FEDOROVICH, M.

Use of matrix calculation in factory planning. Vop. ekon. no.2:154-155 F '58. (MIRA 11:3)
(Factories--Accounting) (Matrices)

GILEL'S, G.G., kand.tekhn.nauk; DONSKOV, V.Ye., kand.ekonom.nauk, retsenzent, spetsred.; FEDOROVICH, M.M., kand.ekonom.nauk, retsenzent; HESH, G.S., red.; TARASOVA, N.M., tekhn.red.

[Setting up technical norms in the food industry] Tekhnicheskoe normirovanie v pishchevoi promyshlennosti. Moskva, Pishchepromizdat, 1959. 289 p. (MIRA 14:2)

(Food industry)

25(5) PHASE I BOOK EXPLOITATION SOV/2765

Fedorovich, Mikhail Mikhaylovich

Organizatsiya i planirovaniye khimicheskogo predpriyatiya (Organization and Planning of Chemical Enterprises) Moscow, Gosplanizdat, 1959. 547 p. Errata slip inserted. 7,000 copies printed.

Ed.: I. M. Petrushev; Tech. Ed.: Ye. S. Gerasimova.

PURPOSE: This textbook is intended for postgraduate students specializing in the organization and planning of chemical plants on the basis of principles governing the socialist industry.

COVERAGE: The book reviews the scientific basis underlying organization and planning of layouts of socialist industrial enterprises. It outlines major differences between the capitalist and the socialist industrial enterprise, and points out the advantages of the latter. Chemical production processes and methods are analyzed and the trend to shift over to continuous production processes and automated operations is pointed out. Organization of work, management of the socialist enterprise and operation of its various offices with automatic control equipment, chemical plant labora-

Card 1/16

tories and their operations are described. In addition, the author reviews principles of Soviet cost accounting, financial forecast, pay scale and rates, remuneration of executives, engineers, technicians and workmen, the system of rewarding them for outstanding performance and the recruiting and training of chemical plant staff members. He also reviews the production program of a chemical plant, its elements, capital investments, depreciation of capital items, various expenditures, commercial expenses, overhead, etc. The author thanks economists A. O. Leoshkin who participated in writing Chapters X and XI, N. A. Polyakova who participated in writing Chapter XII, and A. M. Kovaleva who participated in writing Chapter XVI. He also thanks N. A. Vlasova, I.M. Petrusheva, M. S. Ter-Stepanyants, V. A. Tikhomirov, Engineer I. I. Kovalin, Doctor T. V. Teplova, Professor N. P. Fedorenko, and D. A. Troitskiy for their comments and consultation. The book contains numerous tables, graphs and sample calculations. There are no references.

FEDOROVICH, M.

Application of mathematics in planning. Vop.ekon. no.5:155-156 My '61. (MIRA 14:5)
(Chemical industries) (Mathematical models)

FEDOROVICH, M.M., prof.; CHEREYSKAYA, N.N., dots., kand. ekon. nauk; NELIDOV, I.Ye., dots., kand. tekhn. nauk; KOZHIN, L.P., kand. ekon. nauk; RUMYANTSEVA, Z.P., dots., kand. ekon. nauk; BUGROV, Ye.P., doktor tekhn. nauk, prof.; SKVORTSOVA, N.T., kand. ekon. nauk; FEDOROVICH, M.M., prof., red.; PETRUSHEV, I.M., red.; PONOMAREVA, A.A., tekhn. red.

[Mathematical methods in production planning] Matematicheskie metody v planirovanii proizvodstva. Moskva, Izd-vo ekon. lit-ry, 1961. 150 p. (MIRA 14:8)

1. Moskovskiy inzhenerno-ekonomicheskiy institut im. S.Ordzhonikidze (for Fedorovich, Chereyskaya, Nelidov, Kozhin, Rumyantsev, Bugrov, Skvortsova)

(Economics, Mathematical)

BISHAYEV, Mikhail Andreyevich; kand.ekonom.nauk; FEDOROVICH, Mikhail Mikhaylovich, prof.; PETRUSHEV, I.M., red.; TER-STEPANYANTS, M.S., red.; GERASIMOVA, Ye.S., tekhn.red.

[Organization of the administration of industrial production] Organizatsiia upravleniia promyshlennym proizvodstvom. Moskva, Gos.izd-vo planovo-ekon.lit-ry, 1961. 224 p. (MIRA 14:6)

(Industrial organization)

FEDOROVICH, M.M.; CHEREYSKAYA, N.N.; SOKOLOVA, L.V.; TOBELKO, I.L.

Computation of the technical and industrial plan of a chemical enterprise by the method of matrix calculus. Khim. prom. no.9: 44-49 S '61. (MIRA 15:1)

1. Moskovskiy inzhenerno-ekonomicheskiy institut imeni Sergo Ordzhonikidze.

(Chemical plants)

FEDOROVICH, M.M.

[Production processes and their automation in chemical plants]Proizvodstvennye protsessy i ikh avtomatizatsiia na khimicheskikh predpriiatiiakh. Moskva, Mosk. inzhenerno-ekon. in-t im. Sergo Ordzhonikidze, 1962. 51 p.
(Automation) (MIRA 15:11)
(Chemical industries—Equipment and supplies)

FEDOROVIC, M. [Fedorovich, M.]

Concept of complex automation. Podnik organizace 16 no.11: 525-526 N '62.

FEDOROVICH, Mikhail Mikhaylovich, doktor ekon. nauk; KOREN'KOV, A.M., red.; KOGAN, Ye.L., red.; RAKITIN, I.T., tekhn. red.

[Cybernetics in economics; the economic efficiency of applying cybernetics in the national economy] Kibernetika v ekonomike; ob ekonomicheskoi effektivnosti primeneniia kibernetiki v narodnom khoziaistve. Moskva, Izd-vo "Znanie," 1963. 43 p. (Novoe v zhizni, nauke, tekhnike. III Seriia; Ekonomika, no.24) (MIRA 17:1)

(Automation)

FEDOROVICH, Mikhail Mikhaylovich, doktor ekon. nauk, prof.;
Prinimal uchastiye POGOSTIN, S.Z., kand. ekon. nauk;
INSHAKOV, A.N., red.

[Organization and planning of a chemical enterprise] Organizatsiia i planirovanie khimicheskogo predpriiatiia.
Moskva, Ekonomika, 1965. 462 p. (MIRA 18:8)

FEDOROVICH, Mikhail Mikhaylovich, prof.; KHORUNZHIY, L.A., nauchnyy red.; MIRONOV, S.Ya., red.; RAKITIN, I.T., tekhn. red.

[Mathematical model of the technical, industrial and financial plan]Matematicheskaia model' tekhpromfinplana. Moskva, Izd-vo "Znanie," 1962. 61 p. (Novoe v zhizni, nauke, tekhnike. III Seriia: Ekonomika, no.13/14) (MIRA 15:9)
(Industrial management) (Economics, Mathematical)

FEDOROVICH, M.M., prof.; RAZUMOVA, I.V.

Improvement of industrial planning in the chemical industry.
Zhur.VKHO 9 no.1:24-33 '64. (MIRA 17:3)

FYDOROVICH, N.

Auf Dem Weg Zum Stachanow Betried
(On the Road To the Stakhanov System)
Aus Den Arbe Tserfahrungen Des Kaliberwerkes (By) N. Fedorowitsch.
Berlin, Verlag Kultur und Fortschritt, 1950

62P. (Kleine Buchere Der Gesell-Schaft Fur Deutsch-Sowjetische Freund-Schaft, Heft 1)

Description on working experiences of the "Kaliber Zavod" for testing and measuring instruments, its industrial development, and great achievements regarding the Five-Year Plans.

FEDOROVICH,N.

Valuable initiative of Turner Kralichkin ("Individual and collective plans for increasing labor productivity." Sov.profsoiuzy 3 no.9:90-91 S '55. (MLRA 8:12)

(Labor productivity)

FEDOROVICH, N.

Everything for the man. Okhr.truda i sots.strakh. no.8:9-14 Ag '59.
(MIRA 12:11)

(Moscow--Exhibitions)

IOFFE, A. akademik; STIL'BANS, L.; IORDANISHVILI, Ye.; FEDOROVICH, N. [A.]

Thermoelectric refrigerator. Khol.tekh.33 no.1:62-63 Ja Mr '56.
(Refrigeration and refrigerating machinery) (MLRA 9:7)

57-28-3-8/33

AUTHORS: Stil'bans, L. S., Fedorovich, N. A.

TITLE: On the Performance of Cooling Thermoelectric Cells on Non-steady Conditions (O rabote okhlazhdayushchikh termoelementov v nestatsionarnom rezhime)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 3, pp.489-492 (USSR)

ABSTRACT: The performance of a cooling thermoelectric cell on nonsteady conditions was theoretically and experimentally investigated here. The equation for the temperature of the cold soldered junctions (4) is derived. The analysis of this formula (4) shows that the inertia of the thermoelectric cell is a function of the square of its linear dimensions, i.e. that the cooling velocity is inversely proportional to the square of its length. The cooling velocity increases with the current rise. The investigations were made in specially produced samples as well as in thermoelectric cells of usual construction. It is shown that the inertia also depends on the opera-

Card 1/2

On the Performance of Cooling Thermoelectric Cells on Nonsteady Conditions

tion amperage and can many times be reduced by the use of a pulsating current with an amplitude which surpasses the value of the optimum current under steady conditions. In the case of a pulsed operation the thermoelectric cell may for a short time guarantee a cooling which considerably surpasses the maximum cooling under steady conditions. M. N. Vinogradov helped with the measurements and the production of the thermoelectric cells. There are 4 figures, and 2 Soviet references.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad
(Leningrad Institute for Semiconductors, AS USSR)

SUBMITTED: October 1, 1957

1. Refrigeration systems---Equipment 2. Refrigeration systems ---Performance 3. Electric currents---Temperature factors

TITIE: Thermoelectric cells

34216
S/181/62/004/002/041/051
B102/B138

26.2532

AUTHORS: Boltaks, B. I., and Fedorovich, N. A.

TITLE: Diffusion and solubility of silver in bismuth telluride

PERIODICAL: Fizika tverdogo tela, v. 4, no. 2, 1962, 550-552

TEXT: Silver-doped Bi_2Te_3 is an effective material for the negative side of a thermocouple. Ag diffusion and solution was studied with p-type Bi_2Te_3 single crystals grown by the Bridgman method. The conductivity of the specimens was ~500 $ohm^{-1}cm^{-1}$, the thermo-emf coefficient was ~200 μv/deg. They were cut partly in parallel and partly perpendicular to the cleavage plane. Diffusion annealing was carried out in an argon atmosphere. Diffusion was investigated by using Ag^{110} tracer and removing thin layers, and was found to be highly anisotropic; in the cleavage plane the diffusion rate was 3-5 orders of magnitude higher than in the cross direction. $D_{\parallel}$ was changed from ~10^{-8} to ~10^{-5} cm^2/sec between 100 and 500°C and $D_{\perp}$ from ~10^{-11} to ~$5 \cdot 10^{-8}$ cm^2/sec between 300 and 500°C.

Card 1/3

Diffusion and solubility of silver ...

$$D_{\parallel} = 2.2 \cdot 10^{-3} \exp(-0.42/kT) cm^2/sec$$

$$D_{\perp} = 2.3 \cdot 10^{-1} \exp(-1.17/kT) cm^2/sec.$$

The anisotropy in diffusion is attributed to structural anisotropy. The order of the atomic layers is ...-Bi-Te_{II}-Te_{II}-Bi-Te_I-Bi-Te_{II}-... so that three Te plus two Bi layers form a quintet, which is separated from the next one by a greater distance. Ag, and other elements of the first group can only penetrate in an interstitial manner. These interstitial atoms are easily ionized and form donors. Copper diffusion in Bi_2Te_3 displays the same effects. The same specimens were used to study Ag solution. Annealing time was varied between 17 and 96 hours depending on the temperature. The solubility measured in the range 200-500°C. was $(1 - 3.5) \cdot 10^{19}$ atoms/cm^3. Saturation is reached above 400°C. The students V. P. Kokoyev and Li Min-i are thanked for measurements. There are 2 figures and 2 references: 1 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: R. O. Carlson. J. Phys. Chem. Solids, 13, 65, 1960.

Card 2/3

34246

S/181/62/004/002/041/051
B102/B138

Diffusion and solubility of silver ...

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors AS USSR, Leningrad)

SUBMITTED: October 26, 1961

Card 3/3

Diffusion and solubility of impurities in bismuth telluride.
B. I. Boltaks, N. A. Fedorovich.
(Presented by B. I. Boltaks--15 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

S/181/63/005/003/036/046
B102/B180

AUTHORS: Boltaks, B. I., and Fedorovich, N. A.

TITLE: Diffusion and solubility of cadmium in bismuth telluride

PERIODICAL: Fizika tverdogo tela, v. 5, no. 3, 1963, 944-946

TEXT: The authors used p-type Bi_2Te_3 single crystals grown by the Bridgman method to investigate Cd^2 diffusion along and across the C-axis by the tracer method (Cd^{115}). Diffusion along the C-axis was studied by successive removal of thin layers; across the C-axis (i. e. parallel to the cleavage plane) by contrast auroradiography. In both cases the experimental data fit in very well with the straight lines in the log D-versus-1/T graph, which are given by

$$D_{\parallel} = 488 \cdot 10^{-3} \exp(-0.48 ev/kT) cm^2/sec$$
$$D_{\perp} = 10^2 \exp(-1.8 ev/kT) cm^2/sec.$$

The diffusion shows distinct anisotropy; e. g., at 530°C $D_{\parallel}$ and $D_{\perp}$ differ by 3.5, at 350°C by almost 6 orders of magnitude. The solubility was

Diffusion and solubility of cadmium ... S/181/63/005/003/036/046
B102/B180

studied with the same samples in the range 250-530°C. Determined from the tracer saturation level, it was $2 \cdot 10^{18} - 6 \cdot 10^{18}$ at/cm^3. The temperature dependence of the solubility has a maximum at 400°C. There are 2 figures.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad
(Institute of Semiconductors AS USSR, Leningrad)

SUBMITTED: October 29, 1962

Card 2/2

L 17998-63 EWP(q)/EWT(m)/BDS AFFTC/ASD RDW/JD

ACCESSION NR: AP3001281 S/0181/63/005/006/1620/1624

AUTHORS: Boltaks, B. I.; Fedorovich, N. A.

TITLE: Rediffusion of silver impurities from a solid solution of Bi_2Te_3 - Bi_2Se_3

SOURCE: Fizika tverdogo tela, v. 5, no. 6, 1963, 1620-1624

TOPIC TAGS: diffusion, rediffusion, Ag, Bi, Te, Se, I, semiconductor, diffusion coefficient

ABSTRACT: The environing atmosphere during rediffusion of silver impurities in semiconducting samples of bismuth telluride-bismuth selenide was investigated in order to discover the role of this atmosphere in the process. Preliminary data on this study were presented by the authors (Termoelektricheskiye svoystva poluprovodnikov. Izd. AN SSSR, L., 1963) at II Soveshchaniye po termoelektrichestvu (Second Conference on Thermoelectricity, February 1962). It was shown that an oxidizing atmosphere facilitates emergence of alloying admixtures to the surface of a sample. The diffusion coefficient of silver in the tested alloy was computed with proper consideration of movement of the boundary formed by bound impurities (growth of the oxide film), and the value of this coefficient proved to be 10^{-8} cm^2/sec at 300C. The results thus found indicate that conditions for rediffusion

Card 1/2

L 17998-63
ACCESSION NR: AP3001281

2

of silver involve not only oxidation of the bismuth telluride-bismuth selenide alloy but also the possibility of rapid diffusion to an interface. The introduction of iodine into such an alloy imposes a supplementary bond on the migrating silver, hindering its movement to the surface. Orig. art. has: 6 figures and 4 formulas.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, Academy of Sciences, SSSR)

SUBMITTED: 16Jan63 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: PH NO REF SOV: 005 OTHER: 001

Card 2/2

Fedorovich, D. A. 44

Diffusion of silver and sodium in lead selenide

ACCESSION NR: AP5012595

AUTHOR: Fedorovich, N. A.

TITLE: Diffusion of chlorine in PbSe single crystals

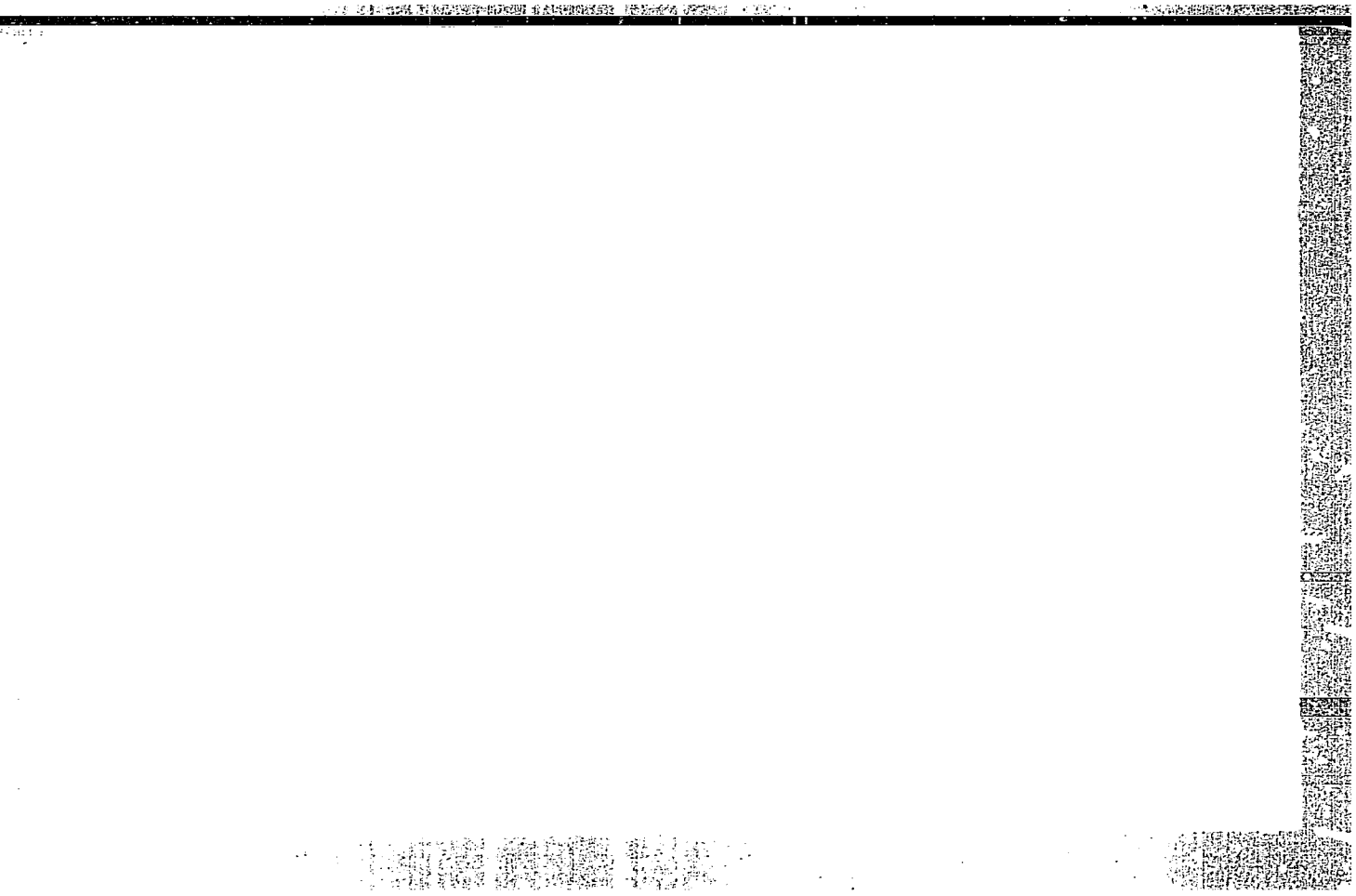
SOURCE: Fizika tverdogo tela, v. 7, no. 5, 1965, 1594-1595

TOPICS: lead compound, selenide, chlorine, physical diffusion, tracer study

The authors investigated the effect of [illegible] impurity in lead

density 3×10^{18} cm^{-3}, and p-type PbSe samples doped with mol.0.5% Na_2Se with hole density $\sim 6 \times 10^{19}$ cm^{-3}. The radioactive tracer was introduced in the form of gas- The activity was registered with a β-radiation counter. The coefficient of chlorine diffusion in the PbSe varied in the temperature range from 8×10^{-9} to

energy of chlorine diffusion is from [illegible] is attri-



FEDOROVICH, Nikolay Sergeyevich; KHARLAMOV, Fedor Mikhaylovich; GUROV, S., redaktor; IOFFAT'YEVA, A., tekhnicheskiy redaktor

[Economizing electric power in industrial enterprises; experience of Moscow industrial and transport workers in saving electric power] Ekonomiia elektroenergii na predpriiatiiakh; iz opyta bor'by rabotnikov moskovskoi promyshlennosti i transporta za ekonomiiu elektroenergii. [Moskva] Moskovskii rabochii, 1956. 62 p. (MLRA 9:7)
(Moscow--Electric power)

KAPLUN, N.A.; PLEMYANNIKOVA, N.N.; SKURIKHINA, L.A.; SYROYECHKOVSKAYA, M.N.; FEDOROVICH, N.V.; OBROSOVA, A.N., prof., red.; MANIKOV, M.Ye., red.; ZAKHAROVA, A.I., tekhn.red.

[Practical manual on applying physiotherapeutic procedures] Prakticheskoe rukovodstvo po provedeniiu fizioterapevticheskikh protsedur. Pod obshchei red. A.N.Obrosova. Moskva, Gos.izd-vo med.lit-ry Medgiz, 1960. 182 p. (MIRA 14:3)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Obrosov).

(PHYSICAL THERAPY)

BORISOV, Valeriy Vasil'yevich; BAL'YAN, Kh.V., prof., nauchn. red.; FEDOROVICH, N.V., nauchn. red.; UDAL'TSOV, G.A., red.

[Miracles performed without "miracles"; with addenda describing chemical experiments] Chudesa bez "chudes"; s prilozheniem opisaniia khimicheskikh opytov. Leningrad, Ob-vo "Znanie" RSFSR, 1965. 39 p. (MIRA 18:10)

FEDOROVICH, Nina Vladimirovna; DAMASKIN, Boris Borisovich; KOROBTSOVA, N.A., red.

[Manual for practical training in theoretical electrochemistry] Rukovodstvo k praktikumu po teoreticheskoi elektrokhimii. Moskva, Izd-vo Mosk. univ. Pt.1. 1965. 72 p. (MIRA 19:1)

MAKAROVA, R. V.; PILYANKEVICH, A. N.; FEDOROVICH, O. K.; FRANTSEVICH, I. N.

"Vorgange beim sintern mit flussiger phase in den systemen W-Ni-Fe und W-Ni-Cu."

report submitted for 3rd Intl Conf on Powder Metallurgy, Eisenach, E. Germany, 13-15 May 1965.

Kiev, UkSSR.

L 2997-66 EWT(m)/EPF(c)/EWP(j)/ETC(m) WW/DJ/RM

ACCESSION NR: AR5012169 UR/0282/65/000/003/0061/0061
678.655.066.621.822.5

SOURCE: Ref. zh. Khimicheskoy i kholodil'noye mashinostroyeniye. Otdel'nyy vypusk, Abs. 3.47.422

AUTHOR: Petrov, Yu. N.; Fedorovich, P. T.

TITLE: On the problem of optimal distribution of polycaprolactam resin coatings on the shaft and bearing couple

CITED SOURCE: Tr. Kishinevsk. s.-kh. in-ta, v. 33, no. 2, 1964, 78-85

TOPIC TAGS: specialized coating, protective coating, resin, antifriction bearing, high temperature coating

TRANSLATION: Results of optimal distribution of capronic coatings on a shaft-bearing couple are briefly described. The expediency of coating the bearing insert but not the shaft with antifriction material is generally questioned. Physical wear of the metallic polymer couple has not been studied extensively and further research is required. The study concludes that using a thin-layered capronic coating on the reversed couple of the bearing allows one to improve the removal of frictional heat,

Card 1/2

L 2997-66

ACCESSION NR: AR5012169

to decrease the growth of junction clearance more than twice as much as in the former coupling, and also to exclude the possibility of disturbing the fluidity of friction due to deformations of the geometric form of the stationary part of the coupling. The employment of the metallic-polymeric frictional coupling in reverse order in production maintenance makes possible a boost in service life of a machine part. 8 illustrations, 8 references. N. Solov'ev.

SUB CODE: MT, IE ENCL: 00

Card 2/2 hd

L 31148-66 EWT(m)/EWP(j)/T IJP(c) WW/DJ/RM

ACC NR: AR5019273 SOURCE CODE: UR/0277/65/000/007/0007/0007

AUTHOR: Fedorovich, P. T.

ORG: none

TITLE: Effect of thermal processing and of fillers in caprone coatings on their wear resistance

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruktsii i raschet detaley mashin. Gidroprivod. Otdel'nyy vypusk, Abs. 7.48.42

REF SOURCE: Tr. Kishinevsk. s.-kh. in-ta, v. 33, no. 2, 1964, 86-91

TOPIC TAGS: caprone, plastic coating, steel, wear resistance, thermal process, filler

ABSTRACT: The wear resistance of caprone coatings (CC) on steel-45 (thickness of coating is 0.5 mm), treated by boiling in an oil bath at a temperature of 100-200° and a subsequent slow cooling at the rate of 30° per hour, was determined on the MI-1 M friction machine // an arrangement of roller and partial insert. The combination was under test for 4 hours at r-15 kg/sm^2 and v=0.9 m/sec, without lubrication. The results showed that a thermal processing of thin-layer CC is a very important factor in wear resistance and antifriction properties. Use of a thin-layer of CC for repairing worn parts of machines is expedient both for reasons of economy and for longer serviceability of the

Card 1/2

UDC: [669.14.018+678.5]:539.538

L 31148-66
ACC NR: AR5019273

couplings. The CC on friction parts must be processed thermally in oil baths at temperatures of 170-180°C during 10 to 20 minutes to be followed, together with the bath, by a period of cooling, and it must be reinforced with a graphite filler amounting to 8% in weight.

SUB CODE: 13,07 SUBM DATE: none

Card 2/2 LC

L 29303-66 EWT(m)/EWP(1)/T DJ/RM
ACC NR: AR5010272 SOURCE CODE: UR/0277/65/000/007/0007/0007

AUTHOR: Fedorovich, P. T.

TITLE: Wear resistance of metal-polymer bearing mating-parts coated with capron

SOURCE: Ref. zh. Mashinostroitel' nyye materialy, konstruktsii i raschet detaley mashin. Gidroprivod. Otdel' nyy vypusk, Abs. 7.48.41

REF SOURCE: Dokl. Nauchn. konferentsii professorov i prepodavat. Kishinevsk. s.-kh. in-ta, 1963. Kishinev, Kartya Moldovenyaske, 1964, 254-255

TOPIC TAGS: powder metal, polymer, friction, wear resistance

ABSTRACT: A study was made of the wear resistance of metal-polymer couplings in relation to their type of construction, slip velocity, loads, material of the mating parts, thickness of the coating, etc. The research done on the wear resistance of capron coating and its dependence on the material of the mating parts in the reverse bearing couplings have shown that the couplings which are most resistant to wear are made of a combination of capron and steel 45. In repairing the worn surfaces of friction couplings, it is best to plate with capron the roller-type part, but use steel bearings.

SUB CODE: 11,20 SUBM DATE: none
UDC: 620.178.1

Card 1/1

AT420-66 EWT(m)

ACC NR: AM6002131 Monograph UR/ 22

Frolov, Nikolay Prokhorovich; Bessonov, Valeriy Georgiyevich; Zalogo, Vitaliy Fedorovich; Petsol'd, Timofey Maksimovich; Smekh, Ivan Vasil'yevich B+1

Mesh-reinforced concrete constructions (Armotsementnyye konstruktsii) Minsk, Nauka i tekhnika, 1965. 90 p. illus., biblio. 2000 copies printed.

TOPIC TAGS: construction material, reinforced concrete, engineering technology

PURPOSE AND COVERAGE: The book recommends technology to be used in manufacturing reinforced-concrete structures. It summarizes the results of the investigations of rigidity and crack-resistance of reinforced concrete and analyzes some particular features of its work and design. In addition, an example of the design of a reinforced concrete structure is given, and the results of an experimental investigation of its performance are outlined. The book is intended for engineers and technicians working in building and designing organizations, as well as for students specializing in construction and research workers in this field. There are 46 references, of which 26 are Soviet.

TABLE OF CONTENTS:

Card 1/2

L 27220-66

ACC NR: AM6002131

SUB CODE: 11/ SUBM DATE: 09Jul65/ ORIG REF: 029/ OTH REF: 017/

Card 2/2

L 27336-66 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(j)/T/EWP(t)/EWP(l) IJP(c) JD/DJ/GS/RM (A)

ACC NR: AT6008955 SOURCE CODE: UR/0000/65/000/000/0156/0161

45
42
B+1

AUTHORS: Petrov, Yu. N.; Fedorovich, P. T.

ORG: none

TITLE: Investigation of the wear resistance of caprone coatings in normal and reversed friction couples during machine repair

SOURCE: Moscow. Institut mashinovedeniya. Plastmassy v podshipnikakh skol'zheniya; issledovaniya, opyt primeneniya (Plastics in friction bearings; research and experiment in application). Moscow, Izd-vo Nauka, 1965, 156-161

TOPIC TAGS: antifriction material, caprone, steel, oil, microscope, babbit, bearing material / MI-1M friction machine, Dp-11 oil, UIM-21 microscope, BN-3 babbit, 45 steel

ABSTRACT: The geometry of wear of normal (steel shaft-caprone bearing) and reversed (caprone-coated shaft-steel bearing) friction couples was considered, and wear experiments with steel 45 and caprone coatings (0.25-mm thick) were performed on friction machine MI-1M. Preliminary experiments showed that addition of 8% graphite and boiling of caprone at 180C in oil Dp-11 for 15 minutes

Card 1/2

L 27336-66

ACC NR: AT6008955 3

improved its wear characteristics.[18] These characteristics were measured as a function of time for normal and reversed couples at 50 kg/cm^2 load and 0.92 m/sec with Dp-11 oil lubrication. It was found that the linear wear resistance of caprone in the reversed couple was almost three times better than in the normal couple, although the wear by weight was about four times greater. The wear characteristics of the two types of couples were also measured as a function of load (15—150 kg) and speed (0.63, 0.92, 1.55, and 2.1 m/sec), and experimental curves and a comparative table are presented (babbit BN-3 behavior is included also). Orig. art. has: 6 figures, 1 table, and 8 formulas.[18]

SUB CODE:11, 13/SUBM DATE: 31Jul65

Card 2/2

S/181/60/002/01/09/035
B008/B011

AUTHORS: Borsyak, P. G., Fedorovich, R. D.

TITLE: Intrinsic Optic Absorption in Amorphous and Crystalline Germanium

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 1, pp. 45 - 47

TEXT: For comparison, the authors studied the amorphous and the crystalline germanium within the range of strong absorption. The absorption coefficients were determined on the strength of measurement results of the passage of light through and its reflection from thin foils on a quartz base. A certain shrinkage was always found to occur with the crystallization of amorphous foils. This reduction in thickness by 5-9% is indicative of a transition to a denser packing of the atoms. The optical properties of the foils were measured in the air, as soon as possible after their removal from vacuum. The authors detected some qualitative characteristics of the optical properties of amorphous (solid lines) and crystalline (broken lines) germanium (Fig. 1). The reduced absorption coefficients $k(\lambda)$ for calculated values of the

Card 1/2

spectral characteristics are shown in Fig. 2. It may be stated that amorphous and crystalline germanium resemble each other as to their optical properties. They have the same range of intrinsic absorption, whose general course and intensity do not exhibit any great differences, although there are some distinctly marked qualitative differences. These are caused by differences in the long-range order. The authors thank L. Apker, H. R. Philipp, and E. A. Taft for communicating their investigation results in advance of publication. There are 2 figures and 7 non-Soviet references.

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

SUBMITTED: May 4, 1959

✓B

9,4300
26.2421

S/181/60/002/012/006/018
B006/B063

AUTHORS: Borzyak, P. G. and Fedorovich, R. D.

TITLE: Optical Properties and Photoelectron Emission of Amorphous and Crystalline Germanium Films

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 12, pp. 3020-3025

TEXT: The optical properties of germanium films within the range of intrinsic absorption have been studied many times. The types of films, however, were not named. Following a previous paper (Ref. 2) in which the spectral characteristics of transmissivity, reflection, and absorption of amorphous and crystalline germanium films were studied, the authors have now analyzed the results obtained and determined the influence of the type of film upon these characteristics. The experiments were repeated with an improved method, and more exact results were obtained since various corrections (eg., for the spectral dependence of the refractive index) were taken into account. The device used for the purpose is illustrated in Fig. 1 and described in detail. The authors studied the spectral characteristics of the reflection and transmission

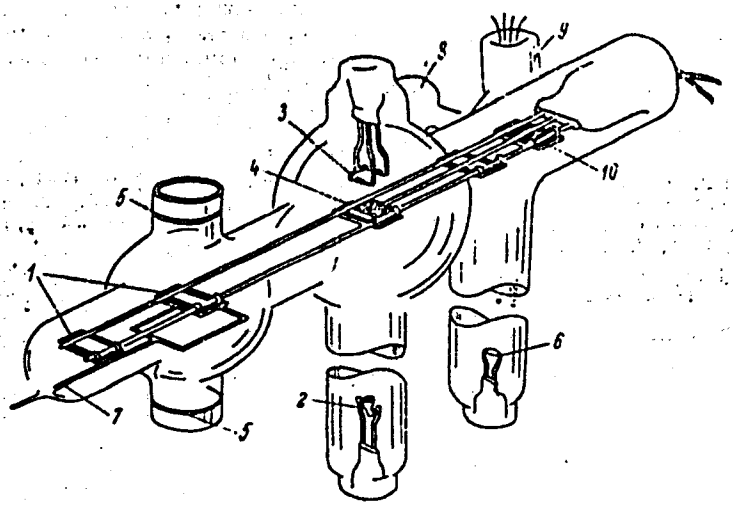
coefficients, and determined the influence of the atmosphere (air, vacuum). The spectral characteristics of absorption coefficient $k(\lambda)$, refractive index $n(\lambda)$, and reflection coefficient $R(\lambda)$ may be represented by $I = I_0(1-R)(1-R')\exp(-4\pi kd/\lambda)$ and $n = \frac{1+R}{1-R} \pm \sqrt{\frac{(1+R)^2}{(1-R)^2} - (1-k)^2}$. Fig. 4 shows $k(\lambda)$ and $n(\lambda)$ for amorphous (continuous lines) and crystalline germanium (broken lines) which were applied in vacuo. The dotted lines obtained by Philipp and Taft (Ref. 5) show $k(\lambda)$ and $n(\lambda)$ for single crystals of germanium, without taking account of the oxide film on the surface. The effect of optical peculiarities of the films upon the characteristics of photoelectron emission was studied with the same device. There are 6 figures and 6 references: 4 Soviet and 2 US.

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

SUBMITTED: April 18, 1960

S/181/60/002/012/006/018
B006/B063

Legend to Fig. 1: 1) Holders; 2) Germanium vaporizer; 3) Hot cathode; 4) Heater; 5) Windows; 6) BaO vaporizer; 7) Photoelectron collector; 8) Getter; 9) Ionization pressure gauge; 10) Carriage. The germanium coming from the vaporizer is precipitated on the hot part of the base as a crystalline film, and on the cold part as an amorphous one.



Card 3/4

Рис. 1.

8790

S/181/60/002/012/006/018
B006/B063

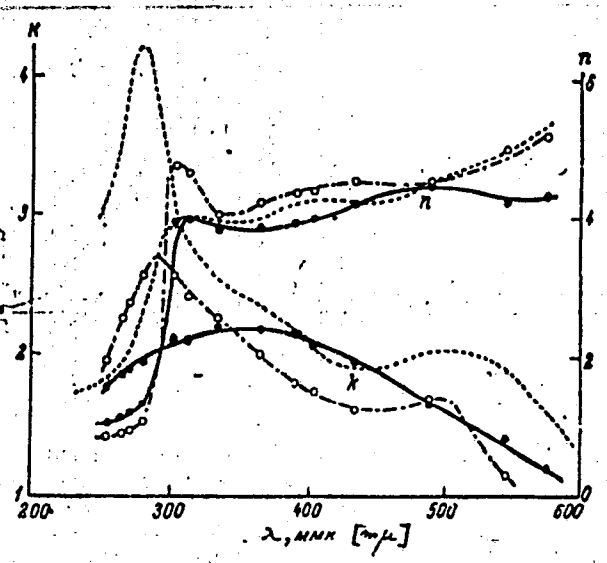


Рис. 4.

Card 4/4

9.4175
24.3950

24919 S/181/61/003/006/016/031
B102/B201

AUTHORS: Borzyak, P. G., Miroshnichenko, L. S., and Fedorovich, R. D.

TITLE: Optical properties and photoelectron emission of Mg_3Sb_2

PERIODICAL: Fizika tverdogo tela, v. 3, no. 6, 1961, 1778 - 1785

TEXT: Mg_3Sb_2, the intermetallic compound of type II^a-V^b studied the most thoroughly heretofore, has been examined by the authors for its photoelectric and optical properties. The Mg_3Sb_2 films used for the investigation were prepared in different ways from pure magnesium and pure antimony; the initial substances had been supplied from the Institut obshchey i neorganicheskoy khimii AN USSR (Institute of General and Inorganic Chemistry AS UkrSSR) by V. P. Zosimovich. The photoelectric characteristics of the films prepared in three different ways were the same. A method described previously (FTT, II, p. 45 and p. 3020, 1960) was used to determine the optical constants: the measurement of the reflection and transmission coefficents of light under exposure from front and rear. The monochromator

Card 1/4

Optical properties and photoelectron...

of an СФ-4(SF-4) spectrophotometer was employed for measurements in the 254 - 578 mμ spectral range, while a УМ-2(UM-2) monochromator was used for the 450 - 1100 mμ range. An ИСК-12 (ISK-12) spectrometer was used with $\lambda > 1000$ mμ. Since absorption is dependent upon λ, variously thick films were used for different spectral ranges. Since, however, a considerable light scattering was already observable for $d > 1$, the longwave limit for the experiments was set at $h\nu = 1.55$ ev. For wavelengths outside the region of self-absorption, only the refractive index was determined, namely, by an interference method. Films up to 3μ could be used for this purpose. Beyond the self-absorption region the refractive index was $n = 4.7$, and the dielectric constant at high frequencies was $\varepsilon = 22.1$. As may be seen from diagrams $(1-R) = f(h\nu)$, light with $h\nu > 3.3$ ev is practically absorbed fully in layers of 50 mμ. The light source in the measurements of photoelectron emission (with SF-4 and ИСП-28(ISP-28)) was provided by a mercury-quartz lamp of the type ПРК-4(PRK-4); the light energy at the input of the monochromator was determined by means of standard photocells. The photocurrents were measured by a d-c amplifier. The measured energy characteristics (as compared with those of Na_3Sb) are as follows:

Card 2/4

Optical properties and photoelectron... 24919

Characteristic [ev]	Na_3Sb	Mg_3Sb_2
φ_{photo}	3.2	3.8
ΔE	1.1	0.8
E'_{affin}	2.1	3.0
$\Delta\varphi$	1.1	1.8
E'_{affin}	1.0	1.2
φ'_{photo}	2.1	2.0

The data for Na_3Sb are taken from V. F. Bibik, who works at the same laboratory as the authors. E_{affin} is the energy of the electron affinity of the initial surfaces, E'_{affin} that of surfaces with a work function reduced by $\Delta\varphi$, ΔE is the forbidden-band width. A. F. Mal'nev and M. P. Yesel'son are mentioned. There are 6 figures, 1 table, and 13 references: 10 Soviet-bloc and 3 non-Soviet-bloc. The references to English-language

Card 3/4

publications read as follows: T. S. Moss. Proc. Phys. Soc. 63, 982, 1950; P. Görlich. Recent Advances in Photoemission. "Advances in Electronics and Electron Physics", Acad. Press, No. 4, 1959. W. E. Spicer. Phys. Rev. 112, 114, 1958.

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

SUBMITTED: October 28, 1960(initially) and January 9, 1961(after revision)

Card 4/4

BORZYAK, P.G.; SARBEY, O.G.; FEDOROVICH, R.D.

Electron emission and conductivity of a silicon p - . --tion with barium oxide adsorbed on its surface. Fiz. tver. ela 6 no.8:2249-2255 Ag '64. (MIRA --:11)

1. Institut fiziki AN UkrSSR, Kiyev.

ACCESSION NR: AP4022704 S/0185/64/009/003/0345/0347

AUTHOR: Fedorovych, R. D.

TITLE: "Cold" electron emission from CdS films (brief communication)

SOURCE: Ukrayins'ky*y fizy*chny*y zhurnal, v. 9, no. 3, 1964, 345-347

TOPIC TAGS: impact ionization, CdS impact ionization, CdS conductivity, cadmium sulfide, electroluminescence

ABSTRACT: "Cold" electron emission was observed from thin films of CdS in fields of the order of 10^5 volts/cm and greater. The current density of emitted electrons was estimated from the light given off by the cathodoluminescent CdS "superstrate". High fields were obtained with low voltage by close (~ 5 micron) electrode spacing. Glass served as the substrate. The device is shown in Fig. 1 of Enclosure 01. A consideration of the experimental data points to impact ionization as the responsible mechanism. "The author thanks P. G. Borzyak, Corresponding Member of the Ukrainian Academy of Sciences and Candidate of Physical-Mathematical Sciences O. G. Sarbey for their discussion of this work and for valuable suggestions." Orig. art. has: 4 figures and 2 numbered equations.

Card 1/3

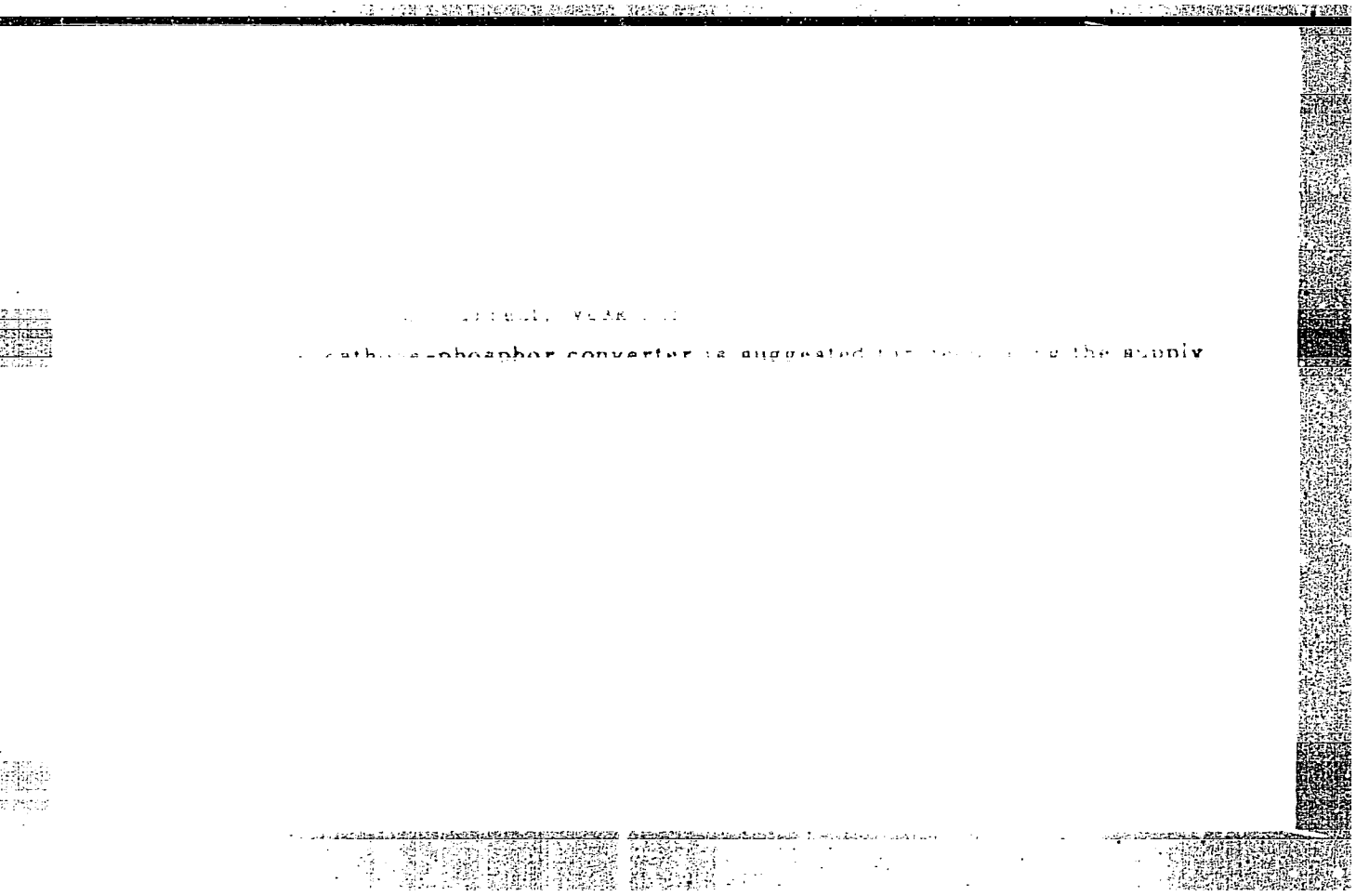
ACCESSION NR: AP4022704

ASSOCIATION: Instytutut Fizyky AN Ukr SSR, Kiev (Institute of Physics UkrSSR)

SUBMITTED: 27Nov63 DATE ACQ: 06Apr64 ENCL: 01

SUB CODE: PH, GE NO REF SOV: 002 OTHER: 000

Card2/3



L 21238-66 EWT(1)/EWT(m)/T/EWP(t) IJP(c) JD/GG/AT
ACC NR: AP6003814 SOURCE CODE: UR/0181/66/003/001/0276/0278

AUTHORS: Tomchuk, P. M.; Fedorovich, R. D.

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

TITLE: Emission of electrons from thin metallic film

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 276-278

TOPIC TAGS: electroluminescence, electron emission, gold, electron temperature, volt ampere characteristic

ABSTRACT: This is a continuation of earlier work by one of the authors (Fedorovich, with P. G. Borzyak and O. G. Sarbey, Phys. stat. sol. v. 8, 55, 1965), dealing with electroluminescence and electron emission from thin gold films, enhanced by reducing their work functions and attributed to the appearance of sufficiently hot electrons in the films. In the present note the authors consider the mechanism that leads to the heating of the electrons in such films. As in the earlier paper, it is assumed that the film constitutes a system of metallic islands, randomly distributed over the surface of a dielec-

Card 1/2

tric. The electron temperature is constant in each island. Formulas are given for the power received by the electrons from the field and for the power given up to the atoms in the film. It is deduced from the power balance and from the equations for the emission current that the logarithm of the emission current should be proportional to the reciprocal of the square root of the product of the conduction current and the voltage applied to the film. This dependence is found to agree with the experimental data so that it is assumed that the proposed mechanism is indeed the one realized in the film. The authors thank P. G. Borzyak and O. G. Sarbey for participating in the discussions. Orig. art. has: 1 figure and 5 formulas.

SUB CODE: 20/ SUBM DATE: 03Aug65/ ORIG REF: 001/ OTH REF: 002

FEDOROVICH, R.M.

2431. OXIDATION OF IRON CATALYSTS BY WATER VAPOUR IN HYDROCARBON SYNTHESIS. Bashkirov, A.N., Kagan, Yu. B., Krylov, Yu. B., Fedorovich, R.M. and Khotinskaya, M.I. (Trud. Inst. Nefti, Akad. Nauk SSSR (Trans. Inst. Petrol., Acad. Sci. U.S.S.R.), 1954, vol. 4, 151-158; abstr. in Chem. Abstr., 1955, vol. 49, 14306). Iron catalysts gradually lose their activity by the action of water vapour formed during the synthesis of hydrocarbons from carbon monoxide and hydrogen (ratio 1:1) at 200° and average pressure. The rate of iron oxidation depends on the oxidation and reduction reactions which take place during the synthesis. Inactivation of iron catalysts is due to the formation of ferrous oxide. C.J.

(4)

BALANDIN, A.A., akademik; GUDKOV, B.S.; FEDOROVICH, R.M.

Mechanism underlying the interaction of cyclohexane with the surface of a metallic catalyst. Dokl. AN SSSR 155 no. 3:626-628 Mr '64. (MIRA 17:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

FEDOROVICH, Ryurik Mikhaylovich; VOL'FKOVICH, S.I., akademik, red.; KONDRASHKOVA, S.F., red.; MEZ'YER, V.V., tekhn.red.

[Temperature measurement] Izmerenie temperatury. Moskva, Izd-vo Mosk. univ., 1957. 44 p. (Laboratornyi praktikum po khimicheskoi tekhnologii, no.1) (MIRA 17:1)

FEDOROVICH, Ryurik Mikhaylovich; VOL'FKOVICH, S.I., akademik, red.; KONDRASHKOVA, S.F., red.; GEORGIYEVA, G.I., tekhn. red.

[Pressure measurement. Elements of automatic control] Izmerenie davleniia. Elementy avtomaticheskogo regulirovaniia. Moskva, Izd-vo Mosk. univ. 1959. 26 p. (Laboratornyi praktikum po khimicheskoi tekhnologii, no.3) (MIRA 17:1)

ALEKSANDROVA, G.G.; ZHUKOVA, V.A.; KONDRAT'YEV, N.N.; KUSKOV, V.K.; MALETS, A.M.; SOLOMONOVA, N.L.; FEDOROVICH, R.M.; VOL'FKOVICH, S.I., akademik, red.; KOROBTSOVA, N.A., red.; YERMAKOV, M.S., tekhn. red.

[Work in technology] Tekhnologicheskie raboty. Moskva, Izd-vo Mosk. univ. 1963. 115 p. (Laboratornyi praktikum po khimicheskoi tekhnologii, no.4) (MIRA 17:1)

KUZNETSOV, Vladimir Ivanovich; EYDUS, Ya.T., doktor khim. nauk, otv. red.; FEDOROVICH, R.M., red.
[Development of the science of catalysis] Razvitie ucheniia o katalize. Moskva, Nauka, 1964. 422 p.
(MIRA 17:9)

KIPERMAN, Saveliy L'vovich; EYDYS, Ya.T., doktor khim. nauk, otv. red.; FEDOROVICH, R.M., red.

[Introduction to the kinetics of heterogeneous catalytic reactions] Vvedenie v kinetiku geterogennykh kataliticheskikh reaktsii. Moskva, Izd-vo"Nauka", 1964. 606 p. (MIRA 17:7)

L 18848-65 EWT(m)/EWP(t)/EWP(b) IJP(c)/AFWL/ASD(m)-2/ASD(a)-5/AFMDC(a)/ESD(t)/ESD(gs)/
ACCESSION NR: AP4043337 ESD(t) JD

AUTHORS: Borzyak, P. G.; Sarbey, O. G.; Fedorovich, P. S.

Fizika tverdogo tela, v. 6, no. 8, 1964, 2249-2255

TOPIC TAGS: silicon, barium inorganic compound, pn junction, surface emissivity, adsorption, electron emission, temperature de-

ABSTRACT: A study was made of the electron emission from clean diffusion-alloyed junctions and of the effect of BaO coating on [illegible]. Clean surfaces were obtained by fracturing 4 mm [illegible] alloyed samples in air in [illegible]. Clean surfaces produced no emission current (down [illegible] application of a reverse voltage to the junction. A

Card 1/4

ACCESSION NR: AP4043337

strong emission current was observed at 200--270K under reverse voltages only on adsorption of BaO molecules on the junction surface, which reduced the work function. The energy of impact ionization by electrons was estimated to be [illegible] eV from the maximum value of the work function at which electron emission still occurred. Emission current appeared at voltages representing fields of [illegible] V/cm in the surface channel. Direct experiments on silicon samples free of junctions showed no emission even in stronger fields, suggesting that the emission current was due to electron heating in a surface junction formed on adsorption of BaO. This conclusion was confirmed by a comparison of the temperature dependences of the emission current and the reverse current through the junction. This reverse current was raised by the adsorption of BaO due to formation of a thick inversion layer above the p-region of the sample. Orig. art. has: 9 figures.

ASSOCIATION: Institut fiziki AN UkrSSR, Kiev (Physics Institute,

L 13848-65
ACCESSION NR: AP4043337

AN UkrSSR)

SUBMITTED: 25Dec63 ENCL: 01

SUB CODE: SS NR REF SOV: 005 OTHER: 005

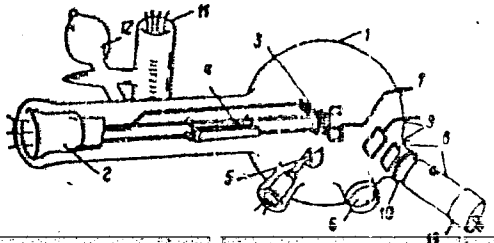
Card 3/4

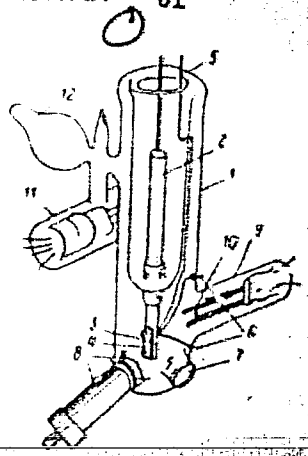
L 18848-65

ACCESSION NR: AP4043337

ENCLOSURE: 01

Instruments for measurement of conductivity and electron emission at room temperature (left) and at low temperatures (right)





Left: 1 - envelope, 2- post, 3 - sample holder, 4 - striker 5 - evaporator, 6- window 7 - electron collector 8 - weak electron current meter 9 - electrodes, 10 - cathodo-luminor, 11 - manometer, 12 - bulb for getter

Right: 1 - Dewar, 2 - molybdenum rod, 3 - sample 4 - clamp for sample, 5 - lead-in, 6 - thermocouple lead, 7 - window, 8 - weak electron current meter, 9 - post, 10 - evaporator, 11 - manometer, 12 - bulb for getter

Card 4/4

SURNAME, Given Names FEDOROVICI, ST.

Country: Rumania

Academic Degrees: -not given-

(2)

Affiliation: *)

Source: Timisoara, Timisoara Medicala, Vol VI, No 1, Jan-Jun 1961, pp 71-77.

Data: "Considerations on the Treatment of Pylomicoses With Griseofulvine."

Authors:

ANGHELESCU, M.
FEODOROVICI, St.
RABAGIA, I.

*) Work performed at the Dermato-Venereal Clinic (Clinica Dermato-Venerologica), Timisoara.

GPO 981643

76

FEDOROVICH, T. I.

"Pharmacological Study of the Plant, Pulsatilla nigricans Stoerck."
Cand Med Sci, L'vov State Medical Inst, Min Health Ukrainian SSR, Dnepropetrovsk, 1954. (KL, No 8, Feb 55)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

FEDOROVICH, T. I., and BATURENKO, T. I., of Dniepropetrovsk

"On the Results of the Pharmacological Investigation of the Medicinal Flora of Southeastern Ukraine," a paper presented at the Fifth Conference of Physiologists, Biochemists, and Pharmacologists, 28 May - 2 June 1956, Khar'kov.

"Preparations of motherwort reduced blood pressure in dogs with presistent hypertension, and had an inonotropic effect on the heart. Seven preparations prepared from the leaves of hawthorn were found to be effective hypotensive agents. Alkaloide isolated from groundsel by A. L. Reĭ'ko were found to have a tranquilizing effect on the organism. In large doses they depressed the central nervous system. The choliolytic action of these alkaloids was found to be less pronounced than that of atropine. They were found to posses spasmolytic properties."

MAKSIMOVIVH, Ya.B.; BRESLAVETS, V.I.; LYMAREVA, P.P.; POKOTILENKO, G.M.; FEDOROVICH, T.I.

Content of principal water-soluble vitamins and carotene in fresh and preserved donor's blood. Probl.gemat.i perel.krovi no.2:40-42 '62. (MIRA 15:1)

1. Iz kafedry farmakologii (zav. - doktor med.nauk Ya.B Maksimovich) Luganskogo meditsinskogo instituta (dir. - prof. Ye.I. Pal'chevskiy).
(CAROTENE) (VITAMINS) (BLOOD—ANALYSIS AND CHEMISTRY)

FEDOROVICH, V. A.

Fedorovich, V. A. "Geomorphological and Seismotectonic Conditions of Some Regions in the Basins of the Rivers Kokomeren and Nizhnii Naryn." Trudy Kirgizskoi Kompleksnoi Ekspeditsii 1932-33, Leningrad vol. 2, part 5, 1935, pp. 193-220.

FEDOROVICH, V. A.

"Deserts Come to Life - The Face of the Desert," reviewed by N. A. Cvozdetskiy, Nauka i Zhizn', 19, No. 3, 1952.

FEDOROVICH, V. G. and PUKNAREVICH, G. P.

"Increasing Qualities of Ingot Rimming Steels" p. 62, Trudy Instituta Chernoy Metallurgii, Vol. 9, 1955.

PERCHAVICH, V.G.

18(5) PHASE I BOOK EXPLOITATION SOV/1907

Akademiya nauk Ukrainskoy SSR. Kiyev Politekhnicheskiy institut

Voprosy proizvodstva stali; trudy 6 (Problems of Steel Production, Nr 6) Kiyev, Izd-vo AN Ukrainskoy SSR, 1958. 137 p. Errata slip inserted. 2,000 copies printed.

Resp. Ed.: I.N. Potravitov, Academician, Ukr. SSR Academy of Sciences; Ed. of Publishing House: I.K. Labinova; Tech. Ed.: V.I. Revyakina.

PURPOSE: This book is intended for engineers and scientific personnel in the field of steel production.

COVERAGE: This is a collection of articles dealing with various aspects of the production of steel, including the designing of open-hearth furnaces, thermal processes in the furnaces, thermodynamics of steel-making processes, technology of producing high-grade steel, and changes in the size and shape of ingots. Other topics discussed are the properties of chrome-manganese stainless steels, improvement of ball-bearing steel, ingot defects, ingot quality as determined by temperature of teeming and shape of mold, and certain aspects of steel rolling. Some of the articles are accompanied by references, both Soviet and non-Soviet.

Zhuk, S. Ya., and N.F. Matveshkin. Investigation of the Properties of Chrome-Manganese Stainless Steels 11

Prokhorenko, K.K., and I.V. Verkhoturov. Improving the Quality of KhN15 Ball-bearing Steel 49

Verkhoturov, I.V., and K.K. Prokhorenko. Ingot Defects Caused by Skin Folds Forming During the Teeming of Steel 68

Prokhorenko, K.K., P.K. Timofeev, S.V. Verkhoturov, and V.A. Prokhorenko. Exothermic Mixture for Heating Hot Tops of Steel Castings 77

Yefimov, V.A., N.P. Sabirov, and V.P. Grebenyuk. Effect of the Viscodynamics of the Inflow of Liquid Steel Into the Ingot Mold on Ingot Quality 87

Yefimov, V.A., V.I. Makitin, N.P. Lapshova, V.P. Grebenyuk, and L.A. Kishlov. Effect of Teeming Temperature and Mold Shape on the Quality of Steel Ingots 96

Yefimov, V.A., N.P. Sabirov, and V.P. Osipov. Reduction of Head and Butt Scrap in the Rolling of Ingots 110

Yefimov, V.A., V.P. Osipov, and A.K. Malishko. An Investigation of the Conditions for Rolling Sheet Ar With Wavy Surfaces 121

Fedorevich, V.O. Experiments in the Conversion of High-phosphorous Pig Iron in a Converter With Side Blast of Oxygen 130

AVAILABLE: Library of Congress

80/ks
7-4-59

Card 1/4

SOV/137-59-3-5307

Translation from: Referativnyy zhurnal. Metallurgiya, 1959 Nr 3, p 54 (USSR)

AUTHOR: Fedorovich, V. G.

TITLE: New Method for Continuous Refining of Liquid Pig Iron (Novyy sposob nepreryvnogo rafinirovaniya zhidkogo chuguna)

PERIODICAL: V sb.: Vopr. proiz-va stali. Nr 5. Kiyev, AN UkrSSR, 1958, pp 35-40

ABSTRACT: A new method is proposed for the production of a low-carbon liquid intermediate product by means of continuous refining of pig iron in a trough-shaped converter (TC) with O_2 supplied from above. The liquid pig iron without slag proceeds through an intake into the working section of the converter. Its length, depending on the yield required and on the [C] in the intermediate product can attain several tens of meters. In the proposed variation of TC with a working section 20 m long (sketch adduced) the O_2 consumption is estimated at ~160 m^3/min at 7 - 15 atm pressure. The possible yield of the converter is 3 - 4 ton/min with 1.8% C in the intermediate product. O_2 is supplied through 100 pipes 5 mm in diameter; each set of 20 pipes is supplied individually with O_2. The distance from the outlet to the

Card 1/2

metal surface can be controlled and must range from .10 to 30 lance diameters. The internal contour of the TC has a rounded shape. The pig iron can be blown either directly upon being drawn from the blast furnace or in the mixer section prior to charging into the open-hearth furnace. The latter method is preferable. In the author's opinion the extraction of V is facilitated and the subsequent dephosphorization in the basic units is simplified with the blowing of Kerch pig iron in TC. The prereduction of pig iron in TC can decrease the amount of ore added to the charge, improve the conditions for dephosphorization and desulfurization, and increase the yield of open-hearth furnaces working with 60 - 70% pig iron by 50 - 100%. The method proposed can also be used for production of finished steel.

Yu. K.

FEDOROVICH, V.G., insh.; KARP, S.F., insh.

Ore and limestone briquettes in side-blowing highly phosphorous pig iron in converters with use of oxygen. Izv.vys.ucheb. zav.; chern.met. 2 no.7:35-39 Jl '59. (MIRA 13:2)

1. Institut chernoy metallurgii AN USSR. Rekomendovano kafedroy metallurgii chernykh metallov Dneprodzerzhinskogo vechernego metallurgicheskogo instituta.
(Bessemer process)
(Oxygen--Industrial applications)

FEDOROVICH, V.G.; KARP, S.F.

Combined blow of high phosphorous cast iron in laboratory converters. Izv. vys. ucheb. zav.; chern. met. no.8:34-37 '60. (MIRA 13:9)

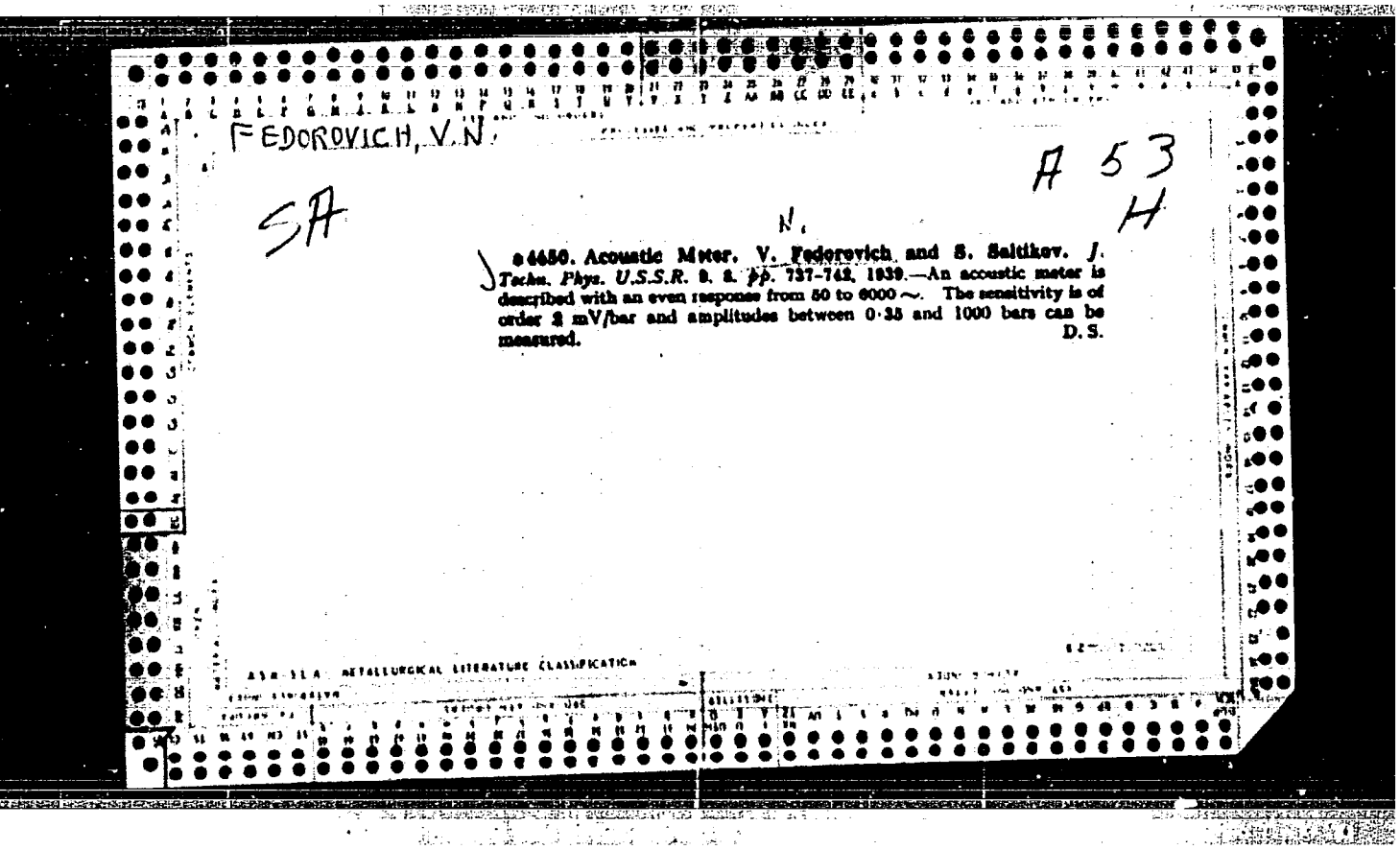
1. Dneprodzerzhinskiy vecherniy metallurgicheskiy institut.
(Cast iron--Metallurgy) (Converters)

FEDOROVICH, V.G.

Investigating the converter blowing of high phorphorous cast iron.
Vop.proizv.stali no.8:34-38 '61. (MIRA 14:6)
(Steel—Metallurgy) (Converters)

FEDOROVICH, V.G.

New method for the desulfuration of liquid cast iron. Vop.proizv. stali no.8:39-43 '61. (MIRA 14:6)
(Desulfuration)
(Liquid metals)



FEDOROVICH, V.N.

SA

A 53

H

N.

a4650. Acoustic Meter. V. Federovich and S. Saltikov. *J. Techn. Phys. U.S.S.R.* 9. 8. *pp.* 737–742. 1939.—An acoustic meter is described with an even response from 50 to 6000 ~. The sensitivity is of order 2 mV/bar and amplitudes between 0·35 and 1000 bars can be measured. D. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

FEDOROVICH, V. N.

"Problems of Measuring the Microphone Effect of Carbon Granules," a paper read at the conference of the Acoustics Commission AS USSR held in Leningrad 1-3 Feb 51.

W-21610, 25 Feb 52

FEDOROVICH, V. N.

USSR/Physics - Acoustics, Measurements Feb 52

"Acoustic Method for Vibration Measurements," V. N. Fedorovich

"Zhur Tekh Fiz" Vol XXII, No 2, pp 238-244

Describes acoustic method facilitating measurements of vibrations within 100-6,000 osc/sec range and consisting in measuring acoustic pressure by an acoustic sound. Indebted to V. I. Boytsov for exptl research. Received 2 Aug 51.

209T105

FEDOROVICH, V. N.

USSR/Acoustics - Electroacoustics, J-6

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35601

Author: Fedorovich, V. N.

Institution: Leningrad, USSR

Title: Method of Measuring the Acoustic Impedance, Based on the Measurement of the Geometric Difference of Sound Pressure

Original Periodical: Akust. zh., 1955, 1, No 4, 360-367

Abstract: The measurement of the velocity on the surface of the object, necessary for the determination of the acoustic impedance, involves in many cases great technical difficulties. In the method proposed, such a measurement is replaced by corresponding measurement of souch pressures, or, more accurately speaking, by voltages of microphones that measure these pressures. The analysis of the equations of a 4-terminal network (an acoustic one, if we deal with sound pressures, and an electroacoustic one, if the 4-terminal network comprises a microphone measuring this pressure

Card 1/3

USSR/Acoustics - Electroacoustics, J-6

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35601

Abstract: with its electric circuits) shows that the 2 additional known impedances in addition to the measured one (one of which could be most conveniently chosen to be infinite), are enough to yield the value of the unknown impedance. This impedance is determined in this case from the known impedance and from the complex ratios of the voltages of the microphones that measure the sound pressure at the surface of the measured and known impedance to the geometric differences between these voltages and the voltages of the microphone that measures the sound pressure at the infinite-impedance surface. The calculations necessary to obtain the unknown impedance become quite simplified if one measures directly the magnitude and the phase of not only the corresponding voltages, but also of the necessary geometric differences of the voltages. This is indeed done in the measuring setup described in the article. It employs 2 electroacoustical identical 4-terminal networks, at the inputs of which there are acting simultaneously sounds produced by the same source; the sound pressures at the surface of the corresponding impedances are measured by acoustic probes. An electric subtracting circuit gives the geometric difference between

Card 2/3

USSR/Acoustics - Electroacoustics, J-6

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35601

Abstract: the necessary voltages; the moduli of the corresponding voltages and of the voltage differences are measured by vacuum-tube voltmeter, and the phase shift between them is measured by a phase meter. The electrical circuit provides for compensating elements, with which both electroacoustic 4-terminal networks become fully identical for an identical infinite acoustic load on them. By way of examples, measurements were made with this setup on the frequency characteristics of active and reactive components of an acoustic impedance of the "artificial ear" and also of the acoustic impedance of natural ears, measured through a telephone earpiece with large aperture and with a group of small apertures.

Card 3/3

FEDOROVICH, Vyacheslav Nikolayevich; MIL'SHITS, Aleksandr Germanovich; FINKLER, I.Ye, otvetstvennyy red.; DOBRYNINA A.Ya., red.; SUSHKEVICH, V.I., tekhn. red.

[Methods of determining the quality of telephone transmission recommended by the International Consultative Committee for Telephone and Telegraph] Metody otsenki kachestva telefonnoi peredachi, rekomenduyemye MKETT. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1958. 66 p. (MIRA 11:7)
(Telephone--Testing)

FEDOROVICH, V. P.

"Cepheid BI Cassiopeiae" (Astrophysics, Observations of Variables) Peremennyye Zvezdy, No 6, 1953, pp 412-414

Abs

W-31146, 1 Feb 55

FEDOROVICH, V. P.

"AY Cassiopeliae" (Astrophysics, Observations of Variables), Peremennyye Zveszy, No 6, 1953, pp 417,418

Abs

W-31146, 1 Feb 55

FEDOROVICH, V. P.

Astrophysics, Observations of Stars (2190)
Peremennyye Zvezdy, Vol 9, No 4, 1953, pp 296-297
FEDOROVICH, V. P.
"AW Cassiopeia" Determinations were made of the brightness of this variable. Maps and graphic and numerical data are included in the article.

SO: Referativnyy Zhurnal--Astronomiya i Geodeziya, No 2, Feb 54;(W-30785, 28 July 1954.)

FEDOROVICH, V. P.

Astrophysics, Observations of Stars (1667)
Peremennyye Zvezdy, Vol 9, No 4, 1953, p 302
FEDOROVICH, V. P
"BS Draconis" Describes how the brightness of this variable was determined.

SO: Referativnyy Zhurnal--Astronomiya i Geodeziya, No 1, Jan 54;(W-30785, 28 July 1954.)

FEDOROVICH, V.P.

Cepheid variable BI Cassiopeiae. Per.zvezdy 9 no.6:412-414 O '53.
(MIRA 8.2)

1. Astronomicheskiy sovet AN SSSR.
(Stars, Variable)

FEDOROVICH, V.P.

AY Cassiopeiae. Per.zvezdy 9 no.6:417-418 O '53. (MLRA 8:2)

1. Astronomicheskiy sovet AN SSSR.
(Stars, Variable)