

EDEL'SHTEYN, G.L., prof.; SMIRNOVA, Ye.Ye.; GORBUNOVA, Z.K.

Etiology of scoliosis and kyphoscoliosis. Zdrav. Kazakh. 21 no.1:
12-16 '61. (MIRA 14:3)

1. Iz kafedry travmatologii i ortopedii (zav. - professor G.L.
Edel'shteyn) Kazakhskogo meditsinskogo instituta i Sverdlovskogo
instituta travmatologii i ortopedii.
(SPINE ABNORMALITIES AND DEFORMITIES)

EDEL'SHTEYN, G. L., prof.; UDALOVA, N. F., nauchnyy sotrudnik;
GORBINOVA, Z. K., nauchnyy sotrudnik; SMIRNOVA, Ye. Ye., starshiy
nauchnyy sotrudnik

X-ray characteristics of lateral curvature of the spine. Zdrav.
Kazakh. no.4:19-23 '62. (MIRA 15:6)

1. Iz Sverdlovskogo Nauchno-issledovatel'skogo instituta trav-
matologii i ortopedii (direktor - kandidat meditsinskikh nauk
Z. P. Lubegina) i Kazakhskogo meditsinskogo instituta (direktor -
professor R. I. Samarin)

(SPINE--ABNORMITIES AND DEFORMITIES)

ACC NR: AP6021826

(A)

SOURCE CODE: UR/0413/66/000/012/0135/0135

INVENTORS: Gubin, A. I.; Dobkina, Ye. N.; Smirnova, Yu. A.

ORG: none

TITLE: A solder for soldering of products. Class 49, No. 183037

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 135

TOPIC TAGS: solder, soldering, tin, antimony, copper, silver

ABSTRACT: This Author Certificate presents a solder containing tin, antimony, copper, and silver for soldering products. To obtain soldered joints resisting corrosion at all climatic conditions, the composition is taken in the following percent relation: antimony 1 ± 0.3 ; copper 2 ± 0.3 ; silver 5 ± 0.3 ; tin—the remainder.

SUB CODE: 13/ SUBM DATE: 08Jun64

Card 1/1

UDG: 621.791.35

Содержание, стр. 18

TABLE I BOOK EXPLOITATION

807/4595

Vsesoyuznyy soviet nauko-tekhnicheskikh obshchestv
Mashinostroitelnyye korrozii i korrozii metallov v neprochnom sostoyanii
(Inventary of Corrosion and Stress Corrosion of Metals) Moscow, MashinSt, 1960,
358 p., 3,000 copies printed.

Ed.: I.A. Levin, Candidate of Technical Sciences; Ed. of Publishing House:
L.I. Lavchenko, Engineer; Tech. Ed.: V.D. Sivinskiy, Managing Ed. for
Publishing and Editorial Board: I.A. Levin, Candidate of Technical Sciences
(Moscow); V. Shcherbakov, Candidate of Technical Sciences, V.M. Nikiforov,
Candidate of Technical Sciences, and A.V. Turburovskiy, Candidate of Technical
Sciences.

PURPOSE: This collection of articles is intended for technical personnel concerned
with problems of corrosion of metals.

CONTENTS: The collection contains discussions of intercrystalline corrosion of
stainless steels and stress corrosion of carbon steels, low-alloy and stainless
steels, and light-weight and porous alloys. The tendency of thin films of various
various composition and systems to corrode under certain conditions is discussed
and the nature of corrosion and corrosion cracking is analyzed. No personalities
are mentioned. Most of the articles are accompanied by bibliographic references,
the majority of which are Soviet.

Y. STRESS CORROSION OF INTERCRISTAL AND INTERGRAN ALLOYS

Templeht, A.D., Doctor of Chemical Sciences, Professor, and V.M. Yekelovskiy,
Candidate of Chemical Sciences. Effect of Stress on the Corrosion and Potentials
of the Magnesium-Magnesium Alloy System 275

Zemina, M.A., Candidate of Technical Sciences. The Nature of Corrosion
Cracking of Magnesium Alloys and Protective Measures 289

Romanov, V.V., Candidate of Chemical Sciences. Effect of Certain Factors
on the Tendency of Magnesium Alloys Toward Corrosion Cracking 312

Makarov, I.M. Stress Corrosion of the High Electrical Resistance Magnesium-
Base Alloy 318

Yolshina, I.M., Y.D. Ryumov, and A.I. Kravtchenkov. Effect of
Mechanical Strain on the Electrode Potential of Copper 321

Schlyzer, A.Y., Candidate of Technical Sciences. The Tendency of Copper
Alloys to Crack Depending Upon their Composition 329

Glazk, G.H., Candidate of Chemical Sciences. Corrosion Cracking of Brasses
in Various Climatic Zones of the USSR 345

[Local] Korroziya Institutov Fizicheskoy Khimii AN SSSR (Corrosion Department
of the Institute of Physical Chemistry AS USSR) and [Department]
Korroziya (State Design and Planning Scientific Research Institute for
Work of Nonferrous Metals) conducted joint research on this and other
A. I. Zhuravskiy, Candidate of Technical Sciences and Yu. A. Selimov, Senior
Scientific Worker, participated in the work on behalf of the latter
Institute.]

Gozing, A. Ya., Candidate of Technical Sciences, and M. A. Galitskiy,
Senior Scientific Worker. On the Problem of Short-Term Testing of Brasses
Resistance to Corrosion Cracking 349

Kalashnikov, S. I. and N. P. Kozlov, Engineers. Detection of Intercrystalline
Corrosion in Aluminum Alloys with the Dye Penetrant Test Detection Method.

Card 3/9 152

18

KLARK, G.B.; GOPIUS, A.Ye.; SMIRNOVA Yu.A.

Effect of climatic conditions on the corrosion cracking of brass.
Trudy Inst.fiz.khim. 8:110-129 '60.

(MIRA 14:4)

(Brass--Corrosion) (Corrosion and anticorrosives--Climatic factors)

L 12979-63 EFR/EWP(j)/EPF(c)/EWT(m)/BDS AFPTC/ASD Ps-4/Fr-4/Pc-4 RM/WW
ACCESSION NR: AP3000524 S/0020/63/150/002/0359/0360

AUTHOR: Zubov, P. I.; Sukhareva, L. A.; Smirnova, Yu. P. 70

TITLE: Influence of internal stresses on "longevity" of polymer coatings 15

SOURCE: AN SSSR. Doklady, v. 150, no. 2, 1963, 359-360

TOPIC TAGS: internal stresses, polymer coatings, aging

ABSTRACT: Dependence of duration on the adhesive stress of polyester coatings has been measured by optical method using automatic recording apparatus, described by P. I. Zubov and L. A. Lepilkina (Vestnik AN SSSR, no. 3, 49, 1962). Authors conclude by stating that there is a linear relationship between the duration of adhesion of a coating and internal stresses during a change in the sublayer's stresses within the limits from 30 to 8 kilograms per square cm. Orig. art. has: 3 figures and 1 formula.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry, Academy of Sciences SSSR)

SUBMITTED: 24Jan63
SUB CODE: CH
Card 1/1

DATE ACQ: 12Jun63
NO REF SOV: 007

ENCL: 00
OTHER: 001

L 37030-65 EPA(s)-2/EWT(m)/EPF(c)/EWP(v)/EPR/EPA(w)-2/EWP(j)/T
Pc-4/Pab-10/Pr-4/Ps-4/Pt-10 WW/RM
ACCESSION NR: AP5009222 S/0020/65/161/001/0099/0102

AUTHOR: Andrianov, K. A. (Academician); Yemel'yanov, V. N.;
Sukhareva, L. A.; Smirnova, Yu. P.; Zubov, P. I.

TITLE: Synthesis and physical and mechanical properties of films
from polymers with regular structure

SOURCE: AN SSSR. Doklady, v. 161, no. 1, 1965, 99-102

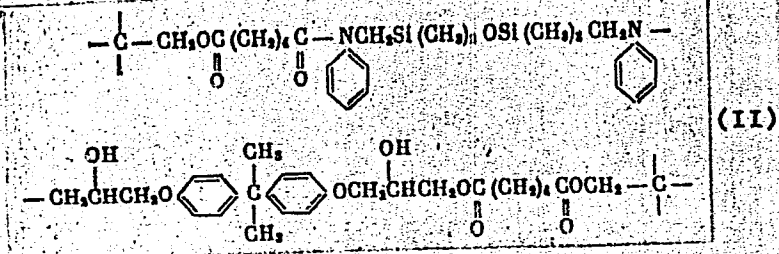
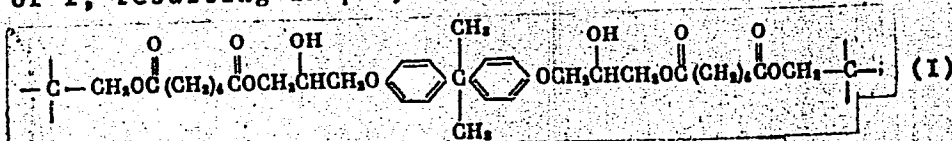
TOPIC TAGS: polymer, regular structure, regular structure polymer,
epoxy polymer, polyester-epoxy polymer, silicon containing poly-
ester-amido-epoxy polymer

ABSTRACT: The purpose of the work was to synthesize and study poly-
ester-epoxy and silicon-containing polyester-amido-epoxy polymers of
a regular cyclonite structure, which could be used for coatings,
electric insulation, or as binders for glass-reinforced plastics.
Polyester-epoxy polymers were obtained by reacting pentaerythritol
tetraadipate with glycidol-hydroquinone or with glycidol-diphenylol-
propane ("Bisphenol A") (See I below) diethers. Silicon-containing

Card 1/4

L 37030-65
 ACCESSION NR: AP5009222

polyesteroamidoepoxy polymers of regular structure were prepared in two stages: in the first stage, pentaerythritol tetraadipate was condensed with bis-(phenylaminomethyl)-tetramethyldisiloxane; in the second stage, the resulting polymer which contained phenylamino and carboxyl groups was reacted with a glycidol diether, as in the preparation of I, resulting in polymer (II). Reactions were carried out in



Card 2/4 :

L 37030-65

ACCESSION NR: AP5009222

2
films on a metal surface. Polymer (III) with an irregular structure was obtained by simultaneous condensation of pentaerythritol, adipic acid and glycidol-Bisphenol A diether. Mechanical and electrical properties of I, II, and III were studied to determine the effect of the structure on these properties. The dependence of inner stresses, adhesion, and elastic modulus on the thickness of the film was found. The above mechanical properties and the tensile strength of I, II, and III and of a commercially used epoxy resin (ED-5), cured with polyethylenepolyamine, were compared. It was found that the tensile strength of polymers with the regular structure is 20—50% higher than that of the irregular polymer, but 1.5—2 times lower than that of the commercially used epoxy resins. However, inner stresses in the coatings from the new film-forming regular polymers are considerably lower. The best physical and mechanical properties are displayed by II films, which have the maximum curing rate, minimum inner stresses and a high tensile strength and adhesion. Films from polymers with the regular structure are moisture proof. Thermal stability of I at 200C is :

15
Card 3/4

L 37030-65

ACCESSION NR: AP5009222

Test duration, hr	24	100	500	900	1500
Weight loss, %	0.76	0.95	3.60	4.20	6.32

Electric properties were determined for I and for a glass-reinforced plastic, in which I was used as a binder. Orig. art. has: 4 formulas, 3 graphs, and 2 tables. [BN]

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Organoelemental Compounds, Academy of Sciences, SSSR)

SUBMITTED: 29Sep64

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 002

OTHER: 000

ATD PRESS: 3223

Card 4/4 *lo*

L 22000-66 EWT(m)/EWP(v)/EWP(j)/T/ETC(m)-6 IJP(c) W/RM

ACCESSION NR: AP5024504

UR/0191/65/000/010/0031/0034 28

678.674.06-419:677.521.01.539.219.2 13

AUTHOR: Sukhareva, L. A.; Smirnova, Yu. P.; Zubov, P. I.; Zamotova, A. V.;
Khvilivitskiy, R. Ya.

TITLE: Internal strain in reinforced systems based on polyester acrylate binders

SOURCE: Plasticheskiye massy, no. 10, 1965, 31-34

TOPIC TAGS: fiberglass, glass cloth, epoxy plastic, polyester plastic, adhesion,
internal stress, bending strength, rupture strength

ABSTRACT: The effect of curing conditions, binder composition and surface
treatment of the reinforcing glass on the internal strain, mechanical, and adhesive
properties of fiberglass was studied. Two curing rates were used--(1) gradual
heating for 19 hours to 200 C and then holding at 200 C for 10 hours, and (2)
heating to 200 C in 2 hours and holding for 20 hours. Glass cord treated with
paraffin emulsion or with vinyltriethoxysilane and glass cord heat treated at
400-450C were used for reinforcing. A two-component system (epoxy resin and
polyester acrylate MD) or a three-component system (epoxy, MD and an unsaturat-
ed carboxyl-containing compound) were used as binders. Internal strain was

Card 1/2

L 22000-66

ACCESS ON NR: AP5024504

greater across the warp than along the warp. Greater internal strains were produced by the slower curing method. The mechanical characteristics of fiberglass cured by method (2) were generally higher. Physical-mechanical properties and internal strain were lower in fiberglass made of the three-component binder. Paraffin emulsion had little effect on internal strain, while the silane coating increased internal strain in the fiberglass made of the three-component binder. The strength properties of the fiberglass depend on the ratio of the internal strain values to the adhesion of the binder to the glass fiber surface. Fiberglass made of resin based on the carboxyl-containing compound, which has greatest internal strain and least adhesion, is weakest. Greatest strength was obtained with the three-component binder applied to glass cloth treated with vinyltriethoxysilane, where adhesive strength exceeds 200 kg/sq cm and the glass is torn out when the sample is broken. Orig. art. has; 8 figures and 3 tables

ASSOCIATION: None

SUBMITTED: 00

NR REF SOV: 003

ENCL: 00

OTHER: 000

SUB CODE: 11

Card 2/2 BK

SVYATSKHINA ... (Leningrad); SMIRNOVA, Z.A. (Leningrad); TARASOVA, N.N.
(Leningrad); BEVEDSKAYA, A.E. (Leningrad)

toxoplasmosis in a 3¹/₂-month-old infant. Arkh.pat. 27 no. 1878-79
185. (MIRA 18:8)

1. Laboratoriya patologii nervnoy sistemy (zav. - prof. Yu.M. Zhabelinskiy) otдела patologicheskoy anatomii (zav. - akademik N.M. Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR; Patologoanatomicheskoye otdeleniye (zav. - Z.A. Smirnova) i detskoye otdeleniye (zav. N.M. Tarasova) Leningradskoy Oblastnoy klinicheskoy bol'nitsy; kafedra psikhiiatrii Voenno-meditsinskoy ordona Lenina akademii imeni S.M. Kirova (zav. - prof. A.A. Portnov).

PONOMAREV, A.A.: SMIRNOVA, Z.A.

Anatomicoelectrocardiographic parallels in chronic cor pulmonale. Vrach. delo no.1:46-48 Ja'64 (MIRA 17:3)

1. Kafedra gospital'noy terapii (nachal'nik - deystvitel'nyy chlen AMN SSSR, prof. N.S. Molchanov) Voenno-meditsinskoy akademii imeni S.M.Kirova i patologoanatomicheskoye otdeleniye (zav. - Z.A. Smirnova) Leningradskoy oblastnoy klinicheskoy bol'nitsy.

MALEYEV, Yevgeniy Fedotovich; RUDICH, K.N., red.; SMIRNOVA, Z.A.,
red.; SEMAKOVA, T.M., tekhn. red.

[Volcanoclastic rocks] Vulkanoklasticheskie gornye porody.
Moskva, Gosgeoltekhizdat, 1963. 167 p. (MIRA 16:12)
(Volcanic ash, tuff, etc.)

SHCHERBA, M.L. prof.; SHIMOVA, Z.A.; GOLOVIN, V.P.

Clinical variations of amyloidosis. Sov. med. 27 no.11:19-24
N 103 (MIRA 18:1)

1. Iz propedevticheskoy terapevticheskoy kliniki (ispolnya-
yushchiy obyazannosti zaveduyushchego - prof. M.L. Shcherba)
i Leningradskogo meditsinskogo instituta imeni I.P.Pavlova
i Leningradskoy oblastnoy klinicheskoy bol'nitsy (glavnyy
vrach V.N.Sukhobskiy).

NIKOLAYEV, Nikolay Ivanovich; SMIRNOVA, Z.A., red.; GUROVA, G.A.,
tekhn. red.

[Recent tectonic movements and their evidence in the structure
and relief of the territory of the U.S.S.R.] Neotektonika i ee
vyrazhenie v strukture i rel'efe territorii SSSR; voprosy re-
gional'noi i teoreticheskoi neotektoniki. Moskva, Gosgeoltekh-
izdat, 1962. 391 p. (MIRA 16:5)

(Geology, Structural)

SIL'VESTROV, V.P.; SMIRNOVA, Z.A.

Errors in the diagnosis and treatment of some complications of
antibacterial therapy. Kaz.med.zhur. no.4:22-27 J1-Ag '62.

(MIRA 15:8)

1. Kafedra gospital'noy terapii (nachal'nik - deystvitel'nyy chlen
AMN SSSR, prof. N.S.Molchanov) Voenno-meditsinskoy ordena Lenina
akademii imeni S.M.Kirova i Leningradskaya oblastnaya klinicheskaya
bol'nitsa (glavnyy vrach -- A.P.Yegorova).

(ANTIBIOTICS--TOXICOLOGY)

SMIRNOVA, Z.A.

Two cases of gastrogenic tetany. Sov.med. 25 no.2:136-138 F '61.
(MIRA 14:3)

1. Iz kliniki gospital'noy khirurgii (zav. - zasluzhennyi deyatel' nauki Dagestanskoy ASSR prof.M.T.Nagornyy) Dagestanskogo meditsinskogo instituta (direktor - dotsent M.M.Maksudov) i gorodskoy klinicheskoy bol'nitsy (glavnyy vrach B.E.Kot).
(TETANY) (PYLORIC STENOSIS)

247060

40573
S/070/62/007/005/008/014
E132/E460

AUTHORS: Mokiyevskiy, V.A., Smirnova, Z.A., Afanas'yev, I.I.
TITLE: Joining crystals of lithium fluoride by a "dry" method
PERIODICAL: Kristallografiya, v.7, no.5, 1962, 768-772 + 1 plate

TEXT: When two polished crystal surfaces are brought into contact, processes connected with the ordering of the structure lead to the growing together of the crystals. Simultaneously annealing takes place. Hence, birefringence connected with the boundary surface is rarely found. If appreciable plastic deformation takes place on joining the surfaces together, because of the loading on surfaces of small radius of curvature, then slipping occurs and the wide range of orientations of the blocks leads to the formation of a large number of negative crystals at the interface. Large radii of curvature of the surfaces brought together and parallel orientation of the components appear to be the conditions for successful welding. The loading necessary has to be determined experimentally and the uniform distribution of load is one of the necessary conditions for successful joining. The time needed depends on temperature but for the best results subsequent annealing is more important

Card 1/2

SMIRNOVA, Z. A.

Cand Med Sci - (diss) "Medicinal prophylaxis of increased blood loss in subsequent and early post-natal period." Khar'kov, 1961. 15 pp; (Khar'kov State Med Inst); 230 copies; free; (KL, 7-61 sup, 262)

SMIRNOVA, Z.A.

USSR/Meadow Cultivation.

L.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 95876

Author : Smirnova, Z.A.

Inst : Petrozavodskiy University.

Title : Influence of Mineral Fertilizers on Pasture Grass Stand.

Orig Pub : Sb. nauchn. rabot stud. Petrozavodskogo un-ta, 1957, vyp.
4, 111-120.

Abstract : No abstract.

Card 1/1

SMIRNOVA, Z. A.

5/172/67/004/006/016/026
312A/E113

AUTHORS: Dokukina, A. F., Yegorova, Ye. I., Kazennikova, G. V., Kaban-
M. M., Kocheshkov, K. A., Smirnova, Z. A., Talalayeva, T. V.

TITLE: Synthesis and polymerization (copolymerization) of fluoron-
substituted styrenes. 1. Copolymerization of fluoron-
substituted styrenes with vinyl monomers

PERIODICAL: *Vysokomolekulyarnyye soedineniya*, v. 4, no. 6, 1962, 885 -
899

TEXT: This paper describes the authors' experiments in the production and
characterization of the copolymers of α , β , β' -trifluoro styrene with 2,5-
dimethyl styrene and methyl methacrylate; o-, m- and p-methyl- α , β , β' -
trifluoro styrene with styrene, α , β -difluoro- β' -chloro styrene with
styrene, and 2,5-difluoro styrene. The emulsion used for copolymerization
consisted of 80-85% water, 2.5 emulsifier (sodium stearate or deate),
and 0.5% persulfate initiator. The monomer mixture, which was added drop-
wise after heating to 80-90°C, contained azoisobutyric acid dinitrile
(0.5%) as initiator. Eleven copolymers of the above monomers were ob-
tained. Their compositions and properties are given in Table 2. The heat
Card 1/1

Synthesis and polymerization ...

S/190/62/004/006/016/026
B124/B136

resistance of the copolymers thus produced increases with the fluoro styrene content in the copolymer. An exception is that of α,β -difluoro-3'-chloro styrene with styrene, the heat resistance of which is 4°C higher than that of polystyrene produced under similar conditions. This is probably due to the low concentration of substituted styrene (16 mole%) in the copolymer, and to the extremely low molecular weight of the product ($M_n = 0.05$). There are 2 tables. The English-language references are: D. Livingstone, J. Polymer Sci., 20, 485, 1956; M. Prober, J. Amer. Chem. Soc., 75, 268, 1953.

ASSOCIATION: Institut vysokomolekulyarnykh sovedineniy AN SSSR (Institute of High-molecular Compounds of the AS USSR)

SUBMITTED: April 11, 1961

Table 2: Copolymerization time, yield, composition and intrinsic viscosities of the copolymers. Legend: (A) length, hours; (B) copolymer yield, %; (C) composition of copolymer (mole%); (D) intrinsic viscosities of the benzene solutions of copolymers at 20°C; (E) copolymers of

Card 2/4

2

ACCESSION NR: AP4042184

S/0190/64/006/007/1187/1189

AUTHOR: Yegorova, Ye. I.; Smirnova, Z. A.; Dokukina, A. F.

TITLE: Synthesis and polymerization (copolymerization) of fluorinated styrenes. III. Preparation and properties of copolymers of styrenes fluorinated in the vinyl group with vinyl monomers

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 7, 1964, 1187-1189

TOPIC TAGS: copolymer, copolymerization, fluorinated styrene, vinyl monomer, thermoplastic copolymer, dielectric copolymer, heat-resistant copolymer, alpha.beta.beta-trifluorostyrene—2.5-dimethylstyrene copolymer

ABSTRACT: The following new copolymers of fluorinated styrenes with vinyl monomers have been synthesized: α,β,β -trifluorostyrene with styrene, 2,5-dimethylstyrene, or 2,5-difluorostyrene; 4-methyl- α,β,β -trifluorostyrene with styrene or 2,5-dimethylstyrene; and 3-methyl- α,β,β -trifluorostyrene, β -fluorostyrene, or α -(difluoromethyl) styrene with styrene. The copolymerization was conducted either in emulsion at 60C (initiators, potassium persulfate and

Card: 1/2

ACCESSION NR: AP4042184

azobisisobutyronitrile), or in the liquid phase: 1) with a stepwise increase of temperature from 50 to 170C or 2) at 60C (initiator, azobisisobutyronitrile). The preparation methods, composition, and properties of the copolymers are described. The synthesized copolymers are thermoplastics and dielectrics. They dissolve readily in organic solvents. Emulsion copolymerized products have a higher molecular weight and a higher heat resistance than those copolymerized in the liquid phase. The highest heat resistance (190C) is exhibited by α , β , β -trifluorostyrene-2,5-dimethylstyrene copolymers. "The authors express their deep appreciation to M. M. Koton for valuable instructions during the discussion of the study and to K. A. Kocheshkov, in whose laboratory the monomers were synthesized." Orig. art. has: 2 tables.

ASSOCIATION: Leningradskiy polytekhnicheskij institut im. M. I. Kalinin (Leningrad Polytechnic Institute)

SUBMITTED: 09Apr62

ATD PRESS: 3055

ENCL: 00

SUB CODE: GC, MT

NO REF SOV: 004

OTHER: 000

Card 2/2

L 31155-86

ACC NR: AP6003423

at various compositions were investigated. Graft copolymers of styrene with styrene copolymers of I, II, and III were produced. Investigated copolymers were prepared by free radical polymerization in bulk, in emulsion, and in solution, as described by M. M. Koton, K. A. Kocheshkov, I. A. Gorshkova, A. F. Dokukina, and Ye. M. Panov (Kokl. AN SSSR, 158, 5, 1120, 1964). Solubility, thermal stability, viscosity limits, and density of copolymers were determined, and their IR spectra are described. Copolymers obtained in bulk process were insoluble and thermally unstable, those prepared in solution were soluble and more thermally stable (100C), while the emulsion process yielded insoluble and thermally very stable products. The authors express their gratitude to K. A. Kocheshkov and Ye. V. Kuvshinsky for valuable comments during evaluation of this work. Orig. art. has: 1 table, 2 figures, and 3 structures.

SUB CODE: 07/ SUBM DATE: 25Feb65/ ORIG REF: 003

Card 2/2

A L 11543-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) JD/LHB

ACC NR: AP6000183

SOURCE CODE: UR/0032/65/031/012/1483/1485

AUTHOR: ^{44,55} Anan'yeva, G. V.; ^{44,55} Smirnova, Z. F.

ORG: none

TITLE: ^{21,44,55} X-ray investigation of the single crystal aggregates

SOURCE: Zavodskaya laboratoriya, v. 31, no. 12, 1965, 1483-1485

TOPIC TAGS: single crystal, x ray, lattice defect, sapphire, ruby, fluorite, goniometer, *crystal structure, x ray investigation, x ray spectrum*

ABSTRACT: The mosaic structure of single crystals was examined with a URS-50I diffractometer. The object of the study was to determine the feasibility of a detailed investigation of structural imperfections in single crystals of sapphire, ruby and fluorite. X ray spectra of single crystals were taken by placing them in a URS-50I diffractometer in such a way that the single crystal surface coincided with the axis of the GUR-3 goniometer. The crystal surface was illuminated with an x ray beam with 5-9 degree horizontal deflection and an unlimited vertical deflection. The x ray photographs were taken successively during 2-3° vertical rotation of the crystal sample with respect to the axis of the GUR-3 goniometer. During the rotation of a sample composed of randomly oriented particles of single crystals, various particles pass

UDC: 548.734

Card 1/2

51
B

L 11543-66

ACC NR: AP6000183

through the deflection point. Examination of the series of photographs at various sample positions with respect to the horizontal axis makes it possible to determine the topographical details of the single crystal structure. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 004

HW
Card 2/2

BERZAK, M.A.; BRATEL', I.N.; KAGANOVA, Ye.I.; PLOTITSINA, K.M.; SMIRNOVA, Z.M.

Experience in the detection of cardiovascular pathology in the
compound examination of thoracic organs in rural population. Sov.
med. 28 no.7:93-96 JI '62. (MIRA 18:8)

I. Bol'shechernigovskaya sel'skaya bol'nitsa (glavnyy vrach Z.M.
Smirnova) Kuybyshevskoy oblasti. Nauchnyy rukovoditel' - prof.
V.V.Zodiyev.

LUKASHENKO, N.P.; BRZHESKIY, V.V.; SMIRNOVA, Z.M.

Study on *Alveococcus multilocularis* (*Echinococcus multilocularis*)
Leuckart, 1863 chromosomes. Preliminary report. Med. paraz. i
paraz. bol. 34 no.3:351-352 My-Je '65.

(MIRA 18:7)

1. Institut meditsinskoy parazitologii i tropicheskoy meditsiny
imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR,
Moskva.

SMIRNOVA, Z.S.

Results of the investigation of the air of an oil and gas area
as to the presence of hydrocarbon-oxidizing bacteria. Mikro-
biologiya 32 no.1:28-30 '63 (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy
neftyanoy institut, Moskva.

ACCESSION NR: AP4037056

S/0073/64/030/005/0499/0502

AUTHOR: Sarzhevskaya, V. P.; Kornev, K. A.; Smirnova-Zamkova, S. Ye.

TITLE: Polyamides with aromatic and heterocyclic rings in the chain. IX, Polyamides based on furan-2,5- and thiophene-2,5-dicarboxylic acids and some aryl -aliphatic diamines

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 5, 1964, 499-502

TOPIC TAGS: furan polyamide, thiophene polyamide, aromatic ring, heterocyclic ring, furan ring, thiophene ring, aliphatic diamine

ABSTRACT: The authors refer to their previous work, where they ascertained that the substitution of the furan for the thiophene ring in the acid component results in notably lowered melting point of polyamides based on aliphatic diamines. The present article is a study of the same situation with aryl -aliphatic diamines. Polyamides were prepared by interphase polycondensation from hydrochloric salts of aryl -aliphatic diamines and chloroanhydrides of furan-2,5- and thiophene-2,5-dicarboxylic acids. The following diamines were used in these condensations: p-xylylenediamine, 2,5-di-(aminomethyl)-p-xylene, 4,6-di-(aminomethyl)-m-xylene,

Card 1/2

GROMOV, S.A.; SMIRNOVA, Z.A.

Clinical aspects and histopathology of aneurysms in the
vessels of the brain. Vop. psikh. i nevr. no.9:118-123
'62. (MIRA 17:1)

1. Leningradskaya oblastnaya klinicheskaya bol'nitsa
(glavnyy vrach - A.P. Yegorova).

KOROLEV, Aleksey Vasil'yevich; SHEKHTMAN, Pavel Aleksandrovich;
VOL'FSOM, F.I., retsenzent; YERMAKOV, N.P., red.;
SMIRNOVA, Z.A., ved. red.

[Structural conditions governing the distribution of
postmagmatic ores] Strukturnye uslovia razmeshchenia
poslemagmaticheskikh rud. Moskva, Nedra, 1965. 506 p.
(MIRA 18:4)

ILLARIONOV, V.V.; SMIRNOVA, Z.G.; KNYAZEVA, K.P.

Partial equilibrium pressures of HF, SiF₄, and H₂O above aqueous solutions. Zhur.prikl.khim. 36 no.2:237-241 F '63. (MIRA 16:3)
(Hydrofluoric acid) (Silicon fluoride) (Vapor pressure)

SMIRNOVA, Z.G.; ILLARIONOV, V.V.; VOL'FKOVICH, S.I.

Heats of formation of fluorapatite, hydroxylapatite, and tricalcium phosphates (α - and β -modifications). Zhur. neorg. khim. 7 no.8:1779-1782 Ag '62. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut udobreniy i insektofungitsidov.

(Apatite) (Hydroxylapatite)
(Calcium phosphate) (Heat of formation)

SMIRNOVA, Z.I.

Experience in using various types of resilient covering. Tekst.
prom. 16 no.9:24-26 S '56. (MLRA 9:12)

1. Zaveduyushchiy Tsentral'noy laboratoriyey Glavivkhlopproma.
(Spinning machinery)

SMIRNOVA, Z.I.

Testing reconditioned polyvinyl chloride couplings. Tekst.nron. 18
no.4:56-57 Ap '58. (MIRA 11:4)

1. Zaveduyushchiy Tsentral'noy laboratoriyey pri tekstil'nom upravlenii
Ivanovskogo sovnarkhoza.
(Spinning machinery--Maintenance and repair)

BE LYAYEVSKIY, N.A.; VARGIN, N.I.; IVANOV, Yu.A.; SMIRNOVA, Z.I.

Results of the conference of geologists of the European part of
the U.S.S.R. Sov. geol. 2 no.6:138-142 Je '59. (MIRA 12:12)

1. Ministerstvo geologii i okhrany neдр SSSR.
(Geology)

SMIRNOVA, Z.I.

Necessity for increasing the effectiveness of geophysical
prospecting for ore deposits. Sov.geol. 4 no.11:174-177
N '61. (MIRA 14:11)

1. Ministerstvo geologii i okhrany nedr SSSR.
(Prospecting)

SMIRNOVA
MATVEYEVA, H.H.; SMIRNOVA, Z.M.; KUSTOVA, Z.M.; VASIL'YEVA, M.V.; GEL'CHINSKIY,
B.Ya.; OZEROV, D.K.; MANUKHOV, A.V.; GOL'TSMAN, F.M.; PETRASHEN', G.I.,
red.; VOLKHOVER, R.S., tekhn. red.

[Papers on the quantitative study of seismic wave dynamic] Materialy
kolichestvennogo izucheniia dinamiki seismicheskikh voln. Pod.
rukovodstvom i red. G.I.Petrashen'. [Leningrad] Izd-vo Leningr.
univ. Vol. 1. 1957. 420 p. Vo.2. 1957. 152 p. (MIRA 11:2)

1. Akademiya nauk SSSR. Matematicheskii institut, Leningradskoye
otdeleniye.
(Seismometry)

AGEYEV, N.V.; SMIRNOVA, Z.M.

Stability of the beta phase in titanium-manganese alloys. Titan
i ege splavy no. 1:17-24 '58. (MIRA 14:5)

1. Institut metallurgii AN SSSR.
(Titanium-manganese alloys—Metallography)
(Phase rule and equilibrium)

5(2), 18(4)
AUTHORS:

Ageyev, N. V., Smirnova, Z. M.

SOV/78-4.5-26/46

TITLE:

Conditions for the Stabilization of the β -Phase
in Alloys of Titanium-Molybdenum-Manganese
(Usloviya stabilizatsii β -fazy v splavakh titan-molibden-
-manganets)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5,
pp 1100-1105 (USSR)

ABSTRACT:

The conditions for the stabilization of the β -phase and the stability of the metastable state in three-component alloys consisting of magnesium-thermal titanium with molybdenum and manganese were investigated. For the purpose of producing the alloys, magnesium-thermal titanium, electrolytic manganese, and molybdenum were used as initial materials. The compositions of the initial materials are given in table 1. The alloys were produced in an electric arc furnace with tungsten electrodes in a helium atmosphere. The alloys were investigated by metallographical and X-ray analyses. Hardness and microhardness were determined. Figure 1 shows the phase composition of the titanium-molybdenum-manganese alloys. The phase composition of titanium-molybdenum-manganese alloys

Card 1/4

Conditions for the Stabilization of the β -Phase
in Alloys of Titanium-Molybdenum-Manganese

SOV/78-4-5-26/46

hardened at temperatures of 700° , 800° , 900° and 1000° is shown by figure 2 (a - g). Stabilization of the β -phase in hardened alloys was investigated; a diagram was constructed and is shown in figure 3. In alloys containing a minimum of 3.76 % manganese and 26.95 % molybdenum, or 11.78 % molybdenum and 15.89 % manganese the β -phase is stabilized by hardening at 700° . In other alloys, which were hardened at 700° , the structure of the α - and β -phase is formed. In alloys with the minimum content of 3.61 % manganese and 12.81 % molybdenum and 7.53 % manganese and 1.59 % molybdenum the β -phase is stabilized by hardening at 800° . In alloys with a lower content of molybdenum and manganese the structure of the α - β -phase is formed by hardening at 800° . The microstructure of these alloys is shown by figure 4 (a - b). In alloys with 3.19 % manganese and 9.51 % molybdenum, 4.50 % manganese and 1.43 % molybdenum, 5.02 % manganese and 4.39 % molybdenum the β -phase decays by hardening at 900° , in which case the ω -phase is formed.

Card 2/4

Conditions for the Stabilization of the β -Phase
in Alloys of Titanium-Molybdenum-Manganese

SOV/78-4-5-26/46

The ω -phase was uniquely determined by X-ray analyses and by means of an electron microscope. The X-ray pictures of the alloys of titanium with 7.63 % manganese and 1.59 % molybdenum after hardening at 800° are shown by figure 5, and those of alloys of titanium with 5.02 % manganese and 4.59 % molybdenum after hardening at 900° are shown by figure 7. On the X-ray pictures the lines of the ω -phase are visible. In alloys containing 2.08 % manganese and 1.95 % molybdenum, and 3.07 % manganese and 3.74 % molybdenum the β -phase decays into the α -phase by hardening at 900°. The α -phase vanishes by hardening of the samples at a temperature of 1000°C. The stability of the β -phase when heated within the temperature interval of 100 - 600° was investigated. The microstructure of the titanium alloys containing 2.08 % manganese and 1.95 % molybdenum, hardened at 900° and 1000° is shown by figure 8. Here the occurrence of the β -phase is particularly marked. The microstructure

Card 3/4

Conditions for the Stabilization of the β -Phase
in Alloys of Titanium-Molybdenum-Manganese

SOV/78-4-5-26/46

of hardened titanium alloys containing 7.65 % manganese and 4.43 % molybdenum after heating for 64 hours at 600° and for 64 hours at 400° is shown by figure 10. The stability of the β -phase and the variation of hardness in titanium-molybdenum-manganese alloys are shown by figure 9 (a - e). The variation of the lattice parameter and the hardness of the β -phase by heating up to 300° and 500° is shown by figure 11 (a - b). In titanium alloys with 17.87 % manganese and 4.56 % molybdenum the β -phase becomes stabilized when heated from 100 - 500° in the course of 100 hours. There are 11 figures, 1 table, and 5 references, 2 of which are Soviet.

SUBMITTED: February 11, 1958

Card 4/4

... ..
... ..
... ..

physiology of the motor analyzer. Dok. zap. Ped. inst. Gerts.
139:93-97 184. (MIRA 12:3)

1. SMIRNOVA, Z. N.
2. USSR (600)
4. Mosses - Kuril Islands
7. New species of the genus Drepanocladus from the Kuril Islands. Bot. mat. Otd. spor. rast. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SMIRNOVA, Z.N.

New species of the genus *Drepanocladus* (C.Müll.) Roth -

Drepanocladus lapponicus (Norrl.) Z.Smirn. Trudy Bot.inst.

Ser. 2 no.8:403-415 '53.

(MIRA 7:1)

(Mosses)

SMIRNOVA, Z.N.

New varieties of species of the genus *Drepanocladus* (C.Müll.)
Roth (Formae specierum novae generis *Drepanocladus* (C.Müll.)
Roth). Bot.mat.Otd.spor.rast. 9:188-198 My '53. (MLRA 7:2)
(Mosses)

BOGDANOV, P.L., professor [author]; SAVICH-LYUBITSKAYA, L.I.; SMIRNOVA, Z.N. [reviewers].

"Guide to forest sporophytes of the grass and moss cover." P.L. Bogdanov.
Reviewed by L.I. Savich-Lyubitskaia, Z.N. Smirnova. Bot. zhur. 38 no. 4: 613-617 J1-Ag '53. (MLA 6:9)

1. Botanicheskiy institut im. V.L. Komarova Akademii nauk SSSR, Leningrad
(for Savich-Lyubitskaya and Smirnova).
(Bogdanov, P.L.) (Mosses)

SMIRNOVA, Z. N. --

Dissertation: "The Genus *Drepanocladus* (C. Muell) Roth." (Short summary given.) Dr Biol Sci, Inst of Botany imeni V. L. Komarov, Acad Sci USSR, Jan-Mar 54 (Vestnik Akademii Nauk, Moscow, Aug 54)

SO: SUM 393 28 Feb 1955

SMIRNOVA, Z.N.

Identity of *Drepanocladus brachiatus* (Mitt.) Dix. and *D. longi-*
folius (Wils.) Williams. Bot.mat.Otd.spor.rast. 11:219-228 Ja
'56. (MLRA 9:11)

(MOSES)

SMIRNOVA, Z.N.

Mosses of the Yakutsk A.S.S.R. Bot.mat.Otd.spor.rast. 11:228-235
Ja '56. (MLBA 9:11)
(Yakutia--Mosses)

SMIRNOVA, Z.N.

Does *Drepanocladus uncinatus* (Hedw.) Warnst. deserve to be established
as an independent genus? Bot.zhur 41 no.10:1499-1503 0 '56.
(MIRA 10:1)

1. Botanicheskiy institut imeni V.L. Komarova Akademii nauk SSSR,
Leningrad.

(Mosses) (Botany--Classification)

SMIRNOVA, Z.N.

ABRAMOVA, A.L.; SMIRNOVA, Z.N.

L.I. Savich-Liubitskaia; on her 70th birthday. Bot.zhur. 41 no.10:1555-
1564 0 '56. (MLRA 10:1)

1. Botanicheskiy institut imeni V.L.Komarova Akademii nauk SSSR,
Leningrad.

(Savich-Liubitskaia, Lidia Ivanovan, 1886-)
(Bibliography--Mosses)

SMIRNOVA, Z.N.

"On the spore morphology of some Sphagnum species" (from "The Bryologist," 58, no.4, 1955). Bot.zhur. 42 no.3:479-480 Mr '57.

1.Botanicheskiy institut im. V.L. Komarova Akademii nauk SSSR,
Leningrad.

(Mosses) (Spores (Botany))

SMIRNOVA, Z.N.

~~Lyellia R.Br., a new genus in the moss flora of the U.S.S.R.~~
Bot. zhur. 43 no.6:850-855 Je '58. (MIRA 11:7)

1. Botanicheskiy institut im. V.L. Komarova Akademii nauk SSSR,
Leningrad.

(Verkhoyansk Range--Mosses)

SMIRNOVA, Z.N.

Bryophyte flora in the Arctic regions of Yakutia and the Far East.
Trudy Bot. inst. Ser. 2 no.12:274-300 '59. (MIRA 12:12)
(Yakutia--Bryophytes) (Soviet Far East--Bryophytes)

SMIRNOVA, Z. N.

Note on *Mnium micro-ovale* C. Mull. and *Mnium coriaceum* Griff.
Bot. mat. Otd. spor. rast. 12:282-290 Ja '59. (MIRA 12:12)
(Kedrovka Valley--Mosses)

SAVICH-LYUBITSKAYA, L.I., doktor biol.nauk; SMIRNOVA, Z.N., doktor biol.nauk

A new variant of Bryum Korotkéviciae Sav.-Ljub.et Z.Smirn.
Inform.biul.Sov.ántark.eksp. no.17:2527 '60. (MIRA 13:12)

1. Botanicheskiy institut AN SSSR.
(Bunger Hills region--Mosses)

ABRAMOVA, A.L.; SAVICH-LYUBITSKAYA, L.I.; SMIRNOVA, Z.N.; SAVICH, V.P.,
doktor biolog. nauk, prof., zasl. ~~deyatel'~~ nauki RSFSR, otv.
red.; BOCHEVER, V.T., tekhn. red.

[Guide to the frondiferous mosses of the Arctic regions of the
U.S.S.R.] Opredelitel' listostebel'nykh mkhov Arktiki SSSR. Pod
red. L.I.Savich-Liubitskoi. Moskva, Izd-vo Akad.nauk SSSR, 1961.
714 p. (MIRA 15:2)

(Arctic regions--Mosses)

SMIRNOVA, Z.N.

New forms of *Drepanocladus Sendtneri* (Schimp.) Warnst. and
Dr. aduncus (Hedw.) Mönkem. Bot. mat. Otd. spor. rast. 14:
268-275 Ja'61. (MIRA 17:2)

SMIRNOVA, Zoya Nikolayevna; PEN'KOVA, G.A., red.;

[Fodder lichens in the Far North of the U.S.S.R.; a
concise guide] Kormovye lishainiki Krainego Severa SSSR;
kratkii opredelitel'. Leningrad, Sel'khozizdat, 1962. 69 p.
(MIRA 17:3)

SAVICH-LYUBITSKAYA, L.I.; SMIRNOVA, A.V.

An endemic moss of Antarctica, *Sarcopogon glaciale* (Hook. fil. et
Wils.) Card. et Bryhn. Issl. fauny mor. 1:296-300 '62. (MIRA 17:2)

1. Botanicheskiy Institut AN SSSR.

SMIRNOVA, Z.N.

Sections of the genus Drepanocladus (C. Müll.) Roth. Bot. mat.
Otd. spor. rast. 15:170-185 Ja '62. (MIRA 15:10)
(Drepanocladus)

SAVICH-LYUBITSKAYA, L.I.; SMIRNOVA, Z.N.

Representatives of the genus *Pottia* Fuernr. in Antarctica.
Bot. mat. Otd. spor. rast. 16:188-195 '63. (MIRA 16:10)

SAVICH-LYUBITSKAYA, L. I.; SMIRNOVA, Z. N.

Biology and geography of *Bryoerythrophyllum recurvirostre*
(Hedw.) Chen, a new species in the moss flora of Antarctica.
Bot. zhur. 48 no.3:350-361 Mr '63. (MIRA 16:4)

1. Botanicheskiy institut imeni V. L. Komarova AN SSSR,
Leningrad.

(Antarctic regions--Mosses)

On 12/11/54, the ...

... of the ...
... of the ...
... (MIRA 10:5)

SMIRNOVA, Z.O., kand.med.nauk

Medicinal prevention of excessive hemorrhages in the placental
and early pđstpartum periods. Ped., akush. i gin. 24 no.1:
49-51'62. (MIRA 16:8)

1. Otdel akusherstva i ginekologii (zav. - kand.med.nauk L.T.
Volkova) Khar'kovskogo nauchno-issledovatel'skogo instituta
okhrany materinstva i detstva (direktor - kand.med.nauk O.I.
Kornilova).

(HEMORRHAGE, UTERINE)

87028

15.8106

S/190/60/002/007/010/017
B020/B052

AUTHORS: Smirnova, Z. S., Serenkov, V. I.

TITLE: The Mechanism of Thermal Hardening of Phenol-formaldehyde Resins

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 7, pp. 1067-1070

TEXT: It was the purpose of this paper to study the behavior of hydroxyl groups in phenol by means of a stable isotope, during the hardening process of resolic phenol-formaldehyde resins. Therefore a resolic phenol-formaldehyde resin with a molar ratio of $C_6H_5OH : CH_2O = 6 : 7$ was produced in the presence of catalyst NaOH. The unreacted phenol and formaldehyde were precipitated by dissolving the resin in alcohol 8-10 times, and by pouring it into distilled water. At the same time, low-molecular condensation products were removed. Then the resin was dried until weight constancy was reached. It was analyzed and its content of free phenol and formaldehyde, hydroxyl and methylol groups, and the rate of hardening at

Card 1/3

The Mechanism of Thermal Hardening of Phenol-formaldehyde Resins

87028

S/190/60/002/007/010/017
B020/B052

160°C were determined. The analyses were carried out according to the method of the analytical laboratory of NIIplastmass (Nauchno-issledovatel'skiy institut plasticheskikh mass (Scientific Research Institute of Plastics)), and the results are given. On the basis of the papers by A. I. Brodskiy (Ref. 2), the hydrogen and the hydroxyl group of phenol was replaced by deuterium through rearrangement of the hydrogen. A resin was obtained with a 38-40% hydrogen substitution in the hydroxyl group of phenol. The deuterium content in water during the combustion of the resin was 0.8%. The results of the deuterium determination carried out by the spot method for the determination of its concentration variation during the resin hardening process (Table 1) show that water with an increased D_2O content is separated during the hardening of phenol-formaldehyde

resins. The behavior of the hydroxyl groups of Novolak resins heated up to 350°C was also studied. Table 2 gives the change of the deuterium content in Novolak resins during heating. It shows that the hydroxyl group undergoes no changes when heated up to 180°C or even 250°C. Heating to 350°C increases the amount of liberated deuterium up to 19-20% of the original deuterium content in the resin. This is due to the noticeable

Card 2/3

87028

The Mechanism of Thermal Hardening of Phenol-
formaldehyde Resins

S/190/60/002/007/010/017
H020/H052

destruction of the resin which also affects the hydroxyl groups.
There are 2 tables and 13 references: 6 Soviet, 5 US, and 2 German.

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass
(Scientific Research Institute of Plastics)

SUBMITTED: March 15, 1960

Card 3/3

1. KUZNETSOVA, V. A. and SMIRNOVA, Z. S.
2. USSR (600)
4. Microorganisms
7. Effect of hydrocarbonic microflora on the composition of the gas specimen. [Abstract]
Izv.Glav.upr.geol.fon. no. 3, 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. KUZNETSOV, B. I. and KUZNETSOVA, V. A. and SMIRNOVA, Z. S.
2. USSR (600)
4. Microorganisms
7. Study of the processes of oxidation by bacteria of hydrocarbon gases under conditions of their diffusion through sedimentary rock. Izv.Glav.upr.geol.fon. no. 3, 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

Country : USSR
Category : Microbiology. Geological Activity of Microorganisms.
Abs. Jour : Ref Zhur-Biol., No 23, 1958, No 105687
Author : Smirnova, Z. S.
Institut. : --
Title : Determination of the Limit of Penetration of Bacteria
From Clay Mortar into the Core of Different Rocks
Orig Pub. : Mikrobiologiya, 1957, 26, No 6, 745-749
Abstract : Fluid from drilling a well during a search for oil
contained a heterogeneous bacterial flora. In the
clay mortar bacteria were found which oxidize liquid
and gaseous hydrocarbons and hydrogen, which form
methane from carbon dioxide and hydrogen, and also
from fatty acids, which reduce sulfates and which
decompose tissue, etc. For the purpose of establishing
the limit of penetration of bacteria into the core, a
culture of Bacterium prodigiosum was introduced into
circulating clay mortar; this bacterium is usually not
found in the core. It was established that the pene-
tration of Bact. prodigiosum into the center of the core
Card: 1/2

F-18

SMIRNOVA, Z.S.

Effect of microbiological processes on gas composition in drilling
muds. Trudy VNIGNI no.11:176-184 '58. (MIRA 13:1)
(Oil well drilling fluids) (Gas, Natural--Bacteriology)

TELEGINA, Z.P.; SMIRNOVA, Z.S.

Effect of organic substances on the intensity of propane oxidation
in *Mycobacterium lacticolum* and *Pseudomonas* species. Trudy Inst.
mikrobiol. no. 6:110-115 '59. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy
neftyanoy institut.
(MYCOBACTERIUM LACTICOLUM) (PSEUDOMONAS) (PROPANE)

SMIRNOVA, Z.S.

Control method for a microbiological study of deep-seated rocks.
Geol. nefti i gaza 5 no.12:49-52 D '61. (MIRA 14:11)

1. Vsescyuznyy nauchno-issledovatel'skiy geologorazvedochnyy
neftyanoy institut.
(Rocks, Sedimentary--Bacteriology)

SMIRNOVA, Z.S.

Relation of methane- and propane-oxidizing bacteria to different
nitrogen sources. Mikrobiologiya 31 no.6:980-983 N-D '62. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy
naftyanoy institut, Moskva.

(MYCOBACTERIUM) (PSEUDOMONAS) (NITROGEN)

PATRIKEYEV, V.V.; SMIRNOVA, Z.S.; MAKSIMOVA, G.I.

Some biological properties of specifically formed silica gel.
Dokl. AN SSSR 146 no.3:707-709 S '62. (MIRA 15:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
Predstavleno akademikom A.A.Balandinym.
(Silica)

L 40821-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM/GS S/0000/64/000/000/0062/0066
ACCESSION NR: AT5008846

AUTHOR: Smirnova, Z. S.

TITLE: Specificity of propane oxidizing bacteria

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy geofiziki i geokhimi. Pryamyye metody poiskov nefti i gaza; neftepoiskovaya geokhimiya (Direct methods of prospecting for oil and gas; oil prospecting geochemistry). Moscow, Izd-vo Nedra, 1964, 62-66

TOPIC TAGS: bacteriology, propane, oxidation, geochemistry

ABSTRACT: Most anomalies in the distribution of propane oxidizing bacteria in the subterranean waters of various regions of the USSR coincide with petroleum and natural gas deposits. The author presents the results of research performed in 1960 at VNIGNI. In analyzing the physiology of the nutrition of propane oxidizing bacteria, the following topics were studied: a) the relationship of propane oxidizing bacteria to the organic source of carbon; b) the development of propane oxidizing bacteria in propane in the presence of organic matter; c) oxidizing of propane after cultivation in organic media. Experiments with nine pure cultures of

Card 1/2

26
25
B+1

L 40821-65
ACCESSION NR: AT5008846

propane oxidizing bacteria have shown that 1) propane oxidizing bacteria are capable of multiplying on many organic substances, but prefer propane as a source of carbon; 2) addition of organic matter lowers the oxidizing capacity of these bacteria; 3) after lengthy presence in an organic media propane oxidizing bacteria loose their propane oxidizing characteristics; 4) all these characteristics indicate the specificity of propane oxidizing bacteria. The use of these microorganisms as indicators in oil and natural gas prospecting is recommended. Orig. art. has: 3 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy geofiziki i geokhimii (All-Union Scientific Research Institute of Geophysics and Geochemistry)

SUBMITTED: 10Sep64

ENCL: 00

SUB CODE: ES, FP

NO REF SOV: 007

OTHER: 004

cc
Card 2/2

L 41610-65

ACCESSION NR: AT5008847

S/0000/64/300/000/0067/0071

AUTHOR: Smirnova, Z. S.

13
B+1

TITLE: Microbiological investigation of surface deposits of the Korobki natural gas and oil fields

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy geofiziki i geokhimii. Pryamyie metody poiskov nefti i gaza; neftepoiskovaya geokhimiya (Direct methods of prospecting for oil and gas; oil prospecting geochemistry). Moscow, Izd-vo Nedra, 1964, 67-71

TOPIC TAGS: microbiology, oil, gas, bacteriology, geochemistry

ABSTRACT: The author investigates the theory that soils bearing hydrocarbon gases are most suitable for the development of hydrocarbon oxidizing bacteria. Microbiological research of soil and subsoil deposits was done at the Korobki natural gas and oil fields of the Volgograd oblast. It was found that: 1) the number of saprophytic bacteria in the surface deposits cannot serve as a criterion for the oil and gas bearing characteristics of that area since this number depends to a great extent on the organic matter in the soil and on several other factors (moisture, lithological composition of the soil, etc.); 2) the distribution of hydro-
Card 1/2

L 41610-65

ACCESSION NR: AT5008847

carbon oxidizing bacteria in surface deposits is connected with oil and natural gas phenomena: propane oxidizing bacteria are found only on the surface above oil and gas bearing strata, methane oxidizing bacteria are more widely distributed, but are also predominant in the gas and oil bearing strata, (3) the absence of propane and methane oxidizing bacteria in the surface deposits beyond the oil and gas strata where a large number of bacteria are observed growing on sarcopetone agar, indicates the specificity of hydrocarbon oxidizing bacteria. Orig. art. has: 5 tables.

ASSOCIATION: none

SUBMITTED: 10Sep64

ENCL: 00

SUB CODE: ES, LS

NO REF SOV: 004

OTHER: 002

Card 2/2 JO

SMIRNOVA, Z.S.

Methods of quantitative assay of hydrocarbon oxidizing bacteria.
Mikrobiologiya 33 no.4:737-738 J1-Ag '64. (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy
geofiziki i geokhimi (VNIIYaGG).

SMIRNOVA, Z.V.

Modern designs of clarifiers with suspended precipitation.
Sbor. nauch. rab. asp. AKKH no.1:70-84 '59. (MIRA 14:7)
(Water--Purification)

DELYAGIN, G.N.; SMIRNOVA, Z.V.

Determination of the dispersity and moisture content of water-coal
suspensions. Trudy IGI 19:138-143 '62. (MIRA 16)

(Coal) (Sedimentation analysis) (Moisture—Measurement)

SMIRNOVA, Z. V.

Cand Med Sci - (diss) "Study of the function of the pancreas in patients with ulcerous affection of the stomach and the duodenum and chronic gastritis before and after conservative treatment." Sverdlovsk, 1961. 11 pp; (Sverdlovsk State Med Inst); 260 copies; price not given; (KL, 7-61 sup, 262)

KREANTSEV, S.I.; BONCH-BRUKHO, A.V.; FAJBERG, M.I.; SMIRNOVA, L.V.

production of alkylmethacrylates. *Usp. Khimii* 5 no. 6:856-862
N-D 165. (MIRA 19:2)

1. Nauchno-issledovatel'skiy institut monomerov dlya sinteti-
cheskogo kauchuka i Yaroslavskiy tekhnologicheskii institut.
Submitted Jan. 20, 1965.

SMIRNOVA, Zh.V.

History of the "Serp i Molot" Metallurgical Plant in Moscow.
Trudy Inst.ist.est.i tekhn. 25:249-262 '59.(MIRA 13:4)
(Moscow--Metallurgical Plants)

KARABASH, A.G.; PEYZULAYEV, Sh.I.; SLYUSAREVA, R.L.; SOTNIKOVA, H.P.;
SMIRNOVA-AVERINA, N.I.; SAMSONOVA, Z.N.; KRAUZ, L.S.; MORZOVA, G.G.;
ROMANOVICH, L.S.; SMIRENKINA, I.I.; LIPATOVA, V.M.; SAZANOVA, S.K.;
PUGACHEVA, L.I.; USACHEVA, V.P.; VORONOVA, Ye.P.; GORBACHEV, P.D.;
KOSTAREVA, F.A.; KOSTAREVA, N.T.; YELOVATSKAYA, A.I.; KUZNETSOVA, N.N.

Spectrochemical analysis of pure metals for impurities. Fiz.
sbor. no.4:556-562 '58. (MIRA 12:5)
(Spectrochemistry)

AUTHORS: Peyzulayev, Sh.I., Karabash, A.G., Krauz, L.S., 32-24-6-19/44
Kostareva, F.A., ~~Smixnova-Avzarina, N.I.~~
Babina, F.L., Kondrat'yeva, L.I., Voronova, Ye.F.,
Meshkova, V.M.

TITLE: Spectral Methods for the Determination of Admixture Traces
(Spektral'nyye metody opredeleniya sledov primesey).
I. Chemical Spectral Methods of Analyzing Strontium, Chromium,
and Silicon (I. Khimiko-spektral'nyye metody analiza strontsiya,
khroma i kremniya), II. The Quantitative Spectral Analysis of
Water and Microsamples on the Basis of Strontium Nitrate
(II. Kolichestvennyy spektral'nyy analiz vody i mikroobraztsov
na osnove nitrata strontsiya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 6, pp 723-731 (USSR)

ABSTRACT: In the course of the present work analysis methods are investi-
gated in which sensitivity is increased by previous enrichment and
which make it possible to determine a larger number of admixtures.
From the analysis of strontium, which is described in detail, it
follows that determination is based upon a formation of strontium
sulfate and that 18 elements can be determined by means of one

Card 1/4

Spectral Methods for the Determination of Admixture Traces.

32-24-6-19/44

I. Chemical Spectral Methods of Analyzing Strontium, Chromium, and Silicon. II. The Quantitative Spectral Analysis of Water and Microsamples on the Basis of Strontium Nitrate

spectrogram, in which case sodium is determined separately. Analysis sensitivity is shown by a table, and the preparation of samples and the spectral analysis itself are described. From the data concerning the determination of chromium it follows e.g., that chromium is volatilized in form of CrO_2Cl_2 , that practically complete (99.7%) volatilization is attained at $200-220^\circ$, and that at the same time only arsenic, boron, germanium, tin, and mercury are removed. In the case of a low content of admixtures analysis was carried out already after the first concentration, whereas in the case of a higher percentage ($10^{-1} - 10^{-2}\%$) also the second concentrate was examined. The analysis is described. The analysis of silicon is based upon its volatilization in form of fluorides; also in this case the concentrate of the admixtures is produced on the basis of a spectrally pure strontium sulfate, and also in this case 18 elements can be determined simultaneously by means of one spectrogram, sodium being determined separately. The process of analysis is described, and it is said, among other things, that the method was worked out in 1955 for the

Card 2/4

Spectral Methods for the Determination of Admixture Traces.
I. Chemical Spectral Methods of Analyzing Strontium,
Chromium, and Silicon. II. The Quantitative Spectral Analysis
of Water and Microsamples on the Basis of Strontium Nitrate

32-24-6-19/44

determination of elementary silicon.

II. The method is based upon application of the sample solution on to spectrally pure strontium nitrate powder, drying, and spectral analysis; it is possible, on the one hand, to examine the organic impurities existing in water, and, on the other, to analyze the composition of various microsamples. In the analysis of water it is possible to determine 12 elements by means of one spectrogram, including the ordinary admixtures found in water as well as corrosion products. The process of analysis is described as well as the manner in which etalons and the spectrally pure strontium nitrate are prepared. By the method described it is possible to determine 26 elements by the analysis of microsamples. Analysis is described, and it is said, among other things, that the relative sensitivity in determining components and admixtures depends on the weighed in portion of the microsample and the strontium nitrate; corresponding data are given by a table. By comparative determinations carried out on a strontium nitrate-

Card 3/4

Spectral Methods for the Determination of Admixture Traces.

32-24-6-19/44

I. Chemical Spectral Methods of Analyzing Strontium, Chromium, and Silicon. II. The Quantitative Spectral Analysis of Water and Microsamples on the Basis of Strontium Nitrate

and beryllium oxide basis the fact was established that both varieties of the method work with a relative error of $\pm 15-20\%$, and that frequently a weighed portion of 0.1-50 mg is sufficient. There are 2 figures, 6 tables, and 14 references, 6 of which are Soviet.

1. Spectrum analyzers--Performance
2. Minerals--Analysis
3. Minerals--Determination
4. Water--Impurities
5. Water--Spectra
6. Strontium nitrate spectrum--Applications

Card 4/4

PHASE I BOOK EXPLOITATION SOV/4413

Akademiya nauk SSSR. Komissiya po analiticheskoj khimii
 Metody opredeleniya primery v chistykh metallakh (Methods of determining impurities in pure metals) Moscow, 1960. 811 p. (Series: Itz. Izd. 12) 3,500 copies printed.

Resp. Eds.: A.P. Vinogradov, Academician, and D.I. Rubchikov, Doctor of Chemical Sciences; Ed. of Publishing House: K.P. Volynets, Tech. Ed.: T.V. Polyakova.

PURPOSE: This collection of articles is intended for chemists, metallurgists, and engineers.

CONTENT: The articles describe methods for detecting and determining various admixtures and their traces in pure metals. Also discussed are many chemical, physicochemical, electrochemical, spectrochemical and luminescence methods of analysis of metals of high purity. The editors state that these methods have been developed within the last five or six years by various Soviet scientific institutes and are now widely used in research and factory laboratories of the Soviet Union. 80 personalities are mentioned. References, mostly Soviet, accompany each article.

Majumdar, Sh.O.L., and S.M. Saha. Analysis of Bismuth for Determining Admixtures 172

Krusi, L.S., A.G. Karabash, Sh. I. Feyzulyev, V.M. Lipatova, and V.E. Kabanov. The Spectrometric Method of Determining Admixtures in Metallic Bismuth and Its Compounds 175

Sinyakova, S.I., and Ye.K. Gollubovskiy. Determination of Small Quantities of Lead in Metallic Bismuth 197

Sinyakova, S.I., and L.A. Zvezdina. Determination of Admixtures of Cadmium, Silver, and Gold in Metallic Bismuth With the Aid of Dichroism 191

Sinyakova, S.I., and Ch.Ye. Krol'. Determination of Admixtures of Antimony, Iron, Manganese, and Gallium in Bismuth 206

Rubchikov, D.I., and V.K. Polynina. Determination of Small Quantities of Barium, Lead, and Cadmium in Metallic Bismuth 217

Borovik-Buzanin, L.L. Determination of Lithium in Bismuth 221

Malyuga, D.P., and N.V. Silyver (deceased). Polarographic Determination of Copper Admixtures in Metallic Bismuth 224

Palimov, L.V., N.A. Mal'kov, and Z.A. Zhabarova. Spectroanalytic Determination of Admixtures in Tungsten Compounds 227

Vaynshteyn, I.Ye., Yu.I. Poloznyy, and N.Ye. Abukhova. Methods of Spectral Determination of Cadmium, Antimony, Bismuth, Lead, and Tin in Tungsten and in Molybdenum 236

Karabash, A.G., I.M. Sedykhova, M.Ye. Shchegoleva, and Sh.I. Feyzulyev. Determination of Admixtures in Molybdenum and Its Compounds 255

Rubchikov, D.I., Ye.P. Gochinskaya, and L.Ye. Korikova. Method of Direct Determination of Lead, Cadmium, Bismuth, Antimony, and Tin in Molybdenum With the Aid of Oscillographic Polarography 265

Klyuchko, Yu.A., Ye.M. Zhukovskiy, and L.L. Kunin. Determination of Oxygen and Nitrogen in Molybdenum and in Chromium by the Vacuum-Fusion Method 281

SMILENOVA - AVERINA, N.I.

KARABASH, A.G.; SAMSONOVA, Z.N.; SMIRNOVA-AVERINA, N.I.; PEYZULAYEV, Sh. I.

Impurities determination in molybdenum and its compounds. Trudy Kom.
anal. khim. 12:255-264 '60. (MIRA 13:8)
(Molybdenum—Analysis) (Spectrum analysis)

SMIRNOVA-GARAYEVA, N.V.

Effect of a protective forest plantation on the development of
cotton plants. Bot. zhur. 40 no.5:738-739 S-O '55. (MLRA 9:4)

1. Krivorezhskiy gosudarstvennyy pedagogicheskiy institut, g. Krivoy
Reg. (Cotton) (Windbreaks, shelterbelts, etc.)