Hematology

CZECHOSLOVAKIA

KONIG, J.; SVEHLA, C.; SPANKOVA, H.; [illegible]; Internal Chair of the Institute for Postgraduate Medical Training and the Research Institute of Experimental Therapy (Interni Katedra Ustavu pro Doskolovani Lekaru a Vyzkumny Ustav Experimentalni Terapie), Prague, Director (Reditel) Prof Dr O. SMAHEL.

"Changes in Blood Formula Following Repeated Taking of Blood Samples. Part I. "

Prague, Casopis Lekaru Ceskych, Vol 105, No 29, 8 Jul 66, pp 781 - 782

Abstract: Repeated insertions of the needle may cause a substantial change in the numbers of leucocytes and eosinophils. Out of a total number of 70 subjects examined, 15 showed changes exceeding the physiological limits of leucocytes after repeated taking of blood samples. In 11 cases the number was decreased. It is assumed that practical results would be even more distorted, as all 70 subjects were hospital patients already adapted to taking of blood samples. The changes in the numbers of cells are due to distribution changes in the circulation system and form part of the load syndrome. 4 Figures, 1 Czech reference.

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HRODEK, Otto, MUDr.; SPANKOVA, Helena; MLEJNKOVA, Mirka

Personal experience in determination of various factors of the prothrombin complex. Cas. lek. cesk. 95 no.18:480-483 54.

1. Z hematol. oddeleni II. detske kliniky v Praze (predn.: prof. Dr. J. Houstek) a z hematol. oddeleni I. interni kliniky v Praze (predn.: prof. Dr. M. Netousek).

(BLOOD COAGULATION,
factors V & VII, determ. of physiol. activity by prolonged Quick's test. (Cz))
(PROTHROMBIN, TIME, determ.
Quick's test, prolonged, in determ. of physiol. activity. (Cz))

HRODEK, Otto; HERMANSKY, Frantisek; SPANKOVA, Helena; MLEJNKOVA, Mirka

Clinical aspects and diagnosis of hemophilia. Cas. lek. cesk. 96 no.7:203-207 15 Feb 57.

1. Detska klinika v Praze, prednosta prof. MUDr. J. Houstek, a I. interni klinika v Praze, prednosta prof. MUDr. M. Metousek. O. H., Praha 2, Sokolska 2.

(HEMOPHILIA
clin. aspects & diag. (Cz))

HRODEK, Otto, MUDr.; Techn. spoluprace: MLEJNKOVA, N.; SPANKOVA, H.

Determination of proconvertine (factor VII). Cas. lek. cesk. 44 no.36:981-984 2 Sept 55.

1. Z II. detske kliniky v Praze predn. prof. Dr. J. Houstek) a z hematologick. Laboratore I. inst. kliniky v Praze.
(BLOOD COAGULATION
factor VII, determ.)

MLEKODAJ, Stanislaw

Application of controlled hypotension for decreasing hemorrhage into the cavity of extrapleural pneumothorax. Polski przegl. chir. 30 no.3:245-250 Mr '58

1. Z Zakladu Ftyzjochirurgii I.D.S.K.L. w Sanatorium im. Sokolowskogo Kierownik: Prof. dr W. Rzepecki i z Panstwowego Zespolu Sanatoriow Przeciwgruzliczych w Zakopanem Dyrektor: dr St. Frenkel. Zakopane, Sanatorium im. Sokolowskiego.

(PNEUMOTHORAX, ARTIFICIAL
controlled hypotension for decreasing hemorrh. into cavity following extrapleural pneumothorax (Pol))
(HYPOTENSION, CONTROLLED,
in pneumothorax, extrapleural, for decreasing hemorrh. into cavity (Pol))

RZEPECKI, Wit; MLEKODAJ, Stanislaw

Discussion on post-resection results in the Zakapane Center. Postepy hig. med. dosw. no.2:26-35 '60.

1. Z Zakladu Ftyzjochirurgii S. D. L. Sanatorium im. dra O. Sokolowskiego w Zakopanem Kierownik: prof. dr Wit Rzepecki.

(PNEUMONECTOMY statist)

MLEKODAJ, Stanislaw; CZAJKA, Adam

Lobectomy. Postepy high. med. dosw. no.2:43 '60.

1. Z Zakladu Ftyzjochirurgii S. D. L. Sanatorium im dra O. Sokolowskiego w Zakopanem Kierownik: prof. dr. Wit Rzepecki.

(PNEUMONECTOMY)

MLEKODAJ, Stanislaw

Peroperative bronchial injuries. Postepy hig. med. dosw. no.2:51-52 '60.

1. Z Zakladu Ftyzjochirurgii S. D. L. w Zakopanem Kierownik: prof. dr Wit Rzepecki.

(BRONCHI wds & inj) (PNEUMONECTOMY compl)

MLEKODAJ, Stanislaw

Bronchial fistula after pulmonary resection (analysis of 864 patients). Postepy hig. med. dosw. no.2:81-85 '60.

1. Z Zakladu Ftyzjochirurgii S.D.L. Sanatorium im. dra Sokolowskiego w Zakopanem Kierownik: prof. dr Wit Rzepecki.

(PNEUMONECTOMY compl) (BRONCHIAL FISTULA etiol)

MLEKODAJ, Stanislaw; LUKIANSKI, Marian

Segmental resection in pulmonary tuberculosis. Postepy hig. med. dosw. no.2:167-170 '60.

1. Z Zakladu Ftyzjochirurgii S.D.L. Sanatorium im. dra O. Sokolowskiego w Zakopanem Kierownik: prof. dr W. Rzepecki.

(PNEUMONECTOMY)

MLEKODAJ, Stanislaw; KOBZIK, Jozef

Simultaneous thoracoplasty after partial pulmonary resection in lung tuberculosis. Postepy hig. med. dosw. no.2:194-196 '60.

1. Z Zakladu Ftyzjochirurgii S.D.L. Sanatorium im. dra O. Sokolowskiego w Zakopanem Kierownik: prof. dr Wit Rzepecki.

(THORACOPLASTY) (PNEUMONECTOMY)

MLEKODAJ, Stanislaw

Bronchial fistula following pulmonary resection in tuberculosis.
Polski przegl.chir. 32 no.7:594-605 Jl '60.

1. Sanatorium im. dr O.Sokolowskiego Z Zakladu Torakochirurgii
S.D.L. w Zakopanem Kierownik: prof. dr W.Rzepecki.
(PNEUMONECTOMY compl)
(BRONCHIAL FISTULA etiol)

RZEPECKI, Wit; HARAZDA, Maria; MLEKODAJ, Stanislaw

Indications for resection in patients with severe forms of pulmonary tuberculosis. Gruzlica 30 no.10:913-925 '62.

1. Z Kliniki Chirurgii Klatki Piersiowej w Zakopanem Dyrektor: prof. dr med. W. Rzepecki.
(PNEUMONECTOMY) (TUBERCULOSIS, PULMONARY)

MLEKODAJ, Stanislaw; BRONIKOWSKI, Karol; WISZNIEWSKI, Tadeusz;
PAWLOWSKI, Janusz

Effect of analgesics on respiratory disorders following pulmonary surgery. Pol. przegl. chir. 37 no.9:859-864 S '65.

1. Z Oddzialu Chirurgicznego Panstwowego Sanatorium Przeciwgruzliczego w Prabutach (Ordynator: dr. S. Mlekodaj).

ACCESSION NR: AP4012280 S/0070/64/009/001/0102/0103

AUTHORS: Gal'perin, Ye. L.; Dubov, S. S.; Volkova, Ye. V.; Mlenik, M. P.

TITLE: The crystalline structure of polytrifluochloroethylene

SOURCE: Kristallografiya, v. 9, no. 1, 1964, 102-103

TOPIC TAGS: chloroethylene, crystal structure, x ray diffraction, crystal pulling, polymer, camera RKV 86A

ABSTRACT: The authors undertook this work because of contradictions in the literature on the cell dimensions and chain configuration of this compound. They obtained precisely oriented samples of the polymer by pulling in glycerin at 150-160°. The samples were then heated in their extended state for 10 hours at 190-195°. X-ray patterns were obtained on cylindrical film in an RKV-86A camera. The pictures are characterized by lines of the first and second levels and by an absence of equatorial reflections. The lines of the second level correspond to hexagonal packing. The value of the lattice constant was determined to be $a = 6.385 \pm 0.015$ Å. Along the axis of the crystal fiber, $c = 42 \pm 0.2$ Å. Seventeen monomer units are packed along this line, indicating a crystal density of

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ACCESSION NR: AP4012280

2.20 ± 0.02 g/cm^3, which is in good agreement with experimental density measurements. The absence of equatorial reflections and the presence of intense, almost point, reflections at lines of the first, second, and third layers indicates that the first reflection should be referred to (101), not to (100) as has been done in previous work. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 09Apr63 DATE ACQ: 19Feb64 ENCL: 00

SUB CODE: SS, OC NO REF SOV: 003 OTHER: 005

Card 2/2

GAL'PERIN, Ye.L.; [illegible], V.V.; [illegible], M.P.

Crystallization [illegible]
[illegible] (MLRA 8:9)

MLETSIN, B.

"Pathological Processess in Adenoids. TR. form the Russian. p. 49 (ANALELE ROMANO-SOVIETICE. SERIA PEDIARIE. SERIES A III-a v.6, no.5, Sept./Oct. 1953, Bucuresti, Rumania)

SO: Monthly List of East European Accessions, LC, Vol. 3, NO. 4, April 1954

ALINCE, Vaclav; MLEZIVA, Emil, dr.

Literature on railroads in the present and in future. Zelez dop tech 10 no.12:376-377 '62.

GANZLIK, M.; MLEZIVA, I.

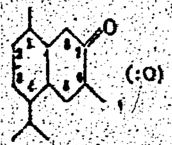
Alkyd resins modified with saturated synthetic fatty acids for hot dried coatings. Lakokras.mat. i ikh prim. no.2:15-21 '64.

(MIRA 17:4)

MLEZIVA, J.

Terpenes. XII. Composition of the oil of hops. F. Šorm, J. Mleziva, and Z. Arnold (Tech. Univ., Prague). Czech[redacted]slov. Chem. Communs. 14, 693-8(1949) (in English); cf. C.A. 44, 635e, 6848c.—Oil of hops is examd. to define the sesquiterpene fraction, which is separable as pure components by a chromatographic method. Luparone (I) is identified as Me nonyl ketone. The previously reported isononanecarboxylic acid is identified as pelargonic acid (II). II is present as esters of nonidentified alcs. A $C_{11}H_{18}O$ ketone is present in small amount in the higher-boiling fractions. Two cryst. triterpenes, $C_{30}H_{50}$ (III), m. 34° (octahydro deriv., m. 37°), and a product (IV), m. 60°, $[\alpha]_D$ 17°, mol. wt. 412, are also present. It is concluded that the principal constituents of the Bohemian oil are myrcene, pelargonic esters, $MeCOC_9H_{19}$, and the triterpenes III and IV. XIII. Sesquiterpenes from the essential oil of hops. F. Šorm, J. Mleziva, Z. Arnold, and J. Pliva. *Ibid.* 699-715.—The previously reported identity of humulene and α-caryophyllene is studied. The $C_{15}H_{24}$ sesquiterpenic fraction of the oil is sepd. chromatographically as the 3 components: natural farnesene (I), acyclic with 4 double bonds, 2 of which are conjugated; humulene (II), monocyclic with 3 double bonds; and a β-caryophyllene type (III), bicyclic with 1 double bond. The constitution of I proposed is 2,6-dimethyl-10-methylene-2,6,11-dodecatriene. XIV. The identity of humulene and α-caryophyllene. V. Herout, M. Streible, J. Mleziva, and F. Šorm. *Ibid.* 716-22.—α-Caryophyllene (I) obtained from oil of cloves was isolated as a pure compd., b_{10} 126°, d_4^{20} 0.8965, n_D^{20} 1.5023, $[\alpha]_D$ 1.0 ± 0.3° ($CHCl_3$, c 9.26). Hexahydro deriv. of I, b_{10} 118°, d_4^{20} 0.8584, n_D^{20} 1.4715, $[\alpha]_D$ −0.8 ± 0.3° ($CHCl_3$; c 9.32); I nitrosite, m. 119°. I trioxide (from I and BzO_2H), m. 121°. The infrared spectra of I and its hexahydro deriv. are identical with those of humulene (II) of oil of hops and hexahydrohumulene (III). It is proposed that the name caryophyllene, which indicates bicyclic hydrocarbons, be replaced by "humulene" which is monocyclic. XV. Constitution of acorone and isoacorone. I. F. Šorm and V. Herout. *Ibid.* 723-46.—Acorone (I), $C_{15}H_{24}O_2$, and isoacorone (II), the sesquiterpenic diketones from oil of sweet flag, exist in enolization equil. and are separable chromatographically. I with Pt-H yields acorolone (III), $C_{15}H_{26}O_2$, a keto alc. (*p*-nitrobenzoate, m. 133°; semicarbazone, amorphous). I with o-$HO_2CC_6H_4CO_3H$ yields acoronolide (IV), $C_{15}H_{24}O_3$, m. 188°, crystg. as the lactone. The lactone from II, m. 137°. I and II do not react with $KMnO_4$. I disemicarbazone, m. 211° (decompn.), regenerates a mixt. of I and II when hydrolyzed with $(CO_2H)_2$. Zn-Hg reduces I to a mixt. ($C_{15}H_{26}$ and $C_{15}H_{28}$) (V), and PtO_2-H reduces V to acorane (VI), $b_{11.5}$ 124-6°. Pd-C dehydrogenates V at 310° to cadalene (VII). $LiAlH_4$ in Et_2O converts I to acordiol (VIII), amorphous, which is dehydrated with o-$C_6H_4(CO)_2O$, to $C_{15}H_{24}$ (IX), b_{11} 117-21°, and has 2 double bonds. IX with PtO_2-H yields VI and Pd-C dehydrogenates IX to VII. The cadalene skeleton probably is obtained by rearrangement. I on NaOH fusion at 225° yields piperitone and a doubly-unsatd. acid, $C_{15}H_{24}O_4$ (X) (benzylthiuronium salt, m. 120°; Me ester, $b_{0.1}$

130°). X with PtO_2-H yields a tetrahydro deriv., b_1 150-2°. I with MeMgI yields methylacorolone (XI), m. 139°, which forms with $LiAlH_4$ methylacordiol (XII), m. 119°. XII dehydrates to a doubly unsatd. $C_{16}H_{26}$ (XIII), b_1 132°. XIII with Pd-C dehydrogenates to 7-methylcadalene, m. 39.5°, and minor amts. of azulene. I appears to show an anomalous CHI_3 reaction because an Ac grouping is not proved for I, and I dioxime subjected to a Beckmann rearrangement does not form volatile acids or amines. The data indicate for I the formula Ia, where the



(Ia)

6-position is favored for the 2nd CO group. I with BzH forms monobenzylideneacorone, $C_{22}H_{28}O_2$, m. 185-6°. The results indicate position 7 for the reactive carbonyl while the 2nd carbonyl, probably in position 5, is sterically hindered. The failure of the characteristic $FeCl_3$ test for a β-diketone and ultraviolet spectra exclude α- and β-diketone structures. The differences in the infrared spectra of acorane and tetrahydrocadinene suggest that I and II do not have the cadalene skeleton but form cadalene by rearrangement during dehydrogenation. N. T. F.

SORM, F.; HOLUB, M.; SYKORA, V.; MLEZIVA, J.; STREIBL, M.; PLIVA, J.;
SCHNEIDER, B.; HEROUT, V.

On terpenes. Part 46. Sesquiterpenic hydrocarbons from oil of sweet flag [in English with summary in Russian]. Sbor.Chekh.khim.rab. 18 no.4:512-526 Ag '53. (MLRA 7:6)

1. Department of Natural Products, Institute of Organic Chemistry, Czechoslovak Academy of Science, Prague. (Sesquiterpenes) (Calamene)

~~MEL~~ MLEZIVA, JOSEF

3

Self-condensation of cyclohexanone. I. Self-condensation of cyclohexanone by alkalies and acids. Josef Mleziva (Spolek pro chem. a hutní výrobu, Ústí n. Labem, Czech.). *Chem. Listy* 47, 1031-7(1953).—Condensation of cyclohexanone (I) by refluxing with 0.5% KOH with continuous removal of water gave 18% recovered I, 33% *cyclohexenylcyclohexanone* (II), 29% of a new cryst. compd. (III), m. 79°, and 9% H_2O. Condensation of I by refluxing with 1% H_2SO_4 yielded 25% recovered I, 43% II, 9% III, 0.6% dodecahydrotriphenylene, 9% H_2O, and 13.5% by-products and losses. III (semicarbazone, m. 150-2°) gave by fusion with KOH at 260-80°, $Me(CH_2)_4CO_2H$ and cyclohexenylcaproic acid which yielded $HO_2C(CH_2)_4CO(CH_2)_4CO_2H$ on oxidation with alk. $KMnO_4$. Oxidation of III with HNO_3 gave $HO_2C(CH_2)_4CO_2H$ and $(CO_2H)_2$; reduction of III with $LiAlH_4$ in Et_2O gave a compd. $C_{18}H_{30}O$, b_2 168-75°, d_{20} 1.028, n_D^{20} 1.5222. A correction. Josef Mleziva and Otto Knessel. *Ibid.* 48, 328(1954). II. Pressure condensation of cyclohexanone with methanolic alkali hydroxide. *Ibid.* 47, 1354-8(1953).—Heating 1040 g. cyclohexanone and 675 g. MeOH with 200 g. KOH 18 hrs. at 120-30° (3-4 atm.) yielded 755 g. resin, 205 g. cyclohexanol, and 400 g. MeOH. H was noticed in 4.2 l. gases escaping after opening the autoclave. Heating the resin at 200° at 2.5 mm. gave 2 *compds.*, $C_{14}H_{24}O_2$, m. 132° and 152.5° (from ligroine). When the condensation was started with a mixt. of ketones obtained by heating cyclohexanone with solid KOH (cf. preceding abstr.), a resin was obtained which heated at 200° and 15 mm. yielded $C_{14}H_{22}O_2$, m. 142.5° (from ligroine). This reduced with $LiAlH_4$ gave a *compd.* m. 76°. On the basis of acetylation and Br reaction, the following types of compds. are considered: 2-cyclohexyl-6-(hydroxymethyl)-cyclohexanone and the corresponding diol. M. Hudlický

MLEZINA, J.

3

CZECH

Present stand and development of alkyd resins. J. Mleziva and V. Hanzlik. *Chem. Průmysl* 4(29), 135-41 (1954).—A review of existing situation of the production methods and trends in research. L. A. Helwich

MLEZIVA, JOSEF

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12 Alkyd resins formation modified by drying-oil fatty acids.
CH Josef Mleziva, Vladimír Hanzlík, Miroslav Hanzlík, and František Kadleček. *Chem. Prům.* 4(29), 442-4(1954).—Polyglycerols are formed during the synthesis of alkyds at higher temps. A linseed-oil-modified alkyd of Alkydal T type was used for expt.; and acid no., hydroxyl no. and water formation were closely followed during the reaction. About 9% polyglycerols were analytically found in the glycerol component isolated from the alkyd. Polyglycerols formed not only during the esterification, but also during the prepn. of the monoglyceride if the temp. was sufficiently high. It is emphasized that the hydroxyl no. should be closely watched during the reaction. Any drop indicates formation of polyglycerols and danger of gelation. L. A. Helwich

Crazing of acrylic resins. W. T. Sweeney, G. M. Brauer, and I. C. Schoonover (Natl. Bur. Standards, Washington, D.C.). *J. Dental Research* 34, 806-12(1955).—Crazing (appearance of small surface cracks in acrylic dentures and plastic teeth) is explained by contact of linear Me methacrylate polymer with H_2O during processing at elevated temps. and does not occur if the material is protected from H_2O during processing. Sorption of excess H_2O at elevated temps. causes supersatn. with H_2O of thes urface of the material on cooling. Evapn. of this excess H_2O sets up strains which eventually are released by the formation of craze marks. Craze resistance is increased by cross-linking. Joseph S. Hepburn

Ⓑ OMIT

[illegible]IVA, J.

"Cyclohexanone Resins." p. [illegible],
(COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. [illegible]
[illegible] KHIMICHESKIKH RABOT, Vol. 19, No. 3, June 1954, Praha, Czechoslovakia

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 5, May 1955, Uncl.

MLEZIVA, J.

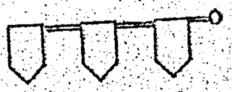
"Constitution of Products of Self-Condensation of Cyclopentanone." p. [illegible], COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT, Vol. 19, No. 3, June 1954, Praha, Czechoslovakia

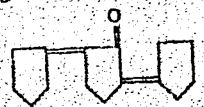
SO: Monthly List of East European Accessions, Vol. [illegible], No. 5, May 1955, Unc.

MLEZIVA, JOSEF

CZECH

✓Constitution of the self-condensation products of cyclopentanone. Josef Mleziva (Spolek Chem. Hutní Výroby, Ústí, Czech.) ~~Chem. Listy 4~~8, 769-74(1954); *Collection Czechoslov. Chem. Communs.* 19, 517-22(1954)(in Russian); cf. *C.A.* 48, 13642*g*.—Contrary to the findings of Cohen (*C.A.* 35, 2884⁴) the self-condensation of cyclopentanone (I) gives II, and not III. Refluxing 500 g. I, b. 130-1°, d_{20}


(II)



(III)

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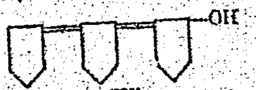

(IV)

0.941, n_D^{20} 1.4266, with 2.5 g. KOH 1.75 hrs. with continuous removal of H_2O (77 ml.) gave after cooling, 193 g. yellow crystals, m. 79° (from MeOH), and a mother liquor, yielding on distn. *in vacuo* the same compd., b_7 165-83° [total yield of II, 291 g. (68%)]. Reduction of 4 g. II in 50 ml. Et_2O with 0.5 g. $LiAlH_4$ in 50 ml. Et_2O at 20° gave IV, b_1 111-21°, d_{20} 1.0011, n_D^{20} 1.5204. Adding a mixt. of 60 g. II with 30 g. H_2O to 400 g. fused KOH at 260-80° during 15 min., heating the stirred mixt. 15 more min. at the same temp., cooling it, dissolving it in 2 l. H_2O, extg. the soln. with 400 ml. Et_2O, acidifying the alk. aq. layer with 50% H_2SO_4, and extg. with 1200 ml. Et_2O gave on distn. at 3

over

mm., 3.0 g. BuCO$_2$H, and 31.7 g. (68%) (distg. at 120–40°) *1-cyclopentene-1-valeric acid* (V), n_D^{20} 1.4673, crystg. after a few days, V, m. 32° (from Me$_2$CO). V was also obtained by similar treatment with 300 g. fused KOH of a mixt. of 20 ml. H$_2$O and 70 g. 2-cyclopentylidenecyclopentanone (VI), b$_3$ 78–80°, d$_{20}$ 1.0217, n_D^{20} 1.5028; distn. yielded 27 g. V, b$_3$ 131–3°, n_D^{20} 1.4862. Hydrogenation of V in AcOH over PtO$_2$ gave *cyclopentanevaleric acid*, b$_3$ 110–22°, d$_{20}$ 0.9840, n_D^{20} 1.4627. Adding 10 g. V in 30 ml. 5% NaOH to 20 g. KMnO$_4$ in 300 ml. H$_2$O at 20°, stirring the mixt. 10 min. at 20–40°, acidifying with HCl, and extg. with Et$_2$O yielded 8.0 g. *5-oxosebacic acid*, m. 114–16°. Oxidation of 15 g. V with 120 ml. 60% HNO$_3$ at 65–80° gave 5 g. mixt. of *succinic and adipic acid*. V (16 g.), 4 ml. PCl$_3$, and 30 ml. C$_6$H$_6$ heated 1 hr. at 100° gave on distn. 13 g. *1-cyclopentene-1-valeric chloride* (VII), distg. in the range of 130–85°/4 mm., n_D^{20} 1.5129. Refluxing 10 min. at 100° 11.5 g. VII and 30 g. AlCl$_3$ in 50 ml. CS$_2$ (after an exothermic reaction), pouring the mixt. into 100 ml. H$_2$O, acidifying it with HCl and steam distg. the soln. gave, by C$_6$H$_6$ extn. and distn., 2.25 g. VI, b$_{1.5}$ 86–9°, d$_{20}$ 1.0210, n_D^{20} 1.5117; *oxime*, m. 122°. Reduction of VI with LiAlH$_4$ gave *2-cyclopentylidenecyclopentanol*, b$_3$ 87°, d$_{20}$ 0.90386, n_D^{20} 1.4978. Hydrogenation of VI over PtO$_2$ yielded *2-cyclopentylcyclopentanone*, b$_3$ 76–80°, d$_{20}$ 0.9891, n_D^{20} 1.4918. Refluxing 178.5 g. I with 0.8 g. KOH 2 hrs. with continuous removal of H$_2$O (24.6 ml.), adding an addnl. 0.8 g. more KOH and 50 ml. xylene, and refluxing 45 min. longer (3.5 ml. H$_2$O) gave on distn. 60 g. II, and higher-boiling fractions (185–260°), from which were isolated 5 g. *tricyclotrimethylenebenzene*, m. 106.5° (from benzine), oxidized with fuming HNO$_3$ to mellitic acid. M. Hudlický

g. [illegible]

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MLEZIVA, J.

Preparation of pure pentaerythritol and its determination. J. Mleziva. *Chem. Listy* 48, 1118-19(1954); cf. Šimeček, C.A. 49, 530h. The Kraft procedure for detg. $C(CH_2OH)_4$ (I) (C.A. 25, 5111) is modified as follows: Dissolve approx. 0.7 g. I in 10 ml. H_2O and 10 ml. 96% EtOH, add 2 ml. concd. HCl, and 2.5 g. BzH, let stand overnight, filter through a sintered-glass crucible, wash with 150 ml. H_2O, and dry at 105-107°. Correction for the soly. of I is 0.0377 g.

M. Hudlický

Czechoslovakia /Chemical Technology. Chemical Products I-25
and Their Application

Synthetic polymers. Plastics.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32464

Author : Mleziva J., Hanzlik Vl.

Title : Alkyd Resins Based on Pentaerythritol

Orig Pub: Chem. prumysl., 1955, 5, No 10, 422-427

Abstract: A method has been developed for a complete analysis of the reaction mixture obtained on alcoholysis of triglycerides with pentaerythritol (I) and esterification with phthalic acid. Glycerol, I and monoglycerides are determined by the usual method, mono- and diester of I -- from the amount of water that is split off in

Card 1/3

Czechoslovakia /Chemical Technology. Chemical Products I-25
and Their Application

Synthetic polymers. Plastics.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32464

the quantitative reaction with benzaldehyde, which yields acetal derivatives; the content (summative) of diglyceride, tri- and tetraester of I, and also the proportion between mono- and diester are determined from saponification value, hydroxyl number and content of fatty acids, using a triangular diagram for the computations. Over-esterification can also be checked by measuring the dielectric constant as the reaction proceeds. In the process of alcoholysis and subsequent esterification a partial decomposition of I occurs: in the distillates were found CH_2O, CH_3OH, methacrylaldehyde and

Card 2/3

MLEZIVA, J.; SANDHOLEC, B.

Determining the amount of cellulose and wood pulp. p. 101..
(PAPIR A CELULOSA, Vol. 10, no. 5, May 1955, Praha)

SO: Monthly List of East European Accession,(EEAL), LC, Vol. 4,
No. 11, Nov. 1955, Uncl.

MLEZIVA, J.

Decomposition and determination of pentaerythritol in alkyd resins. J. Mleziva (Inst. Synthetic Resins, Pardubice, Czech.). *Fette, Seifen, Anstrichmittel* 57, 691-3(1955). —The low results obtained by Kappelmeier (cf. *C.A.* 49, 7880*g*, 12871*c*) in the analysis of pentaerythritol (I) in alkyds is not due to its soly. as claimed, but to the decompn. of I during the prepn. of the resins at high temp. The lower the m.p. of I, the more rapid is its thermal decompn.

W. S. Zimmt

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M.A. YOUTZ

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MLEZIVA, J-

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Thermal decomposition of pentaerythritol. J. Mleziva (Spolek chem. hutni výroby, Ústí nad Labem, Czech.). *Chem. Listy* 50, 101-6(1956); *Collection Czechoslov. Chem. Communs.* 21, 488(1956).—Melting 400 g. 97% $C(CH_2OH)_4$ (I), m. 258.1°, decreasing the temp. after 2 hrs. to 255°, and heating the melt 24 hrs. at 255° gave 72.4 g. distillate (Ia) and a black-brown residue contg. 60.7% I. Crystn. of 250 g. residue from 650 ml. H_2O and evapn. of the mother liquors gave 90 g. liquid which distd. *in vacuo* yielded 2.8 g. I and 10.6 g. $(HOCH_2)_2\underbrace{C.CH_2.O.CH_2}$ (II), $b_{1.4}$ 255-65°, m. 57°, which on hydrolysis with dil. HCl followed by treatment with BzH gave dibenzalpentaerythritol, m. 158°. Boiling II 30 min. with 5% HCl and 2,4-$(O_2N)_2C_6H_3NHNH_2$ gave 2,4-$(O_2N)_2C_6H_3NHN:CH_2$, m. 166°. I contained 3.5% CH_2O, 67.3% H_2O, 6.03% unsatd. aldehydes such as $CH_2:CMeCHO$, and 10-15% MeOH. M. Hudlický

PM

84

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Application. Lacquers. Paints. Lacquer and Paint Coverings. H-3C

Abs Jour : Ref Zhur- Khimiya, No 17, 1958, 59368

Author : Hanzlik Vladimir, Hanzlik Miroslav, Mleziva Josef
Onst : -
Title : Epoxy Lacquers for Large-Diameter Wires.

Orig Pub : Chem prumysl, 1957, 7, No 12, 573-678

Abstract : Electroisolated lacquers(for heat drying) were prepared for wires (with diameters > 0.8 mm) on the basis of a low molecular epoxy resin (type P40), modified by butanol, of melaminoformaldehyde resin (type melform 40) and an acid hardener. As a hardener acid, ethers of glycol or glycerine and of different 2-base organic acids from oxalic to sebacic, maleic and phthalic were used.

Card 1/1

MLEZIVA, J.J. GRIM[illegible], M. MA[illegible], an F. [illegible]NTHOLZER

Organicka rozpoustedla (Organic Solvents); a book review.
"Some problems of terminology in organic chemistry."

p. 1391 (Chemicke Listy, Vol. 51, No. 7 July 1957, Praha, Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, No. 7, July 1958

J

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60091.

Author : Josef Mleziva.
Inst : -
Title : Thermal Dissociation of 2,2,6,6-Tetramethyol-cyclohexanol.

Orig Pub: Chem. listy, 1957, 51, No 11, 2090-2093.

Abstract: The pyrolysis of 2,2,6,6-tetra-(oxymethyl)-cyclohexanol (285 g) in the presence of 1.8% of Ca salts (65 min. at 192 to 250°) results in 1-formyl-3-methylenecyclohexene-1 (I) [yield 54.5 g, boiling point 79°/7 mm, $n^{20}D = 1.5520$, $d_4^{20} = 1.0210$; semicarbazone (II) - melting point 210° (from alcohol)] and in a water layer (66.7 g) containing 5[illegible].6% of water, 15.06% of CH_2O and 39% of CH_3OH. I Methyl-

Card 1/3

G

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60691.

Abstract: acetal (III), boiling point 67 to 69°/1 mm, $n^{20}D$ = 1.4806, d_4^{20} = 0.9335, was prepared by boiling I with $HC(OC_2H_5)_3$ in the presence of NH_4NO_3 and alcohol. The structure of I was confirmed by the oxidation of 67%-ual HNO_3 at 50 to 80° into altaric acid, as well as by the reduction of II according to Kizhner-Wolf into 2-methylenebicyclo-(0,1,4)-heptane (IV), [yield 6.8 g (from 37.5 g of II), boiling point 133 to 137°/745 mm, $n^{20}D$ = 1.4695, d_4^{20} = 0.8402], which produces m-xylol, when dehydrogenated on 10%-ual Pd/C (at 280 to

Card 2/3

G

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic
Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60691.

Abstract: 300° in CO_2 flow; m-xylol was identified by the oxidation into isophthalic acid. The ultraviolet spectra of I, III and IV and the infrared spectrum of IV are presented.

Card 3/3

20

MLEZIVA, JOSEF

Distr: 4E2c(j)

Autocondensation of cyclopentanone. Josef Mleziva (Výzk. ústav synth. laků a pryskyřic, Pardubice, Czech.). *Chem. listy* 51, 2304-7(1957).—Alk. autocondensation yields in addn. to the known products (cf. Plešek, *C.A.* 50, 7732b) 2 unsatd. ketones, $C_{20}H_{24}O$. Heating 700 g. cyclopentanone and 3.5 g. ground KOH 2 hrs. on an oil bath while removing H_2O (107 ml.) azeotropically and letting the mixt. stand overnight gave cryst. ketone, $C_{15}H_{20}O$; 240 g. filtrate heated with 30 ml. xylene and 1 g. KOH 45 min., 4.7 ml. H_2O sepd. as above, the lower-boiling material rejected, and the residue distd. gave in the fraction, $b_{0.5}$ 180-230°, 13.3 g. yellow needles of ketone $C_{20}H_{24}O$ (I), m. 111° (C_6H_6), and in the fraction, $b_{0.5}$ 230-5°, 2.5 g. yellow crystals of ketone $C_{20}H_{24}O$ (II), m. 168° (Me_2CO). I and II refluxed 3 hrs. with fuming HNO_3 gave in both cases mellitic acid, m. 286° (EtOH); hydrogenation over Pt in 9:1 dioxane-AcOH gave the same ketone, $C_{20}H_{32}O$, m. 104-6°, whereas hydrogenation in AcOH yielded the same hydrocarbon, $C_{20}H_{34}$, m. 132°, identical with the hydrogenation product of the compd. $C_{20}H_{26}$ of Plešek. Reducing 10 g. 2,5-dicyclopentylidenecyclopentan-1-one with 1.2 g. $LiAlH_4$ in dry Et_2O, decompg. the mixt. after 1 hr. with 75 ml. H_2O and 80 ml. 10% H_2SO_4, and repeating the process 5 times gave 40 g. product, $b_{0.4}$ 140-4°, n^{20}_{D} 1.5371, active H 0.17%. This product (27 g.) passed over 780 g. alk. Al_2O_3 gave in the petr. ether fraction 14.4 g. yellow alc., $C_{15}H_{22}O$ (III), $b_{0.15}$ 117°, n^{20}_{D} 1.5393, d_{20} 1.0275, active H 0.30%, and in the C_6H_6 fraction a colorless liquid, $b_{0.25}$ 124°, n^{20}_{D} 1.5374, d_{20} 0.9683, from which was isolated by chromatography a compd., $C_{15}H_{22}O$, $b_{0.1}$ 120-30°, n^{20}_{D} 1.5291, d_{20} 1.0244, active H 0.16%. III underwent, when passed repeatedly over Al_2O_3, spontaneous dehydration yielding a hydrocarbon, $C_{15}H_{20}$, $b_{0.25}$ 110°, n^{20}_{D} 1.5360, d_{20} 0.9212, which is probably a mixt. of isomers. All isolated compds. show in the ultraviolet spectrum max. suggesting conjugation. L. J. Urbánek

3

2 May

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MLEZIVA, J.; STERNSCHUSS, A.; POLORNY, S.

Solventless polyester lacquers. p. 50

CHEMICKE PRUMYSL. (Ministerstvo chemickeho prumyslu) Praha, Czechoslovakia
Vol. 9. No. 1, Jan. 1959

Monthly List of East European Accessions, (EEAI) LC, Vol. 8, No. 7, July 1959
Uncl.

MLEZIVA, J.

Distr: 4E2c(j)

/ The structure of aminoamide resins. Josef Mleziva and Antonín Pánek. *Chem. průmysl 9*, [illegible] The prepn. is described of monobutyrylethylenediamine (I) (b_{10} 140°, n_D^{20} 1.4880, d_{20} 0.9023) and monobutyryldiethylenetriamine (II) ($b_{1.5}$ 185-205°, n_D^{20} 1.4970, d_{20} 1.0734). The formation of imidazole (III) is followed by infrared spectra during the heating of tech. aminoamide resins (IV) contg. 1% concd. HCl (V) at 230° or heating 10 g. I or II with 12 cc. xylene and 0.1 g. V; cyclization [illegible] observed only with II, and IV prepd. from diethylenetriamine, whereas I condenses to a cryst. bis deriv., m. 100°. J. Šebenda

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International symposium on macromolecular chemistry, Moscow, 1960.

Mezhdunarodnyy simposium po makromolekulyarnoy khimii: SSSR, Moskva, 14-18 iyunya 1960 g.; doklady i avtoreferaty. Sektsiya I. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18, 1960; Papers and Summaries. Section I.) [Moscow, Izd-vo AN SSSR, 1960] 1[illegible] p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Tech. Ed.: T. V. Polyakova.

PURPOSE: This collection of articles is intended for chemists and researchers interested in macromolecular chemistry.

COVERAGE: This is Section I of a multivolume work containing scientific papers on macromolecular chemistry in Moscow. The material includes data on the synthesis and properties of polymers, and on the processes of polymerization, copolymerization, polycondensation, and polyrecombination. Each text is presented in full or summarized in French, English, and Russian. There are 47 papers, 28 of which were presented by Soviet, Rumanian, Hungarian, and Czechoslovakian scientists. No personalities are mentioned. References accompany individual articles.

Tinyakova, Ye. I., B. A. Dolgoplosk, T. G. Zhuravleva, R. N. Kovalevskaya, and T. N. Kuren'gina (USSR). The Synthesis of Cis- and Trans-Diene Polymers on Oxide Catalysts and a Study of Their Structure and Properties 11

[illegible], [illegible], [illegible] Filippovskaya (USSR). Synthesis and Polymerization of Esterified Polyacrylates 47

Bohdanecky, M., J. Mleziva, A. Sternschuss, and [illegible] (Czechoslovakia). The Structure of [illegible] Unsaturated Polyesters 58

Zil'berman, Ye. N., A. Ye. Kulikova, and [illegible] (USSR). New Method of Preparation of Polyesters and Their Oligomers 64

Bohdanecky, M., and A. Sternschuss (Czechoslovakia). Analysis of Cross-Linked Polyesters 72

[illegible], Ye. P. [illegible], [illegible], [illegible] Kucharova, and [illegible] (USSR). On the Synthesis and Properties of Crystalline Polymers of the Types of Poly-p-Xylylene and Polyphenylenemethyl [illegible]

[illegible] (USSR). Cyclic Polymerization and Copolymerization of Divinylacetals 101

[illegible], A. [illegible], A. V. Topchiyev, and B. A. Krentsel (USSR). Synthesis of Crystalline Polyvinylcyclohexane 118

Arbuzova, I. A., and Ye. N. Rostovskiy (USSR). Polymerization of Polyfunctional Compounds [illegible]

Solomon, O. F., M. Dimonie, K. Ambrush, and M. Tomescu (Rumania). Polymerization of Vinylcarbazol in the Presence of Butyllithium and Titanium Chloride Type Catalysts 131

Korshak, V. V., S. L. Sosin, and V. P. Alekseyeva (USSR). On the Preparing of the New Types of Linear Polymers by the Reaction of Polyrecombination 141

Nametkin, N. S., A. V. Topchiyev, and S. G. Durgar'yan (USSR). The Synthesis of Organosilicon Polymers on a Complex Catalyst $(C_2H_5)_3Al + TiCl_4$ 152

Kolesnikov, G. S., S. L. Davydova, and N. V. Klimentova (USSR). Germanium Containing Polymers 156

Shostakovskiy, M. F., S. P. Kalinina, V. N. Kotrelev, G. A. Kuchkin, A. I. Kuznetsova, L. V. Layne, A. I. Borisova, and [illegible] Borisenko (USSR). Organotin Polymers 160

Koton, M. M., T. M. Kiseleva, and F. S. Florinskiy (USSR). The Effect of Chemical Structure on the Polymerization Activity of the Unsaturated Organometallic Compounds 167

Vol'kenshteyn, M. V. (USSR). Cooperative Processes in the Polycondensation of Biopolymers 202

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MLEZIVA, J.

Distr: 4E2c(j)

15

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1-JAJ(NB)
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Low-molecular-weight epoxy resins and their use in technology. M. Lidařík, J. Mleziva, D. Beranová, and J. Tamchyna. (Výzkumný Ústav synthetických pryskyřic a laků, Pardubice, Czechoslovakia). *Khim. Prom.* 1960, No. 3, 200-13.—Prepn. and use of one type of epoxy resin (I), which is the reaction product of 2,2-bis(*p*-hydroxyphenyl)-propane (II) and epichlorohydrin (III) or dichlorohydrin (IV), is discussed. The reaction is carried out in 2 stages: (1) II reacts with III or IV and forms a corresponding ether. Weaker bases than NaOH, e.g. secondary and tertiary amines and salts of weak acids with strong bases are suitable catalysts for the reaction. (2) The ether is dehydrochlorinated by a known method. The I, prepd. in a 5 cu. m. app., has an epoxy no. 0.52-0.54 g. equiv./100 g. and viscosity at 20° about 200 poises. The yield is approx. 95%. The I was cured with conventional hardening agents at 80-150° and mainly used in glass-fabric-reinforced laminate production. Some characteristic mech. and insulating properties including mech. properties of welds are given in relation to mol. wt. (850, 600, 400) of I and to the applied hardener.

V. Škubalková

17K

MLEZIVA, J

[illegible]/E453

5.3832

AUTHORS: Josef Mleziva and Antonín Pánek

TITLE: Aminoamide Resins

PERIODICAL: Chemicky Průmysl, 1960, Nr 7, pp 386-390

ABSTRACT: An investigation of the preparation and properties of aminoamide resins is described. The properties of the reaction products from aminoamides and epoxy resins are also considered. The term aminoamide-resins refers to products obtained by treating short chain di- and poly-functional amines with polymerized unsaturated vegetable oil fatty acids. It is well known that resins with useful characteristics are obtained, particularly from dimeric acids based on linseed oil and soy-bean oil. These acids are not freely available in Czechoslovakia and the authors have paid particular attention to the preparation of aminoamide-resins from linseed and soy-bean oils as starting materials. The following route was chosen for the preparation of aminoamide resins:
1. Saponification and ester[illegible] oils with caustic soda and methyl alcohol.

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Z/009/60/000/07/039/046
E112/E453

Aminoamide Resins

2. Isolation of methyl esters of the acids.
3. Thermal polymerization of methyl esters in an atmosphere of nitrogen.
4. Amidation of polymeric methyl esters with polyfunctional amines the preferred amines being ethylene diamine and diethylene triamine.

The polymerization and isolation of the dimeric methyl esters is described in detail. It is considered that best results are obtained if the polymerization is proceeded with until the refractive index of 1.477 and a viscosity of 50 cP has been reached. This is attained when the monomer content of the mixture decreases to 40%. It is not advisable, according to the authors, to attempt to reach highest degrees of polymerization because then a high proportion of tri- and tetramers are formed, leading to darkening and jellying of the materials. It was also found an advantage to use monomeric linseed oil or soy-bean oil

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E112/E453

Aminoamide Resins

rather than the blown oils because the latter are difficult to split. Separation of the different fractions is described and results are tabulated. The products which were obtained on amidation are low-molecular weight-polymers with chains which are terminated by free amino-groups. The authors have found that the properties of their products were identical with analogous products from abroad. Aminoamides prepared from soy-bean oil showed better resistance to light than those from linseed oil. Reaction products from aminoamides and epoxy resins can be used as coating materials and have excellent properties, such as high gloss, elasticity, hardness, tenacity, resistance to flexing, to impact, deformation, abrasion, good resistance to water, oils, diluted alkalies and some solvents. Their chemical resistance is somewhat lower than that of epoxy resins hardened with polyamines. Technological properties in coating applications from aminoamides [illegible] polymerized linseed oil acids and (b) polymerized soy-bean oil acids, are tabulated and [illegible]

Card 3/4

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Z/009/60/000/07/039/046
E112/E453

Aminoamide Resins

compared. Acknowledgments are expressed to D.Nejmanové VÚSPL, Pardubice, for his assistance. There are 4 figures, 7 tables and 24 references, 20 of which English, 1 Swedish, 2 German and 1 Czech.

ASSOCIATION: Výzkumný ústav syntetických pryskyřic a laků, Pardubice (Research Institute of Synthetic Resins and Paints Pardubice)

SUBMITTED: September 30, 1958

15(1)

H/004/60/[illegible]
D0018/D3001

AUTHOR: Mleziva, J., Doctor

TITLE: Wonderful Varnishes

PERIODICAL: Tudomány és Technika, [illegible], Nr 9, p 264

ABSTRACT: The article describes a new polyester varnish called "Veros", developed by the Synthetic Resin and Varnish Research Institute in Pardubice. The varnish is used as protective covering for wooden materials. The varnish consists of unsaturated polyester resin dissolved in styrene. Organic peroxide and organic cobalt salt may be added to the solution. The varnish is extremely resistant to acids, alcohols, acetone, ultra violet rays and heat.

Card 1/1

MLEZIVA, I.; YARUSHEK, Ya.

Production of thixotropic alkyd resins. Lakokras.mat. i ikh prim. no.2:12-17 '61. (MIRA 14:4)

1. Nauchno-issledovatel'skiy institut sinteticheskikh smol i lakov i Khimiko-tekhnologicheskiy institut, Pardubitse, Chekhoslovatskaya SSR. (Resins, Synthetic)

2954

S/081/62/000/022/072/088
B166/B144

15 [illegible]

AUTHORS: Mleziva, Josef, Hanzlik, Vladimir

TITLE: A method of producing polyamides

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 535, abstract 22P370 (Czech. patent 98358, Jan. 15, 1961)

TEXT: Polyamides with an amine number 20-510 are produced by the interaction at 100 - 250°C of polyamines containing ≥ 2 NH_2 or NH groups (e. g. ethylene diamine, diethylene triamine, polyethylene polyamines, etc) with polycarboxylic acids of the R OCH_2COOH_x type (where R is phenylene or dialkyl phenylene, x =2-3), or with their alkyl, aryl and halogen derivatives and esters, or with mixtures of these and polymerized fatty acids, such as for example the acids of linseed and soya oil (or their esters); the content of the aforesaid acids in these mixtures being from 99 : 1 to 1 : 99. The ratio of COOH or ester groups and amino groups in the components of the reaction mixture is from 1 : 0.9 to 1 : 10. The presence of phenol radicals in the dicarboxylic acids, particularly

Card

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B166/B144

A method of producing polyamides

$C_6H_4C(CH_3)_2C_6H_4$, raises the softening point of the resins as well as the hardness and chemical stability of the final products. Example. 90 parts by weight propane diphenoxy acetic acid, 172°C, and 65 parts by weight diethylene triamine are heated for 4 hrs in an N_2 atmosphere at 200°C and finally the pressure is reduced to 400 mm Hg for 30 min. The resin produced has the amine number 282 and contains 13.5 % N. [Abstracter's note: Complete translation.]

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

AUTHORS: Mleziva, J., Vlček, J.

TITLE: Polyester lacquers not inhibited by atmospheric oxygen

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 553 - 554, abstract 22P473 (Lakokrasochn. materialy i ikh primeneniye, no. 2, 1962, 13 - 17)

TEXT: Methods for producing unsaturated air-drying polyester lacquers (UPL) free from supernatant admixtures are surveyed. In the CSSR, a recipe was elaborated for UPL uninhibited by atmospheric oxygen and containing 30 - 40 % of the polyfunctional GAF monomer, i.e., bis-(glycerol-monoallyl)fumarate.. GAF is obtained when allyl glycidic ester reacts with fumaric acid in the molar ratio of 2:1. The secondary reactions that occur in the synthesis of GAF and the methods of suppressing them are indicated. GAF with a viscosity of 44.75 poises at 20°C and a molecular weight of 625 is used to modify UPL. The testing of UPL with GAF addition has revealed that they offer notably better light resistance than UPL modified with isocyanates, are harder and more resistant to solvents than

Card 1/2

S/081/62/000/022/081/088
Polyester lacquers not inhibited... B101/B186

UPL based on solid polyesters, give better elasticity and adhesion than paraffin-containing UPL, and are not inferior to the best paraffin-free UPL specimens imported. 52 references. Abstracter's note: Complete translation.]

Card 2/2

LIDARZHIK, M. [Lidarik, M.]; STARY, S.; MLEZIVA, Y.

Cationic polymerization of glycidol ethers. Vysokom.soed. 5 no.11:1738-1747 N '63. (MIRA 17:1)

1. Nauchno-issledovatel'skiy institut sinteticheskikh smol i lakov, Chekhoslovakiya.

MLEZIVA, J.; VLCEK, J.; RUZICKOVA, J.; MICEK, J.

Polyfunctioned monomers as additive for noninhibited polyester varnishes. Chem prum 13 no.6:328-333 Jo '63.

1. Vyzkumny ustav syntetickych pryskyric a laku, Pardubice (for all except Micek). 2. Vysoka skola chemickotechnologicka, Pardubice (for Micek).

JAROUSEK, J.; MLEZIVA, J.

Preparation of thixotropic alkyds. Chem prum 14 no.4:184-188 Ap '64.

1. Higher School of Chemical Technology, Pardubice (for Jarousek).
2. Research Institute of Synthetic Resins and Lacquers, Pardubice (for Mleziva).

[illegible]

[illegible]

[illegible]

MLEZIVA, Josef

Effect of the structure of tertiary aromatic amines on the hardening of unsaturated polyester resins. Chem prum 15 no.2:80-85 F '65.

1. Research Institute of Synthetic Resins and Lacquers, Pardubice.

MLEZIVA, Miroslav (Praha)

Independence of the Hermes-Scholz axiomatic system of propositional calculus. Cas pro pest mat 84 no.4:454-460 '59 (EEAI 9:3)
(Calculus) (Matuces) (Logic, Symbolic and mathematical)

27829

Z/028/60/000/006/001/003
D244/D303

16.8000 (1121,1132,1031,1329)

AUTHOR: **Mleziva, Miroslav**

TITLE: On the theory of the final automatic device (neuron network)

SOURCE: Pokroky matematiky, fysiky a astronomie, no. 6, 1960, 643-668

X

TEXT: This article describes some basic properties of the "final
automatic device" - this being a new branch of cybernetics. A.A.
Lyapunov (Ref. 7: Sessiya Akad. Nauk SSSR po nauchnym problemam
avtomatizatsii proizvodstva. Plenarnyye zasadeniya Izd. AN SSSR, 1957)
classes it on the same level as the information theory as a main branch
of cybernetics. Generally an automatic device can have any number of in-
puts and any number of outputs; these can be either excited or not ex-
cited. Further, such a device has a definite delay. The actual in-
[illegible]ations are limited to units with one output. Fig. 2 shows some
basic automatic device elements. The first example shows an output which

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On the theory of the ...

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be excited (in time t) if at least one of the inputs is excited
time t - 1); the second example assumes that both inputs must be exc-
ited in time t - 1) for the output to be excited (in t); the third
case where the output is excited (in t) if the input is excited
t - 1). The figure inside the ring shows the number of input excitations
to excite the output after the inevitable delay, see Fig. 1.
any number, and x characteristic). In logical terms example
1) p∨q (at least one) 2) p . q (both) and 3) -p (equal), are all
delayed (one stage). These single elements are used to build more com-
plex units, the condition being that to any output only one input may
be connected. Fig. 3 shows such a unit. Its formula s(t) p(t - 3)
q(t - 2) & q(t - 2). Fig. 6 shows two automatic device systems, to be
investigated a) (p & q) ∨ (p & q) b) (p ∨ q) & (q ∨ p). Having p
excited in time 2 and not in 3, while q is excited in 3 but not in
2 ..... a) will not be excited [illegible] and b) will be. This shows that
ordinary logical methods are inadequate to deal with these units. Some
of the rules are explained, e.g. the brackets: anything but a simple

Card 2/

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D244/D303

On the Theory of the ...

variable goes into a bracket; e.g. $\{(+p) \vee [-((-q) \& (-r))]\}$., the order; $\{(+p^2)^1 \vee [-((-q^4)^3 \& (-r^4)^3)^2]^1\}^0$ etc. so, that (F) $\{[(-p^3)^2 \vee q^2]^1 \& [(-q^3)^2 \vee p^2]^1\}^0$ signifies that automatic device (F) has excited output only when input p is not excited in 3 but input q is excited in 2, and input q is not excited in 3 but p is excited in 2. The method of tabulation also has to be modified, to allow for the delay. An automatic device with cycling "memory" can be defined as having two phases: Fig. 12 is the automatic device and Fig. 13 are the two phases. Fig. 14 shows a more complicated arrangement that can be described as: $\{p^1 \vee [(+q^3)^2 \& (r^3 \& s^3)^2]^1\}^0$. this automatic device has two possible states: $\{p^1 \vee [(+q^3)^2 \& (^3 \& s^3)^2]^1\}^0$, and

$\{p^1 \vee [(+q^3)^2 \& (r^3 \vee s^3)^2]^1\}^0$. depending whether

the cycle is working or not. The conditions for this automatic device are tabulated. The next stage is the use of several cycling units in

Card 3/7

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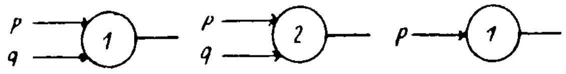
D244/D303

On the theory of the ...

one system see Fig. 15. a. with common input, etc. Again the conditions are listed in tabulated form. Equivalence occurs in the case of the cycling automatic device only if 1) the formulae for the non-fulfilled conditions are equivalent, 2) the formulae for the fulfilled conditions are equivalent, and 3) the conditions of both tables are equivalent. On a device with learning ability, reference is made to the work of Pavlov and Uttley (Ref. 13: A.M. Uttley, Sbornik "Avtomaty" Moskva 1956). Fig. 19 shows a simple "learning" automatic device; Table 13 lists the conditions that determine its behaviour. There are 20 figures, 14 tables and 15 references: 7 Soviet-bloc and 8 non-Soviet-bloc. The 2 references to the English-language publications read as follows: W.R. Ashby, The nervous system as physical machine; with special reference to the origin of adaptive behavior, Mind 1947. 221. B. Sobocinski, On a universal decision element J. of computing systems, 1953.



Obr. 2.

Card 4/ 7

MLEZIVA, Miroslav (Krasnoarmejcu 2, Praha 1)

Axiomatization of three-valued propositinal logic. Cas pro pes mat 86 no.4:392-403 '61.

1. Filosoficko-historicka fakulta Karlovy university, Praha.

(Axioms) (Logic, Symbolic and mathematical)

LIDARZHIK, M.; STARY, S.; MLEZIVA, Y.

Anionic polymerization of glycidol ethers. Vysokom.soed. 5 no.11:
1748-1753 N '63. (MIRA 17:1)

1. Nauchno-issledovatel'skiy institut sinteticheskikh smol i lakov,
Chekhoslovakiya.

MLIKOVSKY, Josef, Dr.

Prof., Dr., Vaclav Matys and Doc., Dr., Jan Mitvalsky, their lives and activities. Cesk. ofth. 12 no.6:451-459 Dec 56.

(BIOGRAPHIES,
Matys, Vaclav (Cz))
(BIOGRAPHIES,
Mitvalsky, Jan)

YUGOSLAVIA / Analytical Chemistry. Inorganic Analysis. E

Abs Jour : Ref Zhur - Khimiya, No 23, 1959, No. 81983

Author : Stevanovic, Mirko; Mlinar, Anton; Kangrga, Dusanka

Inst : Not given

Title : The Detection of Fluoride

Orig Pub : Vojnosanit. pregl., 1959, 16, No 3, 217-219

Abstract : A microcrystalloscopic method for the detection of F^- has been developed. To 1 drop of the solution to be analyzed, placed on a microscope slide, 1 drop of saturated $PbCl_2$ solution is added and the crystals formed are observed under 100 x magnification. At optimum conditions (1 F in 1 drop, dilution 1 : 50,000) starlike PbFCl crystals are formed; at 0.1 F^- (dilution 1 : 500,000), still visible crystals are grain-

Card 1/2

STEVANOCIV, Mirko; MLINAR, Anton; KANGRGA, Dusanka

Determination of fluorides. Voj. san. pregl., Beogr. 16 no.3:217-219
Mar 59.

1. Vojnomedicinska akademija u Beogradu Institut za toksikologiju.
(FLUORIDES, determ.
(Ser))

MLINAR, M.

Czechoslovak heavy engineering AT international fairs and exhibitions. p.2

CZECHOSLOVAK HEAVY INDUSTRY. (Ceskoslovenska obchodni komora) Prague, Caechoslovakia, No. 3, 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 7, July 1959
Uncl.

MLINAR, M.

100 years in the service of progressive technology. p. 2

CZECHOSLOVAK HEAVY INDUSTRY. (Ceskoslovenska obchodni komora) Prague, Czechoslovakia. No. 5, 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 7, July 1959
Uncl.

MLINAR, M.

Progressive tasks of Czechoslovak engineering production. p. 2

CZECHOSLOVAK HEAVY INDUSTRY. (Ceskoslovenska obchodni komora) Prague, Czechoslovakia. No. 6, 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 7, July 1959
Uncl.

MLINARIC, D.; RADETIC, E.

Role of the working collective in electric industries of Zagreb. p. 399.

ENERGIJA. (Zajednica elektroprivrednih poduzeca Hrvatske i Institut za elektroprivredu u Zagrebu) Zagreb, Yugoslavia. Vol 7, no. 10, 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 6, June 1959.

Uncl.

MLINARIC, G.

Revolutionary work at the former Electric-Power Plant in Zagreb. p. 405.

ENERGIJA. (Zajednica elektroprivrednih poduzeca Hrvatske i Institut za elektroprivredu u Zagrebu) Zagreb, Yugoslavia. Vol. 7, no. 10, 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 6, June 1959.

Uncl.

L 23845-65 EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(b) Pf-4 MJW/JD/HW
ACCESSION NR: AR5000588 S/0137/64/000/008/D039/D039

SOURCE: Ref. zh. Metallurgiya. Sv. t., Abs. 8D229

AUTHOR: Rudoy, V. S.; Mlinarich, B. A.; Bogdanova, T. M. B

TITLE: The possibility of rolling pipes 18 of chromium-nickel-manganese steel

CITED SOURCE: Sb. Proiz-vo trub, vy*p. 12. M., Metallurgiya, 1964, 10-14

TOPIC TAGS: chromium-nickel-manganese steel 18, pipe, hot rolling, broaching/ steel EP278 18, steel EI835 18

TRANSLATION: An investigation was made of the special industrial characteristics of hot working of two chromium-nickel-manganese steels containing nitrogen and boron - steels 18 EP278 and EI835, both of which differ basically in their silicon and manganese content. Test rolling of billets with square and circular cross sections on a mill with barrel rollers made it possible to construct a power diagram for each case of rolling. Results of hot torsion tests were

Card 1/2 *[Broaching probably means "piercing"]

L 23845-65
ACCESSION NR: AR5000588

confirmed in testing steel EP278 for broachability by rolling tapered samples on a laboratory roller broaching mill. Broaching on a 140 automatic roller broaching mill showed that heating of billets made of steel EP278 reaches 130-140° with a reduction in drawing of 1.75-2.00. It was established by the investigation that the mechanical properties of steels EP278 and EI835 at room temperature are characterized by a combination of high values for indices of strength, ductility, and impact resistance. Both steels are characterized by a lowering of the yield point with an increase in hot working temperature accompanied by a relatively small change in tensile strength. The low ductility of steel EP278 in the hot state does not permit it to be used for rolling pipes of satisfactory quality on a 140 automatic installation. To produce pipes of this steel other hot working processes must be applied which assure a more favorable system of the state of stress in low ductility metal: pressing, rolling on a pilger mill, etc. The somewhat better industrial properties of steel EI835 provide a basis for considering that pipes can be made from it on a 140 automatic installation. K. Ursova.

SUB CODE: MM ENCL: 00

Card 2/2

L 20601-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k) JD/HW

ACC NR: AP6010136 SOURCE CODE: UR/0133/66/000/003/0248/0250

AUTHOR: Rudoy, V. S. (Candidate of technical sciences); Alferova, N. S. (Doctor of technical sciences); Mlinarich, B. A. (Engineer); Bogdanova, T. M. (Engineer); Sadokov, G. M. (Engineer); Mel'nichenko, I. F. (Engineer); Kirvalidze, N. S. (Engineer); Kurilenko, V. Kh. (Engineer); Onishchenko, M. P. (Engineer) 51 47 13

ORG: none

TITLE: Production of tubes 4 from OKh20N5T 16 stainless steel 16

SOURCE: Stal', no. 3, 1966, 248-250

TOPIC TAGS: stainless steel, low nickel steel, stainless steel tube, tube rolling, hot rolling / Okh20N5T steel, EP299 steel

ABSTRACT: Technological properties of EP299 16 (OKh20N5T) stainless steel and the conditions for tube rolling this steel have been studied. The steel, annealed at 1050C for 15 min and air cooled, has a tensile strength 16 of 101 kg/mm^2, a yield strength of 34 kg/mm^2, an elongation of 40.6%, and a reduction of area of 62.1%. Corresponding figures for test temperature at 350C are 52 kg/mm^2, 39.0% and 69.7%. The steel is very sensitive to the cooling rate: slow cooling sharply reduces the elongation and impact strength. The plasticity of EP299 steel does not change in the 1100—1250C range, but increases sharply with further increases in temperature and rapidly increasing content of α-phase. Up to 1250C the plasticity of EP299 steel is much

Card 1/2

UDC: 621.744.35

L 20601-66

ACC NR: AP6010136

lower, but at 1275C and over much higher, than that of Kh18N10T 16 and EI-811 16 steels. 4 The hot working 18 of EP299 steel must be done at temperatures over 1250C. The steel, however, has a tendency to stick to guide bars. With guide bars made from G18 15 steel (1.4—1.8% C, 16—19% Mn) and piercing done at 1275—1300C, the tendency to stick was greatly reduced. The mechanical properties and surface quality of hot-rolled and heat-treated EP299 tubes were satisfactory, and the tubes were suitable for cold rolling and cold drawing. Orig. art. has: 2 figures.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 003/ ATD PRESS: 4225 [AZ]

Card 2/2 3K

Mlinkó, A.

Chem

2/

Aromatic substitution. II. Nitration of aromatic compounds with nitronium tetrafluoroborate and other stable nitronium salts. G. Olah, I. Kuhn, and A. Mlinkó (Hung. Akad. Sci., Budapest). *J. Chem. Soc.* 1956, 4257-8; cf. *C.A.* 51, 3502g.—Adding 20 g. HF at −20° to 108 g. N_2O_5 in 150 g. $MeNO_2$ and satg. the mixt. with BF_3 yield 94% NO_2BF_4 (I), decompg. about 170° without melting, stable in the absence of H_2O but absorbing H_2O with decompn. With $SiCl_4$ in lieu of BF_3 93% $(NO_2)_2SiF_6$ (II) is obtained. NO_2SbF_6 (III) and NO_2PF_6 (IV) are prepd. according to Woolf and Emeléus (*C.A.* 45, 2809e). I-IV are used for the nitration of aromatic compds. (V). For the nitration, 0.1 mole NO_2 salt is added in small portions to 0.2 mole V with NaCl-ice cooling, the mixt. kept several hrs., and the washed (neutral) and dried product distd. (method *A*); with deactivated compds., such as $PhNO_2$, the reaction is effected at 2-130° (method *B*); and for solid or highly sensitive ring systems in 5-10% Et_2O soln. (method *C*). The following V have been nitrated (% yield of mononitro compd. and method given): With I, C_6H_6, 87, *A*; PhMe, 88, *A*; $PhNO_2$, 85.5, *B*; PhF, 82, *A*; PhCl, 77, *A*; PhBr, 90.5, *A*; PhI, 88, *A*; o-$C_6H_4Cl_2$, 91.5, *A*; $C_{10}H_8$, 93, *C*; anthracene, 98, *C*; thiophene, 94.5, *C*; furan, 14, *C*. With II, C_6H_6, 93, *A*; $PhNO_2$ 82, *B*. With III, C_6H_6 84, *A*. With IV, C_6H_6 90, *A*. I has a sp. cond. $k = 0.75 \times 10^{-4}\ \Omega^{-1}\ cm.^{-1}$ in 0.02% $MeNO_2$; in 0.2% $MeNO_2$ soln. $k = 6.3 \times 10^{-4}\ \Omega^{-1}\ cm.^{-1}$.

F. E. Brauns

FM rmk

MLINKO, Sandor

Achievements obtained in the analysis of radioactive coal and some possibiliteis of their application in the organic microanalysis; a contribution to the account by the Section's leadership, also, remarks by Erno Pugor and others. Kem tud kozl MTA 14 no.2:243-247 '60. (EEAI 10:2)

(Hungary--Microchemistry) (Coal)
(Radioactive substances)
(Hungarian Academy of Sciences)

MLINKO, Sandor (Budapest)

An account of my study trip in the Soviet Union. Kem tud kozl MTA 16 no.1:137-138 '61.

1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete, Budapest.

(Organic compounds) (Chemistry, Analytic)
(Hungarians in Russia)

MLINKO, Sandor (Budapest, II., Pusztaszeri ut 59/67); SZARVAS, Tibor (Budapest, XII., Konkoly Thege ut)

Gas analysis of ^{14}C-carbon in the form of methane. Acta chimica Hung 33 no.1:107-120 '62.

1. Central Research Institute for Chemistry, Hungarian Academy of Sciences, Budapest, and Isotope Research Group of the Factory of Chemical Reagents "Reanal", Budapest.

L 35958-66 JAJ

ACC NR: AP6027362 SOURCE CODE: HU/0025/65/023/003/0339/[illegible]

B

AUTHOR: Mlinko, Sandor

ORG: Central Chemical Research Institute, MTA, Budapest (MTA Kozponti Kemiai Kutato Intezet)

TITLE: Report on Austrian study trip

SOURCE: MTA. Kemiai tudomanyok osztalyanak kozlemenyei, v. 23, no. 3, 1965, 339-341

TOPIC TAGS: chemical separation, chemistry technique

ABSTRACT: Author worked at the Institute of Inorganic Chemistry of the University of Vienna between Oct 63 and May 64. He was engaged in the study (under Docent Dr. Schoenfeld) of the characteristics of the uptake of anionic complex-forming ligands. The purpose of the experiments was to work out radiochemical separation /9 methods, demonstrate the complexes forming in the solutions, and study the interaction between ion exchangers and complexes. Orig. art. has: 2 figures. [JPRS: 35,397]

SUB CODE: 16 / SUBM DATE: none

Card 1/1

AID P - 5261

Subject : USSR/Engineering

Card 1/1 Pub. 11 - 12/15

Authors : Grabin, V. F. (Electrowelding Institute im. Paton) and
I. B. Mlinov, (Stalingrad Machine-Building Plant)

Title : Resistance slag welding of connecting rods used in hydroelectric power installations.

Periodical : Avtom. svar., 4, 115-119, Ap 1956

Abstract : The authors describe the welding of connecting rods 2 1/2 to 3 m long and 125mm in diameter at the Stalingrad Machine-Building Plant for the Kuybyshev hydroelectric power station. One comprehensive table and 2 drawings.

Institutions: As above

Submitted : No date

PHASE I BOOK EXPLOITATION SOV/4554

Mlinov, Isaak Bentsionovich, Engineer

Elektroshlakovaya svarka krupnogabaritnykh, tolstostennykh konstruktsiy (Electroslag Welding of Large Thick-Walled Constructions) [Stalingrad] Stalingradskoe knizhnoye izd-vo, 1960. 34 p. 3,000 copies printed.

Ed.: B.S. Smagorinskiy; Tech. Ed.: S.I. Izhboldina.

PURPOSE: This booklet is intended for welding engineers.

COVERAGE: The author describes the essence and the special features of the electroslag welding process developed by the Institut elektrosvarki (Institute of Electric Welding imeni Ye. O. Paton) of the Ukrainian Academy of Sciences. Also discussed are the advantages of forged-section weldments over all-forged constructions. No personalities are mentioned. There are 2 references, both Soviet.

Card 1/2

[illegible]

[illegible]

[illegible]

GRIGORYAN, G.K.; MLKUMYAN, G.O.

Furrow irrigation of alfalfa. Izv.AN Arm.SSR.Biol.i sel'khoz.nauki. 9 no.4:63-67 Ap '56. (MLRA 9:8)

1. Armyanskiy nauchno-issledovatel'skiy institut tekhnicheskikh kul'tur Ministerstva sel'skogo khozyaystva Armyanskoy SSR.
(Armenia--Alfalfa) (Irrigation farming)

MLNARIKOVA,J.; JANKOVA,J.; HUZL,F. Technicka spoluprace: EYBLOVE,M.

Lead poisoning in tender workers. Prac. lek. 16 no.1:24-27 Ja'64.

1. Oddeleni chorob z povolani a prumyslove toxikologie fakultni nemocnice v Plzni; vedouci: MUDr. F.Huzl, CSc.

MIACEK, A.

"Vegetable production on the collective farms in Krakow Voivodeship."

p. 692 (Nowe Rolnictwo, Vol. [illegible], No. 1[illegible], Sept. 1[illegible]. Warsaw, Poland.

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 1959

LADA, Zygmunt, mgr inz.; MLODECKA, Jadwiga, mgr

Studies on the possibility of alkalimetric determination of ε -caprolactam after hydrolysis to ε -aminocapronic acid. Chem anal 9 no.2:359-364 '64.

1. M.Struszynski Analytical Department, Institute of General Chemistry, Warsaw.

Mlodecka, J.

POL.

5474 546.331.61 : 546.546.3 : 547.633 6.01 : 674.049.3

Mlodecka J. The Determination of Sodium Fluoride, Dinitrophenol and α-Nitronaphthalene in Fungicides Used for the Impregnation of Wood.

„Oznaczanie fluorku sodowego, dwunitrofenolu i alfanitronaftalenu w preparatach grzybobójczych stosowanych do impregnacji drewna". Przemysł Chemiczny, No. 2, 1954, Biul. Plac. Nauk.-Bad. MPChem., pp. 109—112, 9 tabs.

Attempts were made to determine sodium fluoride, dinitrophenol and α-nitronaphthalene in fungicide compositions containing as fillers, coal pitch, fuel oil and solvent naphtha; it was found best: 1) to isolate the sodium fluoride either through combustion or through dissolving organic matter in carbon tetrachloride, and then to effect the determination in remains by titrating with hydrochloric acid and silica; 2) to isolate the dinitrophenol by extraction with a 5% solution of sodium bicarbonate, and after reduction with glucose, using selenium and copper sulphate as mineralizing catalyzers, to determine it by Kjeldahl's method; 3) after isolating the dinitrophenol from the carbon tetrachloride solution and distilling the solvent, to determine in the remaining substance, the α-nitronaphthalene after reduction to α-naphthyloamine by means of diazotisation.

MLODECKA J.

1657

547.594.3.04 : 546.224.131-31.09 : 545.81

Mlodecka J. Colorimetric Determination of Cyclohexanone Oxime Using Sulphuryl Chloride.

CH

„Kolorymetryczne oznaczania oksymu cykloheksanu za pomocą chlorku sulfurylu". Przemysł Chemiczny. No. 11, 1954, pp. 578—580, 1 fig.

On the basis of experiments it was found that: — 1) sulphuryl chloride is more suitable than chlorinated urea as a chlorinating agent for the colorimetric determination of cyclohexanone oxime, because it is durable and easily obtained, and gives results as good as those with chlorinated urea; 2) the determination of cyclohexanone oxime in solutions must be carried out after its previous extraction by chloroform and after removal of $CHCl_3$ by distillation. The preservation of acid solutions produces incorrect results as to the initial content of cyclohexanone oxime in these solutions; solutions in which cyclohexanone oxime is to be determined must therefore be neutralized; 3) the concentration limit of cyclohexanone oxime, which can be determined by means of sulphuryl chloride, is 0.2 mg in 10 ml. solution.

AT

MGT

MLODECKA, J.

2002

547.534.2.04 : 543.8

1447

Mlodecka J. Determination of Xylene Isomers.

„Oznaczanie izomerów ksylenu". Przemysł Chemiczny. No. 6, 1955, pp. 315—317, 3 tabs.

Xylene isomers were determined by nitration with a mixture of 1 pt. of nitric acid, specific gravity 1.32, and 4 pt. of sulphuric acid, specific gravity 1.84. M-xylene is determined by weight after crystallization from the acetone of its trinitro derivative, and p-xylene after crystallization from the ethyl alcohol of its dinitro derivative. The difference between the sum of the two contents and 100 stands for the combined content of o-xylene and impurities. The percentage values obtained for m- and p-xylene are smaller than the real content and, consequently, the content of the remaining components is exaggerated. The error in the method of determining m- and p-xylene is in the region of 5 per cent. In computing the percentage content, corrections must be made to allow for the solubility of trinitro-m-xylene. The results depend above all on a proper temperature.

M A YOUTZ

3 copies

Chem.

RM

POLAND / Analytical Chemistry. Analysis of Organic Substances. E-3

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57251.

Author : Minczewski J., Mlodecka J.
Inst : Not given.
Title : Titration in Waterless Media. III. Determination of Nitroguanidine in Commercial Products.

Orig Pub: Chem. Anal., 1957, 2, No 2, 176-182.

Abstract: A method for determining nitroguanidine (I) in commercial products containing NH_4NO_3 (II) and other impurities was developed. The sum of I and II is determined by potentiometrical titration of a sample dissolved in glacial CH_3COOH while using glass and AgCl electrodes. For the determination of II another sample is dissolved in CH_3OH and titrated with a solution of CH_3ONa that contains either Sb-

Card 1/2

~~JADWIGA Mlodeck~~a MLODECKA J

Determination of small amounts of amines. Jadwiga Mlodecka and Alicja Holnacka (Inst. Gen. Chem., Warsaw). *Chem. Anal.* (Warsaw) 2, 103-4(1957); cf. Feigl, *Spot Tests* 1954; *C.A.* 48, 8354g.—A simple app. was constructed for detn. small amts. of amines in dry substances and in solvents such as C_6H_6 and MeOH at concns. between 0.5 and 1 g./l.

Z. Kurtyka

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4

MLODECKA, J.

7

Colorimetric determination of *p*-cresol. Jadwiga Mlodecka. *Chem. Anal.* (Warsaw) 4, 45-52~~([illegible])(English summary)~~.—The Nicolas-Burel method (cf. Nicolas and Burel, *C.A.* 51, 137*a*) for detg. *p*-cresol, was modified. *Preparation of standard curve.* Mix 1 ml. 1% 1-nitroso-2-naphthol in glacial AcOH with 1.3-1.0 ml. glacial AcOH, add 0.1-0.7 ml. of *p*-cresol in glacial AcOH, shake, add 25 ml. H_2O, 2.5 ml. concd. HCl and immediately 1 ml. 3.5% $NaNO_2$. Stir and leave for 20 min. Dil. with H_2O to 50 ml., filter, and det. absorption in a Visomat absorption meter with 20-mm. cells and green filter. Max. absorption occurred at 500 mμ. Time of detn. is about 40 min. The method is suitable for detg. *p*-cresol in presence of phenols, volatilized with steam and contg. no substituent in the para position. It makes possible the detn. of 20-500 mg. of *p*-cresol in 50 ml. soln. Detns. were not affected by *m*- and *o*-cresols.

Z. Kurtyka

2

4E3d

2-May

MLODECKA, J.

Bromometric determination of acrolein in [illegible] an aqueous medium. p. [illegible].

CHEMIA ANALITYCZNA. (Komisja Analityczna Polskiej Akademii Nauk i Naczelna Organizacja Techniczna) Warszawa, Poland. Vol. 4, No. 1/2, 1959.

Monthly List of East European Accessions (EEAI) LC Vol. [illegible], August 1959.
Uncla.

1

3

4E3d

Chromatographic separation of phenol and isomeric cresols. I. Jadwiga Młodecka. *Chem. Anal.* (Warsaw) 4, 157-60(1959)(English summary).—The Hudecek method (*C.A.* 49, 5210a) was used for sepg. PhOH and isomeric cresols. Whatman papers No. 1 and 4 satd. with steam for 6 days and Whatman No. 4 paper impregnated with phosphate buffer (by immersion into soln. contg. 486.25 ml. 0.02*M* Na_2HPO_4 and 13.75 ml. 0.1*M* citric acid) and satd. with steam for 6 days were used. Chromatograms were run either with C_6H_{12}-$CHCl_3$-EtOH (9:1:0.6) and (or) C_6H_6-C_6H_{12}-MeOH (2:24:0.5) and treated with solns. obtained by mixing 10 ml. of sulfanilic acid (0.764 g. in 100 ml. H_2O) with 2 ml. 30% H_2SO_4, cooled, and 4.4 ml. $NaNO_2$ (0.34 g. in 100 ml. H_2O) was added. Before using the soln. 2 ml. 2*N* NaOH was added immediately. Mixts. of phenols and standards (0.02% alc. soln. of PhOH (b. 182.2°), of *o*-cresol (b. 191.1°), of *m*-cresol (b. 202.7°), and *p*-cresol (b. 201.9°)) in amts. 1-8 mg. were placed on paper strips. Time of sepn. for Whatman paper No. 1 was about 2 hrs., for Whatman No. 2, and 4 45-60 min. Whatman No. 1 gave no adequate sepn. of phenols. Whatman No. 2 and 4 gave 3 distinct spots of PhOH, *o*-cresol and mixt. of *m*- and *p*-cresols. Spots of PhOH were yellow, *p*-cresol red-violet, *m*-cresol orange, and *o*-cresol yellowish brown. Intensity of spot color for *p*-cresol was half that for remaining phenols. R_f values for PhOH, *o*-cresol, *m*-cresol, and *p*-cresols were 0.22, 0.54, 0.44, 0.44 for Whtman No. 1; 0.30, 0.62, 0.42, 0.42 for impregnated Whatman No. 2 (chromatograms in both cases were run with C_6H_{12}-$CHCl_3$-EtOH); 0.19, 0.47, 0.31, 0.33 for Whatman No. 1 and 0.27, 0.60, 0.42, and 0.44 for Whatman No. 4 (chromatograms were run with C_6H_6-C_6H_{12}-MeOH). Z. Kurtyka

LADA, Zygmunt; MLODECKA, Jadwiga

Indirect complexometric determination of pyrocatechol. Chem anal 6 no.1:95-98 '61. (EEAI 10:7)

1. Struszynski Analytical Laboratory, Institute of General Chemistry, Warsaw.

(Complex compounds) (Pyrocatechol)

JAROCKI, Walenty, doc. inz.; MLODECKI, Jaroslaw, mgr

Effect of certain plasticizing and aerating sealing agents on the properties of concrete used in hydraulic engineering. Inst tech budow biul inf no.11:5-11 '62.

1. Zaklad Zelbetu i Betonu Sprezongego, Instytut Techniki Budowlanej, Warszawa.

MLODECKI, H

POLAND / General and Specialized Zoology. Insecta.
Insect and Mite Pests.

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 44[illegible]4

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Title : Preliminary Studies in the Use of High-Frequency Current for the Destruction of Microorganisms and Cereal Mites in Flour.

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Abstract : A generator creating an electric field of 27.5 Mc frequency (the wavelength was 11.1 m) was used. Satisfactory destruction of the rod-shaped potato bacilli (Bacillus mesentericus) was not obtained in the experiments. The current had some effect on the vegetative forms of the rod-

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striped potato [illegible] (Bacillus [illegible]) was not obtained in the experiments. [illegible] had some effect on the vegetative [illegible] rod-shaped potato [illegible] bacteria ([illegible]) [illegible], it had no sterilizing [illegible] effect on [illegible] (Bacillus [illegible]). [illegible] temperature [illegible] in [illegible] the [illegible] [illegible] to the [illegible]. -- A. P. [illegible].