MERKULOV, Nikolay Ivanovich; PAVLIKOV, Arkadiy Alekseyevich; FEDOROV, Alekseey Sergeyevich; LEBEDEV, S.A., akademik, red.; SOLOV'YEVA, L.A., red.; MURASHOVA, N.Ya., tekhn. red.

[BESM electronic digital computer] Elektronnaia tsifrovaia vychislitel'naia mashina BESM. Pod obshchei red. S.A.Lebedeva. Moskva, Fizmatgiz. Vol.3.[Memory systems of the BESM-2 computer] Zapominaiushchie ustroistva BESM-2. [By] N.I.Merkulov i dr. 1962. (MIRA 16:3)
286 p.
(Electronic digital computers—Memory systems)

PAVLIKOV, ARKADIY ALEKSEYEVICH

PHASE I BOOK EXPLOITATION 249

Pavlikov, Arkadiy Alekseyevich

Bystrodeystvuyushchaya elektronnaya schetnaya mashina Akademii Nauk SSSR; magnitnoye zapominayushcheye ustroystvo (High-speed Electronic Computer of the Academy of Sciences, U.S.S.R.; Magnetic Memory Device) Moscow, Izd-vo AN SSSR, 1957. 76 p. 4,000 copies printed.

Sponsoring agency: Akademiya nauk SSSR. Institut tochnoy mekhaniki i vychislitel'noy tekhniki.

Ed. of Publishing House: Antrushin, B.D.; Tech. Ed.: Polesitskaya, S.M.

PURPOSE: This monograph presents the results of work done at the Academy of Sciences, USSR, in developing and designing a high-speed electronic computer (Bystrodeystvuyushchaya Elektronnaya Schetnaya Mashina - BESM) and, in particular, its memory devices. It is intended for specialists in computing machines.

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COVERAGE: The present issue in the "BESM" series was written on the basis of the design material for the magnetic memory device (Magnitnoye Zapominayushcheye Ustroystvo - MZU) for the high-speed electronic computer of the Academy of Sciences, USSR, and also from operational data. The process of developing the MZU may be divided into three periods: 1) 1951 - designing and building a model for experimental purposes; 2) April to December, 1952 - designing and building the MZU; 3) improving the MZU by the process of experimental operation. As a result of this improvement the number of electron tubes was reduced from the initial 1900 to 700 with a simultaneous increase of reliability. Since 1954 the device has been in normal operation. The magnetic memory device is the external storage device of the BESM. It is intended to extend the storage capacity of the internal memory device (Vnutrennoye Zapominayushcheye Ustroystvo - VZU; see abstract: V.N. Laut and L.A. Lyubovich, Zapominayushcheye ustroystvo na elektronno-luchevykh trubkakh bystrodeystvuyushchey elektronnoy schetnoy mashiny Akademii Nauk SSSR, Moscow, Izd-vo AN SSSR, 1957). It also serves for the derivation of computation results. Two types of MZU were accepted: a) a continually rotating

High-speed Electronic (Cont.)

drum covered with a thin layer of ferromagnetic material (Magnitnoye Zapominayushcheye Ustroystvo na Barabane - MZUB) and b) four magnetic-tape recorders of the B-2-52A type (Magnitnoye Zapominayushcheye Ustroystvo na Lente - MZUL), which are cut in as needed. The drum is designed for 5 groups of 1024 codes each, or a total of 5120 codes. The storage capacity in each group is equal to the capacity of the VZU. The storage capacity of each tape is 25 to 30 thousand codes. There is no direct interchange of codes between the drum and the tapes. This interchange can occur only through the VZU. The recording of codes on the drum and tapes is done during the process of operation of the computer. It is done preferably in whole groups. As the drum is driven at 750 rpm, the average access time to a storage register is 40 μsec. The subsequent reading or writing occurs with the speed of 800 codes per second. In contrast to other devices of the BESM, both magnetic recorders, the drum and the tape, operate in series. The code transformation from parallel into serial writing on the MZU and from serial into parallel when reading,

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occurs in the receiving register of the arithmetic unit of the computer. In the majority of the circuits of the electronic automatic control systems standard units adopted for the BESM are used. These are described by V.A. Zimin in the book Bystrodeystvuyushchaya elektronnaya schetnaya mashina. Standartnyye elementy (High-speed Electronic Computing Machine. Standard Components) published by the Academy of Sciences, USSR, 1952. Thus, the MZU consists of the following component units: 1) magnetic drum storage, which is built as a separate unit; 2) four magnetic-tape recording units (B-2-52A type magnetophones); 3) The code input and output system of the drum and magnetic tapes; 4) control system of the MZU; 5) perforated tape input device; 6) control desk of the MZU. The author describes in detail the magnetic drum storage MZUB, the basic element of which consists of a drum 300 mm in diameter and 270 mm long. The surface of the storage drum is covered with a thin ferromagnetic film. Recording and playback ring-type magnetic heads are placed along the drum at a distance of 40 to 60 μmm from the magnetic layer. The total number of these heads is 84, of which 80 are coding, 2synchronizing and 2 reserve. With a recording density of 3 pulses per mm,

the total capacity of the drum is 204,800 binary digits, which correspond to 5120 40-track binary digits. The linear speed of the drum is 13 m/sec (at 750 rpm). The maximum waiting time for the first signal, which equals the time of one turn of the drum, is 80 msec; the average waiting time is 40 msec. The access time with parallel recording is 30 μsec, with serial recording, 1200 μsec. Serial recording however, has several advantages as compared with parallel recording and is, therefore, used in writing codes on the magnetic drums and magnetic tapes. The devices for recording and reading the codes on the drum are described and illustrated with photographs and diagrams (pp. 15-18). A detailed description of the magnetic tape storage, and of the automatic control system used in commutation, reading, and the triggering system follows. The operating process of the magnetic memory device is described step by step. In order to maintain uninterrupted performance of the MZU, a preventive inspection of all the components is indispensable. The author enumerates the various component units subjected to such inspection and describes the methods applied. As a result of such inspection, the operation

of the MZU was found to be satisfactory and practice demonstrated that for 3 to 4 days after a preventive inspection was performed, no faults were observed, and for 7 to 10 days of operation there was no need of replacing any of the units of the MZU. The following persons participated in the development of the MZU: in the first period of work, the engineers K.S. Neslukhovskiy, A.S. Fedorov and L.A. Orlov; in the second period of work, the engineers K.S. Neslukhovskiy, L.A. Orlov, V.F. Petrov, M.V. Tyapkin, A.S. Fedorov and A. A. Pavlikov, the author of the monograph. All the work in designing the MZU was done under the direction of Academician S.A. Lebedev, who is the chief builder of the BESM. In the third period of work, the improvement of MZU by the process of experimental operation was done by engineer M.V. Tyapkin and the author. The monograph is illustrated with photographs, oscillograms, connection diagrams, graphs and drawings. There are 10 Soviet references (including 1 translation).

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High-speed Electronic (Cont.)

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10 July 1958

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PAVLIKOV, F.

Atom controls the operation of a bucket conveyor. Muk.-elev. prom. 29 no.2:21-22 F '63. (MIRA 16:8)

1. Glavnyy energetik Sal'skogo mel'nichnogo kombinata Rostovskoy oblasti.

(Automatic control) (Conveying machinery)

PAVLIKOV, F.

Eliminate breaks in truck-lifting platforms. Muk.-elev. prom. 28 no.1:24-25 Ja '62. (MIRA 16:7)

1. Sal'skiy mel'nichnyy kombinat.
(Flour mills—Equipment and supplies)

PAVLIKOV, F.

Measures for improving the operation of electric equipment at the Sal'sk Milling Combine. Muk.-elev.prom. 26 no.6:29-30 Je '60. (MIRA 13:12)

1. Sal'skiy mel'nichnyy kombinat Rostovskoy oblasti.
(Sal'sk--Flour mills--Equipment and supplies)

PAVLIKOV, G.V., inzh.; BUCHNEV, A.I., tekhnik; VANYUKOV, V.K., slesar'

Use of the BF2 adhesive in repairing friction clutches. Elek.i tepl.tiaga 6 no.5:15 My '62. (MIRA 15:6)
(Diesel locomotives—Maintenance and repair)
(Adhesives)

PAVLIKOV, I.

Preparing a balance sheet for the income and expenditures of the population of a province. Fin. SSSR 21 no.11: 70-71 N '60. (MIRA 13:11)

1. Starshiy ekonomist po denezhnomu obrashcheniyu Stalingradskogo oblfinotdela.
(Stalingrad Province—Finance)

PAVLIKOV, V., polkovnik

Air support of the troops. Voen. vest. 43 no.9:23-26 S '63. (MIRA 16:10)

(Air warfare)

TEREKHOVSKIY, B.I. [Terekhovs'kii, B.I.]; SKRYABINSKAYA, I.V. [Skriabyns'ka, I.V.]; PAVLIKOV, V.M. [Pavlykov, V.M.]; MALINKA, M.K. (Malynka, M.K.]

Increasing the whiteness of a porcelain body by treatment with water vapors during firing. Leh.prom. no.4:62-64 O-D '62. (MIRA 16:5)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.
(Porcelain)

L 32047-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD/JG
ACC NR: AP6013347 SOURCE CODE: UR/0363/66/002/004/0679/0682

AUTHOR: Pavlikov, V.N.; Lopato, L.M.; Tresvyatskiy, S.G.

ORG: Institute of Materials Science Problems, Academy of Sciences UkrSSR (Institut problem materialovedeniya Akademii nauk UkrSSR)

TITLE: Phase transformations of certain rare earth chromites

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 4, 1966, 679-682

TOPIC TAGS: chromium compound, phase transition, praseodymium compound, neodymium compound, samarium compound, yttrium compound

ABSTRACT: Phase transformations were studied by differential thermal analysis, dilatometric measurements, high-temperature microscopy, and high-temperature x-ray analysis in binary systems formed by chromium oxide with rare earth oxides TR_2O_3, where TR_2O_3 = La_2O_3, Pr_2O_3, Nd_2O_3, Sm_2O_3, and Y_2O_3. $LaCrO_3$ was found to have a reversible endothermic transformation at 290 ± 5C, associated with a change from a rhombic to an orthorhombic structure. This is confirmed by the conservation of anisotropy in the single crystal of the high-temperature form of $LaCrO_3$. The effects associated with the transformation of $LaCrO_3$ are slight. No polymorphic transformations were noted at 20—900C in

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L 32047-66

ACC NR: AP6013347

praseodymium, neodymium, samarium, and yttrium chromites. However, the possibility of polymorphic transformations at higher temperatures is not excluded. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11, 07 / SUBM DATE: 21Jun65 / ORIG REF: 005 / OTH REF: 006

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L 15201-65 EWG(j)/EWT(m)/EPF(c)/EPR/EWP(t)/EWP(b) Pr-4/Ps-4 JD/JW/
JG/MLK

ACCESSION NR: AT4048710 S/0000/64/000/000/0159/0162

AUTHOR: Tresvyatskiy, S. G.; Pavlikov, V. N.

TITLE: Investigation of the phase diagram of the lanthanum oxide-chromium oxide system

SOURCE: Vsesoyuznoye soveshchaniye po splavam redkikh metallov, 1963. Voprosy* teorii i primeneniya redkozemel'ny*kh metallov (Problems in the theory and use of rare-earth metals); materialy* soveshchaniya. Moscow, Izd-vo Nauka, 1964, 159-162

TOPIC TAGS: lanthanum oxide, chromium oxide, phase diagram, lanthanum chromate, rare earth oxide

ABSTRACT: The paper describes the results of investigations of the La_2O_3-Cr_2O_3 system in argon and in air. The average of six melting temperatures during testing was taken as the liquidus temperature. Phase transformations, as well as the liquidus temperature in argon, were studied in a high-temperature furnace with graphite heater. Pills with a diameter of 10 mm containing different mixtures from $LaCrO_3$ to La_2O_3 were heated in molybdenum crucibles in an arc furnace and annealed for up to 30 min. Both the phase transformations and the solidus temperature were studied by the hardening

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ACCESSION NR: AT4048710

method. The temperature was measured and controlled by an optical pyrometer. A URS-55a X-ray unit was used to study the microstructure. After preliminary calcination at 1000C, the mixture was charged every 5 mol.%, and near the eutectic every 2 mol. %. The tests showed that the La_2O_3-Cr_2O_3 system at high temperatures in the open air is a binary system with two eutectics, the chemical composition being 22 mol. % Cr_2O_3 and 78 mol. % La_2O_3 or 24 mol. % La_2O_3 and 76 mol. % Cr_2O_3, depending on the melting temperature of the eutectics (see Fig. 1 of the Enclosure). Study of the phase transformations is hampered by the high volatility of chromium oxide at high temperatures. Solid solutions are formed in the diagram between 83 and 100 mol. % La_2O_3. There were some differences in the system in argon and in air. Orig. art. has: 4 figures.

ASSOCIATION: None

SUBMITTED: 13Jun64 ENCL: 01 SUB CODE: MM

NO REF SOV: 003 OTHER: 000

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L 15201-65
ACCESSION NR: AT4048710

ENCLOSURE: 01

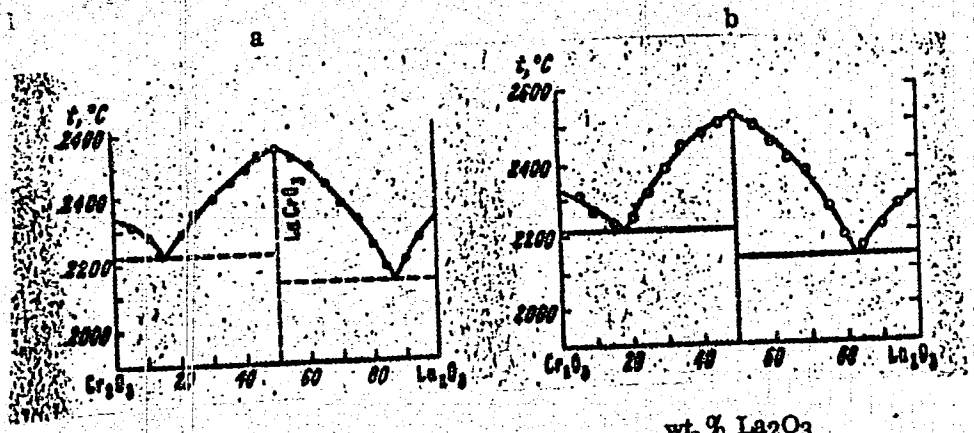

Figure 1. Phase diagram of the La_2O_3-Cr_2O_3 system: (a) in air; (b) in argon.

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L 23805-66 EWT(m)/T/EWP(t) IJP(c) JD/JG

ACC NR: AP6007250 (A) UR/0363/66/002/002/0269/0274

37

AUTHOR: Tresvyatskiy, S.G.; Pavlikov, V.N.; Lopato, L.M. B

ORG: Institute for Problems of Materials, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Phase diagram of the system Sc_2O_3-Cr_2O_3

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v.2, no.2, 1966, 269-274

TOPIC TAGS: scandium compound, chromium compound, alloy phase diagram, metal heat treatment, x ray analysis

ABSTRACT: Phase transformations in the scandium trioxide-chromium trioxide system were studied in samples subjected to heat treatment in a high temperature furnace in an argon atmosphere. A phtographic investigation was made by the conventional method with penetrating and reflected light; in the latter case with the use of etching in a melt of $KHSO_4$ at 200°C for 2 to 3 min. An X-ray investigation was made on URS-55a and URS-70 apparatus. Infrared spectra of the alloys were obtained on UR-10 spectroscope over an interval from 400-700 cm^{-1}. The change in the oxide content during heat treatment was controlled by conventional chemical analysis. The article gives a phase diagram based on the experimental results, a table showing the X-ray results, and microphotos of the sam-

UDC: 541.123.2

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L 23805-66

ACC NR: AP6007250

ples. There was observed the existence of a compound which melts at 2130± 30°C. The probable composition of this compound is: Cr_2O_3/Sc_2O_3 = 1:3 or 1:4. The initial oxides form solid solutions based on chromium oxide with a specific solubility of chromium oxide in scandium oxide is 10 mole %. With a decrease in temperature, the specific solubility decreases to 17 mole % scandium oxide and 5 mole % chromium oxide. Orig. art. has: 6 figures and 2 tables.

SUB CODE: 11/ SUBM DATE: 05Jul65/ ORIG REF: 005/ OTH REF: 008

Card 2/2 FV

L 46241-66 EWT(m)/EWP(t)/ETI IJP(c) JD SOURCE CODE: UR/0363/66/002/007/1244/1247
ACC NR: AP6023918

AUTHOR: Pavlikov, V. N.; Lopato, L. M.; Treavyatskiy, S. G.

ORG: Institute of Materials Science Problems, Academy of Sciences, UkrSSR (Institut problem materialovedeniya Akademii nauk UkrSSR)

TITLE: Study of the phase diagram of the Y_2O_3-Cr_2O_3 system

SOURCE: AN SSSR. Izv. Neorg materialy, v. 2, no. 7, 1966, 1244-1247

TOPIC TAGS: phase diagram, yttrium compound, chromium oxide

ABSTRACT: The phase diagram of the Y_2O_3-Cr_2O_3 system was studied in the 1800-2500°C range, apparently for the first time. The diagram (see Fig. 1) was plotted on the basis of petrographic and x-ray structural studies of samples subjected to heat treatment in argon. It was found that the system contains only one compound of composition 1:1, melting congruently at 2310±30°C. The compound undergoes a partial thermal dissociation in the solid phase, which causes the maximum on the fusibility curve to be diffuse. The compound forms two eutectics: one with Y_2O_3, composed of 72 mole % Y_2O_3 and 28 mole % Cr_2O_3 and melting at 2020±30°C, and one with Cr_2O_3, composed of 80 mole % Cr_2O_3 and 20 mole % Y_2O_3, melting at 2070±30°C. No solid solutions were observed in the system. Orig. art. has: 3 figures and 1 table.

UDC: 546.641-31+546.763-31

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L 46125-66 EWT(m)/EWI(t)/ETI IJP(c) JD/JG
ACC NR: AP6028203 SOURCE CODE: UR/0078/66/011/006/1442/1445

AUTHOR: Pavlikov, V. N.; Tresvyatskiy, S. G.

ORG: none

TITLE: The Nd_2O_3-Cr_2O_3 system

SOURCE: Zhurnal neorganicheskoy khimii. v. 11, no. 6, 1966, 1442-1445

TOPIC TAGS: phase diagram, phase composition, niobium compound, chromium oxide

ABSTRACT: The phase diagram of the Nd_2O_3-Cr_2O_3 system was studied in argon atmosphere in the 1800-2500°C range. Samples varying in composition by 2-5 mol % were prepared by threefold fusing of powdered mixtures of Nd_2O_3 and Cr_2C_3 for 2 hrs at 1200°C. The structures of various samples were examined on the URS-55 x-ray machine and the temperatures were measured with an optical pyrometer OPPIR-O 17. It was found that only one compound, niobium chromite--$NbCrO_3$, exists in the Nd_2O_3-Cr_2O_3 system in the 1800-2500°C range. The $NbCrO_3$ has a melting point of 2330° and a density of 8.08 ± 0.02 g/cm^3. Niobium chromite was found to form one eutetic with Nd_2O_3 which is composed of 76 mol % Nd_2O_3 and 24 mol % Cr_2O_3 with a melting point of 2060 ± 30°C, and one eutetic with Cr_2O_3, which is composed of 78 mol % Cr_2O_3, and 22 mol % Nb_2O_3 with a melting point of 2100 ± 30°C. It was found that there are no phases in the Nb_2O_3-Cr_2O_3 system which contain divalent chromium. Orig. art. has: 2 figures, 1 table.

SUB CODE: 11,07 SUBM DATE: 20Nov64/ ORIG REF: 002/ OTH REF: 007

Card 1/1 JS UDC: 546.657-31+546.763-31+541.123.2

L 06495-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6028301 SOURCE CODE: UR/0363/66/002/006/1055/1057

AUTHOR: Pavlikov, V. N.; Lopato, L. M.; Yaromenko, Z. A.; Shevchenko, A. V.

ORG: Institute of Materials Science Problems, Academy of Sciences, UkrSSR (Institut problem materialovedeniya Akademii nauk UkrSSR)

TITLE: Phase diagram of the Sm_2O_3-Cr_2O_3 system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 6, 1966, 1055-1057

TOPIC TAGS: samarium compound, chromium compound, phase diagram

ABSTRACT: The Sm_2O_3-Cr_2O_3 phase diagram was studied in the range from 1600°C to the liquidus temperatures. Petrographic, x-ray diffraction and chemical data on samples subjected to thermal treatment in argon at 1600-2400°C were used to plot the phase diagram (see Fig. 1). Only one compound, $SmCrO_3$, is formed in the system. It melts congruently at 2300±30°C. It forms eutectics with Sm_2O_3 of the composition 80 mole % Sm_2O_3 and 20 mole % Cr_2O_3 (melting point of 1980±30°C), and with Cr_2O_3 of the composition 16 mole % Sm_2O_3 and 84 mole % Cr_2O_3 (melting point 2080±30°C). No solid solutions could be detected in the system. Orig. art. has: 2 figures and 1 table.

UDC: 546.659.3-31+546.763-31

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L 05495-67
ACC NR: AP6028301

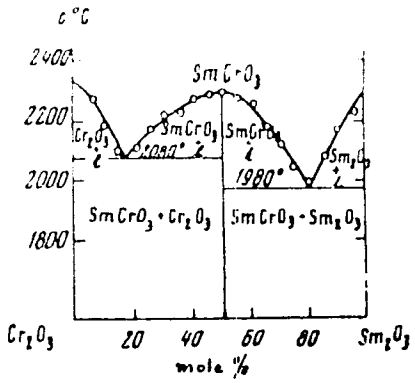

Fig. 1. Phase diagram of the Sm_2O_3-Cr_2O_3 system

SUB CODE: 11,07 SUBM DATE: 06Nov65/ ORIG REF: 001/ OTH REF: 004

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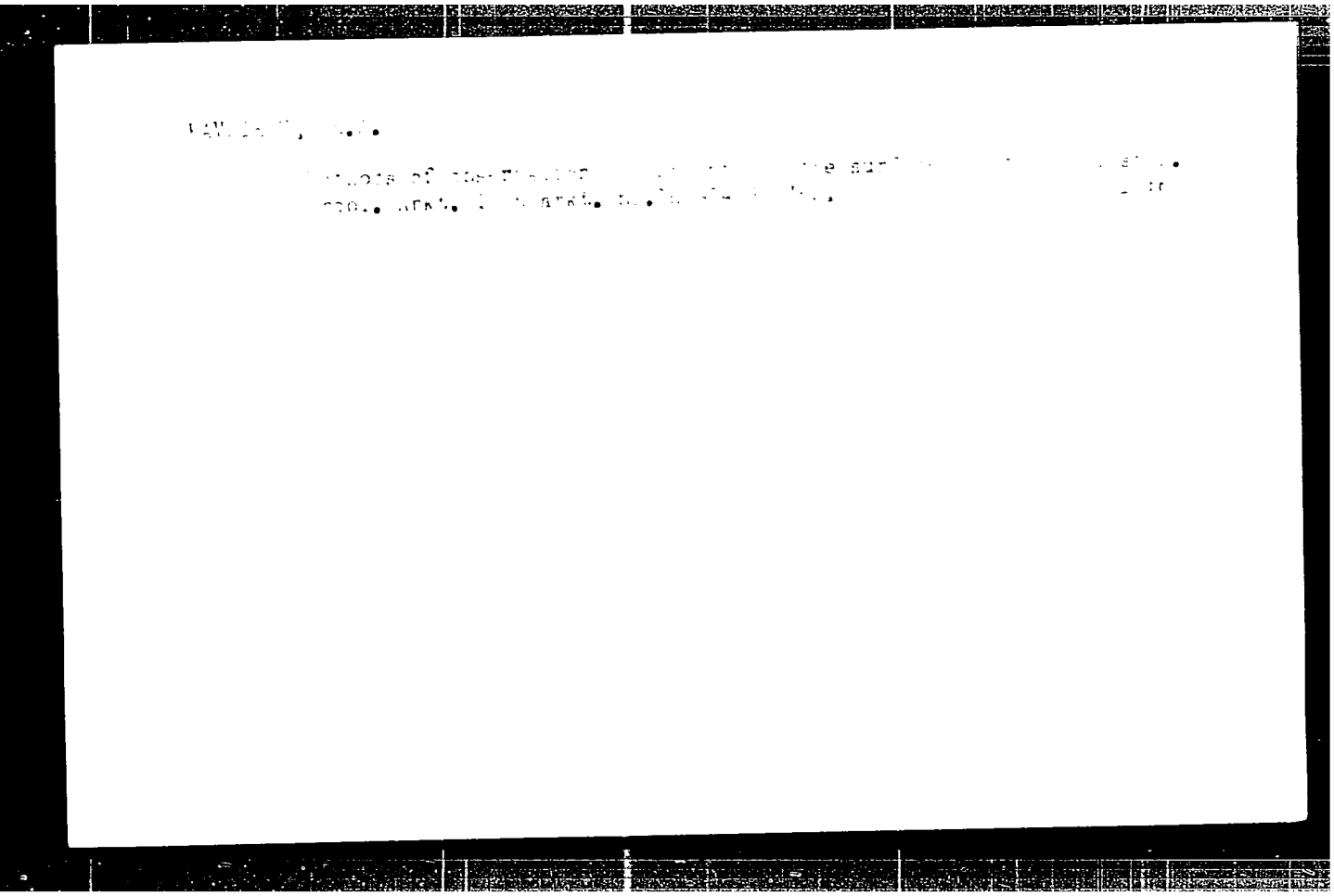
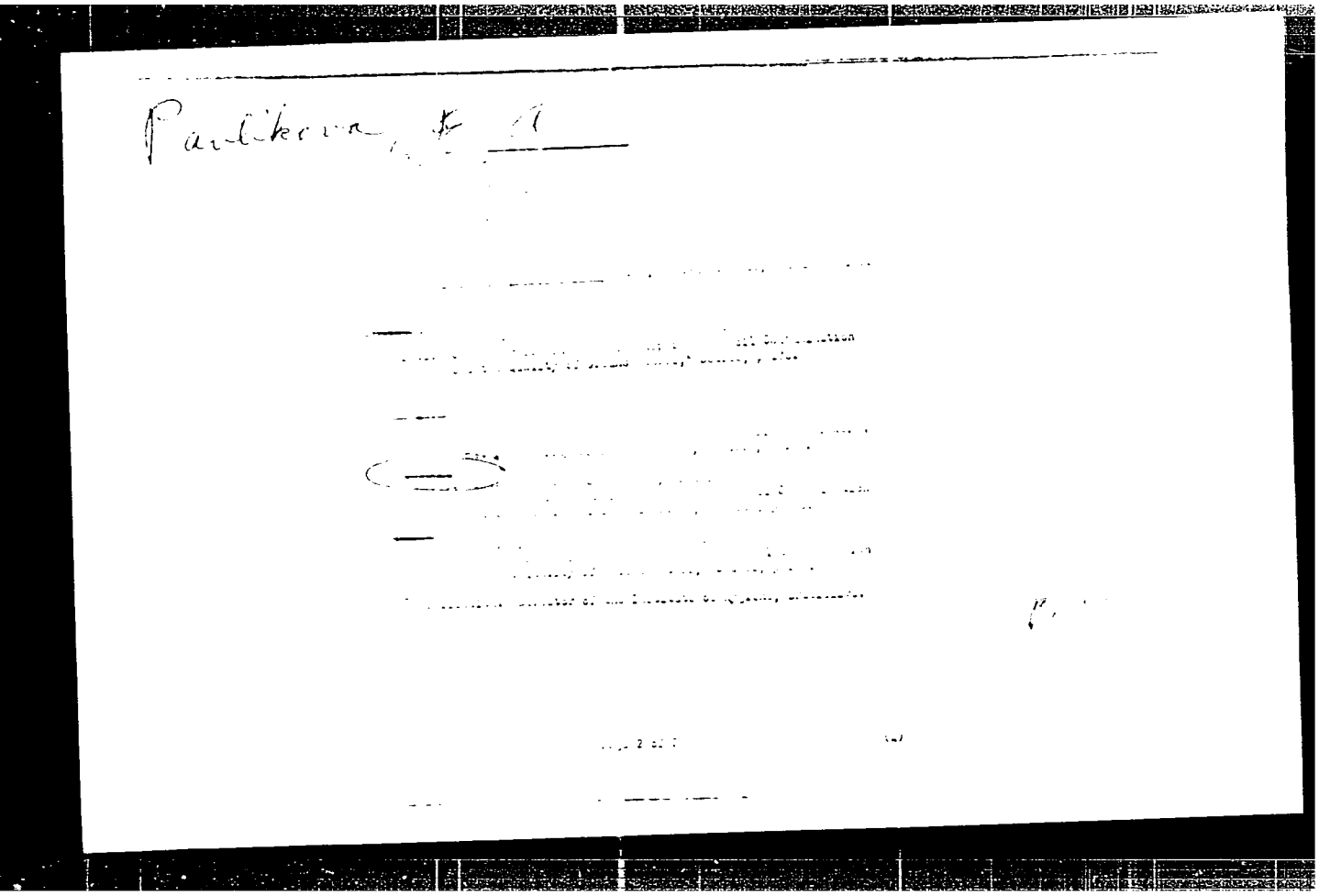




REIKH, V.N.; KALAUS, A.Ye.; BOGUSLAVSKIY, D.B.; OPALEV, A.I.; DUBOVIK, L.I. BORODUSHKINA, Kh.N.; FEDOROVA, Yu.I; Prinimali uchastiye: PAVLIKOVA, A.; KHUDZINSKAYA, L.L.

Triple copolymers of butadiene, styrene, and 2-methyl-t-vinylpyridine. Kauch.i rez. 20 no.3:2-8 Mr '61. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva i Yaroslavskiy shinnyy zavod.
(Rubber, Synthetic) (Butadiene) (Pyridine)

YAKUBCHIK, A.I.; REYKH, V.N.; TIKHOMIROV, B.I.; PAVLIKOVA, A.V.

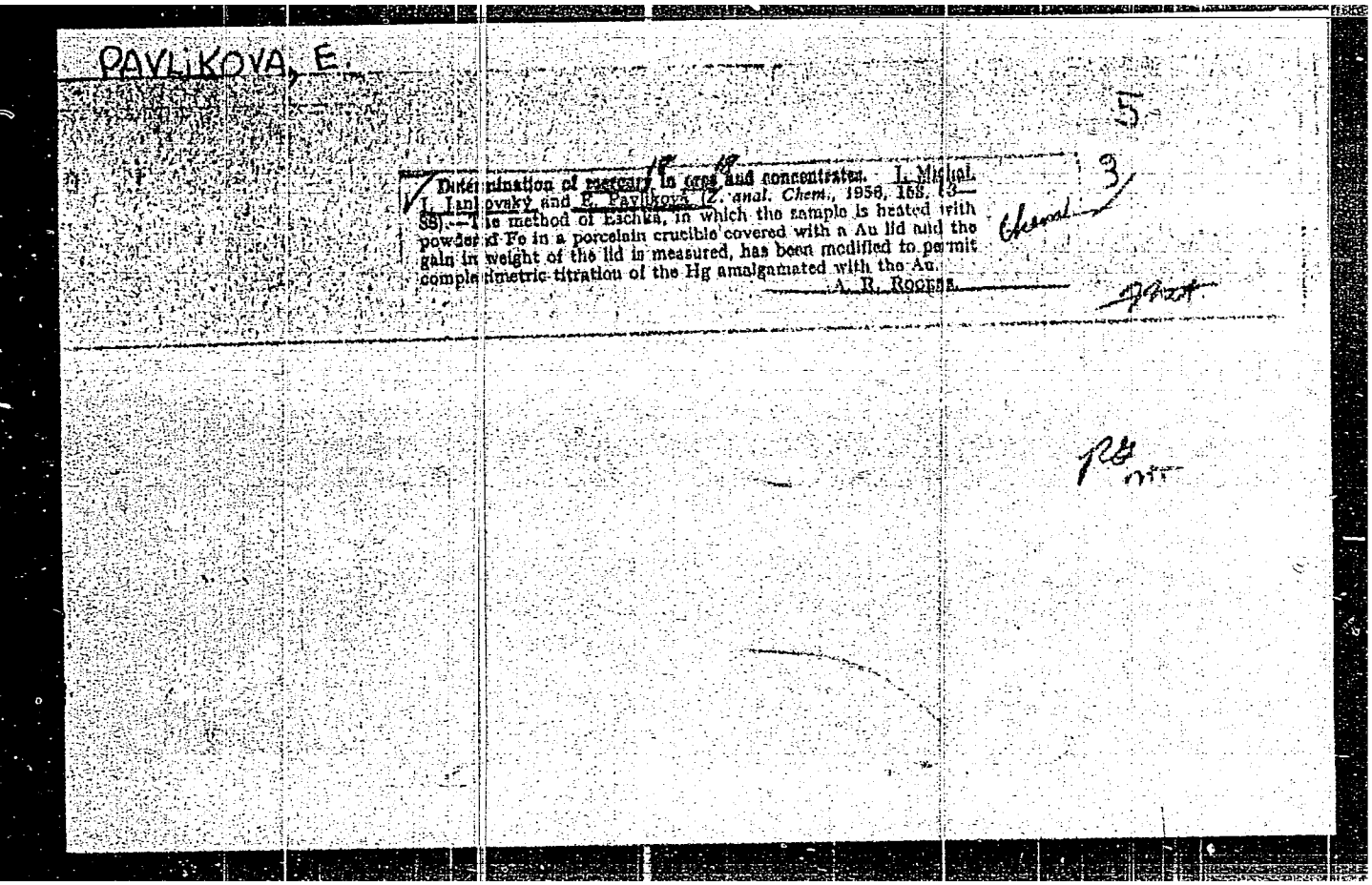
Effect of hydrogenation on the properties of polybutadienes.
Zhur.prikl.khim. 34 no.11:2501-2507 N '61. (MIRA 15:1)

1. Leningradskiy gosudarstvennyy universitet i Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V.Lebedeva.
(Butadiene) (Hydrogenation)

PAVLIKOVA, E.; KVAPIL, M.; WEISS, D.

Contribution to the chemical analysis of tetrahedrite.
Rudy 11 no.3 Suppl.: Práce vyzkumnych ustavu no.2:9-13 Mr '63.

1. Ustav pro vyzkum rud, Praha.



PAVLIKOVA, E.

5

3

Chem

Determination of mercury in ores and concentrates. I. Michal, I. Janovský and E. Pavlíková. *Z. anal. Chem.*, 1958, 165, 13—18).—The method of Eschka, in which the sample is heated with powdered Fe in a porcelain crucible covered with a Au lid and the gain in weight of the lid is measured, has been modified to permit complexometric titration of the Hg amalgamated with the Au.

A. R. Rogers

PAVLIKOVA, E.

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Determination of mercury in ores and concentrates. J. Michal, L. Jankovský, and E. Pavlíková (Inst. Erzforsch., Prague). Z. anal. Chem. 153, 97-9(1956).—The Hg which has been collected on a Au foil by the method of Eschka is dissolved in HNO_3 and titrated with di-Na (ethylenedinitrilo)tetraacetate (I). The method is applied to samples contg. 0.01-20% Hg. Boil the Au foil contg. the Hg with 30 ml. 1:4 HNO_3, wash the foil thoroughly, add a few drops 30% H_2O_2, boil to form Hg(II), and cool. Add a measured excess of 0.05M I, neutralize to methyl red with 20% NaOH, make acid with 0.1M HNO_3, add 5 ml. buffer soln. (54 g. NH_4Cl, 350 ml. 25% NH_3 soln./l.), add enough indicator (1% Eriochrome Black T in NaCl) to give a strong color, and titrate with 0.05M $ZnCl_2$ soln. to the change from blue to wine red. K. G. Stone

RM mk

PAVLIKOVA, E.; KVAPIL, M.; WEISS, D.

Chemical analysis of barite. Rudy 10 no. 4:Suppl.13-18. Ap '62.

1. Ustav pro vyzkum rud, Praha.

VITENBERG, I.M.; PAVLIKOVA, M.G.; SHCHETININ, T.I.

Electric simulation of the characteristics of a turbojet engine. Vop. rasch. i konstr. elektron. vych. mash. no.1:84-96 '60. (MIRA 14:1)

(Aeroplanes—Turbojet engines)
(Electromechanical analogies)

PAVLIKOVA, M.G.

PHASE I BOOK EXPLOITATION SOV/5027

Nauchno-issledovatel'skiy institut schetnogo mashinostroyeniya

Voprosy rascheta i konstruirovaniya elektronnykh vychislitel'nykh mashin, vyp. 1. (Problems of the Calculation and Design of Electronic Computers, v. 1) Moscow, Mashgiz, 1960. 194 p. Errata slip inserted. 8,000 copies printed.

Ed.: N.Ya. Kobrinskiy, Doctor of Technical Sciences; Ed. of Publishing House: A.G. Akimova; Tech. Ed.: B.I. Model'; Managing Ed. for Literature on Machine Building and Instrument Construction: N.V. Pokrovskiy, Engineer.

PURPOSE: This collection of articles is intended for scientists and technicians working in computing-machine building and related fields.

COVERAGE: This collection of articles presents the results of investigations related to the design and development of electronic computers. It examines the realization of some general and special algorithms by means of digital and analog computers, investigates errors in the realization of functional relationships in electronic analogs, and reviews problems of computing and designing the external outfits and arrangement of digital computers based on various principles of operation. Methods of computation and the basic characteristics of stabilized supply sources for digital and analog computers, methods of computing standard circuits, and problems to related to their reliability are examined. No personalities are mentioned. References accompany some of the articles.

PART I. GENERAL PROBLEMS OF COMPUTER DESIGNING

AVAILABLE: Library of Congress

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S/080/61/034/011/013/020
D228/D301

15 9300

AUTHORS: Yakubchik, A.I., Reykh, V.N., Tikhomirov, B.I., and Pavlikova, A.V.

TITLE: Influence of hydrogenation on the properties of polybutadienes

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 11, 1961, 2501 - 2507

TEXT: The authors studied the influence of hydrogenation on some physico-mechanical properties of sodium-polybutadiene (I) and cis-1,4-polybutadiene (II): modulus of stretching, tensile strength, specific elongation, hardness, recoil elasticity, grindability, temperature of brittleness, frost-resistance coefficient, and gas permeability. Previous work by A.I. Yakubchik et al. has shown that the hydrogenation of such compounds gives both products with commensurate amounts of hydrogenated and unhydrogenated rings and polymers with predominantly hydrogenated rings; the properties of the obtained hydropolybutadienes depend on the original polymer's

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structure. A.I. Yakubchik's method (Ref. 4: Zh. prikl. khimii, 34, 652, 1961) was followed in the hydrogenation of I and in preparing vulcanized rubbers with different microstructures and degrees of unsaturation. The procedure developed by the same author (Ref. 5: Zh. prikl. khimii, 34, 942, 1961) was used to obtain similar specimens - which possessed marked crystallinity - from the hydrogenation products of II. It is concluded from the experimental data that the tensile strength and specific elongation of the vulcanized rubbers obtained from the hydrogenation of I are at a minimum when the degree of unsaturation is decreased by approximately twofold. The decrease of this latter also results in their increased hardness and resistance to heat-ageing and in their diminished brittleness-temperature, gas-permeability, and elasticity; this reduction of the chain elasticity is believed to be caused by the lessened number of double bonds in the chains and by the conversion of side-chain vinyl groups into ethyl groups. The degree of regulation in the polymer chains appears to influence favorably the rubbers' specific-elongation and tensile-strength, even in those cases when it does not lead to crystallization. The increased

PAVLIKOVA, Marie

Outlook for the development of the Czechoslovak chemical industry.
Chem prum 12 no.11:585-586 N '62.

1. Ustredni vybor, Komunisticka strana Ceskoslovenska.

O. A. PAVLIKOVA and M. V. TURKINA

"On conversion of saccharose in plant tissues"

The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms. Conference in Moscow. January 28 to January 30 1958.

BOGOMOLOV, V.S., inzh. (g. Novouzensk); PAVLIKOVA, V.M., uchitel'nitsa; ZHELTUKHIN, D.V., dotsent; TSLAF, N.Z., uchitel'

Editor's mail. Khim.v shkole 18 no.2:82-83 Mr-Ap '63. (MIRA 16:4)

1. Srednyaya shkola No.39, Bryansk (for Pavlikova).
2. Lesotekhnicheskaya akademiya, Leningrad (for Zheltukhin).
3. Srednyaya shkola No.5, Moskva (for TSlaf).
(Chemistry--Experiments) (Building materials)

PAVLIKOVSKAYA, N.B.

...ate ventricular extrasystoles. Kardiologiia 3 no.[illegible] [illegible]
'63.

1. Iz otdeleniya funktsional'noy diagnostiki (zav. N.B. Pavlikovskaya) Sochinskogo instituta kurort... gii (direktor - zasluzhennyy vrach. RSFSR N. Ye. Romanov).

PAVLIKOVSKAYA, N.B.

Functional state of the cardiovascular system in patients with different course of rheumatic fever. Kaz. med. zhur. 4:10-12 Jl-Ag'63 (MIRA 17:2)

1. Sochinskiy nauchno-issledovatel'skiy institut kurortologii (dir. - prof. M.M.Shikhov).

PAVLIKOVSKAYA, N.B., mladshiy nauchnyy sotrudnik

Change in basal metabolism in rheumatic fever as an effect of compound treatment. Vrach. delo 4:148 Ap '62. (MIRA 15:5)

1. Kabinet funktsional'noy diagnostiki Sochinskogo instituta kurortologii.
(BASAL METABOLISM) (RHEUMATIC FEVER)

L 17857-63 EWT(m)/BDS AFFTC/ASD S/0048/63/027/007/0878/0890

ACCESSION NR: AP3003690

AUTHOR: Volkov,M.K.; Pavlikovski,A; Rybarska,V.; Solov'yev, V.G.

TITLE: Accuracy of superfluid model calculations of the properties of strongly deformed nuclei /Report of the Thirteenth Annual Conference [illegible] on Nuclear Spectroscopy held in Kiev from 25 January to 2 February 1963/

SOURCE: AN SSSR, Izv.Seriya fizicheskaya, v.27, no.7, 1963, 878-890

TOPIC TAGS: nuclear level , Bogolyubov method, superfluid nuclear model

ABSTRACT: During the past few years one of the authors (V.G.Solov'yev) alone and in collaboration with others (numerous citations) published calculations of the characteristics and behavior of levels in odd nuclei, energies of two-quasi-particle states in even-even nuclei and the influence of pairing correlations on transition probabilities in strongly deformed nuclei in the mass number regions from 152 to 188 and 225 to 225. Despite the fact that generally good agreement was obtained with experimental data, the accuracy of the calculations stands in need of checking in view of the fact that certain approximations were involved. In the present paper the authors investigate the accuracy of the mathematical method based on the Bogolyubov canonical transformation, which was used for calculating the energies

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of single-quasi-particle excited states of systems with an odd number of nucleons, the energies of two-quasi-particle states of systems consisting of an oven number of nucleons, and the corrections connected with superfluidity of the ground and excited states to be applied to calculated transition probabilities, that are used to evaluate ft values for β-transition, forbiddenness factor in α-decays, etc. The various approximations are discussed and some precise and approximate calculations are compared. It is concluded that the accuracy of calculations based on the superfluid nuclear model is limited mainly by inadequate knowledge of the levels in the "average" field and their fluctuation, and not by the mathematical formalism. It is estimated that the error in the calculation of the energies of two-quasi-particle levels amounts to 10-20%; the error in calculating the corrections to α, β and γ transition probabilities varies in the range from 10 to 100%. "In conclusion we express our deep gratitude to N.N.Bogolyubov, I.N.Mikhaylov and N.I.Pyatov for valuable discussions and to N.A.Buzdavina, I.N.Kukhtina and R.N.Fedorova for numerical computations." Orig.art.has: 8 formulas, 5 figures and 5 tables.

ASSOCIATION: Joint Institute for Nuclear Studies.

VOLKOV, M.K.; PAVLIKOVSKI, A.; RYBARSKA, V.; SOLOV'YEV, V.G.

Exactitude attainable in calculating the properties of heavily deformed nuclei on the basis of a superfluid model. Izv. AN SSSR. Ser. fiz. 27 no.7:878-890 '63. (MIRA 16:8)

1. Laboratoriya teoreticheskoy fiziki Ob"yedinennogo instituta yadernykh issledovaniy.

(Nuclear models)

PAVLIKOVSKI, A., RYBAŃSKA, V.

Accuracy of Bogoliubov's method in the theory of even-even nonspherical nuclei. Zhur. eksp. i teor. fiz. 43 no.2:543-550 Ag '62. (MIRA 16:6)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Nuclear reactions)

PAVLIKOVSKIY, A.; SHCHURUVNA, V.

Use of the method of added variables in statistical physics.
Dokl. AN SSSR 124 no.1:69-71 Ja '59. (MIRA 12:1)

1.Institut fiziki Pol'skoy AN, Vrotslav. Predstavlene akademikem N.N. Bogolyubovym.
(Statistical mechanics)

S/056/62/043/002/026/033
B104/B108

AUTHORS: Pavlikovski, A., Rybarska, V.

TITLE: Accuracy of the Bogolyubov method in the theory of non-spherical even-even nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 2(8), 1962, 543-550

TEXT: The interaction of n particles with a potential $-G\sum_{s,s'} a^+_{s+}a^+_{s-}a_{s'-}a_{s'+}$ on Ω doubly degenerate equidistant levels is analyzed. The Hamiltonian of this system is

$$H=\sum_{s=1}^{\Omega}\varepsilon_s(a^+_{s+}a_{s+}+a^+_{s-}a_{s-})-G\sum_{s,s'}a^+_{s+}a^+_{s-}a_{s'-}a_{s'+}\quad(1),$$

where $a^+_{s\varkappa}$ and $a_{s\varkappa}$ are respectively the production and annihilation operators of fermions in states with the quantum numbers s, $\varkappa$ ($s = 1, \ldots, \Omega$; $\varkappa = \pm$); ε_s is the energy of a single-particle level; and

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AUTHORS: Pavlikovskiy, A., Shchuruvna, V.

TITLE: The Use of Zubarev's Method of Additional Variables in Statistical Physics (O primenenii metoda dopolnitel'nykh peremennykh Zubareva k statisticheskoy fizike). 20-1-58

PERIODICAL: Doklady AN SSSR 1958, Vol. 118, Nr 1, pp. 61-64 (USSR)

ABSTRACT: In 1953 D. N. Zubarev with the investigation of the problem of elementary stimulations in a real Fermi gas. developed the method of additional variables and used them for the calculation of the energy spectrum of these stimulations. The present work uses the method of the additional variables for the calculation of the statistical sum of a system of N particles being in interaction. For reasons of exactness the authors observe Fermi particles in a volume V which by means of a central two-particle potential are in interaction with oneanother (Bose-particles can be investigated analogously). The Hamiltonian of the system is represented in the form

$$\hat{H} = \hat{H}_0 + \hat{H}_1, \quad \hat{H}_0 = \sum_{i=1}^{N} \hat{\vec{P}}_i^{\,2}/2m, \quad \hat{H}_1 = (1/2) \sum_{ij,\,i\neq j} \hat{W}_{ij}.$$

The added operators $\hat{Q}_{\vec{k}}$ ($|\vec{k}| < k_0$, $\vec{k} \neq 0$, $\hat{Q}^{+}_{\vec{k}} = \hat{Q}_{-\vec{k}}$,

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The Use of Zubarev's Method of Additional Variables in Statistical Physics. 20-1-17/58

+ means here the Hermitian (Ermit) are introduced. The vector of state of the system is sufficient for the added condition $\hat{Q}_{\vec{k}}|\Psi\rangle = 0$, $(|\vec{k}| < k_0)$. The authors are interested in such an approximation, in which the interaction between the fermions, between the oscillators and between the fermions and oscillators, can be neglected. The course of calculation is traced step by step. For the statistical sum an expression corresponding to the studied approximation is put down. The result found will be compared in a later work with the classical case of the corresponding problem.
There are 3 references, 2 of which are Slavic.

ASSOCIATION: Institute for Physics of the Polish Academy of Sciences, Breslau (Institut fiziki Pol'skoy Akademii nauk, Vrotslav).

PRESENTED: August 16, 1957, by N. N. Bogolyubov, Academician.

SUBMITTED: August 15, 1957

AVAILABLE: Library of Congress

Card 2/2

PAVLIKOVSKIY, A.; SHCHURUVNA, V.

Use of Zubarev's method of added variables in statistical physics. Dokl. AN SSSR 118 no.1:61-64 Ja-F '58. (MIRA 11:3)

1. Institut fiziki Pol'skoy Akademii nauk, Vrotslav. Predstavleno akademikom N.N.Bogolyubovym.
(Statistical mechanics)

39577

S/020/62/145/003/007/013
B104/B102

AUTHOR: [illegible]

TITLE: [illegible] field [illegible] in a [illegible] nuclear [illegible]

PERIODICAL: [illegible] Doklady, v. 145, no. 3, 1962, [illegible]

TEXT: [illegible] field contained in the second term of the Hamiltonian

$$H = \sum_s \varepsilon_s (a_{s+}^+ a_{s+} + a_{s-}^+ a_{s-}) - G \sum_{ss'} a_{s+}^+ a_{s-}^+ a_{s'-} a_{s'+},$$

(9) for a system of [illegible] interaction can be separated by means of

$$H = H_1 + H_2,$$

$$H_1 = \sum_s E_s (a_{s+}^+ a_{s+} + a_{s-}^+ a_{s-}) + C,$$

$$H_2 = -G \sum_{s,s'} a_{s+}^+ a_{s-}^+ a_{s'-} a_{s'+} + G \sum_s{}' (a_{s+}^+ a_{s+} + a_{s-}^+ a_{s-}) - C. \quad (11).$$

[illegible] the levels occupied by two nucleons. [illegible] The second [illegible] the creation and annihilation operators of the nucleons in the [illegible]

$$-G_1 \sum_{s,s'} V_{ss'} a^+_{s+} a^+_{s-} a_{s'-} a_{s'+}$$

PAVLIKOVSKI, A.

Isolation of a self-consistent field in a superfluid nuclear model. Dokl.AN S.S.R 145 no.3:555-556 Jl '62. (MIRA 15:7)

1. Ob"yedinennyy institut yadernykh issledovaniy. Predstavleno akademikom N.N.Bogolyubovym.
(Nuclear models) (Quantum theory)

PAVLIKOVSKIY, A.; RYBARSKA, V.; SARANTSEVA, V.R., tekhn. red.

[Testing the accuracy of Bogoliubov's method in the theory of even-even nonspherical nuclei] Izuchenie tochnosti metoda Bogoliubova v teorii chetno-chetnykh nesfericheskikh iader. Dubna, Ob"edinennyi in-t iadernykh issl., 1962. 30 p. (MIRA 15:4)

(Nuclear reactions)

PAVLIKOVSKAYA, N.B.; KUZNETSOV, L.A.; NEKRASOV, V.I.

Changes in the external respiration under the effect of dry [illegible] loads of various intensity in patients with mitral defects of rheumatic etiology. Vop.kur., fizioter. i lech. fiz. kul't. 30 no.5:444-447 S-O '65. (MIRA [illegible])

1. Otdeleniye lechebnoy [illegible] (zav. [illegible]) nauk L.A.Kuznetsov) i otdeleniye funktsional'noy diagnostiki (zav. N.B.Pavlikovskaya) [illegible] fizioterapii (dir. N.Ye.Romanova).

6

BLASYAK, Ye.; LAYDLER, K.; PAVLIKOVSKIY, S.; SOBOLEVSKIY, Ya.; SOBOLEVSKIY, L.; POLYAKOV, N.N. [translator]; AVTSIN, I.Ye., red.; BEN'KOVSKIY, S.V., red.; KOGAN, V.V., tekhn. red.

[Technology of fixed nitrogen; synthetic ammonia] Tekhnologiia sviazannogo azota; sinteticheskii ammiak. By E.Blasiak i dr. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 263 p. (MIRA 14:10)

(Ammonia) (Nitrogen compounds)

BLASYAK, Ye.; LAYDLER, K.; PAVLIKOVSKIY, S.; SOBOLEVSKIY, Ya.; SOBOLEVSKIY, L.; POLYAKOV, N.N. [translator]; AVTSIN, I.Ye., red.; BEN'KOVSKIY, S.V., red.; KOGAN, V.V., tekhn. red.

[Technology of fixed nitrogen; synthetic ammonia] Tekhnologiia sviazannogo azota; sinteticheskii ammiak. By E.Blasiak i dr. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 263 p. (MIRA 14:10)

(Ammonia) (Nitrogen compounds)

PAVLIKOVSKIY, F.

Fuel Abst.
Vol.XV, No.2
Feb. 1954
Natural Solid
Fuels: Winnin

1027. SPONTANEOUS IGNITION OF COALS. Olpiński, W., Gabryś, P., Pawlikowski, T. and Roznus, J. (Stalinogród: Prace Głów. Inst. Górn. (Contr. chief Inst. Min.), 1953, Ser. A & B, Komunik. 139, 38pp.). Experiments are recorded on the determination of internal surface of coals, on the effect of passing air through a layer of broken coal at 50 and 80°C and on spontaneous heating in apparatus representing the inside of a heap. A picture of the process of low temperature oxidation is constructed from the results obtained. It is concluded that a laboratory determination of a coal's liability to spontaneous ignition must take account of its moisture and ash content, spontaneous ignition index and sorption of oxygen. (L).

PROTSENKO, Z.I.; PAVLILOVA, I.G., red.

[Mechanization and electrification of poultry farms; bibliographical list of Soviet literature published from 1961. to 1964 comprising 230 items] Mekhanizatsiia i elektrifikatsiia ptitsevodcheskikh ferm; bibliograficheskii spisok otechestvennoi literatury za [illegible] v kolichestve 230 nazvanii. Moskva, [illegible] 26 p. (MIRA 18:10)

1. Moscow. Tsentral'naya nauchnaya sel'skokhozyaystvennaya biblioteka. Spravochno-bibliograficheskiy otdel.

[illegible], [illegible]

"Certain Problem[illegible] of [illegible] Wi[illegible] With a var[illegible] Coeff[illegible] [illegible]." [illegible] For degree of Cand. Ph[illegible] [illegible] Sci. [illegible] Dec 59, Sci, [illegible] Mechanic[illegible], [illegible] Lenin St[illegible].

Su[illegible]ary [illegible], [illegible] Dec [illegible], Dissertatio[illegible] [illegible]ted for Degrees in Science [illegible] in [illegible]. From [illegible] [illegible]kva, [illegible].

PAVLIN, A K

USSR/Physics - Viscous liquid FD-2862

Card 1/1 Pub. 85-15/16

Author : Pavlin, A. K. (Chernovitsy)

Title : A case of the integration of the equations of motion for a viscous liquid with variable coefficient of viscosity

Periodical : Prikl. mat. i mekh., 19, Sep-Oct 1955, 635-638

Abstract : The author considers the two-dimensional problem of heat exchange in a viscous liquid (fluid) enclosed between two unbounded parallel planes, one of which is being displaced at constant velocity. He assumes a linear dependence upon temperature for the quantity inverse to the absolute coefficient of viscosity. He poses the problem of finding the distribution of velocity and temperature of the viscous liquid over the cross section. No references.

Institution :

Submitted : March 3, 1954

KIR'YANOVA, L.F.; PAVLIN, A.V.

Maintenance of standards at the Kirov Leather and Fur works.
Standartizatsiia 26 no.1:62-63 Ja '62. (MIRA 15:1)
(Kirov--Leather industry--Standards)

PAVLIN, A.V., inzh.

Distribution of the chemical composition and of physical and mechanical properties on the usable part of shoe sole leather and some problems in standard sampling. Izv. vys. ucheb. zav.; tekhn. leg. prom. no.3:53-67 '58. (MIRA 11:10)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut narodnogo khozyaystva imeni G.V. Plekhanova.
(Leather--Testing)

PAVLIN, A.V.; KAVKAZOV, Yu.L.

Standardization of the inferior leather in a sample batch.
Standartizatsiia 26 no.8:37-39 Ag '62. (MIRA 15:8)
(Leather—Standards)

PALLADOV, S.S.; PAVLIN, A.V.; TER-OVAKIMYAN, I.A.; KEDRIN, Ye.A.; TSEREVITINOV, B.F.; BORISOVA, G.A., red.; MEDRISH, D.M., tekhn. red.

[Manual for laboratory and practical work in the commercial study of manufactures] Rukovodstvo k laboratornym i prakticheskim zaniatiiam po tovarovedeniiu promyshlennykh tovarov. Moskva, Izd-vo "Ekonomika." Pt.2.[Textile, clothing, knitted, leather-and footwear, and fur goods] Tovary tekstil'nye, shveinye, trikotazhnye, kozhevenno-obuvnye, pushno-mekhovye. 1964. 280 p. (MIRA 17:4)

PAVLIN, A.V.; KAVKAZOV, Yu.L.; GALKINA, Ye.N.

System for evaluating shortcomings in standards for leather footwear. Standartizatsiia 29 no. 11:58-59 N '65 (MIRA 19:1)

SOLOV'IEV, N.S.; PAVLIN, A.V.

Chaning the dimensions of Russian leather skins by manufacturing methods. Kozh.-obuv.prom. 2 no.4:18-20 Ap '60. (MIRA 13:9)
(Leather)

BELYAYEV, A.V.; GRIGORIADI, M.G.; SOLOV'YEV, N.S.; PAVLIN, A.V.

Advanced technology for drying and finishing Russian leather.
Kozh.-obuv.prom. 2 no.8:20-22 Ag '60. (MIRA 13:9)
(Leather)

PAVL[illegible], A. V.: [illegible]

physico-mechanical [illegible] tap[illegible] [illegible]

pr[illegible] [illegible]

[illegible] V. P[illegible]

(Fl, [illegible])

PAVLIN, A.V.

Number of tested areas of skins analyzed for selecting standard specimens. Leg. prom. 18 no.9:18-20 S '58. (MIRA 11:10)
(Leather--Standards)

PAVLIN, A.V.

Precision of the method of hals skins. Leg. prom. 18 no.2:35-36 '58. (MIRA 11:2)

(Hides and skins--Testing)

IVANOV, Georgiy Vasil'yevich; PAVLIN, D.V., red.; YERMAKOV, M.S., tekhn.red.

[Collective-farm membership] Chlenstvo v kolkhoze. Moskva, Izd-vo Mosk.univ., 1960. 31 p. (MIRA 13:12)
(Collective farms)

PAVLIN, Franc, ing.

Automatic feeding of ship boilers. Automatica 2 no.1:48-49 Ap '61.

(Automatic control) (Boilers)

BUROVOY, I. [illegible]; MEL'YANOV, [illegible].V., [illegible]ENTSOV, [illegible].F.; LUNKIN, B.V.; [illegible], I.M.

Integral regulator with variable structure and minimal changes of controlling effects. Sbor. nauch. trud. Gintsvetmeta no.21:409-41[illegible] '64. (MIRA 18:8)

L 11274-65 EWT(m)/EWP(v)/EWP(k)/EWP(h)/EWP(1)/EWT(c) Pf-4 ASD(a)-5/AFMDC/
AFETR/ESD(dp) JD/JIT(CZ)
ACCESSION NR: AT4047305 S/3115/64/000/021/0409/0417

AUTHOR: Burovoy, I. A.; Yemel'yanov, S. V.; Zelentsov, O. P.; Lunkin, B. V.; Pavlin, I. M.

TITLE: An integral regulator with variable structure and with minimal changes in the control signal

SOURCE: Moscow. Gosudarstvennyy institut tsvetnykh metallov. Sbornik nauchnykh trudov, no. 21, 1964. Matematicheskiye modeli tekhnologicheskikh protsessov i razrabotka sistem avtomaticheskogo regulirovaniya s peremennoy strukturoy (Mathematical models of technological processes and development of variable structure feedback systems), 409-417

TOPIC TAGS: variable parameter control system, automatic regulation, integral regulator

ABSTRACT: In their previous work (Avtomatika i Telemekhanika, vol XXI, No. 8, 1960), the authors showed that in the control of some continuous technological processes with interdependent parameters, excellent results are obtained when the changes in control signals, which are required by the static characteristics of the controlled object, are only of sufficient magnitude to compensate for the perturbations. In this article, the idea is extended to the design of an integral

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ACCESSION NR: AT4047305

regulator with variable structure which uses the minimal required changes in control signals to control inertial objects (processes) with a time lag or objects with distributed parameters. The block and wiring diagrams of the control system are shown. The regulator consists of a servo tracking loop which produces the auxiliary coordinate η, and of logic systems which form the logic control function to change the system structure in accordance with the values of the signs of the auxiliary coordinates x^*, η and σ. For some specified combinations of signs of x^*, η and σ the channel $x - X$ is opened for transmission of the error signal x to the slave mechanism. The principal transient signals of the system are shown in Figure 1 of the Enclosure. Tests have shown that when the system is optimized for maximum perturbation, the regulator compensates accurately for this perturbation in one cycle of the slave mechanism. All perturbations which are smaller than the maximum require two or three cycles of the slave mechanism for compensation. Orig. art. has: 3 equations and 4 figures.

ASSOCIATION: Gosudarstvenny*y Institut tsvetny*kh metallov, Moscow (State Institute of Non-Ferrous Metals)

SUBMITTED: 00 ENCL: 02 SUB CODE: IE, MM

NO REF SOV: 001 OTHER: 000

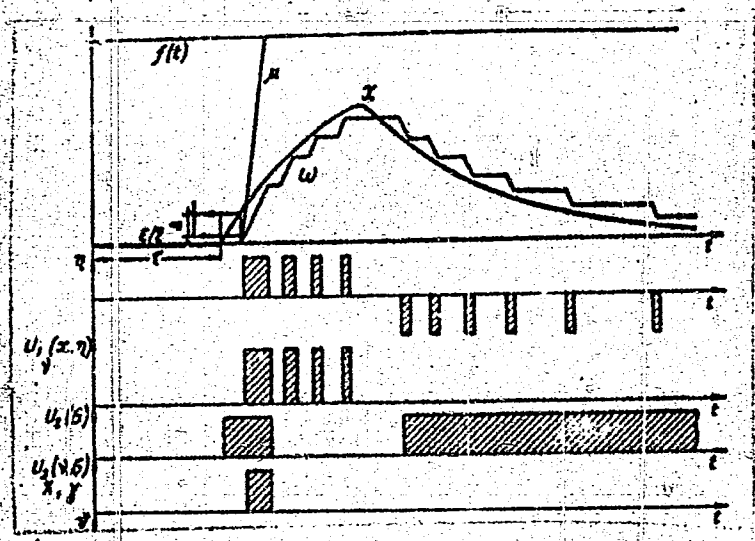
Card 2/4

L 11274-65

ACCESSION NR: AT4047301

ENCLOSURE: 01

Figure 1.



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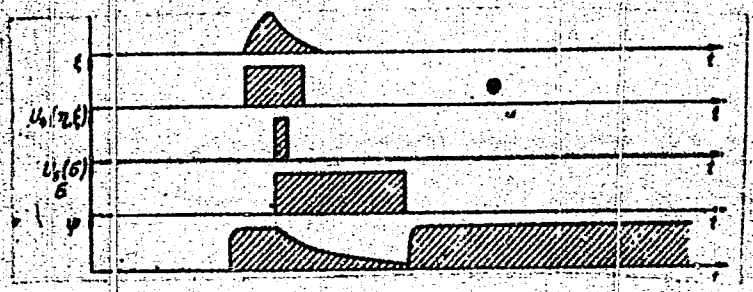
L 11274-65
ACCESSION NR: AT4047305 Continuation of Figure 1. ENCLOSURE: 02



Variations in the basic system coordinates during transient operation.

Card 4/4

PAVLIN, J.

PAVLIN, J. Using the winter months for adjustment of the centers. p. 28.

Vol. 6, no. 2, Jan. 1956
MECHANISACE ZEMEDELSTVI
AGRICULTURE
Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

PAVLIN, J.

How employees of our machine-tractor station help me in my work. p. 138.
MECHANISACE ZEMEDELSTVI. Vol. 5, No. 6, Apr. 1955

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

Pavlin, O.K.

124-1957-10-11640

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 10, p 63 (USSR)

AUTHOR: Pavlin, O. K.

TITLE: A Non-stationary Circular Motion of a Viscous Liquid With a Variable Coefficient of Viscosity (Nestatsionarnoye krugovoye dvizheniye vyazkoy zhidkosti s peremennym koeffitsiyentom vyazkosti)

PERIODICAL: Nauk.. zap. Chernivets'k. un-t, 1956, Vol 19, pp 64-69

ABSTRACT: The paper describes the non-stationary motion of a viscous incompressible liquid between two coaxial cylinders, with a coefficient of viscosity which depends upon the temperature. At the initial moment, one of the cylinders has an angular velocity other than zero; the temperature of all liquid particles is the same and is equal to the temperature of the wall. After the cylinder is released, it is necessary to determine the law of its angular velocity with time under the assumption that there is no heat transfer between the liquid and the walls. The problem is solved by the following rough approximation: The velocity distribution in the liquid layer between the cylinders is the same as that of

Card 1/2

PAVLIN, Rudolf

The antianemia factors. Zdrav. vest., Ljubljana 24 no.5-6: 218-224 1955.

1. Patofiziloski institut medicinske fakultete v Ljubljani.
(ANEMIA,
antianemia factors, review (Sl))

PAVLIN, V., brigadir biskvitnogo agregata moskovskoy fabriki "Bol'shevik"; GROZMANI, V.E., konsul'tant; KORNILOVA, M., redaktor; RAKOVA, I., tekhnicheskiy redaktor.

[At a cookie machine] Ubiskvitnogo agregata. [Moskva] Izd-vo VTsSPS Profizdat, 1953. 39 p. (MLRA 7:8)

1. Nachal'nik otdela organizatsii truda biskvitnoy fabriki "Bolshevik." (for Grozmani)
(Cookies)

ANTONIN, Branko, Dr.; PAVLIN, Zlatko, Dr.

The negative U wave as a residual sign in myocardial infarction.
Lijec vjes 82 no.6:495-500 '60.

1. Iz internog odjela Bolnice Šusak, Medicinski fakultet, Rijeka.
(MYOCARDIAL INFARCT diag)
(ELECTROCARDIOGRAPHY)

YUGOSLAVIA

PAVLIC, Zlatko; ROJE, Josip; and ANTONIN, Branko, Clinic of Internal Medicine of the Hospital (Interna Klinika Bolnice) "Braca Dr. Sobol" and of the Hospital (Bolnice) "Dr. Zdravko Kucic" of the Medical Faculty (Medicinskog fakulteta) Rijeka

"Nontransmural Myocardial Infarct"

Zagreb, Lijecnicki Vjesnik, Vol 88, No. 4, Apr 66: pp 369-380

Abstract: [English summary modified] Data on 26 male and 14 female patients with nontransmural myocardial infarct, hospitalized during the last 4 years: symptoms, SGOT values; 5 of the 40 later had a transmural infarct and 1 died. Detailed discussion of electrocardiographic data. 2 graphs, many EKG's, 1 Yugoslav, 33 Western references. Manuscript received 5 Nov 65.

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RYAZANOVA, Ye.F.; FADEYEVA, M.S.; PAVLINA, T.S.

Relation between the absorption and luminescence spectra of some organic compounds. Izv.AN SSSR 24 no.6:769-771 Je '60. (MIRA 13:7)

1. Gor'kovskiy gosudarstvennyy pedagogicheskiy institut imeni M. Gor'kogo.

(Organic compounds--Spectra)

PAVLINA, T.S.

Luminescence spectra of some dicarboxylic acids. Izv.AN SSSR Ser.fiz. 23 no.1:150-152 Ja '59. (MIRA 12:4)
(Acids, Organic--Spectra)
(Luminescence)

SOV/48-23-1-[illegible]/34

24(7)
AUTHOR: Pavlin[illegible], T. S.

TITLE: The Luminescence Spectra of Some Dicarboxylic Acids (Spektry lyuminestsentsii nekotorykh dikarbonovykh kislot)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 1, pp 190 - 192 (USSR)

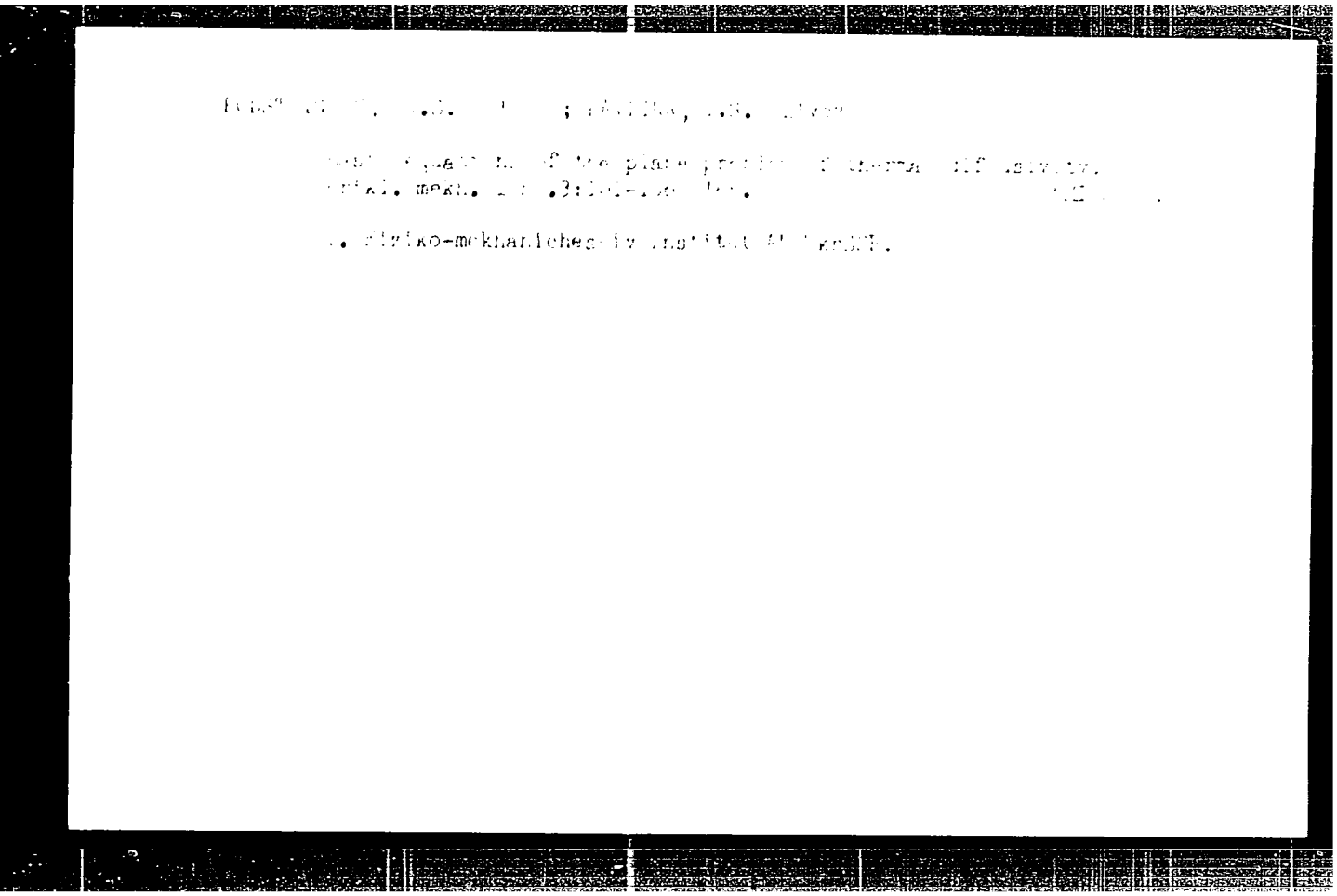
ABSTRACT: Investigations were carried out of the luminescence spectra of alcoholic solutions of glutaric acid and hexadecandicarbonic acid at various concentrations and at the temperature of liquid oxygen. For the excitation of luminescence the [illegible] lamp PRK-2 with filter was used. The wave lengths of the maxima in the spectrum were determined by interpolation by means of the formula of Hartmann (Gartman). The microphotographs are given by figures and the wave length and frequency of the maxima of luminescence spectra at a concentration of $c = 5.10^{-4}$ mol/l are given by table 1. From the figures it may be seen that in the case of increased concentration, the maximum of the spectrum is for both substances shifted to the range of long waves. This is explained according to references 1-4 because of greater participation in higher concentrations

Card 1/2

The Luminescence Spectra of Some Dicarboxylic Acids

of luminescent associates. By analysis of the frequency difference of places of the maxima of each band with respect to all the following maxima certain oscillation frequencies could be observed (Table 2), from which the frequencies of the maxima were calculated by means of the series (as in table 1). For both substances investigated uniform oscillation frequencies were found, which were ascribed to the variations of the bonds C-C and C=O of the CH groups. They correspond to the values of infrared- and Raman-spectra (Ref 8). The author finally thanks B. Ya. Svetlitskiy for his advice in connection with this work. There are 2 figures, 2 tables and 8 Soviet references.

Card 2/2



PAVLINA, V.S. [Pavlyna, V.S.]

Effect of the irregular distribution of temperature and deformation on diffusion in a semi-infinite body. Ukr. fiz. zhur. 10 no.6:657-661 Je '65. (MIRA 18:7)

1. Fiziko-mekhanicheskiy institut AN UkrSSR, L'vov.

PODSTRIGACH, Ya.S.; PAVLINA, V.S.

Diffusion processes in a heated strained sphere. Vop. mekh. real'. tver. tela no. 2:100-106 '64. (MIRA 17:9)

PODSTRIGACH, Ya.S.; PAVLINA, V.S.

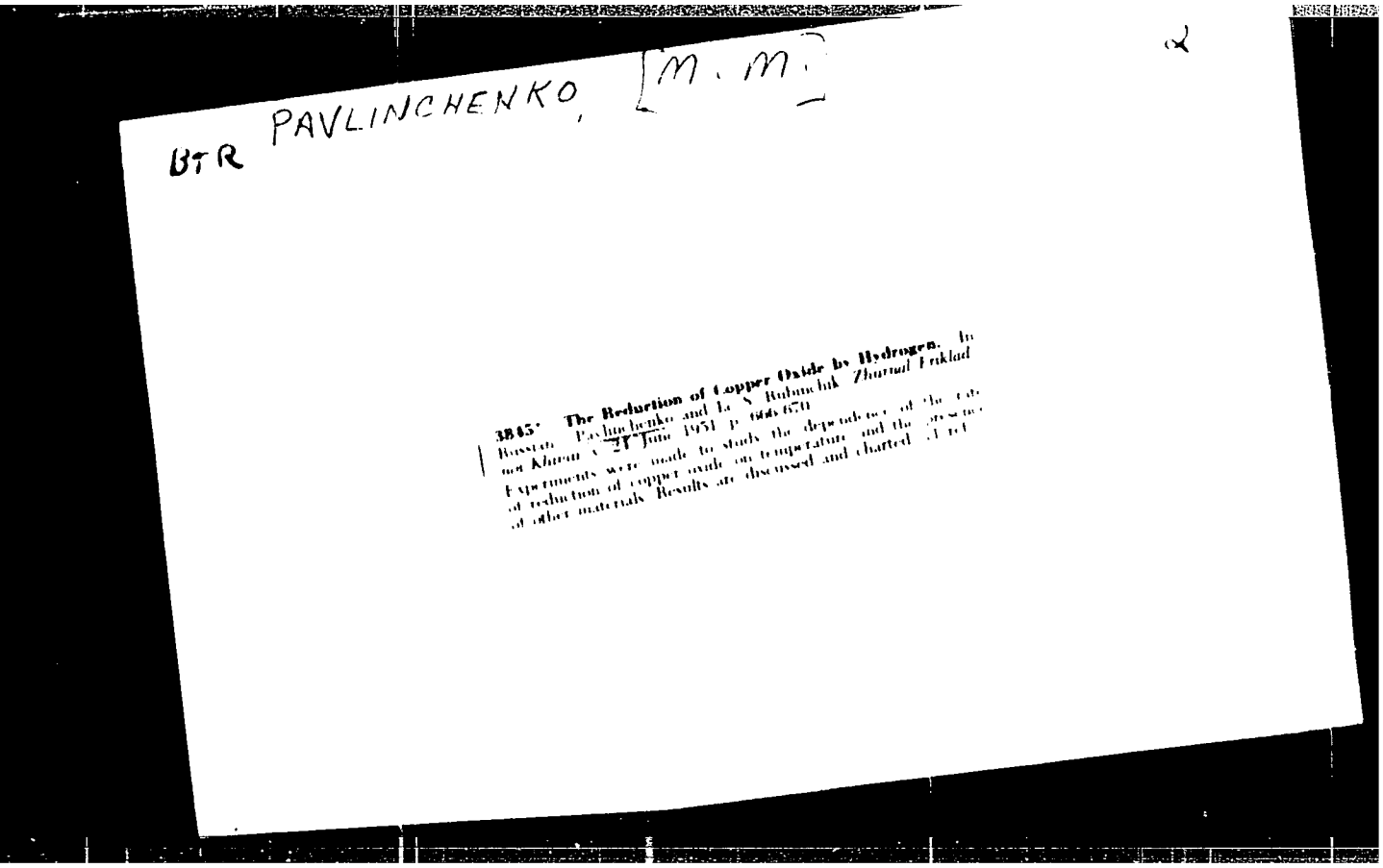
Diffusion processes in a nonuniformly heated layer undergoing deformation. Vop. mekh. real'. tver. tela no.1:67-75 '62. (MIRA 16:1)

(Diffusion) (Heat—Conduction) (Deformations (Mechanics))

PODSTRIGACH, Ya.S. [Pidstryhach, IA.S.]; PAVLINA, V.S. [Pavlyna, V.S.]

General relations in the thermodynamics of solid solutions.
Ukr. fiz. zhur. 6 no.5:655-663 S-O '61. (MIRA 14:11)

1. Institut mashinovedeniya i avtomatiki AN USSR, g. L'vov.
(Solutions, Solid)
(Thermodynamics)



BTR PAVLINCHENKO, [M. M.]

3865. **The Reduction of Copper Oxide by Hydrogen.** In Russian. Pavlinchenko and Ia. S. Rubanchik. *Zhurnal Fiziked mot Khimii*, v. 25, June 1951, p. 666-670

Experiments were made to study the dependence of the rate of reduction of copper oxide on temperature and the presence of other materials. Results are discussed and charted.