"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

KHEYN, A.L.; BUSINOV, S.N.; ALTUKOV, P.Ya.

Using data from nonsteady displacement of fluid by gas in a method for the experimental determination of phase permeabilities. Trudy VNIIGAZ no.11:241-265 '61. (MIRA 15:2)
(Gas,Natural—Storage)(Permeability)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSINOVA, B.

Care for children with skin diseases. Cesk. derm. 37 no.5:344-347 O '62.

1. Zakladni divitileta skola pri Detske fakultni nemocnici v Brne-Cernych Polich, reditel J. Juda, prom. pedagog Kozni oddeleni Detske fakultni nemocnice v Brne-Cernych Polich, prednosta dr. J. Rovensky.
(DERMATOLOGY) (CHILD CARE)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

GARBUZOV, V.G., inzh.; BUSIOK, M.S., inzh.; RZHEZNIKOV, Yu.V., kand.tekhn.nauk

Dual throttling valves for high-speed reducing and cooling systems of large boiler units. Teploenergetika 12 no.1:22-26 Ja '65. (MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy teplotekhnicheskiy institut i Khar'kovskiy turbinnyy zavod.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSIOVICH, M.G., inzh.

Machine for removing plants from trench slopes. Stroi. i dor. mash. 10 no.3:12-13 Mr '65. (MIRA 18:5)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

ANDERSON, E.M.; BUSKA, Z.A.; GRINBERG, R.O.; SAULGOZHA, A.K.

Optical transition probability of the diffuse series of sodium.
Vest.Len.un.11 no.4:27-31 F '56. (MIRA 9:7)
(Sodium--Spectra)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSKINA, V.A.

Phthivazid content in body fluids during therapy of tuberculosis. Probl. tub. no.4:9-15 Jl-Ag '54. (MLRA 7:11)

1. Iz biokhimicheskoy laboratorii (zav. starshiy nauchnyy sotrudnik Ye.F.Sidel'nikova) Moskovskogo oblastnogo nauchno-issledovatel'skogo tuberkuleznogo instituta (zam. direktora po nauchnoy chasti prof. D.D.Aseyev)

(TUBERCULOSIS, therapy,
isoniazid, content in body fluids)
(NICOTINIC ACID ISOMERS, metabolism,
isoniazid in body fluids in ther. of tuberc.)
(BODY FLUIDS, therapy,
isoniazid, in tuberc. ther.)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSKIN, V.A.

BUSKINA, V.A.

Saluzid content ob biological fluids in meningeal tuberculosis patients following therapeutic dosage; clinical and experimental research [with summary in French]. Probl.tub. 35 no.4:95-100 '57. (MLRA 10:8)

1. Iz biokhimicheskoy laboratorii (rukovoditel' Ye.F.Sidel'nikova) Gosudarstvennogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - kandidat meditsinskikh nauk V.F.Chernyshev, zam. direktora po nauchnoy chasti - prof. D.D.Aseyev)

(ISONIAZID, related cpds.
saluzid content of biol. fluids in meningeal tuberc. (Rus))

(TUBERCULOSIS, MENINGEAL, exper.
saluzid content of biol. fluids in rabbits (Rus))

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

SIDEL'NIKOVA, Ye.F.; ROZINA, R.I.; BUSKINA, V.A.

Function of the adrenal glands in patients with tuberculous meningitis during prolonged combined antibacterial therapy. Probl. tub. 38 no. 5:51-60 '60. (MIRA 14:1)
(MENINGES—TUBERCULOSIS) (ADRENAL GLANDS)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSKINA, V.A.; BRAUDE, V.I., kand.med.nauk

Functional and morphological changes in the adrenals in normal rabbits under the influence of the prolonged administration of therapeutic doses of isonicotinic acid hydrazide derivatives and PAS. Probl.tub. 38 no.6:91-98 '60. (MIRA 13:11)

1. Iz biokhimicheskogo otdeleniya (zav. - kand.med.nauk Ye.F. Sidel'nikova) i patomorfologicheskogo otdeleniya (zav. - prof. B.P. Ugryumov) Nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand.med.nauk V.F. Chernyshev, zam. dir. po nauchnoy chasti - prof. D.D. Aseyev) Ministerstva zdravookhraneniya RSFSR.

(ISONICOTINIC ACID) (SALICYLIC ACID) (ADRENAL CORTEX)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSKINA, V.A., mladshiy nauchnyy sotrudnik (Moskva)

Effect of a tuberculous infection on the function of the adrenal cortex; experimental study. Probl.endok.i gorm. no.4:23-29 '62. (MIRA 15:11)

1. Iz biokhimicheskoy laboratorii (rukovoditel' - kand.med.nauk Ye.F. Sidel'nikova) Gosudarstvennogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand.med.nauk V.F. Chernyshev) Ministerstva zdravookhraneniya RSFSR.

(ADRENAL CORTEX--TUBERCULOSIS)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUS'KO, A. T., Cand Agric Sci (diss) -- "The organization of control fattening and breed-testing in a system of breeding work on the swine-breeding farms of Leningrad Oblast". Leningrad-Pushkin, 1960. 21 pp (Min Agric RSFSR, Leningrad Agric Inst), 280 copies (KL, No 15, 1960, 137)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

GORDON, M.D., kand.tekhn.nauk (g.Tashkent); BUS'KO, D.N., inzh. (g.Alma-Ata)

There are tremendous possibilities in the development of departure routing. Zhel.dor.transp. 43 no.3:54-57 Mr '61. (MIRA 14:3)

1. Dorozhnyy inspektor po marshrutizatsii perevozok Kazakhskoy dorogi (for Bus'ko).
(Railroads—Freight)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSKO, J.

Symbiotic capacity and certain physiological properties of nodule bacteria of Lotus and Anthyllis. Acta mikrob.polon. 8 no.3-4:303-308 '59.

1. Z Zakladu Mikrobiologii Instytutu Uprawy, Nawozenia i Gleboznawstwa w Pulawach i Zakladu Mikrobiologii Rolnej Wyzszej Szkoly Rolniczej w Olsztynie.
(RHIZOBIUM)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 24854-66 EWT(m)/EWP(j)/EWP(t)/EWP(k) IJP(c) JD/HW

ACC NR: AP6006402 (A) SOURCE CODE: UR/0413/66/000/002/0145/0145

AUTHORS: Kazak, M. A.; Bus'ko, N. V.; Vishnevskiy, M. V.; Igolkin, N. I. 36 B

ORG: none

TITLE: Compensator for pipelines. Class 47, No. 178252 [announced by Leningrad Kirov Plant (Leningradskiy Kirovskiy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 145

TOPIC TAGS: pipeline, pipe, [redacted]

ABSTRACT: This Author Certificate presents a compensator for pipelines, containing elastic, e.g., rubber elements, in the form of rings in contact with the pipe flanges connected by means of a hinged coupling. To increase the reliability and compensating ability, the rubber elements are situated in grooves machined in the pipe flanges, and a floating ring is installed between them (see Fig. 1).

Card 1/2 UDC: 621.643.43

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 24854-66

ACC NR: AP6006402

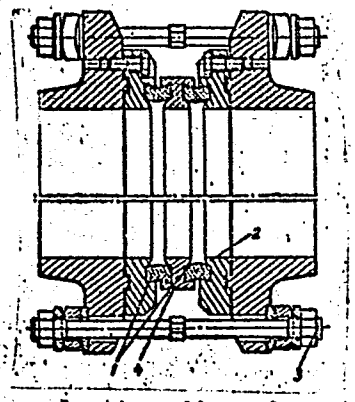

Fig. 1. 1 - elastic rubber elements; 2 - flange; 3 - coupling; 4 - floating ring.

Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 06Sep63

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 24854-66 EWT(m)/EWP(j)/EWP(t)/EWP(k) IJP(c) JD/HW

ACC NR: AP6006402 (A) SOURCE CODE: UR/0413/66/000/002/0145/0145

AUTHORS: Kazak, M. A.; Bus'ko, N. V.; Vishnevskiy, M. V.; Igolkin, N. I.

ORG: none

TITLE: Compensator for pipelines. Class 47, No. 178252 [announced by Leningrad Kirov Plant (Leningradskiy Kirovskiy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 145

TOPIC TAGS: pipeline, pipe, [redacted]

ABSTRACT: This Author Certificate presents a compensator for pipelines, containing elastic, e.g., rubber elements, in the form of rings in contact with the pipe flanges connected by means of a hinged coupling. To increase the reliability and compensating ability, the rubber elements are situated in grooves machined in the pipe flanges, and a floating ring is installed between them (see Fig. 1).

Card 1/2 UDC: 621.643.43

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 24854-66

ACC NR: AP6006402

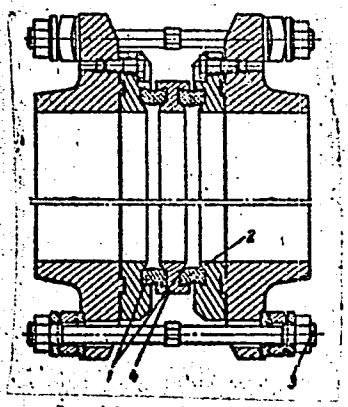

Fig. 1. 1 - elastic rubber elements; 2 - flange; 3 - coupling; 4 - floating ring.

Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 06Sep63

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BURVIS, Yu.I. [Burvys, J.]; BUSHKUNAS, P.Y. [Buskunas, P. [deceased]

Effect of dispersed additives on the quality of carbon concrete on a base of dolomite lime. Trudy AN Lit. SSR. Ser.B no.1:211-224 '65. (MIRA 18:7)

1. Institut stroitel'stva i arkhitektury AN Litovskoy SSR.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BLAZEVICIUS, K., otv. red.; BUSKUNAS, P., red.; VEKTARIS, B., red.; PRANAITIENE, R., red.; CECYTE, V., tekhn. red.

[Problems of domestic architecture]Gyvenamuju namu statybos klausimai; mokslinio straipsniu rinkinys. Vilnius, Valstybine politines ir mokslines literaturos leidykla, 1962. 187 p. (MIRA 15:12)

1. Lietuvos TSR Mokslu Akademija, Vilna. Statybos ir architekturos institutas.

(Lithuania—Architecture, Domestic)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

17

L 56492-65

ACCESSION NR: AP5017800

UR/0286/65/000/011/0031/0031
631.859.12.002.2

4
B

AUTHOR: Karatayev, I. I.; Mel'nik, B. D.; Repenkova, T. G.; Sviridova, A. G.; Doktorov, N. I.; Nazarov, G. N. Raygorodskiy, I. M.; Vasil'yev, B. T.; Bystrov, M. V.; Babaryka, I. F.; Kuzyak, F. A.; Fel'dman, M. V.; Soverchenko, D. A.; Buslakova, L. P.; Toroptseva, N. P.; Lyubimov, S. V.; Ul'yanov, A. T.; Andres, V. V.; Sobchuk, Yu. I.; Tsetlina, M. M.; Andreyev, V. V.; Kramer, G. L.

TITLE: A method for producing phosphoro-potassium fertilizers. Class 16, No. 171-409

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 31

TOPIC TAGS: fertilizer, phosphate, potassium

ABSTRACT: This Author's Certificate introduces a method for producing phosphoro-potassium fertilizers using cement dust (waste from cement production) as the potassium raw material. The process of adding potassium to the product is simplified and evaporation is prevented by using a 20% excess of an acid which directly neutralizes the cement dust for breaking down the phosphate raw material.

Card 1/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 56492-65

ACCESSION NR: AP5017900

ASSOCIATION: none

SUBMITTED: 29Mar62 ENCL: 00 SUB CODE: GC, LS

NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAVSKIY, V.G.

Theory of extended photospheres. Uch.zap.LGU no.307:67-78 '62. (MIRA 15:9)

(Stars—Atmospheres)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 15709-65 EWT(1)/EWG(v)/EEC(t) Pe-5/Pae-2 ESD(t)/AFWL/RAEM(a)/AFFTC/ESD-3
GW
ACCESSION NR: AP4044462 S/0043/64/000/003/0114/0124

AUTHOR: Buslavskiy, V. G.

TITLE: The problem of sources of opaqueness in the atmosphere of stars in the later spectral classes

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 3, 1964, 114-124

TOPIC TAGS: late star, stellar atmosphere, hydrogen atmosphere, Rayleigh scattering hydrogen absorption spectrum, stellar atmospheric model, hydrogen absorption

ABSTRACT: The author uses computed values of several possible sources of opacity in the atmospheres of late types stars to show that the major absorber of light in a hydrogen stellar atmosphere in thermodynamic equilibrium at T = 3000K is Rayleigh scattering on atoms of pure hydrogen and molecules of hydrogen. In a stellar atmosphere containing a metal such as sodium, the major opaqueness source in the 2000-4000K temperature range is absorption by negative hydro-

Card 1/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 15709-65

ACCESSION NR: AP4044462

gen ions and atoms of metal. The numerical data used to justify these conclusions are tabulated. The results on atmospheres containing metal will be used for construction of atmospheric models for cold stars. Orig. art. has: 31 equations and 3 tables.

ASSOCIATION: None

SUBMITTED: 15Nov63 ENCL: 00

SUB CODE: AA, MA NO REF SOV: 004 OTHER: 017

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAVSKIY, V.G.

Spectral energy distribution of late type stars. Astron. zhur. 41 no.4:631-636 Jl 'Ag '64 (MIRA 17:8)

1. Leningradskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 42390-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(j)/T/EWA(h)/EWA(1) Pc-4/
Pr-4/Ps-4/Pu-4/Peb RPL GG/RM/WW

ACCESSION NR: AR5006358 S/0081/64/000/024/S020/S020

SOURCE: Ref. zh. Khimiya, Abs. 24S111

AUTHOR: Buslayev, G. S.; Ivanov, V. S.; Konotopova, S. P.

TITLE: Radiation grafting of acrolein to cis-polybutadiene and phosphorylation of the grafted copolymer

CITED SOURCE: Sb. Vysokomolekul. soyedineniya. Khim. svoystva i modifik. polimerov. M., Nauka, 1964, 209-213

TOPIC TAGS: polymer, synthetic rubber, graft copolymer, radiation polymerization

ABSTRACT: Acrolein (I) was grafted to cis-butadiene rubber [illegible] of Co^{60} γ-rays in an atmosphere of N_2. (II) was mixed [illegible] (I) (surface grafting), or a solution of (II) in CCl_4 was combined [illegible] grafting). Samples of (II) without addition of (I) were also irradiated. Appreciable cross-linking was noted with doses > 3 Mrad. The grafted [illegible] characterized by its solubility in benzene, benzine, [illegible] its infrared spectra. The solubility of the surface-grafted [illegible]

Card 1/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 42390-65
ACCESSION NR: AR5006358

with an increase in the dosage of irradiation and the concentration of (I) in methanol. Volume-grafted copolymers produced in a CCl_4 solution, were more soluble in polar solvents than the control (II), which is explained by the insignificant length of the sections grafted. The infrared spectra of the grafted copolymers had absorption bands of carbonyl ($1705 cm^{-1}$) and ether groups ($1130 cm^{-1}$). The [illegible] of the absorption band of the carbonyl group in the volume grafted [illegible] much greater, and is explained by the capacity of [illegible] polyradicals of the macromolecules of (II) and in this way [illegible] of [illegible]. [illegible] of the grafted copolymers [illegible] with [illegible] hours. The phosphorylation [illegible] with 5% aqueous solution of Na_2CO_3 and washed with hot water. [illegible] insoluble cross-linked polymers contained 0.5-0.7% P in the phosphorylated [illegible] 8.8% P in the grafted copolymer. The infrared spectra had abs[illegible] linkages ($735 cm^{-1}$), P-OH ($2540 cm^{-1}$) and P=O ($1170 cm^{-1}$). The [illegible] ed copolymer was incombustible. (Authors' abstract)

SUB CODE: OC, MT ENCL: 00

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 1143-66 EWT(m)/EPF(c)/EWP(j)/T, RPL WW/RM

ACCESSION NR: AP5022009

UR/0286/65/000/014/0078/0078
678.762.2-134.465
678.762.2-139

27

AUTHOR: Ivanov, V. S.; Buslayev, G. S. 44,55 44,55

TITLE: A method for producing aldehyde rubber. 15 Class 39, No. 172995 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 78

TOPIC TAGS: synthetic rubber, aldehyde, styrene, butadiene, emulsion polymerization

ABSTRACT: This Author's Certificate introduces a method for producing aldehyde rubber by copolymerizing styrene and/or butadiene with α,β-unsaturated aldehydes in a water emulsion, using an initiator and emulsifiers. The properties of the aldehyde rubber are improved by conducting the copolymerization process at a pH of less than 7 using redox initiators, e. g. a cumene hydroperoxide-$FeSO_4$ system, and cation-active emulsifiers, e. g. Sapamine.

ASSOCIATION: none

SUBMITTED: 28Jun63 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000

Card 1/1 mlb

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, [illegible]; KHARITONOV, [illegible]; [illegible], [illegible].

Interaction of [illegible] with some inorganic and [illegible] containing organosilicon compounds. [illegible] AN SSSR. Neorg. mat. [illegible] no.9:1607-1613 [illegible] (MIRA [illegible])

1. Institut khimii [illegible] AN SSSR.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

ACC NR: AP6032976 SOURCE CODE: UR/0138/66/000/010/0004/0006

AUTHOR: Ivanov, V. S.; Buslayev, G. S.

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Synthesis of aldehyde rubbers

SOURCE: Kauchuk i rezina, no. 10, 1966, 4-6

TOPIC TAGS: aldehyde rubber, acrolein, butadiene, copolymer, emulsion copolymerization, elastomer, aldehyde, synthetic rubber, chemical synthesis

ABSTRACT: A study has been made of the synthesis and properties of copolymers of acrolein, methacrylaldehyde or 2-ethylacrolein with butadiene, defined as aldehyde rubbers CKA-1, CKA-2 and CKA-3, respectively. The study was undertaken because the presence of carboxyl groups imparts valuable properties to the copolymers (they can be readily modified or vulcanized). The copolymerization was conducted at 20C in acid media (pH = 2—3) in sapanine [N-(2-diethylaminoethyl)oleamide] chloride emulsion and was initiated by the $FeSO_4 \cdot 7H_2O$—cumene hydroperoxide redox system. The copolymerization products were elastomers with free aldehyde groups. The number of these groups varied from 19 to 40%. The elasticity of the copolymers increased with the concentration of aldehyde groups. Their plasticity increased with the number of carbon atoms in the substitient at the 2-carbon atom. The glass transition

Card 1/2 UDC: 678.762.2-139

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

ACC NR: AP6032976

temperature and the nitrunic viscosity of the copolymers increased with an increase of the number of the aldehyde groups. Orig. art. has: 3 tables. [BO]

SUB CODE: 11/ SUBM DATE: 17May65/ ORIG REF: 004/ OTH REF: 006/

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, I. (Moskva)

Practice in accounting for the movement of materials in warehouses.
Bukhg.uchet 14 no.11:43-44 N '57 (MIRA 10:11)
(Warehouses--Accounting)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

FAVOROVA, L.A.; KOSTYUKOVA, N.N.; YEZHOVA, G.G.; BUSLAYEV, I.M.; MALAKHOVA, N.S.

Role of various sources of respiratory infections in boarding schools (on a diphtheria model). Report No.2. Zhur. mikrobiol epid. i immun. 41 no.12:14-18 D '64. (MIRA 18:3)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M. A. PA 66T94

USSR/Medicine - Malaria
Medicine - Nurses and Nursing Apr 1948

"The Role of the Medical Nurse in Carrying Out Anti-malarial Measures," M. A. Buslayev, 6 pp

"Med Sestra" No 4

Next to grippe, malaria is the most widespread infectious disease in the USSR. Explains various aspects of the struggle against malaria in connection with the problems of the medical nurse carrying out antimalarial work.

66T94

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M. A. and ROGOZIN, I. I.

"Results of the Fight Against Malaria in 1947 and Plans for Measures in 1948 (Report at the Conference on the Control of Malaria at the Ministry of Public Health USSR, 5 March 1948)", Med. Paraz. i Paraz. Bolez., Vol. 17, No. 3, 1948, pp 193-200.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M.A.

Dispensary care of patient; important conditions in malaria control in rural areas. Feldsher & akush. no.3:22-28 Mar 1951. (CIML 20:9)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAEV, M. A.

USSR/Medicine - Malaria and Helminths Aug 51

"Measures Taken in the Fight Against Malaria and Helminth Infection in the USSR," M. A. Buslaev, Moscow

"Sov Med" No 8, p 34

Discusses the wide distribution of malaria (tropical and nontropical) and helminthiasis in the USSR and the measures taken, directed by the Min of Pub Health USSR. Part of the success in fighting malaria is said to be due to the increased holdings of livestock, since mosquitoes attack animals rather than humans. An accurate accounting of the number of patients is important.

204T49

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M. A.

USSR/Medicine - Malaria
Electricity - Hydroelectric Power

May 51

183T74

"Organization of Measures for the Prophylaxis of Malaria at the Great Communist Construction Projects," M. A. Buslayev, Moscow

"Sov Med" Vol XV, No 5, pp 9-12

Describes in considerable detail hydroelec and irrigation projects, ship canals, and forest plantings which have been completed, partly completed, or planned. Advocates treatment of malaria at these projects with quinacrine or bigumal' (schizontocides), which should be combined with plasmocide

183T74

USSR/Medicine - Malaria (Contd)

May 51

(gametocide, max dose 0.06 g per day) during epidemics, and monthly blood examinations. Outlines preventive measures. Says tropical malaria should be treated with bigumal' rather than any other schizontocide. Points out danger of sandfly-transmitted papatacci fever and leischmaniasis at sites of Main Turkmen and North Crimean canals, of ancylostomiases in Turkmenia, and of tick-transmitted virus diseases. Calls attention to fact that changes of climate in connection with irrigation, flooding, forest planting, etc., will have effect on distribution of insect disease carriers.

183T74

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

ZHDANOV, V.M.; BUSLAYEV, M.A.; VASIL'KOVA, Z.G.

Results for 1952 in controlling helminthiasis, malaria, and diseases transmitted by mosquitoes, and problems of controlling parasitic diseases to be solved in the near future. Med.paraz.i paraz.bol. no.4:291-298 Jl-Ag '53. (MLRA 6:9)

(Worms, Intestinal and parasitic) (Malarial fever)
(Insects as carriers of contagion)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

DERBENEVA-UKHOVA, V.P., professor; BUSLAYEV, M.A. (Moskva).

Measures for control of flies, the carriers of infection. Sov.med. 17 no.7: 38-42 Jl '53. (MLRA 6:8)

(Flies as carriers of contagion)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M.A.

Control of malaria, helminth infections and owther parasitic diseases during 1953 and tasks for 1954. Med. paraz. i paraz. bol. no.3:195-200 Jl-S '54. (MLRA 8:2)

1. Nachal'nik otdela parazitarnykh zabolevaniy Ministerstva zdravookhraneniya SSSR.
(MALARIA, prevention and control, Russia)
(PARASITIC DISEASES, prevention and control, (Russia)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M.

Brief news. Zhur.mikrobiol.epid.i immun. no.7:119-122 Jl '54.
(COMMUNICABLE DISEASES) (MLRA 7:9)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M.A. (Moscow)

"Mosquitoes and malaria." N.N.Plotnikov. Reviewed by M.A. Buslaev. Med.sestra no.10:28 O '55 (MLRA 8:12)
(MALARIA) (MOSQUITOES) (PLOTNIKOV, N.N.)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M.A.

Results of control of malaria, helminthiases, and other parasitic diseases in the U.S.S.R. during 1954 and tasks for 1955. Med.paraz. i paraz. bol.24 no.3:195-200 Jl-S '55. (MLRA 8:12)

(MALARIA, prevention and control, in Russia)
(HELMINTH INFECTIONS, prevention and control, in Russia)
(PARASITIC DISEASES, prevention and control in Russia).

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M.A.

Results of combatting parasitic diseases during the period 1951-55 and tasks for 1956-60. Med.paraz. i paraz.bol. 25 no.3:195-202 Jl-S '56. (MLRA 9:10)

(PARASITIC DISEASES, prevention and control in Russia (Rus))

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M.A

MISCELLANEOUS

"Towards a Better Fulfillment of the Measures for Reducing Infectious Diseases in 1957", by the Director of the Epidemiological Division of the Main Sanitary-Epidemiological Administration of the Ministry of Health of the RSFSR M.A. Buslayev, Zdravookhraneniye Rossiyskoy Federatsii, No 3, March 1957, pp 6-11.

The Ministry of Health of the RSFSR has elaborated on the specialized problems for decreasing the level of incidence of infectious diseases in 1957. To solve these problems the author says, the complex work of all sections of the public health must be organized. Moreover, it is necessary to secure the participation of the industries and both collective and state farms in order to prevent intestinal infections, brucellosis, malaria as well as to combat the natural foci of infection. According to M.A. Buslayev, the following points are an absolute necessity:

1) On the basis of a careful analysis of the infectious morbidity of the population and a study of sanitary conditions of inhabited places,

Card 1/3

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSIAYEV, M.A.; IVANOVA, L.M.; TARABUKHIN, I.A.

Results of the control of vernal (tick-borne) encephalitis in the RSFSR in 1957 and tasks for 1958. Med. paraz. i paraz. bol. 27 no.4:469-475 Jl-Ag '58. (MIRA 12:2)

1. Iz Glavnogo sanitarno-epidemiologicheskogo upravleniya Ministerstva zdravookhraneniya RSFSR (nach. upravleniya L.N. Khristov).
(ENCEPHALITIS, EPIDEMIC, prevention and control, Russian tick-borne (Rus))

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

DERBENEVA-UKHOVA, V.P.; BUSLAYEV, M.A.; KALMYKOV, Ye.S.; KON', Ya.S.; MARUASHVILI, G.M.; MASLOV, A.V.; NETSKIY, G.I.; PIRUMOV, Kh.N.; POKROVSKIY, S.N.; SELIVANOV, K.B.

Problems of the sanitary-epidemiological service in the control of parasitic diseases in various zones of the U.S.S.R. Med. paraz. i paraz.bol. 28 no.3:287-294 My-Je '59. (MIRA 12:9)
(PARASITIC DISEASES, prev. & control, in Russia (Rus))

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M.A.; VASYUTA, Yu.S.

Final stage in the liquidation of malaria in the R.S.F.S.R. Med. paraz.i paraz.bol. 37 no.5:518-522 S-O '59. (MIRA 13:4)

1. Iz Glavnogo sanitarno-epidemiologicheskogo upravleniya Ministerstva zdravookhraneniya RSFSR (nachal'nik upravleniya N.S. Titkov).

(MALARIA prev. & control)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, M.A.; MISHCHENKO, N.G.

Incidence of rabies and its prevention in the R.S.F.S.R. Zhur. mikrobiol. epid. i immun. 31 no.2:107-109 D '60. (MIRA 14:6)

1. Iz Glavnogo sanitarno-epidemiologicheskogo upravleniya Ministerstva zdravookhraneniya RSFSR.
(RABIES)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

VASIL'YEV, K., inzh.; BUSLAYEV, N., inzh.

High-pressure, double-duct system for the air conditioning of an air vessel. Mor. flot 22 no.7:26-27 Jl '62. (MIRA 15:7)
(Ships—Air conditioning)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, P.

In the final year of the seven year plan. Metallurg 10 no.5:38 My '65. (MIRA 18:6)

1. Predsedatel' Chelyabinskogo blastnogo komiteta professional'nogo soyuza rabochikh metallurgicheskoy promyshlennosti.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

LUTSEK, V.P.; BUSLAYEV, R.V.

A table for microanalytic scales. Zav.lab.22 no.11:1371-1372 '56. (MLRA 10:2)

1. Institut organicheskoy khimii Akademii nauk SSSR.
(Laboratories--Furniture, equipment, etc.)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

8(2) SOV/32-25-4-54/71

AUTHORS: Buslayev, R. V., Lavrov, I. A., Lutsek, V. P., Rozengart, M. I.

TITLE: Impulse Timing Relay for Rectifying Columns (Impul'snoye rele vremeni dlya rektifikatsionnykh kolonok)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 4, pp 493 - 494 (USSR)

ABSTRACT: An impulse timing relay was designed for the purpose of automating the removal of distillates from laboratory rectifying columns. Impulses may be altered over a wide range, from 40 impulses per minute to one impulse every three minutes, the impulse duration ranging up to 38 seconds. The apparatus is fed with 127 v alternating current. It is 24 cm long, 15 cm wide, and 16 cm high. The relay is actuated through mechanical switches operated by a reversible electric motor which periodically changes the sense of rotation. It can be seen from the schematic illustration of the relays (Fig), and the description that the electric motor is of the type RD-09, and that an intermediate relay of the type RPT-100 is used. There is 1 figure.

Card 1/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

Impulse Timing Relay for Rectifying Columns SOV/32-25-4-54/71

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

Card 2/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

SERGEYEV, P. (Ordzhonikidze); YAROPOLOV, G. (Leningrad); YEVDOKIMENKO, I., inzhnere-mekhanik (Chernigov); MIKHALEV, V. (Moskva); BUSLAYEV, V.; GEL'BRAS, A.; SAMOYLOV, K. (Noginsk)

Opening the mail. Tekh.mol. 29 no.9:32-33 '61. (MIRA 14:10)
(Technological innovations)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, V., mayor

How to plan political and educational work in military units. (MIRA 15:10)
Komm.Vooruzh.Sil 3 no.20:86-88 O'62.
(Russia—Army—Political activity)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

IL'INA, K.A...Prinimali uchastiye: BUSLAYEV, V.G., starshiy inzhener; KOZLOV, V.F., ispoln. obyazannosti inzhenera; YESIPOVA, O.V., starshiy tekhnik; BRODYANSKAYA, Ye.A., tekhnik. YAKOBSON, M.O., prof., doktor tekhn.nauk, red.; ALEKSEYEVA, T.V., tekhn.red.

[Standard technological processes in the manufacture of medium size machine parts; instructional materials] Tipovye tekhnologicheskie protsessy obrabotki korpusnykh detalei srednikh razmerov; rukovodiashchie materialy. Pod red. M.O.Iakobsona. Moskva, TSentr.biuro tekhn.informatsii, 1958. 218 p. (MIRA 12:7)

1. Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov.
(Machinery industry)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAVSKIY, V.G.

TiO absorption bands in spectra of M-stars. Vest. LGU 20 no.7: 135-143 '65. (MIRA 18:5)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

86918

S/056/60/039/005/035/051
B006/B077

24.4500

AUTHOR: Buslayev, V. S.

TITLE: Dispersion Relations in Nonrelativistic Scattering Theory Considering Spin-orbital Interaction

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 5(11), pp. 1422 - 1426

TEXT: The dispersion relations for scattering amplitudes in nonrelativistic scattering theory have been derived several times before but always with a spin-independent Hamiltonian. The present paper deals with the scattering of spin-1/2 particles on a potential, taking account of the spin-orbital interaction in the Hamiltonian; the dispersion relations for this case are given. In the first part some properties of the Green function are studied but the derivations and mathematical details are omitted, and are planned for future publication. Two estimations prove to be important to prove the dispersion relations with the help of the Green function: one is related to the positive part of the real

Card 1/3

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86918

Dispersion Relations in Nonrelativistic Scattering Theory Considering Spin-orbital Interaction

S/056/60/039/005/035/051
B006/B077

axis and makes a detailed analysis of the integral equation for the Green function at finite energies necessary, the other is the estimate at the complex plane at high energies, and is determined by the Born series which converges well in this range. The investigation of the Green function of this problem for higher energies can be done by known methods, which, however, have to be modified since the Born series shows bad convergence if the $\vec{l}\vec{s}$ interaction is considered. But after a transformation the series converges well for large E. This transformation is possible if the first term of the asymptotic Green function is explicitly known for $E \to \infty$. This term has the form:

$f^{o}_{ba} = -\frac{1}{4}\sqrt{E}\,(\vec{s}\left[\vec{r}\vec{\beta}\right]V_1\Phi_b, \Psi^{o}_{a})$, where the scattering amplitude is given as

$$\Psi^{o}_{a} = \exp(i\sqrt{E}\,\alpha\vec{r})\exp\left\{\frac{i}{4}\vec{s}\left[\vec{\alpha}\vec{r}\right]\int_0^\infty d\eta\, V_1\,(\vec{r} - \vec{\alpha}\eta)\right\}\chi^{\alpha}_{m};\quad f_{ba} = -\frac{1}{4\pi}\,(\Phi_b; V\Psi_a).$$

The author thanks Professor O. A. Ladyzhenskiy for his interest and

Card 2/3

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

86918

Dispersion Relations in Nonrelativistic Scattering Theory Considering Spin-orbital Interaction

S/056/60/039/005/035/051
B006/B077

L. D. Faddeyev for discussions and suggestions. There are 8 references: 3 Soviet, 4 US, and 1 Italian.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: June 22, 1960

Card 3/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

80035
S/020/60/132/01/02/064

16.3400 16.4600

AUTHORS: Buslayev, V.S., and Faddeyev, L.D.

TITLE: Formulas for Traces in the Case of Sturm - Liouville's Differential Singular Operator

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 1, pp. 13-16

TEXT: The authors consider the operator $Ly = -y'' + q(x)y$, $y(0) = 0$, where it is assumed that $\int_0^\infty x|q(x)|\,dx < \infty$. The spectrum of L consists of the continuable part $[0,\infty]$ and finitely many negative values $\lambda_l = -\varkappa_l^2$ ($\varkappa_l > 0$; $l = 1,2,\ldots,m$). Let

$$M(s) = 1 + \int_0^\infty e^{isx} q(x)\varphi(x,s)dx = A(s)\, e^{i\eta(s)}$$

$$(s = \sigma + i\tau,\ 0 \leq \tau < \infty\ ,\ -\infty < \sigma < \infty)$$

(for the notations see (Ref. 2)). Let R_λ be the resolvent of L ; the upper index 0 relates to the case $q(x) \equiv 0$.
Theorem 1 : For $\arg\lambda \neq 0$ and $\lambda \neq \lambda_l$ ($l = 1,2,\ldots,m$) it holds

Card 1/4

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

80035
S/020/60/132/01/02/064

Formulas for Traces in the Case of Sturm - Liouville's Differential Singular Operator

$Sp(R_\lambda - R_\lambda^0) = -\frac{d}{d\lambda} \ln M(\sqrt{\lambda})$; $0 \leq \arg \sqrt{\lambda} \leq \pi$.

Conclusion : $M(\sqrt{\lambda}) = \det (E + q R_\lambda^0)$.

For $q(x) \in L[0,\infty]$ it holds

$$(\alpha) \qquad Sp(R_\lambda - R_\lambda^0) = -\int_{-\infty}^{\infty} \xi(t) d \frac{1}{t-\lambda} ,$$

where

$$\xi(t) = \begin{cases} \frac{1}{\pi} \eta(\sqrt{t}) & t>0 \\ -\int_{-\infty}^{t} \sum_l \bar{\delta}(z - \lambda_l) dz , & t<0 . \end{cases}$$

Let for $x \geq 0$ exist the continuous $q^{(n)}(x)$ $(n \geq 1)$; where $\lim_{x\to\infty} q^{(l)}(x) = 0$ for $l = 0,\ldots,n$. Let further

Card 2/ 4

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

80035

Formulas for Traces in the Case of Sturm - Liouville's Differential Singular Operator

S/020/60/132/01/02/064

$$V_l = \lim_{\alpha\to\infty} V_l(\alpha) \quad ; \quad V_0(\alpha) = -\int_0^{\alpha} q(z)dz \, ,$$

$$V_l(\alpha) = q^{(l-1)}(0) + \sum_{m=0}^{l-1} C_{l-1}^{m} \int_0^{\alpha} dz \; V_m(z) q^{(l-m-1)}(z)$$

$$Q_p = V_{p-1} + \sum_{j=1}^{p-1} \frac{j}{p} V_{p-j-1} Q_j$$

Theorem 2 : Under the given assumptions it holds

$$(-1) \sum_{l=1}^{m} \varkappa_l^{2\mu} + \frac{2\mu}{\pi} \int_0^{\infty} k^{2\mu-1} \left[\eta(k) - \sum_{l=0}^{\mu-1} \frac{(-1)^{l+1}}{(2k)^{2l+1}} Q_{2l+1} \right] dk =$$

$$= (-1)^{\mu} \frac{\mu}{2^{2\mu}} Q_{2\mu} \quad - \quad (\mu = 1,2,\ldots \leqslant \tfrac{n}{2}) \; ;$$

Card 3/4

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

Formulas for Traces in the Case of Sturm - Liouville's Differential Singular Operator

80035
S/020/60/132/01/02/064

$$(-1)^{\mu} \sum_{l=1}^{m} \varkappa_l^{2\mu+1} - \frac{2\mu+1}{\pi} \int_0^{\infty} k^{2\mu} \left[\ln A(k) - \sum_{l=1}^{\mu} \frac{(-1)^{l+1}}{(2k)^{2l}} Q_{2l} \right] dk =$$

$$= (-1)^{\mu} \frac{2\mu+1}{2^{2\mu+2}} Q_{2\mu+1} \qquad \left(\mu = 0, \ldots, \leq \frac{n-1}{2} \right) .$$

The authors mention I.M. Gel'fand, B.M. Levitan, L.A. Dikiy and I.M. Lifshits.
The authors thank M.G. Kreyn and M.Sh. Birman for discussions.
There are 7 references : 6 Soviet and 1 American.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova (Leningrad State University imeni A.A. Zhdanov)
PRESENTED: January 3, 1960, by V.I. Smirnov, Academician
SUBMITTED: December 17, 1959

Card 4/4

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

40085

S/020/62/145/004/008/024
B112/B102

24.2000

AUTHOR: Buslayev, V. S.

TITLE: Short wave asymptotic in the problem of diffraction on convex bodies

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 4, 1962, 753 - 756

TEXT: The boundary value problem $(-\nabla_x^2 - k^2)G(x',x;k) = \delta(x - x')$, $(x,x' \in D,\ k^2 > 0)$ $G(x',x;k)\big|_{x\in L} = 0$; $\int_{S_R} dS_x \left|\frac{\partial G(x',x;k)}{\partial |x|} - ikG(x',x;k)\right|^2 \to 0, |x| = R \to \infty$ is reduced to the equation $G(x',x;k) + \int_D dy G(x',y;k)K(y,x;k) = Q(x',x;k)$, where $K(y,x;k) \equiv (-\nabla_y^2 - k^2)Q(y,x;k) - \delta(y - x)$. The estimate $\|G(x',x;k) - Q(x',x;k)\| \leqslant \alpha_1 \max_{s\in L} M^{-1+\epsilon}(s)$ is derived, where $M(s)$ is a

Card 1/2

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S/020/62/145/004/008/024
B112/B102

Short wave asymptotic in the ...

certain function of the parameters describing the position of the point of reflection on the contour L. There is 1 figure.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. ~~M. V. Lomonosova~~ (Leningrad State University imeni ~~M. V. Lomonosov~~) A. A. Zhdanov

PRESENTED: March 12, 1962, by V. I. Smirnov, Academician

SUBMITTED: March 7, 1962

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, V.S.

Formulas covering the short-wave asymptotic aspects in the problem of diffraction on convex bodies. Vest. LGU 17 no.13:5-21 '62. (MIRA 15:7)

(Boundary value problems) (Diffraction)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

33531

S/043/62/000/001/001/009
D299/D303

24.4400

AUTHORS: Buslayev, V. S., and Fomin, V.

TITLE: On the inverse scattering-problem for the one-dimensional Schrödinger equation on the entire x-axis

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 1, 1, 1962, 56 - 64

TEXT: Schrödinger's equation

$$Ly \equiv -y'' + q(x)y = k^2 y \qquad (0.1)$$

is considered on the x-axis ($-\infty < x < \infty$); the potential $q(x)$ is taken as a real, locally integrable function for which

$$\int_0^{\infty} |t|q(t)|dt < A, \quad \int_{-\infty}^{0} |t||q(t) - C^2|dt < A \quad (A < \infty,\ C > 0). \qquad (0.2)$$

Under such conditions, it is possible to establish the existence of solutions $\psi_1(x, k)$ and $\psi_2(x, k)$ to equation (0.1), with asymptotic

Card 1/6

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values of type

$$\psi_1(x, k) \sim \begin{cases} S_{11}(k)\, e^{ikx} + o(1), & x \to \infty, \quad |k| > 0 \\ e^{ik_1 x} + S_{12}(k)\, e^{-ik_1 x} + o(1), & x \to -\infty, \quad |k_1| > 0 \end{cases} \tag{0.3}$$

$$\psi_2(x, k) \sim \begin{cases} e^{-ikx} + S_{21}(k)\, e^{ikx} + o(1), & x \to +\infty, \quad |k| > 0 \\ S_{22}(k)\, e^{-ik_1 x} + o(1), & x \to -\infty, \quad |k_1| > 0 \end{cases} \tag{0.4}$$

where $k_1 = \sqrt{k^2 - c^2}$. The table of coefficients $S_{ij}(k)$ $(i, j = 1, 2)$ is called the S-matrix of equation (0.1). The properties of the S-matrix are investigated as well as the construction of $q(x)$ from the S-matrix (the inverse scattering-problem). The properties of the S-matrix are formulated in Theorem 1: The coefficients $S_{ij}(k)$ are continuous functions of k, whereby $S_{ij}(k) = S_{ij}(-k)$. With large $/k/$,

$$S_{12}(k) = O\left(\frac{1}{|k|}\right), \quad S_{21}(k) = O\left(\frac{1}{|k|}\right), \quad S_{11}(k) = 1 + O\left(\frac{1}{|k|}\right), \quad S_{22}(k) = 1 + O\left(\frac{1}{|k|}\right). \tag{1.12}$$

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The coefficients $S_{11}(k)$ and $S_{22}(k)$ are the limiting values of functions which are regular for Im k > 0, with the exception of a finite number of points $i\varkappa_l$, where they have simple poles with residues

$$\operatorname{Res} S_{22}(k)|_{k=i\varkappa_l} = i\gamma_l, \quad \operatorname{Res} S_{11}(k)|_{k=i\varkappa_l} = i\gamma_l \frac{\varkappa_l}{\sqrt{\varkappa_l^2 + C^2}} \tag{1.13}$$

$$\gamma_l = \left[\int_{-\infty}^{\infty} f_1(x, i\varkappa_l) f_2(x, i\varkappa_l)\, dx\right]^{-1}.$$

On the real axis, the following equations hold:

$$k_1 S_{22}(k) = k S_{11}(k), \quad \sqrt{\frac{k}{k_1}} S_{11}(k) S_{21}(-k) + \tag{1.14}$$
$$+ \sqrt{\frac{k_1}{k}} S_{12}(k) S_{22}(-k) = 0;$$

Using the properties of the S-matrix, expressed by the theorem, it is possible to construct the S-matrix by means of the coefficients $S_{21}(k)$ and the poles of $S_{22}(k)$. The relation

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$$\psi_2(x, k) = S_{21}(k) f_1(x_1, k) + f_1(x, -k), \quad \mathrm{Im}\, k = 0, \qquad (2.1)$$

considered as the boundary-value problem for the pair of functions $f_1(x, k)$ and $\psi_2(x, k)$, can be used to solve the inverse problem. The boundary-value problem reduces to the integral equation for the kernel of the transformation operator $A_1(x, y)$:

$$A_1(x, y) + \Omega_1(x+y) + \int_x^{\infty} A_1(x, t)\,\Omega_1(t+y)\,dt = 0, \quad x < y, \qquad (2.3)$$

where

$$\Omega_1(t) = F_1(t) + \sum_{l=1}^{m} m_l^{(1)} e^{-\varkappa_l t},$$

$$S_{21}(k) = \int_{-\infty}^{\infty} F_1(t)\, e^{ikt}\, dt. \qquad (2.4)$$

Analogously, for $A_2(x, y)$:

$$A_2(x, y) + \Omega_2(x, y) + \int_{-\infty}^{x} A_2(x, t)\,\Omega_2(y + t)\,dt = 0, \; x \geqslant y. \qquad (2.8)$$

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Theorem 2 states the properties of the Fourier transforms $F_1(t)$ and $F_2(t)$ of the functions $S_{21}(k)$ and $S_{12}(k)$. The initial data of the inverse problem are the following: The function $\Omega_1(t)$ is determined by formula (2.4), provided the coefficient $S_{21}(k)$ is given as well as the point spectrum of the operator L: $-\varkappa_1^2$ and the m positive constants $m_1^{(1)}$. It is assumed that S_{21} has the properties of Theorem 1, and that its Fourier transform $F_1(t)$ has the properties of Theorem 2. The totality of conditions imposed on the initial data are denoted by Y. The solution to the inverse problem is formulated in Theorem 3: If the initial data of the inverse problem satisfy conditions Y, then: 1) The functions f_1 and f_2 (transformation operators) satisfy differential equations of type (0.1), the potentials being locally integrable. The solutions to Eq. (0.1) tend asymptotically to unity. 2) With Im k = 0,

$$S_{11}(k)f_1(x, k) = f_2(x, -k) + S_{12}(k)f_2(x, k), \quad /k/ > C \qquad (3.3)$$

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24,6712

36909
S/020/62/143/005/005/018
B104/B102

AUTHOR: Buslayev, V. S.

TITLE: Formulas of the Schrödinger-operator trace in a three-dimensional space

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 5, 1962, 1067-1070

TEXT: The self-adjoint Schrödinger operator H is given by $(Hu)(x) = -\Delta u(x) + q(x)u(x)$, $x = \{x_i,\ i = 1, 2, 3;\ -\infty < x_i < \infty\}$, where $q(x)$ is differentiable an infinite number of times. The spectrum of H is continuous on the semiaxis $[0, \infty]$ and has a finite number of eigenvalues λ_l ($\lambda_l \leqslant 0$, $l = 1, 2, 3, \ldots, M$). Outside the points of the spectrum of H there is a trace $Sp(R_\lambda - R_\lambda^0)$ which is an analytic function on the complex plane λ with the section $\lambda \geqslant 0$. Its limits on the contour of this section are continuous. R_λ is the resolvent of H, and R_λ^0 is the resolvent of the operator $-\Delta$. The following theorem is proved: If $S_\lambda(\alpha,\beta) = \delta(\alpha-\beta) + \frac{i\sqrt{\lambda}}{2\pi} f_\lambda(\alpha,\beta)$ is the kernel of unitary scattering operator, then

Card 1/3

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$$\operatorname{Im} \lim_{\varepsilon \downarrow 0} \operatorname{Sp}(R_{\lambda+i\varepsilon} - R^0_{\lambda+i\varepsilon}) = -\frac{i}{2} \int d\beta \int d\alpha \overline{S_\lambda(\beta,\alpha)} \frac{\partial}{\partial\lambda} S_\lambda(\beta,\alpha); \quad \lambda \geqslant 0, \; f_\lambda(\alpha,\beta)$$

is the scattering amplitude. The result of this theorem can be represented as

$$\operatorname{Im} \lim_{\varepsilon \downarrow 0} \operatorname{Sp}(R_{\lambda+i\varepsilon} - R^0_{\lambda+i\varepsilon}) = -\frac{i}{2} \cdot \frac{d}{d\lambda} \operatorname{Sp} \ln S_\lambda = -\frac{i}{2} \frac{d}{d\lambda} \ln \det S_\lambda.$$

Thus, one has

$$\ln \det{}'(E+qR_\lambda) = \frac{1}{\pi} \int_0^\infty \frac{dz}{z-\lambda} \frac{i}{2} \left\{ \ln \det S_z + \frac{\sqrt{z}}{2\pi i} \int dx q(x) \right\}.$$

The symbol $\ln \det{}'(E+qR_\lambda)$ indicates that the divergent determinant is regularized by subtracting a certain infinite term from its logarithm. The trace formulas of the Schrödinger operator in a three-dimensional space connect the characteristics of a scattering problem with the eigenvalues of M. Sh. Birman and L. D. Fadeyev are thanked for advice.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)

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S/020/62/143/005/005/018
B104/B102

Formulas of the Schrödinger...

PRESENTED: December 15, 1961, by V. I. Smirnov, Academician

SUBMITTED: November 22, 1961

Card 3/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 63356-65 EWT(d)/T IJP(c)

ACCESSION NR: AT5018140 UR/2517/64/[illegible]

AUTHOR: Buslayev, V. S.

TITLE: Shortwave asymptotics in the problem of diffraction [illegible]

SOURCE: AN SSSR. Matematicheskiy institut. Trudy, v. 73, 1964, [illegible] matematicheskoy fiziki (Boundary value problems in mathematical [illegible]

TOPIC TAGS: wave diffraction, integral equation, Green function, wave equation, Dirichlet problem, boundary value problem

16

ABSTRACT: The shortwave asymptotics of Green's function of [illegible] problem for a Helmholtz equation in the [illegible] proofs are given for results presented by the author in a [illegible] [illegible], Vol. 145, No. [illegible], 1962, pp 753-[illegible]), and new asymptotics [illegible] formulated [illegible] [illegible] principal terms [illegible]

Card 1/2

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L 63356-65

ACCESSION NR: AT5018140

in light. This may be regarded as a justification for the meth[illegible]

[illegible]

in terms of which the asymptotic is expressed are then studied. Asymptotic formulas are derived for reflected and refracted waves before the final formulas for [illegible] are given. "In his work on this article, [illegible] by the advice of [illegible] Ladyzhenskaya and [illegible] Faddeyev, [illegible] first draft of the work, and the present draft takes into account the [illegible] offered by him. The author expresses his deep gratitude [illegible]

[illegible]

Card 2/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

L 20810-66 EWT(d) IJP(c)

ACC NR: AP6012031 SOURCE CODE: UR/0020/65/160/003/0566/0569

AUTHOR: Buslayev, V. S.

ORG: Leningrad State University im. A. A. Zhdanov (Leningradskiy gosudarstvennyy universitet)

17

B

TITLE: Use of continual integrals in deducing short-wave asymptotic behavior in diffraction problems

SOURCE: AN SSSR. Doklady, v. 160, no. 3, 1965, 566-569

TOPIC TAGS: asymptotic solution, mathematics

ABSTRACT: Short-wave asymptotic behavior in diffraction problems which do not admit an exact solution is usually impossible to obtain systematically. Often it is necessary to employ additional notions of a physical character. The author shows that one can avoid this by obtaining solutions by means of continual integrals and using a method of saddle points relative to those integrals. He illustrates this by using the example of a stationary diffraction problem on smooth convex bodies. Almost all the formulas obtained here have already been derived previously for the two and three dimensional cases by other methods. However, the method of continual integrals is characterized by a simplicity and universality of application. This paper was presented by Academician V. I. Smironov on 11 July 1964. The author thanks L. D. Faddeyev for his valuable advice. Orig. art. has: 13 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 04Jul64 / ORIG REF: 001

Card 1/1

2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, YU. A.

5

Solubility in the system $HF-V_2O_5-H_2O$. N. S. Nikolaev and Yu. A. Buslaev (N. S. Kurnakov Inst. Gen. Inorg. Chem., Moscow). *Khim. Redkikh Elementov, Akad. Nauk S.S.S.R., Inst. Obshchei i Neorg. Khim.* 1955, No. 2, 57-63. CH —The soly. relations were detd. at 25° from 0% to 78.5% HF. The system displays the phases of: V_2O_5, $3VO_2F.HF.H_2O$, $4VOF_2.3HF.3H_2O$; $2VOF_2.3HF.H_2O$; VOF_2. The results are shown graphically. For analysis of HF and V in a mixt. the potentiometric titration with base can be used and V is reduced with Zn amalgam in the presence of F ions, under which conditions the reduction proceeds only to V^{++}; cf. *C.A.* 49, 10035*f*. G. M. Kosolapoff

1

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV Yu. A.

NIKOLAYEV, N.S.; BUSLAYEV, Yu.A.

Solubility isotherm 0° of the system: $HF--CrO_3--H_2O$. Izv.Sekt.fiz.-khim. anal. 26:270-274 '55. (MLRA 8:9)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova AN SSSR. (Chromium trioxide) (Hydrofluoric acid) (Solubility)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV YU. A.

USSR/Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium. Physico-chemical Analysis. Phase Transitions, B-8

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 380

Author: Tananayev, I. V., Nikolayev, N. S., Buslayev, Yu. A.

Institution: None

Title: Investigation of the System $HF-ZrF_4-H_2O$ by the Isothermal Solubility Method (Isotherm 0.5°)

Original Periodical: Zh. neorgan. khimii, 1956, Vol 1, No 2, 274-281

Abstract: The solubility at 0.5° in the system $HF-ZrF_4-H_2O$ has been investigated for the range 0-100 percent HF. The following solid phases were found in the system: $ZrOF_2 \cdot 2H_2O$(I), $ZrF_4 \cdot 3H_2O$(II), $H_2ZrF_6 \cdot H_2O$(III), and ZrF_4. From thermographic data thermal decomposition reactions for I, II, III, and $ZrOF_2$ have been established. A method has been developed for the determination of both F and Zr when present together.

Card 1/1

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

NIKOLAYEV, N.S.; BUSLAYEV, Yu.A.

Study of the solubility in the system HF -- I_2O_5 -- H_2O (isotherm 0°). Zhur.neorg.khim. 1 no.7:1672-1675 Jl '56. (MLRA 9:11)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova Akademii nauk SSSR.
(Hydrofluoric acid) (Iodine oxides)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

BUSLAYEV, Yu.A., Cand Chem Sci -- (diss) "Study of fluorides of zirconium, niobium and tantalum in connection with their reaction with hydrogen fluoride." Mos 1958, 14 pp. (Acad Sci USSR. Inst of General and Inorganic Chemistry im N.S. Kurnakov) 120 copies (KL, 39-58, 107)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

AUTHORS: Nikolayev, N. S., Buslayev, Yu. A., Opalovskiy, A. A. SOV/78-3-8-3/48

TITLE: Synthesis of Higher Fluorides of Niobium, Tantalum and Molybdenum by Means of Trifluorochloride (Sintez vysshikh ftoridov niobiya, tantala i molibdena pri pomoshchi trekhftoristogo khlora)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol. 3, Nr 8, pp. 1731-1733, (USSR)

ABSTRACT: The present paper gives an account of the production of pentafluorides of niobium, tantalum as well as of the hexafluoride of molybdenum by fluorination of the metallic powder of the above mentioned metals with vaporous trifluorochloride. The trifluorochloride is the fluorination reagent with the best capability of reaction. The equipment for the fluorination consists of quartz reactor and condenser. The resulting niobium- and tantalum fluorides are refined of ClF_3 by melting. The preparations contain about 0,75 Cl%. The purification of hexafluoromolybdenum is accomplished by an additional fluorination using another portion of molybdenum

Card 1/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

Synthesis of Higher Fluorides of Niobium, Tantalum and Molybdenum by Means of Trifluorochloride SOV/[illegible]-3-8-3/48

and subsequent irrigation of the apparatus with liquid HF. After two purifications by liquid HF the preparation does not contain ClF_3 any more.

There are 1 figure and 11 references, 0 of which is Soviet.

SUBMITTED: June 10, 1957

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

5(2), 5(4)

SOV/78-4-1-35/48

AUTHORS: Nikolayev, N. S., Buslayev, Yu. A.

TITLE: I. Investigation of Solubility and Hydrolysis in the System $HF-NbF_5-H_2O$ (I. Issledovaniye rastvorimosti i gidroliza v sisteme $HF-NbF_5-H_2O$)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 1, pp 205-212 (USSR)

ABSTRACT: The solubility of niobium pentoxide in hydrofluoric acid was investigated in the concentration range from 0 to 100% HF. The investigation of the $HF-NbF_5-H_2O$ system was carried out by means of the isothermic solubility method and other physico-chemical methods. An analytical method of determining fluorine in niobium mixtures has been worked out. The following solid phases were found in the $HF-NbF_5-H_2O$ system: $Nb_2O_5 \cdot 2H_2O$, $HNb_2F_{11} \cdot 4H_2O$, $HNbF_6 \cdot H_2O$, and NbF_5. The compound $HNb_2F_{11} \cdot 4H_2O$ was separated in the form of large colorless crystals. The compound $HNbF_6 \cdot H_2O$ may be considered a hydroxonium salt $(H_3O)NbF_6$. The solubility of niobium pentoxide in hydrofluoric acid leads to NbF_5

Card 1/3

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

SOV/78-4-1-35/48

I. Investigation of Solubility and Hydrolysis in the System $HF-NbF_5-H_2O$

formation. For determining the products being formed during the solution process the following methods were used: conductometric and potentiometric titration; ion exchange; measurement of the electric conductivity and pH determination. By determining the electric conductivity the compound H_2NbOF_5 was confirmed. At pH 4.5 the potentiometric titration has a sudden jump of the potential indicating the titration of free hydrofluoric acid; at the same time K_2NbOF_5 is formed. On further addition of alkali the compound K_2NbOF_5 changes to Nb_2O_5. The polymerization degree or the charge of the anion was determined by the ion exchanger method. The complex ion $[NbOF_5]^{2-}$ was found to be the main compound. The hydrolytic process of niobium pentafluoride is expressed by the following equation: $NbF_5 + H_2O \rightarrow H_2NbOF_5$. The determination of the electric conductivity and the concentration of hydrogen ions in niobium pentafluoride solutions of various HF concentrations confirms the H_2NbOF_5 formation. M. P. Gustyakova participated

Card 2/3

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

SOV/78-4-1-35/48

I. Investigation of Solubility and Hydrolysis in the System $HF-NbF_5-H_2O$

in the present work. There are 8 figures, 5 tables, and 16 references, 7 of which are Soviet.

SUBMITTED: May 5, 1958

Card 3/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

(4)

AUTHORS: ~~Buslayev, Yu. A.~~, Nikolayev, N. S.

SOV/78-4-2-32/40

TITLE: Investigation of the System HF - TaF_5 - H_2O (Issledovaniye sistemy HF - TaF_5 - H_2O)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 2, pp 465-471 (USSR)

ABSTRACT: The hydrolysis of tantalum pentafluoride, the solubility of tantalum pentaoxide in fluoric acid, and the composition of the solid phase formed upon hydrolysis were investigated. The following solid phases were found: $Ta_2O_5 \cdot 1.4H_2O$; $HTa_2F_{11} \cdot 4.5 H_2O$; $HTaF_6 \cdot 1.5H_2O$. The first section of the solubility isotherm of the system investigated shows the formation of the complex acid H_2TaOF_5. The acid was investigated by conductometry, potentiometry, and ion exchange. The solubility values of the pentoxides of niobium and tantalum in fluoric acid differ inconsiderably and cannot be used for separating niobium and tantalum. The interaction of niobium pentoxide and tantalum

Card 1/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

pentoxide with fluoric acid is a neutralization and at the same time a complex forming reaction, whereas the interaction between vanadium pentoxide and fluoric acid is a neutralization reaction only. There are 9 figures, 6 tables, and 14 references, 6 of which are Soviet.

SUBMITTED: May 19, 1958

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307720009-3

5(4)

SOV/78-4-3-9/34

AUTHORS: Nikolayev, N. S., Buslayev, Yu. A.

TITLE: The Potentiometric Investigation of the Fluorides of Some Elements (Potentsiometricheskoye issledovaniye ftoridov nekotorykh elementov)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 3, pp 543-548 (USSR)

ABSTRACT: A potentiometric titration of the fluorides of titanium, zirconium, columbium, tantalum and molybdenum was carried out. Fluoric acid was determined by potentiometric titration in the systems $HF+KF+K_2TiF_6$, $HF+KF+K_2ZrF_6$, $HF+Nb_2O_5$ and $HF+MoO_3$. The influence of the alkali fluorides on the neutralization process of the complex metallic acids of the type H_2MeF_6 was investigated. The complex ions TiF_6^{2-}, ZrF_6^{2-}, and $NbOF_5^{2-}$ are formed in a solution having a surplus of fluorine ions. There are 8 figures and 16 references, 7 of which are Soviet.

SUBMITTED: June 10, 1957

Card 1/1

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AUTHORS: Buslayev, Yu. A. and Nikolayev, N. S.

TITLE: Investigation of the HF - HfF_4 - H_2O System (Solubility Isotherm 25°C)

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 6, pp. 1385-1387

TEXT: The authors report on their study of the solubility in the HF - HfF_4 - H_2O system. On the one hand they wanted to determine the differences in the solubility of zirconium- and hafnium fluoride, and the composition of resulting solid phases, on the other. To find out these differences the authors examined the Hf^{181} distribution between liquid and solid phase in the abovementioned system. Data found in the literature (Refs. 1,2) ignore important circumstances, and the results are therefore distorted. The method applied by the authors has been described earlier (Refs. 3,4). At a molecular ratio HF : $HfO_2 < 4$ and a temperature of 25±0.1°C the reaction had the following course:

Card 1/4

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S/020/60/135/006/019/037
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$6KF + 4HCl + HfO_2 = K_2HfF_6 + 4KCl + 2H_2O$. Table 1 shows the solubility in the mentioned system and the composition of the residues from the reaction (solid phase). In Fig. 1 the same data are presented in a Gibbs diagram. The considerable decrease of solubility observable in the curve is, in the authors' opinion, due to the formation of $H_2HfF_6 \cdot 2H_2O$. This solid phase is incongruently soluble. When the mother lye is removed this phase decomposes. Table 2 shows the change of the distribution coefficient of Hf^{181} between the liquid and the solid phase in the HF - ZrF_4 - H_2O system on the basis of the ratio of specific hafnium activity in the solution versus the initial activity. In the concentration range of hydrofluoric acid, which corresponds to the existence of the solid $ZrF_4 \cdot 3H_2O$ phase, the authors found no divergence between the solubility of zirconium fluoride and hafnium fluoride. The greatest difference in their solubility is attained during the crystallization of hexafluoro zirconic acid from 15.68% HF on. At an HF concentration of 50.58% the solubility of hafnium fluoride is twice that of zirconium fluoride. The authors conclude on the

Card 2/4

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S/020/60/135/006/019/037
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strength of these results, that the higher solubility of hafnium fluoride, as compared with that of zirconium fluoride, is conserved in HF solutions, in the same way as it is conserved in the case of potassium- and ammonium fluorides of hafnium in aqueous solutions. There are 1 figure, 2 tables, and 5 references: 3 Soviet and 2 German.

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PRESENTED: July 7, 1960, by I. V. Tananayev, Academician

SUBMITTED: June 4, 1960

Card 3/4

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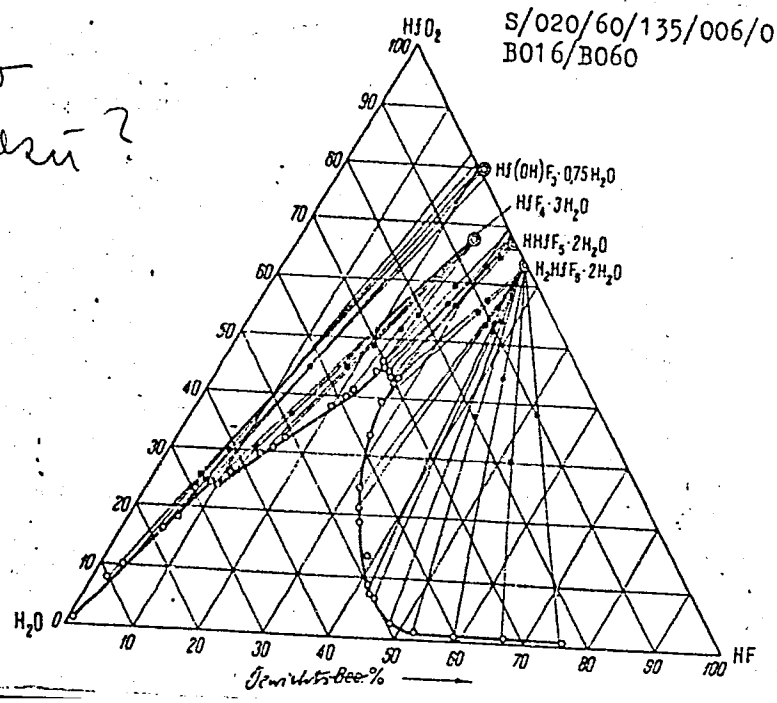

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NIKOLAYEV, N.S.; VLASOV, S.V.; ~~BUSLAYEV, Yu.A.~~; OPALOVSKIY, A.A.

Studying hydrolytic processes and solutions of the higher fluorides of the chromium subgroup in hydrogen fluoride. Izv. Sib. otd. AN SSSR no. 10:46-56 '60. (MIRA 13:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR i Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.

(Fluorides)

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BUSLAYEV, Yu.A.; NIKOLAYEV, N.S.; GUSTYAKOVA, M.P.

Studying solutions in the system HF - SiO_2 - H_2O. Izv. Sib. otd. AN SSSR no. 10:57-63 '60. (MIRA 13:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR.
(Hydrogen fluoride) (Silicon oxide)

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KRESHKOV, A.P.; DROZDOV, V.A.; VLASOVA, Ye.G.; VLASOV, S.V.; BUSLAYEV, Yu.A.

Potentiometric titration in anhydrous media as a means of studying the properties of fluorides in some polyvalent metals. Atom. energ. 11 no.6:553-554 D '61. (MIRA 14:11)
(Potentiometric analysis) (Fluorides)

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