"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

L 26789-66 EWP(c)/EWP(k)/EWT(d)/ETC(m)-6/I EWP(1)/EWP(v) I P(c) JT

ACC NR: AP6017436 SOURCE CODE: UR/0096/66/000/003/0004/0007

58
B

AUTHOR: Zhimerin, D. G. (Professor)

ORG: State Committee of the Soviet of Ministers of Science and Technology, SSSR (Gosudarstvennyy komitet Soveta Ministrov SSSR po nauke i tekhnike)

TITLE: Problems of introduction of large thermal power units

SOURCE: Teploenergetika, no. 3, 1966, 4-7

TOPIC TAGS: thermoelectric power plant, thermoelectric power

ABSTRACT: This is an analysis of the problems facing the thermal energy industry of the USSR in the introduction of large power units at thermal power stations. Since the development of the national economy depends in large measure on the availability of power, the reduction of capital investment and production cost per KW-hr of electricity requires the introduction of more large power units at thermal electric power stations. Since the fuel component makes up more than 2/3 of the production cost of electric power, reduction in fuel consumption is essential. For this reason, 500-800 Mw power units should be designed for supercritical steam parameters. Measures must be taken to insure high quality and reliability of equipment involved in the transition to higher power units. Scientific research institutes and ferrous metallurgy enterprises should accelerate work on the production of new metals and increased quality of metallurgical equipment. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 10 / SUBM DATE: none

Card 1/1 CC

UDC: 621.18+621.165

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ALAD'YEV, I.T.; ALEKSANDROV, B.K.; BAUM, V.A.; GOLOVINA, Ye.S.; GOL'DENBERG, S.A.; ZHIMERIN, D.G.; ZAKHARIN, A.G.; IYEVLEV, V.N.; KNORRE, V.G.; KOZLOV, G.I.; LEONT'YEVA, Z.I.; MARKOVICH, I.M.; MEYEROVICH, E.A.; MIKHNEVICH, G.V.; POPKOV, Z.I.; POPOV, V.A.; PREDVODITELEV, A.S.; PYATNITSKIY, L.N.; STYRIKOVICH, M.A.; TOLSTOV, Yu.G.; TSUKHANOVA, O.A.; CHUKHANOV, Z.F.; SHEYNDLIN, A.Ye.

Lev Nikolaevich Khitrin, 1907-1965; obituary. Izv. AN SSSR. Energ. i transp. no.2:159-160 Mr-Ap '65. (MIRA 18:6)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHIMERIN, D.G., prof.

Forty-fifth anniversary of the Lenin plan for the State Commission for the Electrification of Russia. Energetik 13 no. 12:1-4 D '65 (MIRA 19:1)

1. Direktor Gosudarstvennogo nauchno-issledovatel'skogo energeticheskogo instituta imeni G.M. Krzhizhanovskogo.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHIMERIN, D.G., prof.

Technical and economic problems of power engineering. Teploenergetika 11 no.8:2-7 Ag '64. (MIRA 18:7)

1. Energeticheskiy nauchno-issledovatel'skiy institut imeni Krzhizhanovskogo AN SSSR.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHIMERIN, D.G., prof.

Scientific and technical problems in the power and electric engineering. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 18 no.2:40-43 F '65.

(MIRA 18:5)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

"Role of electricity systems in the USSR in meeting rapidly-growing requirements for electric power."

report submitted for Economic Comn for Europe Electric PowerSymp, Istanbul, May 1965.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

AYVAZ'YAN, V.G.; ALEKSANDROV, B.K.; ANDRIANOV, V.N.; BESCHINSKIY, A.A.; BUDZKO, I.A.; ZHIMERIN, D.G.; KRASNOV, V.S.; KRUZHILIN, G.N.; KULEBAKIN, V.S.; LISTOV, P.N.; MARKVARDT, K.G.; MARKOVICH, I.M.; POPKOV, V.I.; STYRIKOVICH, M.A.

Andrei Georgievich Zakharin, 1904- ; on his 60th birthday.
Elektrichestvo no.1:91 Ja '65. (MIRA 18:7)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHIMANTENE, A.

Plants are in need of mechanical equipment. Mias.ind.SSSR. 27 no.2: 34-35 '56. (MLRA 9:8)

1. Panevezhskiy myasokombinat.
(Packing houses--Equipment and supplies)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

SOV/ 65-58-7-3/12

AUTHORS: Kollerov, D. K. and ~~Zhimenskaya, V. A.~~

TITLE: Resistance of a Crushed Slate Layer to Gas Current (Soprotivleniye sloya droblenogo slantsa gazovomu potoku)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.7. pp. 15 - 21. (USSR).

ABSTRACT: During investigations on the resistance of a crushed slate layer to a gas current the equation of L. S. Leybenzon (Ref.1) was used

$$\Omega = \frac{a}{8} (Re)^{\frac{1}{8}} = A(Re)^{n},$$

where Ω = Leybenzon's parameter and Re = the modified Reynold's number. The hydraulic pressure of a layer of material in lumps was investigated on fractions of crushed baltic slate, coal and metallurgical coke (size = from 2 - 3 mm to 50 - 75 mm). φ was determined on the basis of measurements of the geometrical surface according to the method of porosity. By including this foam factor φ in the formula it was found that all investigated values on the hydraulic resistance of a layer agree in the parameter Ω and Re. The expression for losses of

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SOV/

Resistance of a Crushed Slate Layer to Gas Current.65-58-7-3/12

resistance for a viscous flow was shown to be identical with P. Carman's equation. Figs.1 and 2 show a laboratory testing device. Results of 36 series of experiments, carried out on dry technological baltic slate, coal and metallurgical coke are given (Tables 2 and 3). Fig.4 shows in graphical form the resistance of a layer of crushed slate. There are 4 Figures, 3 Tables and 4 References: 2 Soviet and 2 English.

ASSOCIATION: VNIIPS.

1. Rock--Physical properties 2. Gases--Penetration 3. Gas flow --Analysis

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHIMSKAYA, N.V.; KIR'YASHKINA, Z.I.; MASLOV, V.A.

Growing single crystals of germanium-silicon alloys by the method of vertical zone recrystallization. Kristallografiia 8 no.3:437-439 My-Je '63. (MIRA 16:11)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHIMSKII, A. A., Eng.

Hydroelectric Power Stations

Scouring of the runoff channel of a hydroelectric power station by gradually rising water discharge. Gidr. stroi. 21, no. 6, 1952.

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

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHIMSKIY, A.A., inzhener.

Damming the Syr Darya River. Gidr. i mel.8 no.7:41-45 Jl '56.
(Syr Darya--Dams) (MLRA 9:9)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHIMSKIY, A.A.

Damming the Syr Darya at the Kairak-kum hydroelectric power project. Gidr. stroi. 25 no.7:1-3 Ag '56. (MLRA 9:10)

1. Glavnyy inzhener Kayrakkumgesstroya.
(Kayrak-kum Hydroelectric Power Station)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

LYSOV, B.; ZHIMSKIY, V.

How we organize audits. Fin. SSSR 22 no.9:71-74 S '61. (MIRA 14:9)

1. Glavnyy kontroler-revizor Kontrol'no-revizionnogo upravleniya Ministerstva finansov RSFSR po Saratovskoy oblasti (for Lysov).
2. Starshiy kontroler-revizor Kontrol'no-revizionnogo upravleniya Ministerstva finansov RSFSR po Saratovskoy oblasti (for Zhimskiy).
(Saratov Province--Auditing)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

LITOVCHENKO, V.G.; FROLOV, O.S.; ZHINDULIS, A.I.; YAKOVKIN, V.N.

Study of slow changes in the work function and surface conductivity of Si and Ge. Radiotekh. i elektron. 9 no.6:1047-1054 Je '64. (MIRA 17:7)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

BONDARENKO, V.N. [Bondarenko, V.M.]; ZHINDULIS, A.I. [Zhyndulis, A.I.]; LITOVCHENKO, V.G. [Lytovchenko, V.H.]; SNITKO, O.V.; FROLOV, O.S.

Effect of an external electric field on the work function of thin lead sulfide films. Ukr. fiz. zhur. 8 no.10:1110-1116 O '63. (MIRA 17:1)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

SOV/20-126-4-32/62

5(3)

AUTHORS: Yur'yev, Yu. K., Novitskiy, K. Yu., Zhingareva, V. N.

TITLE: Investigations Into the Furan Series (Issledovaniye ryadu furana). The Synthesis of Symmetric 2,5-bis-(dialkylaminomethyl)-furan (Sintez simmetrichnykh 2,5-bis-(dialkilaminometil)-furanov)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 806-808 (USSR)

ABSTRACT: The furans mentioned in the subtitle are hardly described in publications. 2,5-bis-(dimethyl-aminomethyl) furan was obtained with a very small yield (Ref 1). Diamines of such structure, as well as their dihaloid alkylates are of interest as potential, ganglion-blocking, and curare-like compounds, with regard to their physiological activity. The authors used 2,5-bis-chloromethyl furan for synthesizing symmetric diamines of the mentioned structure. Its peciprocal action with secondary amines showed satisfactory results in the production of the corresponding diamines (see scheme). The reaction develops easily with the reciprocal action of etheric solutions of bis-chloromethyl furan with secondary amine in the presence of caustic alkali. From among the secondary amines dimethyl-

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

SOV/20-126-4-32/62

Investigations Into the Furan Series. The Synthesis of Symmetric 2,5-bis-(dialkylaminomethyl)-furan

amine and diethylamine, piperidine, and morpholine were added to the reaction. Thus 2,5-bis-(dimethyl-aminomethyl)-2,5-bis-(diethylaminomethyl), 2,5-bis-(piperidino-methyl), and 2,5-bis-(N-morpholine-methyl)-furan were produced. The constants corresponded to those produced by means of another method (Ref 1). The reciprocal action here described of 2,5-bis-chloromethylfuran with secondary amines, up to now has been the only comfortable way producing the corresponding symmetric amines of the furan series. There are 3 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: March 5, 1959, by A. N. Nesmeyanov, Academician

SUBMITTED: February 28, 1959

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

84873

S/079/60/030/010/009/030
B001/B075

11.1260

AUTHORS: Novitskiy, K. Yu., Yur'yev, Yu. K., and Zhingareva, V. N.

TITLE: Investigation of the Furan Series. IX. Synthesis of 2,5-Bis-(amino-methyl) Furans

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 10, pp. 3218-3220

TEXT: F. Gill and H. Ing (Ref. 1) have recently described the synthesis of the symmetric diamines of the furan series. They aminomethylated dimethylfurfuryl-amine with hydrochloric dimethyl amine and, thus, obtained 2,5-bis-(dimethyl-amino-methyl) furan (70%). Proceeding from the methyl ester of pyromucic acid, A. L. Mndzhoyan and his collaborators (Ref. 2) synthesized 2,5-bis-(dipropyl-amino-amethyl) furan. The present paper shows that the reaction of 2,5-bis-(chloro-methyl) furan with secondary aliphatic, aliphatic-aromatic, and heterocyclic amines leads to the corresponding N-substituted 2,5-bis-(amino-methyl) furans in sufficiently good yields. Thus, the following compounds resulted from the action of dimethyl and diethyl amines, N-ethyl aniline, pyrrolidine, piperidine, and morpholine upon 2,5-bis-(chloro-methyl) furan (I): 2,5-bis-(dimethyl-

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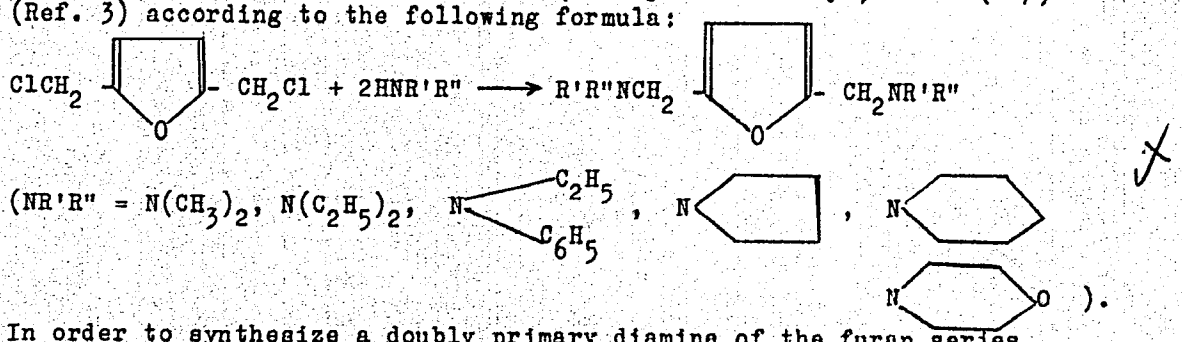
"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

84873

Investigation of the Furan Series. IX. Synthesis of 2,5-Bis-(amino-methyl) Furans

S/079/60/030/010/009/030
B001/B075

amino-methyl) furan (75.5%) (Ref. 3); 2,5-bis-(diethyl-amino-methyl) furan (61%) (Ref. 3); 2,5-bis-(N-ethyl-N-phenyl-amino-methyl) furan (40%); 2,5-bis-(N-pyrrolidino-methyl) furan (62%); 2,5-bis-(N-piperidino-methyl) furan (76.5%) (Ref. 3); and 2,5-bis-(N-morpholino-methyl) furan (62%) (Ref. 3) according to the following formula:



In order to synthesize a doubly primary diamine of the furan series, 2,5-bis-(chloro-methyl) furan was reacted with phthalimide potassium. The resulting diphthalide was reacted with hydrazine hydrate (Ref. 4) to give 2,5-bis-(amino-methyl) furan in a 40% yield. There are 4 references: 2 Soviet and 2 British.

Card 2/3

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

84873

Investigation of the Furan Series. IX. Synthesis of 2,5-Bis-(amino-methyl) Furans

S/079/60/030/010/009/030
B001/B075

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: November 1959

X

Card 3/3

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

NOVITSKIY, K.Yu.; YUR'YEV, Yu.K.; ZHINGAREVA, V.N.

Furna series. Part 9: Synthesis of 2,5-bis(aminomethyl) furans.
Zhur.ob.khim. 30 no.10:3218-3220 O '60. (MIRA 14:4)

1. Moskovskiy gosudarstvennyy universitet.
(Furan)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

NOVITSKIY, K.Yu.; YUR'YEV, Yu.K.; ZHINGAREVA, V.N.

Furan series. Part 22: Reaction of 2,5-bis(Chloromethyl) furan with amines. Zhur.ob.khim. 32 no.6:1824-1828 Je '62. (MIRA 15:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Furan) (Amines)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

NOVITSKIY, K.Yu.; YUR'YEV, Yu.K.; ZHINGAREVA, V.N.

Furan series. Part 23: Reaction of 2,5-bis(chloromethyl) furan with metal cyanides. Zhur.ob.khim. 32 no.10:3303-3308 O '62. (MIRA 15:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

(Furan)
(Alkali metal cyanides)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

NOVITSKIY, K.Yu.; YUR'YEV, Yu.K.; ZHINGAREVA, V.N.; YUNUSOV, M.S.

Furan series. Part 28: Synthesis of 2,5-bis(β-dialkylaminoethyl) furans. Zhur.ob.khim. 33 no.7:2164-2167 Jl '63. (MIRA 16:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Furan)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

NOVITSKIY, K.Yu.; YUR'YEV, Yu.K.; ZHINGAREVA, V.N.; YEGOROVA, Ye.F.

Synthesis of symmetrical 3,4-bis (dialkylaminomethyl)-furans.
Dokl.AN SSSR 148 no.4:856-859 F '63. (MIRA 16:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
Predstavleno akademikom A.N.Nesmeyanovym.
(Furan)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

NOVITSKIY, K.Yu.; YUR'YEV, Yu.K.; ZHINGAREVA, V.N.; GRESL', Kh.

Furan series. Part 33: Reaction of 3,4-bis(halomethyl) - furans with metal cyanides. Zhur. ob. khim. 34 no.8:2568-2570 Ag '64. (MIRA 17:9)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

LAVROVA, M.A., red.; FADDEYEVA, A.P., red.; ZHINGAREVA-DOBROSEL'SKIY, A.T., red.; TOKAREVA, T.N., ved. red.

[Problems of the stratigraphy of Quaternary sediments in the northwestern area of the European part of the U.S.S.R.] Voprosy stratigrafii chetvertichnykh otlozhenii Severo-Zapada Evropeiskoi chasti SSSR; sbornik statei. Leningrad, Gostoptekhizdat, 1962. 198 p. (MIRA 18:5)

1. Nauchno-tekhnicheskoye gornoye obshchestvo, Moscow. Leningradskoye oblastnoye upravleniye.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGAROVSKIY, A.N., inzh. (Yugo-Vostochnaya doroga)

Our experience in overhauling a hydromechanical reductor. Elek.i tepl.tiaga 4 no.2:8-9 F '60. (MIRA 13:6)
(Diesel locomotives--Repairs)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGAROVSKIY, A.N.; KHLISTUN, B.S., inzh.-konstruktor

Guidance system of the TG102 diesel locomotive. Elek. i tepl. tiaga 5 no.6:27-33 Je '61. (MIRA 14:10)
(Diesel locomotives)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGAROVSKIY, A. N.

Special features of the design of the hydraulic transmission system of TG102F main line diesel locomotives. Elek. i tepl. tiaga 6 no.9:42-43 S '62. (MIRA 15:10)

1. Nachal'nik byuro Leningradskogo teplovozostroitel'nogo zavoda.

(Diesel locomotives)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGAROVSKIY, A.N.

Characteristics of the TGlo2K diesel locomotive with hydraulic driving. Elek. i tepl. tiaga 7 no.9:33-34 S '63. (MIRA 16:10)

1. Nachal'nik byuro sborki Leningradskogo teplovozostroitel'nogo zavoda.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGEL', I.P.

Surgical treatment of pulmonary tuberculosis in elderly patients. Trudy TSIU 63:128-134 '63. (MIRA 17:9)

1. Kafedra tuberkuleza TSentral'nogo instituta usovershenstvovaniya vrachey.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

BONDAR', N.I.; GOROKHOVA, Ye.M.; ZHINGEL', I.P.; KOPEL'MAN, M.Yu. (Moskva)

Cavernotomy in the treatment of giant and large caverns. Klin.med. 34 no.12:12-19 D '56. (MLRA 10:2)

1. Iz Moskovskogo gorodskogo nauchno-issledovatel'skogo tuberculeznogo instituta (dir. V.F.Chernyshev, nauchnyy rukovoditel' - prof. V.L.Rynis) i 2-y zagorodnoy Moskovskoy tuberkuleznoy bol'nitsy (glavnyy vrach D.I.Dymarin zav. khirurgicheskim otdeleniyem M.Yu. Kopel'man, konsul'tant N.I.Bodnar')

(TUBERCULOSIS, PULMONARY, surg.
resection of large & giant cavitations)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

BONDAR', N.I., kand.med.nauk; ZHINGEL', I.P.

Modification of cavernotomy in combination with superoposterior thoracoplasty. Probl.tub. 37 no.4:59-63 '59. (MIRA 12:10)

1. Iz Nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - dotsent V.F.Chernyshev, nauchnyy rukovoditel' - prof.D.D.Assyev).

(COLLAPSE THERAPY
thoracoplasty, superoposterior, combined with cavernotomy (Rus))
(TUBERCULOSIS, PULMONARY, surg.
cavernotomy combined with superoposterior thoracoplasty (Rus))

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGEL', I.P.

Primary muscle plastic surgery in the operation cavernotomy. Probl. tub. 37 no.7:55-57 '59. (MIRA 13:4)

1. Iz khirurgicheskogo otdeleniya Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (direktor - kand.med.nauk V.F. Chernyshev, zamestitel' direktora po nauchnoy chasti - prof. D.D. Aseyev).
(TUBERCULOSIS, PULMONARY surgery)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGEL', I. P. Cand Med Sci -- "Cavernotomy operation in the treatment of patients with chronic fibrocavernous pulmonary tuberculosis." Mos, 1960 (1st Mos Order of Lenin Med Inst im I. M. Sechenov). (KL, 1-61, 207)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGEL', I.P.

Cavernotomy in patients with an ineffective extrapleural pneumo- and oleothorax. Probl.tub. no.8:50-53 '61. (MIRA 15:5)

1. Iz 3-go legochno-khirurgicheskogo otdeleniya (zav. - kand. med.nauk N.I. Bondar') Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - kand.med.nauk V.F. Chernyshev, zam.dir. po nauchnoy chasti - prof. D.D. Aseyev).
(TUBERCULOSIS) (PNEUMOTHORAX) (OLEOTHORAX)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGEL', I. P., kand. med. nauk

Neurogenic tumor of the posterior mediastinum in pulmonary tuberculosis. Khirurgiia 38 no.5:131-133 My '62.

(MIRA 15:6)

1. Iz 3-go legochnokhirurgicheskogo otdeleniya (zav. - doktor meditsinskikh nauk N. I. Bondar') Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kandidat meditsinskikh nauk T. P. Mochalova) Ministerstva zdravookhraneniya RSFSR.

(TUBERCULOSIS) (MEDIASTINUM--TUMORS)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINGEL', I.P.

Surgical treatment of bronchial fistulas in patients with tuberculosis following cavernotomy. Probl. tub. 41 no.5: 33-38 '63. (MIRA 17:1)

1. Iz 2-go legochno-khirurgicheskogo otdeleniya (zav. - doktor med. nauk N.I. Bondar') Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand. med. nauk T.P. Mochalova, zamestitel' direktora po nauchnoy chasti - prof. D.D. Aseyev) Ministerstva zdravookhraneniya RSFSR.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

USSR/Chemical Technology - Chemical Products and Their Applications - Electrochemical Manufacturing. Electrodeposition. Chemical Sources of Electric Current. I-9

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8909

Author : Zhinivich, N.I., Menkina, M.M., and Rubenchik, K.F.

Inst : Belorussian Polytechnical Institute.

Title : Nickel-Plating with an Electric Current of Periodically Changing Direction.

Orig Pub : Sb. nauch. rabot Belorus. politekhn. in-ta, 1956, No 55, 103-108

Abstract : The effect of periodic changes in the direction of the current during the electrolytic deposition of Ni under various conditions of composition and acidity in the bath, temperature,

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

USSR/Chemical Technology - Chemical Products and Their Applications - Electrochemical Manufacturing. Electrodeposition. Chemical Sources of Electric Current. I-9

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8909

D, plating time, switching frequency, and holding time of the articles in the anodic or cathodic position has been investigated. The direction of the current was reversed by means of a throw-switch; the switching frequency was controlled with a stop watch. Before plating, the steel specimens were cleaned with emery paper followed by boiling in alkali and dipping in HCL solution. The current efficiency of the plating process was determined by the use of a copper coulometer. The experiments were repeated 2-3 times and the control experiment in which

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

USSR/Chemical Technology - Chemical Products and Their Applications - Electrochemical Manufacturing. Electrodeposition. I-9

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8909

the current direction was not reversed was carried out in all cases. It has been established that the quality of the deposit, the current efficiency, and the thickness of the deposit all decrease markedly with the length of time that the articles are left in the anodic position: this time was taken at 1 sec. Better results were obtained with electrolytes containing (in gms/liter) $NiSO_4 \cdot 7H_2O$, 238; Na_2SO_4, 20; NaCl, 5; and Na_3BO_3, 20 at pH 5.3 - 5.1 with 6 reversals of polarity per minute. Smoother and more lustrous deposits are obtained when the articles are left in

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

USSR/Chemical Technology - Chemical Products and Their Applications - Electrochemical Manufacturing. Electrodeposition. I-9

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8909

the anodic position for 0.5 - 0.4 sec. Good, high luster deposits are obtained at 45-60° when the current density is increased to 10 amps/dm^2. In general it was found that the matness of the deposit increased with increasing temperature. The quality of the deposits obtained at lower temperatures was inferior. When a current density D of 10 amps/dm^2 is used, the plating time can be reduced from 30 to 15 min without impairing the quality of the deposit.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN, B.N.

Electric furnace for checking thermocouples. Izm. tekh. no.1: 30-31 Ja '64. (MIRA 17:11)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN, D. Ya.

ZHINKIN, D. Ya. -- "Synthesis and Investigation of the Products of the Reaction of Diisocyanate of the Aromatic Series and Glycols." no date given, Moscow Order of Lenin Chemicotechnological Inst imeni D. N. Mendeleyev (Dissertation for the Degree of Candidate in Technical Sciences)

SO: VECHERNAYA MOSKVA, JANUARY - DECEMBER 1952

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN, D. Ya.

AUTHORS: Semenov, Yv. N., Zhinkin, D. Ya., Kuznetsova, A. G., Kollorkin, R. G. 32-2-26/60

TITLE: Short Reports (Korotkiye soobshcheniya).

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 192-192 (USSR).

ABSTRACT: A method operating with a magnetic scales for the determination of the density of metal-ceramic ferromagnetic products is applied by Yu.N. Semenov (Polytechnical Institute imeni A.A. Zhdanov, Gor'kiy). The tear-off force of a permanent magnet is directly proportional to the density of the material. The duration of examination is similar to that according to the gravimetric method. Based on experimental results D.Ya. Zhinkin and A.G. Kuznetsova proposed a modification of the method according to ГОСТ 6989-54 for lacquers and paints, published by the lacquer and paint industry. An infrared lamp should be employed for the determination of the dry residue of ЭФ organic silicon insulation lacquers, because by this means the duration of analysis is much reduced. R.G. Koldorkin (Polytechnical Institute imeni A.A. Zhdanov, Gor'kiy) determined the cross-sections of bodies with a complicated shape by means

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Short Reports.

32-2-26/60

of displacement of liquid.

ASSOCIATION: Gor'kiy Politechnic Institute imeni A. A. Zhdanov (Gor'kovskiy Politekhnicheskiy Institut im. A. A. Zhdanova)

AVAILABLE: Library of Congress

1. Scientific reports-USSR

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN, D. Ya.

A. G. Kuznetsova, K. A. Andrianov and D. Ya. Zhinkin, "The Basic Reaction for Obtaining Polyorganosilicoxane Resins,"

Report presented at the Second All-Union Conference on the Chemistry and Practical Application of Silicon-Organic Compounds held in Leningrad from 25-27 September 1959.

Zhurnal prikladnoy khimii, 1959, Nr 1, pp 238-240 (USSR)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

15(8)

AUTHORS: Andrianov, K. A., Corresponding Member, SOV/64-59-2-4/23
AS USSR, Zhinkin, D. Ya., Candidate of
Technical Sciences, Moiseyev, A. F., Candidate
of Technical Sciences

TITLE: Organo-silicic Resins and Varnishes and Their Application (Kremniyorganicheskiye smoly i laki i ikh primeneniye)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 2, pp 106-111 (USSR)

ABSTRACT: In the USSR organo-silicic resins (OR) are largely used in the production of heat-resistant varnishes. At present, there exist several types of (OR), but only polymethylsiloxane-, polyphenylsiloxane-, polychlorophenylsiloxane-, polymethylphenylsiloxane-, and polyethylphenylsiloxane resins are being used in pure state and changed with organic polymers. Temperature resistance, hydrophobic properties, as well as chemical and oxidation resistance are the most important properties of the varnish- and resin films produced on the basis of (OR). Organo-silicic resins and varnishes exhibit good dielectric properties depending only little on temperature and current frequency. For this reason they are used for electrical insulation. In the USSR the electrical insulation varnishes

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of polyethylphenylsiloxane EF-3 and EF-5, polymethylphenylsiloxane K-40, K-41, K-43, K-44, K-47 and K-48 (Ref 31) are the most frequently used. Among a large number of possibilities of combination and application of (OR) for corrosion-proof coatings the heat-resistant enamel varnish Nr 9 and the polydimethylphenylsiloxane enamel varnishes PRKE-13 and PRKE-15 are preferably used in Soviet industries (Ref 31). Plastics on (OR) basis are largely used in the electrical industry, as well as for the production of foam plastics. For their production polymethylphenylsiloxane resins K-40 and K-47, as well as modified (OR) with phenol formaldehyde-, epoxy- and polyuretrane ester resins are the most suitable. There are 73 references, 46 of which are Soviet.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

5 (3)

AUTHORS: Andrianov, K. A., Zhinkin, D. Ya., Kuznetsova, A. G. SOV/79-29-5-22/75

TITLE: On the Common Hydrolysis of Diethyl-dichloro-silane and Phenyl-trichloro-silane (O sovmestnom gidrolize dietildikhlorsilana i feniltrikhlorsilana)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1504-1507 (USSR)

ABSTRACT: In the present paper the results obtained in the common hydrolysis of equimolar mixtures of diethyl-dichloro-silane and phenyl-trichloro-silane are discussed. The reaction process can proceed in two concurrent directions. In one case a mixture of polymeric products of the hydrolysis which took place separately, is formed - of polydiethyl siloxanes and polyphenyl-siloxanes. In the second case products of the co-hydrolysis are formed - the polyethyl-phenyl-siloxanes. In order to determine the direction of the course of reaction the products of the co-hydrolysis of the above-mentioned monomers were investigated. To be able to interpret the results obtained, the data determined in the analysis were compared with the values calculated for the individual polymers

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(Table 1). On the determination of the mean molecular weights of fractions of the co-hydrolysis products the molecular weights and the dispersity of these products were found to depend on the solvent used (Fig). The products obtained on the co-hydrolysis of diethyl-dichloro-silane and phenyl-trichloro-silane with excess water were investigated. It may be stated from the results obtained that the composition of the resulting polymers can be expressed by the formula

$$\left[(C_2H_5)_2SiOC_6H_5SiO(OH)\right]_m \left[(C_2H_5)_2SiOC_6H_5SiO_{1.5}\right]_n .$$

(m + n) - degree of polymerization, (m : n) - the ratio of polydiethyl-phenyl-hydroxy- and polydiethyl-phenyl siloxanes. The mean values of these coefficients are given in table 2. As can be seen the influence of the solvent does not only concern the dispersity of the polymeric mixture and the degree of polymerization but also the quantity of the hydroxyl-containing compounds occurring in the hydrolysis products. The maximum content of hydroxyl groups is found in the hydrolysis products in ether, the minimum in benzene. There are 1 figure, 2 tables, and 3 Soviet references.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

S/191/60/000/001/007/015
B016/B054

AUTHORS: Moiseyev, A. F., Maklashina, T. S., Makarova, L. V., Zhinkin, D. Ya., Konstantinova, N. G.

TITLE: Thermal Stability of Some Protective Organosilicon Enamels

PERIODICAL: Plasticheskiye massy, 1960, No. 1, pp. 36-38

TEXT: The authors report on their studies of the heat resistance of protective organosilicon enamels which were in operation at 300 and 400°C for a prolonged period. Two types of polymethyl phenyl siloxane resins were used as binding agents for these enamels; the resins were used in the pure state and modified by organic polymers. The R/Si ratio was 1.7, in resin I, and 1.5 in resin II. Toluene solutions of resin I are named No. 1, of resin II, No. 2. To modify the binding agent, the authors used the following substances: 1) Polyacrylate of the type БМК-5 (BMK-5) which was added both by the mixing of solutions and on heating. It was previously dissolved in solvent No. 648 (ГОСТ 4006-48, GOST 4006-48). 2) High-viscous ethyl cellulose НИ-150 (NI-150) was added in solution. 3) Polyester resins

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Thermal Stability of Some Protective Organosilicon Enamels

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No. 315 and Г-4 (G-4). Modification with these resins was carried out by joint condensation of a mixture of the products of joint hydrolysis with polyesters at increased temperature. The heat resistance was tested on pure varnishes and varnishes with pigment admixture (titanium dioxide, chromium oxide, chromium titanate, cadmium red, and aluminum powder) on a steel surface; the protective action and the physicomechanical properties were estimated, which render their practical application possible. The results obtained with resins No. 315 and G-4, as well as with epoxy resin Э-40 (E-40), showed a low heat resistance of the corresponding varnishes at 300°C. Varnishes No. 1 and 2 were much more resistant with an admixture of cadmium red, titanium dioxide, and chromium oxide than without a pigment, both in the pure state and modified by BMK-5 or NI-150. The resulting enamels endure a temperature of 300°C for more than 300 h. After 300 h of heating at 300°C, the average weight loss of the coat is 5-7% in varnishes No. 1 and 2 in the pure state, and 15-22% in varnishes modified with BMK-5 and NI-150. Varnish No. 2 with aluminum powder as a coat endures a temperature of 400°C for more than 100 h, and shows a weight loss of 20.4%. There are 2 tables and 9 references: 4 Soviet, 2 French, and 2 US.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

87923

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S/191/60/000/004/004/015
B016/B058

AUTHORS: Zhinkin, D. Ya., Kuznetsova, A. G., Chinenova, M. A.

TITLE: Study of the Composition of Ethoxy-phenyl Silanes Obtained by Phenylation of the Ethyl Ester of o-Silicic Acid

PERIODICAL: Plasticheskiye massy, 1960, No. 4, pp. 13-15

TEXT: The authors report on their study of the composition of ethoxy-phenyl silanes formed under various conditions by phenylation of the ethyl ester of o-silicic acid. Special attention was devoted to various quantitative ratios of the phenyl-magnesium halide used to the ester mentioned. Since a mixture of products with different degrees of substitution develops at various quantitative ratios the authors undertook the one-stage phenylation of the ester by means of chloro benzene, in the presence of magnesium at ester-to-magnesium ratios of 1 : 1, 1 : 1.5, and 1 : 2. The resulting products are tabulated: ethyl ester of o-silicic acid (not reacted rest): 57.8 - 24.6 mole %; triethoxy-phenyl silane: 11.2-18.0%; diethoxy-diphenyl silane: 16.9 - 37.7%; and ethoxy-triphenyl silane: 14.1 - 19.7%. The authors conclude from these data that the phenylated

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87923

Study of the Composition of Ethoxy-phenyl Silanes Obtained by Phenylation of the Ester of o-Silicic Acid

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B016/B058

ethoxy silanes are formed at different rates. Moreover, they are of the opinion that the ester used and diethoxy-diphenyl silane, which have symmetric molecules, are more stable in phenylation than the other products (Ref. 1). They describe the synthesis and separation of the reaction products, as well as their hydrolysis by means of a 10% HCl solution in the presence of sulfuric ether. Among the hydrolysis products were solid crystals of diphenyl-dihydroxy silane. The authors finally determined the silicon content in the products. A paper by A. V. Topchiyev and N. S. Nametkin (Ref. 2) is mentioned. There are 2 tables and 4 references: 3 Soviet and 1 British.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN, D.Ya.; NAGAYEVA, A.P.; TARDOV, B.N.

New polysiloxane lacquer based on the cohydrolysis of ethylphenyldichlorosilane and phenyltrichlorosilane. Lakokras.mat. i ikh prim. no.4:17-20 '60. (MIRA 13:10)

(Lacquer and lacquering) (Siloxane) (Silane)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN D. YA.

MOISEYEV, A.F.; ZHNIKIN, D.Ya.; BORISOV, M.F.

Heat-resistant or ganosilicon coatings. Lakokras.mat. i ikh prim. no.4:35-40 '60. (MIRA 13:10)
(Silicon organic compounds) (Protective coatings)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

87434

S/191/60/000/010/006/017
B004/B060

15.8116

AUTHORS: Kuznetsova, A. G., Andrianov, K. A., Zhinkin, D. Ya.

TITLE: Production and Properties of Some Organohydroxy Silanes

PERIODICAL: Plasticheskiye massy, 1960, No. 10, pp. 16-19

TEXT: The authors wanted to define the conditions relative to the production of dimethyl dihydroxy silane and to determine the solubility of dimethyl dihydroxy silane, diethyl dihydroxy silane, and phenyl trihydroxy silane in different solvents. Moreover, they wanted to study their condensation in the presence of HCl. The reactions took place in vessels rendered water-repellent by means of the ГКЖ-94 (GKZh-94) organosilicon liquid. The synthesis of dihydroxy silanes proceeded from dimethyl dimethoxy-, dimethyl diethoxy-, and phenyl trimethoxy silane, respectively, which were obtained by reaction of the corresponding chloro compounds with the corresponding alcohol in the presence of pyridine. The following processes are described. 1) 40 g $(CH_3)_2Si(OCH_3)_2$ were allowed to react at room temperature with 24 g of distilled water, the

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87434

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B004/B060

Production and Properties of Some Organohydroxy Silanes

solvents (alcohol and water) were distilled off at 3-10 mm Hg, and the crystals were washed with benzene, heptane, or petroleum ether. Yield 70-75%. 2) 44 g of $(C_2H_5)_2Si(OC_2H_5)_2$ were allowed to react with 18 g of 0.5% acetic acid. The liquid turned homogeneous after 5-7 days, and was then treated as described under 1). 3) 99 g of $C_6H_5Si(OCH_3)_3$ were allowed to react with 50 g of 0.5% acetic acid, temperature being kept at 5-10°C. The product was cooled down to -20°C after 3-5 hours and filtered off in vacuum. Condensation took place in dioxan in the presence of 0.0012, 0.012, or 0.046 N HCl. The dimethyl compound condensed in 0.5N HCl to 80-85% within 15 min. The diethyl compound reacted more slowly, but its condensation rose with an increase of the HCl concentration. The same holds for the phenyl compound. Up to a yield of 40% the condensation proceeded at a constant rate which depended on the concentration of HCl only. It is believed that dimers are formed at this stage. The gradual condensation was particularly well observable in the phenyl compound. Cyclization takes place above the 35% yield. Cyclic and linear polymers with considerable OH group contents resulted. They were determined by titration with Fischer's reagent. The following data for the solubility

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Production and Properties of Some Organohydroxy Silanes

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B004/B060

at 20°C are indicated (in %):

Solvent	$(CH_3)_2Si(OH)_2$	$(C_2H_5)_2Si(OH)_2$	$C_6H_5Si(OH)_3$
Water	40.6	9.0	4.1
Ethanol	49.6	44.0	16.0
Ether	6.8	10.8	0.5
Acetone	28.4	29.0	11.6
Toluene	0.0	0.2	0.0
Dioxan	30.8	19.3	15.2

There are 3 figures, 1 table, and 20 references: 7 Soviet, 9 US, 2 German, and 2 Japanese.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

GRINEVICH, K.P.; ZHIMKIN, D.Ya.; ZUBKOV, I.A.; POPOVA, S.L.; VOLKOV, A.N.

Polymer materials in the fishing industry. Plast.massy no.11:18-19 '60. (MIRA 13:12)

(Polymers) (Fishing--Implements and appliances)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

S/191/60/000/011/009/016
B013/B054

AUTHORS: Antipina, G. N., Andrianov, K. A., Zhinkin, D. Ya.

TITLE: Method of Producing Anhydrous Ethylene Chlorohydrin

PERIODICAL: Plasticheskiye massy, 1960, No. 11, pp. 39-41

TEXT: The authors suggest a new method of producing pure, anhydrous ethylene chlorohydrin which is based on the reaction of silicon tetrachloride with ethylene oxide, and subsequent hydrolysis of the resulting tetra-β-chloro-ethoxy silane:

$$\text{(I)} \quad SiCl_4 + 4\underset{\diagdown O \diagup}{CH_2 - CH_2} \longrightarrow Si(OCH_2CH_2Cl)_4$$

$$\text{(II)} \quad Si(OCH_2CH_2Cl)_4 + 3H_2O \longrightarrow 4ClCH_2CH_2OH + SiO_2$$

Reaction (I) proceeds smoothly with gradual heating of the reaction mixture to 30° - 35°C. Optimum reaction temperature was 60 - 80°C, reaction time was about 20 hours. The reaction was conducted in a laboratory plant. Other experiments were made in a pilot plant. The reaction time was longer with a larger volume. Reaction (II) proceeds quickly and smooth-

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

Method of Producing Anhydrous Ethylene Chlorohydrin

S/191/60/000/011/009/016
B013/B054

ly at 98° - 100°C with subsequent distillation of ethylene chlorohydrin. Its laboratory yield was 70 - 80%. Table 1 gives the fractions obtained in ethylene chlorohydrin distillation. The characteristic of fraction III corresponds to that of ethylene chlorohydrin. Fractions I and II containing a considerable amount of hydrogen chloride were distilled for a second time (Table 2). Fraction III from the first distillation, and fraction II from the second, yielded together a sufficiently pure, anhydrous ethylene chlorohydrin. Similar experiments on a pilot plant gave the fractions given in Table 3 by the second distillation. In this case, the yield of pure ethylene chlorohydrin was 69%. There are 1 figure, 3 tables, and 6 references: 3 Soviet, 1 US, 1 French, and 1 German.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

S/661/61/000/006/038/081
D202/D302

AUTHORS: Kuznetsova, A. G., Andrianov, K. A. and Zhinkin, D. Ya.

TITLE: On the co-hydrolysis of diethyldichlorosilane and phenyltrichlorosilane

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedineniy; trudy konferentsii. no. 6: Doklady, diskussii, resheniye. II Vses. konfer. po khimi i prakt. prim. kremneorg. soyed., Len., 1958. Leningrad, Izd-vo AN SSSR, 1961, 175-179

TEXT: A discussion on a previous report (no. 2, p. 33, this publication) in which the authors and P. V. Davydov (Moscow), N. S. Leznov (Moscow), N. N. Sokolov (VEI, Moscow) and A. V. Karlin (VNIISK, Leningrad) took part. The role of solvents, especially that of ethyl-ether, in the co-hydrolysis process of the above-mentioned compounds and the unfavorable effect of methyl-trichlorosilane admixtures in dimethyldichlorosilane used in the process were discussed.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

S/081/62/000/022/084/088
B101/B186

AUTHORS: Nagava, A. P., Zhinkin, D. Ya., Borisov, M. F.

TITLE: Electrical insulating lacquer KM-17 (KM-17) and its use

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 559, abstract 22P525 (Lakokrasochn. materialy i ikh primeneniye, no. 5, 1961, 58 - 60)

TEXT: The properties of KM-17 organosilicon lacquer (I) consisting of a 50 % solution of polymethyl-phenyl siloxane in toluene were studied. It is shown that films of I supported on oxidized aluminum foil have high insulating properties at 20 - 300°C. Tables indicate the dielectric properties of films of I (1) after thermal aging (200 and 500 hrs at 250 and 300°C); (2) after exposure to 95 - 98 % relative humidity and thermal aging; (3) after the effect of a "thermal shock" (exposure 1 hr each at -60 and at +250°C). It was found that I resisted thermal aging and the effect of tropical humidity; it can, therefore, be used to impregnate and coat products of oxidized Al subject to temperatures between -60 and +350°C, and also to bond and impregnate glass fiber insulations on oxidized conductors exposed to working temperatures of 350°C. [Abstracter]

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Electrical insulating lacquer...

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B101/B186

note: Complete translation.]

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

S/196/62/000/005/005/012
E194/E154

AUTHORS: Nagayeva, A.P., Zhinkin, D.Ya., and Borisov, M.F.

TITLE: Insulating varnish grade KM-17 (KM-17) and its application

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.5, 1962, 10, abstract 5 B87. (Lakokrasochn. materialy i ikh primeneniye, no.5, 1961, 58-60).

TEXT: The characteristics of films of insulating varnish grade KM-17 are given: it is a solution of polymethyl-phenyl-siloxane polymer (50%) in toluol. It is shown that this varnish can be used for impregnating and coating oxidized aluminium products operating in the temperature range of -60 to +350 °C and also for binding and impregnating fibreglass insulation on oxidized conductors operating at a temperature of 350 °C. The insulating properties of films deposited on a base of oxidized foil at various temperatures are given in Table 1; after thermal ageing in Table 2; at low temperatures in Table 3; after holding at a relative humidity of 95-98% in Table 4; (ε and tan δ were measured at 10^6 c/s). The changes in the breakdown voltage

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Insulating varnish grade KM-17 ... S/196/62/000/005/005/012
E194/E154

U[illegible] during the process of ageing at 350 °C for wires 0.9 mm in diameter, made of various materials and covered with fibreglass insulation impregnated with varnish KM-17, are shown on the graph. The following notation is used on the graph: 1 - copper wire wound after ageing; 2 - same before ageing; 3 - oxidized aluminium wire wound after ageing; 4 - same before ageing. The great advantage of oxidized aluminium wires compared with copper will be noticed. 4 literature references.

[Abstractor's note: Complete translation.]

Card 2/6

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN, D.Ya.; MARKOVA, N.V.; SOBOLEVSKIY, M.V.

Synthesis of polyalkylcyclosilazanes having different radicals at the silicon atom. Zhur.ob.khim. 32 no.8:2652-2654 Ag '62. (MIRA 15:9)

(Silicon organic compounds)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

38066
S/191/62/000/006/007/016
B110/B138

15.8170

AUTHORS: Kuznetsova, A. G., Andrianov, K. A., Zhinkin, D. Ya.

TITLE: Investigation of the hydrolytic condensation of diethyl dichlorosilane and phenyl trichlorosilane

PERIODICAL: Plasticheskiye massy, no. 6, 1962, 19-22

TEXT: The composition of hydrolytic condensation products of equimolecular quantities of diethyl dichlorosilane and phenyl trichlorosilane at organochlorosilane/water ratios of 1 : 1 : 2.5 and 1 : 1 : 1.25 was studied. The products formed are:

$$nR_2SiCl_2 + (n+1)H_2O \rightarrow HO(R_2SiO)_nH + 2nHCl$$
$$nR_2SiCl_2 + nH_2O \rightarrow (R_2SiO)_n + 2nHCl$$
$$nRSiCl_3 + 2nH_2O \rightarrow [RSiO(OH)]_n + 3nHCl$$
$$nRSiCl_3 + 1.5nH_2O \rightarrow [RSiO_{1.5}]_n + 3nHCl$$

Polyorganosiloxanes and non-reactive diorganodichlorosilane are likewise

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formed at ratios of water to hydrolyzable Cl < 0.5 : 1. The composition of the hydrolytic condensation products of dimethyl dichlorosilane, diphenyl dichlorosilane, and methyl phenyl dichlorosilane was investigated in a homogeneous solution with an insufficient quantity of water. The ratio of the components in the hydrolytic condensation of 5 moles/l solutions of phenyl trichlorosilane and diethyl dichlorosilane in dioxane (1 : 1 : 1.25) at 0-5°C was calculated by

$$2(C_2H_5)_2SiCl_2 + 2C_6H_5SiCl_3 + 2H_2O \rightarrow$$
$$\rightarrow Cl(C_2H_5)_2SiOSi(C_2H_5)_2Cl + Cl_2C_6H_5SiOSiC_6H_5Cl_2 + 4HCl$$

$$(C_2H_5)_2SiCl_2 + C_6H_5SiCl_3 + H_2O \rightarrow$$
$$\rightarrow Cl(C_2H_5)_2SiOSiC_6H_5Cl_2 + 2HCl$$

Eight fractions containing 20.61-27.38% Si and 51.68-54.56% C were separated in yields of 0.8-21.8% by fractional distillation between 33 and 220°C. For the fractions between 74 and 185°C about 10% 1,3-diphenyl-1,1,3-tetrachlorodisiloxane was present, and in the high-boiling fractions (Si content, 22.0-22.04%) the ratio of diethylsiloxy groups to phenylsiloxy groups was ~0.3 : 1. In the hydrolytic condensation of homogeneous solutions with an insufficient quantity of water, the hydrolysis of

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phenyl trichlorosilane occurs more rapidly than that of diethyl dichlorosilane. Non-reactive diethyl dichlorosilane and copolymers with a high content of phenylsiloxy groups are thus formed. In the hydrolytic condensation of 6.5 M solutions of diethyl dichlorosilane and phenyl trichlorosilane in dioxane (1 : 1 : 2.5), at ~ 25°C, nine fractions were obtained with a content of polymer between 3.7 and 20.5%, of Si between 22.62 and 25.44%, and of OH between 1.56 and 3.03%, and with molecular weights between 834 and 1215. This proves the formation of copolymers with a variable ratio between diethylsiloxy and phenylsiloxy groups. The absence of a continuous decrease of the molecular weights is due to the varying solubility of the polymers, which depends not only on the molecular weight but also on the chemical composition. The content of OH groups indicates the presence of $C_6H_5SiO_{1.5}$ and $C_6H_5(OH)SiO$ groups. For the ratio 1 : 1 : 2.5 the condensation products are: $[(C_2H_5)_2SiO]_x[C_6H_5SiO_{1.5}]_y[C_6H_5SiO(OH)]_z$, where x + y + z is the number of structural units in the copolymer molecule; x : (y + z) is the ratio of diethylsiloxy to phenylsiloxy groups in the copolymer molecule; z : y is the ratio of phenylsiloxy to phenyl-(hydroxy)-siloxy groups

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which determines the completeness of condensation. Maximum, minimum, and average values are respectively: 11, 7, and 8.5 for x + y + z; 2, 0.5, and 1 for x : (y + z); and -, -, and 0.5 for z : y. The simultaneous presence of diethyl dichlorosilane and phenyl trichlorosilane and an insufficient amount of water in the first stage produce $C_6H_5SiCl_3 + H_2O \rightarrow C_6H_5SiCl_2(OH) + HCl$. Polymerization may take place as follows:

$$2C_6H_5SiCl_2(OH) \rightarrow Cl_2C_6H_5SiOSiC_6H_5Cl_2 + H_2O$$
$$C_6H_5SiCl_2(OH) + C_6H_5SiCl_3 \rightarrow Cl_2C_6H_5SiOSiC_6H_5Cl_2 + HCl$$
$$C_6H_5SiCl_2(OH) + (C_2H_5)_2SiCl_2 \rightarrow$$
$$\rightarrow Cl_2C_6H_5SiOSi(C_2H_5)_2Cl + HCl$$

The low concentration of phenyl dichlorosilane causes chiefly (9) and (10), which explains the presence of diethylsiloxy groups in the copolymer. There are 3 tables.

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33980
S/062/62/000/002/005/013
B117/B138

5.3700 11.9200
11.2219

AUTHORS: Semenova, Ye. A., Zhinkin, D. Ya., and Andrianov, K. A.

TITLE: Synthesis of alkyl hydride cyclosilazanes

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 2, 1962, 269-271

TEXT: Pure alkyl hydride cyclosilazanes were synthesized on the base of methyl and ethyl dichloro silane. Method applied: A determined amount of dry ammonia was sent through a solution of suitable alkyl hydride dichloro silane in benzene (15-20°C; 1.5 l/min, 2 hr). Ammonium chloride was then filtered off from the reaction mass and benzene was distilled off. At a residual pressure of 10 mm the resulting mixture was distilled off from the Claisen flask and the distillate was decomposed in a rectifying column with 15 or 17 trays. The ammonolysis of ethyl dichloro silane yielded triethyl cyclotrisilazane ($C_6H_{21}Si_3N_3$, boiling point 62°C, 0.5 mm Hg; n_D^{20} 1.4700; d_4^{20} 0.9596; molecular weight 215 (219); MR 63.55 (63.63)) and tetraethyl cyclotetrasilazane ($C_8H_{28}Si_4N_4$, boiling point 102.0°C,

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33980

Synthesis of alkyl hydride... S/062/62/000/002/005/013
B117/B138

0.5 mm Hg; n_D^{20} 1.4810; d_4^{20} 0.9767; molecular weight 290.4 (292); MR 84.97 (84.84)). The residue from rectification was a viscous product (n_D^{20} 1.5000; molecular weight 620). The total yield of ethyl hydride cyclosilazanes was 68 %. The ammonolysis of methyl dichloro silane yielded (total yield 45-49 %): tetramethyl cyclotetrasilazane ($C_4H_{20}Si_4N_4$, boiling point 54°C (1 mm Hg); n_D^{20} 1.4780; d_4^{20} 1.0069; molecular weight 234 (236); MR 66.34 (66.32)), and a polymer consisting of condensed rings ($(CH_3SiH)_6N_2(NH)_3$, boiling point 116°C (1.5 mm Hg); n_D^{20} 1.4860; d_4^{20} 1.0371; molecular weight 325 (337); MR 93.36 (93.66)). The residue was a polymer of molecular weight 1261, n_D^{20} 1.5020. There are 1 table and 4 non-Soviet references. The two references to English-language publications read as follows: S. D. Brewer, Ch. P. Haber, J. Amer. Chem. Soc. 70, 3888 (1948). US Patent 2885, 370, May 5, 1959.

SUBMITTED: August 15, 1961

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

S/191/62/000/008/005/013
B124/B180

AUTHORS: Zhinkin, D. Ya., Semenova, Ye. A., Markova, N. V.

TITLE: Production of polyalkyl cyclosilazanes from alkyl chlorosilanes and ammonia

PERIODICAL: Plasticheskiye massy, no. 8, 1962, 18-20

TEXT: In the synthesis of mixtures of polyalkyl cyclosilazanes (hexamethyl cyclotrisilazane, octamethyl cyclotetrasilazane, hexaethyl cyclotrisilazane, etc.), by the reaction of anhydrous, gaseous, and liquid ammonia with alkyl chlorosilanes in the presence of solvents, the resulting NH_4Cl is filtered off in yields of 40-70% of the theoretical amount. The authors have found an improvement on the filtration. The reaction mass is treated with water or an aqueous alkali solution, the upper of the two resulting layers is separated by a funnel, the solvent is driven out, and the reaction products are rectified in a column with 22 theoretical plates. This increases the yield to 87-95.5% and considerably reduces the time required. If the reaction mass is extracted with benzene, the yield is only 76%. Anhydrous products must

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be used and the reaction conducted in nitrogen flow. The composition of the reaction products is little affected by the method of synthesis. There are 4 tables. The five English-language references are: R. O. Sauer, R. H. Hasek, J. Am. Chem. Soc. 68, 241 (1946); S. D. Brewer, Ch. P. Haber, ibid., 70, No. 11, 3888 (1948); J. R. Meankins, J. Council Sci. Ind. Res. 21, 222 (1948); US Patent 2579418; US Patent 2553314.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

SEMENOVA, Ye.A.; ZHINKIN, D.Ya.; ANDRIANOV, K.A.

Synthesis of cyclosilazane alkyl hydrides. Izv. AN SSSR Otd.khim.nauk no.2:269-271 F '62. (MIRA 15:2)
(Silazanes)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

S/079/62/032/008/004/006
D204/D307

AUTHORS: Zhinkin, D. Ya., Markova, N. V. and M. V. Sobolevskiy

TITLE: Synthesis of polyalkylcyclosilazanes with various radicals on the silicon atom

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 8, 1962, 2652 - 2654

TEXT: $[(CH_3)_2SiNH]_3$ (A), $[(CH_3)_2SiNH]_4$ (B), $[(CH_3)_2SiNH]_2$ $(C_2H_5)_2SiNH$ (C), $(CH_3)_2SiNH[(C_2H_5)_2SiNH]_2$ (D) and $[(C_2H_5)_2SiNH]_3$ (E) were prepared by the reaction of Me_2SiCl_2 and Et_2SiCl_2 taken in the ratios of 1:3, 1:1 and 3:1 (B only for the ratios 1:1 and 3:1) with the calculated amount of dry NH_3, in benzene, at 25 - 30°C. The mixtures were then treated with aqueous KOH and distilled. The total yield of mixed cyclosilazanes

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Synthesis of ... S/079/62/032/008/004/006
D204/D307

was ~ 80 %. The b.p.'s of A to E increased from 51 - 52° C/4 mm Hg to 128 - 129° C/1 mm Hg, d_4^{20} from 0.9246 to 0.9324, and n_D^{20} from 1.4450 to 1.4690. The products contained more derivatives of Et_2SiCl_2 than of Me_2SiCl_2 after ammonolysis, owing to the greater tendency of the latter to form higher polysilazanes which did not distill over. There are 2 tables.

SUBMITTED: July 28, 1961

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

KUZNETSOVA, A.G.; ANDRIANOV, K.A.; ZHINKIN, D.Ya.

Hydrolytic condensation of diethyldichlorosilane with phenyltrichlorosilane. Plast.massy no.6:19-22 '62. (MIRA 15:6)
(Silane) (Hydrolysis)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

S/062/62/000/011/010/021
B101/B144

AUTHORS: Semenova, Ye. A., Zhinkin, D. Ya., and Andrianov, K. A.

TITLE: Reaction of dialkyl dichlorosilanes and alkyl dichlorosilanes with methyl amine

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 11, 1962, 2036 - 2039

TEXT: Methyl dichlorosilane (I), dimethyl dichlorosilane (II), ethyl dichlorosilane (III), and diethyl dichlorosilane (IV) were aminated by bubbling gaseous methyl amine through the benzene solution of the silane at 15 - 20°C, filtering off the precipitated methyl amine hydrochloride, distilling off the benzene, and rectifying the end product. Alkyl dichlorosilanes give disilazanes and cyclosilazanes: $RHSiCl_2 + CH_3NH_2 \rightarrow [(CH_3)HN\text{-}SiHR]_2NCH_3 + [RHSiNCH_3]_3$ or $[RHSiNCH_3]_4) + CH_3NH_2 \cdot HCl$. Cyclotetrasilazane is only formed in the aminolysis of I. The liquid reaction product from I contained: 2.5 - 5% bis-(methyl amino methyl silyl)-methyl amine, b.p. 48.5°C/5 mm Hg, n_D^{20} 1.4425, d_4^{20} 0.8871; 35 - 40% trimethyl cyclotrimethyl

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silazane, b.p. 56°C/5 mm Hg, n_D^{20} 1.4580, d_4^{20} 0.9297, and 20 - 25% tetramethyl cyclotetramethyl silazane, b.p. 88°C/2 mm Hg, n_D^{20} 1.4810, d_4^{20} 0.9776. The total silazane yield was 60%, referring to I. The distillation residue (31%) contained 38.32% Si, 16 - 17% N, and had molecular weight 1856. The reaction product from III contained 38 - 40% each of bis-(methyl amino ethyl silyl)-methyl amine, b.p. 68.5°C/1.5 mm Hg, n_D^{20} 1.4520, d_4^{20} 0.8929, and triethyl cyclotrimethyl silazane, b.p. 74.5/1.5 mm Hg, n_D^{20} 1.4680, d_4^{20} 0.9324, total yield 75%. The distillation residue (23%) contained 32.99% Si, 14.25% N, and had molecular weight 518.3. Dialkyl dichlorosilanes reacted thus with methyl amine: $R_2SiCl_2 + CH_3NH_2 \rightarrow [(CH_3)HN\text{-}SiR_2]_2NCH_3 + R_2Si(NHCH_3)_2 + CH_3NH_2 \cdot HCl$. The reaction product from II contained 20% bis-(methyl amino dimethyl silyl)-methyl amine, b.p. 34.5°C/0.5 mm Hg, n_D^{20} 1.4435, d_4^{20} 0.8886; and 70% bis-(methyl amino)-dimethyl silane, b.p. 108°C/750.5 mm Hg, n_D^{20} 1.4140, d_4^{20} 0.8219, total yield 55 - 58%. The distillation residue (5%) contained 32.78% Si,

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6.87% N, and had molecular weight 445.6. From IV only bis-(methyl amino)-diethyl silane was formed, b.p. 156°C/745 mm Hg, n_D^{20} 1.4330, d_4^{20} 0.8421, yield 57%. The distillation residue (19.5%) contained 27.45% Si, 7.5% N, and had molecular weight 491. There is 1 table. The most important English-language reference is: E. Larsson, L. Bjellerup, J. Amer. Chem. Soc., 75, 995 (1953).

SUBMITTED: March 15, 1962

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN, D.Ya.; SEMENOVA, Ye.A.; MARKOVA, N.V.

Production of polyalkylcyclosilazanes from alkylchlorosilanes and ammonia. Plast.massy no.8:18-20 '62. (MIRA 15:7)
(Silazanes) (Silane)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

SEMENOVA, Ye.A.; ZHINKIN, D.Ya.; ANDRIANOV, K.A.

Reaction of dialkyldichlorosilanes and alkyldichlorosilanes with methylamine. Izv. AN SSSR. Otd.khim.nauk no.11:2036-2039 N '62. (MIRA 15:12)

(Silane) (Methylamine)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

KUZNETSOVA, A. G.; ANDRIANOV, K. A.; ZHINKIN, D. Ya.

Hydrolytic condensation of dimethylchlorosilane and phenyltrichlorosilane. Plast. massy no.11:15-18 '62.
(MIRA 16:1)

(Silane) (Condensation products(Chemistry))

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

MORGUNOVA, M.M.; ZHINKIN, D.Ya.; SOBOLEVSKIY, M.V.

Synthesis of polyalkoxysilazanes. Plast. massy no.3:26-27 '63. (MIRA 16:4)

(Silazanes) (Polymers)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

[illegible]/63/000/004/006/015

AUTHORS: Morganova, [illegible]

TITLE: Reaction of polyalkoxy [illegible] with [illegible]

PERIODICAL: Plasticheskiye massy, no. 4, 1963, 23 - 24

TEXT: The reaction of tris-dimethyl cyclosilazane $[(CH_3)_2SiNH]_3$ with ethanol, n-butanol, and n-hexanol at [illegible] was studied. NH_3 liberated on ring rupture was titrated. Results: [illegible] of the formula $R'O-[Si(CH_3)_2NH]_3-OR'$, [illegible]

(2) The reaction rate depends on the molecular weight of the alcohol, decreasing in the sequence ethanol > n-butanol > n-hexanol. (3) The reaction of ring rupture proceeds much more slowly than the reaction of linear alkoxy silazanes with alcohol excess, which [illegible] silazane : alcohol = 1 : 2, the yield [illegible] trisilazane with ethanol was 87.0%, with butanol [illegible] physical data of the resulting compounds [illegible] $C_2H_5O-Si(CH_3)_2NH]_3-OC_2H_5$ b.p. 91 - 93° [illegible]

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

Reaction of polyalkyl...

$C_4H_9O-[Si(CH_3)_2NH]_3-OC_4H_9$ b.p. 158 - 160°C/[illegible] mm Hg, n_D^{20} = 1.4360, d_4^{20} = 0.9044; $C_6H_{13}O-[Si(CH_3)_2NH]_3-OC_6H_{13}$ b.p. 202°C/25 mm Hg, n_D^{20} = 1.4391, d_4^{20} = 0.8885. There are 2 figures and 2 tables.

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[illegible]

[illegible]

TITLE: Synthesis of polyalkylsilazanes

SOURCE: Plasticheskiye massy, no. 6, 1963, [illegible]

TOPIC TAGS: polyalkylsilazanes, hexamethylcyclotrisilazane, [illegible] zanes, [illegible] hexamethylcyclotrisilazane

ABSTRACT: Heating of hexamethylcyclotrisilazane with an [illegible] of hexamethylenediamine gives polymeric [illegible]

[illegible]

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: [illegible] ENCL: [illegible]

SUB CODE: 00 NO REF SOV: [illegible] OTHER: [illegible]

Card 1/1

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN, D.Ya.; SEMENOVA, Ye.A.; SOBOLEVSKIY, M.V.; ANDRIANOV, K.A.

Rearrangement of organocyclosilazanes brought about by the action of inorganic acids. Plast. massy no.11:16-19 '63. (MIRA 16:12)

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ZHINKIN, D.Ya.; SEMENOVA, Ye.A.; ANDRIANOV, K.A.

Reactions of hydrolysis of alkyl hydrocyclosilazanes and dialkylcyclosilazanes. Izv. AN SSSR. Ser. khim. no.11:1989-1992 N '63. (MIRA 17:1)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

ZHINKIN, D.Ya.; SEMENOVA, Ye.A.; SOBOLEVSKIY, M.V.; ANDRIANOV, K.A.

Transformations of alkyl silazanes at high temperatures. Plast.massy no.12:16-17 '63. (MIRA 17:2)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

MORGUNOVA, M.M.; ZHIMKIN, D.Ya.; SOBOLEVSKIY, M.V.

Reactions of polyalkylcyclosilazanes with carboxylic acids.
Zhur.ob.khim. 33 no.10:3269-3270 O 163. (MIRA 16:11)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820002-7

S/079/63/033/001/017/023
D204/D307

AUTHORS: Zhinkin, D. Ya., Markova, N. V. and Soboloveskiy, M.V.

TITLE: Synthesis of polysilazanes based on di- and trifunctional organochlorosilanes

PERIODICAL: Zhurnal obshchey khimii, v. 33, no. 1, 1963, 252-255

TEXT: The ammonolysis of mixtures of Me_2SiCl_2 and $MeSiCl_3$ (I), Et_2SiCl_2 and $EtSiCl_3$ (II), and Me_2SiCl_2 with $PhSiCl_3$ (III) was studied, at 25 - 30°C. In mixture (I) for molar ratios (n) of Me_2SiCl_2 : $MeSiCl_3$ = 1:1 or 3:1, the products were hexamethylcyclotrisilizane and polysilizanes. Only polysilizanes, largely $CH_3Si\{NHSi(CH_3)[NHSi(CH_3)_2]_2NH\}_3$, were obtained when n was reduced to 1:3. Ammonolysis of II similarly gave rise to hexaethylcyclotrisilazane and polysilazanes, chiefly $C_2H_5Si\{NHSi(C_2H_5)[NHSi(C_2H_5)_2]_2NH\}_3$

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Synthesis of polysilazanes ... S/079/63/033/001/017/023
D204/D307

In III (equimolar mixture) ammonolysis gave only the polysilazanes. The alkyl or aryl groups in the silane thus exert an influence on the ammonolysis.

SUBMITTED: February 20, 1962

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