

KUZENTSOVA, Z.I.; IVANOVA, V.S.; SHORYGINA, N.N.

Reaction of dialcohol cellulose with nitrogen oxides. Izv. AN
SSSR. Ser. khim. no.9:1682-1684 '65. (MIRA 18:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

CHIRIKOVA, G.Y.; CHIRIKOVA, N.H.; CHIRIKOV, A.V.

Carboxylation of 2,3,4-tri-O-acetyl- α -D-glucopyranose by
the action of metallic sodium in pyridine medium. Izv. AN SSSR Ser.
Khim. no.10:1870-1872 '65. (MIRA 18:10)

1. Institut organicheskoy khimii im. N.D.Selinskogo AN SSSR.

SHONYGINA, M.M.; SDYKOV, T.S.; KOSHETEROV, A.K.

Study of lignins of *Phragmites communis* Trin. *Khim. prirod.*
soed. no.6:424-427 '65. (MIRA 19:1)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR i
Karakalpakskiy filial AN UzSSR.

L 37210-66 EWT(m)/EWP(j)/T WW/JW/JWD

ACC NR: AP6014411

(A) SOURCE CODE: UR/0062/66/000/004/0743/0746

AUTHOR: Kuznetsova, Z. I.; Ivanova, V. S.; Shorygina, N. N. ⁴⁴₃

ORG: Institute of Organic Chemistry im. N. D. Zelinskiy Academy of Sciences SSSR (Institut organicheskoy khimii Akademii nauk SSSR) ²

TITLE: Reaction of cellulose dialdehyde with gaseous nitrogen oxides ¹¹

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 4, 1966, 743-746

TOPIC TAGS: cellulose, nitration, oxidation, nitrate ester

ABSTRACT: The reaction of cellulose dialdehyde with nitrogen oxides in the presence of P₂O₅ was investigated. Without P₂O₅, cellulose dialdehyde is only oxidized by N₂O₄; in the presence of P₂O₅, oxidation, oxidation-nitration, or then essentially only nitration products are obtained as the weight ratio of P₂O₅:cellulose dialdehyde is increased from 0:1 to 400:1. The trinitrate of cellulose dialdehyde was obtained and its structure proposed. Orig. art. has: 2 tables and 2 equations.

SUB CODE: 07/ SUBM DATE: 13Aug65/ ORIG REF: 006/ OTH REF: 001

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UDC: 547.458.81

S/812/61/000/005/005/005

AUTHORS: Shorygina, N. V., Candidate of Technical Sciences, Zarubitskiy, A. Ye.,
Engineer.

TITLE: Production of shale and oil-shale resin-tars.

SOURCE: Akademiya stroitel'stva i arkhitektury SSSR. Institut novykh
stroitel'nykh materialov. Sbornik trudov. no.5. 1961. Novyye
stroitel'nyye polimernyye materialy. pp. 99-107.

TEXT: The paper reports an investigation of the effect of the acid and neutral components of shale oil on the physico-mechanical properties of shale-formaldehyde resin obtained from shale oil and formalin. It is established that the acid component of the shale oil, which consists primarily of phenol, reduces the elasticity, strength, and water-resistance of the resin. Initial materials used in making experimental specimens: (1) Generator shale oil of the shale-refining Kombinat at Kokhtlya-Yarva with a spec. grav. 1.015, water content 1%, viscosity 2.9°E at 75°C, flash point 90°, ash content 0.3%, S content 1.2%. (2) Shale gudron (asphalt flux) retained in the residue after boiling off of all generator-oil fractions up to 325° with a ball-and-ring softening T of 27°. (3) Petroleum gudron with a softening T of 40°, a ductility of 51 cm, and a viscosity at 60° of 159 sec as measured in a

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Production of shale and oil-shale resin-tars.

S/812/61/000/005/005/005

viscosimeter with a 5-mm-diam aperture. (4) Formalin of the Kuskovo Chemical Plant, containing 39.5% formaldehyde, 7.8% methyl alcohol, 0.03% acids (as expressed in formic acid). The resin was prepared in an electrically-heated 2-liter steel flask equipped with a thermometer compartment, a charging door, a mechanical mixer, and a cooler, and in a similarly equipped 10-liter reactor. To separate the acid and neutral compounds from the shale-oil resins, the oil was dissolved in benzol (1:1) and the solution was mixed with a 5% NaOH solution (1:1). Upon stirring and settling, a lower phenolate-containing layer separated from an upper layer containing the neutral and other compounds. The phenolate was acidulated by a 5% HCl solution and was washed with water. The separated acid compounds were dried for condensation with formaldehyde (yield of acid part: 15%). The neutral and other compounds were washed with water and dried for condensation with formaldehyde. The elasticity, strength, and 24-hr water resistance (at 20°C) of the acid- and neutral-compound-containing resins are tabulated in detail. Copolymerization of (a) shale and petroleum gudrons not containing phenols with (b) shale oil containing phenols, with formalin treatment of the mixture, yields resins that exhibit an elevated softening T, elasticity, impact strength, and water-resistance (details on both composition and characteristics are tabulated). The components were charged into the above-described flask or reactor and were condensed for 2 hrs at 85-90°, whereupon the resin obtained was dried at 95-105°

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Production of shale and oil-shale resin-tars.

S/812/61/000/005/005/005

(2 hrs) and then heated in two stages, namely, for 3 hrs at 150-160° and for 10 hrs at 210-220°. The resin yield was 95.4%. Optimal composition in parts of weight: Shale asphalt flux 50, shale oil 50, 39.5% formalin 5, HCl (spec. grav. 1.19) 1, chlore iron 1. The principal characteristics of the optimal composition are listed. An increase in shale oil reduces the softening T, hardness, and impact strength; a reduction accomplishes the opposite. The shale-formaldehyde resins are acid-, salt-, alkali-, and ether-resistant, and are thermoplastic, but are soluble in turpentine, gasoline, benzol, toluol, and xylol. The material thus produced eliminates the need for expensive and not readily available lamination plastifiers for the making of flooring, roof sheathing, and roofing materials by the roll. The same resins are also suitable for the making of mastics, heat-insulation, and other materials. There are 3 numbered (and numerous unnumbered) tables; no figures or references.

ASSOCIATION: None given.

Card 3/3

KOSHKIN, V.G., kand. tekhn. nauk; MAKOTINSKIY, M.P., kand. arkh.;
MUNTS, V.O., kand. arkh.; RUDINA, M.A., arkh.; SILUANOVA,
G.V., arkh.; SHORYGINA, N.V., kand. khim. nauk. Pr'imali
uchastiye: BOGUSLAVSKIY, A.I., inzh.; ZARUBITSKIY, A.Ye.,
inzh.; LIVSHITS, A.M., inzh.; MASHINA, N.N., inzh.;
OTLIVANCHIK, A.N., kand. tekhn. nauk; ROMANOVA, L.A., inzh.;
CHERKINSKIY, Yu.S., inzh.; ANDREYEV, V.S., retsenzent;
IOFAN, B.M., retsenzent; KRIPPA, A.I., arkh., retsenzent;
GURVICH, E.A., red.izd-va; BRUSINA, L.N., tekhn. red.

[Catalog of finishing materials and articles] Katalog ot-
delochnykh materialov i izdelii. Pod red. M.P. Makotinskogo.
Moskva, Gosstroizdat. Pt.1. [Plastics; polymer finishing
materials and articles] Plastmassy; polimernye otelochnye
materialy i izdeliia. 1962. 119 p. (MIRA 16:4)

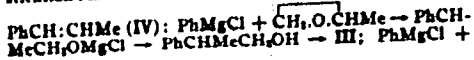
1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut
novykh stroitel'nykh materialov. 2. Chlen-korrespondent
Akademii stroitel'stva i arkhitektury SSSR (for Andreyev,
Iofan, Krippa).

(Finishes and finishing--Catalogs) (Plastics)

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STYRENE

Polymerization ability of substituted styrenes in relation to their structure. P. P. Shorugin and N. V. Shorugina. *J. Gen. Chem.* (U. S. S. R.) 5, 545-61 (1936).—Study of the polymerization ability of unsatd. hydrocarbons in relation to their structure, isomerism and the properties of the polymers was begun with the substituted styrenes. Ph-CH:CH₂ (I), obtained from pure PhCH₂CH₂OH (II) (cf. Shorugina, *et al.*, *C. A.* 26, 1205), is easily polymerized. II, prepd. from impure (CH₃)₂O, derived from the C₂H₄ obtained in the cracking of petroleum, contains higher homologs (oxides of C₂H₄, C₃H₆, etc.) and gives I contaminated with styrenes substituted in the side chain incapable of polymerization. It is assumed that the substitution results in the formation of PhCMe:CH₂ (III) and



CH₃O.CHMe → PhCH₂CH(OMgCl)Me → PhCH₂CH(OH)Me → IV. Staudinger and Breusch (*C. A.* 23, 3213) showed that I substituted in the side chain, e. g., III, is incapable of polymerization. It was of interest to learn whether a Me group in the nucleus of I has also an influence on its polymerization ability. The comparative tests

were made with pure and impure I and with *o*-(V), *m*-(VI) and *p*-MeC₆H₄CH:CH₂ (VII) and *o*-C₆H₄CH:CH₂ (VIII). For the prepn. of the styrenes and VIII, the Grignard solns. obtained from PhBr, *o*- and *m*-MeC₆H₄Br, *p*-MeC₆H₄I and *o*-C₆H₄Br, resp., were slowly treated, with ice cooling, with 0.7 mol. of (CH₃)₂O in C₆H₆; after standing for 12 hrs. the reaction mixts. were decompd. with

acidulated H₂O, the alcs. were extd. with Et₂O, the Et₂O was expelled and the alcs. redistd. *p*-MeC₆H₄CH₂CH₂OH (IX) and *o*-C₆H₄CH₂CH₂OH (X) were purified with CaCl₂. II, b, 95°; *o*-MeC₆H₄CH₂CH₂OH, b, 100.5-2°; *m*-MeC₆H₄CH₂CH₂OH, b, 100°; IX, b, 244.5-2°, and X, m. 62°, b, 182-3°. IX was obtained with 10% yield (bitolyl was the chief reaction product) and the other alcs. with 32-55% yield. The alcs. introduced dropwise into KOH in a Cu flask at 212-15° gave the styrenes. X was used in a melted state. Pure I, b, 33-4°, d₄²⁰: 0.8923, n_D²⁰: 1.5446, M. R. 36.81 (found), M. R. 35.07 (calcd.), exaltation 1.74; impure I, b, 32-3°, d₄²⁰: 0.9058, n_D²⁰: 1.5445, M. R. 35.26 (found), exaltation 1.9; V, b, 51°, d₄²⁰: 0.8912, n_D²⁰: 1.5425, M. R. 41.72 (found), M. R. 39.6 (calcd.), exaltation 2.12; VI, b, 52-3°, d₄²⁰: 0.9044, n_D²⁰: 1.54, M. R. 40.94 (found), M. R. 39.6 (calcd.), exaltation 1.34; VII, b, 51°, d₄²⁰: 0.8974, n_D²⁰: 1.5395, M. R. 41.22 (found), M. R. 39.6 (calcd.), exaltation 2.12, and VIII, b, 116-17°, d₄²⁰: 1.0439, n_D²⁰: 1.5425, M. R. 53.35 (found), M. R. 50.41 (calcd.), exaltation 2.94 (cf. Palfray, Sabatay and Sontag, *C. A.* 26, 4325). The styrenes and VIII were polymerized under exactly similar

AS 4-51A METALLURGICAL LITERATURE CLASSIFICATION

14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
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conditions by heating the products (no catalyst) in glass tubes at 175° for 3 hrs. in a drying oven. The thermal resistance of the polymers was detd. (approx.) from the temp. of softening and melting in a capillary tube. The relative viscosities were detd. with 2% solns. in C₆H₆ and PhMe at various temps. in an Ostwald viscometer. The values for the sp. viscosity, molarity of the solns. and mol. wt. of the polymers were calcd. by the Staudinger formula (*Heckmol. og. Verbindungen, C. A. 26, 3513*). The results show that the phys. properties of the polymers are directly related to the coeffs. of polymerization. Thus, the elasticity, mech. stability and resistance to heat of the following polymers decrease in the order given (the coeffs. of polymerization are given in parentheses): V (274), VI (265), pure I (245), VII (180), impure I (150) and VIII (30). It may be concluded that with the increase of the elongation of the side groups in the chain of the polystyrenes (the greatest elongation with VII) and a considerable increase in their weight (C₆H₅ nucleus) the polymerization ability of styrenes is decreased and the properties of the polymers are impaired. Only the Me group in the o-position acts differently. Chas. Blanc

117 AND 2ND ORDERS PRELIMINARY AND PROPERTIES INDEX 118 AND 4TH ORDERS

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Polymerization ability of substituted styrenes in relation to their structure. II. P. P. Shorygin and N. V. Shorygina. *J. Gen. Chem.* (U. S. S. R.) 9, 845-84 (1939); cf. C. A. 29, 6885. — *p*-Bromotoluene, obtained from *p*-toluidine, was oxidized with CrO_2Cl_2 in CS_2 to BrC_6H_4CHO , which was condensed with $MeMgI$ in Et_2O to give $p-MeCH(OH)C_6H_4Br$ (I), b_p 145°, d_4^{20} 1.379, n_D^{20} 1.502. $p-BrC_6H_4CH_2CH_3$, b_p 102-4°, d_4^{20} 1.408, n_D^{20} 1.580, was obtained from I on heating with $KHSO_4$ at 130-40° for 4 hrs. *o*- $BrC_6H_4CH(OH)Me$, obtained in a similar way from *o*- $MeC_6H_4NH_2$, b_p 128°, d_4^{20} 1.400, n_D^{20} 1.506. *o*- $BrC_6H_4CH_2CH_3$, b_p 102-4°, d_4^{20} 1.400, n_D^{20} 1.592. *p*- $MeOC_6H_4CH_2CH_3$, b_p 104°, d_4^{20} 1.0015, n_D^{20} 1.500. *o*- $MeOC_6H_4CH_2CH_3$, b_p 85°, d_4^{20} 1.000, n_D^{20} 1.556. *p*- $H_2NC_6H_4CH_2CH_3$, b_p 125.7°, d_4^{20} 1.0210, n_D^{20} 1.610. *o*- $H_2NC_6H_4CH_2CH_3$, b_p 102-4°, d_4^{20} 1.015, n_D^{20} 1.608. $PhCH_2CH_2Br$, b_p 67.8°, d_4^{20} 1.425, n_D^{20} 1.591. $PhCH_2CH_2Br$, b_p 108°, d_4^{20} 1.462, n_D^{20} 1.603. $C_6H_5CH_2CH_2Br$, b_p 126.8°, d_4^{20} 0.8186, n_D^{20} 1.4475. $C_6H_5CH_2CH_2Br$, b_p 122-3°, d_4^{20} 0.7271, n_D^{20} 1.4165. Ph_2 (II) was nitrated by means of HNO_3 in $AcOH$ or of N_2O_5 . In the latter case 50 g. II was treated with 200 g. N_2O_5 in the cold and the mixt. of *o*- and *p*- $O_2NC_6H_4Ph$ (III) sepd. by fractional crystn. III, m. 112-13°, was obtained in a yield of 45%. *p*- $H_2NC_6H_4Ph$, from III on reduction with Sn and HCl , yielded *p*- IC_6H_4Ph , m. 110-11°, b_p 180°, which gave PhC_6H_4MgI . The latter compd. was condensed with ethylene oxide in C_6H_6 to yield *p*- $HOCH_2CH_2C_6H_4Ph$, m. 93.4°. The study of the thermal polymerization of substituted styrenes at 100° and 170° in the absence of cata-

lysts revealed that substituents in the α - and β -positions exerted a hindering influence on the polymerization ability. This ability decreases with increasing mol. wt. and length of the aromatic residue attached to the ethylene mol. The polymerization is accelerated at elevated temp. but simultaneously the degree of polymerization is decreased.
Gertrude Berend

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

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10

Polymerization of styrene in a field of high-frequency current. N. V. Shoygina and K. I. Petrova. *J. Gen. Chem. (U.S.S.R.)* 19-170-6(1948) (English summary). -- It was shown that high-frequency currents (wavelength of about 1 meter) have a pos. effect on styrene polymerisation. The inhibiting effect of O₂ is increased under these conditions. *U.S.S.R. Chem. Rev.* 1949, 28, 1000.

COMMON ELEMENTS

COMMON VARIETIES INDEX

MATERIALS INDEX

OPEN

A 18-51 A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

SHORYGINI, N. V.

"The condensation of ethylene oxide with benzene homologues." (p. 1273)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1951, Vol 21, No 7.

CA

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The condensation of ethylene oxide with benzene homo-
logs. N. V. Shoygina. *J. Gen. Chem U.S.S.R.* 21, 1391-
3 (1951) (Engl. translation) — See C. I. 46, 29086 B. R.

SHUB, I. Ye., kandidat tekhnicheskikh nauk; SHORYGINA, N. V., kandidat
khimicheskikh nauk; KANTOR, P. I., inzhener.

Gluing together the two halves of the shell mold. Lit. proizv.
no. 11:2-5 N '56. (MIRA 10:1)
(Shell molding (Founding)) (Gluing)

SHORYGINA, N. V.

✓ Cyclic acetals. I. Condensation of styrene and its homologs with aldehydes in the presence of hydrochloric acid and reactions of 4-phenyl-1,3-dioxane with thionyl chloride, phosphorus pentachloride and aliphatic acids. N. V. Shorygina. *Zhur. Obshch. Khim.* 26, 1480-5 (1956). Heating 1 mole PhCH:CH₂ or homolog with 2.5 moles aldehyde and 10 ml. concd. HCl 6-7 hrs. on a steam bath gave the following: 60-8% 4-phenyl-1,3-dioxane, b_p 118-20°, d₄ 1.1110, n_D 1.5331; 70-80% 4-phenyl-2,9-dipropyl-1,3-dioxane, b_p 175-8°, 1.0150, 1.4680; 90-5% 4-p-tolyl-1,3-dioxane, b_p 145-7°, 1.090, 1.5231. These heated with 1:2 HCl 2-3 hrs. gave: 3-phenyl-1-chloro-1-propanol (I), b_p 110-12°, 1.1479, 1.5680; 1-phenyl-1-chloro-3-propanol, b_p 128-35°, 1.0452, 1.5150; 3-p-tolyl-1-chloro-1-propanol, b_p 118-20°, 1.0634, 1.5540. Heating 85 g. I with 50 ml. 38% formalin and 5 ml. HCl 1 hr. gave 98% 4-phenyl-1,3-dioxane. This (100 g.) added to 200 g. SOCl₂ and heating 1 hr. at 50° gave I; 1-phenyl-1,3-dichloropropane (II), b_p 111-13°, 1.770(sic), 1.5465, formed when ZnCl₂ was added to the SOCl₂. Reaction of 4-phenyl-1,3-dioxane (40 g.) with 104 g. PCl₅ in CCl₄ under 50° gave 95% II. Heating 17 g. I with 14 g. urotropine and 25 ml. EtOH finally at 60° 1 hr. gave after aq. treatment an oily material which yielded the p-nitrophenylhydrazone of 1-phenyl-3-propanol-1-one, m. 178-7°; semicarbazone, m. 194-5°. Heating 4-phenyl-1,3-dioxane with Ac₂O and a little concd. HCl 5 hrs. gave 80-5% 1-phenyl-1,3-propanediol diacetate, b_p 154-6°, d₄ 1.0467, n_D 1.4929, which with 16% alc. NaOH in 4 hrs. gave 58-65% free diol, b_p 158-8°, d₄ 1.1155, n_D 1.5417. Refluxing 164 g. 4-phenyl-1,3-dioxane with 176 g. PrCO₂H, 200 ml. xylene and 3 g. p-MeC₆H₄SO₃H with azeotropic removal of H₂O 12 hrs. (6 hrs. if the sulfonic acid is replaced by sulfonated ion-exchange resin) gave 70% 1-phenyl-1,3-propanediol dibutyrate, b_p 171-80°, d₄ 1.0351, n_D 1.5042.

G. M. Kosolapoff

SHOR.YGINA, N.V.

7 7 8

Cyclic acetals. I. Condensation of styrene and its homologs with aldehydes in the presence of hydrochloric acid and reactions of 4-phenyl-1,3-dioxane with thionyl chloride, phosphorus pentachloride and aliphatic acids. N. V. Shorygina. *J. Gen. Chem. U.S.S.R.* 26, 1843-7 (1955). English translation. *Chem. Abstr.* 50, 14763g. B. M. R.

RM mt

4 Resin from aniline, formaldehyde and phenol. N. V. Shorygina and L. P. Kagan. U.S.S.R. 104,911, Mar. 25, 1967. The water and heat resistance of the product produced by condensation of the aniline is improved by carrying out the condensation in the presence of 4-phenyl-1,3-dioxane. In the 1st stage this compound acts as a solvent and in the 2nd stage as an active reactant. M. Hirsch

SHORYGINA, N.V., kandidat khimicheskikh nauk.; OTLIVANCHIK, A.N., kandidat
tekhnicheskikh nauk.

The use of phenolic resins as binding materials. Der prom. 6 no.2:
15-16 F '57. (MIRA 10:4)
(Gums and resins, Synthetic) (Binding materials)

SHUKYGIN, N.V.

15

Synthesis of xylenol-formaldehyde resins. I. Condensation of xylenol in the presence of an acid catalyst. N. V. Shorygina and G. I. Kurochkina. *Zhur. Priklad. Khim.* 31, 144 (1958).—Condensation of tech. xylenol with HCHO without the addn. of cryst. PhOH was affected by equalization of the reaction rates of the different xylenol isomers: (a) by lowering the initial temp. to 70°, (b) by adding the catalyst in 2 stages, and (c) by neutralization of the acid catalyst before dehydration of the finished resin. The reaction is continued 1 hr. at the initial pH of 3.5. Acid is added to reduce the pH to 1 and the resin is heated an hr. to boiling, the acid is neutralized with 40% NaOH, and the resin dried *in vacuo* at 120–35°. A 100% yield of a resin with a hardening rate of 50–90 sec. was obtained. I. B.

Distr: 4E2c(j)/4E4j/

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2 May

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SHORYGINA, N.V.; KUROCHKINA, G.I.

Condensation of xlenols in the presence of alkaline catalyts.
Zhur. prikl. khim. v. 31 no.5:810-813 My '58. (MIRA 11:6)
(Condensation products (Chemistry)) (Xlenols)

SHORYGINA, N.V., kand.khim.nauk; KUROCHKINA, G.I., inzh.; KOZEL'TSEV, L.I.,
inzh.

Resins based on composite phenols and their use in making
particle board. Stroi.mat. 5 no.12:22-24 D '59.

(MIRA 13:3)

(Gums and resins, Synthetic) (Wood, Compressed)

5.3400

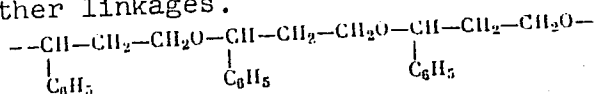
77539
SOV/80-33-1-48/49

AUTHORS: Shorygina, N. V., Chernov, A. G.

TITLE: Brief Communications. Synthesis of Copolymers of Styrene With Formaldehyde. Communication II, From the Series of Investigations of Cyclic Acetals

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 1, pp 251-253 (USSR)

ABSTRACT: Two copolymers of styrene and formaldehyde were prepared. The first copolymer was obtained by telomerization of one mole of styrene with two moles of formaldehyde. The elemental composition corresponds to the copolymer of styrene with formaldehyde in the ratio 1 to 1; the polymer contains 12% oxygen. The absence of other functional groups indicates a telomer with ether linkages.

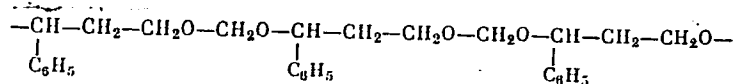


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Brief Communications. Synthesis of
Copolymers of Styrene With Formaldehyde.
Communication II, From the Series of
Investigations of Cyclic Acetals

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SOV/80-33-1-48/49

The second copolymer was obtained by condensation of one mole of styrene with 3 moles of formaldehyde, and contains 18% oxygen. The elemental composition corresponds to a copolymer of styrene with formaldehyde in the ratio 4 to 7.



The second copolymer was used for the preparation of phenol-formaldehyde resins.

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Brief Communications. Synthesis of
Copolymers of Styrene With Formaldehyde.
Communication II, From the Series of
Investigations of Cyclic Acetals

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SOV/80-33-1-48/49

The change of free phenol content in the condensa-
tion of styrene-formaldehyde copolymer with phenol.

a	a	a	b
0	63.3	160	42.3
20	55.95	190	42.41
50	48.25	230	42.40
80	44.95	260	40.59
130	44.38	300	41.3

a = Time from the start of reaction in min
 b = free phenol content (in %)

From the above resin a powder was obtained which after
pressing gave blocks with a heat resistance of over
300°, according to Martens. There are 2 tables;
and 4 references, 1 Soviet, 3 U.S. The U.S. refer-
ences are: J. W. Breitenbach, J. Phys. Chem., A.

Card 3/4

Brief Communications. Synthesis of
Copolymers of Styrene With Formaldehyde.
Communication II. From the Series of
Investigations of Cyclic Acetals

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SOV/80-33-1-48/49

187, 175 (1940); D. D. Coffman, J. Am. Chem. Soc.,
73, 4748 (1951); F. A. Bovey, *ibid*, 69, 2143
(1947).

SUBMITTED: May 9, 1959

Card 4/4

S/081/62/000/019/033/053
B101/B180

AUTHORS: Morygina, N. V., Chernova, A. G.

TITLE: Naphthalene phenol formaldehyde resins and molding materials

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1962, 511, abstract .
1964 (Izv. AN KirgSSR, Ser. yestestv. i tekhn. n., v. 3,
no. 2, 1961, 57-63 [summary in Kirg.])

TEXT: Formolites with softening point 180°C , readily soluble in benzene, poorly soluble in ethyl alcohol, and insoluble in petroleum ether, were obtained by condensing naphthalene (I) with formaldehyde (II) at molar ratios of 1:1, 1:2, 1:3, 1:4, and 1:5 in the presence of 45% sulfuric acid at 100°C for 20-24 hrs. The elementary composition of the resin was found to depend on the I:II ratio, and the presence of acetal groups in the resin was proven. All the formolites were found to react with phenol, binding 23-54% of the latter. Reaction of formolite (synthesized from 1 mole of I and 4 moles of II) with phenol in the presence of HCl (acid) yielded a novolac resin with Ubbelohde drop point $90-110^{\circ}\text{C}$ and, Card 1/2

Naphthalene phenol formaldehyde resins ... B101/B160
S/C81/62/000/019/033/053

on its basis, a molding material with a heat resistance of $\sim 400^{\circ}\text{C}$. The physical and mechanical properties of molding powders based on naphthalene phenol formaldehyde resin are given, and their variations on heating. [Abstractor's note: Complete translation.]

Card 2/2

15.8091

S/081/62/000/021/048/069
B162/B101

AUTHORS: Shorygina, N. V., Chingyshbayev, D.

TITLE: Resol styrene-phenol-formaldehyde resin "Stirolit P" (R)

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 448-449, abstract 21P17 (Izv. AN KirgSSR. Ser. yestestv. i tekhn. n., v. 3, no. 2, 1961, 65-71 (summary in Kirg.))

TEXT: To obtain emulsion resol resin "Stirolit R" from the styrene-formaldehyde copolymer, condensation is effected at a ratio of phenol:formaldehyde 1:1, 1:0.75, 1:0.5, 1:0.25 at 120-130°C. It is found that the optimum is the ratio of 1:0.5, at which a high degree of interaction is obtained and the thermosetting properties of the resin are preserved. It is shown also, for the resin "Stirolit R" that the modulus of elasticity in the state of curing does not change up to 450°C. [Abstracter's note: Complete translation.]

✓B

Card 1/1

SHORYGINA, N.V., kand,khim.nauk; ENFIADZHYAN, M.A., inzh.

Improving the permeability of seamless mastic floors. Stroi. mat. 7
no.2:34-35 F '61. (MIRA 14:3)
(Floors, Concrete) (Vinyl polymers)

SHORYGINA, N.V., kand.khim.nauk; CHERNOVA, A.G.; DERZHINSKIY, A.R.

Obtaining of phenanthrene phenol formaldehyde resins. Koks i khim.
no.10:43-46 '62. (MIRA 16:9)

1. Nauchno-issledovatel'skiy institut plastmass (for Shorygina, Chernova).
2. Vostochnyy uglekhimicheskiy institut (for Derzhinskiy).
(Coke industry—By-products)
(Phenol condensation products)

SHORYGINA, N.V., kand.khimicheskikh nauk; ENFIADZHYAN, M.A., inzh.

Increasing the water resistance of polyvinyl acetate mastic
floors. Stroi. mat. 8 no.4:34-35 Ap '62. (MIRA 15:8)
(Mastic) (Floors)

L 54967-65 EWT(m)/EWP(j) Pc-4 RM
ACCESSION NR: AP5012101

UR/0191/65/000/005/0008/0010
678.632

16
15
B

AUTHOR: Shorygina, N. V.; Zhilina, N. V.

TITLE: Studies of cyclic acetals. Phenolysis of polyvinyl butyral

SOURCE: Plasticheskiye massy, no. 5, 1965, 8-10

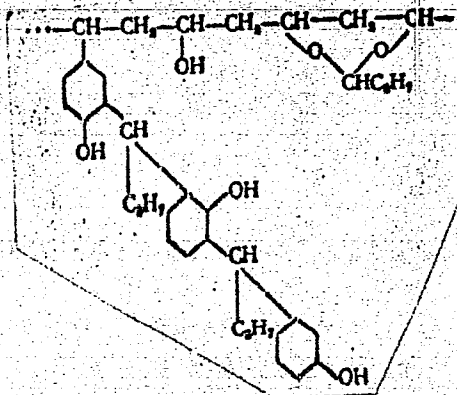
TOPIC TAGS: cyclic acetal, polyvinyl butyral, acetal phenolysis, phenol formaldehyde resol

ABSTRACT: The authors studied the influence of the initial amount of phenol on the extent of its reaction with polyvinyl butyral. When the amount of phenol in the initial mixture was raised from 32% to 78%, the amount of reacted phenol increased from 20% to 36% of the amount introduced; after 2.5-3 hrs. this amount ceased to change. A study of the influence of temperature on phenolysis showed that a change from 90 to 110C was associated with an increase from 29.0 to 37.5% in the amount of reacted phenol. From a study made in the presence of excess phenol, it was concluded that three or more phenol groups add to each monomer unit in polyvinyl butyral. This is possible only in two cases: (1) growth of the side chains formed by the reaction of phenol with the butyraldehyde which splits off:

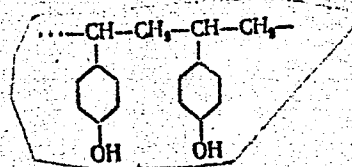
Card 1/3

L 54967-65

ACCESSION NR: AP5012101



(2) addition of two phenol groups to each butyral link:



Card

2/3

L 54967-65
ACCESSION NR: AP5012101

Phenol-modified polyvinyl butyral can be combined with phenol-formaldehyde resols¹⁵; this improves their elastic properties and increases their strength characteristics owing to the presence of a greater number of cross-links than in pure polyvinyl butyral. Orig. art. has: 3 figures, 3 formulas and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: 00, 00

NO REF SOV: 004

OTHER: 002

Card

3/3

L 52135-55 EWP(c)/EWP(j)/EWT(m) Pc-4/Pc-4 24

ACCESSION NR: AP5015297

UR/0286/65/000/009/0068/0068

AUTHORS: Shorygina, N. V.; Pilyayeva, V. F. 26
B

TITLE: A method for obtaining formolites.¹⁵ Class 39, No. 170669 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 68

TOPIC TAGS: formolite, formaldehyde, inorganic acid, catalyst, anthracene, sulfuric acid, hydrochloric acid

ABSTRACT: This Author Certificate presents a method for obtaining formolites by condensing formaldehyde and a mixture based on anthracene, in the presence of an inorganic acid used as a catalyst. To simplify the production process and to diminish the amount of catalyst, a mixture of raw anthracene and anthracene oil is applied. This reaction may be conducted in the presence of sulfuric or hydrochloric acid.

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

SUBMITTED: 05Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 000

OTHER: 000

Card 1/1 mb

L 44179-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6011234

SOURCE CODE: UR/0413/66/000/006/0074/0074

INVENTOR: Shorygina, N. V.; Ninin, V. K.; Soborovskiy, L. Z.; Bruker, A. B.; Raver, Kh. R.

40
39
B

ORG: none

TITLE: Method of obtaining ¹⁵fireproof and heat-resistant phenol-formaldehyde resins. ¹⁵Class 39, No. 179920

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 74

TOPIC TAGS: resin, phenolformaldehyde, organic phosphorus compound, fire resistant resin, *heat resistant plastic*

ABSTRACT: An Author Certificate has been issued for a method of obtaining fireproof and heat-resistant phenolformaldehyde resins by the modification of phenolformaldehyde and arylphenolformaldehyde resins with an organic phosphorus-containing compound and introducing it during the process of tar formation. To increase the fire and heat resistance of

Card 1/2

UDC: 678.632'0'21:678.85

SHOSELOVA, Valentina, inzh.

Some studies of the electrohydraulic effect. Elektroenergiia 13
no.7:9-11 J1 '62.

L 60883-65

ACCESSION NR: AR5015899

UR/0299/65/000/009/1020/1020
616.003.93

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 9112

AUTHOR: Shoshas, I I.

TITLE: Plastics in alloplasty of abdominal hernia

CITED SOURCE: Tr. 10 S"yezda khirurgov USSR, 1962. Kiyev, Gosmedizdat USSR, 1964, 470-472

TOPIC TAGS: surgery, abdominal surgery, alloplasty, hernioplasty, implantation, caprone

TRANSLATION: In abdominal hernioplasty, caprone gauze of various mesh was used as the alloplastic material. The size of the implant averaged 10 x 6 cm. In post-operative, relapsing, and larger hernias the implant ranged from 18 to 1200 cm². After 5 days the implant was intergrown with connective tissue, and the wound had healed by secondary union in all of the patients. No sequestration was observed. The healing of the wounds did not essentially depend on the character of the alloplastic material. Over a period of 36 months following surgery no relapses were noted. N.S.

Card 1/2

L 60883-65

ACCESSION NR: AR5015899

SUB CODE: IS, MT

ENCL: 00

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Card 2/2

SHOSHENKO, K. A.

SHOSHENKO, K. A. -- "Compensatory Adaptation of the Central Nervous System after Section of the Anterior Half of the Spinal Cord in Birds." Second Moscow State Med Inst imini I. V. Stalin, Moscow, 1955. (Dissertations for the Degree of Candidate of Medical Sciences)

So: Knizhnaya Letopis: No. 39, 24 Sept 55

SHOSHENKO, K.A.

Fatigue in pigeons and chickens after transection of the ventral and lateral portions of the spinal cord. Fiziol.zhur. 47 no.2: 247-252 F '61. (MIRA 14:5)

1. From the Physiology and Pharmacology Chair of the Pharmaceutical Institute, Piatigorsk. (SPINAL CORD) (FATIGUE)

NIKIFOROVA, S.F.; SHOSHENKO, K.A.

Structure and development of the capillary bed in the skin of the frog. Arkh. anat., gist. i embr. 47 no.9:92-98 S 164.
(MIRA 18:11)

1. Kabinet mikroфизиologii (zav. - kand.med.nauk K.A.Shoshenko)
Instituta tsitologii i genetiki Sibirskogo otdeleniya AN SSSR,
Novosibirsk. Submitted Sept. 21, 1963..

NIKIFOROVA, S.F.; SHOSHENKO, K.A.

Some principles of the structure and function of the capillary bed.
Biul. eksp. biol. i med. 59 no.2:25-29 F '65.

(MIRA 18:7)

1. Kabinet mikroфизиologii (zav. - K.A. Shoshenko) otdela eksperimental'noy biologii i patologii (zav. B.B. Fuks) Instituta tsitologii i genetiki (dir. D.K. Belyayev) Sibirskogo otdeleniya AN SSSR, Novosibirsk.

PEPROV, V.V.; BRODSKIY, M.V.; SHOSHENKOV, V.D.

Basis for the selection of a system of automatic channel
switching of radio links. Elektrosviaz' no.11:25-33 N '56.
(MLRA 9:12)

(Radio relay systems)

S. Shoshenkov, V.D.

86V/587

USSR. Ministerstvo svyazi. *Tekhnicheskoye upravleniye*

*Kovaya apparatura elektrosvyazi i elektropriyemnykh informatsionnykh sbornik. (New Electro-Communication and Power Supply Equipment; Collection of Information) Moscow, Svyaz'izdat, 1959. 100 p. (Series: *Tekhnika svyazi*) 13,300 copies printed.*

Resp. Ed.: V.A. Lipkin; Eds.: Ye.S. Norikova and N.M. Mondrukhina; Tech. Ed.: S.Y. Karabilova.

FOURTH: This collection of articles is intended for technical personnel of the Ministry of Communications USSR and its subordinate telecommunication establishments.

COVERAGE: The articles in this collection describe various new pieces of Soviet equipment used in electrical communications systems. These include: broadcast studio equipment, mobile audio amplifiers, transformers, cable racks, converters, rectifiers, and switchboards. No personalities are mentioned. References accompany the articles in footnotes.

Meisler, Ch.M., and B.K. Baranovskiy. A.G./Ch. "Talking Clock" Unit 24
This device provides telephony time services. The authors describe its principle of operation, and the block diagram of the unit

Melaf, Ch. M. TF - 200 Line Transformer with Lightning Arrestor. 31
This power transformer is designed for operation with overhead transmission lines of wire broadcasting systems. The author describes the diagram and design of the transformer

Philipov, V.M. Subscriber Telegraph Station of the AZA-M Low Capacity 34
Systems
This station is designed for installation in oblat or rayon (administrative centers of the subscribers' automatic telegraph system). Its capacity is 10 subscribers' installations and 3 voice-frequency channels

Prud, V.G. VCS Lead-In Cable Cabinet Racks 41
The author lists a variety of racks for connecting balanced cables of varying capacity. A table indicates the types of mounting plates for each rack. The author also describes circuit diagrams and operation of the rack assemblies.

Philipov, V.M. VS-80 Lead-In Rack 45
The author briefly describes the structure and operation of this rack, which serves for connection and commutation of communication cables and overhead lines, and for protection of station equipment.

Brodnitskiy, M.Y., G.A. Volynson, and V.D. Shoshenkov. Constant Voltage 49
Direct Current Converters with Transistor Triodes
These converters provide power supply for communication equipment by means of a single battery. The article also describes converter operating principle, advantages and disadvantages, field of application and components. The results of experiments with 3 types of converters are shown in a table.

Golubev, L.S. VSS-36/50 Rectifier Assembly 60
The rectifier serves as a power supply for equipment used in intra-rayon and intra-oblast telecommunications and in dial telephone systems. The author gives the circuit diagram and design of the assembly. Diagram and structural details of the new board.

Konstantinova, L.S. EMCE-1 Combined Switchboard 86
The switchboard connects local subscribers among themselves and connects long distance lines with local telephone network subscribers and with those of the automatic telephone system. The article describes circuit diagrams of various combinations of connections, structural details of the components and the assemblies as the whole.

Vigodnitskiy, M.M. BSK-8 Drilling Rig 96
The article describes the construction of overhead line poles. The author describes the functional diagram, design, and operation of the assembly.

AVAILABLE: Library of Congress

EM/PL/SP

SHOSHESTVENSAYA, Ye.M.

Preparation of arylhalomonosilanes. Zhur.ob.khim. 26 no.1:
231-232 Ja '56. (MLRA 9:5)

(Silane)

SHOSHESTVENSKAYA, Ye. M.

11335* (Russian) Dependence of the Yields of Tetrasubstituted Alkyl and Aryl Monosilanes on the Size of the Charges and the Radii of the Fluosilicates. *0 zavimost' vykhodov chetyrekhzamezhennykh alkil- i arilmonosilantov ot velichin zarядov i radiiуov kationov kremneftoristovodorodnykh solei.* G. V. Medoks and E. M. Shoshestvenskaya. *Zhurnal Obshchei Khimii*, v. 27, Mar. 1957, p. 720-724.

Chem

A study of the interaction of fluosilicates of Li, Na, K, and Rb⁺ with benzyl magnesium chloride and ethyl magnesium bromide. It was found that the yields of tetrabenzylsilanes and tetraethylsilanes are in a relationship of linear dependence on the radii of the cations. An analogous regularity was also shown during the reactions of benzyl magnesium chloride with fluosilicates of Ca, Sr, and Ba, although the increase of the charge of the cations causes a severe decrease in the yields of tetrasubstituted monosilane.

4E 3d
4E 2c
2 MWY

PM
for copy

CHACHANIDZE, G.D.; KARUMIDZE, Z.A.; KHARASHVILI, TS.G.; Prinsipala
uchastiye: SHOSHIASHVILI, E.

Conversion reactions of mixed nitrate salts. Trudy Inst.prikl.
khim.i elektrokhim.AN Gruz.SSR 3:169-180 '62. (MIRA 16:1)
(Nitrates) (Ammonium nitrate)

PURTSELADZE, Kh.G.; TOPURIYA, Z.M.; CHKONIYA, T.K.; SHOSHIASHVILI, E.N.

Thermal dissociation of artificial manganese dioxide samples.
Trudy Inst.prikl.khim.i elektrokhim.AN Gruz.SSR 3:163-168 '62.
(MIRA 16:1)
(Manganese oxide—Thermal properties)

SHOSHIASHVILI, I. I.

Shoshiasvili, I. "Data dealing with the study of the biogeology of diploid-maire in Georgia," Trudy In ta zashchity rasteniy (Akad. nauk Gruz. SSR), Vol. V, 1948, p. 225-48, (In Georgian, resume in Russian), - Bibliog. 41 items

SO: U-4934, 29 Oct 59, (Letopis 'Zhurnal 'nykh St. tey, No. 16, 1949).

SHOSHIASHVILI, I.I.; KIRMELASHVILI, N.S.

Contribution to the study of the downy mildew of onions
(Peronosporaceae) in Georgia [in Georgian with summary in
Russian]. Trudy Inst. zashch.rast. AN Gruz. SSR 9:197-211
'53. (MIRA 8:2)
(Georgia--Downy mildew)(Onions--Diseases and pests)

Country : USSR M
Category : CULTIVATED PLANTS. POTATOES, Vegetables. Cucurbits.
Abs. Jour. : REF ZHUR-BIOL., 21, 1958, NO-959 80
Author : Shoshiashvili, I. I.
Instit. : AN Georgian SSR, Inst. of Plant Protection
Title : Findings of a Study of Potato Wilt and Control Measures in the Georgian SSR
Orig. Pub. : Tr. In-ta zashchity rast. AN GruzSSR, 1957, 12, 31-38
Abstract : Potato wilt is widespread throughout all the districts of Georgia. The damage caused by it reaches 64% in April sowings, 60% in June and 59.3% in July plantings. The summer sowing of vernalized tubers reduces wilt and increases the yield. The vernalization of spring plantings lessens the intensity of infection through wilt (especially in July) and boosts the harvest. Regular watering (at least four times), fertilization, as well as high sidedressing doses of mineral
Card: 1/2

DZHAMBURIYA, G.D.; MELITURI, K.N.; KHANTADZE, Sh.A.; SHOSHIASHVILI, N.F.;
BARNAVELI, T.V. [translator]; BERIDZE, V.V., red.; BAKRADZE, D.S.,
red.izd-va; DZHAPARIDZE, N.A., tekhn.red.

[Vardzia; guidebook] Vardzia; putevoditel'. Tbilisi, Izd-vo Akad.
nauk Gruzinskoi SSR, 1957. 93 p. (MIRA 11:3)
(Georgia--Description and travel--Guidebooks)
(Kura Valley--Monasteries)

SHOSHICHA S.V.

CHISTOVICH, G.N.; BLYUMENFEL'D, O.M.; GORODEL'SKAYA, E.A.; PETUKHOVA, R.N.;
POLOZOVA, T.V.; TERENT'YEVA, T.A.; SHILOVA, N.V.; SHOSHICHA, S.V.

Individual properties of staphylococcus cultures. Zhur.mikrobiol.
epid.i immun. no.7:101 J1 '54. (MLRA 7:9)

1. Iz kafedry mikrobiologii I Leningradskogo meditsinskogo instituta
im. Pavlova.
(STAPHYLOCOCCUS)

SHOSHIN, A. A.

Improvement and Washing of Saline Soils of the Kura and Araks Delta
Sots. S. Kh. Azerbaydzhana, No 1, 1954, pp 5-9

A considerable part of the saline soils of the Kura and Araks Depression is characterized by the prevalence of chlorides of sodium and magnesium. In order to improve these soils it is necessary not only to remove the salts, but also to prevent their "migration" by providing drainage of the descending currents of water. This must be done to secure the ground-water regime and to prevent re-salting of the soil. (RZhBiol, No 2, 1955)

SO: Sum. No. 639, 2 Sep 55

~~SHOSHIN, A.A.~~, otv. red.; BYAKOV, V.P., red.; IGNAT'YEV, Ye.I., red.;
KELLER, A.A., red.; YAKOVLEV, A.V., red.

[Materials of the Commission on Medical Geography] Materialy
Komissii meditsinskoi geografii. Leningrad. Pt.1. 1961. 76 p.
(MIRA 15:1)

1. Geograficheskoye obshchestvo SSSR.
(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.; IGNAT'YEV, Ye.I.; MARKOVIN, A.P.; BYAKOV, V.P.

Present-day status of medical geography and the prospects for its
development. Mat.Kom.med.geog.Geog.ob-va SSSR pt.1:14-22 '61.
(MIRA 15:10)

(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.

Basic problems in and the methods for the medicogeographical study
of a locality. Mat.Kom.med.geog.Geog.ob-va SSSR pt.1:22-40 '61.
(MIRA 15:10)

(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.;- IGNAT'YEV, Ye.I.; MARKOVIN, A.P.; BYAKOV, V.P.

Nature, objectives and methods of medical geography. Geog. sbor.
no.14:5-13 '61. (MIRA 15:1)

(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.

Main objectives and methods for studying man's diseases (nosogeography).
Geog. sbor. no.14:130-144, '61. (MIRA 15:1)
(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.

Main problems in medical cartography. Geog. sbor. no. 14:174-189
'61. (MIRA 15:1)

(MEDICAL GEOGRAPHY MAPS)

SHOSHIN, Aleksey Alekseyevich; IGNAT'YEV, Ye.I., otv.red.; PAVLOVSKIY, Ye.N.,
akademik, glavnyy red.; VASIL'YEVA, Z.A., red.izd-va; SOROKINA, V.A.,
tekhn.red.

[Principles of medical geography] Osnovy meditsinskoi geografii.
Moskva, Izd-vo Akad. nauk SSSR, 1962. 146 p. (Geograficheskoe
obshchestvo SSSR. Zapiski, vol.22) (MIRA 15:12)

1. Prezident Geograficheskogo obshchestva SSSR (for Pavlovskiy).
(Medical geography)

IGNAT'YEV, Ye.I., otv. red.; SHOLMIN, A.A., red.; BYAKOV, V.P.,
red.; VERSHINSKIY, B.V., red.; YAKOVLEV, A.V., red.;
KHLEBOVICH, I.A., red.

[Medical geography; results and prospects] Meditsinskaya
geografiya; itogi, perspektivy. Irkutsk, 1964. 208 p.
(MIRA 17:7)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut
geografii Sibiri i Dal'nego Vostoka.

DERYAPA, Nikolay Romanovich; SHOSHIN, A.A., otv. red.

[Nature of the Antarctic and human acclimatization]
Priroda Antarkiti i akklimatizatsiia cheloveka. Mo-
skva, Nauka, 1965. 154 p. (MIRA 18:7)

DERYAPA, Nikolay Romanovich; SHOSHIN, A.A., otv. red.

[Nature of Antarctica and the acclimatization of man.]
Priroda Antarktiki i akklimatizatsiia cheloveka. Moskva,
Nauka, 1965. 154 p. (Geograficheskoe obshchestvo SSSR.
Zapiski. Novaya seriya, vol.24) (MIRA 18:8)

SHOSHIN, A.A.

State and problems of the medicogeographical study of foreign
countries. Vop geog. no.68:8-13 '65.

(MIRA 18:12)

SHOSHIN, A.F.

Method of forecasting the filling intensity of Rybinsk Reservoir.
Sbor. rab. Ryb. gidromet. obser. no.1:131-158 '59.

(MIRA 14:7)

(Rybinsk Reservoir--Hydrography)

FEDORENKO, V.A.; SHOSHIN, A.I.; KULACHKOV, V.I., inzh., red.;
YURKEVICH, M.P., inzh., red.izd-va; SHCHETININA, L.V.,
tekhn. red.

[Manual for machine drawing] Spravochnik po mashino-
stroitel'nomu chercheniu. 7. izd., ispr. i dop. Moskva,
Mashgiz, 1963. 280 p. (MIRA 16:8)
(Machinery--Drawing)

SHOSHIN, B.G.

[Rabies] Beshenstvo. Moskva, Medgiz, 1952. 14 p.

(MLBA 6:7)
(Hydrophobia)

SHOSHIN, B. G.

Rabies. Fel'dsher & akush., Moskva no. 5:34-38 May 1952. (CLML 22:3)

ЖУКОВИЧ, Б. А.

Insane - Hospitals

Cut-of-town psychiatric institutions; discussion. Zhur. nevr. i psikh. 52 no. 7, 1952.

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

SHOSHIN, R. G.

[Rabies and its control] Beshenstvo i bor'ba s nim. Moskva, Medgiz,
1954. 25 p. (MIRA 8:3)
(Rabies)

SHOSHIN, B.G., vrach (Moskva)

Psychotic states in various diseases. Med. sestra no.1:10-15 Ja '55.
(PSYCHOSES, complications (MLRA 8:3)
in various dis.)

SHOSHIN, B.G. (Moskva)

Care of sick with acute psychosis. Med.sestra 15 no.6:20-23 Je '56.
(PSYCHIATRIC NURSING) (MLRA 9:8)

EDVHIN, I. A.

"Modern Laboratory Apparatus," a report presented at the Conference of Commission on Astronomical Instruments Construction of the Astronomical Council, AS USSR, 17-18 Feb 56.

Sov. No. 1947, 31 Aug 56

S. V. V. I., Prof.

"New achievements in optical-mechanical measurement" (Section III)

report submitted for Measurement and Automation, Scientific Society for (Hungarian)
and Measurement Conference - Budapest, Hungary, 24-30 Nov 58

~~SHOSHIN, I.A.~~
SHOSHIN, I.A.
KRICHEVSKIY, Yevgeniy Samoylovich; FEDOROVICH, Leonid Grigor'yevich; FETISOV, Vladimir Fedorovich; VERPSNER, V.N., kand. fiz.-mat. nauk, retsenzent; KRUGER, M.Ya., inzh., retsenzent; SHOSHIN, I.A., inzh., retsenzent; SOBOLEV, S.F., inzh., retsenzent; DULIN, V.N., kand. tekhn. nauk, red.; BOGOMOLOVA, M.F., red. izd-va; PUKHLIKOVA, N.A., tekhn. red.

[Electrical equipment in optical and mechanical instruments] Elektrooborudovanie optiko-mekhanicheskikh priborov. Moskva, Gos. izd-vo obor. promyshl., 1958. 467 p. (MIRA 11:7)

(Electronic apparatus and appliances)

(Electric apparatus and appliances)

Shchegolev, N. A., ENGINEER

Land Tech Sci

Dissertation: "Investigation of the Operation of an Automobile-Type Engine
on Generator Gas."

27/3/50

Moscow Forestry Inst

SO Vecheryaya Moskva
Sum 71

PERFILOV, M.A.; SHOSHIN, N.A.; NOVOSEL'TSEV, N.V., red.; MOROZOV, Yu.V.,
red. izd-va; BACHURINA, A.M., tekhn. red.

[LTA-TSNIIME felling and skidding machine] Valochno-trelevochnaia
mashina LTA-TsNIIME. [Leningrad] M-vo lesnoi promyshl. SSSR [1957]
6 p. (MIRA 11:10)

1. Moscow. Vsesoyuznaya promyshlennaya vystavka.
(Lumbering--Machinery)

SHOSHIN, N.A.

PERFILOV, M.A.; SHOSHIN, N.A.

Tree-felling and trailing machines. Biul. tekhn.-ekon. inform. no.1:
57-58 '57. (MIRA 11:4)

(Lumbering--Machinery)

BODNYA, M.D.; SHOSHIN, N.V.

Mechanization of the loading of pigment pastes into pigment-grinding machines. Lakokras.mat.i ikh prim. no.3:75-76 '60.
(MIRA 14:4)

1. Tashkentskiy lakokrasochnyy zavod.
(Tashkent--Pigments) (Loading and unloading)

S/056/62/042/006/006/047
B104/B102

AUTHORS: Kulikov, O. F., Shoshin, P. B.

TITLE: An experimental investigation of the dimensions of an electron bunch during special operating conditions of a synchrotron

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 6, 1962, 1461 - 1463

TEXT: The variation in the amplitude of electron oscillation of a bunch during the increasing and the decreasing part of the magnetic cycle was investigated with the C-25 (S-25) synchrotron of the FIAN im. P. N. Lebedeva (FIAN imeni P. N. Lebedev). The maximum electron energy was 274 Mev. The duration of the hf pulse fed to the synchrotron resonator and the period that the electron was within the accelerating chamber were $1\frac{1}{2}$ times those under normal conditions. The electron beam was photographed with an SKC-1 (SKS-1) high-speed cinecamera. The intensity of the bunch luminescence was determined from bunch photographs by means of an MF-4 (MF-4) microphotometer. The amplitudes of radial oscillations of the bunch during the de-

Card 1/2

SHOSHEIN, I.D.; TROCHENKO, V.A.; ELIMOV, A.N., prof., respondent;

[Planning in research institutes and design offices] Planirovaniye v nauchno-issledovatel'skikh institutakh i konstruktorskikh biuro. Moskva, Mashinostroyeniye, 1962. 171 p.
(MIRA 17:9)

S/137/61/000/007/050/072
A060/A101

AUTHORS: Zhukovskiy, B. D.; Fomichev, I. A.; Manevich, F. D.; Shoshin,
V. A.

TITLE: Present state of theory and direction of development of the process
of forming pipe stock on continuous pipe molding mills

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1961, 38, abstract 7D303
("Tr. Ukr. n.-i. trubn. in-ta", 1959, no. 2, 136-146)

TEXT: The existing methods of molding pipe stock on continuous pipe-molding
mills by means of 2 or 4 rolls (with radius decreasing along the pass, 2 radii,
one radius with flat central part) as well as the possibility of applying each of
these methods in the molding of thin-walled and thick-walled, small diameter and
large diameter pipes, are analyzed. The effect of neighboring stands on the
process of skelp deformation, the rise of zones in the contactless deformation of
skelp, leading to an elongation in skelp edges and the possibility of the appear-
ance of corrugations or even loss of stability of the profile are considered.
It is recommended to set up roll or continuous conduits between molding stands.

Card 1/2

Present state of theory and direction ...

S/137/61/000/007/050/072
A060/A101

Experiments are reported regarding tests of molding with conduits of pipes 30 x 0.3 and 152 x 3.25 mm. Bibliography contains 9 names.

V. Tsirul'nikov

[Abstracter's note: Complete translation]



Card 2/2

S/123/62/000/013/017/021
A004/A101

AUTHORS: Fomichev, I.A., Shoshin, V. A.

TITLE: Longitudinal deformations of the strip in continuous bending into pipe blanks

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 13, 1962, 25-26, abstract 13V99. (In collection: "Proiz-vo trub". No. 6, Khar'kov, Metallurgizdat, 1962, 102-110)

TEXT: The authors report on investigations carried out to study the profiling process of strip 95 mm wide with a thickness $h = 1, 1.25, 1.5$ and 1.8 mm into pipes 30 mm in diameter on a multiple roller-pair profiling and bending machine, to elucidate the mechanism of wave formation on the edges. The longitudinal elongations of the edges were measured with wire tensometers and by the marking method. It was found that, in front of the stand, the edge stretches evenly at the start (beginning with a distance up to the stand axis $l = 270 - 100$ mm), then abruptly ($l = 150-100$ mm), reaching its maximum at $l = 80-40$ mm, which amounts to 0.3-0.8% of the relative deformation depending on h and the number of the stand, after which an abrupt contraction takes place, which ends behind the stand ($l = 20-40$ mm).

Card 1/2

Longitudinal deformations of the...

S/123/62/000/013/017/021
A004/A101

The load and residual elongations grow with an increase of h . The longitudinal deformations over the width of the strip were measured with tensometers (in the middle and at a distance of 26 and 42.5 mm from the center). A graph has been plotted showing the changes in longitudinal deformations in various points over the strip width in sections in front of the stand $l = 240$ and behind the stand $l = 120$ mm. Stress vectors have been obtained for the strip cross section shaped into an arc of 60.3 mm radius for $l = 20$ mm and, using the conditions of the tension diagram, the stress distribution diagram was plotted. Tensile stresses are acting on the middle of the strip and on the edges, while the intermediate points (between the middle and the edges) are affected by compression stresses. The origination of waves is explained by the interaction of the previously residually elongated edges with the middle part of the strip, when the strip is passing the zone of contraction of the edges which causes the strip to lose its resistance to compression. To increase the resistance of the edges the authors recommend: reducing the edge bending radius, using additional supports for the edges (rollers and wires) increasing the roller diameter and improving the contact of the strip with the gages over its whole width. There are 6 figures and 4 references.

[Abstracter's note: Complete translation]

Yu. Semenenko

Card 2/2

MANEVICH, F.D., kand. nauk, nauch. rab. P.S., inzh.; SHCHERBIN, V.A., inzh.;
RYBAKOV, M.S., kand.; KOSOLYATOV, Yu.F., inzh.

Effect of the retraction of pipe blocks during forming for the
induction welding process. Stal' 25 no. 21846-841 S '65.
(MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy trubnyy institut
i Leningradskiy zavod "Trubostal'".

SHOSHIN, Yu. S.

SHOSHIN Yu. S. - "Investigation fo the operation of a vortex-chamber engine with pressure feed". Khar'kov, 1955. Min Higher Education Ukrainian SSR. Khar'kov Polytechnic Inst imeni V. I. Lenin. (Dissertation for the degree of Candidate of Technical Science).

SO: Knizhnaya Letopis' No. 46, 12 November 1955. Moscow

SHOSHIN, Yu.S., kandidat tekhnichnikh nauk.

Calculation of fuel consumption by engines by testing them in
stands. Mekh. sil'. hosp. 8 no.9:25-26 S '57. (MLRA 10:9)
(Engines---Testing) (Motor fuels)

SHOSHIN, Yu.S., kand. tekhn. nauk.

Method for investigating heat emission during the burning of fuel
in compression-ignition engines. *Energomashinostroenie* 4 no.1:
31-32 Ja '58. (MIRA 11:1)
(Heat--Transmission) (Gas and oil engines)

SHOSHIN, Yu.S. [Shoshyn, IU. S.], kand. tekhn. nauk

Automatic safety device for oil engines. Mekh. sil'. hosp. 9
no. 7:21 J1 '58. (MIRA 11:8)
(Gas and oil engines--Safety appliances)

ROTYNAN, A.I.; SHOSHINA, I.A.

Mechanism of the reaction of cobalt hydroxide precipitation.

Izv. vys. ucheb. zav.; tsvet. met. 7 no.6:56-63 '64.

(MIRA 18:3)

L. Leningradskiy tekhnologicheskii institut, kafedra elektrokhi-
micheskikh proizvodstv.

ROTINYAN, A.L.; SHOSHINA, I.A.

Simultaneous discharge of ions of the base metal and impurities during the electrolytic refining of nickel from a chloride solution. Izv. vys. ucheb. zav.; tsvet. met. 4 no.3:50-56 '61. (MIRA 15:1)

1. Leningradskiy tekhnologicheskii institut, kafedra tekhnologii elektrokhimicheskikh proizvodstv.

(Nickel--Electrometallurgy)

(Ion sources)

ROTINYAN, A.L.; ZEL'DES, V.Ya.; SHOSHINA, I.A.

Carbon in electrolytic nickel. Zhur.prikl.khim. 35 no.7:1542-
1546 J1 '62. (MIRA 15:8)
(Nickel plating) (Carbon--Analysis)

ROTYNAN, A.L.; SHOSHINA, I.A.

Purification of electrolytes by an electrochemical method.
Zhur. prikl. khim. 37 no.9:2052-2055 S '64.

(MIRA 17:10)

L. Leningradskiy tekhnologicheskii institut imeni Lensoveta.