some 890 cal. The swelling effect of the various solvents corresponds qualitatively with their elec. moments. G. M. K.

8 31-54 gjk

Lab Colloid Chem, Chem. Faculty,
Cent. Asian State Univ.

NABIKHODZHAYEV, S.N.

USSR

1909. Distribution of anabasine between benzene and saturated aqueous solutions of sodium sulphate. Kh. R. Kakhkharov, S. P. Kulikov and S. N. Nabikhodzhayev (*Dokl. Akad. Nauk Uzb. SSR*, 1953, (7), 19-21; *Referativnyi Zh., Khim.*, 1954, Abstr. No. 33,022).—The solubility of anabasine in 1 *M* Na_2SO_4 soln. at 25° C is 1·2 per cent. by wt. and in 1·5 *M* Na_2SO_4 soln. it is 0·75 per cent. When 1·5 *M* Na_2SO_4 is added to alkaline soln. of anabasine sulphate, 97 per cent. of the anabasine separates; a single extraction with benzene separates 99·95 per cent. of the anabasine. E. HAYES

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(2)

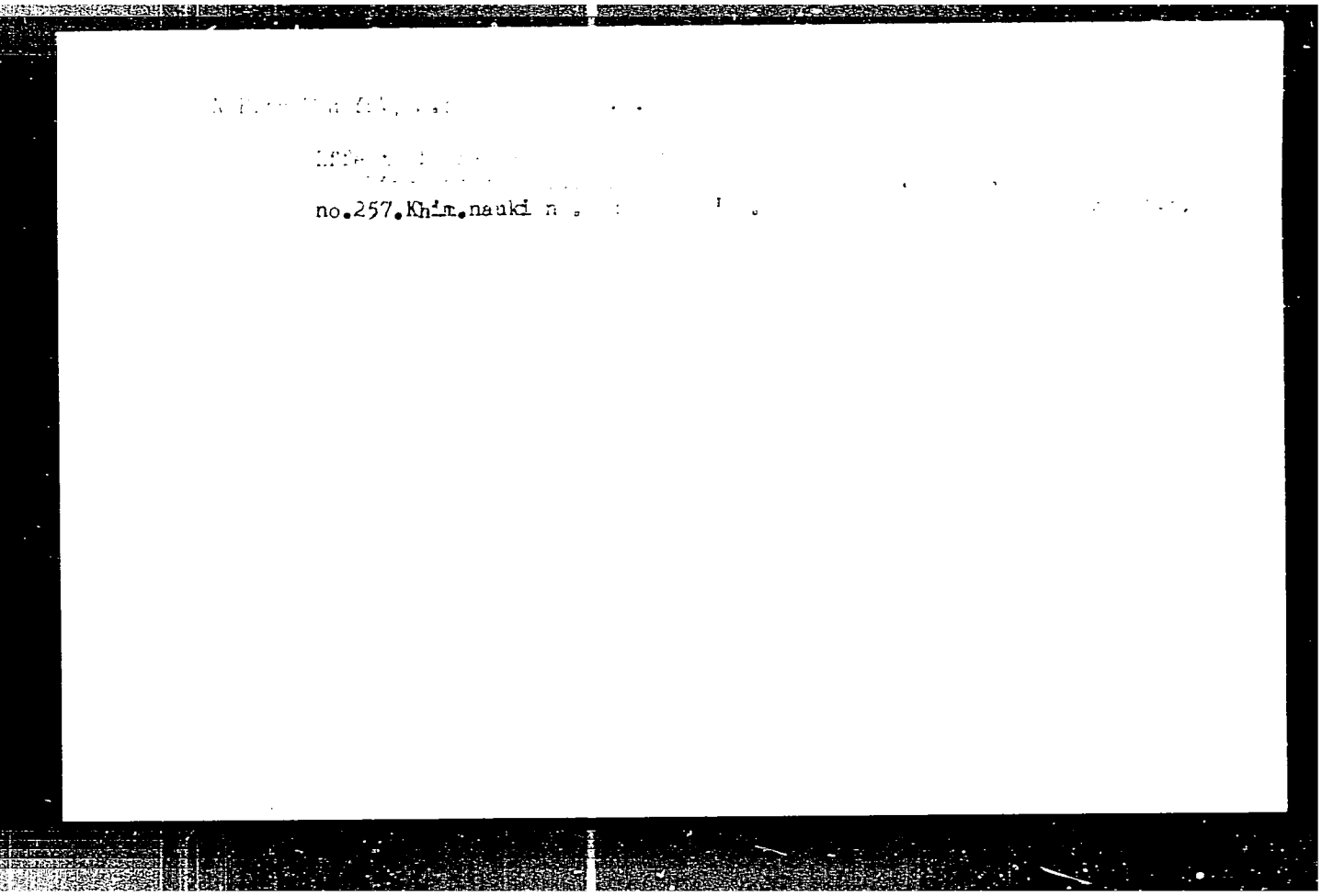
NABIKHODZHAYEV S.N.

Distribution of aphillidine between water and organic solvents. Kh. P. Rakhimov and S. N. Nabikhodzhaev. *Doklady Akad. Nauk Uzbek. S.S.R.* 1955, No. 6, 39-41; *Referat. Zhur., Khim.* 1954, No. 10203.—The distribution coeff. C_1/C_2 between H_2O and a no. of org. solvents was studied. C_1 denotes concn. of aphillidine in mol./l. in H_2O and C_2 the same concn. in org. liquid. For the system H_2O–C_6H_6, where $C_1 + C_2 = 0.17$–0.75 mols., $C_1/C_2 = 0.011$; where $C_1 + C_2 = 1.01$, $C_1/C_2 = 0.020$. For the system H_2O–dichloroethane, where $C_1 + C_2$ is 0.14–0.47, $C_1/C_2 = 0.011$–0.010; at $C_1 + C_2 = 1.12$, $C_1/C_2 = 0.006$. For the system H_2O–ligroin, where $C_1 + C_2$ is 0.033, 0.039, and 0.064, C_1/C_2 is 0.23, 0.20, and 0.15, resp. For the system H_2O–ether where $C_1 + C_2$ is 0.000, 0.011, 0.044, 0.070, 0.107, 0.150, 0.230, and 0.242, the resp. values of C_1/C_2 are 0.20, 0.20, 0.18, 0.17, 0.15, 0.13, 0.14, and 0.11. For the system satd. aq. soln. of NaCl–C_6H_6, where $C_1 + C_2$ is 0.280, 0.651, 1.125, the corresponding values of C_1/C_2 are 0.0018, 0.0015, and 0.0023. M. Hosen

RUSTAMOV, Kh.R.; FATKULINA, L.G.; NABIKHODZHAYEV, S.N.

Catalytic property of bifunctional cationites. Uzb.khim.zhur. no.1:39-42 '59. (MIRA 12:6)

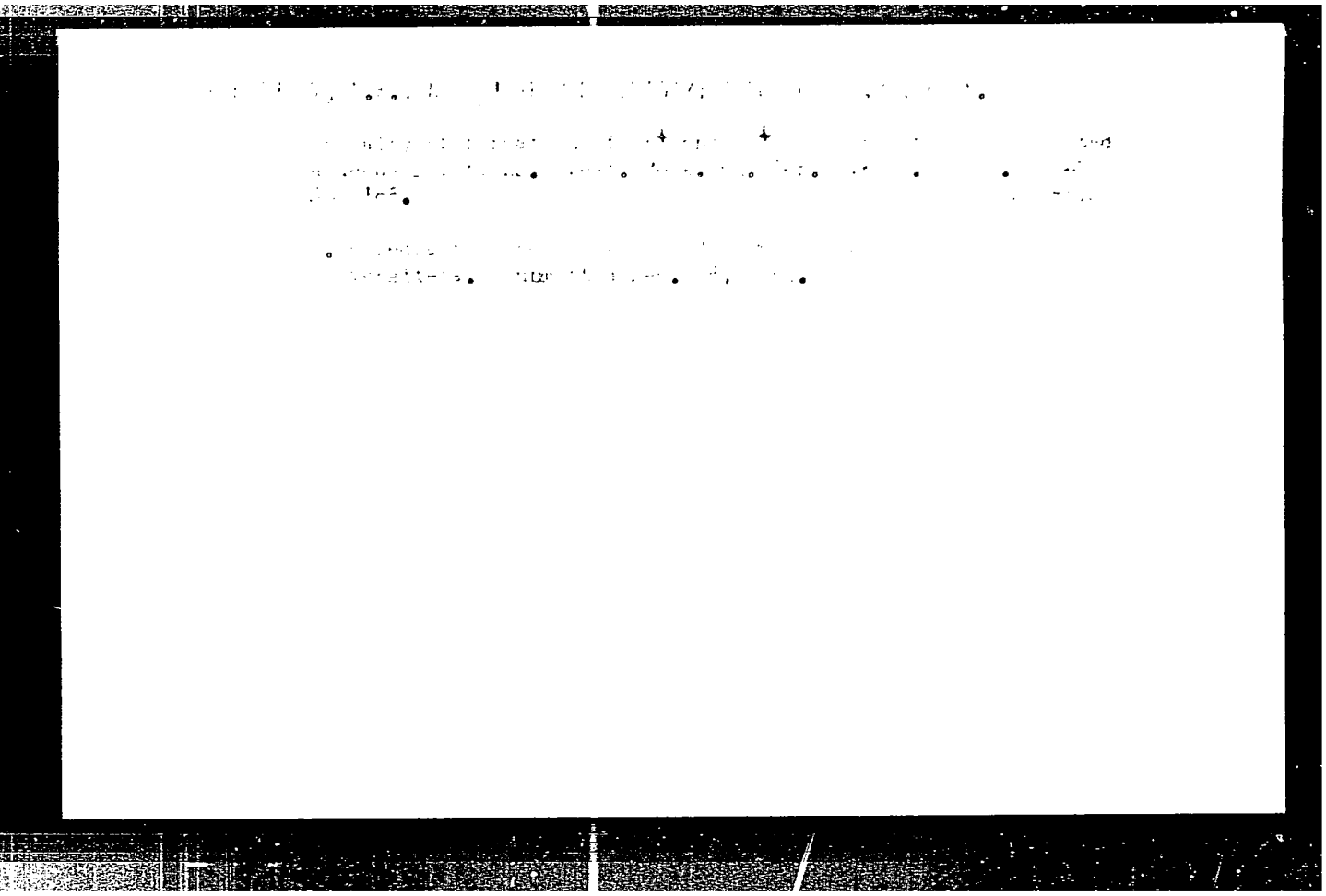
1. Srednеaziatskiy politekhnicheskiy institut.
(Ion exchange) (Catalysts)



NABIL', E.M.

Study on neurophysiological mechanisms of the selective action of narcotics. Trudy Inst.norm.i pat.fiziol. AMN SSSR 7:66-67 '64. (MIRA 18:6)

1. Laboratoriya obshchey fiziologii tsentral'noy nervnoy sistemy (zav. - deystvitel'nyy chlen AMN SSSR, prof. P.K.Anokhin) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.



APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135910004-7"

ALIYEV, R.A.; GADZHIYEV, V.D.; ISAYEV, Ya.N.; MAILOV, A.I.; NABILI, D.G.; PRILIPKO, L.I.

[Improvement and efficient use of winter and summer pastures in Azerbaijan] Uluchshenie i ratsional'noe ispol'zovanie zimnikh i letnikh pastbishch Azerbaydzhana. Baku, Izd-vo AN Azerbaidzhanskoi SSR, 1965. 45 p. (MIRA 18:12)

GORSHENKOV, A.D.; NABILKIN, V.G.

Glue-setting machines for veneering curvilinear surfaces.
Der.prom. 9 no.3:17-18 Mr '60. (MIRA 13:6)

1. Moskovskaya fabrika klavishnykh instrumentov "Lira".
(Veneers and veneering) (Gluing)

NABITOVICH, I. D.

20-6-28/42

AUTHORS: Andriyevskiy, A. I., Nabitovich, I. D., Kotsyumakha, P. A.

TITLE: Structure of Thin Films of Laboratory Glass (O strukture tonkikh plenok laboratornykh stekol).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 6, pp. 994-995 (USSR).

ABSTRACT: Basing on numerous works of different investigations 2 hypothesis on the glass structure have been established: a) the crystallite-hypothesis and b) the hypothesis of the near order. Now the development led to a uniform standpoint on the stereoscopic order and the atomic arrangement in the glass reflecting the chemical bindings. However, nobody has observed directly the crystallite structure of the glass. Therefore the authors have carried out under the electron-microscope an electron-microscopic and electronographic investigation on a great number of thin plates of quartz-, pyrex-, molybdene-, Jena-, lend- and white-glass. Their thickness amounted to of from 100-200 up to 1500 Å. It has been shown that the films of some many-component-glasses have a different crystalline structure and an especially rich dendrite variety (figure 1). Different forms of small-crystals and dendrites often appear at single spots of the same sample. Consequently many glass components in thin films are in a cry-

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Structure of Thin Films of Laboratory Glass.

stalline state. Their size rises corresponding to the increase of the thickness of the films. The baseground of the film is fine-crystalline, too. After 15-20 days standing in the air no noticeable structure modification could be observed. Figure 2 shows the electronograms of a sample of white-glass. The value of the distance between the planes of the figure 2a correspond well to the same radiographical values for $3CaO.Al_2O_3$ (ref.3). The electronogram figure 2b corresponds to the compound Ca_3SiO_5. A not "textural" electronogram figure 2v corresponds to Ca_3SiO_5. The electronogram of quartz-glass corresponds to α-quartz. On other electronograms of white- and other glasses lines have been observed there, which correspond to tridymite, cristobalite and sodium metaborate. Besides, electronograms of metallic calcium have been obtained from white-glass.
There are 2 figures, and 4 Slavic references.

ASSOCIATION: L'vov Polytechnical Institute (L'vovskiy politekhnicheskiy institut).
PRESENTED: June 11, 1957, by N. V. Belov, Academician.
SUBMITTED: March 26, 1957.
AVAILABLE: Library of Congress.

Card 2/2

24.7100

SOV/58-59-12-27425

Translation from: Referativnyy zhurnal. Fizika, 1959, Nr 12, p 133 (USSR)

AUTHORS: Andriyevskiy, A.I., Nabitovich, I.D.

TITLE: On the Crystallization and Structure of Selenium in Thin Layers

PERIODICAL: Nauchn. zap. L'vovskogo politekhn. in-t, 1958, Nr 57, pp 82 - 92

ABSTRACT: An electronographical investigation of crystallization in 600 - 800 Å thick Se films (F), both for those free of any sub-layers, as well as for those covered on both sides with a film of cellulose nitrate varnish, was carried out. The F was obtained by dusting of amorphous red Se in a vacuum. No diffraction picture is observed right after the F dusting. After heating at 25°C for five hours, 4 haloes appear on the electronograms. At 35 to 40°C, the free F crystallize into an α-monoclinic modification, at 65° - into a β-monoclinic modification, and at 150 - 160° a new modification is formed with a face-centered cubic

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On the Crystallization and Structure of Selenium in Thin Layers

lattice ($a = 5.755$ Å). In the F covered with cellulose nitrate varnish, still another modification of Se was detected with a primitive lattice ($a = 2.970 \pm 0.004$ Å), which is stable at room temperature.

Ye.G. Ponyatovskiy

Card 2/2

3/137/61/000/011/130/123
A060/A101

AUTHORS: Andriyevskiy, A. I., Nabitovich, I. D.

TITLE: On the problem of oxidation of thin copper layers in an air environment

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 40, abstract 11I301 ("Dokl. L'vovsk. politekhn. in-ta", 1958 (1959), 3, no. 1 - 2, Fizika, 23 - 26)

TEXT: An investigation was carried out upon the oxidation in layers of Cu with thickness of 900 - 1,000 Å at 20 - 250°C. The specimens were prepared by sublimation in vacuum (~10^{-4} mm of mercury) of electrolytic Cu upon electron-nitrate varnish films. Electronograms were taken by a penetrating pencil of electrons. The specimens were heated up in a thermostat. At a temperature of ~40°C the small crystals sintered and the circles in the electronogram became more pronounced. In the interval 80 - 90°C the Cu was transformed into a cuprous oxide and beginning with 170 - 180°C into a cupric oxide. From 200 to 250°C the cupric

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S/137/61/[illegible]/011/100/123
A060/A101

On the problem of oxidation...

oxide was preserved. In no case did the electronography reveal any [illegible] texture whatsoever in the specimens under investigation. There are 11 references.

Ye. Layner

[Abstracter's note: Complete translation]

Card 2/2

ANDRIYEVSKIY, A.I., doktor tekhn.nauk; TIKHONOV, V.A., dots.; SHPYNOVA, L.G.; HABITOVICH, [illegible]D.

Electron microscopic testing of hydration hardening of unslaked lime. Stroi.mat. 5 no.3:33-35 Mr '59. (MIRA 12:5)
(Lime--Testing)