

NAYDOVICH, I.; KOVARSKIY, M.

Increase the quality requirements for signal contacts. Prom.energ. 14
no.2:51-52 F '59. (MIRA 12:3)

1. Glavnyy energetik Volokhovskogo alyuminiyevogo zavoda (for Naydovich).
2. Nachal'nik tsekha setey i podstantsii volokhovskogo alyuminiyevogo zavoda (for Kovarskiy):
(Electric contactors)

22(5)

PHASE I BOOK EXPLOITATION

SOV/2381

Kovarskiy, Mikhail Savel'yevich

Oplata truda na predpriyatiyakh chernoy metallurgii (Wages in Ferrous Metallurgy Plants) [Moscow] Profizdat, 1958. 94 p. 2,200 copies printed.

Ed.: V.V. Novospasskiy; Tech. Ed.: S.I. Rakov.

PURPOSE: The book is intended for trade-union committee workers, members of plant, mine, and shop wage committees, and trade union-members of mine, metallurgical, pipe-rolling, and by-product coking plants.

COVERAGE: This book discusses problems related to work scheduling in connection with the reduced working day and new wage structure for workers, foremen, and engineering, technical and service personnel in iron and steel mills. The six-hour working day for personnel working underground and the seven-hour day for workers engaged in

Card 1/3

KOVARSKIY, M. S.; BARAN, N. A.; BYCHKOV, I. Ya.; ZHUKOV, G. I.

Introduction to Chapter Dealing With the Prevention of Communicable Diseases and the General Purpose of Organizing Epidemic-Control Work, pp 775-778 of Sbornik Vazhneyshikh Ofitsial'nykh Materialov po Sanitarnym i Protivo-Epidemicheskim Voprosam (Collection of the Most Important Official Materials on Sanitation and Epidemic-Control Problems), second edition, Medgiz, Moscow, 1949, 1206 pp, 2 Vol.

KOVARSKIY, M. S.

All Russian planning-thematic conference on communal hygiene.
Gig. sanit., Moskva no.5:52-56 May 1951. (CIML 21:1)

KOVARSKIY, M. S.

Public Health - Congresses

All-Union conference on coordination of plans for scientific and research work in the field of communal hygiene for 1952. Gig i. san. no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. UNCLASSIFIED.

KOVARSKIY, M.S.

AID P - 3911

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 15/21

Authors : Gol'dberg, M. S., Kand. Med. Sci., M. S. Kovarskiy,
Kand. Med. Sci., L. I. Mats, Prof., N. A. Ruffel',
Kand. Biol. Sci.

Title : All-Union Conference on Problems of the Hygiene of
Atmospheric Air and Water, and Sanitation
Bacteriology

Periodical : Gig. i. san., 12, 45-47, D 1955

Abstract : Discusses briefly the reports on various problems
presented at the Conference in Moscow (May 16-20,
1955) organized by the Institute of General and
Municipal Hygiene, Acad. Med. Sci., USSR.

Institution : None

Submitted : No date

ALEKSANYAN, A.B., prof.; BEZDENEZHNYKH I.S., doktor med. nauk;
BELYAKOV, V.D., doktor med. nauk; BESSERTNYIY, B.S., dokt.
med. nauk; VASHKOV, V.I., prof.; GROMASHEVSKIY, L.V.
prof.; YELKIN, I.I., prof.; ZHDANOV, V.M., prof.;
ZHMAYEVA, Z.M., kand. biol. nauk; KOVARSKIY, M.S., kand.
med. nauk; NABOKOV, V.A., prof.; NOVOCORODSKAYA, E.M.,
prof.; PAVLOVSKIY, Ye.N., akademik; PETRISHCHEVA, P.A.,
prof.; PERVOMAYSKIY, G.S., prof.; POGODINA, L.N.; ROGOZIN,
I.I., prof.; SUKHOVA, M.N., doktor biol. nauk; CHASOVNIKOV,
A.A., kand. med. nauk; SHATROV, I.I., prof.; SHURAEURA,
B.L., prof.; YASHKUL', V.K., kand. med. nauk;
ZHUKOV-VEREZHNIKOV, N.N., prof., otv. red.; BOLDYREV, T.I.,
prof., red.; ZASUKHIN, D.N., doktor biol. nauk, red.;
KALINA, G.P., red.

[Multivolume manual on the microbiology, clinical aspects
and epidemiology of communicable diseases] Mnogotomnoe ru-
kovodstvo po mikrobiologii, klinike i epidemiologii infek-
tsionnykh boleznei. Moskva, Meditsina. Vol.5. 1965.
548 p. (MIRA 18:3)

1. Deystvitel'nyy chlen AMN SSSR (for Aleksanyan,
Gromashevskiy, Zhdanov, Zhukov-Verezhnikov). 2. Chlen-
korrespondent AMN SSSR (for Rogozin, Boldyrev).

GNUSIN, N.P.; KOVARSKIY, N. Ya.

Distribution of electrically deposited metals along the height
of the rough layer. Izv. SO AN SSSR no. 10. Ser. tekhn. nauk
no. 3:154-157 '65 (MIRA 19:1)

1. Institut fiziko-khimicheskikh osnov pererabotki mineral'nogo
syr'ya, Novosibirsk. Submitted March 9, 1965.

KOVARSKIY, N.Ya.; GUSIN, H.P.

Approximate evaluation of the true surface of compact electrodeposits
by the profile recording method. Zashch.met. 1 no.4:450-452 JL-Ag '65.
(MIRA 18:8)

1. Institut fiziko-khimicheskikh osnov pererabotki sibirskogo
sy'r'ya Sibirskogo otdeleniya AN SSSR.

GNUSIN, N.P.; KOVARIKIY, N.Ya.; FEDOT'YEV, N.P.

Roughness and polarization curves in the electrodeposition
of copper from acid sulfate solutions. Zhur.prikl.khim. 38
no.11:2464-2469 N '65. (MIRA 18:12)

1. Submitted December 4, 1964.

GNUSIN, N.P.; KOVARSKIY, N.Ya.

Distribution of electrodeposited metals along the height
of a rough layer. Zhur.fiz.khim. 39 no.10.2561-2563 0 '65.
(MIRA 18:12)

1. Novosibirskiy khimiko-metallurgicheskiy institut. Submitted
May 30, 1964.

KOVARSKIY, V.A., mladshiy nauchnyy sotrudnik

Composition of mixed feeds supplementing corn. Zhivotnovodstvo 24
no. 9:52-54 S '62. (MIRA 15:12)

1. Moldvaskiy nauchno-issledovatel'skiy institut zhivotnovodstva i
veterinariii. (Feeds)

KOVARSKIY, V.A.
Category : USSR/Solid State Physics - Solid state theory. Geometric crystallography E-2

Abs Jour : Ref Zhur - Fizika, No 1. 1957, No 1049

Author : Kovarskiy, V.A.

Title : Thermal Transitions of Electrons under the Influence of Acoustic Oscillations of the Crystal Lattice.

Orig Pub : Uch. zap. Kishinevsk. un-ta, 1955, 17, 185-195

Abstract : The author calculates the probability of a radiationless transition of a bound electron upon interaction with acoustic oscillations of the lattice of an ion crystal. The probability of capture of a fast electron by an F center is computed.

Card : 1/1

KOVARSKIY, V.A.

AUTHOR: Kovarskiy, V.A.

56-6-19/47

TITLE: Nonradiative Recombination of Electrons in the Impurity Centers in the N-Type of Germanium (Bezizluchatel'naya rekombinatsiya elektronov na primesnykh tsentrakh v germanii N-tipa)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1957, Vol. 33, Nr 6, pp. 1445-1453 (USSR)

ABSTRACT: Theoretically the radiationless "phonon" recombination of current carriers in the foreign centers in N-germanium at helium temperatures is dealt with by the following chapters:
1.) Energy levels and quantum states of the systems.
2.) Radiationless recombination of a "condenson" in a Coulomb center. The interaction between an electron and the acoustic oscillations of the lattice is determined and fixed by the method of successive formation of the diagonal form of the initial Hamiltonian by homogeneous transformation. In computation the tensor character of the effective mass of the current carrier is taken into account. Furthermore, the general expression for the deformation potential is not disregarded. There are 18 references, 8 of which are Slavic.

~~Class 1/2~~

Kohtuniev Agric Inst.

KOVARSKIY, V. A.: ^{Good} Master Phys-Math Sci (diss) -- "Investigation of the theory of impurity diffusion and of non-radiation recombination of electrons in semi-conductors". Kiev, 1958. 15 pp (Acad Sci Ukr SSR, Inst of the Physics of Metals), 175 copies (KL, No 6, 1959, 124)

SOV/51-5-2-26/26

AUTHOR: Kovarskiy, V.A.TITLE: The Theory of Radiationless Transitions in an F-Centre
(K teorii bezyluchatel'nykh perekhodov v F-tsentre)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 2, pp 222-224 (USSR)

ABSTRACT: The author extends to higher temperatures his own theory (Ref 7) of radiationless transitions in F-centres in alkali-halide crystals, in which the potential energy of the electron-phonon interaction acts as a perturbation. He deduces a value of $5.55 \times 10^{14} \text{sec}^{-1}$ for the frequency multiplier (P_0) in the expression for the probability of thermal ionization of an F-centre in NaCl. This value agrees well with the experimental result obtained by Parfianovich ($6.31 \times 10^{14} \text{sec}^{-1}$). In the study of thermal stimulation of non-activated NaCl (Ref 1) the calculated values of the frequency multipliers P_0 for KCl and KI are given as 2.38×10^{14} and $3.45 \times 10^{14} \text{sec}^{-1}$ (Table 2). The author

Card 1/2

PERLIN, Yu.Ye.; KOVARSKIY, V.A.

Theory of impurity-sensitized scattering of slow polarons. Fiz.tver.
tela 3 no.4:1031-1034 Ap '61. (MIRA 14:4)

1. Kishinevskiy gosudarstvennyy universitet i Kishinevskiy sel'sko-
khozyaystvennyy institut.
(Electrons--Scattering) (Color centers)

8/058/63/000/003/072/104
A059/A101

AUTHORS: Sinyavskiy, B. P., Kovarskiy, V. A.

TITLE: Theory of recombination in semiconductors at low temperatures in the "non-Condon approximation"

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 68, abstract 3E472 ("Bul. Akad. Shtiintse RSMold., Izv. AN MoldSSR", 1962, no. 5, 109 - 112)

TEXT: In order to explain the capture cross sections observed and their temperature dependences, the effective cross section of the electron capture by a charged Coulomb center is evaluated. The calculation is performed within the frame of the non-radiative transition theory previously put forward by one of the authors (RZhFiz, 1962, 10E32) in the "non-Condon approximation". The interaction of the electron with longitudinal optical phonons only is considered. When the matrix elements of velocity entering the general formula for the mean "thermal" effective cross section of carrier capture by the local center are calculated, exact Coulomb functions are used.

[Abstracter's note: Complete translation]

Card 1/1

P. Zil'berman

S/181/62/004/006/040/051
B108/B138

AUTHOR: Kovarskiy, V. A.

TITLE: Theory of radiationless transitions in "non-condonion" approximation. Low temperatures

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1636-1648

TEXT: Using perturbation theory, the author obtains, in adiabatic approximation, the wave functions of a localized electron in a crystal in the form of a convolute series in terms of nuclear variables. Near the point of intersection of the adiabatic potentials, the dependence of the electron matrix element on the coordinates of the nuclei in the lattice has a resonance character. A general expression for the probability of radiationless transition at low temperatures is found with the aid of "negative ordering" of exponents (M. Lax. Journ. Chem. Phys., 20, 1752, 1952). It is noted that the formulas of K. Huang and A. Rhys (Proc. Roy. Soc., A204, 406, 1950) are considerably changed if approximation is performed beyond the "condon approximation". This fact has to be taken into account when theory and experiment are compared. There is 1 figure.

Card 1/2

247060

43121
S/181/62/004/011/021/049
B104/B102

AUTHORS: Kovarskiy, V. A., and Sinyavskiy, E. P.

TITLE: The theory of nonradiative transitions in crystals in "non-Condon" approximation. High temperatures

PERIODICAL: Fizika tverdogo tela, v. 4, no. 11, 1962, 3202 - 3207

TEXT: The object here is to extend to high temperatures the theory of non-radiative transitions in localized centers of crystals at low temperatures developed in a previous paper (V. A. Kovarskiy, FTT, 4, 6, 1962). For high temperatures it is important to consider resonance effects that can arise through the possible intersection of the adiabatic potentials. From the electron wavefunction

$$\Psi_s(\mathbf{r}, q) \approx \left\{ 1 + \sum_n \left(\frac{\langle n | v | s \rangle}{E_{s(n)}(q) - E_s(q)} \right)^2 \right\}^{-1/2} \left\{ \Psi_s^0 + \sum_n \frac{\langle n | v | s \rangle \Psi_n^0(\mathbf{r}, q_s)}{E_{s(n)}(q) - E_s(q)} \right\}, \quad (1)$$

obtained by perturbation-theoretical methods taken from the previous paper leads to

Card 1/3

$$E_{s(1,2)} = \frac{E_p(q) + E_s(q) + \gamma \hbar \omega_D}{2} \mp \sqrt{\left(\frac{E_p(q) - E_s(q) - \gamma \hbar \omega_D}{2} \right)^2 + |\langle p | v | s \rangle|^2}. \quad (6)$$

S/181/62/004/011/021/049
B104/B102

The theory of nonradiative transitions...

for the corrected levels $E_{s(1)}(q)$ and $E_{s(2)}(q)$ between which the non-radiative transition occurs, wherein s and p are the quantum numbers of the initial and final states of the electron. The matrix element of the non-radiative transition between s and p is given by.

$$\langle p | L_{nonrad} | s \rangle = -i \sum_j \frac{\omega_j}{\omega_D} \langle p | v_j | s \rangle \hat{P}_j \xi(Q) + \sum_j \langle p | v_j | s \rangle Q_j \sum_i \frac{\omega_i}{2\omega_D} [\hat{P}_i^2; \xi(Q)]; \quad Q_i = q_i - q_{is}$$

where

$$\xi(Q) = \sqrt{2} \frac{1}{\sqrt{f(1+f)} \left(\epsilon_{sp}^2 + \sum_i \Delta_{isp} Q_i \right)}; \quad \epsilon_{sp} = \frac{E_s^0(q_s) - E_p^0(q_s)}{\hbar\omega_D} + \eta = \epsilon_{sp} + \eta;$$

$$f = \sqrt{1 + \frac{4}{(\hbar\omega_D)^2} \left(\frac{\sum_i v_{isp} Q_i}{\epsilon_{sp}^2 + \sum_i \Delta_{isp} Q_i} \right)^2} = \sqrt{1 + 4 \left(\frac{\sum_i v_{isp} Q_i}{E_s(q) - E_p(q) + \eta\hbar\omega_D} \right)^2};$$

$$E_s(q) - E_p(q) = \hbar\omega_D \left[\epsilon_{sp} + \sum_i \Delta_{isp} (q_i - q_{is}) \right].$$

Card 2/3

ACCESSION NR: AP4013535

S/0181/64/006/002/0636/0637

AUTHORS: Kovarskiy, V. A.; Sinyavskiy, E. P.

TITLE: The theory of nonradiative transitions in a "non Condon" approximation

SOURCE: Fizika tverdogo tela, v. 6, no. 2, 1964, 636-637

TOPIC TAGS: nonradiative transition, Condon approximation, non Condon approximation, thermal transition

ABSTRACT: Beginning with a relationship between the Condon approximation and the non-Condon approximation,

$$W_{\text{non-Cond.}}^a(1s \rightarrow 2p) = W_{\text{Cond.}}^a(1s \rightarrow 2p) F_{1a}(\theta),$$

the authors consider the function $F_{1a}(\theta)$ and the problem of determining the expanded functions of θ . Until recently it had not been possible to evaluate this, but computers can now be used. The authors have determined values for this function for different types of crystals. Deviations of the function $F_{1a}(\theta)$ from unity (on the lower side) are related to the fact that nonradiative transitions take place at low temperatures at points somewhat below the intersection of

Card 1/2

ACCESSION NR: APL013535

adiabatic potentials. Departure from the Condon approximation leads to deep traps of the second and third order. Regardless of the choice of model for a local center, the probability of nonradiative transitions in a non-Condon approximation will be about $(\omega_{ps}/\omega)^2$ times greater than the probability evaluated by the Condon approximation. Orig. art. has: 1 table and 8 formulas.

ASSOCIATION: Institut fiziki i matematiki AN Mold. SSR, Kishinev (Institute of Physics and Mathematics, AN Mold. SSR)

SUBMITTED: 09Aug63

DATE ACQ: 03Mar64

ENCL: 00

SUB CODE: EC, SS

NO REF SOV: 003

OTHER: 002

Card 2/2

ACCESSION NR: AP4019875

S/0181/64/006/003/0962/0964

AUTHOR: Kovarskiy, V. A.

TITLE: Retardation of the recombination rate of current carriers in a magnetic field

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 962-964

TOPIC TAGS: semiconductor band structure, impurity center, semiconductor conductivity, recombination, semiconductor carrier lifetime

ABSTRACT: From the phenomenological recombination theory of S. I. Pekar (Issledovaniya po elektronnoy teoriiya kristallov, GITTL, M., 1951), a "diffusion" approximation may be made, according to which the recombination factor of electrons at positively charged centers is determined through the diffusion coefficient. Since the diffusion changes in a magnetic field, it is important to determine how this change affects the lifetime of the carrier and, hence, the recombination rate of the electron bands. From the "diffusion" approximation, the author determines the lifetime of current carriers to be

Card 1/3

ACCESSION NR: AP4019875

new experimental method of determining low mobilities is thus provided. Orig. art. has: 11 formulas.

ASSOCIATION: Institut fiziki i matematiki AN Moldavskoy SSR (Institute of Physics and Mathematics, AN Moldavian SSR)

SUBMITTED: 07Oct63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: EG

NO REF SOV: 002

OTHER: 000

Card 3/3

ACCESSION NR: AP4041720

S/0181/64/006/007/2131/2145

AUTHORS: Kovarskiy, V. A.; Chaykovskiy, I. A.; Sinyavskiy, E. P.

TITLE: Quantum-kinetic equations for processes with nonradiative recombination

SOURCE: Fizika tverdogo tela, v. 6, no. 7, 1964, 2131-2145

TOPIC TAGS: recombination coefficient, quantum statistics, kinetic theory, phonon, polaron, nonradiative recombination

ABSTRACT: Several reasons for the inadequacy of the standard kinetic-equation formalism to non-optical transitions between discrete spectrum states are pointed out. The authors then propose to describe the processes accompanying multi-phonon nonradiative combination by means of a system of integral quantum-kinetic equations based on the formalism of the quantum density matrix, a formalism in which the quantum-mechanical and statistical calculation stages

Card 1/3

ACCESSION NR: AP4041720

are combined. The method used is essentially that of Kubo (J. Phys. Soc. Japan, v. 12, 570, 1957). A graph representation is obtained for the recombination coefficients with the aid of the technique of Konstantinov and Perel' (ZhETF v. 39, 197, 1960), modified by Lang and Firsov (ZhETF v. 43, 1843, 1962) to cover multi-phonon jumps in the case of low polaron mobility. The free relaxation of the band carriers, which are in quasi-equilibrium with the crystal lattice at the initial instant of time, is considered. A criterion is considered for the applicability of perturbation theory to the theory of multiphonon nonradiative transitions. "The authors thank Yu. A. Firsov and I. G. Lang for valuable information in connection with the computation procedure, and also A. I. Ansel'm and Yu. Ye. Perlin for a discussion of the calculation of the recombination coefficients." Orig. art. has: 5 figures and 76 formulas.

ASSOCIATION: Institut fiziki i matematiki AN MoldSSR, Kishinev (Insti-

Card 2/3

ACCESSION NR: AP4041720

tute of Physics and Mathematics, AN MolSSR)

SUBMITTED: 27Dec63

ENCL: 00

SUB CODE: GP

NR REF SOV: 009

OTHER: 002

Card 3/3

KOVARSKIY, V.A.; MOSKALENKO, V.A.

Thermodynamic theory of perturbation for a local center. Izv.
AN Mold. SSR no.5:47-59 '62. (MJRA 18:3)

I 5263-66 EWT(1) IJP(c)

ACC NR: AP5026410

SOURCE CODE: UR/0386/65/002/006/0286/0287

AUTHOR: Bersuker, I. B.; Kovarskiy, V. A.

ORG: Institute of Applied Physics, Academy of Sciences, Mold SSR (Institut prikladnoy fiziki Akademii nauk Moldavskoy SSR)

TITLE: On the possibility of an optical shift of the Mossbauer-spectrum lines

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 6, 1965, 286-287

TOPIC TAGS: Mossbauer effect, nuclear resonance, resonance absorption, line shift, optic pumping

ABSTRACT: The authors propose to use the Mossbauer spectra (MS) of γ -resonance nuclear absorption to investigate the excited states of the electron shell and to determine certain kinetic parameters of the system by measuring the change induced by sufficiently strong light in the spectrum of a source or an absorber of γ quanta in the optical excitation band. This can be done if the lifetime of the optically-excited state is much longer than the lifetime of the excited state of the nucleus, and the concentration of the Mossbauer centers affected by the optical excitation is comparable with or larger than the concentration of the centers not excited by

Card 1/2

L 5263-66
ACC NR: AP5026410

9

the light. These conditions are realized in a very large number of real systems. Of particular interest for the determination of the parameters of laser systems are cases in which optical population inversion can be realized. The displacement of the MS lines in the optical shift is determined by the same formula as the chemical shift. Additional important information can be obtained from the dependence of the intensity ratio of the shifted and fundamental MS lines on the illumination power. This dependence and the kinetic equation yield, for example, the probability of nonradiative transition between the electronic states. The authors are grateful to V. I. Gol'danskiy, Yu. Ye. Perlin, and Ye. F. Makarov for valuable discussion.

44,55 44,55 44,55 [02]

SUB CODE: NP, OP/ SUEM DATE: 24Jul65/ ORIG REF: 001/ ATD PRESS: 4/38

PC
Card 2/2

L 6329-66 EWT(1)/EPA(m)-2 IJP(c) AT

ACCESSION NR: AP5019871

UR/0181/65/007/008/2499/2504

AUTHOR: ^{44, 55} Kovarskiy, V. A.; ^{44, 55} Chaykovskiy, I. A.

TITLE: ^{21, 44, 55} Generation-recombination noise in a magnetic field ^{5 JEW}

SOURCE: ^{21, 44, 55} Fizika tverdogo tela, v. 7, no. 8, 1965, 2499-2504

TOPIC TAGS: ^{21, 44, 55} electron recombination, correlated noise, quantum oscillation, spectral distribution, autocorrelation function, strong magnetic field

ABSTRACT: This is a continuation of earlier work (Tez. dokl. VI coveshchaniya po teorii poluprovodnikov. Izd. "Kartya Moldovenyaske," Kishinev, 1964) dealing with singularities of carrier recombination in a quantized electric field. In the present article, the theory of quantum fluctuations developed by one of the authors (Kovarskiy, with Ye. V. Vitin, *ibid*; Izv. AN MSSR, ser. fiz. No. 12, 111, 1964) is applied to an investigation of the influence of the magnetic field on the frequency spectrum and the relative magnitude of the noise connected with carrier recombination and generation processes. By introducing an autocorrelation function for the quantum fluctuations and employing a diagram technique, the authors obtain an expression for the spectral density of the noise intensity. An analysis of the results shows that the noise level depends on the magnetic field. It is pointed out that there are still not enough data to determine the numerical parameters in the

Card 1/2

6902-0027

L 6329-66

ACCESSION NR: AP5019871

fluctuation spectrum. "The authors thank ^{40, 55} V. L. Gurevich for interest in the work and valuable discussions." Orig. art. has: 35 formulas. 6

ASSOCIATION: Institut prikladnoy fiziki AN MSSR, Kishinev (Institute of Applied Physics AN MSSR)

SUBMITTED: 18 Jan 65

ENCL: 00

SUB CODE: EM 44, 55

NR REF SOV: 005

OTHER: 002

HW
Card 2/2

L 6330-66 EWT(1)/EPA(w)-2/EWA(m)-2 IJP(c) AT

ACCESSION NR: AP5019872

UR/0181/65/007/008/2505/2512

AUTHOR: Kovarskiy, V. A.; Chaykovskiy, I. A.

TITLE: Recombination relaxation in a quantizing magnetic field

SOURCE: Fizika tverdogo tela, v. 7, no. 8, 1965, 2505-2512

TOPIC TAGS: strong magnetic field, carrier density, matrix function, electron recombination, relaxation process, phonon interaction, carrier lifetime

ABSTRACT: The density matrix method is used to investigate the recombination relaxation of carriers which are initially in a state of quasi-equilibrium with the crystal lattice. The calculation is based on the Fermi quasi-level method. The recombination mechanism is assumed to be a single-phonon (or single-photon) capture by local levels. It is established that the time constant depends on the magnetic field. An example in which the lifetime of the carriers is delayed by the quantizing magnetic field is presented. "The authors thank A. I. Ansel'm who called their attention to the possible singularities of recombination kinetics in a quantizing magnetic field, and V. L. Bonch-Bruyevich for a valuable discussion of the results." Orig. art. has: 1 figure and 43 formulas.

ASSOCIATION: Institut prikladnoy fiziki AN MSSR, Kishinev (Institute of Applied Physics AN MSSR)

Card 1/2

0902.0024

L 6330-66

ACCESSION NR: AP5019872

SUBMITTED: 18Jan65

ENCL: 00

SUB CODE: *NP*

NR REF SOV: 005

OTHER: 004

rw

Card 2/2

KOVARSKIY, V.A.

S-matrix method in the theory of radiationless transitions
in electronic shells of molecules. Part 2. Teoret. i eksper.
khim. I no. 5:683-687 S-0 '65 (MIRA 19:1)

1. Institut prikladnoy fiziki AN Moldavskoy SSR, Kishinev.
Submitted July 5, 1965.

BERGUR, I.B.; KOVACHIK, V.S.

Observability of optical displacement of lines of the M-atomer
spectrum. Dokl. v red. zhurnala, et. 1 tom, far. 3 no. 10 (1965)
S 105. (MIRA 18:12)

I. institut prikladnoy fiziki AN Moldavskoy SSR. Submitted
July 24, 1965.

KOVARSKIY, V.A.; SINIAVSKIY, E.P.

Theory of radiationless multiphonon transitions in the electronic shells of molecules. Teoret. i eksper. khim. 1 no. 5:633-641
S-0 '65 (MIRA 19:1)

1. Institut prikladnoy fiziki AN Moldavskoy SSR, Kishinev.
Submitted July 8. 1965.

L 31493-66 EWT(1)/T IJP(c)

ACC NR: AP6013022

SOURCE CODE: UR/0051/66/020/004/0657/0660

AUTHOR: Perlin, Yu. Ye.; Kovarskiy, V. A.; Tsukerblat, B. S.

50

ORG: none

B

TITLE: Contribution to the theory of many-phonon nonradiative transitions between local states of different multiplicity. I.

SOURCE: Optika i spektroskopiya, v. 20, no. 4, 1966, 657-660

TOPIC TAGS: nonradiative transition, spin orbit interaction, phonon interaction, electron interaction, *SPIN SYSTEM*

ABSTRACT: The authors analyze many-phonon nonradiative transitions between levels of different multiplicity within the framework of the adiabatic approximation. The electron-phonon interaction is assumed to be small compared with the spin-orbit interaction, and the non-adiabaticity operator is treated as the perturbation, using a method described by the authors elsewhere (FTT v. 4, 1936, 1962; Usp, fiz. nauk v. 80, 553, 1963). Possible mechanisms of many-phonon transitions are discussed, and a general formula is obtained for the probability of nonradiative transition with spin flip due to the spin-orbit interaction. The upper limiting case, when the spin-orbit interaction is small compared with the electron-

Card 1/2

UDC: 535.330: 548.0

L 31493-66

ACC NR: AP6013022

phonon interaction is considered in detail. The matrix element for the spin-orbit interaction is then regarded as the perturbation. Different expressions for the nonradiative transition are then obtained, depending on whether the electronic part of the matrix element of this transition vanishes or not. Orig. art. has: 17 formulas.

SUB CODE: 20/ SUBM DATE: 14Dec64/ ORIG REF: 004/ OTH REF: 002

Card 2/2 mc

L 3330-66 EWT(1) IJP(c) AT

ACC NR: AR6017245

SOURCE CODE: UR/0058/65/000/012/DO39/DO39

AUTHOR: Kovarskiy, V. A.

55

B

TITLE: Magneto-oscillatory effect on local centers of crystals

SOURCE: Ref. zh. Fizika, Abs. 12D327

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 412-419

TOPIC TAGS: photoelectric effect, light polarization, magnetic effect, oscillation, optic center

ABSTRACT: The possibility is considered of oscillation of the photoelectric absorption coefficient of polarized light by local centers of a crystal in a strong magnetic field. The experimental observation of the effect at low temperatures is determined by the minimum concentration of the local centers at which a distinct measurement of the absorption coefficient is possible, but the impurity scattering of the band electrons still does not destroy the Landau level structure. Conditions of observing the effect in several crystals are discussed.

SUB CODE: 20

Card 1/1

L 38503-66 ENT(1)/T IJP(c) AT

ACC NR: AR6019906

SOURCE CODE: UR/0275/66/000/002/B002/B002

48
B

AUTHOR: Kovarskiy, V. A.; Vitlu, Ye. V.

TITLE: The theory of generation-recombination fluctuations in semi-conductors

SOURCE: Ref zh. Elektronika i yeye primeneniye, Abs. 2B15

REF SOURCE: Bul. Akad. Shtiintse RSS Mold., Izv. AN MoldSSR. Ser. fiz.-tekhn. i matem. n., no. 12, 1964, 44-50

TOPIC TAGS: semiconductor, semiconductor carrier, noise generation
~~recombination noise, semiconductor noise~~

ABSTRACT: The authors develop a theory of the spectral density of generation-recombination noise in semiconductors in the case of a single-phonon mechanism of the capture of a charge carrier by an impurity center and the ejection of the charge carrier from the impurity center into the band. [Translation of abstract] [KP]

SUB CODE: 20/ SUBM DATE: none/

Card 1/1 pb

ACC NR: AT6024011

SOURCE CODE: UR/0000/65/000/000/0041/0056

AUTHOR: Vitiu, Ye. V.; Kovarskiy, V. A.; Sinavskiy, E. P.

ORG: none

TITLE: Quantum kinetic equations for processes with multiphonon transitions. The Green's function method

SOURCE: AN MoldSSR. Institut prikladnoy fiziki. Teoreticheskiye i eksperimental'nyye issledovaniya fizicheskikh svoystv poluprovodnikovoykh materialov i drugikh kristallov (Theoretical and experimental studies on physical properties of semiconductor materials and other crystals). Kishinev, Izd-vo Kartya Moldovenyashke, 1965, 41-56

TOPIC TAGS: quantum statistics, Green function, kinetic equation, recombination coefficient, carrier scattering

ABSTRACT: The purpose of the investigation was to develop the formalism of quantum kinetic equations in the variant using retarded and advanced Green's functions and thereby combine the statistical and quantum mechanical aspects of the calculations. The analysis is limited to static fields. The tensor of the electric conductivity in a static electric field is determined by the method of R. Kubo (Journ. Phys. Soc. Japan v. 12, 6, 570, 1957) in a variant in which the current correlation is expressed in terms of the retarded and advanced Green's functions. A system of integral quantum kinetic equations is derived, describing the scattering processes with account of the recombination mechanism of collision between the carriers and the impurities. One of

Card 1/2

ACC NR: AT6024011

the equations is the quantum analog of the Boltzmann equation, and the other describes processes of capture and emission of electrons by the local levels. By way of an example, the authors consider the recombination mechanism of impurity scattering, when the carrier lifetimes are comparable with the relaxation lifetimes determined by the ordinary scattering mechanisms. The recombination coefficient obtained as a result of the quantum-statistical calculation corresponds exactly to the estimates of the "non-Condon" approximation for the probability of nonradiative transition. The calculation shows that for experimental observation of the recombination scattering mechanism it is necessary to have a high concentration of ionized donors, and the donor degeneracy multiplicity should be high. At low temperatures the mobility determined by the recombination scattering mechanism should not depend on the temperature. The authors thank V. L. Bonch-Bruyevich, D. N. Zubarev, A. I. Kasiyan, and N. M. Plakida for valuable remarks made during various stages of this work. Orig. art. has: 65 formulas.

SUB CODE: 20/ SUBM DATE: 25Jul65/ ORIG REF: 011/ OTH REF: 006

Card 2/2

L 2211-66 EWT(1)/EWT(m)/EWP(1)/T/EWP(t)/EWP(b)/EWA(h) IJP(c) JD/AT

ACCESSION NR: AF5017347

UR/01B1/65/007/007/2264/2265

AUTHOR: Kovarskiy, V. Ya.; Shinko, V. I.

48
39
B

TITLE: Measurement of the distribution of potential in epitaxial p-n structures by the moving-light-spot method

SOURCE: Fizika tverdogo tela, v. 7, no. 7, 1965, 2264-2265

TOPIC TAGS: pn junction, epitaxial growing, electric potential

ABSTRACT: The authors propose a simple procedure for determining the depth of an epitaxial p-n junction and its potential structure, by using the moving-light-spot method.

ABSTRACT: The authors propose a simple procedure for determining the depth of an epitaxial p-n junction and its potential structure, by using the moving-light-spot method (G. Adam, Physica v. 20, 1037, 1954). The measurement technique is described briefly. The measurements were made on silicon epitaxial layers grown by the chloride method on substrates of silicon of opposite type of conductivity. The layers were 10--50 μ thick. The potential distribution in the film was obtained by measuring the dependence of the amplitude of the photo-response on the collector as a function of the inverse bias applied between the collector and a ring electrode. The depth of the epitaxial layer could be determined without a ring contact by plotting the amplitude of the collector photo-response as a function of the voltage applied between the collector and the substrate. The procedure was verified for several samples and yielded satisfactory agreement with results ob-

Card 1/2

L 2211-66

ACCESSION NR: AP5017347

tained with an electron microscope. "The authors thank K. I. Britsyn for continuous interest in the work, Ye. A. Antonova for supplying the samples, and L. A. Panin for the electron-microscope measurements." Orig. art. has: 2 figures and 1 formula. 4,55 9

ASSOCIATION: ions

SUBMITTED: 10/14/65

NR REF SOV: 001

ENCL: 00

SUB CODE: 88

OTHER: 005

Cord 2/2 DP

L 4074-66 EWT(m)/EWP(i)/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AP5025395

UR/0181/65/007/010/3106/3108

AUTHOR: Kovarskiy, V. Ya.; Shimko, V. I.

TITLE: Controlled generation of relaxation oscillations in n-type epitaxial silicon with a point contact

SOURCE: Fizika tverdogo tela, v. 7, no. 10, 1965, 3106-3108

TOPIC TAGS: silicon semiconductor, epitaxial growing, photosensitivity

ABSTRACT: Generation of relaxation oscillations is studied in a point contact on epitaxial layers of n-silicon grown by the chloride method on a p-silicon substrate. Epitaxial layers 15-30 μ in thickness were used with resistivities of 0.1 and 4.5 Ω·cm, that of the substrate being 7.5 Ω·cm. Vacuum vaporization was used for applying a ring-shaped ohmic contact (Au + 1% Sb) to the surface of the epitaxial film. The point contact—an electrolytically sharpened tungsten needle—was located in the central orifice of the ohmic contact. Current oscillations were generated on the negative section of the reverse branch of the current-voltage curve for the point contact. The frequency, amplitude, and shape of the oscillations remained constant in spite of variations in the load resistance and disconnection of the intermediate

Card 1/3

36
33
B
27

L 4074-66

ACCESSION NR: AP5025395

3

amplifier. In studying the nature of the generation process, provision was made for stabilizing generation and controlling the generated oscillations by bias of the film-substrate potential barrier. Back bias voltage was applied between the substrate and the ohmic contact and the signal was taken off from a load connected between the point contact and the p-silicon. Thus, the critical voltage necessary for generation could be maintained automatically. The pulse duration could be varied from several dozen to a few μsec by varying the bias voltage in the 5-20 and 17-50 volt ranges for layers with resistivities of 0.01 and 4.5 $\Omega\cdot\text{cm}$ respectively. The threshold voltage for emission was reduced by white-light illumination on the surface of the epitaxial layer. At a certain maximum light intensity, the oscillations were cut off. A relationship was observed between the period of the oscillations and the energy of the incident radiation. The generation of relaxation oscillations in epitaxial silicon is attributed to excitation of impurity centers which reduces the surface potential barrier of the point contact with subsequent capture of current carriers by surface states and a resultant increase in the potential barrier. The density of the surface states in the vicinity of the point contact was found to be of the order of 10^{14} cm^{-2} from measurements of the oscillation period as a function of the external capacitance connected to the point junction. "In conclusion, the authors are grateful to K. I. Britsyn for constant interest in the work." Orig. art. has: 2 figures. 44.55 [14]

Card 2/3

L 4074-66

ACCESSION NR: AP5025395

ASSOCIATION: none

SUBMITTED: 28Apr65

NO REF SOV: 003

ENCL: 00

OTHER: 002

SUB CODE: SS

ATD PRESS: 4/27

BVK
Card 3/3

FREYDLIN, S.Ya., prof.; KOVARSKIY Ya.M., arkhitekotor (Leningrad)

Some problems in construction of medical institutions. Zdrav.
Ros. Feder. J no.11:26-29 N '61. (MIRA 14:10)
(HOSPITALS--CONSTRUCTION)

KOVARSKIY, YE.M.

USSR/Electricity - Literature

Jun 51

"Review of I. M. Plotrovskiy and Ye. A. Pal's Book 'The Testing of Electric Machines, Part I - General, and The Testing of DC Machines,'" Ye. M. Kovarskiy, N. I. Murkes, A. A. Stupin, Engineers, Sci Res Inst, Min of Elec Ind USSR

"Elektrichestvo" No 6, pp 89, 90

Reviewers consider recommendation of this book by the Min of Higher Educ as a manual for power engineering and elec engineering institutes a mistake in view of its many shortcomings, particularly the fact that only about 1/3 of the

200725

USSR/Electricity - Literature
(Contd)

Jun 51

book's vol has a real bearing on the testing of machines. Published by Gosenergoizdat, 1949, 380 pp, R 14.00.

200725

BOVANSKIY, Ye.M.; SAPAROVA, A.L., redaktor; LARIONOV, G.Ye, tekhnicheskiy
redaktor

[Electric machinery repair] Remont elektricheskikh mashin. Moskva,
Gos. energ. izd-vo, 1953. 240 p. [Microfilm] (MLRA 7:10)
(Electric machinery--Repairing)

KOVARSKIY, Ye. M.

AUTHOR: Kovarskiy, Ye. M., Engineer:

110-12-10/19

TITLE: On the Minimum Weight of a Power-saturating Choke (O minimal'nom vese silovogo drosselya nasyshcheniya)

PERIODICAL: Vestnik Elektropromyshlennosti, 1957, Vol.28, No.12, pp. 31 - 36 (USSR).

ABSTRACT: For purposes of automatic control, it is of interest to control an induction motor by means of a saturating choke in the stator circuit. The power characteristics of this arrangement depend mainly on the losses in the rotor of the motor, which can easily be calculated. However, the weight of the equipment is very largely governed by the weight of the saturating choke. This article gives particular values of the minimum weight of choke depending on its rated power and amplification factor.

The weight of the choke is primarily governed by the electromagnetic load on the active materials in it, and in particular by the current density in the working windings. The weight also depends on the dimensions and area of the core window and on other factors, which are enumerated. One important factor is the value of the amplification required and since this can vary widely, the author introduces a concept of a choke of minimum weight in which the current density in the operating and

Card 1/3

On the Minimum Weight of a Power-saturating Choke

110-12-10/19

control windings are equal and limited by heating and, therefore, the amplification factor is a minimum. In designing a choke, the ratio of the ampere-turns on the d.c. and a.c. windings is important and depends on the desired voltage ratio. Complicated analytical methods of calculating this ampere-turns ratio exist but it is better to use experimentally determined ratios. In the manufacture of chokes it is advantageous to use material with a high induction at saturation, such as cold-rolled transformer steel rather than alloys of the permalloy type. A mathematical expression is given for the magnetisation curve in order to analyse the influence of different factors on the weight of the choke. Expressions are then derived for the conditions governing the weight of the choke and its minimisation. Detailed consideration is given in turn to: the section of the core; the weight of copper of one working winding; the best window area and also certain factors that enter into the calculation. Expressions are derived that can be used to find the minimum weight with chokes of different constructions illustrated in Fig.1. The curves that relate the weight to the window area, the window shape and the shape of the cross-section of the core are very flat. Values of these ratios and other design factors are tabulated for various core constructions but these are intended only as a rough guide

Card2/3

KOVARSKIY, Ye.M., Cand Tech Sci--(diss) "Inductive strength and weight of the throttle of saturation in ~~the~~ devices of a throttle electric drive." Mos, 1958. 16 pp (Sci Res Inst ^{the} of ^{Electrical} Engineering Industry), 100 copies (MI, 25-58, 113)

-100-

KOVARSKIY, YEFIM MIKHAYLOVICH

PHASE I BOOK EXPLOITATION

877

Kovarskiy, Yefim Mikhaylovich

Remont elektricheskikh mashin (Repair of Electric Machines) Moscow, Gosenergoizdat, 1958. 255 p. 40,000 copies printed.

Ed.: Aleksandrovskiy, B. B.; Tech. Ed.: Larionov, G. Ye.

PURPOSE: This book is intended for fitters, mechanics, winders and technicians engaged in the overhaul and repair of electric machines.

COVERAGE: The author describes the techniques employed in the repair of d-c and a-c electric machines, the testing of repaired machines and the detection of faults. He also supplies information and data on materials, instruments and equipment employed in such repair. No personalities are mentioned. There are 12 references, all Soviet.

TABLE OF CONTENTS:

Preface	3
Introduction	7
Card 1/5	

Repair of Electric Machines

877

Ch. 1. Dismantling and Assembly of Electric Machines	29
1. Dismantling of medium-size machines	29
2. Dismantling of large machines	34
3. Assembly of repaired machines	40
Ch. 2. Basic Information on Insulation	44
1. General information	44
2. Winding wires	52
3. Varnished cambrics	56
4. Pressboard. Bounded pressboard	58
5. Tapes	58
6. Micanites	59
Ch. 3. Repair of Stator Coil Windings of A-C Machines	63
1. Windings of a-c machines	63
2. Winding pitch	64
3. Three-phase winding	66
4. Number of slots per pole-phase; pole winding group	66
5. Fractional slot winding	71
6. Types of windings	71

Card 2/6

Repair of Electric Machines

877

7.	Simplified representation of winding circuits	75
8.	Connection of winding phases	76
9.	Windings of variable-speed induction squirrel-cage motors	77
10.	Windings of single-phase induction motors	79
11.	Calculation of number of turns and wire gage	80
12.	Winding faults and their detection	83
13.	Winding methods	89
14.	Random winding	90
15.	Pulled-through winding	96
16.	Former winding	103
Ch. 4.	Repair of Stator and Rotor Windings. Repair of Excitation Windings	116
1.	Armature windings	116
2.	Detection of winding faults	126
3.	Preparation of armature coils	130
4.	Armature marking	130
5.	Packing of coils into slots	132
6.	Soldering of windings, commutators and armature bindings	135
7.	Repair of rotor windings	139

Card 3/6

Repair of Electric Machines

877

8. Repair of armature bindings	145
9. Repair of excitation windings	149
Ch. 5. Drying and Impregnation of Windings	154
1. Resistance standards of machine insulation	154
2. Drying by hot air method	155
3. Drying by electric current	155
4. Drying temperature	157
5. Drying time and control	158
6. Impregnation of windings	158
7. Varnishes	161
8. Drying and impregnation data	166
9. Drying ovens	170
10. Compound filling [bituminization] and vacuum-drying	172
Ch. 6. Repair of Commutators and Brush Holders	175
1. Commutation	175
2. Commutator structure	180
3. Preparation of commutator segments	182
4. Segments assembly	183
Card 4/6	

877

Repair of Electric Machines	186
5. Commutator assembly	188
6. Commutator insulation	188
7. Commutator faults and types of repair	196
8. Repair of ring commutator (contact slip rings)	198
9. Repair of brush holders	201
Ch. 7. Repair of Mechanical Parts	201
1. Repair of armature and rotor cores	205
2. Shaft repair	207
3. Repair of frames and end-shield bearing brackets	208
4. Repair of friction bearings	212
5. Repair of antifriction bearings	213
6. Balancing of rotors	220
Ch. 8. Testing of Electric Machines	220
1. Types of tests	221
2. Insulation resistance test	222
3. Measurement of winding resistance	225
4. Checking of coil-end markings	228
5. Determination of transformation coefficient	

Card 5/6

Repair of Electric Machines

877

6. No-load test	228
7. High-speed test	230
8. Test of insulation between winding coils	230
9. Short-circuit test	231
10. Test for heating	233
11. Test of insulation electrical strength	240
12. Testing of parts	243
13. Determination of rated data of an induction motor	244

Bibliography

246

Appendices

247

AVAILABLE: Library of Congress (TK2189.K62 1958)

JP/aak
11-24-58

Card 6/6

KOVARSKIY, Ye.M.

AUTHOR: Kovarskiy, Ye.M., Engineer

110-4-7/25

TITLE: The Reactive Power of an Electric Drive that is Controlled by a Reactor (Reaktivnaya moshchnost' reguliruyemogo drossel'nogo elektroprivoda)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, No. 4, pp. 21 - 26 (USSR).

ABSTRACT: Electrical drives in which an induction motor is controlled by a saturating choke in the stator circuit are important, for example in lifting-devices used in atomic power equipment. The governing factor in this drive is the reactive power of the saturating choke. It is of considerable practical interest to derive the general relationships that determine the required reactive power and to devise a design procedure for it. This is the object of the present article. From the simple equivalent circuit given in Fig.1A, a relationship is established between the working characteristics of the motor and the relative reactive power of the system. This gives a very convenient method of calculating the relationship between the power on the shaft and the reactive power of the system. Simplifications, by using other equivalent circuits given in Fig.1, are then considered and data are worked out for the high-slip motor type AOC. An expression is also derived to relate

Card1/3

110-4-7/25

The Reactive Power of an Electric Drive that is Controlled by a Reactor

the rated power to that actually developed. Analysis shows that there is an optimum minimum slip at which the current required by the drive is a minimum. Fig. 2 gives the optima for three load characteristics. The value of the optimum slip depends very much on the rotor resistance, which, in some motors, may change with the square root of the slip.

Calculations may then be made of the reactor power needed for the desired speed regulation. Results of the calculation, given in Figs. 3, 4 and 5, show that the necessary reactive powers are very great even when they are at the least value corresponding to optimum slip. The question therefore arises of reducing the power required in the reactor.

There are two ways of doing this. By altering the rotor resistance in proportion to the square root of the slip, the power required in the reactor is considerably reduced for almost all load characteristics. The data given about the reactor power show that as the power of the drive is increased, the use of combined regulation is unavoidable, although it entails switching equipment and a sliding contact. Figs. 6, 7 and 8 give current curves for combined resistance and reactor control applied to

Card 2/3

Card 3/3

AUTHOR: Ambartsumov, T.G., (Cand.Tech.Sci.); Kovarskiy, E.M. (Engineer)
and Gershkovich, G.I. (Engineer). ^{89V/110-58-10-1/24}

TITLE: The possibility of increasing the permissible current-density under brushes. (O vozmozhnosti povysheniya dopustimoy plotnosti toka pod shchetkami)

PERIODICAL: Vestnik Elektromyshlennosti, 1958, ^{2A}No.10, pp. 17-19. (USSR)

ABSTRACT: A number of tests were made on d.c. electric motors of ratings up to 20 kW to determine the influence of brush current-density on brushwear, brush and commutator heating and commutating conditions. The peripheral speed of the commutator was up to 21.3 m/sec, the specific pressure on the brushes was maintained at 270-300 g/cm², and the current-density in the brushes was raised to double the standard value given in GOST 2332-43. The results of long-term wear tests on electro-graphite brushes for four different motors are tabulated. The relationships between brush wear and service life for the same four motors is given in Fig.1. There was little variation in the degree of sparking and stability of commutation as compared with normal current-densities. In some cases commutation conditions were even improved, as shown in Fig.3 which gives curves for a 16 kW, 3000 r.p.m. motor using various brush sections. Increased brush current-density had little effect on brush or commutator temperatures. It is, therefore, considered that higher current-densities than those included in standard

Card 1/2

SOV/110-58-10-4/24

The possibility of increasing the permissible current-density under brushes.

GOST-2332-43 could be used for d.c. machines with normal conditions of commutation. New standards of permissible current-density in brushes should be drawn up. If this is done, brush-gear can be simplified and made lighter. There are 3 figures and 1 table.

SUBMITTED: April 17, 1958.

1. Carbon brushes--Performance
2. Carbon brushes--Test methods
3. Carbon brushes--Electrical factors
4. Electric currents--Thermal effects

Card 2/2

KOVARSKIY, Yefim Mikhaylovich; TIMOKHINA, V.I., red.; LARIONOV, G.Ye.,
tekhn.red.

[Repair of electric machinery] Remont elektricheskikh mashin.
Izd.4., peresmotrennoe i dop. Moskva, Gos.energ.izd-vo, 1960.
262 p. (MIRA 13:5)
(Electric machinery--Maintenance and repair)

KOVARSKIY, YE. M.

Vsesoyuznyy ob'edineniyemye sverkhbaniya po avtomatizatsii proizvodstvennykh professoren v mashinostroyenii i avtomatizirovannom elektropriem v promyshlennosti. M., Moscow, 1979

Elektrifitsirovaniye avtomatizatsii promyshlennyykh ustanovok: trudы sverkhbaniya (Elektrifitsirovaniye avtomatizatsii v industriyalnykh sistemakh) (Moscow, Gostekhnizdat, 1960. 470 p., 11,000 copies printed).

General Eds.: I. I. Petrov, A. A. Sirovkin, and M. G. Chilikhin; Eds.: I. I. Sed, and K. F. Slagovoy; Tech. Eds.: K. F. Voronin, and G. Ye. Larionov.

PREFACE: The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

CONTENTS: The book is a collection of reports submitted by scientific workers at plants, scientific institutes and schools of higher education at the 1978-1979 All-Union Conference on the Automation of Industrial Processes in Machine Building and Automated Electric Drives in Industry held in Moscow on Dec. 10-13, 1979. The Conference was called by the Academy of Sciences USSR, the Gosplan USSR (State Planning Commission USSR), the USSR SSSR, the Gosstatizyuzhnyy Komitet po avtomatizatsii i mashinostroyeniyu (State Committee on Automation and Machine Building) and the Nationalnyy Nauchnyy Tsentr po avtomatizatsii i mashinostroyeniyu (USSR National Committee on Automation and Machine Building) (USSR National Committee on Automation and Machine Building) and Technical Committee on Automation (USSR National Committee on Automation and Machine Building) of the Academy of Sciences USSR, and the Komitet po tekhnologii mashinostroyeniya (USSR State Scientific Center for Machine Building Technology) of the Academy of Sciences USSR. It was the purpose of the Editorial Board to arrange the reports in a way which would ensure a relatively systematic presentation of theoretical and practical problems relating to electric drives and automatic control of automated electric drives used in various branches of industry. Particular attention is paid to non-traditional methods of control of industrial systems with semiconductor devices and microcomputers and to computers intended both for the analysis and the control of linear and nonlinear automatic regulation and control systems. Reports already published in journals or official publications have been considered only abstractly; those which have appeared in volume V of STI or translations or in the journal "Mashinostroyeniye" are marked with an asterisk. 50 percentilities are mentioned.

References accompany some of the papers.

PART I. GENERAL PROBLEMS CONCERNING THE THEORY AND PRACTICE OF ELECTRIC DRIVES AND AUTOMATION OF CONTROL

Stakhovskiy, O. V., Candidate of Technical Sciences. **Automatic Control Systems of Inverting D-C Drives** 87

Shchegolev, V. M., Doctor of Technical Sciences, T. N. Lebedevskiy, A. A. Kozlov, and Ye. M. Kovarskiy. **Control of Inverting D-C Drives with a Self-Excited Inverter and Thyristor Rectifier Regulation of a Certain Class of D-C Drives** 95

Slagovoy, K. F., Candidate of Technical Sciences. **Present State and Prospects of the Development of Electronically Controlled Electric Drives*** 104

Gulikhin, M. G., and D. P. Morozov, Professors, Doctors of Technical Sciences, and I. M. Yevshin, Candidate of Technical Sciences. **Pulse Regulation of D-C Motor Speed** 110

Shorshenko, G. I., and V. A. Labunovoy, Doctors, Candidates of Technical Sciences, and T. M. Korotkiy, V. V. Zozov, Engineers. **Electronic Frequency Changers for the Supply of Induction Motors** 116

Kozlov, D. P., and M. G. Chilikhin, Professors, Doctors of Technical Sciences. **Control of Inverting D-C Drives with a Semiconductor Pulse Rectifier** 127

Slagovoy, K. F., Candidate of Technical Sciences. **Pulse Control and Regulation of Electric Machine Excitation by Means of Electronic Converters** 118

Slagovoy, V. F., Engineer. **Tube Converter-Inverter with a Wide Range of Secondary Frequency Regulation** 122

Korotkiy, V. V., Engineer. **Contact Semiconductor Converter for Gas-Tube Controlled Drives** 125

Slagovoy, K. F., Engineer. **Frequency Control of a Motor** 130

Slagovoy, K. F., Engineer. **D-C Drive with a Semiconductor Pulse Rectifier** 130

Slagovoy, K. F., Doctor, Candidate of Technical Sciences, V. M. Zozov, Candidate of Technical Sciences, and A. V. Sidorovskiy, Engineer. **Field of Application of Induction Electric Drives with Saturable Reactors** 133

Lyubarskiy, A. M., Engineer. **Adjustable Electric Drive with Negative Amplifiers** 138

Slagovoy, K. F., Engineer. **Methods of Calculating Characteristics of D-C Drive With Reactor Control** 141

KOVARSKIY, Yefim Mikhaylovich; RYZHIKHINA, Ye.G., red.; LARIONOV,
G.Ye., tekhn. red.

[Repair of electrical machinery] Remont elektricheskikh mashin.
Izd.5., peresm. i dop. Moskva, Gosenergoizdat, 1962. 287 p.
(MIRA 15:11)

(Electric Machinery--Maintenance and repair)

KOVARY, Istvan, dr., full-, orr-, gegervos, fogorvos volt egyetemi
klinikai tanarseged, foorvos.

Intracranial and mediastinal complications of abscesses and phlegmons
of the face with special reference to the border forms. Fogorv.
szemle 47 no.11:353-358 Nov 54.

(FACE, abscess
causing intracranial & mediastinal compl.)

(FACE, dis.
phlegmon, causing intracranial & mediastinal compl.)

(ABSCESS
face, causing intracranial & mediastinal compl.)

(PHLEGMON
face, causing intracranial & mediastinal compl.)

KOVARY, Istvan, dr.

Improved forehead mirror. Fulorrgegyogyaszat 8 no.4:190-192 D '62.

1. A Budapesti Varkeruleti (I) Rendelointezet Ful-orr-gegeosztalyanak
(Foorvos: Kovory Istvan dr.) kozlemenye.
(OTORHINOLARYNGOLOGY)

KOVARY, J.

Thecamobans (Testaceans) of the Inferior Pannonian
sediments in Hungary. p. 266. FOLDTANI KOZLONY. BULLETIN
OF THE HUNGARIAN GEOLOGICAL SOCIETY. (Magyar Foldtani
Tarsulat) Budapest. Vol. 86, no. 3, July/Aug. 1956.

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 5, No. 12, December 1955.

KOVÁRY S
EXCERPTA MEDICA Sec.14 Vol.11/3 Radiology Mar 57.

551. KÖVÁRY S. Budapest. *Mit Radiumspickung und Coutardscher Röntgenbestrahlung geheilter Fall von symmetrisch-beidseitigem Sarkom des harten Gaumens. A case of symmetrical bilateral sarcoma of the hard palate cured with radium needles and Coutard's X-irradiation ÖST. Z. STOMATOL. 1956, 53/5 (254-256) Illus. 2
Case report of a bilateral giant cell sarcoma in the hard palate, treated merely by a radium implant and fractionated X-ray therapy, with a 5 years' tumour free survival.

Lokkerbol - Amsterdam (XIV, 5, 16)

Kovarzh, J.

CHECHO-SLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19193.

Author : Lukesh, Kovarzh, Dlaha, Kloubek

Inst :

Title : 2 Pyperideines. V. Synthesis N-methyl-2-phenacyl-piperidine.

Orig Pub: Chem. Listy, 1956, 50, No 2, 278-281. Sb. Chekhosl. Khim. Rabot, 1956, 21, No 5, 1324-1327.

Abstract: Since the δ -methylaminovaleric aldehyde (I), obtained before as a dimethylacetal (II) (see part IV), presents seemingly, the initial product of the alkaloid sedamine [(product of reduction N-methyl-2-phenacylpiperidine (III)], the condensation of I in physiological conditions with benzoylactic acid (IV), which leads to III, is studied. I is isolated from II by titration with IN HCl.

Card : 1/3

CZECHOSLOVAKIA

KOVARU, F.; PILKA, J.; Chair of Physiology, Veterinary Faculty, College of Agriculture (Katedra Fysiologie Veterinarni Fakulty VSZ), Brno.

"Development of Calves Weaned on the 3rd Day of Life and Maintained on Milk-Free Diet After the 22nd Day of Life. IV. Consumption of Milk and Vegetable Fats in the First 60 Days of Life."

Prague, Czechoslovenska Fysiologie, Vol 15, No 5, Sep 66, p 381

Abstract: Absolute and relative amount of fats in total food supply was studied on 12 calves. The absolute consumption of milk fats in the first 21 days was 1200 g, and of vegetable fats 2500g in 60 days; total per calf 3700 g. The relative consumption was 1.24 g / kg of body weight per day. On the third day the fats accounted for 51.4% of total food intake, on the 15th day 6.6%, and after the 22nd day 14.0%. 1 Czech reference. Submitted at 3 Days of Physiology of Domestic Animals at Liblice, 9 Dec 65.

1/1

Abstract: With the purpose of utilizing for the synthesis of amino acids in conditions, close to the nature, synthesized were dimethylacetal - aminovalerianic aldehyde (I) and dimethylacetal of δ -methylaminovalerianic aldehyde (II).

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825620015-2
I is obtained from the methyl ester of the semialdehyde of glutaric acid (III) by means of aldimine, the methyl ester of semialdehyde of glutaric acid (IV). II is obtained by the reduction of dimethylacetamide (V) and dimethylacetalmethylamido of the semialdehyde of glu-

Card : 1/7

CHECHO-SLOVAKIA/Organic Chemistry, Synthotic Organic Chemistry. E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19192

From the acid VII is obtained its methyl ester via the chloranhydride, yield 146 g. b.p. 43.5-44.5°/11 mm. IV is obtained: a) by the ozonization of the methyl ester of acid VII (50g.) in a medium of methylacetate (400 cc) at 0° in the course of 75 hours, catalytic reduction of ozonide solution over 4% Pd/BaSO₄ (1g.) at a temperature lower than 0, distillation of the solvent, boiling the remainder with CH₃OH (230 cc), CaCl₂ (10 g.), and with a saturated methanol solution of HCl (5 cc) in the course of 5 hours, subsequent neutralization, extraction with ether, and distillation in vacuum in a column, yield is IV (contains 30% dimethyl ester of glutaric acid (XI)) 41%, b.p. 96-97°/11 mm, n^{18D} 1.4230, d₂₀²⁰ 1.0423; b) catalytic reduction of VIII (100 g.) in a xylene medium (400 cc) with 4% Pd/BaSO₄ (5g.) at 140° and distillation in vacuum III is obtained (53 g. b.p. 100-130°/26 mm); from

Card : 3/7

CHECHO-SLOVAKIA/Organic Chemistry, Synthotic Organic Chemistry. E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19192

III accord. to the method , IV is obtained (contains 27-29% XI), yield 45%, b.p. 105-105.5°/16 mm. X is obtained from the ethyl ester of the semichloranhydride of glutaric acid (35.2 g.) by catalytic reduction with a 4% Pd/BaSO₄, (5g.) in xylene, fractional distillation, heating 12.3 g. of the fraction with the b.p. 94-96°/14.5 mm in an absolute alcohol (25 cc) medium with alcohol; HCl(gas) (3cc) in the course of 3 hours, subsequent distillation in vacuum X (containing an admixture of diester), b.p. 124.5-125.5°/17 mm, n^{20D} 1.4200, d₂₀²⁰ 0.9822; n-nitrophenylhydrazono, m.p. 118-119° (from aqueous alcohol). V is obtained by heating IV (10 g.) in CH₃OH (300 cc), saturated NH₃, to 100° in the course of 56 hours in an autoclave, distillation of the solvent, extracting with C₆H₆ and precipitation with petroleum ether, yield 75.3%, m.p. 75° (from benzene - petroleum ether). VI is obtained

Card : 4/7

CHECHO-SLOVAKIA/Organic Chemistry: Synthtic Organic Chemistry.

E-2

Abs Jour: Ref Zhuz-Khimiya, No 6, 1957, 19192

duction by means of LiAlH_4 (2g.) in tetrahydrofurane, by boiling for 6 hours, yield 48%, b.p. 76-82°/10 mm. Part III see RZhkhim. 1956, 16075.

Card : 7/7

24,6810

S/139/597000/06/021/034
69163
EO32/E114

AUTHORS: Kruglov, S.P., Kovarzh, Z., and Lopatin, I.V.
TITLE: Relation between the Roentgen and the Energy of Gamma Radiation Incident per Square Centimetre

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1959, Nr 6, pp 139-144 (USSR)

ABSTRACT: It is usual at the present time to express the intensity of gamma radiation obtained from accelerators in energy units such as w/cm^2 or $MeV/cm^2 \cdot sec$. However, frequently another unit is used, namely, roentgen/min. On the other hand, it is well known that the roentgen loses its significance as a unit above 3 MeV. The present authors have used the calorimetric method to establish the connection between the roentgen and the energy in MeV/cm^2 for $E_{max} = 45, 65$ and 85 MeV. The gamma rays were produced by the synchrotron of the Leningrad Physico-Technical Institute of the Academy of Sciences, USSR. The experimental arrangement is shown in Fig 1, in which T is the synchrotron target, 3 is a lead screen, K is a collimator, M is an ionization chamber monitor, $M\Gamma$ is a clearing magnet, $K\Lambda$ is the

Card
1/4

69263

S/139/59/000/06/021/034
E032/E114

Relation between the Roentgen and the Energy of Gamma Radiation Incident per Square Centimetre

calorimeter, CT is an adjustable calorimeter table, C is the standard ionization chamber (13 mm copper front wall), HK is a thimble chamber similar to the Victoreen chamber (volume = 2 cm³), and \Rightarrow is a lead jacket (3.1 mm thick). The distances between the various parts of the apparatus are indicated, and are in mm. The gamma ray beam diameter was determined with the aid of an X-ray film and was found to be 5.45 cm at the standard ionization chamber. The intensity of the gamma beam was found to be uniform over its cross-sectional area to within 2-3%. Recombination effects were found to be negligible. In the first stage of the experiment the calorimeter was used to determine the energy of the gamma rays necessary to produce one coulomb of charge in the standard ionisation chamber. The energy necessary to produce one coulomb of charge in the monitor was also determined. From these determinations it was found that at $E_{max} = 85$ MeV the required factor was 4.25×10^{18} MeV/coulomb in the standard chamber.

Card
2/4

... found for the values 4

69163

S/139/59/000/06/021/034
E032/E114

Relation between the Roentgen and the Energy of Gamma Radiation
Incident per Square Centimetre
at 45 MeV, which is the only point in common with the
previous determinations.

This paper was reported at the Inter-Collegiate
Conference on Accelerators (Tomsk, February 1958).
There are 2 figures and 6 English references.

Card
4/4

ASSOCIATION: Leningradskiy fiziko-tekhnicheskii institut AN SSSR
(Leningrad Physico-Technical Institute, Academy of
Sciences, USSR)

SUBMITTED: December 27, 1958 ✓

KOVARZH, Z., Cand Tech Sci -- (diss) "Calometer with liquid nitrogen for absolute measurement of the energy loss of α -radiation from accelerators." Leningrad, 1960. 14 pp; (Academy of Sciences USSR, Physics Technology Inst); 250 copies; price not given; (KL, 27-60, 153)

24.6810

69427
S/139/60/000/01/001/041

AUTHORS: Kruglov, S.P., Kovarzh, Z. ^{EO32/E314} and Lopatin, I.V.

TITLE: Comparison of Ionisation and Calorimetric Measurements of the Intensity of γ -rays from a Synchrotron

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, ¹⁹ Fizika, 1960, Nr 1, pp 3 - 11 (USSR)

ABSTRACT: It has been shown (Ref 1) that there is a discrepancy of 25-30% between γ -ray energy-flux measurements by different methods. The present paper is concerned with the physical reasons for this discrepancy and describes experiments which have been carried out using the 85 MeV synchrotron of the Leningrad Physico-technical Institute of the Ac.Sc., USSR. The γ -ray flux was measured both by the calorimetric and the ionisation methods. In the calorimetric method the γ -rays were absorbed in a lead cylindrical absorber and the temperature change was measured with the aid of a thermistor. Absorbing cylinders 11 cm and 4 cm long were used. The calorimeter employed is shown in Figure 1. In this figure, 1 is a perspex container, 2 is a steel chamber, 3 are polished plates, 4 are steel pillars, 5 are stirrers, 6 is an aluminium plate, 7 are aluminium foils, 8 are brass

Card 1/5

4

69427

S/139/60/000/01/001/041

E032/E314

Comparison of Ionisation and Calorimetric Measurements of the Intensity of γ -rays from a Synchrotron

flanges, and all the dimensions indicated are in mm. As can be seen, two identical calorimeters are employed in order to reduce the effect of fluctuations in the external temperature. The thermistors in the two cylinders had equal temperature coefficients (to better than 0.5%) and were included in opposite arms of a Wheatstone bridge. The cylinders were well insulated from the chamber 2 and from each other. To achieve this they were suspended on thin threads in a vacuum of 10^{-4} mm Hg. The surface of the cylinders and of the reflectors 3 was carefully polished to reduce radiation losses. The envelope 1 was thermostated. The instrument was calibrated with the aid of a special heating element which communicated ^{an} accurately known amount of energy to the cylinders. The calibration curve for a cylinder 11 cm long is shown in Figure 3. The accuracy is indicated by the dotted lines and is $\pm 1\%$. A photograph of the calorimeter is shown in Figure 2. Figure 4 shows the disposition of the apparatus in an actual

Card 2/5

✓

69427

S/139/60/000/01/001/041

E032/E314

Comparison of Ionisation and Calorimetric Measurements of the Intensity of γ -rays from a Synchrotron

experiment. The γ -ray beam which leaves the collimator K passes through the monitor M, a clearing magnet M' and enters the cylinder \cup of the calorimeter KJ. A standard ionisation chamber C is placed behind the calorimeter in the path of the beam. The charge collected in this chamber per unit energy of the γ -beam depends only on the maximum energy E_{max} at a given temperature and pressure. The measurements were carried out in two stages: First, the energy of the γ -beam necessary to produce one coulomb of charge in the monitor ionisation chamber M was measured using the calorimeter. Next, the ratio of charges collected, during equal times, by the monitor and the standard ionisation chamber C was determined. The product of the two quantities gives the result. The second method employed was as follows. A thin-walled ionisation chamber was placed inside a block of a material. A measurement was then made of the ionisation in the chamber as a function of the thickness of the material in front of it (transition curve). Since, in the case of complete

Card 3/5

69427

S/139/60/000/01/001/041

E032/E314

Comparison of Ionisation and Calorimetric Measurements of the Intensity of γ -rays from a Synchrotron

absorption of the γ -beam, all its energy is, in the last analysis, used in ionisation, it follows that the incident energy U of the γ -ray can be related to the ionisation in the air-filled region of the chamber by Eq (1), where W is the energy necessary to produce one pair of ions in air, $\bar{\rho}(t)$ is the ratio of the ionisation losses per cm of path in the substance employed and in air (averaged over electron energies) and $I(t)$ is the number of ion pairs per cm of path in the air gap at a depth t . If $\bar{\rho}$ is independent of t then the integral

$\int_0^t I(t)dt$ is equal to the area under the transition curve.

Figure 5 shows the ionisation chamber which was used. The high-voltage electrode B and the collecting electrode C were in the form of aluminium foils, 0.05 mm thick. The back-scatterer P also serves as the second high-voltage electrode. The depth of the working volume is 2 cm. With such a dimension of the air gap, electrons scattered

Card 4/5

✓

69427

S/139/60/000/01/001/041

E032/E314

Comparison of Ionisation and Calorimetric Measurements of the Intensity of γ -rays from a Synchrotron

through large angles will be deflected sideways and will not contribute to the ionisation. All the measurements were extrapolated to zero thickness of the air gap. The experimental technique was similar to that in the case of the calorimetric method. It was found that the calorimetric method is the most direct and accurate. The only assumption in this method is that all the absorbed γ -ray energy is converted into heat and this holds provided chemical changes and changes in the crystalline structure do not take place. The transition-curve method for high Z materials (lead) gives a low result. The main reason lies probably in that the extrapolation to zero thickness of the ionisation chamber cannot be assumed as linear. However, in the case of low Z materials such as carbon, aluminium and copper, the agreement between the calorimetric method and the transition-curve method is sufficiently good. There are 9 figures, 1 table and 9 references, 1 of which is Soviet and 8 are English.

Card 5/6

Leningrad Phys-Tech Inst AS USSR

KOMAR, A.P.; KOVARZH, Z.

Isothermic gamma calorimeter. Zhur.tekh.fiz. 31 no.1:116-124,
Ja '61. (MIRA 1/12)

1. Fiziko-tekhnicheskii institut AN SSSR, Leningrad.
(Gamma rays) (Calorimeters)

1ST AND 2ND EDDIES PROCESSES AND PROPERTIES INDEX 3RD AND 4TH EDDIES

KOVASZNAVY

16

Calibration and Measurement in Turbulence Research by the Hot-Wire Method. Laszlo Kovasznavy. 49 pages. June 1947. National Advisory Committee for Aeronautics, Washington. (Technical Memorandum No. 1150.) Translated from A Műegyetem Aerodinamikai Intézetében Készült Munka, Budapest, Hungary, 1943.

Describes a calibration and measuring apparatus and a method by which: the wire constants can be determined by simple measurements, the scatter of the latter can be readily smoothed out, and on this basis the amplitude of the fluctuations determined; and the thermal lag (time constant) can be determined by a separate method, under actual conditions; and the required compensation and faithful response of the entire apparatus can be readily controlled.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX ALUMINUM INDEX

1ST AND 2ND EDDIES 3RD AND 4TH EDDIES

T

KOVASHAY, L.

772. SOME IMPROVEMENTS IN HOT WIRE ANEMOMETRY. Kovashay, L. I. G.
(Hungar. Acta Phys., 1948, vol. 1, (3), 25-51).

ynamical characteristics of the hot wire are introduced into the theory taking into consideration the reaction of heating current fluctuation upon the hot wire caused by the resistance fluctuation of the wire itself. Loss of sensitivity and variation of time constant depend on the design of heating circuit. Square current waves are applied to the hot wire for the study of compensation performance and measurement of time constant. A compensated amplifier based upon a new working principle is described. The amplifier has two separate stages in parallel, both of them satisfying simple requirements for frequency characteristics. The compensation is controlled by varying the amplification ratio of the two stages by means of a simple potentiometer.

Metallurgical Literature Classification: 621.781.01

Metallurgy: 621.781.01

KOVATS

(Hungarian)

see also KOVACS

KOVATS, A.

Melyepitestudományi Szemle - Vol. 5, no. 4/5, Apr./ May 1955.

Railroad bridges. p. 175.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

KOVATS, A.

Development of transportation by cableway in Hungary. p. 441.
Vol 5, no. 12, Dec. 1955. KOZLEKEDÉSTUDOMÁNYI SZEMLE. Budapest, Hungary.

So: Eastern European Accession. Vol 5, no. 4, April 1956

KOVATS, Attila

The Orion AT 602 and 603 television receiving set. (Conclusion).
Radiotechnika 10 no.2.:46 F '60.

KOVATS, Bela

Insuring quality requirements in supplying drinking water from storage reservoirs. Hidrológiai közlöny 42 no.2:121-128 Ap '62.

1. Vizügyi Tervező Iroda, Budapest.

ILLEI, Vilmos; KOVATS, D. & Geza; MATRAI, Istvan; ZIEGLER, Karoly;
RASONYI, Gyozo

Efficiency of production and utilization of water power.
Energia es atom 14 no.4/5:190-195 My '61.

1. Vizugyi Tervezo Iroda. 2. "Energia es Atomtechnika"
szorkeszto bizottsagi tagja (for Illei).

KOVATS, D. Geza, mernok

Conference on the Development of Water Resources Management, Budapest,
September 9-11, 1964. Vizugyi kozl no.4:519-522 '64.

1. Division Chief, Water Resources Planning Office, Budapest.

KOVATS, E.

COUNTRY : HUNGARY
CATEGORY : Chemical Technology. Chemical Products and Their Uses. Part 3. Processing of Materials
ABS. JOUR. : RZKhim., No. 1 1960, No. 2473
AUTHOR : Vámos, E.; Kovats, E.; Tomasi, I.
INST. : -
TITLE : Refining of Motor Oils
ORIG. PUB. : Magyar kem. lapja, 1958, 13, No 10-12, 364-368
ABSTRACT : The chromatographic so-called thermosolvent method (TM) of purification of lubricating oils, developed by the authors, and the results of comparative experiments in purification by other methods, are described. The heavy oil distillate of naphthene base with d_{4}^{20} 0.9389 and viscosity 479.9 cst/37.8° served as raw
*Gases and Petroleum. Motor and Rocket Fuels. Lubricants

CARD: 1/3

II-96

S/081/62/000/003/068/090
B149/B101

AUTHORS: Vámos, Endre; Kováts, Edit

TITLE: Contact refining of lubricating oils at high temperature

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 487, abstract
3M174 (Magyar ásványolaj - és földgáz kísérlet. int. közl.
no. 2, 1961, 105 - 115)

TEXT: Studies on the refining of motor oils activated and nonactivated with clays of domestic origin have shown that the best bleaching agents are clays activated with acid. The greatest effect was obtained when the clay was used at 200 - 300°C. Oils refined with cresol are more difficult to bleach than those refined with furfural or phenol. It was found that for successful bleaching with clays, hydrogen should be excluded. ✓
[Abstracter's note: Complete translation.]

Card 1/1

S/031/62/000/009/055/075
3165/3144

AUTHORS: Vámos, Béla, Kováts, Edit, Földvári, István

TITLE: Chromatographic separation of saturated hydrocarbons (C₅-C₁₈)PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 519, abstract
91216 (Magyar Ásványolaj-és földgáz kísérleti közl., no. 2,
1961, 77 - 84)

TEXT: Kerosine fractions consisting of hydrocarbons with ~12 carbon atoms in the molecule and suitable as a source of raw material for the manufacture of synthetic detergents should be almost completely free of aromatic compounds. Tests were made to ascertain the possibility of removing the aromatics from the kerosine fraction of Tuymazy petroleum by adsorption. In the first version, the kerosine fraction, dissolved in a low-boiling petroleum solvent containing no aromatic compounds, is passed through a column containing silica gel. Elution of the saturated compounds is effected at 20°C, and of the aromatic compounds at 150 - 180°C. When the layer of adsorbent has cooled, the process can be repeated. In the second version, heavy gas oil containing no aromatics is used as the solvent. The process

Card 1/2

Chromatographic separation ...

S/081/62/000/009/055/075
B166/B144

is carried out in one cycle as in the first version. [Abstracter's note:
Complete translation.]

Card 2/2