ORFSHKIN, P.T.; ANDREYEVA, L.P.

Relaxation effects of electroconductivity in industrial refractories at high temperatures. Izv. vys. ucheb. zav.; fiz. 8 no.1:155-161 '65. (MIRA 18:3)

1. Sibirskiy metallurgicheskiy institut imeni Ordzhonikidze.

ORESHKIN, P.T.; KHRAMKOVA, M.N.; ANDREYEVA, L.P.

Electric conductivity of oxide refractories at high temperatures. Izv. vys. ucheb. zav.; chern. met. 6 no.2:142-149 '63. (MIRA 16:3)

1. Sibirskiy metallurgicheskiy institut.
(Refractory materials—Electric properties)

VISHNYAKOVA, Ye.S., inzh.; RUMYANTSEVA, N.F., inzh.; BORONICHEV, G.A., inzh.; PITINOVA, L.V., inzh.; PETRUNIN, N.I., inzh.; MESKIN, I.M., inzh.; ANDREYEVA, L.P., inzh.; BISHENKEVICH, G.V., inzh.; RYABININA, A.I., inzh.; MOSHNIN, N.S., red. gazety; KOMKOV, A.I., otv. red.; YUNITSKIY, V.P., red.; FLIGEL'MAN, S.M., red.; ROZHDAYKINA, V., tekhn. red.

[Kalinin Artificial Fiber Combine]Kalininskii kombinat iskusstvennogo volokna. Kalinin, Kalininskoe knizhnoe izd-vo, 1960. 92 p. (MIRA 15:8)

1. Kalininskiy kombinat iskusstvennogo volokna (for all except Komkov, Yunitskiy, Fligel'man, Rozhdaykina).
(Kalinin--Textile fibers, Synthetic)

ANDREYEVA, L.P.; GEL'D, P.V.

Coefficients of thermal expansion and modulus of elasticity in iron silicides. Izv. vys. ucheb. zav.; chern. met. 8 no.2:111-117 '65. (MIRA 18:2)

1. Ural'skiy politekhnicheskiy institut.

L 55026-65 EWT(d) IJP(c)

ACCESSION NR: AT5010202 UR/3043/65/000/003/0061/0088

19
18
B+1

AUTHOR: Andreyeva, L. P.

TITLE: Concerning the practical application of the orthogonal power-series method

SOURCE: Moscow. Universitet. Vychislitel'nyy tsentr. Sbornik rabot, no. 3, 1965. Vychislitel'nyye metody i programmirovaniye (Computing methods and programming), 61-88

TOPIC TAGS: power series method, numerical calculation, matrix diagonalization, subprogram, computer programming

ABSTRACT: The author describes a set of standard subprograms intended for the solution of the complete eigenvalue problem for real non-singular matrices up to order 38 inclusive. The set consists of three subprograms, each of which is standard and can be used independently in the presence of available information. The computation algorithm realized by the subprograms is based on the power-series method. Each subprogram is described and the use of subprograms is illustrated with examples of the diagonalization of a 10-th order matrix, the determination of the eigenvalues and eigenvectors of a 14-th order matrix, the determination of the

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ACCESSION NR: AT5010202

roots of a polynomial, and the reduction of a matrix of 16-th order with all complex roots to a quasi-triangular form with diagonal second-order cells. Orig. art. has: 14 formulas and 6 tables.

ASSOCIATION: Vychislitel'nyy tsentr Moskovskogo universiteta (Computation Center, Moscow University)

SUBMITTED: 00 ENCL: 00 SUB CODE: MA, DP

NR REF SOV: 002 OTHER: 000

Card 2/2

ANDREYEVA, L.P.

Adopt the work practices of the brigades of communist labor of the Kalinin Combine. Khim. volok. no.1:26-27 '65.
(MIRA 18:2)

1. Kalininskiy kombinat iskusstvennogo volokna.

BOGUN, A.F.; RUSNAK, N.T.; ANDREYEVA, L.S., red.; LAVRENOVA, N.B., tekhn.red.

[Organization and mechanization of docking operations] Opyt organizatsii i mekhanizatsii dokovykh rabot. Moskva, Izd-vo "Morskoi transport," 1959. 100 p. (MIRA 13:2)
(Ships--Maintenance and repair) (Dry docks)

CHUMACHENKO, Ivan Ivanovich; SKOBELING, L.V., red.; ANDREYEVA, L.S., red.; LAVRENOVA, N.B., tekhn.red.

[Internal combustion marine engines] Sudovye dvigateli vnutrennego sgoraniia. Izd.2., perer. i dop. Moskva, Izd-vo "Morskoi transport," 1960. 675 p. (MIRA 14:3)
(Marine engines) (Gas and oil engines)

CHUMACHENKO, Ivan Ivanovich; SKOBELING, L.V., red.; ANDREYEVA, L.S., red.; LAVRENOVA, N.B., tekhn. red.

[Marine internal-combustion engines] Sudovye dvigateli vnutrennego sgoraniia. Izd.2. perer. i dop. Moskva, Izd-vo "Morskoi transport," 1960. 675 p. (MIRA 14:7)

(Marine engines)

SUSHKOV, Boris Borisovich; ANDREYEVA, L.S., red.; TIKHONOVA, Ye.A., tekhn. red.

[Marine separators and shore installations for separating water from petroleum products] Sudovye separatory i beregovye ustanovki dlia otdeleniia vody ot nefteproduktov. Moskva, Izd-vo "Morskou transport," 1961. 136 p. (MIRA 14:10)

(Oil pollution of rivers, harbors, etc.)
(Separators (Machines))

EL'TSOV, Stepan Petrovich; NOVIKOV, Teodor Nikitovich; NEDZVEDSKIY, Pavel Ivanovich; ANDREYEVA, L.S., red.; LAVRENOVA, N.B., tekhn. red.

[Working time and rest periods of the workers of marine transportation] Rabochee vremia i vremia otdykha rabotnikov morskogo transporta. Moskva, Izd-vo "Morskoi transport," 1961. 174 p. (MIRA 15:8)

(Merchant marine)

KRUCHININ, Yuriy Aleksandrovich; ANDREYEVA, L.S., red.; USANOVA, N.B., tekhn. red.

[Trip into the ice age] Puteshestvie v lednikovyi period. Moskva, Izd-vo "Morskoi transport," 1963. 134 p. (MIRA 16:7)

(Queen Maud Land)

CHEREVICHNYY, Ivan Ivanovich, polyarnyy letchik, Geroy Sovetskogo Soyuza; ANDREYEVA, L.S., red.; USANOVA, N.B., tekhn. red.

[In the Antarctic sky] V nebe Antarkidy. Moskva, Izd-vo "Morskoi transport," 1963. 147 p. (MIRA 16:5)
(Antarctic regions--Aerial exploration)

ITSKOVICH, Yuriy Leonidovich; SKOBELING, L.V., red.; ANDREYEVA, L.S., red.

[Electric drives on ships] Sudovye elektricheskie privody. Moskva, Izd-vo "Morskoi transport," 1963. 583 p. (MIRA 17:5)

KUROPATKIN, Petr Vasil'yevich; ANDREYEVA, L.S., red.; SKOBELING, L.V., red.

[Automation of electric ship propulsion systems] Avtomatizatsiia grebnykh elektricheskikh ustanovok. Moskva, Transport, 1964. 202 p. (MIRA 17:9)

BROYTMAN, A.A.; DEREVICH, V.A.; SEDOR, A.M.; ANDREYEVA, L.S., red.; SKOBELING, L.V., red.

[Load-hoisting machines and arrangements on ships] Sudovye gruzopod"emnye mashiny i ustroistva. Moskva, Transport, 1964. 298 p. (MIRA 17:12)

SHUBINSKIY Aleksandr Iosifovich; KABAKOV, Yuriy Nikolayevich; ANDREYEVA, L.S., red.; ZAREZIN, I.V., red.

[Electrician in harbor mechanization] Elektromonter portovoi mekhanizatsii. Moskva, Transport, 1965. 183 p. (MIRA 18:9)

FILITENKO, Aloiz Aloizovich; ANDREYEVA, L.S., red.

[On foreign streets; port cities of Western Europe]
Na chuzhikh ulitsakh; portovye goroda Zapadnoi Evropy.
Moskva, Transport, 1965. 229 p. (MIRA 18:6)

TURBAKOV, A.A.; ANDREYEVA, L.S., red.

[Electrical engineering and the electrical equipment of ships] Elektrotekhnika i elektrooborudovanie sudov. Moskva, Transport, 1965. 446 p. (MIRA 18:9)

BARTOSHEVICH, Ye.N.; TSUKER, M.B.; LESHCHINSKAYA, Ye.V.; SOKOLOVA, I.S.; MARTYNENKO, I.N.; ANDREYEVA, L.S.; ASHMARINA, Ye.Ye.

Poliomyelitislike paralytic diseases in children inoculated with live Sabin vaccine. Vest. AMN SSSR 18 no.6:16-21 '63. (MIRA 17:1)

SYCHEV, Konstantin Arsent'yevich; ANDREYEVA, L.S., red.; LAVRENOVA, N.B., tekhn. red.

[On a drifting ice floe] Na dreifuiushchem ledianom ostrove. Moskva, Izd-vo "Morskoi transport," 1961. 112 p. (MIRA 14:12)
(Arctic regions—Russian exploration)

MAKSIMOV, Ivan Georgiyevich; POZNYAKOVA, Galina Yur'yevna; ANDREYEVA, L.S., red.; LAVRENOVA, N.B., tekhn. red.

[Workdays in a large port] Budni bol'shogo porta. Moskva, Izd-vo "Morskoi transport," 1961. 38 p. (MIRA 14:12)
(Leningrad—Harbor) (Cargo handling)

ANDREYEVA, L.S.

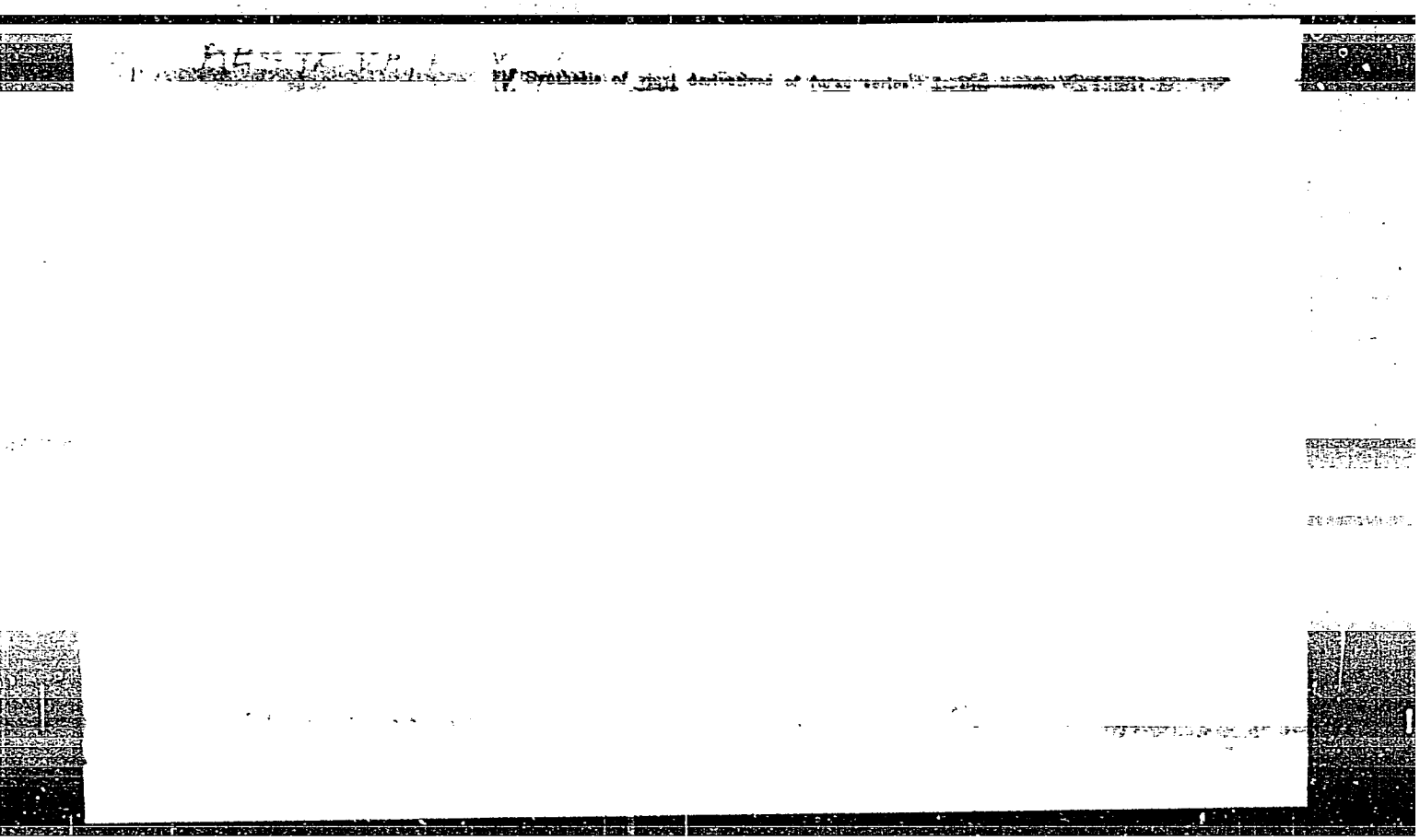
Introduce public control in building schoolhouses. Sel'.stroi. 14 no.8:4-5 Ag '59. (MIRA 12:12)

1. Zaveduyushchiy Moskovskim oblastnym otdelom narodnogo obrazovaniya.
(Schoolhouses)

ANDREYEVA, L. V.

Andreyeva, L. V.-"The air-steam method of burning out coke in tube furnaces," In the symposium: Nauch. raboty studentov gorno-metallurg. in-tov Moskvy, Moscow, 1949, p. 38-42

SO: U-4634, 20 Oct 53, (Letopis 'Zhurnal'nykh Statey, No. 16, 1949).



KONYUKHOVA, L.I., inzh.; SUKHANOVA, T.A., inzh.; ANDREYEVA, L.V., inzh.

Methodology for calculating raw material expenditure for knit outerwear garment pieces. Nauch.-issl.trudy VNIITP no.4:71-117 '63. (MIRA 17:4)

SARANCHA, Ye.T.; ABROSIMOVA, A.M.; ANDREYEVA, L.V.

Production of concentrated liquid ammoniate salts of carbon dioxide based on ammonium carbonate and urea. Khim. prom. 41 no.5:383-384 My '65. (MIRA 18:6)

ANDREYEVA, L. Ye.

"Calculation for the Rigidity of Diaphragms and Diaphragm Boxes." Sub 17 Sep 51, Moscow Order of the Labor Red Banner Higher Technical School imeni Bauman.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

ANDREYEVA, L. Ye., kandidat tekhnicheskikh nauk.

Computation of serrate profiled membranes; rigidity calculation. [Trudy] MVTU no.16:55-75 '52. (MLRA 6:6)

(Elastic plates and shells)

ANDREYEVA, L.Ye., kandidat tekhnicheskikh nauk.

Computation of membranes with linear characteristics under pressure. [Trudy] MVTU no.16:76-89 '52. (MLRA 6:6)
(Elastic plates and shells)

ANDREYEVA, L.Ye., kandidat tekhnicheskikh nauk.

Calculation of sloped trapezoidal corrugated membranes. [Trudy] MVTU no.26:125-141 '53. (MLRA 7:5)
(Elastic plates and shells)

ANDREYEVA, L.Ye., kandidat tekhnicheskikh nauk.

Calculation of conical and spherical corrugated membranes. [Trudy] MVTU no.26:142-150 '53. (MLRA 7:5)
(Elastic plates and shells)

ANDREYEVA, L.Ye. (Moscow)

Calculations concerning corrugated diaphragms considering them as anisotropic plates. Inzh.sbor. no.21:128-141 '55. (MLRA 8:11)
(Elastic plates and shells)

ANDREYEVA, L.Ye., kandidat tekhnicheskikh nauk, dotsent.

Calculation of corrugated diaphragms. [Trudy] MVTU no.46:100-124 '55. (Elastic plates and shells) (MLRA 9:4)

ANDREYEVA, L.Ye.

Calculating corrugated diaphragm characteristics. Priborostroenie no.3:11-17 Mr '56. (MLRA 9:8)
(Elastic plates and shells)

ANDREYEVA, L.Ye., dots., kand.tekhn.nauk

Determining characteristics and effective areas of corrugated membranes with rigid centers. Nauch.dokl.vys.shkoly; mash.i prib. no.1:218-227 '58. (MIRA 12:1)

1. Predstavleno kafedroy "Soprotivleniye materialov" Moskovskogo vysshego tekhnicheskogo uchilishcha imeni N.E. Baumana.
(Elastic plates and shells)

ANDREYEVA, L.Ye.; FEODOS'YEV, V.I., doktor tekhn. nauk, prof., red.; FRIDLENDER, G.O., doktor tekhn.nauk, retsenzent; AKIMOVA, A.G., red. izd-va; EL'KIND, V.D., tekhn. red.

[Elastic elements of instruments]Uprugie elementy priborov. Pod red. V.I.Feodos'eva. Moskva, Mashgiz, 1962. 254 p. (MIRA 15:9)

(Measuring instruments)

AGAMIROV, V.L., kand. tekhn. nauk; AMEL'YANCHIK, A.V., inzh.; ANDREYEVA, L.Ye., kand. tekhn. nauk; BIDERMAN, V.L., doktor tekhn. nauk; BOYARSHINOV, S.V., kand. tekhn. nauk; VOL'MIR, A.S., prof., doktor tekhn. nauk; DIMENTBERG, F.M., doktor tekhn. nauk; KOSTYUK, A.G., kand. tekhn. nauk; MAKUSHIN, V.M., kand. tekhn. nauk; MASLOV, G.S., kand. tekhn. nauk; MALININ, N.N., prof., doktor tekhn. nauk; PONOMAREV, S.D., prof. doktor tekhn. nauk; PRIGOROVSKIY, N.I., prof., doktor tekhn. nauk; SERENSEN, S.V., akademik; STEPANOVA, V.S., inzh.; STRELYAYEV, V.S., inzh.; TRAPEZIN, I.I., prof., doktor tekhn. nauk; UMANSKIY, A.A., prof., doktor tekhn. nauk; FEODOS'YEV, V.I., prof., doktor tekhn. nauk; SHATALOV, K.T., doktor tekhn.nauk; YUMATOV, V.P., kand. tekhn. nauk; BLAGOSKLONOVA, N.Yu., red. izd-va; YEVSTRAT'YEV, A.I., red. izd-va; SOKOLOVA, T.F., tekhn. red.

[Manual for a mechanical engineer in six volumes] Spravochnik mashinistroitelia v shesti tomakh. Red. sovet N.S.Acherkan i dr. Izd.3., ispr. i dop. Moskva, Mashgiz. Vol.3. 1962. 651 p. (MIRA 15:4)

1. Akademiya nauk USSR (for Serensen).
(Machinery--Design)

ANDREYEVA, M.; KHEYFETS, L.S.; GOL'SKAYA, I.F., inzh.-metodist; VODYANITSKAYA, Zh.I.; KOZHEVNIKOVA, E.I., starshiy nauchnyy sotrudnik; BLIDMAN, A.I.; VORONOV, B.V.

Exhibitions and displays. Inform. biul. VDNKH no.11:10-11,15-18, 26-27,31-32 N '63 (MIRA 18:1)

1.Starshiy ekskursovod pavil'ona "Khimicheskaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Andreyeva). 2. Glavnyy inzh. pavil'ona "Stroitel'nyye materialy" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Kheyfets). 3. Pavil'ona "Energeticheskoye stroitel'stvo" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Gol'skaya). 4. Direktor pavil'ona "Sel'skoye stroitel'stvo" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Vodyanitskaya). 5. Pavil(on "Sel'skoye stroitel'stvo" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Kozhevnikova). 6. Starshiy inzh.-metodist po khraneniyu i pererabotke zerna pavil'ona "Khraneniye i pererabotka zerna" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Blidman). 7. Glavnyy metodist pavil'ona "Professional'notekhnicheskoye obrazovaniye" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Voronov).

ANDREYEVA, M.

On the rivers of Kamchatka. Vokrug sveta no.8:46-47 Ag '54.
(MIRA 7:9)
(Kamchatka--Fisheries) (Fisheries--Kamchatka)

ANDRIYEVA, N. A.

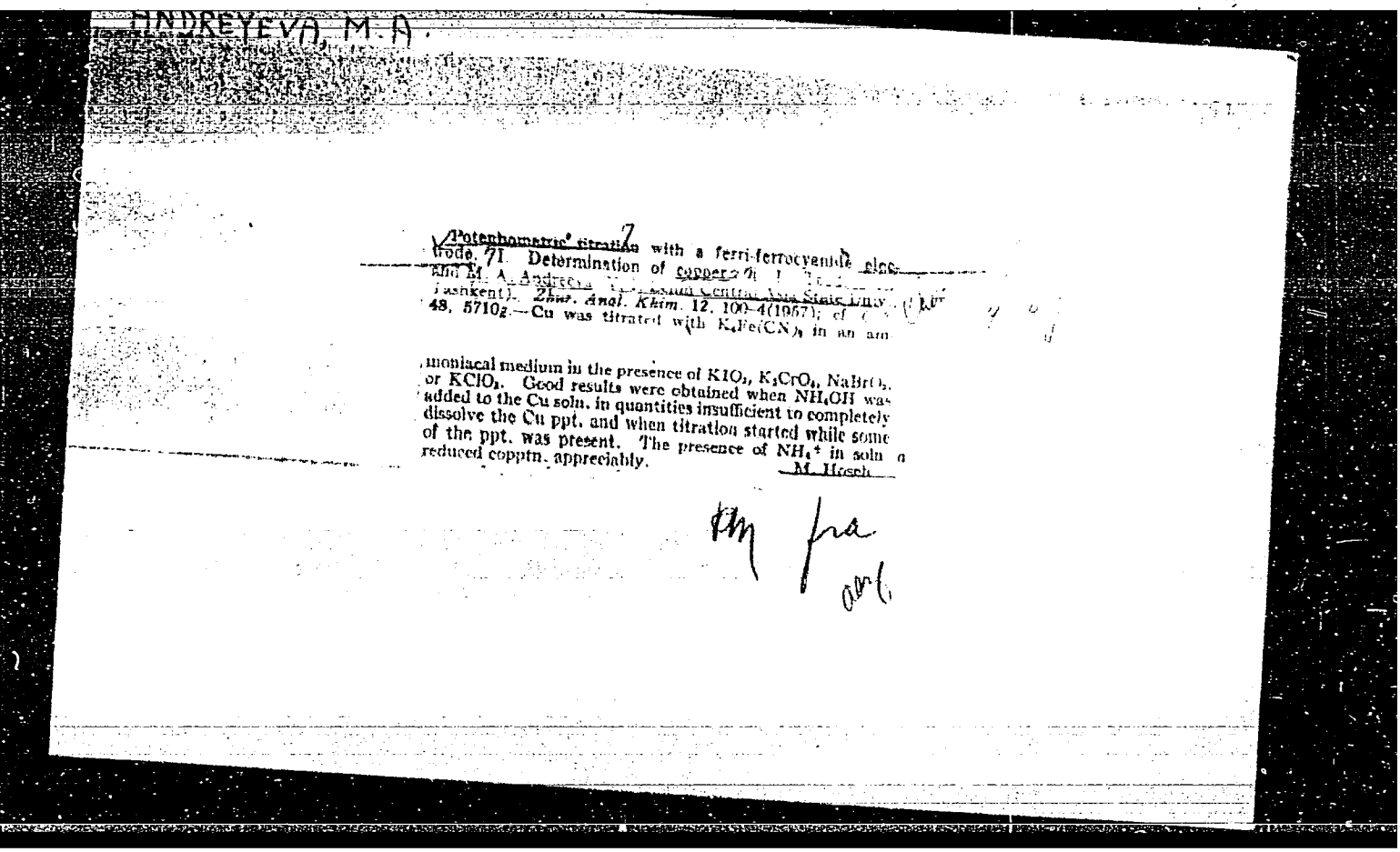
"The Installation of Sturdy Frostproof Linings on Reservoirs Constructed on Highly Filtering Quaternary Deposits in the Central Black-Earth Regions." Cand Geol-Min Sci, Moscow State U imeni M. V. Lomonosov, 3 Oct 54. (VM, 24 Sep 54)

SO: Sum 432, 29 Mar 55

ANDREYEVA, M. A.

2123* Influence of Fe and Cu Contents in Condenser Paper on the Quality of Condensers. Vliianie soderzhaniia zheleza i medi v kondensatornoi bumage na kachestvo kondensatorov. (Russian.) V. T. Benne, O. N. Kotlin, and M. A. Andreyeva. *Bumazhnaia Promyshlennost'*, v. 29, no. 8, Aug. 1954, p. 18-19.

A total Fe and Cu content exceeding 0.02% causes areas of weakness in the condenser dielectric. Tables, graphs.



ANDREYEVA, M. A.

Potentiometric titration with a ferri-ferrocyanide electrode. 71. Determination of copper. [illegible]
[illegible] M. A. Andreeva [illegible]
Tashkent). *Zhur. Anal. Khim.* 12, 100–4(1957); cf. [illegible]
48, 5710g.—Cu was titrated with $K_4Fe(CN)_6$ in an ammoniacal medium in the presence of KIO_3, K_2CrO_4, $NaBrO_3$, or $KClO_3$. Good results were obtained when NH_4OH was added to the Cu soln. in quantities insufficient to completely dissolve the Cu ppt. and when titration started while some of the ppt. was present. The presence of NH_4^+ in soln. reduced coppn. appreciably.
M. Hosch

USSR / General Problems of Pathology. Experimental Treatment. U-5

Abs Jour : Ref Zhur - Biol., No. 10, 1958, No. 47010

Author : Andreyeva, M. A.; Rozin, D. L.
Inst : Not given
Title : The Use of Radioactive Phosphorus for the Diagnosis of Breast Tumors and Their Complications.

Orig Pub : Tr. 1-y Zakavkazsk. konferentsii po med. radiol. Tbilisi, Gruzmedgiz, 1956, 273-279.

Abstract : The distribution of P^{32} was studied in 55 patients with malignant and benign tumors of the mammary gland. The patients were treated with isotopes in the form of bisubstituted sodium phosphate in a dosis of 0.12 mu curie in a 40 percent glucose solution. The accumulation of P^{32} in the afflicted mammary gland and in the symmetrically located area of the intact gland was determined

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ANDREYEVA, M. A.

USSR/CHEMISTRY - FRIEDEL-CRAFTS REACTION
BENZENE

Apr 49

"Mechanism of the Friedel-Crafts Reaction: IX, The Reaction of Trichloroethylene Wigh Benzene," V. V. Korshak, K. K. Samplavskaya, M. A. Andreyeva, Moscow Chemicotachnol Inst imeni D. I. Mendeleyev, 5 3/4 pp

"Zhur Obshch Khim" Vol XIX, No 4

Study of subject reaction in the presence of aluminum chloride shows that polynuclear products of the condensation are similar to those formed when 1, 1-diphenyle-2-chloroethylene is substituted for the trichloroethylene. In the case of the latter, they are diphenylmethane, triphenylmethane, and anthracens. Submitted 30 Dec 47.

PA 65/49T24

ANDREYEVA, M. A.

High-molecular weight compounds. LXXXVII. Mixed polyamides containing in their composition the residues of some amino acids. V. V. Korshak and T. M. Frunze (Inst. Heteroorg. Compds., Acad. Sci. U.S.S.R., Moscow). Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk 1956, 98 ... 1956, 93 ... 49 ... 50 ... were prepd. from ... aminoenanthic, ... The substances are colorless horny solids, which readily form fibers and are sol. in PhOH and mineral acids; the soly. and m.p. are directly related in this group. The m.ps. of the products are min. at about 0.6-0.8 mole fraction of the amino acid in the compn. The m.p.-compn. curves are shown graphically. Generally the m.p. ... in accordance with the number of methylene groups in the ... of the starting materials. LXXXVIII. Polyamides containing ether links in the ... chain. V. V. Korshak and ...

... CH_2NH ... were made from ... 114-15° ... converted by heating ... 75-8°, 236-40°, 175-80°, 127-30°, and 157-60°. The 1st was sol. in cresol and HCl and hot EtOH; the 2nd was sol. in HCl and cresol; the remaining ones were sol. in hot EtOH and slightly (over)

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KORSHAK, VV, FRUNZE, TM

in mol. wt. Thus the ether link lowers the m.p. of the polymide and raises the soly. The ether link is more effective in this manner when it is located in the acid residue rather than in the diamine. Copolymers were prepd. from caprolactam and I in various proportions; these solid horny substances also can form fibers on stretching in the cold state. The m.p. of the mixed product shows a min. at about 40 mole % caprolactam. Mixed polyamides from I and hexamethylenediamine adipate were also studied, in this binary system the min. m.p. results at about 10% I. LXXXIX. Three component systems of mixed polyamides including amino

acids. V. V. Korshak, T. M. Frunze, and T. A. Dikareva. *Izvest. Akad. Nauk. S.S.S.R., Otdel. Khim. Nauk* 1956, 108–13; *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1956, 101–105(Engl. translation).—Ternary system diagrams are presented for mixed polyamides prepd. from combinations of ω-aminoenanthic, ω-aminopelargonic or ω-aminoundecanoic acids, and hexamethylenediamine salts of adipic, azelaic, or sebacic acids or caprolactam. The lowest m.ps. and highest soly. are found in products near the centers of the ternary diagrams. XC. Polycondensation of 1,2-dichloroethane with Tetralin. G. S. Kolesnikov, V. V. Korshak, M. A. Andreeva, and A. T. Kitaigorodskii. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1956, 114–19; *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1956, 107–111(Engl. translation).—Polycondensation of $(CH_2Cl)_2$ with tetrahydronaphthalene in the presence of $AlCl_3$ was studied in mixts. of various compns. treated 4 hrs. at 100°. With excess Tetralin the yield of polymeric product is const. and independent of the proportion of other reactants; with excess $(CH_2Cl)_2$ the polymer yield declines. The polymer of max.

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KORSHAK, V. V., FRUNZE, T. N., ...

mol. wt. is formed with 1.1/1.0 ratio of Tetralin to $(CH_2Cl)_2$. The low mol. wt. product is 1,2-bis(2-tetralyl)ethane, m. 99-100°, b. 190-210° (crude). X-ray analysis of the material gave the following unit cell dimensions: a 18.35 A., b 8.01 A., c 7.97 A., λ 101.15°; space group $P2_1/_a = C^5_{2h}$; Z = 2 per unit cell. No tridimensional polymer forms in this reaction. The polymeric product does not show assocn. in C_6H_6 until the soln. reaches about 10% concn. XCI. **Transarylation of 1,2-diphenylethane at various temperatures.** G. S. Kolesnikov and V. V. Korshak. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1956, 232-8; *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1956, 223-7 (Engl. translation); cf. *C.A.* 51, 7527d. Specimens of $(PhCH_2)_2$ were heated at const. temp. with $AlCl_3$, with stirring in N_2 atm. and the amt. of evolved C_6H_6 detd. vs. time. The residual polyphenylethyl was isolated as usual. The result shown graphically indicate that in the temp. range 80-105 the transarylation reaction is 2nd-order with activation energy 11,400 cal. per mole. The chain growth of the polymer results both from interaction of the polymer mols. and from reaction of the monomer with a growing chain. The mol. wt. of the polymer increases with rising temp. as does the amt. of tridimensional product formed; the latter shows max. mol. wt. of about 15,000 at 150°. XCII. **Effect of catalyst concentration on transarylation of 1,2-diphenylethane.** *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1956, 239-42; *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1956, 229-31 (Engl. translation).—Increase of concn. of $AlCl_3$ used in the reaction (cf. part XCI) results in gradually increasing yield of the polymer up to 13.6 mole-% $AlCl_3$; the rate of reaction rises linearly with concn. of $AlCl_3$. The yield of tridimensional polymer rises with increased $AlCl_3$ concn. in

(over)

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KORSHAK V.V., FRUNZE T.M.

a series of experiments at 140°. The mol. wt. of the polyester tends to rise with increased concn. of the catalyst. The two-dimensional polymer forms primarily from the highest mol. wt. chains. XCIII. Properties of polyesters of tetramethylene glycol and 1,3-butanediol. V. V. Korshak and S. V. Vinogradova. *Zhur. Obshchei Khim.* 26, 539–44(1956); cf. *C.A.* 50, 252*af*.—Polyesters were prepd. from tetramethylene glycol or 1,3-butanediol with oxalic, malonic, succinic, adipic, glutaric, pimelic, azelaic, sebacic, and decanedicarboxylic acids. The polyesters from tetramethylene glycol were solids whose m.ps. showed the saw-tooth alternation; the oxalate, m. 103–5°, malonate, m. −20° to −24°, succinate, m. 113–14°, glutarate, m. 36–8°, adipate, m. 58–60°, azelaate, m. 38–41°, pimelate, m. 49–51°, sebacate, m. 64–7°. The polyesters of 1,3-butanediol were liquids with solidification temps. in the −1° to −48° range which also showed a similar alternation but which was less pronounced. The m.ps. of the polyester fractions from tetramethylene glycol do not show any appreciable variation with changed mol. wt. XCIV. Polyesters of trimethylene and pentamethylene glycols. *Ibid.* 544–8.—Polyesters of $(CH_2)_3(OH)_2$ and $(CH_2)_5(OH)_2$ were prepd. with dicarboxylic acids from oxalic to decanedicarboxylic. These were low-melting solids, generally showing a rising m.p. past succinic acid ester; the esters with malonic acid were liquids, m. about −25°, which represented a singular min. The succinates melted above the glutarates. The polyesters from glycols with an odd no. of C atoms destroy the factor of even-odd sequence, beginning with glutarates, i.e. alternation of melting temp. and fluidity and solv. in longer exists.

G. M. Kosolapoff

4/4

USSR/ Chemistry - Molecular compounds

Card 1/1 Pub. 40 - 20/25

Authors : Kolesnikov, G. S.; Korshak, V. V.; Andreyeva, M. A.; and Kitaygorodskiy, A. I.

Title : High molecular compounds. Part 90. Polycondensation of 1,2-dichloroethane with tetralin

Periodical : Izv. AN SSSR. Otd. khim. nauk 1, 114-119, Jan 1956

Abstract : The polycondensation of 1,2-dichloroethane with tetralin was investigated in the presence of aluminum chloride and the basic laws governing this polycondensation process were established. On the basis of x-ray analysis it was determined that 1,2-di-(beta-tetralyl) ethane is the product obtained during the initial polycondensation stages. The formation of three-dimensional polycondensation products was observed in spite of the fact that the potential function of tetralin is only 4. The effect of benzene-solution concentrations of polytetralylenethyl on the polymer molecule association is discussed. Seven references: 5 USSR and 2 Germ. (1921-1955). Tables; graph.

Institution : Acad. of Sc., USSR, Inst. of Organoelemental Compounds

Submitted : November 18, 1954

ANDREYEVA, M. A.

Organophosphorus ... I. Polymerization of cyclic esters of alkyl- and arylphosphonic acids. V. V. Korshak, I. A. Gritsaya and M. A. Andreyeva (Inst. Hetero-

4E4j

... polymerization is slow without a catalyst and yields of 3.5% ... The polymers were viscous oils insol. in C_6H_6, petr. ether, or Et_2O; they were predominantly trimers or tetra-

mers with only isolated instances of higher polymers. Addn. of [illegible] g. MeP(O)Cl₂ in dioxane [illegible] ml. [illegible] 12.4 g. CH_2OH [illegible] followed by [illegible] gave after [illegible] 30%

MeP(O)[illegible]H_2.CH_2.O, b_1 101 [illegible]°, d_{20} 1.3210, n_D^{20} 1.4470. Heated as above with Na (3%) 10 hrs. at 140° it gave 96.9% polymer. Similarly, PhP(O)Cl₂ gave 18.4% Ph

P(O).CH_2.[illegible]H_2.O, b_1 110 [illegible], m. [illegible] (it gave 92.1% polymer, as above). Similarly was prepd. [illegible]

P(O).O.CH_2.CH_2.CH_2.O, b_1 110-12°, m. 98-9° (gave 53.7% polymer); 42.4% MeP(O).O.CH_2.CH_2.CH_2.CH_2.O, b_1 [illegible] 9°, m. 97.5 9° [illegible]

poly[illegible]

118-19°, m. [illegible] gave [illegible]

CH_2.CH_2.CH_2 [illegible]

polymer [illegible]
b_1 125 [illegible]

P [illegible]

[illegible]

cyclic esters [illegible], while the larger cycl. esters are [illegible] nature of [illegible] zation.

[illegible]

5
4F

AUTHORS: Korshak, V. V., Gribova, I. A., Andreyeva, M. A. SOV/62-58-7-14/26

TITLE: An Investigation Within the Field of Organophosphorus Polymers (Issledovaniye v oblasti fosfororganicheskikh polimerov) Communication 4: On the Polyesters of Some Phosphinic Acids and of Hydroquinone(Soobshcheniye 4. O poliefirakh nekotorykh fosfinovykh kislot i gidrokhinona)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 7, pp 880 - 885 (USSR)

ABSTRACT: Already earlier the authors showed that after the interaction between dichloranhydrides of the alkyl and aryl phosphinic acids with glycols in the presence of hydrogen chloride binding substances the formation of polymer esters takes place. In the present paper the authors describe the synthesis of polyesters of various phosphinic acids and of hydroquinone. It was found that the nature of the substituents at the phosphorus atom exerts a considerable influence on the properties of the polyesters. The introduction of an aromatic residue into the polymer chain leads to the production of solid products (in con-

Card 1/2

An Investigation Within the Field of Organophosphorus Polymers. Communication 4: On the Polyesters of Some Phosphinic Acids and of Hydroquinone

SOV/62-58-7-14/26

trast to similar polymers being produced from aliphatic glycols). The polyesters produced were formed by the condensation of the chlorine anhydrides of the corresponding acids and of hydroquinone in the presence of metallic tin. The investigation of the binary system within the entire structural range (diapazon sostava) showed that a minimum of the melting temperature is exhibited by the copolymer (of a certain structure). There are 2 figures, 4 tables, and 7 references, 3 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds AS USSR)

SUBMITTED: December 21, 1956

Card 2/2

STEPANOV, B.I.; ANDREYEVA, M.A.

Substitution of halogen into azo compounds. Part 3: Preparation of o-arylalkoxyaniline derivatives. Zhur.ob.khim. 28 no.9: 2490-2491 S '58. (MIRA 11:11)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.

(Aniline)

AUTHORS: Andreyeva, M. A., Stepanov, B. I. SOV/79-28-11-14/55

TITLE: On the Substitution of the Halogen in Azo Compounds (O zameshchenii galogena v azosoyedineniyakh) V. Reaction of the Copper Complex of 2-Chloro-Benzene Azo-2'-Naphthol With Alcoholates (V. Vzaimodeystviye mednogo kompleksa 2-khlorbenzolazo-2'-naftola s alkogolyatami)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 11, pp 2966 - 2967 (USSR)

ABSTRACT: To explain the mechanism of the substitution of the halogen atoms in o-halogen-o'-oxy-azo dyes in the presence of copper salts (Ref 1) it was important to carry out this reaction using the complex compound of a halogen containing dye with copper and without the free copper salt. First the reaction of the copper complex of 2-chloro-benzene azo-2'-naphthol (the azo dye from 2-chloro-aniline and 2-naphthol) with alcoholates of n.-butyl and benzyl alcohol was carried out. The copper complex of the chlorine containing dye was obtained according to Crippa (Krippa, Ref 2) in a somewhat modified form by the reaction with copper

Card 1/3

ammonia solution on its heating in acetone instead of alcohol. According to the analysis this complex contains one copper atom per two dye molecules, and apparently has the mentioned structure (I). The reaction of the complex with sodium butylate and sodium benzylate in the solution of the corresponding alcohol was carried out at 100-103° within 8 hours. From the reaction products dyes were separated that turned out to be the products of the substitution of the chlorine atom by the corresponding butoxy and phenyl methoxy group (94.3 and 95.0%). Thus, the chlorine atom in the copper complex was substituted practically quantitatively by the alkoxy groups in the presence of the free copper salt. The dyes were identified according to the melting point of the mixed sample with the corresponding alkoxy substituted dyes. There are 3 references, 2 Soviet references.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000101410004-0"

On the Substitution of the Halogen in Azo Compounds. SOV/79-28-11-14/55
V. Reaction of the Copper Complex of 2-Chloro-Benzene-Azo-2'-Naphthol With Alcoholates

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I.Mendeleyeva (Moscow Chemotechnological Institute imeni D.I.Mendeleyev)

SUBMITTED: August 31, 1957

Card 3/3

21 (0) ANDREYEVA, M.A.

CHICON/25-3-5-6/20

AUTHOR: V. V. Formin, S. P. Vorobev, M. A. Andreeva

TITLE: The Investigation of Complex Plutonium Oxalates by the Polarographic Method

PERIODICAL: Yüan Tzŭ Nêng, 1958, Vol 3, Nr 5, pp 450-456

ABSTRACT: The composition and stability of complex ions of tri-and tetravalent plutonium in oxalate solution were investigated by the authors using the polarographic method. The process is described. The ions of Pu $(C_2O_4)_4^{-4}$ (predonderant) and Pu $(C_2O_4)_4^{-5}$ were formed in potassium oxalate solution with pH 3.5-6. Pu^{+4} gave a well reverse reaction wave which is suitable for the quantitative determination of plutonium by the polarographic method. In 1M potassium oxalate solution, the oxidation-reduction potential of the above reaction is 0.205V (corresponding to a saturated calomel electrode at 25 C). At pH 6-8, the authors discovered that two Pu^{+4} complexes were simultaneously present. The authors determined the instability constants of Pu $(C_2O_4)_4^{-5}$ from the data on the solubility of Pu $(C_2O_4)_3$ and the polarographic method is: $K_{Pu(C_2O_4)_4^{-5}} = 2.4 \times 16^{-12}$, $K_{Pu(C_2O_4)_3^{-3}} = 2.2 \times 10^{-11}$,

Card 1/2

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ANDREYEVA, M. A.

AUTHORS: Fomin, V. V., Vorob'yev, S. P., Andreyeva, M. A. 89-1-7/29

TITLE: Investigation of Complex Plutonium Oxalate Compounds by the Polarographic Method (Izucheniya kompleksnykh oksalatov plutoniya polyarograficheskim metodom).

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 1, pp. 57 - 62 (USSR).

ABSTRACT: The composition and constancy for tri- and quadrivalent complex plutonium ions in oxalate solutions was determined by the polarographic method. In a solution of potassium oxalate with a pH value of from 3,5 to 6,0 mainly $[Pu(C_2O_4)_4]^{-4}$ and also $[Pu(C_2O_4)_4]^{-5}$ are formed.

Conditions being as they are given, there exists for Pu^{+4} a well developed reversible reaction wave, which suffices for the qualitative polarographic determination of plutonium.
The oxidation reduction potential for this reaction in a 1 M solution of potassium oxalate is 0,205 V.
If the solutions have a pH value between 6 and 8, then two Pu^{+4} complexes exist at one and the same time.
From the data for the solubility of $[Pu(C_2O_4)_3]$ the instability constants for the complex ions $[Pu(C_2O_4)_3]^{-3}$ and $[Pu(C_2O_4)_4]^{-5}$ and from

Card 1/2

Card 2/2

ANDREYEVA, M. A. Cand Chem Sci -- (diss) "On the mobility of halogen in certain halogenoxyazo-compounds." Mos, 1959. 11 pp (Min of Higher and Secondary Specialized Education RSFSR. Mos Order of Lenin Chemicotechnological Inst im D. I. Mendeleyev), 150 copies (KL, 52-59, 116)

5(3) SOV/156-59-1-36/54

AUTHORS: Stepanov, B. I., Andreyeva, M. A.

TITLE: On the Substitution of Halogen Atoms in o,o-Dihalogen-o'-oxyazo-dyes (O zameshchenii atomov galogena v o,o-digalogen-o'-oksiazokrasitelyakh)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 1, pp 141 - 142 (USSR)

ABSTRACT: For the investigation into the mobility of halogen atoms in o-halogen-o'-oxy compounds (Refs 1,2,3), 2,6-dichlorobenzene-(1-azo-1')-naphthol-2', an azo-dye from 2,6-dichloro-aniline and 2-naphthol, was used as an initial substance. This o-oxyazo compound thus contained two halogen atoms in an ortho-position with regard to the azo-group. It was found that on the reaction of this substance with alcoholates (sodium-n-butylate) and phenolates (Na-4-phenyl-phenolate) in the presence of copper salts a practically quantitative substitution by the respective alkoxy- or phenoxy-group of the two halogen atoms takes place. This substitution occurs far more readily than it does in the analogous compounds containing only one halogen atom. The experimental part gives instructions

Card 1/ 2

KORSHAK, V.V.; GRIBOVA, I.A.; ANDREYEVA, M.A..

Organophosphorus polymers. Part 8: Polyesters of phosphonic acids and of some aromatic dioxycompounds. Vysokom. soed. 1 no.6:825-828 Je '59. (MIRA 12:10)

1.Institut elementoorganicheskikh soyedineniy AN SSSR.
(Polymers) (Phosphorus organic compounds)

5.3630
5.3830

81586
S/190/60/002/03/08/0[illegible]
B020/B066

AUTHORS: Korshak, V. V., Gribova, I. A., Andreyeva, M. A.

TITLE: Investigation in the Field of Organophosphorus Polymers. IX. Polycondensation of the Dichlorides of Phosphinic Acids With Dioxy Compounds

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 3, pp. 427-432

TEXT: The objective of the present paper was an investigation of the influence of various factors upon the polycondensation of the dichlorides of phosphinic acids with dioxy compounds as well as a kinetic investigation of this reaction which proceeds according to the scheme

$$Cl - \underset{\underset{R'}{|}}{\overset{\overset{O}{\|}}{P}} - Cl + HOROH \longrightarrow \left[- \underset{\underset{R'}{|}}{\overset{\overset{O}{\|}}{P}} - ORO - \right] + 2HCl.$$

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81586
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B020/B066

Investigation in the Field of Organophosphorus Polymers. IX. Polycondensation of the Dichlorides of Phosphinic Acids With Dioxy Compounds

glycol, diethylene glycol, and triethylene glycol) upon polycondensation with dichlorides of phosphinic acids. The polyester yield was found to increase. Fig. 3 shows the influence of the reaction temperature of methyl phosphinic acid dichloride with hydroquinone upon the yield and reduced viscosity of the polyester. A considerable effect on the reaction rate is exerted by the reaction temperature and the concentration of the initial reagents. Fig. 4 is a graphical representation of the degree of completeness of the reaction of methyl phosphinic acid dichloride, and Fig. 5 shows the temperature dependence of the reaction rate constants of methyl phosphinic acid dichloride with hydroquinone and diethylene glycol. The reaction rate constants are given in Table 2. The conditions of the reaction of methyl phosphinic acid dichloride with hydroquinone and the results obtained from this reaction are represented in Table 3. There are 5 figures, 3 tables, and 9 references: 6 Soviet, 2 British, and 1 Dutch.

Card 3/4

S/079/60/030/04/69/080
B001/B011

AUTHORS: Andreyeva, M. A., Stepanov, B. I.

TITLE: On the Substitution of Halogen in Azo Compounds. IX. Influence of the Position of Halogen and of Nucleophilic Substituents, and of the Nature of Nucleophilic Substituents

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1350-1356

TEXT: With a view to determining the limits of applicability of the substitution of the halogen atom in azo compounds, the authors of the present paper carried out the reaction of n.-sodium butylate with chlorine-containing azo compounds in the presence of copper salts differing by the position of the chlorine atom and of the nucleophilic substituents in relation to the azo group, and also by the character of nucleophilic substituents. The substitution of the halogen atom in azo compounds was found to take place only in the case of the vicinity (ortho-position) of the halogen atom and of the nucleophilic substituents to the azo group, as well as in the presence of a mobile hydrogen in the structure of the nucleophilic substituent. The reaction is the easier, the easier hydrogen is replaced by metal. It was found that

On the Substitution of Halogen in Azo Compounds. S/079/60/030/04/69/080
IX. Influence of the Position of Halogen and of B001/B011
Nucleophilic Substituents, and of the Nature of Nucleophilic Substituents

the halogen atom in azo dyes can be replaced by arylides of β-keto acids and amines as the azo components. The halogen atom was found to be replaced by the alkoxy group on the reaction of the copper complex of o-halogen-o'-amino dye with alcoholates, without free copper salt. On heating the azo dye, which contains a methoxy group in the naphthalene ring in the ortho-position to the azo group, with sodium butylate in the presence of a copper salt, the methyl residue in the ester group is replaced by the butyl group. There are 2 tables and 12 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut imeni D. I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: March 14, 1959

Card 2/2

STEPANOV, B.I.; ANDREYEVA, M.A.

Substitution of the halogen in azo compounds. Part 11: Significance of certain space factors. Zhur.ob.khim. 30 no.8:2748-2754 Ag '60. (MIRA 13:8)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.
(Azo compounds) (Substitution (Chemistry))

ANDREYEVA, M.A.; STEPANOV, B.I.

Substitution of the halogen in azo compounds. Part 12: Influence of the nature of the halogen. Zhur.ob.khim. 30 no.8:2768-2771 Ag '60. (MIRA 13:8)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.

(Azo compounds) (Substitution (Chemistry))

ANDREYEVA, A.N.

Khimiya i Primeneniye Fosfororganicheskikh Soyedineniy (Chemistry and Application of Organophosphorus Compounds) A. Ye. Arbuzov, Ed. publ. by Kazan' Affil, Acad. Sci. USSR, Moscow, 1962 634pp.

Collection of complete papers presented at the 1959 Kazan Conference on Chemistry of Organophosphorus Compounds.

KORSHAK, V.V., GRIBOVA, I.A., ANDREYEVA, M.A.

Research in the field of phosphorus-containing polyesters.

Khimiya i Primeneniye Fosfororganicheskikh Soyedineniy (Chemistry and application of organophosphorus compounds) A. YE. ARBUZOV, Ed. Publ. by Kazan Affil. Acad. Sci. USSR, Moscow 1962, 632 pp.

Collection of complete papers presented at the 1959 Kazan Conference on Chemistry of Organophosphorus Compounds.

ANDREYEVA, M. A.

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PHASE I BOOK EXPLOITATION SOV/6034

Konferentsiya po khimii i primeneniyu fosfororganicheskikh soyedineniy. 2d, Kazan', 1959.

Khimiya i primeneniye fosfororganicheskikh soyedineniy; trudy (Chemistry and Use of Organophosphorus Compounds; Conference Transactions) Moscow, Izd-vo AN SSSR, 1962. 630 p. Errata slip inserted. 2800 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Kazanskiy filial.

Resp. Ed.: A. Ye. Arbuzov, Academician; Ed. of Publishing House: L. S. Povarov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This collection of conference transactions is intended for chemists, process engineers, physiologists, pharmacists, physicians, veterinarians, and agricultural scientists.

COVERAGE: The transactions include the full texts of most of the scientific papers presented at the Second Conference on the Chemistry and Use of

Card 1/

Chemistry and the Use of Organophosphorus (Cont.) SOV/6034

Organophosphorus Compounds held at Kazan' from 2 Nov through 1 Dec 1959. The material is divided into three sections: Chemistry, containing 67 articles; Physiological Activity of Organophosphorus Compounds, containing 26 articles; and Plant Protection, containing 12 articles. The reports reflect the strong interest of Soviet scientists in the chemistry and application of organophosphorus compounds. References accompany individual reports. Short summaries of some of the listed reports have been made and are given below.

TABLE OF CONTENTS:[Abridged]:

Card 2/4

triorganosilanols (R_3SiOH) with acids of phosphorus under conditions of azeotropic distillation of water in the presence of inert solvents. Another is based on the interaction of triorganosilanes with orthophosphoric and methylphosphonic acids in the presence of active colloidal nickel.

Korshak, V. V., I. A. Gribova, and M. A. Andreyeva [Institut elementoorganicheskikh soyedineniy (Institute of Organoelemental Compounds, Academy of Sciences USSR, Moscow)]. Study of Phosphorus-Containing Compounds 242

The polycondensation of dichlorides of phosphonic acids with diols has been studied by following the interaction of methylphosphonic dichloride with hydroquinone in a nitrobenzene solution at a temperature of 140 to 170°C. The properties of polyesters of phosphonic acid have also been studied.

43765

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S/081/62/000/023/120/120
B117/B186

AUTHORS: Korshak, V. V., Gribova, I. A., Andreyeva, M. A.

TITLE: Study in the field of phosphorus-containing polyesters

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 817, abstract 23R60 (In collection: Khimiya i primeneniye fosfororgan. soyedineniy. M., AN SSSR, 1962, 242 - 246)

TEXT: Phosphorus-containing polymers (PM) with heterogeneous chains were synthesized by polycondensation of methyl phosphinic dichloride (I) with aliphatic and aromatic dihydroxy compounds. The second-order reaction occurs between (I) and hydroquinone (in nitro-benzene at 140 - 170°C), (I) and diethylene glycol (in dichloro ethane at 40 - 80°C) with activation energies of 10.5 ± 0.7, and 7.5 ± 1.0 kcal/mole, respectively. Yield and molecular weight of PM increase considerably with increasing temperature. The formation of cyclic esters occurs as a side reaction, mainly in the case of the lower glycols. Based on aliphatic glycols, the PM are thick and viscous liquids; in the case of aromatic dihydroxy compounds, they are solid transparent substances. The PM are soluble in $CHCl_3$, dichloro ethane, and

Card 1/2

S/081/62/000/023/119/120
B117/B186

5.3630

AUTHORS: ~~Andreyeva, M. A.~~, Gribova, I. A., Kabachnik, M. I., Kolesnikov, G. S., Korshak, V. V., Medved', T. Ya., Polikarpov, Yu. M., Rodionova, Ye. F., Fedorova, L. S.

TITLE: Some methods of synthesizing new organophosphorus monomers and polymers

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 816, abstract 23R58 (In collection: Khimiya i primeneniye fosfororgan. soyedineniy. M., AN SSSR, 1962, 263 - 271)

TEXT: This is a review of the authors' papers on synthesizing vinyl compounds of quinquevalent P and polymers based on them. Syntheses of various derivatives of vinyl phosphinic and vinyl thiophosphinic acid, and of diethyl vinyl phosphinic oxide, have been described. The production of some new phosphorus-containing polymers and copolymers with carbo-chains and heterogeneous chains is described. 13 references. [Abstracter's note: Complete translation.]

/B

Card 1/1

ANDREYEVA, M.A., GRIBOVA, I.A., KABACHNIK, M.I., KOLESNIKOV, G.S., KORSHAK, V.V., MEDVED', T.YA., POLIKARPOV, YU.M., RODIONOVA, YE.F., FEDOROVA, L.S.

"Some means of synthesizing new organophosphorus monomers and polymers."

Khimiya i Primeneniye Fosfororganicheskikh Soyedineniy (Chemistry and application of organophosphorus compounds) A. YE. ARBUZOV, Ed. Publ. by Kazan Affil. Acad. Sci. USSR, Moscow 1962, 632 pp.

Collection of complete papers presented at the 1959 Kazan Conference on Chemistry of Organophosphorus Compounds.

STEPANOV, B.I.; VOROB'YEVA, I.I.; ANDREYEVA, M.A.

Substitution of halogen in azo compounds. Part 14: Substitution of chlorine in the azo dye of 3-chloro-3-aminoanthraquinone and 2-naphthol. Zhur.ob.khim. 32 no.10:3281-3283 O '62. (MIRA 15:11)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.
(Azo dyes) (Chlorine)
(Substitution (Chemistry))

ANDREYEVA, M.A.; VOROZHTSOV, N.N., mladshiy; KRIZHECHKOVSKAYA, N.I.; STEPANOV, B.I.; YAKOBSON, G.G.

Substitution of halogen in azo compounds. Part 17: Reactions of polyhaloazo compounds. Using the reaction for establishing the structure of some aromatic halogen-containing compounds. Zhur.ob.khim. 33 no.3:988-991 Mr '63. (MIRA 16:3)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva i Novosibirskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR.
(Azo compounds)
(Halogen)

KORSHAK, V.V.; GRIBOVA, I.A.; ANDRIEVA, M.A.

Phosphorus-containing thermosetting resins. Plast.massy no.10: 11-12 '63. (MIRA 16:10)

STEPANOV, B.I.; ANDREYEVA, M.A.

Interaction of 2-chlorobenzene-(1-azo-1')-2'-naphthol with fluorene. Zhur. VKHO 8 no.5:577 '63. (MIRA 17:1)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

ANDREYEVA, M. A.

Dissertation: "On the Changes in the Degree of Dispersion of Solutions Obtained by Means of Colloid Solvents," Cand Chem Sci, State Sci Res Inst of Roentgenology and Radiology, Baku 1953

W-30928

SO: Referativnyy Zhurnal, No. 5, Dec. 1953, Moscow, AN USSR (W-29933)

ANDREYEVA, M.

USSR/Chemistry - Analytical chemistry

Card 1/2 Pub. 147 - 11/22

Authors : Fomin, V. V.; Fedotova, L. N.; Sin'kovskiy, V. V., and Andreyeva, M. A.

Title : Study of cadmium chloride complexes by means of anionites

Periodical : Zhur. fiz. khim. 29/11, 2042-2047, Nov 1955

Abstract : A new method for the determination of stability constants of complex anions by means of anions, provided the solution contains one complex ion and complex cations and molecules, is described. The method is based on the application of the effective mass law to the ion exchange. It is shown that the distribution of Cd between the anionite and the potassium chloride solution at an ion force close to one corresponds to a certain

Institution : .....

Submitted : February 25, 1955

Card 2/2 Pub. 147 - 11/22

Periodical : Zhur. fiz. khim. 29/11, 2042-2047, Nov 1955

Abstract : equation for stability constants of complex Cd-ions. The complexity in retaining a constant ion force during changes in concentrations of ions participating in the complex formation is the main difficulty of the new method. Twenty references: 8 USA, 7 USSR, 1 Ital., 3 Scand., and 1 Germ. (1937-1953). Tables.

ANDREYEVA, M.A.

Dissolving essential oils by complex colloidal solvents. Uch. zap. AGU no.7:35-40 '57. (MIRA 11:11)
(Essences and essential oils) (Solvents)

32347
S/190/62/004/001/009/020
B101/B110

15.8110

AUTHORS: Korshak, V. V., Gribova, I. A., Andreyeva, M. A., Popova, G. M.

TITLE: Polymers containing phosphorus. XXVII. Heterochained polyesters of vinyl phosphinic acid with some dihydroxy compounds

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 1, 1962, 58-63

TEXT: The authors report on the properties of esters of diethylene glycol (I) and 4,4'-dihydroxy-2,2-diphenyl propane (II) with mixtures of vinyl and methyl phosphinic acids. The syntheses of these esters have already been described (Vysokomolek. soyed., 2, 427, 1960; Izv. AN SSSR, Otd. khim. n., 1958, 880). Esters with I are colorless, viscous liquids. Their freezing point drops from -39°C (100% CH_3POCl_2) to -51°C with 100% CH_2=$CHPOCl_2$ in the initial mixture. Esters with II are transparent, brittle solids soluble in dichloro ethane, chloroform, and tricresol, insoluble in ether, benzene, and dioxane. Their softening points drop from 55-56°C to

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Polymers containing phosphorus. ...

41-42°C (= 100% vinyl phosphinic acid) as the content of vinyl phosphinic acid increases. Structurization of the ester of I (in sealed ampuls, N_2 atmosphere, at 60°C for 15 hrs, or in an open test tube and in $C_2H_4Cl_2$ solution) by benzoyl peroxide, tert-butyl peroxide, azoisobutyric dinitrile, tert-butyl hydroperoxide, or cumene hydroperoxide, only occurred with a vinyl phosphinic acid content ≧ 40% (gelatinous substances, softening points: 150-200°C the latter value with 100% CH_2=CHPO-). Esters with II could not be structurized under the experimental conditions, applied. There are 2 figures, 4 tables, and 4 Soviet references.

ASSOCIATION: Institut elementoorganicheskikh soyedineniye AN SSSR
(Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: January 28, 1961

L 12725-63 EPF(c)/EWP(j)/EWT(m)/BDS ASD Pr-4/Pc-4 RM/WW
ACCESSION NR: AP3002291 S/0062/63/000/006/1095/1100

65
64

AUTHOR: Korshak, V. V.; Gribova, I. A.; Andreyeva, M. A.

TITLE: Research on organophosphorous polymers. Report 28. Transesterification of dialkyl esters of phosphinic acids with various glycols

SOURCE: AN SSSR. Izv. Otdeleniye khimicheskikh nauk, no. 6, 1963, 1095-1100

TOPIC TAGS: transesterification, organophosphorous polymers, dialkyl ester phosphinic acid, dibutyl methanephosphinate, dimethyl methanephosphinate, eicosamethylene glycol

ABSTRACT: Dibutyl and dimethyl methanephosphinate were synthesized from the acid chloride and transesterified with diethylene, hexamethylene, and eicosamethylene glycol. A number of acidic and basic catalysts were tried. Metallic sodium gave the best results. The effect of variations in temperature and length of heating was studied. At the temperature required for the reaction to proceed, some decomposition, contaminating the product with an acidic impurity, was unavoidable. The products obtained with diethylene and hexamethylene glycol are dense, viscous liquids composed mainly of trimers and tetramers, soluble in chloroform, cresol, and acetic acid, and insoluble in benzene, dichloroethane, carbon tetrachloride,

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ACCESSION NR: AP3002291

ether, and petroleum ether. In the reaction of the dibutyl ester with eicosamethylene glycol, a mixed monomeric ester was obtained. Orig. art. has: 4 tables.

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

SUBMITTED: 29Jun62	DATE ACQ: 16Jul63	ENCL: 00
SUB CODE: 00	NO REF SOV: 009	OTHER: 001

Card 2/2

ACCESSION NR: AT4033994 S/0000/63/000/000/0117/0122

AUTHOR: Korshak, V.V.; Gribova, I.A.; Andreyeva, M.A.; Kabachnik, M.I.; Medved', T. Ya.

TITLE: Polymers containing phosphorus. XXIX. Heterocyclic polyesters of vinylphosphinic acid and some glycols

SOURCE: Geterotsepny*ye vy*sokomolekulyarny*ye soyedineniya (Heterochain macromolecular compounds); sbornik statey. Moscow, Izd-vo "Nauka," 1963, 117-122

TOPIC TAGS: vinylphosphinic acid, ethylene glycol, propylene glycol, diethylene glycol, trimethylene glycol, butylene glycol, polymer, cyclic polyester, polymerization, polymerization catalyst, metallic sodium, linear polymerization, radical polymerization, benzoyl peroxide, tert.-butyl peroxide, tert.-butyl hydroperoxide

ABSTRACT: The authors synthesized the cyclic esters of vinylphosphinic acid (I) and ethylene glycol (II), 1,2-propylene glycol (III), trimethylene glycol (IV), 1,4-butylene glycol (V) or diethylene glycol (VI) and determined some of their physicochemical properties (see Table 1 in the Enclosure). These esters were then polymerized linearly in the presence of water (3% by weight, 140C, from 15 hours for III to 83 hours for VI).

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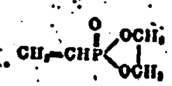
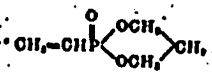
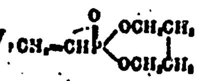
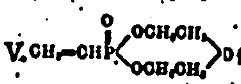
ACCESSION NR: AT4033994 - Cyclic esters of vinylphosphinic acid ENCLOSURE: 01

TABLE 1

Chemical formula	B.P., °C/mm	n_D^{20}	d_4^{20}	MR_D Found	MR_D Calculated	C, % Found	C, % Calculated	H, % Found	H, % Calculated	P, % Found	P, % Calculated	Yield %
I. 	127/4	1,4701	1,3068	28,63	28,87	35,5 35,5	35,8	5,8 5,7	5,3	20,6 20,6	23,1	65
II. 	113—114/3	1,4596	1,2071	33,59	33,49	40,6 40,7	40,6	6,2 6,2	6,2	20,4 20,5	20,9	59
III. 	129—130/2	1,4775	1,2570	33,32	33,49	40,6 40,5	40,6	6,4 6,3	6,1	20,4 20,4	20,9	53
IV. 	120/3	1,4792	1,2044	38,19	38,11	44,6 44,6	44,6	7,0 7,0	6,9			47
V. 	т. кип. 112—116/3 т. пл. 57—58°	—	—	—	—	40,4 40,4	40,4	6,2 6,2	6,2	17,5 17,4	17,4	10

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L 1868-66 EPA(s)-2/EWT(m)/EPF(c)/EWP(j)/T/ETC(m) WW/RM

ACCESSION NR: AP5024495 UR/0191/65/000/010/0001/0003
678.673.4:678.029.44

AUTHOR: Vinogradova, S. V.; Andreyeva, M. A.; Davydova, V. F.; Korshak, V. V.

TITLE: Study of the feasibility of curing and converting thermosetting polyaryl esters into end products

SOURCE: Plasticheskiye massy, no. 10, 1965, 1-3

TOPIC TAGS: polyaryl ester, heat resistant plastic, polyaryl plastic

ABSTRACT: A study has shown that unfilled or quartz-filled cross-linked D-5 polyaryl ester can be processed into end products by molding. D-5, prepared from terephthaloyl chloride, bisphenol A, and 1,1,1-trimethylolpropane (1/0.5/0.5 molar ratio), is partly cross-linked (38% insoluble in chloroform) at the outset. Study of further cross-linking by various curing agents revealed that maleic and endic (cis-3,6-endomethylene-1,2,3,6-tetrahydrophthalic) anhydrides or tetrabutoxytitanium give the best results. Cross-linking occurs as follows:

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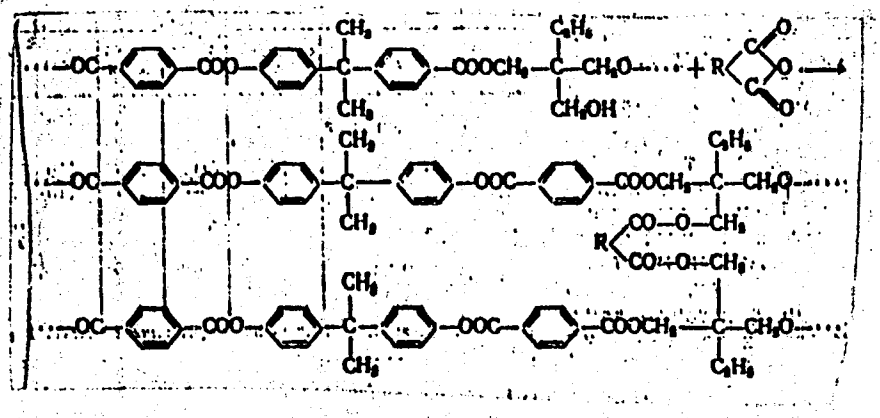
L 1868-66

ACCESSION NR: AP5024495



Study of D-5 molding showed the expediency of using a cross-linked polymer softening at 200—210C and 60—70% insoluble. Such a polymer is rapidly molded (at 110—160C) into solid products. Fig. 1 of the Enclosure shows the thermomechanical properties of D-5 and, for comparison, of D-2 polyaryl ester (from terephthalic acid and bisphenol A). As Fig. 1 indicates, cross-linking considerably improves heat resistance.

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L 1868-66

ACCESSION NR: AP5024495

Cross-linked D-5 withstands temperature cycling from -60 to 250C and exhibits good dielectric properties. Orig. art. has: 1 table and 4 figures. [SM]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01 SUB CODE: MT

NO REF SOV: 002 OTHER: 000 ATD PRESS: 4112

Card 3/4

L 1868-66
ACCESSION NR: AP5024495

ENCLOSURE: 01

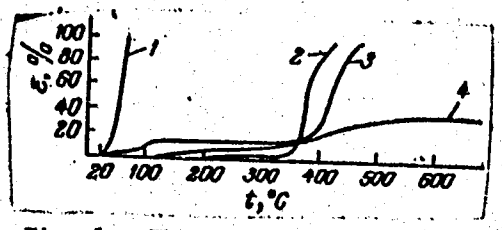

Fig. 1. Thermomechanical curves

1 - Initial D-5 polyaryl ester; 2 - D-2 polyaryl ester; 3 - D-5 cross-linked with 15% maleic anhydride; 4 - D-5 cross-linked with 15% tetrabutoxytitanium.

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L 2324-66 EWT(m)/EPF(c)/EWP(j)/T/ETC(m) WW/RM

ACCESSION NR: AP5022222 UR/0191/65/000/009/0016/0019
678.673.01:536.495:537.311

AUTHOR: Vinogradova, S. V.; Korshak, V. V.; Fridman, Ye. I.; Andreyeva, M. A.; Baraboshkina, L. N.

TITLE: Heat-resistant electroinsulating polyarylate plastic material

SOURCE: Plasticheskiye massy, no. 9, 1965, 16-19

TOPIC TAGS: plasticizer, heat resistant plastic, heat resistant material, polyaryl plastic, terephthalic acid, electric insulator, plastic , heat resistance, polyarylate, phenolphthalein, bisphenol A, isophthalic acid, softening point

ABSTRACT: The possibility of preparing heat-resistant plastics suitable for electric insulators and capable of being compression molded was studied by preparing neat and mixed compositions from phenolphthalein isophthalate or terephthalate based polyarylates (i.e., aromatic polyesters). It was also attempted to prepare polymers which had to be kept at their melting temperature during compression molding for a minimum time. Thus, powdered poly(phenolphthalein isophthalate) could be compression molded at 270—300C into semitransparent light-brown samples of plastic designated as F-1, while the poly(phenolphthalein terephthalate), designated as plastic F-2, cracked

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L 2324-66
ACCESSION NR: AP5022222

and disintegrated after being taken out of the molds. The addition of plasticizers, "Sovol" [biphenol dichloride], a polysiloxane and some other polyarylates based on either bisphenol A or phenolphthalein sebacate, made it possible to prepare compression molded samples from F-2 with softening points from 255 to 340C. The addition of Sovol in varying amounts or the same polysiloxane to F-1 produced plastics with softening points between 250 and 285C. Even the sample with 10% Sovol still had a softening point of 230C, which was considered to be sufficiently high, combined with good workability of the material. The introduction of fillers (up to 40% by weight of the composition) was also studied for the purpose of reducing cracking of the plastic and to save polymer materials. Good results were obtained with quartz flour or talcum, while aluminum oxide or silica gel were ineffective. The filled F-2 polyarylate samples were resistant to thermal shock; they withstood repeated sharp temperature change from -60 to 250C. The polyarylate compositions obtained had high dielectric properties in a rather wide range of temperatures. Orig. art. has: 4 figures and 4 tables. [BN]

ASSOCIATION: none

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

NO REF SOV: 004 OTHER: 000 ATD PRESS: 4107

Card 2/2 pd

OFENGENDEN, N.Ye.; SVYATSKAYA, M.T.; ANDREYEVA, M.F.

Crushing of coal caused by hydraulic mining and conveying. Sbor.-DonUGI no.22:69-90 '61. (MIRA 15:6)
(Hydraulic mining)

SVYATSKAYA, M. G.; ANDREYEVA, M. F.; SHALYGINA, V. T.

Clarification of slime waters. Sbor. DonUGI no 22:121-128 '61. (MIRA 15:6)
(Coal preparation plants--Equipment and supplies)

SOV/120-58-2-14/37

AUTHOR: Andreyeva, M. G.

TITLE: Application of an Electron Multiplier to Increase the Sensitivity of a Mass Spectrometer (Primeneniye elektronnogo umnozhitelya dlya povysheniya chuvstvitel'nosti mass-spektrometra)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 2, pp 53-56 (USSR)

ABSTRACT: In a number of studies it is necessary to carry out mass spectrometric analysis with very small amounts of material so that the usual sensitivity (10^{-14} - 10^{-15} amp) is insufficient. Recently, various methods of recording mass spectrometric ion beams have been devised, using Geiger counters, photoelectron multipliers, ionisation chambers, and electron multipliers as DC amplifiers or ion counters. In the present work, in order to increase the sensitivity of the mass spectrometer MS-3, an electron multiplier was used, particular attention being paid to the method of counting. An eleven stage electron multiplier with beryllium bronze electrodes was used. The multiplier was specially activated and worked with a negative voltage of 4.3-4.5 kv on the first electrode. The energy of the ions detected by the multiplier was 6.8-7 kev. The block diagram of the recording apparatus is shown

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