KUKHARSKAYA, E.V.; SKORIK, Yu.I.

Effect of thionyl chloride on the siloxane bond in an ultrasonic field. Dokl. AN SSSR 159 no.2:369-372 N '64. (MIRA 17:12)

1. Institut khimii silikatov im. I.V. Grebenshchikova AN SSSR. Predstavleno akademikom I.V. Tananayevym.

L 29106-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AP5003963 S/0079/65/035/001/0106/0110

AUTHORS: Voronkov, M. G.; Skorik, Yu. I.

TITLE: Interaction of phosphorus trihalides with trialkyl alkoxysilanes and hexaalkyl disiloxanes

SOURCE: Zhurnal obshchey khimii, v. 35, no. 1, 1965, 106-110

TOPIC TAGS: phosphorus, trialkyl alkoxysilane, hexa alkyl disiloxane, zinc chloride, iron compound, tin chloride, silicon compound, dimethylaniline, trialkylhalide silane, ethyl bromide

ABSTRACT: The silicon organic esters of phosphorous acid were obtained in 30% yields by simple distillation of mixtures of phosphorous tribromide with excessive amounts of trimethyl ethoxysilane, trimethyl butoxysilane, and triethyl ethoxysilane in the presence of catalysts (0.5-0.6 mol% $ZnCl_2$, $FeCl_3$, $SnCl_2$). The reaction follows the formula

$$3R_3SiOR' + PBr_3 \rightarrow (R_3SiO)_3P + 3R'Br .$$

The obtained compounds are colorless liquids with a weak camphor odor, forming complexes with Cu_2Cl_2 due to the presence of trivalent phosphorous. Silicon organic esters of ethyl phosphinic acid are formed simultaneously in the above reaction as

Card 1/2

OTHER: 007

NO REF SOV: 008

L 48529-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP5008803 UR/0080/65/038/003/0510/0515 36 31 B

AUTHOR: Skorik, Yu. I.; Kukharskaya, E. V.; Fedoseyev, A. D.; Klimova, K. P.

TITLE: Modification of chrysotile asbestos by organopolysiloxanes in an acoustic field

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 3, 1965, 510-515

TOPIC TAGS: asbestos, acoustic field, siloxane, carbon, nonmetal tensile strength

ABSTRACT: Chrysotile asbestos, which represents about 96% of the total asbestos mined in the USSR, is not acid resistant and absorbs large amounts of water, which impairs its technical value. Grafting of polyorganosiloxane radicals on the surface of the mineral considerably improves its chemical resistance and thermal and electric insulating properties. The grafting can be conducted in the medium of the agent to be grafted, or in its solutions, by means of an ultrasonic field.

Chemical analyses and IR spectra indicate the presence of carbon and of C-H bonds in the treated asbestos. Inasmuch as interplanar distances are

Card 1/5

ACCESSION NR: AP5008803

not changed in the asbestos fibers after the treatment, according to the x-ray patterns, only surface modification of the fibers is assumed. The modification experiments were conducted with crude or graded chrysotile asbestos from the Bazhenovo deposit in the Urals, and with several organopolysiloxanes of various degrees of polymerization, as shown in Table 1.

Table 1. Carbon content in the modified asbestos samples (crude, treated for 1 hr)

Medium of ultrasonic treatment	Degree of polymerization of organopolysiloxane	Carbon content, %
Hexaethyldisiloxane	2	0.33
Diethylpolysiloxane fluid VKZh-94B (VTU MKhP EU64-54*)	7—9	0.44
Dimethylpolysiloxane rubber SKT:		
2% solution in benzene	5000—7000	1.20
10% " " "	" "	2.20

Card 2/5 *Temporary Specifications of the Ministry of the Chemical Industry

L 48579-65

ACCESSION NR: AP5008803

A mixture of asbestos and organopolysiloxane (or its solution) was subjected to ultrasonic vibrations with a frequency of 19— 21 kc and an intensity of about 7 W/cm^2. Flowing water was used to cool the system. The operation was carried out in 30-min periods, with 15-min interruptions for cooling. The treated samples were thoroughly washed with benzene or toluene in a Soxhlet extractor and dried at 150° C.

Carbon content, water adsorption, resistance to hydrochloric acid and tensile strength of the fibers were determined both for initial and modified materials. Water absorption changed from 156% to 25% for the ethylpolysiloxane fluid-treated asbestos. Acid resistance is shown in Table 2.

Table 2. Effect of hydrochloric acid solutions on initial and modified chrysotile asbestos

Acid concentration in %	Weight losses of asbestos in %	
	Initial	Modified
25	54.2	36.8
10	26.6	16.2
5	17.3	9.0

Card 3/5

L 48579-65

ACCESSION NR: AP5008803

Tensile strength of the modified asbestos was not impaired by the treatment. The authors suggest that active particles, which are formed from both the asbestos and organopolysiloxane molecules as a result of the destructive effect of cavitation, recombine, producing the attachment of polyorganosiloxane radicals to silicon or magnesium atoms by means of an oxygen bridge. The possibility of formation of similar derivatives for kaolin was previously demonstrated by the authors.* Partial degradation of organopolysiloxanes by cavitation caused by ultrasonic vibration is confirmed by a certain decrease in the viscosity of the modifying agent. The acquiring of hydrophobic properties by the ultrasonically treated asbestos is explained by the formation of true chemical bonds between the mineral and the modifying agent, inasmuch as the mere adsorption of an organopolysiloxane on asbestos does not render the latter hydrophobic, in spite of a higher carbon content in the case of the adsorption. The higher acid resistance of the modified asbestos is explained by the better hydrophobic properties. This work was conducted in the Institute of the Chemistry of Silicates im. I. V. Grebenshchikov, Academy of Sciences USSR.

Card 4/5

L 48579-65

ACCESSION NR: AP5008803 0

Orig. art. has 1 equation, 1 graph, and 3 tables.

ASSOCIATION: Institut khimii silikatov imeni I. V. Grebenshchikova AN SSSR)
(Institute of Silica Chemistry, AN SSSR)

SUBMITTED: 22Jun64 ENCL: 00 SUB CODE: MT, OC

NO REF SOV: 004 OTHER: 006 FSB, v. 1, no. 6

Card 5/5

S/139/59/000/05/007/026
E032/E114

AUTHORS: Moskalev, V.A., Filippov, M.F., Skorikov, A.G., and Skvortsov, Yu.M.

TITLE: A High Pulsed Current Stereobetatron /9

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1959, Nr 5, pp 35-44 (USSR)

ABSTRACT: The Tomsk Polytechnical Institute has designed a 25 MeV stereobetatron such that the beam current at the target is of the order of a few amps during a fraction of a microsecond. The shape of the magnetic field was based on the theoretical studies reported in Refs 3-7. The present paper gives a general description of the various features of the betatron including the construction of the electromagnet, the supplies, the injection scheme, the extraction scheme, and the design of the two independent vacuum systems. The machine is now being built. It will be used to study electron interactions in the two crossed beams. There are 10 figures and 14 references, of which 12 are Soviet and 2 English.

Card 1/1

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S.M. Kirova

SUBMITTED: December 27, 1958

ACCESSION NR: AR4022437 S/0058/64/000/001/A036/A037

SOURCE: RZh. Fizika, Abs. 1A331

AUTHORS: Moskalev, V. A.; Okulov, B. V.; Otrubyannikov, Yu. A.; Skvortsov, Yu. M.; Skorikov, A. G.; Shestakov, V. G.

TITLE: Results of starting a pulsed two-chamber stereo betatron for 25 MeV

CITED SOURCE: Izv. Tomskogo politekhn. in-ta, v. 122, 1962, 50-53

TOPIC TAGS: stereo betatron, pulsed stereo betatron, two channel stereo betatron, ionization measurement, radiation dose power, optimal gamma ray intensity, stereo betatron radiation yield, bremsstrahlung pulse

TRANSLATION: A two-channel pulsed stereo-betatron for 25 MeV with increased radiation intensity was started and put in operation at

Card 1/3

ACCESSION NR: AR4022437

the Tomsk Polytechnic Institute in 1960. The electromagnet of the apparatus was fed with 2760 A current pulses at 7.5 kV and at a repetition frequency of 0.2 cps. The injection voltage and current were 300--400 kV and 1.6 A. A special system for dropping the electrons on the target made it possible to obtain bremsstrahlung pulses not exceeding 0.2 microsecond in duration. (For details see RZhFiz, 1963, 1A381, 382.) To register the radiation pulses, a standard "Kaktus" x-ray meter was used with an aluminum one-liter DIG-1 ionization chamber. It was impossible, however, to measure the radiation dose with the available instruments. Consequently, a rough qualitative estimate of the radiation dose power per pulse was made using a method in which a radiation pulse was transmitted through a lead layer of maximum possible thickness. It was found that at optimal gamma-radiation intensity a pulse from one accelerator chamber can pass through a lead 14-cm layer located 1 meter away from the accelerator target. This corresponds to an approximate dose of 50 roentgens. If it is assumed that during one acceleration cycle the

ACCESSION NR: AR4022437

dose in the stereo-betatron beam amounts to only 5 roentgens, then the radiation yield of the stereo-betatron is 250--300 times larger than in existing betatrons of the same energy. The dimensions of the focus spot did not exceed 4 x 2 mm in the right-hand accelerator chamber, and 10 x 1 mm in the left. The number of accelerated electrons is ~5 x 10^{11}. V. Voronin.

DATE ACQ: 03Mar64 SUB CODE: PH, SD ENCL: 00

Card 3/3

GUBA, I.N., inzh.; SKORIKOV, A.M., inzh.

The D-432 machine for cutting expansion joints in hardened concrete. Stroi. i dor. mash. 7 no.9:15-16 S '62. (MIRA 15:10)
(Road machinery)

BORISOV, I. I.

Borisov, I. I. "Automatic Control of Current Strength and Time in Galvanic Processes." Informatsionno tekhnicheskiy sbornik (Reference Technical Manual), 1953, No. 16, pages 4-7, 3 figures.

SKORIKOV, K. G.

"Total Heats of Evaporation of Liquid Mixtures: I. New Method of Determination of Total Heats of Evaporation," Zhur. Fiz. Khim, 23, No. 11, 1949. Mbr. Lab. Thermochemistry, Chair Physical & Colloidal Chem., Rostov State Univ. im. V. M. Molotov, -c1949-.

5(4)
AUTHOR: Skorikov, K. G.

SOV/76-33-2-42/45

TITLE: Discussion (Diskussiya). Remarks on the Papers by P. V. Nemtsov [1,2] (Zamechaniya k stat'yam P. V. Nemtsova [1,2])

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 2, pp 501-502 (USSR)

ABSTRACT: It is shown that the four equations (1-4) which were suggested by Nemtsov for studying the ionization potentials of various ions are in principle based upon equation (1). This equation is an application of Newton's (N'yuton) first law (Ref 3). Proceeding from an equation by Dibrova (Refs 4, 5), which is represented in a form corresponding to the conditions given by Nemtsov, a series of equations are derived (6-17) and the following conclusions are drawn: the equation according to Newton (5) can be expressed in a general form (18) which can be considered the basic form for all four (1-4) of the equations set forth by Nemtsov. New principles are not to be found in the empirical formulae set forth by P. V. Nemtsov, and also not in their generalized form (18). There are 6 Soviet references.

Card 1/2

SKORIKOV, L.V. (st.Igumnovo)

Fundamentals of rhythmic operations. Zhel.dor.transp. 43 no.4:81-82 Ap '61. (MIRA 14:3)

1. Zamestitel' nachal'nika stantsii Igumnovo Gor'kovskoy dorogi. (Railroads, Industrial)

ACC NR: AP6036429 SOURCE CODE: UR/0210/66/000/008/0101/0103

AUTHOR: Skorikova, M. F.

ORG: Sakhalin Complex Scientific Research Institute, s. Novo-Aleksandrovka (Sakhalinskiy kompleksnyy nauchno-issledovatel'skiy institut)

TITLE: Determination of the density of the earth's crust from boundary velocity values

SOURCE: Geologiya i geofizika, no. 8, 1966, 101-103

TOPIC TAGS: seismic wave ~~propagation~~, rock elasticity, elastic wave, ~~propagation~~, earth crust, gravimetry, shock wave propagation, shock wave velocity / Sakhalin

ABSTRACT: A relationship is established between crustal density (ρ) and boundary velocity (v_r) that is considered useful in interpreting and correlating seismic and gravimetric data. Experiments conducted with rock samples from Sakhalin show that the longitudinal wave velocities measured in the samples correlated well with elastic-wave propagation velocities in the massif based on seismic field data obtained in situ. On the basis of the relationships

$$\rho = 0.18\, v_b + 1.823;$$
$$v_b = 4.1\rho - 6.462$$

Card 1/2

SKORIKOV, P.A.; KITCHENKO, G.A., master

Organization of material and technical procurement and work of the order bureau in the locomotive depot in Krasnodar. Elek. i tepl. tiaga 9 no.11:6-8 N '65. (MIRA 19:1)

1. Lokomotivnoye depo Krasnodar.

TAMBOVTSEV, D.A.; SKORIKOV, V.M.; ZHELUDEV, I.S.

Production of bismuth titanate single crystals and some of their properties. Kristallografiia 8 no.6:889-893 N-D'63. (MIRA 17:2)

1. Institut kristallografii AN SSSR.

TAMBOVTSEV, D.A.; SAFRONOV, G.M.; TERENT'YEV, B.P.; SKORIKOV, V.M.

Stability of the operation of a reference voltage source using ferroelectric bismuth tetanate crystals. Elektrichestvo no.12:85-86 D '63. (MIRA 17:1)

ACCESSION NR: AP4019324 S/0105/64/000/003/0001/0005

AUTHOR: Tambovtsev, D. A. (Engineer); Terent'yev, B. P. (Doctor of technical sciences); Zheludev, I. S. (Doctor of physico-mathematical sciences); Skorikov, V. M. (Engineer); Kucherova, I. V. (Engineer)

TITLE: Voltage and current stabilization by ferroelectrics

SOURCE: Elektrichestvo, no. 3, 1964, 1-5

TOPIC TAGS: ferroelectric, ferroelectric crystal, voltage stabilizer, current stabilizer, ferroelectric voltage stabilizer, ferroelectric current stabilizer, reference voltage, bismuth titanate, barium titanate, triglycine sulfate

ABSTRACT: Procedures for the calculation of ferroelectric-stabilized reference-voltage sources are set forth, a new circuit for voltage stabilization is submitted, and some problems in using ferroelectrics for stabilization purposes are discussed. The new bridge-like circuit (see Enclosure 1) has the advantage

Card 1/3 2

ACCESSION NR: AP4019324

of a high output voltage that can reach one-third of the input voltage; also, a high degree of temperature compensation is possible. The experimentally determined effects of frequency and load on the performance of ferroelectric voltage stabilizers are reported. The possibilities of ferroelectric materials for current stabilization were also explored; a 1-cm^2 barium-titanate plate ensured a stable mean current of 50 ma at 50 cps; bismuth titanate and triglycine sulfate were also tested. Orig. art. has: 9 figures and 6 formulas.

ASSOCIATION: Institut kristallografii AN SSSR (Institute of Crystallography, AN SSSR)

SUBMITTED: 13Sep63 DATE ACQ: 27Mar64 ENCL: 01

SUB CODE: EE NO REF SOV: 006 OTHER: 001

Card 2/2

L 49784-65 EPF(c)/EPR/EWG(j)/EWT(m)/EWP(b)/EWP(t) Pr-4/Ps-4 IJP(c) JD
ACCESSION NR: AP5009374 UR/0363/65/001/002/0232/0235

AUTHOR: Speranskaya, Ye. I.; Rez, I. S.; Kozlova, L. V.; Skorikov, V. M.; Slavov, V. I.

TITLE: Bismuth oxide-titanium dioxide system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 2, 1965, 232-235

TOPIC TAGS: bismuth oxide, titanium dioxide, phase diagram, phase equilibrium

ABSTRACT: The bismuth oxide-titanium oxide system was studied using thermal analysis and x-ray diffraction. The work was done in platinum or platinum-rhodium crucibles. The phase diagram is shown in fig. 1 of the Enclosure. Three compounds are formed in this system: $4Bi_2O_3 \cdot TiO_2 (Bi_8TiO_{14})$, $2Bi_2O_3 \cdot 3TiO_2 (Bi_4Ti_3O_{12})$ and $Bi_2O_3 \cdot 4TiO_2 (Bi_2Ti_4O_{11})$. All of these compounds melt in an incongruent manner: Bi_8TiO_{14} at 865°C, $Bi_4Ti_3O_{12}$ at 1210°C and $Bi_2Ti_4O_{11}$ at 1275°C. At 670°C $Bi_4Ti_3O_{12}$ undergoes a reversible phase transition. According to thermal analysis data the other two compounds undergo no conversions in the investigated temperature region.

Card 1/3

L 49784-65

ACCESSION NR: AP5009374

Bi_8TiO_{14} is produced as a result of an exothermic reaction at 830°C. At 835°C a Bi_8TiO_{14} and Bi_2O_3 eutectic mixture is crystallized, it contains 97% Bi_2O_3 and 3% TiO_2. Orig. art. has: 1 table and 3 figures.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of Sciences SSSR)

SUBMITTED: 23Oct64 ENCL: 01 SUB CODE: MT

NO REF SOV: 006 OTHER: 004

Card 2/3

L 49784-65
ACCESSION NR: AP5009374

ENCLOSURE: 01

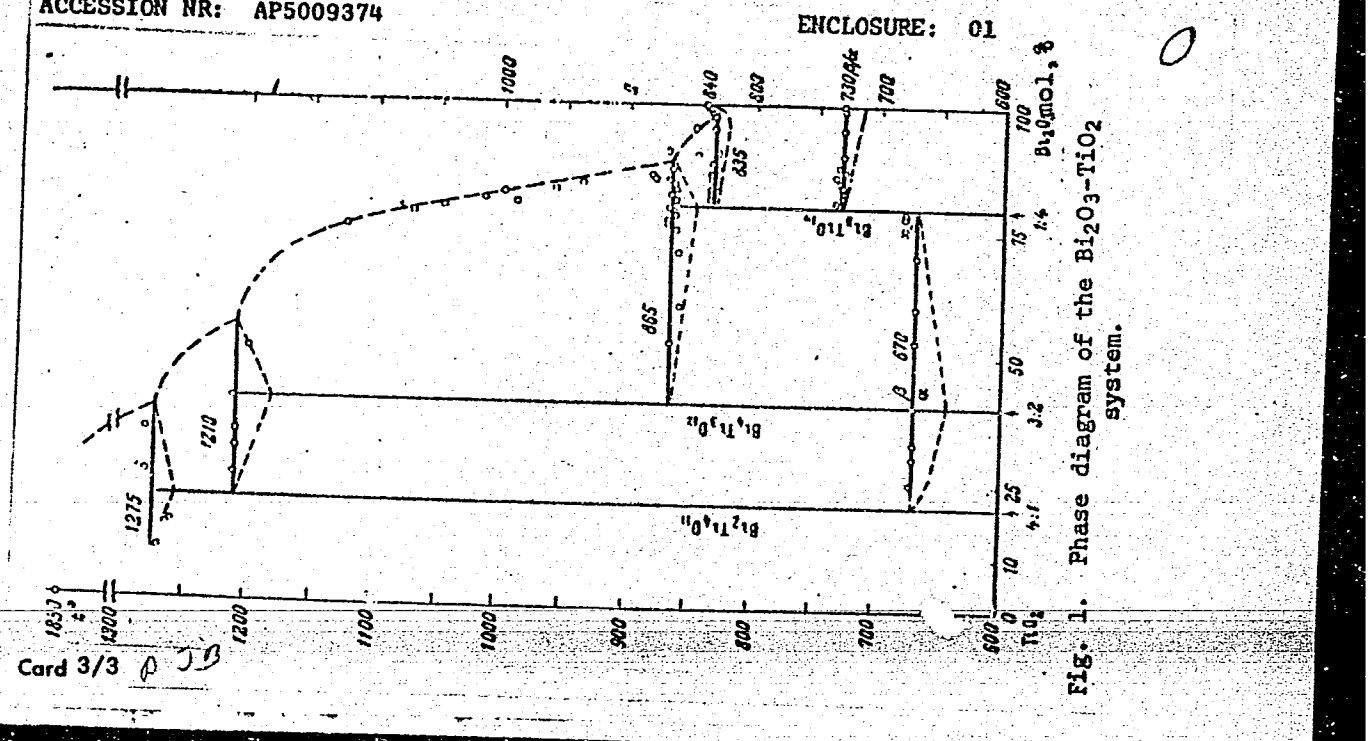


Fig. 1. Phase diagram of the Bi_2O_3-TiO_2 system.

Card 3/3

SPERANSKAYA, Ye.I.; SKORIKOV, V.M.; RODE, Ye.Ya.; TEREKHOVA, V.A.

Phase diagram of the system bismuth oxide - ferric oxide. Izv. AN SSSR. Ser. khim. no.5:905-906 '65. (MIRA 18:5)

1. Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova AN SSSR.

SPERANSKAYA, Ye.I.; REZ, I.S.; KOZLOVA, L.V.; SKORIKOV, V.M.; SLAVOV, V.I.

Bismuth oxide - titanium dioxide system. Izv. AN SSSR. Neorg. mat. 1 no.2:232-235 F '65. (MIRA 18:7)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

SVET-MOLDAVSKIY, G.Ya. (Moskva, B.Novinskiy per., d.3, kv.90); SKORIKOVA, A.S. (Moskva, ul. Kachalova, d.20, kv. 66)

Development of multiple cysts in rats after injection of Rous sarcoma virus [with summary in English]. op.onk. 3 no.6:673-677 '57. (MIRA 11:2)

1. Iz Gosudarstvennogo kontrol'nogo instituta suvorotok i vaktsin in. L.A.Tarasevicha (dir. - S.I.Didenko, nauchn. rukovod. - chlen-korrespondent AMN SSSR prof. N.G.Klyuyeva)

(SKIN NEOPLASMS, exper.
Rous sarcoma virus cysts, multiple subcutaneous in rats)
(VIRUSES
same)

SVET-MOLDAVSKY, G.J.;SKORIKOVA, A.S. (Technical assistance: E. A. Kanygina)

The pathogenicity of Rous Sarsoma virus for mammals. Detection of virus and of antigenic substances of Rous Sarcoma in the cyst-haemorrhagic disease of Albino rats. Acta virol. Engl. Ed., Praha 4 no.1:47-51 Ja '60

1. Influenza and Measles Laboratory. The Tarasevich State Control Institute of Medical Biological Preparations, Moscow.
(SARCOMA virology)

[illegible], [illegible]; SKO[illegible]KOVA, A.S.

[Study] of the activity of some fractions of Trypanosoma cruzi lysate on the suspensions of malignant cells. [Antibiotiki] 8 no. [11]:1040-1045 N '63. (MIRA 17:9)

1. [Laboratoriya] protivorakovykh preparatov (zav. - chlen-korrespondent AMN SSSR prof. N.G.Klyuyeva) Gosudarstvennogo kontrol'nogo instituta meditsinskikh biologicheskikh preparatov imeni Tarasevicha.

SKORIKOVA, M.F.

Anisotropy of the elastic properties of rocks in Sakhalin. Izv. AN SSSR. Ser. geol. 30 no.8:61-75 Ag '65.

(MIRA 18:9)

1. Sakhalinskiy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR, gorod Yuzhno-Sakhalinsk.

SKORIKOVA, O.A.

Sawflies (Hymenoptera, Tenthredinidae) which damage current and gooseberry bushes. Ent.oboz. 32:107-116 '52. (MLRA 7:1)

1. Kafedra obshchey entomologii Leningradskogo sel'skokhozyaystvennogo instituta. (Sawflies)

SKORIKOVA, O.A.

Biology of sawflies (Hymenoptera, Tenthredinidae) which damage currants and gooseberries in Leningrad Province. Ent.oboz. 33:128-131 '53. (MLRA 7:5)

1. Kafedra obshchey entomologii Leningradskogo sel'skokhozyaystvennogo instituta. (Leningrad Province--Sawflies) (Sawflies--Leningrad Province) (Berries--Diseases and pests)

SKORIKOVA, O.A.

Protecting berry crops against injurious insects. Biol. v shkole no.2:64-66 Mr-Ap '59. (MIRA 12:4)

1. Leningradskiy sel'skokhozyaystvennyy institut.
(Entomology--Study and teaching)
(Berries--Diseases and pests)

BEY-BIYENKO, Grigoriy Yakovlevich; SKORIKOVA, Ol'ga Aleksandrovna; AKHREMOVICH, M.B., red.; CHUNAYEVA, Z.V., tekhn. red.

[Laboratory exercises in entomology] Laboratornye zaniatiia po entomologii. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958. 253 p. (Entomology—Laboratory manuals) (MIRA 11:8)

SKORIKOVA, Ol'ga Aleksandrovna; REUTSKAYA, O.Ye., red.; CHUNAYEVA, Z.V., tekhn.red.

[Sawflies, pests of fruits and berries] Pilil'shchiki, vrediashchie plodovo-iagodnym kul'turam. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 72 p. (MIRA 14:7)
(Sawflies)

BATIASHVILI, I.D.; BEY-BIYENKO, G.Ya.; BOGDANOV-KAT'KOV, N.N.; GERASIMOV, B.A.; GILYAROV, M.S.; DMITRIYEV, G.V.; ZVEREZOMB-ZUBOVSKIY, Ye.V.; ZIMIN, L.S.; KOLOBOVA, A.N.; MEDVEDEV, S.I.; MISHCHENKO, A.I.; PETROV, A.I.; RYABOV, M.A.; SAVZDARG, E.E.; SELIVANOVA, S.N.; SKORIKOVA, O.A.; TROPKINA, M.F.; SHAPOSHNIKOV, G.Kh.; SHCHEGOLEV, V.N., prof., doktor sel'skokhoz.nauk; ESTERBERG, L.K.; YAKHONTOV, V.V.; REUTSKAYA, O.Ye., red.; CHUNAYEVA, Z.V., tekhn.red.

[Classification of insects on the basis of damage to crops] Opredelitel' nasekomykh po povrezhdeniiam kul'turnykh rastenii. Izd.4, perer. i dop. Leningrad, Gos.izd-vo sel'khoz.lit-ry, 1960. 607 p. (MIRA 14:1)

(Insects, Injurious and beneficial)

SKORIKOVA, O.A.

Biology of Pamphilus balteatus Fall. (Pamphilidae, Hymenoptera) in Leningrad Province and its control. Zool. zhur. 39 no. 10:1511-1514 O '60. (MIRA 13:11)

1. Department of General Entomology, Leningrad Agricultural Institute, town of Pushkin, Leningrad Region.
(Leningrad Province--Sawflies)
(Roses--Diseases and pests)

SKORIKOVA, Ye., tkachikha

We will complete our assignment ahead of time. Sov.profsoiuzy 7 no.10:13-14 My '59. (MIRA 12:9)

1. Tashkentskiy tekstil'nyy kombinat imeni Stalina.
(Tashkent--Textile industry--Labor productivity)

MARKH, A.T.; SKORIKOVA, Yu.G.

Studying the factors of color change in drying prunes. Izv. vys. ucheb. zav.; pishch. tekh. no. 2:18-23 '58. (MIRA 11:10)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti, Kafedra biokhimii i mikrobiologii.
(Prune--Drying)

MARKH, A.T. ; SKORIKOVA, Yu.G.

Change in the chemical composition of plums during drying.
Kons. i ov. prom. 13 no.10:22-24 O '58. (MIRA 11:10)

1.Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti.
(Plum--Drying)

SKONIKOVA, Yu. G., Can Tech Sci -- (diss) "Changes in the qualitative indicators of fruit in the process of drying and preserving." Odessa, 1959. 19 pp with graphs (Min of Higher Education UkSSR. Odessa Technological Inst of Food and Refrigeration Industry. Chair of Biochemistry and Microbiology). 150 copies (KL,36-59,105)

57

MARKH, A.T.; SKORIKOVA, Yu.G.

Biochemical changes in apples during drying. Izv.vys.ucheb.zav.; pishch.tekh. no.1:37-44 '59. (MIRA 12:6)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti, kafedra biokhimii i mikrobiologii.
(Apple--Drying)

MARKH, A.T.; SKORIKOVA, Yu.G.

Chemical changes in dried fruit during storage. Izv.vys.ucheb. zav.; pishch.tekh. no.5:42-50 '59. (MIRA 13:4)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti, kafedra biokhimii i mikrobiologii.
(Fruit, Dried--Storage)

MARKH, A.T., doktor tekh.; SKORIKOVA, Yu.G., aspirant

Biochemical changes in plums during drying. Trudy OTIPiKhP 9 no.2: 39-51 '59. (MIRA 13:9)
(Plum -- Drying) (Prune)

SKORIKOVA, Yu.G., aspirant

Biochemical characteristics of plums from the Sochi Region. Trudy OTIPiKhP 9 no.2:77-95 '59. (MIRA 13:9)
(Sochi-- Plum)

MARKH, A.T.; SKORIKOVA, Yu.G.

Some distinctive aspects of the drying of plums. Kons. i ov. prom. 14 no.7:11-13 Jl '59. (MIRA 12:9)

1.Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti.

(Moldavia--Plum--Drying)

MARKH, A.T.; ZOZULEVICH, B.V.; SKORIKOVA, Yu.G.; RASKINA, N.A.

Vitamin enrichment of food concentrates. Kons.i ov. prom. 16 no.2: 21-23 F '61. (MIRA 14:4)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti.
(Food, Concentrated) (Vitamins)

SKORIKOVA, Yu.G.; KROTOV, Ye.G.

Modification of polyphenol OH groups during fruit drying. Izv.-vys.ucheb.zav.; pishch.tekh. 2:35-40 '62. (MIRA 15:5)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti, kafedra biokhimii i mikrobiologii.
(Fruit, Dried) (Phenols)

SKORIKOVA, Z. D.

4

D Chem

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
General and Physical Chemistry

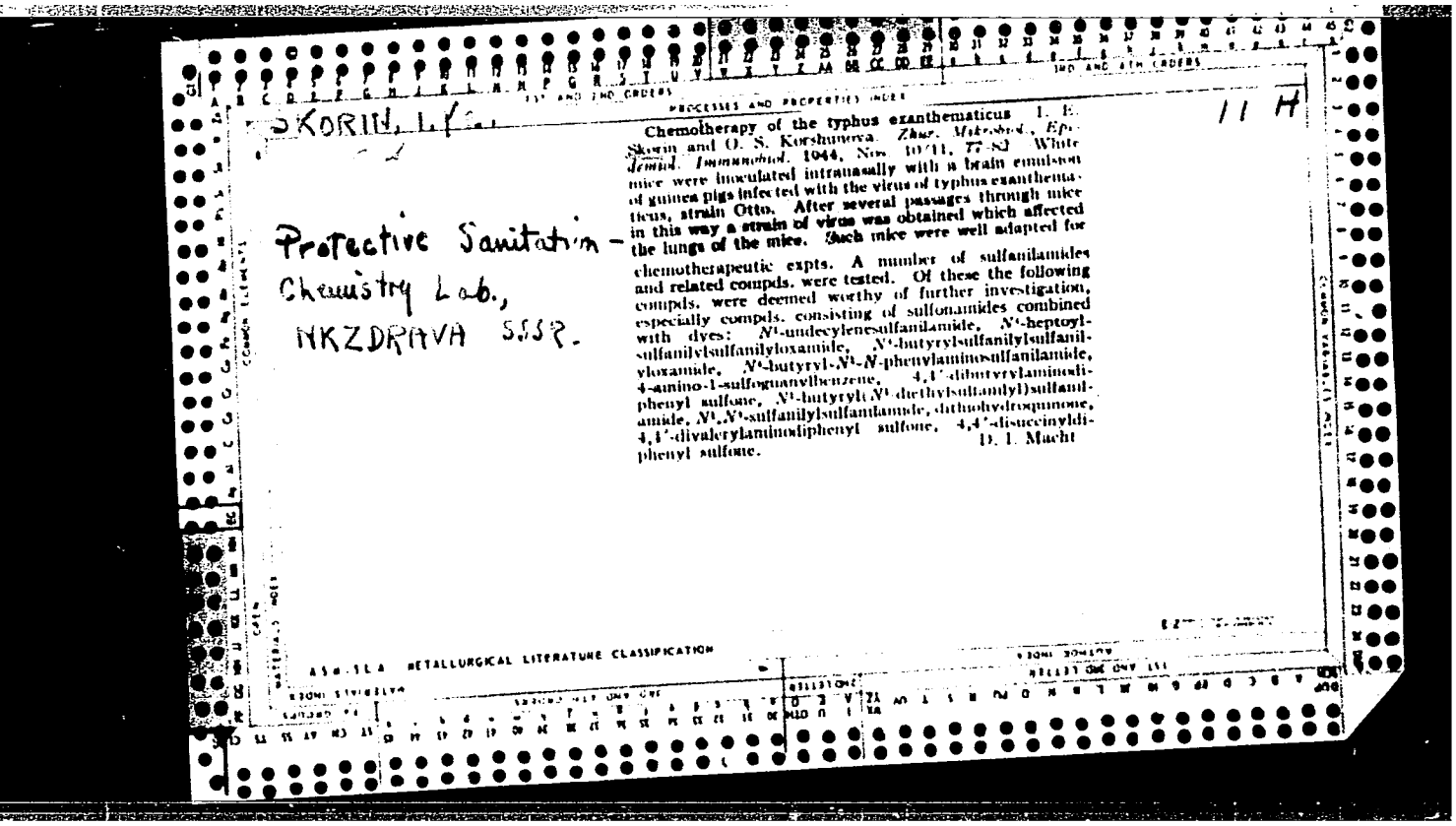
System with completely closed solubility curve. Mutual solubility of hexamethylenimine and water. E. N. Zil'berman and Z. D. Skorikova. *Zhur. Obshchei Khim.* 23, 1629–30(1953).—At room temp, hexamethylenimine (I) is completely miscible with water (cf. *Zhur. Fis. Khim.* 26, 1458(1952)). At higher temp. 2 conjugate solns. are formed and the soly. curve is a completely closed system with a max. and min. consolute points at 39.5 and 22.5% (I), at 228 and 66.9°, resp. Min. soly. of I, 5.7%, is at 100–160°; min. soly. of water in I, 29.7%, is at 140–180°.
I. Bencowitz

SKORIN, I. Ye.

Central Sci. Research Inst. for Disinfection, NKZDRAVA, People's Commisseriat Public Health, (-1944-)

"On the bactericide action of K-soap and K-preparation."

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 3, 1944.



PROCESSES AND PROPERTIES INDEX

SKORIN, L.F.

11 H

Protective Sanitation - Chemistry Lab., NKZDRAVA SSSR.

Chemotherapy of the typhus exanthematicus. I. E. Skvan and O. S. Korshunova. *Zhur. Mikrobiol., Epidemiol. Immunobiol.* 1944, Nos. 10/11, 77-82. White mice were inoculated intranasally with a brain emulsion of guinea pigs infected with the virus of typhus exanthematicus, strain Otto. After several passages through mice in this way a strain of virus was obtained which affected the lungs of the mice. Such mice were well adapted for chemotherapeutic expts. A number of sulfanilamides and related compds. were tested. Of these the following compds. were deemed worthy of further investigation, especially compds. consisting of sulfonamides combined with dyes: N^1-undecylenesulfanilamide, N^1-heptoylsulfanilylsulfanilyloxamide, N^1-butyrylsulfanilylsulfanilyloxamide, N^1-butyryl-N^4-N-phenylaminosulfanilamide, 4-amino-1-sulfoguanylbenzene, 4,4'-dibutyrylaminodiphenyl sulfone, N^1-butyryl(N^4-diethylsulfanilyl)sulfanilamide, N^1,N^4-sulfanilylsulfanilamide, dithiohydroquinone, 4,4'-divalerylaminodiphenyl sulfone, 4,4'-disuccinyldiphenyl sulfone.

D. I. Macht

A54-51A METALLURGICAL LITERATURE CLASSIFICATION

166T50

USSR/Medicine - Brucellosis Sep 50
Vaccines

"Extraction of a Living Microbic Culture of Brucella From Killed Semiliquid Formol Antibrucellosis Vaccine," I. Ye. Skorin, Cand Biol Sci, M. S. Shaburov, M. N. Popov'yants, Candidates Vet Sci, Div of Biochem, All-Union Inst of Exptl Vet Med

"Veterinariya" No 9, pp 28-30

Conducts series of tests on properties of a living microbic culture isolated by G. M. Bosh'yan's method from killed semiliquid formol antibrucellosis vaccine, series No 31, and finds them identical to

166T50

USSR/Medicine - Brucellosis (Contd) Sep 50

Brucella melitensis. Concludes formalin in concentrations used to prepare subject vaccine does not kill causal agents of the disease but merely inactivates them, changing their form and properties, and under specific conditions this changed but living culture from which killed vaccine is prepared can acquire form and properties inherent in original strain. Head, Div of Biochem: Dr G. M. Bosh'yan.

166T50

SKORIN, I. Ye.

Full translation c 7/53

SKORIN, I. E., Cand. Biol. Sci.
All-Union Inst. of Experimental Veterinary Medicine
"On the Microbic forms of the virus of foot and mouth."
SO: Veterinariia 29(7), 1952, p. 20
Full translation c 7/53

SKORIN, I.Ye., kand.biol. nauk; SHUBIN, V.A., kand.vet.nauk.

Foot-and-mouth disease in saigas. Veterinariia 35 no.10:49-54 O '58.
(MIRA 11:10)

1.Vsesoyuznyy institut eksperimental'noy veterinarii.
(Foot-and-mouth disease) (Saiga--Diseases and pests)

SKORIN, P. F., PIRTSKHALAYSHVILI, S. KH.

Tea Machinery

New tea harvester. Sel'khozmashina, No. 4, 1952.

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

SKORINA, L.

In the cultural center for passengers at the Vrutky railroad station.
p. (2) of cover.
37th annviersary of the Great October Revolution. p. 277.
ZELEZNICE, Prague, Vol. 4, no. 11, Nov. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6, June 1956, Uncl.

CH

15

The soils of the Chernovitsk region of the Ukranian-S.S.R. S. A. Skorina. *Pochvovedenie* (Pedology) 1949, 25-31.—The pH of a neutral salt ext., hydrolytic acidity, exchangeable Ca and Mg, available Al, org. matter content, and I sol. P_2O_5 of a no. of profiles of brown earths, forest steppe, and podzolized soils are recorded. A discussion of each profile in relation to its chem. characteristics is given.

J. S. Joffe

SKORINA, S.A.

VERNANDER, N.B.; GODLIN, M.M., professor, doktor sel'skokhozyaystvennykh nauk; SAMBUR, G.N.; SKORINA, S.A.; KONOVALOV, M.T., otvetstvennyy redaktor; AKSENOV, G.G., tekhnicheskiy redaktor; LIMANOVA, M.I., tekhnicheskiy redaktor

[Soils of the Ukrainian S.S.R.] Pochvy USSR. Pod red. M.M.Godlina. Kiev, Gos. izd-vo selkhoz. lit-ry, USSR, 1951. 326 p. [Microfilm] (MLRA 7:10)
(Ukraine--Soils)
(Soils--Ukraine)

SKORINA, S.A.

Soils of the steppe adjoining the Black Sea. G. N. Sambur, S. A. Skorina, and I. A. Vlasyuk (Ukrain. Sci. Research Inst. Socialist Agr.). *Pochvovédenie* 1953, No. 8, 1–19.—A discussion of the different phases of saline soils in the region, giving their chem. characteristics (org. matter, exchangeable Ca, Mg, and Na, pH, and sol. N, P, K, and H_2O-sol. Ca, Mg, Cl, SO_4, HCO_3) and the effects of these on suitability for irrigation. I. S. Joffe

DMITRENKO, P.A., doktor sel'skokhozyaystvennykh nauk.; SKORINA, S.A.

Organize the study of soil on collective and state farms. Zemledelie 4 no.10:116 O '56. (MLRA 9:11)
(Soils)

RYBAK, V.N., kand.sel'skokhozyaystvennykh nauk; SKORINA, S.A.

First results of a soil survey in the Ukraine. Zemledelie 6 no.9: 86-90 S '58. (MIRA 11:9)
(Ukraine--Crops and soils)

SKORINA, S.I. [Skoryna, S.O.], starshiy nauchnyy sotrudnik

Soil maps. Nauka i zhyttia 9 no.12:36-38 D '59. (MIRA 13:4)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya.
(Soils--Maps)

SKORINA, Sergey Aleksandrovich [Skorina, S.O.]; BELYAKOV, M.I. [Bieliakov, M.I.], red.; NEMCHENKO, I.Yu., tekhn.red.

[Knowledge of soil is the basis for its correct use] Znannia hruntiv - osnova pravyl'noho ikh vykorystannia. Kyiv, Derzh. vyd-vo sel's'kohospodars'koi lit-ry URSR, 1961. 48 p. (MIRA 15:4)

(Crops and soils)

SKORITSKAYA, V.M. Cand Med Sci -- (diss) " Comparative Anatomy of the marginal truncus sympathicus of the Lumbar region of ~~Man and certain Vertebrates~~." ←
Chelyabinsk, 1958, 19pp (Min of Health ~~of~~ RSFSR. Chelyabinsk State Med Inst.), 250 copies (KL, 41-58, 122)

of human beings and certain vertebrate animals.

-4-

S

USSR / Human and Animal Morphology (Normal and Pathological). Nervous System. Peripheral Nervous System.

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 16954

Author : Skoritskaya, V. M.
Inst : Not given
Title : Comparative Anatomy of the Marginal Sympathetic Trunk of the Lumbar Region of Man and Some Vertebrates

Orig Pub : V sb.: Izbr. vopr. morfol. nervn. sistemy i krovosnabzh. nervov. Chelyabinsk, 1958, 58-68

Abstract : Thirty-four specimens of the marginal sympathetic trunk (MST) of man and 176 specimens of MST of animals from cadavers of 10 sea urchins, 1 carp, 1 carassius, 16 frogs, 8 lizards, 2 turtles, 7 wild ducks, 2 domestic

Card 1/3

57

L 12282-63

S/081/63/000/005/039/075

AUTHOR: Goldowa, D., Golda, K., Golda, J. and Skorka, L. 4/4/

TITLE: A method for producing filtering pulps

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 5, 1963, 321, abstract 5I45 (Polish patent 45712 8 - 13 - 62)

TEXT: The quality of filtering pulps from asbestos fibers (possibly made with addition of plant fibers, e.g., cotton) is improved in that asbestos fiber undergoes (in its dry state) processing in a power mill under 200-600 kg/cm^2 pressure, furnished with 1-5 mm mesh sieves for a period of time which depends on the size of the asbestos fiber and the desired size of the fibers of the filtered pulp. The plant fibers are introduced into the pulp in the course of the crushing process. G. Stellikh.

[Abstractor's note: Complete translation]

Card 1/1

SKOBKIN, A.V.; PINKOVSKIY, Ya.I.

Explosion-proof MA36 electric motors. Mash. i neft. obor. no.7: 3-7 '64. (MIRA 17:11)

1. Khar'kovskiy elektromekhanicheskiy zavod i Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut neftyanogo mashinostroyeniya.

YAKUBOVSKIY, A.M., mashinist-instruktor; FROLENKO, M.P., mashinist-instruktor; YAROSHEVICH, V.S., mashinist; YERKIMBAYEV, Ye., mashinist; BABANAZAROV, A.M., mashinist; FEDOSOV, D. Ye.; SKORKIN, I.S.

Useful book "Reference bood for a diesel locomotive engineering by V.M.Terekhov, I.I.Murzhin. Reviewed by A.M.IAkubovskii and others. Elek.i tepl.tiaga 4 no.2:47-48 F '60. (MIRA 13:6)

1. Master zagotovitel'nogo tsekha, depo Chu, Kazakhskaya doroga (for Fedosov). 2. Master tsekha bol'skogo periodicheskogo remonta, depo Chu, Kazakhskaya doroga (for Skorkin).

(Diesel locomotives)
(Terekhov, V.M.)
(Murzhin, I.I.)

BABOKIN, I.A., redaktor; BALBACHAN, Ya.I., redaktor; BARABANOV, F.A., redaktor; BUCHNEV, V.K., redaktor; VLADIMIRSKIY, V.V., redaktor; GRIGOR'YEV, S. Ye., redaktor; DOKUKIN, A.V., redaktor; ZHABO, V.V. redaktor; ZADEMIDKO, A.N., redaktor; ZAITSEV, A.P., redaktor; IL'ICHEV, A.S., redaktor; KAGAN, V.Ya., redaktor; KRASNIKOVSKIY, G.V., redaktor; KRASOZOV, I.P., redaktor; KRIVONOGOV, K.K., redaktor; LALAYANTS, A.M., redaktor; MOGILEVSKIY, N.M., redaktor; ONIKA, D.G., redaktor; OSTROVSKIY, S.B., redaktor; OSTROVSKIY, S.M., redaktor; PEYSAKHOVICH, G.I., redaktor; POCHENKOV, K.I., redaktor; SIRYACHENKO, F.N.;redaktor. SKOCHINSKIY,A.A., redaktor; STUGAREV, A.S., redaktor; SKORKIN, K.I.; SKURAT, V.K., redaktor; SOBOLEV, G.G., redaktor ;TERPITOREV, A.M., redaktor; KHUDOCOVTSEV, N.M., redaktor; TSYPKIN, V.S., redaktor; SHEVYAKOV, L.D., redaktor; SHELKOV, A.A., redaktor;ANDREYEV, G.G., tekhnicheskiy redaktor.

[Safety rules in coal and shale mines] Pravila bezopasnosti v ugol'nykh i slantsevykh shakhtakh. Moskva, Ugletekhizdat, 1951. 207 p. (MLRA 9:1)

1. Russia (1923- U.S.S.R) Ministerstva ugol'noy promyshlennosti. (Coal mines and mining-Safety measures)

SKORKIN, K. I., Eng.

Electric Motors, Induction

Synchronizing asynchronous electric motors at the mines of the "Stalinugol" combine. Elektrichestvo no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

[illegible], . .: [illegible].

Electric Utilities - Rates

Concerning the article "Rate setting after the increase of the capacity coefficient (cosφ) in industry." Prom. energ. 9, No. 2, 1952.

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

SKORKIN,K.I.

Problems of district heating in the coal mining industry. Ugol' 30 no.10:9-13 O '55. (MIRA 8:12)

1. Ministerstvo ugol'noy promyshlennosti SSSR
(Coal mines and mining) (Heating from central stations)

SKORKIN, L. V.

"Purification of alkaline solutions of poly(ethylene oxide)-resins. L. V. Skorkin, M. Kh. Gluzman, S. I. Dashevskaya, and V. M. Bodnya. U.S.S.R. 105,505, May 25, 1957. Bases are removed by electrolysis. M. Hosek

KOLESNIKOV, D.G.; CHERNOBAY, V.T.; PROKOPENKO, A.P.; BOZHKO, N.G.; SKORKIN, L.V.

The alkaloid reserpine from the roots of Rauwolfia serpentina Benth. Med.prom. 13 no.4:40-43 Ap '59. (MIRA 12:6)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

(RESERPINE)

SKORKIN, N.A.

Semiautomatic machine for washing spindle seats. Mashinostroitel' no.3:8 Mr '64. (MIRA 17:4)

SKORKIN, N.V.; BROVMAN, M.Ya.

Efficient grooving for continuous blooming mills. Metallurg 9 no.7: 26-27 Jl '64. (MIRA 17:8)

1. Yuzhno-Ural'skiy mashinostroitel'nyy zavod.

VYDRIN, V.N.; BROVMAN, M.Ya.; SKORKIN, N.V.

Measuring tension in continuous rolling mills. Izv. vys. ucheb. zav.; chern. met. 6 no.6:100-105 '63. (MIRA 16:8)

1. Chelyabinskiy politekhnicheskiy institut.
(Rolling mills)

BROVMAN, M.Ya.; GENZELEV, S.M.; MIRASHKO, L.I.; RUBINSHTEYN, Yu.Ye.; SKORKIN, N.V.; ARSHANSKIY, M.I.; PIN'ZHAKOV, G.F.

Results of a year's operation and investigation of an oxygen-blown converter with a 100 ton (Mg) capacity. Stal' 25 no.6: 508-511 Je '65. (MIRA 18:6)

1. Yuzhno-Ural'skiy mashinostroitel'nyy zavod i Nizhne-Tagil'skiy metallurgicheskiy kombinat.

ACC NR: AP7003[illegible] (A) SOURCE CODE: UR/0133/67/000/001/0053/0057

AUTHOR: Brovman, M.Ya.; Skorkin, N.V.; Shumkov, V.D.; Vydrin, V.N.; Dodin, Yu.S.; Makarov, V.G.; Rimen, V.Kh.; Lind, I.K.

ORG: Yuzhuralmashzavod; Chelyabinsk Polytechnic Institute (Chelyabinskiy politekhnicheskiy Institut); Chelyabinsk Metallurgical Plant (Chelyabinskiy metallurgicheskiy zavod)

TITLE: Investigation of a new 900/700/500 continuous blooming mill

SOURCE: Stal', no. 1, 1967, 53-57

TOPIC TAGS: metal rolling, hot rolling, rolling mill, continuous rolling mill/900-700-500 mill

ABSTRACT:

The new 900/700/500 continuous blooming mill, designed and built at the Yuzhno-Ural'skiy Machine Building Plant, is in operation at the Chelyabinsk and Krivorozhskiy Metallurgical Plants. The new mill is designed for rolling square blooms with a cross section of 80 x 80—170 x 170 mm and flat slabs from 370 x 370 mm carbon and alloy steel blooms weighing up to 9 tons. Provision is also made for rolling round bars 105, 120, 140, 150, 170 and 220 mm in diameter. The mill is designed to produce 5.5 million tons of rolled stock per year; the metal delivery rate at the last stand

Card 1/2 UDC: 621.771.26

SKORKINA, N.F.

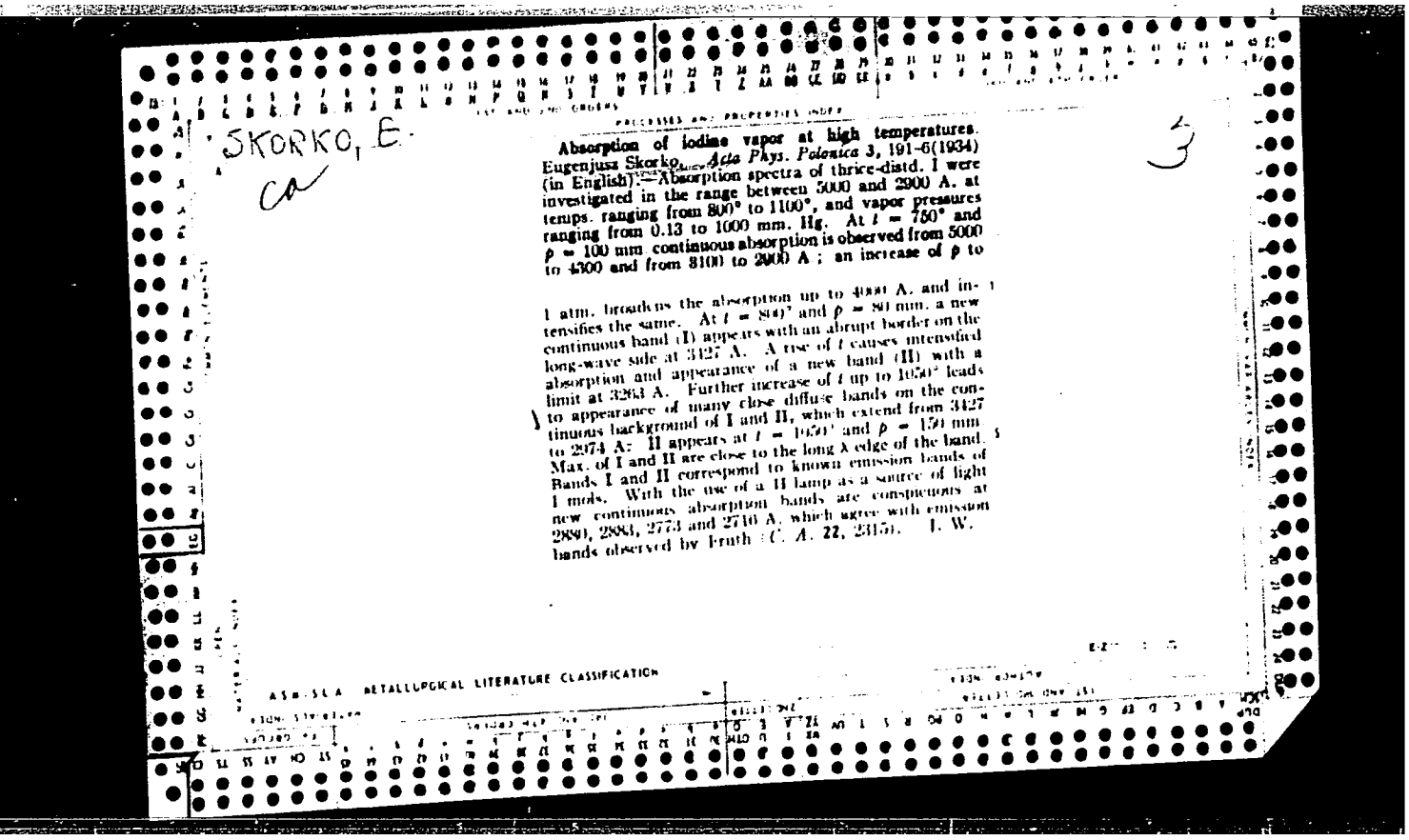
Clinical picture of the tongue in gastritis and peptic ulcer of the stomach and the duodenum. Nauch. trudy Kaz. gos. med. inst. 14:547-548 '64. (MIRA 18:9)

1. Kafedra khirurgicheskoy stomatologii (zav. - prof. Ye. A. Domracheva) Kazanskogo meditsinskogo instituta.

SKORKINA, N.F., assistent

Morphology of the gum tissues in patients with peptic ulcer of the stomach and duodenum. Vop. obshchei stom. 17:90-91 '64.

State of the innervation and vascular apparatus of the gums in dogs with experimental peptic ulcer. Ibid.:92-93 (MIRA 18:11)



SKORKO, E.

ca

3

Absorption of iodine vapor at high temperatures. Eugenjusz Skorko. *Acta Phys. Polonica* 3, 191-6(1934) (in English).—Absorption spectra of thrice-distd. I were investigated in the range between 5000 and 2900 A. at temps. ranging from 800° to 1100°, and vapor pressures ranging from 0.13 to 1000 mm. Hg. At t = 750° and p = 100 mm continuous absorption is observed from 5000 to 4300 and from 3100 to 2900 A; an increase of p to 1 atm. broadens the absorption up to 4000 A. and intensifies the same. At t = 840° and p = 80 mm. a new continuous band (I) appears with an abrupt border on the long-wave side at 3427 A. A rise of t causes intensified absorption and appearance of a new band (II) with a limit at 3263 A. Further increase of t up to 1050° leads to appearance of many close diffuse bands on the continuous background of I and II, which extend from 3427 to 2974 A. II appears at t = 1050° and p = 150 mm. Max. of I and II are close to the long λ edge of the band. Bands I and II correspond to known emission bands of I mols. With the use of a H lamp as a source of light new continuous absorption bands are conspicuous at 2889, 2883, 2773 and 2740 A. which agree with emission bands observed by Fruth (*C. A.* 22, 2315). I. W.

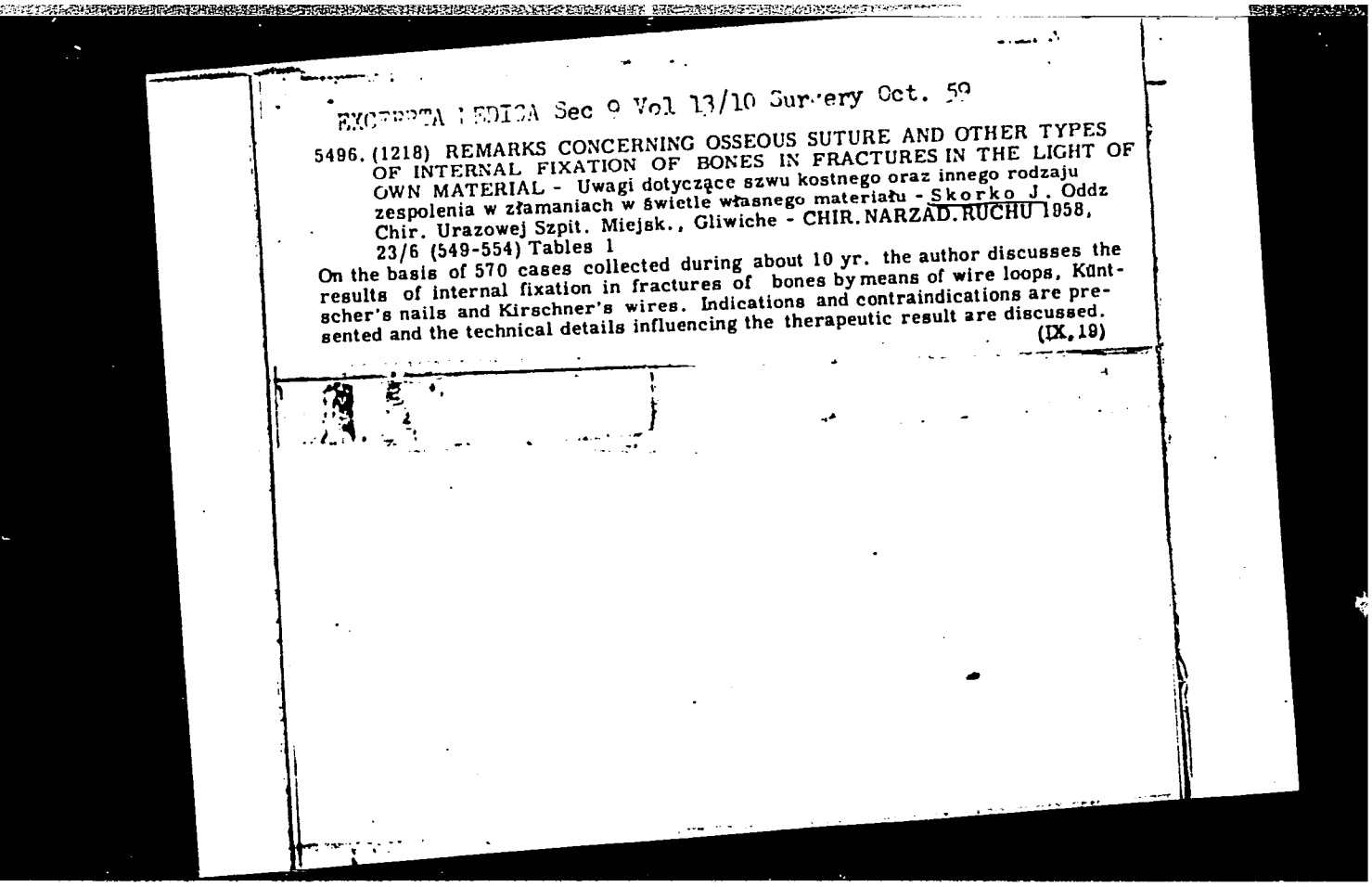
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SKORKO, Eugeniusz

4

POL

The optical properties of the chrysene and anthracene crystals colored by naphthacene. Eugeniusz Skorko. *Studia soc. sci. Torunensis* (Torun, Poland) Sect. A [illegible] *Phys.*) I, No. 4, 37–56(1949)(English summary).—The polarization of fluorescence of anthracene and chrysene crystals colored by naphthacene was studied to verify results derived by Jablonski in his theory of ordered aggregates (cf. *Acta Phys. Polon.* 4, 371(1935); *C.A.* 29, 7312[8]). The obtained values were 20% for naphthacene in chrysene and 31% for naphthacene in anthracene crystals. These values depend neither on the state of polarization nor on the wave length of the exciting light. This would indicate, according to Jablonski's theory, that all naphthacene mols. contained in colored chrysene and anthracene crystals are perfectly ordered. Exptl. study of the ratio of absorption coeffs. for the principal directions of vibration of light in the above crystals revealed values in perfect agreement with Jablonski's theory. S. Nowinska



EXCERPTA MEDICA Sec 9 Vol 13/10 Surgery Oct. 59

5496. (1218) REMARKS CONCERNING OSSEOUS SUTURE AND OTHER TYPES OF INTERNAL FIXATION OF BONES IN FRACTURES IN THE LIGHT OF OWN MATERIAL - Uwagi dotyczące szwu kostnego oraz innego rodzaju zespolenia w złamaniach w świetle własnego materiału - Skorko J. Oddz Chir. Urazowej Szpit. Miejsk., Gliwiche - CHIR. NARZAD. RUCHU 1958, 23/6 (549-554) Tables 1

On the basis of 570 cases collected during about 10 yr. the author discusses the results of internal fixation in fractures of bones by means of wire loops, Küntscher's nails and Kirschner's wires. Indications and contraindications are presented and the technical details influencing the therapeutic result are discussed. (IX, 19)

25627

P/047/61/012/003/002/003
D247/D302

15.8500

AUTHORS: Kryszewski, M. and Skorko, M.

TITLE: Basic problems of high polymer physics

PERIODICAL: Postępy fizyki, v. 12, no. 3, 1961, 303-331

TEXT: The authors summarize the basic theory of physics of polymer solutions and the methods of their investigation. Physical properties of a polymer can be expressed as a function of two dimensions: $\sqrt{h^2}$ - the average length (h = distance between the ends of a chain) and $\sqrt{R_o^2}$ - the radius of gyration. Assuming a macromolecule model with a constant valency bond length a and an angle θ between the two consecutive bonds the formula $h^2 = Za^2$ where Z = number of bonds in the chain, can be deduced. This can also be obtained from the analysis of probability of the macromolecule structure using projectiles. The review of the statistics of structure of high isomers includes many references to T.M. Birshteyn and O.B. Ptitsyn (Ref. 21: Fiz. Khim., 26, 1215, (1952)) and O.B. Ptitsyn and Y. A. Sharonov (Ref. 22: Zh. Tekh. Fiz., 27, 2744, 2762 (1957)) who applied the method

Card 1/4

Basic problems of high polymer physics

of rotational isomerism for obtaining the value $\overline{h}^2$ for isotactic and syndiotactic chains. A. Peterlin (Ref. 25: Coll. Czechosl. Chem. Comm., 22, 84 (1957)) assumed that solutions of finite concentrations can be treated as real gases. His theory was applied in interpreting results from the light dispersion and viscometer methods for measuring macromolecules' dimensions. Methods for determining molecular weight (mol. wt) of a high polymer include: 1) The osmosis method, based on Van't Hoff's law. Recently semipermeable membranes were prepared from polyvinyl alcohol and polychloro-tri-fluoroethylene (Kel-F). Y.Y. Zhukov and A.V. Lebedev (Ref. 49: Koll. Zhur., 10, 423 (1948)) used the dynamical method for measuring the osmotic pressure (o.p.): the initial level of the liquid in the capillary is arranged to be somewhat below the expected equilibrium level and the speed at which the meniscus falls is calculated from readings taken at 1 minute intervals for 10 to 20 mins. The experiment is then repeated starting with the liquid level below the equilibrium position. Both speed-time curves have a common assymptote which determines the equilibrium level in the capillary. Most accurate results are obtained for polymers with mol. wt. from 40,000 - 500,000.

Card 2/4

25627

P/047/61/012/003/002/003
D247/D302

Basic problems of high polymer physics

2) The dispersion method. Two cases are considered: when the dispersing particles are $\ll$ than the wavelength of the falling light λ; and when dissolved particles are not small with respect to λ. Zimm's theory of dispersion is given. 3) Sedimentation method. The mol. wt. can be determined in two ways by using an ultracentrifuge; Svedberg's formula is applied. 4) The viscometer method. The basic relation between the viscosity of the solution and the mol. wt. is given by $[\eta] = k M_v^a$, where η = coefficient of viscosity, $[\eta]$ = real viscosity, M_v = the average viscometric mol. wt. k and a = constants depending on the high polymer - solvent system. This method does not give the real value for mol. wt. as k and a have to be determined by using another method, e.g. the osmosis method. There are 6 figures and 62 references: 13 Soviet-bloc and 49 non-Soviet-bloc. The references to the four most recent English-language publications read as follows: E. Mason, M. Kreevoy, J. Amer. Chem. Soc., 77, 5818 (1955); 4851 (1957); L. Pauling, Proc. Nat. Acad. Sci., 44, 221 (1958); M.W. Wolkenstern, J. Polym. Sci., 29, 441 (1958); C. Loucheux, G. Weill, H. Benoit, J. Chem. Phys., 55, 540 (1958).

Card 3/4

25627

P/047/61/012/003/002/003
D247/D302

Basic problems of high polymer physics

ASSOCIATION: Katedra fizyki wydziału chemicznego politechniki Łódzkiej (Lódź Polytechnic, Chemistry Section, Department of Physics)

Card 4/4

SKORKO, Marta

Nuclear paramagnetic resonance and its application in studies on polymers. Pt.1. Polimery tworz wielk 9 no.11:449-453 N '64.

1. Department of Physics of the Chemical Division of the Technical University, Lodz.

SKORKO, Marta

Paramagnetic nuclear resonance and its application in polymer studies. Pt.2. Polimery tworz wielk 9 no.12:497-503 D '64.

1. Department of Physics of the Division of Chemistry of the Lodz Technical University.

KRYSZEWSKI, Marian; SKORKO, Marta

Crystallization of high-molecular compounds. Pt.1.
Postepy fizyki 14 no.2:209-227 '63.

1. Katedra Fizyki, Wydzial Chemiczny, Politechnika, Lodz.

KRYSZEWSKI, Marian; SKORKO, Marta

Crystallization of macromolecular compounds. Pt. 2.
Postepy fizyki 14 no. 3: 289-305 '63.

1. Katedra Fizyki, Wydzial Chemiczny, Politechnika, Warszawa.

KWIATKOWSKI, Aleksander; ROZMEJ, Zbigniew; SKORKO, Romuald

Refinement of peat wax. Przem chem 39 no.7:449-452 Jl '60.

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TITLE: Colorimetric determination of vanadium in uranium compounds using p-methoxybenzothiohydroxamic acid

SOURCE: Nukleonika, v. 10, no. 9-10, 1965, 559-565

TOPIC TAGS: vanadium, uranium compound, colorimetric analysis, solvent extraction

ABSTRACT: The extraction and colorimetric determination of vanadium in uranium compounds are described. Vanadium with p-methoxybenzothiohydroxamic acid forms in 6N hydrochloric acid, the green compound that is extractable into chloroform and higher alcohols. The sensitivity of the reaction is equal to 0,002 μg V/cm^2 and the molar absorption coefficient equals to 20040 (λ = 372 mμ). Ti, Fe, Mo, and Nb ions interfere with the determination of vanadium. A rapid method of eliminating the influence of these ions is described. This method was used successfully for the analysis of uranyl acetate and nitrate and U_3O_8 containing 10^{-3} to 10^{-4}% vanadium. Orig. art. has: 7 tables. [NA]

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