DEMIDENKO, T.D.

So-called ocular bradykinesia. Zhur.nevr. i psikh. 56 no.11:882-883 N '56. (MLRA 10:2)

1. Leningradskiy psikhonevrologicheskiy institut imeni V.M.Bekhtereva (dir. - prof. V.N.Myasishchev)
(MUSCLES, OCULOMOTOR, paralysis
ocular bradykinesia (Rus))

DEMIDENKO, T.D.

Vegetative vascular reactions in arterial hypotension and hypertension. Vop.psikh. i nevr. no.1:151-160 '57 (MIRA 11:8)

1. Iz kliniki nervnykh bolezney Leningradskogo ordena Lenina instituta usovershenstvovaniya vrachey im. S.M. Kirova i psikhonevrologicheskogo instituta im. V.M. Bekhtereva.
(BLOOD VESSELS)
(BLOOD PRESSURE)

DAVIDENKO, T.D. (Leningrad)

Peculiarities of vascular tone in arterial hypotension and hypertension. Klin.med. 37 no.7:53-58 Jl '59. (MIRA 12:10)

1. Iz Psikhonevrologicheskogo instituta imeni V.M.Bekhtereva (dir. - prof.V.N.Myasishchev) i kliniki nervnykh bolezney (zav. - deystvitel'nyy chlen AMN SSSR prof.S.N.Davidenkov) Leningradskogo instituta usovershenstvovaniya vrachey.
(HYPERTENSION physiol.)
(HYPOTENSION physiol.)

ABRAMOVICH, G.B.; ADAMOVICH, V.A.; VOROB'YEV, S.P.; GOSHEV, A.I.; DEMIDENKO, T.D.; ZAYCHIKOVA, N.A. [deceased]; RUBINOVA, R.S.; TERPUGOV, Ye.A.; SHATALOVA, A.A.; YAKOVLEVA-SHNIRMAN, I.V.

Some investigations of the clinical aspects, pathogenesis, and treatment of epilepsy. Trudy Gos. nauch.-issl. psikhonevr. inst. no.20:343-354 '59. (MIRA 14:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni V.M. Bekhtereva, Leningrad.
(EPILEPSY)

DEMIDENKO, T.D.; MIKHAYLOVA, A.D.

Effect of acupuncture on the course of severe recurrent radiculitis. Vop.psikh.i nevr. no.7:261-267 '61. (MIRA 15:8)

1. Iz laboratorii igloterapii (nauchnyy rukovoditel' prof. E.D. Tykochinskaya) Nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni V.M.Bekhtereva (dir. chlen-korrespondent Akademii pedagogicheskikh nauk prof. V.N.Myasishchev).
(ACUPUNCTURE) (NERVES, SPINAL--DISEASES)

GOSHEV, A.I.; DEMIDENKO, T.D.

Effect of drug mixtures on the activity of pseudo- and true cholinesterase in the blood of adults and children with epilepsy. Vop.psikh.i nerv. 8:217-227 '62. (MIRA 17:4)

1. Iz biokhimicheskoy laboratorii (zav. - prof. A.A.Shatslova) i kliniki nervnykh bolezney (zav. S.P.Vorob'yev) Psikhonevrologicheskogo instituta imeni V.M.Bekhtereva (dir. - B.A.Lebedev).

DEMIDENKO, T.D.

Effect of differentiated work therapy on reactivity and compensation dynamics in epileptic patients under clinical conditions. Vop.psikh. i nerv. 8:228-238 '62. (MIRA 17:4)

1. Iz 7-go nevrologicheskogo otdeleniya (zav. S.P.Vorob'yev) Psikhonevrologicheskogo instituta imeni V.M.Bekhtereva (dir. - B.A.Lebedev).

DEMIDENKO, T.T.

DECEASED
c1960

1961/2

AGRONOMY

SEE ILC

AGRONOMY

SAVINOVSKIY, N., kand.tekhn.nauk; DEZENT, G., inzh.; DEMIDENKO, V.; GISIN, I., kand.sel'skokhozyaystvennykh nauk

Operation of continuous freezers. Khol.tekh. 37 no.5:35-39 S-O '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti (for Savinovskiy). 2. Moskovskiy khladokombinat imeni A.I. Mikoyana (for Dezent and Demidenko). 3. Nauchno- issledovatel'skiy eksperimental'no-konstruktorskiy institut prodovol'stvennogo mashinostroyeniya (for Gisin).
(Ice-cream freezers)

DEMIDENKO, V.A.; BEREZYUK, Ye.G.

Cardiac arrhythmia of tonsillogenic origin. Vrach. delo no.10:151-152 O '63. (MIRA 17:2)

1. L'vovskaya oblastnaya klinicheskaya bol'nitsa.

L 58328-65 EEO-2/EWT(d)/FSS-2/EWT(m)/EWP(w)/EPF(c)/EEC(k)-2/EWG(v)/EWA(d)/T/EWP(t)/EED-2/EWP(b)/EWA(c) Pn-4/Pc-4/Pe-5/Pq-4/Pr-4/Pg-4/Pk-4/Pl-4 JD/DJ/BC

ACCESSION NR: AP5016470 UR/0146/65/008/003/0104/0108

AUTHOR: Katkhanov, M. N.; Demidenko, V. P.

TITLE: Graphoanalytic method for determining the influence of dry friction in the supports on the operation of gyroscopes

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 3, 1965, 104-108

TOPIC TAGS: gyroscopic friction, frictional moment efficiency, gyroscope operation, graphic analysis, gyroscope drift

ABSTRACT: The effect of various perturbing moments on the drift of an astatic gyroscope depends on the directions of the corresponding angular velocities. The present paper studies the application of a graphoanalytic method for determining the influence of dry friction in gyroscope supports (see Fig. 1 of the Enclosure) as a function of instantaneous conditions. An example is worked out showing the principles of construction and use of the nomograms yielding the efficiency coefficient of the corresponding frictional moment. Orig. art. has: 5 formulas and 2 figures.

Card 1/3

L 58328-65
ACCESSION NR: AP5016470

ASSOCIATION: Voyennaya artilleriyskaya akademiya (Military Artillery Academy)

SUBMITTED: 07Jul64 ENCL: 01 SUB CODE: NG, MS

NO REF SOV: 004 OTHER: 000

Card 2/3

L-58328-65

ACCESSION NR: AP5016470

Encl: 01

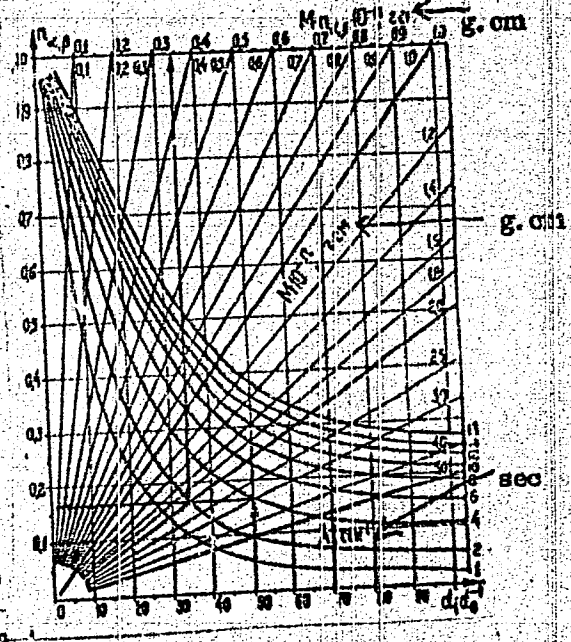

Fig. 1. Nomogram of frictional moment efficiency. M = total value of the momentum causing gyroscopic drift; n_α, n_β = coefficients of efficiency of M; α and β refer to the outer and inner precessional axis, respectively; d_0, d_1, and Λ = constant component, amplitude, and frequency of oscillation, respectively, of the angular velocity of the relative motion of the inner gyroscopic frame.

Card 3/3

DEMIDENKO, V. I.

"Electrical Measurements in High Frequency and High Voltage Installations With the Use of Current Transformers, With Cores Having Constant Magnetic Resistance." Cand Tech Sci, Leningrad Polytechnic Inst imeni M. I. Kalinin, Min Higher Education USSR, Leningrad, 1955.. (KL, No 14, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

CHUYKO, N.M., doktor tekhn.nauk; RUTKOVSKIY, V.B., inzh.; DANICHEK, R.Ye., inzh.; PEREVYAZKO, A.T., inzh.; BORODULIN, G.M., inzh.; TREGUBENKO, A.F., inzh.; SHAMIL', Yu.P., inzh.; FRANTSOV, V.P., inzh.; VOLOVICH, V.G., inzh.; Prinimali uchastiye: IOFFE, I.M., inzh.; LAVRENT'YEV, M.I., inzh.; PARKHOMENKO, G.P., inzh.; DEMIDENKO, V.I., inzh.; RYSIN, Ye.M., inzh.; VOROB'YEVA, T.M., inzh.

Inert gas blowing of metal in the ladle in vacuum. Stal' 22 no.9:809-811 S '62. (MIRA 15:11)
(Vacuum metallurgy) (Protective atmospheres)

ACCESSION NR: AT4025436 S/0000/62/000/000/0065/0078

AUTHORS: Demidenko, V. I.; Oboronko, A. Ye.

TITLE: Nondestructive reading of information from ferrite memory elements by means of a transverse field

SOURCE: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi. Nauchno-tekhnicheskaya konferentsiya. 16th, Leningrad, 1961. Kibernetika i elektronno-vy*chislitel'naya tekhnika (Cybernetics and electronic computer technology); materialy* konferentsii. Moscow, Gosenergoizdat, 1962, 65-78

TOPIC TAGS: ferrite, memory core, magnetic core storage, computer component, computer technology

ABSTRACT: This is a review article dealing with the ferromagnetic media used for memory devices, particularly those in which the magnetization is produced by crossed fields with emphasis on the biax

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ACCESSION NR: AT4025436

high speed computer element (C. L. Wanlass, S. D. Wanlass, Biax high speed magnetic computer element, IRE Wescon Convention Record, 1959, v. 3, VIII, p. 4). The variation of the magnetization vector in such an element under the influence of a transverse-field pulse is analyzed, and the application of biax elements for nondestructive reading is described. Orig. art. has: 10 figures and 43 formulas.

ASSOCIATION: None

SUBMITTED: 01Sep62 DATE ACQ: 07Apr64 ENCL: 00

SUB CODE: DP NR REF SOV: 004 OTHER: 004

Card 2/2

DEMIDENKO, V. K. Kiev State Pedagogical Inst imeni A. M. Gor'kiy, Kiev 1955

DEMIDENKO, V. K. -- "Peculiarities of the Assimilation of Historical Concepts by Students of the Fifth Grade." Kiev State Pedagogical Inst imeni A.M. Gor'kiy, Kiev, 1955. (Dissertation for the Degree of Candidate in Pedagogical Sciences).

SO: Knizhnaya Letopis', No. 35, 1955

DEMIDENKO, V. N.

Demidenko, V. N. "Summer planting of potatoes with freshly-harvested tubers, according to the method of the Odessa Selection-Genetic Institue", Byulleten' po plodovodstvu, vinogradarstvu i ovoshchevodstvu, No. 8, 1947, p. 154-60.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 8nykh Statey, No. 21, 1949).

KATKHANOV, M.N.; DEMIDENKO, V.P.

Graphico-analytical calculation of the effect of dry friction forces in supports on the performance of a gyroscope. Izv. vys. ucheb. zav.; prib. 8 no.3:104-108 '65.
(MIRA 18:11)

1. Voyennaya artilleriyskaya akademiya.

DEMIDENKO, V. P.

AID Nr. 990-6 14 June

SCIENTIFIC-TECHNICAL CONFERENCE ON MODERN GYROSCOPE TECHNOLOGY (USSR)

Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, v. 6, no. 2, 1963, 156-158. S/146/63/006/002/010/010

The Fourth Conference on Gyroscope Technology, sponsored by the Ministry of Higher and Secondary Special Education RSFSR, was held at the Leningrad Institute of Precision Mechanics and Optics from 20 to 24 November 1962. The conference was attended by representatives from 93 organizations in 30 Soviet cities, including educational establishments, scientific research institutes, design bureaus, and industrial concerns. The following are some of the topics covered in the 92 papers presented and discussed at the conference. Vibrations of a gyroscope pendulum with a movable suspension in a nonuniform gravitational field: M. Z. Litvin-Sedoy, Senior Scientific Worker; improving dynamic characteristics of some gyro instruments and devices: A. V. Reprikov, Docent, Candidate of Technical Sciences; some problems of the dynamics of a gyroscope with an electric drive installed in a gymbol suspension: S. A.

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AID Nr. 990-6 14 June

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SCIENTIFIC-TECHNICAL CONFERENCE [Cont'd] S/146/63/006/002/010/010

Kharlamov, Engineer; problems of the theory of the inertial method for measuring aircraft acceleration: I. I. Pomykayev, Docent, Candidate of Technical Sciences; determining the drift of a floated-type integrating gyroscope without the use of a dynamic stand: G. A. Slomyanskiy, Docent, Candidate of Technical Sciences; natural damping of nutational vibrations of a gyroscope: N. V. Gusev, Engineer; motion of a not quite symmetrical gyroscope pendulum with vertically movable support: A. N. Borisova, Aspirant; gyroscope-type inclinometer for surveying vertical freezing wells: V. A. Sinitsyn, Candidate of Technical Sciences; effect of joints between channels in triaxial gyro-stabilized platform: L. N. Slezkin, Engineer; theoretical proposal for the possible design of a generalized gyro instrument: M. M. Bogdanovich, Docent, Candidate of Technical Sciences; problem of drift in a power-type triaxial gyro stabilizer: V. N. Karpov, Engineer; methods of modeling random disturbances in gyro systems: S. S. Shishman, Senior Engineer; method of noise functions for investigating a system subjected to random

Card 2/3

AID Nr. 990-6 14 June

SCIENTIFIC-TECHNICAL CONFERENCE [Cont'd] S/146/63/006/002/010/010

signals: G. P. Molotkov, Docent, Candidate of Technical Sciences; drifts in a gyro-stabilized platform as a result of the effect of cross joints under determined and random disturbances: B. I, Nazarov, Docent, Candidate of Technical Sciences; stability and natural oscillations in inhomogeneously rigid gyro systems with backlash under external influences: S. A. Chernikov; methods of designing a gyro vertical with automatic latitude and course corrections: A. V. Til', Candidate of Technical Sciences; use of asymptotic methods in solving problems of the motion of an astatic gyroscope in gymbol suspension: D. M. Klimov, Candidate of Physical and Mathematical Sciences, and L. N. Slezkin; theory of aperiodic gyro pendula: V. S. Mochalin, Docent, Candidate of Technical Sciences; and selecting basic parameters of course gyros by using nomograms: V. P. Demidenko, Engineer. [AS]

Card 3/3

L 17015-63 BDS
ACCESSION NR: AP3005681 S/0146/63/006/004/0078/0089

AUTHOR: Demidenko, V. P.

TITLE: Methods for selecting fundamental parameters of directional gyroscopes by means of nomograms

SOURCE: IVUZ, Priborostroyeniye, v. 6, no. 4, 1963, 78-89

TOPIC TAGS: gyroscope, directional gyroscope, gyroscope design

ABSTRACT: Engineering-design methods are described which have been developed by the author for designing gyro equipment on the basis of specified accuracy. Differential equations of motion were set up and numerically solved on the "Ural-2" digital computer for various structural parameters and operating conditions of gyros. The calculations were accurate to the second order of infinitesimals. The following types of equations were solved: (1) truncated equations neglecting nonlinearity; (2) truncated equations allowing for

Card 1/2

L 1915-63
ACCESSION NR: AP3005681

nonlinearity; (3) truncated equations allowing for various oscillatory components; (4) technical equations neglecting nonlinearity; and (5) technical equations allowing for nonlinearity. Five nomograms illustrating the method are supplied. "The idea and guidance in developing these engineering methods belong to M. N. Kakhtanov, under whose direction designs of special instruments based on specified accuracy have been carried out." Orig. art. has: 5 figures and 7 formulas.

ASSOCIATION: Voyennaya artilleriyskaya akademiya (Military Artillery Academy)

SUBMITTED: 26Oct62 DATE ACQ: 06Sep63 ENCL: 00

SUB CODE: CG NO REF SOV: 005 OTHER: 000

Card 2/2

L 62101-65 EEO-2/EWT(d)/EEC(k)-2/EEC(t)/EEP-2/EWA(c) Pn-4/Pe-4/Pq-4/Pc-4/Pae-2/
ACCESSION NR: AP5016748 Pk-4/Pl-4 IJP UR/0286/65/000/010/0072/0072
531.383

44
B

AUTHOR: Demidenko, V. P.; Sidun, N. P.

TITLE: Gyroscopic device. Class 42, No. 171125

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 10, 1965, 72

TOPIC TAGS: gyroscope, gyroscopic instrument

ABSTRACT: The Author Certificate introduces a gyro-device with a gimbal rotor-suspension and an arrangement for reducing the effect of friction moments relative to the rotation axis of the outer frame. The friction moments relative to the inner frame are also reduced by a pair of weights being rotated by the gyro-rotor (through reducers) and mounted symmetrically relative to the main gyro-axis. Orig. art. has: 1 figure. [AC]

ASSOCIATION: none

SUBMITTED: 27Apr64 ENCL: 01 SUB CODE: NG

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4039

Card 1/2

L 62101-65

ACCESSION NR: AP5016718

ENCLOSURE: 01

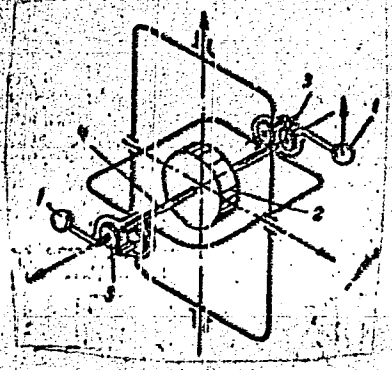

Fig. 1. Gyroscopic device

1 - Weights; 2 - rotor;
3 - reducing gears;
4 - principal axis.

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L 34361-66 EEC(k)-2/EWT(d)/EWT(m)/T/FSS-2 WW/DJ/BC/JT

ACC NR: AP6022059 SOURCE CODE: UR/0146/66/009/003/0085/0088

AUTHOR: Alekseyev, O. G.; Demidenko, V. P.; Fedorov, I. M.

ORG: Military Artillery Academy (Voyennaya artilleriyskaya akademiya)

TITLE: Increasing the accuracy of gyroscopic devices

SOURCE: IVUZ. Priborostroyeniye, v. 9, no. 3, 1966, 85-88

TOPIC TAGS: gyro, gyroscope, gyroscope motion equation

ABSTRACT: The authors investigate possibilities of designing gyroscope rotors in several concentric elements, rather than in one mass. The purpose is to attain a higher net kinetic moment than possible with one rotor, without changing the dimensions or weight of the gyro. Considering first the case of i concentric rotors in which each succeeding rotor, starting from the internal one, has twice the radius and half the speed of the preceding rotor, the authors derive a general expression for net kinetic moment. This shows that two such rotors would give about a 13% gain in moment over a single rotor; increasing the number of rotors above two would, however, have a negligible further advantage. A second and more promising approach would have each rotor forming a stator for the next rotor, which would result in the reverse of relative rotor speeds from the first case; thus the first (internal) rotor operates at a speed dictated by the supply frequency, the next rotor would rotate at approximately twice this velocity, and so on. A cited two-rotor design of this type

Card 1/2 UDC: 531.383(088.8)

L 34361-66

ACC NR: AP6022059 2

(see Fig. 1) would have more than twice the kinetic moment of a single rotor, other parameters being equal. The authors also assert that the overall balancing and

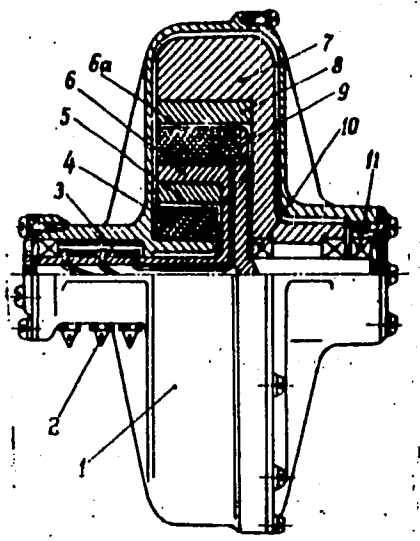

Fig. 1. Two-rotor gyromotor

1 - Case; 2 - power input terminals; 3 - commutator; 4 - first stator winding; 5 - shorted winding; 6 - first rotor; 6a - retaining strap for stator winding on rotor; 7 - second rotor; 8 - shorted winding; 9 - stator winding for second rotor; 10 - second rotor bearing; 11 - first rotor bearing. 17

bearing stress problems would be no worse than for the single-rotor case. Orig. art. has: 2 figures and 3 formulas. [SH]

SUB CODE: 17/ SUBM DATE: 09Apr65/ ORIG REF: 001/ ATD PRESS: 5033

Card 2/2

DEMIDENKO, Ye.; LAPIDUS, M.

Effect of thermoelastic tensions on the strength of the punch in cold stamping. Vestis Latv ak no.9:43-49 '61.

1. Akademiya nauk Latviyskoy SSR, Institut avtomatiki i mekhaniki.

SOV/112-58-2-2372

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 2, p 96 (USSR)

AUTHOR: Bogoyavlenskiy, V. N., Utkin, I. V., and Demidenko, Ye. D.

TITLE: An Investigation of an Electric Tractor Main Drive
(Issledovaniye glavnogo privoda elektrotraktora)

PERIODICAL: V sb.: Avtomatizatsiya proizv. protsessov v s. kh., M., AN SSSR, 1956, pp 204-219

ABSTRACT: The final choice of a system for electric tractor drive has not yet been made. The first tentative solution was a simple replacement of the thermal motor by a squirrel-cage AC motor, with the friction slipping coupling retained in the system. The second solution has been the use of an adjustable-speed AC motor. The dynamic and static operating conditions of both squirrel-cage and wound-rotor motors have been investigated. The first is started under no-load conditions, and then tractor acceleration is effected through a slipping clutch coupling, by a method combining the utilization of the motor torque and the flywheel kinetic energy. An equation describing the dynamic

Card 1/2

SOV/112-58-2-2372

An Investigation of an Electric Tractor Main Drive

process of motor acceleration is analyzed, with particular reference to the effect of flywheel size. It has been found that even an oversized squirrel-cage motor has to operate under heavy thermal conditions. Besides, the friction clutch does not secure maneuvering tractor speeds, and a coarse speed regulation causes bumpy operation of the tractor. The wound-rotor motor eliminates the above disadvantages, and the adjustable slipping clutch becomes unnecessary. Field tests of the wound-rotor motor tractor have confirmed that, among its advantages, are stability of acceleration and speed regulation under any load and no need for a friction clutch and flywheel. Instructions are given on calculating steps for the regulating rheostat.

A.I.B.

Card 2/2

AVEN, O.I. (Moskva); DEMIDENKO, Ye.D.(Moskva); DOMANITSKIY, S.M. (Moskva); KRUG, Ye.K.(Moskva).

Electric servomechanism with controllable speed. Avtom.i telem.17 no.3:238-249 Mr '56. (MLRA 9:7)
(Servomechanisms)

ACCESSION NR: AP4013734 S/0030/64/000/001/0036/0038

AUTHOR: Demidenko, Ye. D. (Candidate of technical sciences)

TITLE: A synchronous tracking system with variable transmission coefficient

SOURCE: AN SSSR. Vestnik, no. 1, 1964, 36-38

TOPIC TAGS: synchronous tracking system, tracking system, transmission coefficient, variable transmission coefficient, angular displacement, drive shaft, driven shaft

ABSTRACT: The author has proposed a closed impulse tracking system with variable transmission coefficient. This system is designed on the basis of comparing angular displacements of the drive shaft and the driven shaft. The necessity of excessive resolving power in order to obtain required precision of the system limits the practical accuracy that may be obtained. An open impulse tracking system eliminates this deficiency. For a test, the system was built into an experimental-industrial setup for the model 5A833 gear-grinding machine. The system provides for 512 discrete settings for transmission ratios. It is evaluated by the accuracy of handling the products, which depends on the difficulties of measuring small angular displacements. The error in linear measurements of the

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ACCESSION NR: AP4013734

handled products, measured in microns, has been converted to angular error in the shaft of the synchronous motor. The author has established that when the system is in operation on the gear-grinding machine the error of tracking does not exceed three minutes of arc. This accuracy in handling products is considerably greater than possible on machines using mechanical linkage. Orig. art. has: 2 figures.

ASSOCIATION: Institut avtomatiki i telemekhaniki Gosudarstvennogo komiteta po priborostroyeniyu sredstvam avtomatizatsii i sistemam upravleniya pri Gosplane SSSR i Akademii nauk SSSR (Institute of Automation and Remote Control, State Committee on Instrumental Design for Automation and Control Systems at the Gosplan SSSR and the Academy of Sciences SSSR)

SUBMITTED: 00 DATE ACQ: 03Mar64 ENCL: 00

SUB CODE: IE NO REF SOV: 000 OTHER: 000

Card 2/2

DEMIDENKO, Ye.D., inzh.

Design of saturable power reactors. Vest.elektroprom. 30 no.2:63-66 F '59. (MIRA 12:3)

(Reactance (Electricity))

AVEN, O.A.; DVORETSKIY, V.M.; DOMANITSKIY, S.M.; ZALMANZON, L.A.; KRASSOV, I.M.; KRUG, Ye.K.; TAL', A.A.; KHOKHLOV, V.A.; BULGAKOV, A.A.; DEMIDENKO, Ye.D.; BERNSHTEYN, S.I.; YEMEL'YANOV, S.V.; LERNER, A.Ya.; MEYEROV, M.V.; PEREL'MAN, I.I.; FITSNER, L.N.; CHELYUSTKIN, A.B.; ZHOZHIKASHVILI, V.A.; IL'IN, V.A.; AGEYKIN, D.I.; GUSHCHIN, Yu.V.; KATYS, G.P.; MEL'TTSER, L.V.; PARKHOMENKO, P.P.; MIKHAYLOV, N.N.; FITSNER, L.N.; PARKHOMENKO, P.P.; ROZENBLAT, M.A.; SOTSKOV, B.S.; VASIL'YEVA, N.P.; PRANGISHVILI, I.V.; POLONNIKOV, D.Ye.; VOROB'YEVA, T.M.; DEKABRUN, I.Ye.

Work on the development of systems and principles of automatic control at the Institute of Automatic and Remote Control during 1939-1964. Avtom. i telem. 25 no. 6:807-851 Je '64. (MIRA 17:7)

GRIKKE, A.Kh.; DEMIDENKO, Ye.I.

Automatic presses with self-feed of the material to be forged.
Kuz.-shtam. proizv. 1 no.8:34-37 Ag '59. (MIRA 12:12)
(Forging machinery)

DEMIDENKO, V.E.

21

SOV/5580

Avtomatizatsiya kholodnoshtampovochnogo proizvodstva (Automation of Cold [Metal] Stamping Production)

COVERAGE: The collection contains reports delivered at the Kiyev Scientific and Technical Conference by workers of machine and instrument plants, design organizations, and scientific research and educational institutes. The Conference was sponsored by the Kiyevskiy oblastnoye pravleniye Nauchno-tekhnicheskogo obshchestva priborostroitel'noy promyshlennosti (Kiyev Oblast Administration of the Scientific and Technical Society of the Machine-Building Industry) and by the Ukrainskoye respublikanskoye pravleniye Nauchno-tekhnicheskogo obshchestva priborostroitel'noy promyshlennosti (Ukrainian Republican Administration of the Scientific and Technical Society of the Instrument-Making Industry). The purpose of the Conference was to discuss the achievements and practical experience (especially at the Gorkiy Automobile Plant, the VEF Plant, and Leningrad factories) in the automation of stamping production. The Conference also served to acquaint a wide number of machine and instrument builders with the present state of automation in these fields and with the prospects for its further development. Papers dealing with experience in the design and operation of automatic devices, presses, and automatic production lines used in stamping production were discussed. No personalities are mentioned. References accompany most of the articles.

TABLE OF CONTENTS:

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SOV/5580

PART I BOOK EXPLOITATION

Golubev, T.N., Doctor of Technical Sciences, Professor, and I.P. Tarabovskiy, Candidate of Technical Sciences, Docent, eds.

Avtomatizatsiya kholodnoshtampovochnogo proizvodstva (Automation of Cold [Metal] Stamping Production) Moscow, Mashgiz, 1961. 282 p. 6,000 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR Institut tekhnicheskoy informatsii. Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Kiyevskoye oblastnoye pravleniye. Nauchno-tekhnicheskoye obshchestvo priborostroitel'noy promyshlennosti. Ukrainskoye respublikanskoye pravleniye.

Ed.: M.S. Sorokin; Tech. Ed.: N.S. Gorokhovpol'skaya; Chief Ed.: (Southern Dept. Mashgiz): V.K. Serdyuk, Engineer.

PURPOSE: This collection of articles is intended for workers at machine and instrument plants and scientific research and design institutes.

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MIKITYUK, Ye.P.; BARDASHEV, S.P.; PASECHNIKOV, N.S.; APIN, L.R.; PETROV, V.N.; DEMIDENKO, Ye.I.; MITROVICH, V.P.; FROLOV, K.V.

Author's abstracts of dissertations. Vest.mashinostr. 42 no.7:87-88 Jl '62. (MIRA 15:8)

1. Kiyevskiy politekhnicheskiy institut (for Mikityuk). 2. Moskovskiy aviatsionnyy institut imeni Sergo Ordzhonikidze (for Bardashev). 3. Leningradskiy sel'skokhozyaystvennyy institut (for Pasechnikov). 4. Moskovskiy stankoinstrumental'nyy institut (for Apin, Mitrovich). 5. Chelyabinskiy politekhnicheskiy institut (for Petrov). 6. Gor'kovskiy politekhnicheskiy institut imeni A.A.Zhdanova (for Demidenko). 7. Rizhskiy politekhnicheskiy institut (for Frolov).
(Bibliography--Mechanical engineering)

DEMIDENKO, Ye.I.; IVANOV, S.N.; LAPIDUS, M.Kh.

Determining certain parameters of an automatic press without connecting rod and with self-feeding of the strip. Kuz.-shtam. proizv. 5 no.11:26-30 N '62. (MIRA 17:1)

MIKHALENKO, F.F., kand. tekhn. nauk; GRIKKE, A.Kh., kand. tekhn. nauk; DEMIDENKO, Ye.I., kand. tekhn. nauk; SHEKHTER, V.Ya., kand. tekhn. nauk, retsenzent

[Automatic cold stamping of small parts on high-speed presses] Avtomaticheskaia kholodnaia shtampovka melkikh detalei na bystrokhodnykh pressakh. Moskva, Mashinostroenie, 1965. 285 p. (MIRA 18:3)

DEMIDENKO, Ye. K.

8(2); 28(1) PHASE I BOOK EXPLOITATION SOV/1433

Soveshchaniye po avtomatizirovannomu elektroprivodu perevannogo toka, Moscow, 1955

Trudy... (Transactions of the Conference on Automated A-C Electric Drives) Moscow, Izd-vo AN SSSR, 1958. 398 p. 4,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.

Resp. Eds: V.S. Kulebakin, Academician, and K.G. Chilikin, Doctor of Technical Sciences, Professor; Ed. of Publishing House: D.M. Ioffe; Tech. Ed.: I.P. Kaz'min.

COVERAGE: The conference was organized on the initiative of the Institute of Automation and Telemechanics of the Academy of Sciences, USSR, and the Moscow Power Engineering Institute and had as its aim the planning of the most progressive ways of developing automatic control of electric drives. The first conference on the subject of automated electric drive took place more than ten years before the present one and was concerned with d-c electric drives. The results of this conference were found to be most valuable in the task of rebuilding postwar Soviet industry and in furthering industrial development. Present technical development, reliability demands high speeds, simplicity of construction, reliability of operation, and economy. The squirrel-cage induction motor with frequency control appears to be the most promising type of controlled a-c drive. For wide application of this drive in the Soviet economy there is a need of developing new types of frequency converters. Some interesting studies and Telemechanics of the USSR Academy of Sciences and its Leningrad branch, at the Moscow Power Engineering Institute, the Central Design Bureau of the "Elektroprivod Plant, the State Design Institute of the Ministry of Construction of the RSFSR, and other design organizations. These studies were discussed at the present conference. The transactions contain material concerning the theory and design of reactor, pulse, and frequency methods of controlling a-c electric drives. Candidate of Technical Sciences I.V. Ukin and Engineer V.A. Kokoreva participated in the preparation of this collection of papers. The volume was revised by Professor Ya. V. Kituov, Doctor of Technical Sciences. Some of the papers include a bibliography.

TABLE OF CONTENTS:

DEMIDENKO, Yu.B.

Determining and computing corrections in hodographs of reflected and refracted waves. Razved.i prom.geofiz. no.29: 35-51 '59. (MIRA 13:1)
(Prospecting--Geophysical methods)

DEMIDENKO, Yu.B.

Seismic logging of shot holes. Razved. i prom. geofiz. no.30:15-25 '59. (MIRA 12:12)
(Prospecting--Geophysical methods)

DEMIDENKO, Yu.B. [Demydenko, IU.B.]

Tectonic data on the surface of the crystalline bedrock and sedimentary formation at the northern border of the marginal part of the graben in the Dnieper-Donets Lowland. Geol. zhur. 20 no. 4:63-68 '60.
(MIRA 14:4)
(Dnieper Lowland--Geology, Structural)

S/169/62/000/007/032/149
D228/D307

AUTHORS: Demidenko, Yu. B., Zabolotnyy, F. D., Raykher, B. A., Timofeyeva, N. M. and Turchanenko, N. T.

TITLE: Seismic exploration of the Ukraine's easterly regions (Discourse theses)

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 23, abstract 7A149 (V sb. Sostoyaniye i perspektivy razvitiya geofiz. metodov poiskov i razvedki polezn. iskopayemykh, M., Gostoptekhizdat, 1961, 299-300)

TEXT: The Dneprovsko-Donetskaya and the Prichernomorskaya Basins are characterized by the fact that the basement and the sedimentary stratum have a block structure. The correlation-refraction and reflection methods are being used in regional and detailed surveys. In the detailed study of the block structure faults are being traced, separate structural block are being distinguished, and the reflecting boundaries within each block are being determined. Sections are being constructed from the records of reflected waves

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S/169/62/000/007/032/149
D228/D307

Seismic exploration of ...

by the t_0 method in the case of gentle angles and by means of wave-front charts when the dip angles are above 20°. [Abstracter's note: Complete translation.]

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DEMIDENKO, Yu.B.; PUZDROVSKIY, Ye.P.

Detailed seismic studies of salt domes in the Dnieper-Donets Lowland. Razved.i prom.geofiz. no.45:3-16 '62. (MIRA 15:11)
(Dnieper-Donets Lowland--Salt domes) (Seismic prospecting)

DEMIDENKO, Yu.B.; ZEL'TSMAN, P.A.

Three-component shot-hole seismic recorder. Razved.i prom.geofiz. no.45:61-63 '62. (MIRA 15:11)
(Seismology—Electric equipment)

DEMIDENKO, Yu.B.

Combined use of reflection and refraction correlation methods for solving regional problems and detailed studying of the structures of the Dnieper-Donets Lowland. Geofiz.sbor. no.2:62-72 '62. (MIRA 16:3)

1. Trest "Ukrgeofizrazvedka".
(Dnieper-Donets Lowland—Geology, Structural)
(Dnieper-Donets Lowland—Seismic Prospecting)

DEMIDENKO, Yu.B.; MANYUTA, M.G.

Regional seismic studies in the northwestern part of the Dnieper-Donets Lowland based on the Yagotin-Baturin relief. Sov. geol. 6 no.6:107-112 Je '63. (MIRA 16:7)

1. Trest "Ukrgeofizrazvedka."
(Dnieper-Donets Lowland—Geology, Structural)

ACCESSION NR: AT4016846 S/2819/63/000/005/0107/0114

AUTHOR: Demidenko, Yu. B.; Manyuta, M. G.; Ly*senko, V. A.; Spikhina, L. M.

TITLE: Results of seismic investigations of the deep structure of the earth in the Eastern Ukraine

SOURCE: AN UkrRSR. Inst. geof. Geofizich. sbornik, no. 5(7), 1963. Voprosy* teor. i metod. geofizich. issledovaniy, (Problems of theory and methods of geophysical investigations). 107-114

TOPIC TAGS: Mohorovicic discontinuity, Conrad discontinuity, seismology, deep seismic sounding, reflected wave, refracted wave, crystalline basement, geology, basalt layer, seismic boundary, granite layer.

ABSTRACT: During the International Geophysic Year the Kiev Geophysical Exploration Expedition undertook regional seismic investigations by the deep seismic sounding method and the refracted and reflected waves methods along a 400-kilometer profile between Zvenigorodka and Novgorod-Severskiy, shown on Enclosure. The profile cuts across the strike of the northwestern part of the Dnepr graben and extends into the surrounding Ukrainian and Voronezh crystalline complexes. The structure of the sedimentary cover and certain aspects of the crystalline basement in the Dnepr-Donets depression are described. It was

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ACCESSION NR: AT4016846

possible to determine the position of the basalt layer, the surface of the sub-crustal substrate and seismic boundaries within the basalt and granite layers, indicated on Enclosure. The crust is an ordinary continental type with a mean thickness of 48 km, the basalt layer averages 30 km, the granite layer averages 18 km and the sedimentary layers range from 0 to 8-9 km. Within the Dnepr graben the surface of the crystalline basement has a complex block structure and lies at depths of 5.4 to 8.9 km. The mean velocity to the surface of the basalt layer (with the exception of the sedimentary complex) is 6.15 km/sec, to the surface of the Moho — 6.6 km/sec, and in the sedimentary complex, where 6 to 8 km thick, 3,500-3,700 m/sec. Orig. art. has 2 figures.

ASSOCIATION: Kiyevskaya geofizicheskaya razvedochnaya ekspeditsiya(Kiev Geophysical Exploration Expedition)

SUBMITTED: 30May62 DATE ACQ: 04Mar64 ENCL: 04

SUB CODE: AS NO REF SOV: 004 OTHER: 000

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DEMIDENKO, Yu.B.

Vertical seismic profiling. Geofiz. sbor. no.7:11-31 '64. (MIRA 17:11)

1. Kiyevskaya geofizicheskaya razvedochnaya ekspeditsiya tresta "Ukrgeofizrazvedka".

DEMIDENKO, Yu.B.

Nomogram for the calculation of radial diagrams and theoretical hodographs of reflected waves making use of medium velocities. Razved. i prom. geofiz. no.50:45-50 '63.

(MIRA 18:3)

DEMIDENKO, Yu.B.; FABIYANSKIY, Ch.V.

Using a CCM-57 station with intermediate magnetic recording in seismic shot-hole prospecting. Razved. i prom. geofiz. no.46:25-29 '62.
(MIRA 16:3)
(Seismic prospecting--Equipment and supplies)

DEMIDENKO, Yu.V.

Vertical seismic profiling. Geofiz.sbor. no.1:48-72 '65.
(MIRA 18:12)

1. Kiyevskaya geofizicheskaya razvedochnaya ekspeditsiya tresta "Ukrgeofizrazvedka". Submitted September 10, 1963.

DEMIDENKO, A.A. [Demidenko, O.A.]; DEMIDENKO, Z.A. [Demidenko, Z.O.]; TOLPYGO, K.B. [Tolpyho, K.B.]

Heat capacity and natural frequencies and amplitudes of KBr. Ukr. fiz. zhur. 3 no.6:728-742 N-D '58. (MIRA 12:6)

1. Institut fiziki AN USSR.
(Potassium bromide crystals--Vibration)
(Heat capacity)

AUTHORS: Lashkarev, V. Ye., Rashba, E. I., Romanov, V. A., Demidenko, Z. A. SOV/57-28-9-1/33

TITLE: Kinetics of Some Electronic Processes in Semiconductors (Kinetika nekotorykh elektronnykh protsessov v poluprovodnikakh)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Vol. 28, Nr 9, pp 1853-1870 (USSR)

ABSTRACT: This is an investigation of some electronic processes in semiconductors. It is postulated that the absorption of the light quantum leads to the production of a pair of electron holes in the same place in the crystal. This implies that the particular features connected with the possible participation of excitons in the development of photoconductivity are not taken into consideration. The kinetics of photoconductivity, of the bulk photo e.m.f., of the photomagnetic effect, and of the photoconductivity in semiconductors subjected to a magnetic field are investigated. Equations describing these effects are derived in linear approximation. After the kinetics of the electronic processes had been studied, the problems involved in the determination of

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the parameters of bulk and of surface recombination are discussed. In particular it is shown that a joint investigation of the kinetics of photoconductivity and of the photo e.m.f. facilitates a simple judgement on the occurrence of a carrier capture. The general formulae deduced are applied to the investigation of a number of sample cases. An experimental equipment incorporating a Kerr-cell was constructed. It permitted to make measurements in a wide range of temperature and frequency with a high accuracy. Experimental evidence bearing on the kinetics of photoconductivity and the volume e.m.f. is presented. It is then compared with theory. Ye G. Miselyuk, A.N. Kvasnitskaya and E.B. Mertens made available the germanium samples.
There are 10 figures and 24 references, 19 of which are Soviet.

ASSOCIATION: Institut fiziki AN USSR, Kiyev (Institute of Physics, AS UkrSSR, Kiyev)

DEMIDENKO, Z.A.

Calculating the internal field in diamond and NaCl crystals. Fiz. tver. tela 3 no. 3:803-810 Mr '61. (MIRA 14:5)

1. Institut fiziki AN USSR, Kiyev.
(Electric fields) (Diamonds) (Salt)

S/181/61/003/011/030/056
B125/B104

AUTHORS: Demidenko, Z. A., and Tolpygo, K. B.

TITLE: Normal vibrations of alkali-halide crystals with ions of very different dimensions

PERIODICAL: Fizika tverdogo tela, v. 3, no. 11, 1961, 3435-3444

TEXT: Equations for the vibrations of lattices with anions and cations of very different dimensions (e.g., NaI) have to be modified by allowing for the repulsion of I^- ions and by introducing a fractional charge. Thus, agreement between theory and experiment can be improved. The vibrations of binary crystals are described by the system

$$\left.\begin{aligned}\mu_s\Omega^2 p_{s\alpha} &= \sum_{s'\gamma}\left(A_{ss'\alpha\gamma}p_{s'\gamma} + B_{ss'\alpha\gamma}P_{s'\gamma}\right),\\ 0 &= \sum_{s'\gamma}\left(B^{*}_{s's\gamma\alpha}p_{s'\gamma} + C_{ss'\alpha\gamma}P_{s'\gamma}\right)_{s=1,2},\end{aligned}\right\} \quad (1) \text{ and}$$

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$$A_{ss'xy} = -\varphi_{ss'xy} + G\delta_{ss'}\delta_{xy} + \delta_{xy}(1-\delta_{ss'})\times$$
$$\times[G\cos k_x - 2H(\cos k_y + \cos k_z - 2\cos k_x)],$$
$$B_{ss'xy} = -\varphi_{ss'xy} - g\delta_{s1}\delta_{s'2}\delta_{xy} - \delta_{s1}\delta_{s'2}\delta_{xy}\times \quad (2)$$
$$\times[g\cos k_x + 2h(\cos k_y - \cos k_z - 2\cos k_x)],$$
$$C_{ss'xy} = -\varphi_{ss'xy} + \frac{\delta_{ss'}\delta_{xy}}{A_s},$$
$$\Omega^2 = \frac{\mu a^3\omega^2}{e_s^2},\quad \mu_s = \frac{m_s}{\mu} = \frac{m_s + m_{s'}}{m_{s'}},$$

for the Fourier coefficients $\vec{p}_s\vec{e}_s u_s^l$ and p_s^l of displacements and electron shells, respectively. Here, A_s = dimensionless polarization, a = distance between neighboring Na^+ and I^- ions, $\varphi_{ss'xy}$ = electric field in the s^lth site, which is induced by the system of dipoles $\vec{p}_{s'}^{\,l'} = \vec{p}_{s'}e^{ik_{s'}^{l'}}$ and

Normal vibrations of alkali- ...

depends on the wave vector $\vec{k}$. The parameters G, g, H, and h define the "elastic forces" acting between the nearest neighbors $\vec{p}_1, \vec{p}_2$(G,H) and $\vec{p}_1, \vec{p}_2$(g,h) for longitudinal (G,g) and transverse (H,h) displacements of the quantities $\vec{p}_1$, $\vec{p}_2$, $\vec{P}_2$. Since $C_{12} = C_{44}$, the relations $C_{44} = C_{12} = (e_s^2/a^4)(0.34778 + F + 2\varepsilon)$, $C_{11} = (e_s^2/a^4)\left[(1/2)G + 0.69544 + 2F - 2\varepsilon\right)\right]$; (4) are valid for the temperature applied here. The matrix elements appearing in (2) have to be supplemented by additional terms given by the authors. After elimination of the dipole moments from the second group of (1) the equation for the lattice vibrations read $\mu_s \Omega^2 p_{sx} = \sum_{s'y} \tilde{A}_{ss'xy} p_{s'y}$ (7), from which $-\Omega^2 \vec{u}_i + \sum_j Q_{ij} \vec{u}_j = 0$ follows after diagonalization of each square. The extensive expressions for Q_{ij} and $\vec{u}_j$, appearing in the latter relation, are explicitly written. For the acoustic and optical branches one obtains one eigenfrequency each. All coefficients D_{ij} of the transformed matrix C^{-1} are explicitly given in

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an appendix. The eigenfrequencies of the NaI crystal are calculated for three approximations: 1) Short-range forces act only between the nearest Na^+ and I^- ions; 2) allowance is made for the forces acting between the individual I^- ions; 3) in addition, the difference between the ionic charge and e is taken into account. There are 1 figure, 2 tables, and 16 references: 13 Soviet and 3 non-Soviet. The three references to English-language publications read as follows: A. D. B. Woods, W. Cochran, B. N. Brockhase. Phys. Rev., 119, 980, 1960. B. J. Dick, A. W. Overhauser. Phys. Rev., 112, 90, 1958; W. Cochran. Proc. Roy. Soc., A253, 260, 1959.

ASSOCIATION: Institut poluprovodnikov AN USSR Kiyev (Institute of Semiconductors AS UkrSSR, Kiyev)

86430
S/181/60/002/011/014/042
B006/B056

24.7700 (1043,1035,1143)

AUTHORS: Demidenko, Z. A. and Tolpygo, K. B.

TITLE: Injection Effects in the Passage of Current Through an Inhomogeneous Semiconductor

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 11, pp. 2753-2761

TEXT: When a current passes through an inhomogeneous semiconductor with mixed conductivity, the concentration distribution of electrons and holes is shifted by the field. The minority carriers (here it is assumed that these are the holes) are injected from a high-impedance into a low-impedance region of the semiconductor, if the direction of the current coincides with the gradient of conductivity. Therefore, the carrier concentration increases throughout the entire region of the semiconductor, and the field becomes weaker. If current direction and gradient are antiparallel, carriers are extracted and the field grows. Thus, in the case of probe measurements of resistivity of inhomogeneous semiconductors, the latter depends on the magnitude and sign of the current. P. I. Baranskiy observed such phenomena in Ge. The authors of the present paper developed a theory of

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Injection Effects in the Passage of Current Through an Inhomogeneous Semiconductor

S/181/60/002/011/014/042
B006/B056

these phenomena for the simplest cases of a semiconductor with a constant conductivity gradient. The concentration distribution of the holes and the distribution of the electric field as dependent on the current passing through, the conductivity gradient, and the carrier lifetime is investigated for the case of internal injection of holes. Furthermore, the algebraic sum of the potential differences between two adjacent bands is calculated for antiparallel current direction. This quantity is called the "volume-gradient emf, $\mathcal{E}^*$", following the example of Baranskiy who carried out similar calculations. In the case of weak currents, $\mathcal{E}^*$ is proportional to the square of the current, and in the case of strong currents, it is a linear function of the current; $\mathcal{E}^*$ is also a function of resistivity, carrier lifetime, and conductivity gradient. Furthermore, the part played by contacts during the measurement of $\mathcal{E}^*$ is discussed in connection with the electromotive forces appearing at these contacts. A comparison between theoretical results and the experimental results obtained by Baranskiy showed qualitative agreement. There are 4 Soviet references.

ASSOCIATION: Institut fiziki AN USSR, Kiyev (Institute of Physics of the AS UkrSSR, Kiyev)

SUBMITTED: June 7, 1960

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27300

S/181/61/003/008/030/034
B111/B102

24.7500

AUTHORS: Demidenko, Z. A., Kucher, T. I., and Tolpygo, K. B.

TITLE: Eigenfrequencies of lattice vibrations of germanium as calculated in various approximations

PERIODICAL: Fizika tverdogo tela, v. 3, no. 8, 1961, 2482 - 2494

TEXT: A study is made of the natural vibrations of the germanium lattice, taking account of the dipole moments φ_s^l of electron shells, that appear with a displacement of nuclei. Expressions from Ref. 8(V. S. Mashkevich, K. B. Tolpygo, ZhETF, 32, 520, 1957) and Ref. 12 (FTT, III, no. 3, 1961) are used for the potential energy U of the crystal. Taking account of either short-range forces (zeroth approximation) or the sole linear terms in dipole exchange interaction (first approximation) is insufficient. Calculations are performed in various types of first and second approximations. Experimental data, however, do not allow to prefer one of these variants. It is stated that the third approximation (i. e., taking also nonelectric interactions into account fits reality better than the model

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27300

S/181/61/003/008/030/034
B111/B102

Eigenfrequencies of lattice...

W. Cochran. The present paper is based upon results of Ref. 12 (K. B. Tolpygo, FTT, III, no. 3, 1961), and its aim is to explain the nature of interatomic forces, and, by comparison between theory and experiments, to calculate all parameters. The natural vibrations of a diamond-type lattice are calculated in various approximations in the first part of the present paper, and formulas are derived for the moduli of elasticity and for the limiting frequencies of optical vibrations. A comparison of results with data obtained from the Raman effect shows that the first approximation is not sufficient to describe the vibrational spectrum in the case of large dipole moments. The matrices of the inner field and the eigenfrequencies are calculated in first approximation in the second part of the paper. By taking account of a possible nonelectric interaction, an attempt is made to improve results of earlier investigations (UFZh I, 226, 1956; ZhETF, 32, 498, 1957; FTT, II, 2655, 1960). A critical study showed that the dipole moments are not small, and that the electron-shell deformation and the interatomic electrostatic forces play an essential part in lattice dynamics. In the third part, the parameters of the equations describing harmonic lattice vibrations are determined, and eigenfrequencies are calculated in second approximation. There are 2 figures, 5 tables, 6 Soviet-bloc and

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27300

S/181/61/003/008/030/034
B111/B102

Eigenfrequencies of lattice...

12 non-Soviet-bloc references. The most important reference to English-language publications reads as follows: W. Cochran, Phys. Rev. Lett., 2, 495, 1955; Proc. Roy. Soc., A 253, 260, 1959)

ASSOCIATION: Institut poluprovodnikov AN USSR, Kiyev (Institute of Semiconductors AS UkrSSR, Kiyev)

SUBMITTED: December 22, 1960 (initially)
April 24, 1961 (after revision)

Card 3/3

DEMIDENKO, Z.A.; TOLPYGO, K.B.

Normal modes of alkali halide crystals with ions essentially differing in size. Fiz.tver.tela 3 no.11:3439-3444 N '61. (MIRA 14:10)

1. Institut poluprovodnikov AN USSR, Kiyev.
(Alkali halide crystals) (Lattice theory)

33349
S/181/62/004/001/018/052
B108/B104

24.7000 (1143, 1144, 1385)

AUTHORS: Demidenko, Z. A., Kucher, T. I., and Tolpygo, K. B.

TITLE: Frequencies and amplitudes of atomic vibrations in crystals with diamond lattice for a wave vector directed along the cube face diagonals

PERIODICAL: Fizika tverdogo tela, v. 4, no. 1, 1962, 104 - 109

TEXT: On the basis of previous papers (K. B. Tolpygo. FTT, 3, 943, 1961; Z. A. Demidenko et al. FTT, 3, 2482, 1961), the authors calculated the natural frequencies in germanium for the wave vector $\vec{k}$ pointing in the (1; 1; 0) direction. The six dispersion curves, $\omega(\vec{k})$, calculated in four different approximations are somewhat different from one another. The vibrations corresponding to branches 3 and 6 are entirely transverse (TO and TA). The other vibrations are mixed and have a purely longitudinal or transverse character only when $\vec{k} \longrightarrow \{0; 0; 0\}$ or $\{\pi; \pi; 0\}$ (Table 1). There are 1 figure, 3 tables, and 9 references: 4 Soviet and 5 non-Soviet. The four most recent references to English-language publications read as follows: B. N. Brokhouse a. P. K. Iyengar. Phys. Rev., 111, 747, 1958;

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Frequencies and amplitudes...

W. Chochran. Phys. Rev. Lett., 2, 495, 1959; Proc. Roy. Soc., A253, 260, 1959; Chose et al. Phys. Rev., 113, 49, 1959; B. O. Brokhouse. Phys. Rev. Lett., 2, 256, 1959.

ASSOCIATION: Institut poluprovodnikov AN USSR Kiyev (Institute of Semiconductors AS UkrSSR, Kiyev)

SUBMITTED: July 12, 1961

Table 1. Components of $\vec{p}_1$ and $\vec{p}_2$. Legend: (A) branch no; (LO) longitudinal optical vibrations; (TO) transverse optical vibrations; (LA) longitudinal acoustic vibrations; (TA) transverse acoustic vibrations.

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24.7000

S/181/62/004/007/018/037
B102/B104

AUTHOR: Demidenko, Z. A.

TITLE: The natural frequency spectrum and the vibration amplitudes of LiF crystal calculated for symmetrical directions of the wave vector

PERIODICAL: Fizika tverdogo tela, v. 4, no. 7, 1962, 1874-1877

TEXT: The formulas obtained by Z. A. Demidenko and K. B. Tolpygo (FTT, 3, 11, 3435, 1961) for the NaI lattice vibrations are used to calculate the natural frequencies and the vibration amplitudes of LiF. In contradistinction to NaI, the short-range forces in LiF are non-central. This fact is taken into account when considering the interaction within two coordination spheres. Since the Li ionization energy is greater than that of the F^- affinity, the deviation from the strict heteropolarity has to be allowed for also. There are 1 figure and 4 tables.

ASSOCIATION: Institut poluprovodnikov AN USSR Kiyev (Institute of Semiconductors AS UkrSSR, Kiyev)

SUBMITTED: February 15, 1962

Card 1/1

DEMIDENKO, Z.A.; KUCHER, T.I.; TOLPYGO, K.B.

Frequencies and amplitudes of atomic vibrations in a diamond type crystal for a wave vector directed along the diagonal of a cube face. Fiz. tver. tela 4 no.1:104-109 Ja '62. (MIRA 15:2)

1. Institut poluprovodnikov AN USSR, Kiyev.
(Crystal lattices--Vibration)
(Vector analysis)

DEMIDENKO, Z.A.

Characteristic frequency spectrum and vibration amplitude of lithium fluoride crystals calculated for symmetrical directions of the wave vector. Fiz.tver.tela 4 no.7:1874-1877 Jl '62. (MIRA 16:6)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.
(Lithium fluoride crystals)

S/181/62/004/012/001/052
B104/B102

AUTHOR: Demidenko, Z. A.

TITLE: Calculating the structural factors for inelastic scattering of slow neutrons from NaCl-type crystals

PERIODICAL: Fizika tverdogo tela, v. 4, no. 12, 1962, 3359-3366

TEXT: The differential cross section of single-phonon scattering of slow neutrons (wavelength ~1 Å) for phonons with j-polarization is

$$\sigma_j(\mathbf{k}_0 \to \mathbf{k}) = \frac{A}{4\pi}\frac{|\mathbf{k}|}{|\mathbf{k}_0|}\left\{\begin{matrix} N_j \\ N_j+1 \end{matrix}\right\}\frac{g_j^2}{|f_j|}e^{-2W}. \qquad (4)$$

Here the structural factor is

$$g_j^2(\mathbf{q},\tau) = \left|\sum_s \frac{b_s \mathbf{Q}\times\mathbf{u}_{js}(\mathbf{q})}{[m_0 v_j(\mathbf{q})]^{1/2}} e^{(2\pi i \mathbf{n}_s}\right|^2 \qquad (5)$$

$\vec{k}_0$ and $\vec{k}$ being the wave vectors of the incident and the scattered neutron, m_0 the neutron mass, ω the phonon frequency, $N_j = \left\{\exp(h\nu/k_B T) - 1\right\}^{-1}$,

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and $e^{-2\omega}$ the Waller-Debye factor. $\vec{R}_s$ is the position vector of the s-th atom in the unit cell, $\vec{u}_{js} = \sqrt{\mu_s}\vec{p}_{js}$ is the amplitude of the normal vibrations of the crystal. In NaCl-type crystals, for symmetric $\vec{q}$ the polarization vectors $\vec{u}_{js}(\vec{q})$ lie in one direction, i.e. either parallel to $\vec{q}$ (longitudinal polarization) or perpendicular to $\vec{q}$ (transverse polarization); $\vec{q}$ is the phonon wave vector. Therefore, $\vec{u}_{sj}(\vec{q}) = \vec{u}_j u_{sj}(\vec{q})$, where $\vec{u}_j$ is the place of polarization. From this follows

$$g_j^2(q, \tau) = \frac{(Q \times u_j)^2}{\nu_j(q)} \frac{b_2^2}{m_2} \left[\frac{\left(\alpha \frac{u_1}{u_2} \pm 1\right)^2}{\left(\frac{u_1}{u_2}\right)^2 + 1} \right], \qquad (7),$$

where $\alpha = \frac{b_1}{b_2}\sqrt{\frac{m_2}{m_1}}$, $(\pm)$ corresponds to the different values of τ. With this formula, the structural factors of neutron scattering are calculated

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Calculating the structural ... S/181/62/004/012/001/052
B104/B102

for three directions of $\vec{q}$ ([0,0,1] ; [1,1,0] ; [1,1,1]) for NaCl, KCl, KBr, NaI and LiF crystals, by using the previously calculated amplitudes of the natural oscillations. Results: The expression within the brackets of (7), for τ = const, is mirror symmetric for the acoustic and optical branches with respect to a straight line with the ordinate $(\alpha^2 + 1)/2$ lying parallel to the abscissa. This is shown to follow from the property $(u_1/u_2)_{opt} \cdot (u_1/u_2)_{ac} = 1$ of the amounts of the polarization vectors. Furthermore a singular point exists where one of the amplitudes vanishes. This implies that during an oscillation of given polarization only one sublattice is oscillating. An approximation method for the calculation of $g_o^2(\vec{q},\vec{\tau})$ is proposed. There are 5 figures and 2 tables.

ASSOCIATION: Institut poluprovodnikov AN USSR, Kiyev (Institute of Semiconductors AS UkrSSR, Kiyev)

SUBMITTED: June 4, 1962

Card 3/3

L 11434-65 EWT(1)/T/EEC(b)-2 IJP(c)/AFD(a)-5/AFWL/SSD/AS(mp)-2/ESD(t)/ESD(gs)

ACCESSION NR: AP4046396 S/0181/64/006/011/3251/3258

AUTHORS: Demidenko, Z. A.; Tolpygo, K. B.

B

TITLE: Dipole moments and certain lattice sums in diamond type crystals

SOURCE: Fizika tverdogo tela, v. 6, no. 11, 1964, 3251-3258

TOPIC TAGS: dipole moment, electron scattering, crystal lattice structure, germanium

ABSTRACT: Since knowledge of the dipole moments is essential in many problems, such as the calculation of the inter-valley scattering of electrons, the authors employ earlier data to calculate the natural oscillation amplitudes corresponding to the dipole moments, as well as the structural factors for Ge, and the Fourier coefficients for the field of a point charge, located at one of the lattice sites, knowledge of which is necessary for the determination of

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L 1443-65
ACCESSION NR: AP4048396

the electrostatic potential due to the dipole moments. The calculations are made for three symmetrical directions of the wave vector ([100], [111], and [110]). The Fourier coefficients are also estimated for small wave numbers. Orig. art. has: 1 figure, 15 formulas, and 3 tables.

ASSOCIATION: Institut poluprovodnikov AN UkrSSR, Kiev (Institute of Semiconductors, AN UkrSSR)

SUBMITTED: 09May64 ENCL: 00

SUB CODE: SS NR REF SOV: 013 OTHER: 002

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DEMIDENKO, Z.A.; TOLPYGO, K.B.

Role of long-range forces in electron scattering by phonons in a homopolar crystal. Fiz. tver. tela 6 no.11:3321-3330 N '64. (MIRA 18:1)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.

S/182/61/000/010/002/004
D038/D113

AUTHOR: Demidenkov, I.S.

TITLE: Automatic lines for producing forgings of outer and inner rings of RR bearings

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, no. 10, 1961, 28-33

TEXT: The article states that the possibility of producing forgings of outer and inner bearing rings from a single initial blank was confirmed by the experimental work carried out by the ENIKMASh, 3GPZ, ENIIPP and SKB-10. The SKB-10 has completed the development, under the supervision of A.I. Klybik, of an automatic line comprising one or several twin lines. Every line will produce up to 200,000 outer and 200,000 inner rings yearly. The following types of Soviet RR bearings will be produced: (1) ЦКБ-1521 (TsKB-1521) and ЦКБ-1522 (TsKB-1522) roller bearings of similar dimensions: 256^{+2} mm outer diam., 86.5^{+2} mm high, and weighing 12 kg; and (2) ЦКБ-1520 (TsKB-1520) ball-and-socket bearings with 256^{+3} outer diam., 95^{+3} mm high, and weighing 14 kg. Before stamping, the blank is heated to

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1050-1150°C, for 30 sec., then upset, the central aperture broached, and the core removed to a second hydraulic press for stamping the inner ring. After the operation, the forging is cooled to 400-500°C for 10-18 min in a water spraying chamber and then transferred to the annealing furnaces. The author concludes that the new forgings must meet the following specifications: (1) higher quality determined by precise dimensions and shape, and the dispositions of metal fibers on bearing races; (2) better use of metal, and (3) reduced production costs, and less labor-consuming production methods. There are 7 figures and 1 Soviet-bloc reference.

AUTHORS: Domidonkova, I. V., Shcherba, L. D. SOV/48-22-9-30/40

TITLE: Modifications in the Infrared Spectrum of Ammonia at the Transition From the Gaseous to the Liquid State (Izmeneniye v infrakrasnom spektre ammiaka pri perekhode iz gazo-obraznogo v zhidkoye sostoyaniye)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1958, Vol 22, Nr 9, pp 1122 - 1124 (USSR)

ABSTRACT: This is an investigation of the infrared spectrum of liquid ammonia and of ammonia solution in carbon tetrachloride. The spectra were taken with the spectrometer ИКС-11, using LiF and NaCl prisms. The spectrum of liquid ammonia was recorded in the range 2 ÷ 15μ at -50°. The spectrum of the ammonia solution was only obtained in the range of the N-H valence oscillations. Synthetic ammonia was used in the experiments, which was dried by condensation above metallic sodium. On the basis of the conceived hydrogen binding in ammonia, greater modifications had to be expected in the spectrum of the liquid, that is to say the occurrence of a new band connected with the disturbed N-H oscillation

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and a decrease of the degeneration of the inequality of the three NH bindings. Actually no essential modifications were observed in the infrared spectrum with the exception of a strong increase of the relative intensity of the ν_3 band and a comparatively great displacement of the band (Table). This result can be explained by the assumption of an interaction between all three NH bindings of a molecule with the free pair of the other molecule. In such a case the NH bindings are all equivalent. For this conception, however, the formation of non-linear hydrogen bond is a prerequisite. There are 3 figures, 1 table, and 1o references, 2 of which are Soviet.

ASSOCIATION: Gos.institut prikladnoy khimii(State Institute of Applied Chemistry)

DEMIDIYENKO, A. Ya.: Master Agric Sci (diss) -- "Combatting filtration by adding solonets soil to carbonate-loess and loess soils in building irrigation systems and reservoirs". Khar'kov, 1958. 23 pp (Ukr Acad Agric Sci, Ukr Sci Res Inst of Soil Science), 150 copies (KL, No 5, 1959, 152)

DEMIDIONOVA, V. Ya

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Migration and uniform distribution of sulfur in rubber mixes. G. A. Blokh, V. Ya. Demidionova, G. P. Mikhukhin, I. L. Kukhtenko, A. P. Rekasheva, R. V. Nikulina, and M. I. Prikhodyl'skii. *Legkaya Prom.* 15, No. 1, 28-30 (1955). —Study was with labeled atoms. After 4-6 passes through a narrow gap between rolls, S was distributed evenly. During short contact of a raw mix with fabric at room temp., there was migration of S. There was also migration from vulcanized rubber into the raw mix. During vulcanization, migration into the fabric layer was not stopped by talc; a paper layer reduced migration. B. Z. Kamich

DEMIDIYENKO, A.Ya., kand.sel'skokhozyaystvennykh nauk; DEMURDZHAN, V.M. (Khar'kov)

Salinization of the bottom of artificial reservoirs. Biol. v shkole no.2:95-96 Mr-Ap '63. (MIRA 16:4)
(Water storage)

DEMIDKIN, A., brigadir montazhnikov, zasluzhennyy stroitel' RSFSR

Speed and quality. Na stroi.Ros. 3 no.8:2-3 Ag '62. (MIRA 15:12)

1. Leningradskiy domostroitel'nyy kombinat No.6.
(Leningrad--Construction industry)

DEMIDKIN, Aleksey Sergeyevich; BORSHCHEVSKAYA, S.I., red.; LEVONEVSKAYA, L.G., tekhn.red.

[Large-panel construction] Iz opyta krupnopanel'nogo stroitel'stva. Leningrad, Lenizdat, 1959. 54 p. (MIRA 13:6)

1. Brigadir montazhnikov 30-go stroitel'nogo upravleniya 3-go tresta Glavleningradstroya (for Demidkin).
(Leningrad--Precast concrete construction)

DEMIDKIN, I. I., KOROBCHANSKII, I. E.--et al.

"Underground gasification of solid fuels", Russ. 53, 992, 1938.

The gasification is carried out through channels ascending downward to the lower side of the deposit, then in a horizontal direction and finely in an upward direction for the discharge of the gases. The ignition is effected by startingunderground fires through injection of air, a partial combustion of the solid fuel and production of combustion of the solid fuel and production of combustible gases.

DEMIDKIN, P.N.; SKRIPNICHENKO, D.F.

Clinical and roentgenologic observations on the condition of the esophagus, stomach, and colon before and after radical surgery of the lungs [with summary in English]. Vest.rent. i rad. 32 no.4: 56-61 Jl-Ag '57. (MIRA 10:11)

1. Iz kafedry obshchey khirurgii lechebnogo fakul'teta (zav. - prof. V.I.Struchkov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova i rentgenovskogo otdeleniya (zav. - kandidat meditsinskikh nauk P.F.Vlasov) Bol'nitsy imeni "Medsantrud"

(PNEUMONECTOMY
preop. & postop. x-ray exam. of gastrointestinal system)
(GASTROINTESTINAL SYSTEM, radiography
preop. & postop. in pneumonectomy)

DEMIDKIN, P. N., Cand of Med Sci -- (diss) "X-Ray Observations of the Changes in the Gastro-Intestinal Tract After a Radical Lung Operation," Moscow, 1959, 17 pp (1st Moscow Medical Institute im Sechenov)
(KL, 6-60, 125)

STRUCHKOV, V.I. (Moskva, 1-y Trushennikov per.,d.19,kv.37); DEMIDKIN, P.N.

Clinical roetngenological observations of dynamical changes in gastric activity prior to and following pneumonectomy. Grud. khir. 1 no.4:53-62 Jl-Ag '59. (MIRA 15:3)

1. Iz kafedry obshchey khirurgii (zav. - prof. V.I. Struchkov) lechebnogo fakul'tetsa I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova i rentgenovskogo otdeleniya (zav. - kand. med.nauk P.P. Vlasov) bol'nitsy imeni "Medsantrud".
(STOMACH)
(LUNGS--SURGERY)

DEMIDKIN, P.N.

Roentgenological observations of change in the position and function of the esophagus after pneumonectomy. Khirurgiia 37 no.2:95-100 F '61. (MIRA 14:1)

1. Iz kafedry obshchey khirurgii (zav. - prof. V.I. Struchkov) lechebnogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M Sechenova i rentgenovskogo oteleniya (zav. - kand.med.nauk P.P. Vlasov) bol'nitsy imeni Medsantrud (glavnyy vrach A.N. Lobanova).
(ESOPHAGUS) (LUNGS—SURGERY)

DEMIDKIN, P.N.; KAGAN, Yu.L.

First experience in using the new Soviet intensifying screens for roentgenography in obstetrical practice. Vop. okh. mat. i det. 7 no.3: 62-63 Mr '62. (MIRA 15:5)

1. Iz rentgenovskogo otdeleniya (zav. - kand.med.nauk P.N.Demidkin) Moskovskogo oblastnogo nauchno-issledovatel'skogo instituta akusherstva i ginekologii (dir. - zasluzhennyy vrach RSFSR O.D.Matspanova, nauchnyy rukovoditel' - prof. A.V.Lankovits).
(RADIOGRAPHY--EQUIPMENT AND SUPPLIES)
(OBSTETRICS)

STRUCHKOV, Viktor Ivanovich; DEMIDKIN, Petr Nikolayevich; KACHKOV, A.P., red.; BUKOVSKAYA, N.A., tekhn. red.

[Radiographic changes in the gastrointestinal tract following an operation on the lungs] Rentgenologicheskie izmeneniia zheludochno-kishechnogo trakta posle operatsii na legkikh. Moskva, Medgiz, 1963. 107 p. (MIRA 16:9)
(ALIMENTARY CANAL--RADIOGRAPHY) (LUNGS--SURGERY)