

USMANOV, Kh.U.; KARGIN, V.A.; AYKHODZHAYEV, B.I.; INOYATOV, N.Sh.

Upgrading of cotton cord by means of ozonization. Vysokom.
noed. 2 no.1:88-91 Ja '60. (MIRA 13:5)

1. Institut khimii polimerov AN UzSSR.
(Ozone) (Gotton)

34899

S/031/62/000/003/090/090
B161/B101

11.2210
15.8010

AUTHORS: Usmanov, Kh. U., ~~Aykhodzhev, R. I.~~, Azizov, U.

TITLE: Production of grafted copolymers of cellulose by Co^{60} irradiation

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 648, abstract 3R81 (Tr. Tashkentsk. konferentsii po mirn. ispol'zovaniy atomn. energii, 1959, v. I. Tashkent, AN UzSSR, 1961, 295-298)

TEXT: Cotton cellulose cleaned by boiling in 2% NaOH solution was treated with acrylonitrile (AN) to obtain grafted copolymers. Initiation was effected by Co^{60} γ -irradiation at the rate of $25 \cdot 10^4$ r/hr. The reaction was performed in water, ethanol and benzene. The maximum amount of grafted AN groups (N content 8.56%) was obtained in water where the cellulose to AN ratio in the initial mixture was 1:2 and the integral dose 10^6 r. [Abstracter's note: Complete translation.]

Card 1/1

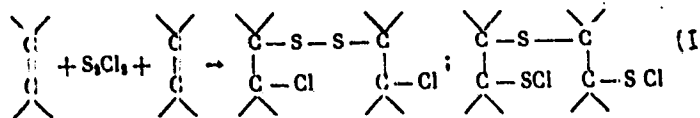
S/190/61/003/006/002/019
B110/B216

AUTHORS: Aykhodzhayev, B. I., Usmanov, Kh. U., Inoyatov, N. Sh., Zaurov, R. I.

TITLE: Cross-linking of hydrated cellulose fibers by means of sulfur monochloride

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 6, 1961, 806-810

TEXT: Rupture of not very flexible cellulose fibers occurs at points of specially weak molecular interaction. The influence of chemical cross-links between the chains of the cellulose molecules on the magnitude and uniformity of the strength of the fiber was studied. On vulcanization of crystalline polymers below their melting point by means of sulfur monochloride, cross-linking mainly occurs in the amorphous parts. Sulfur monochloride forms the following compounds with unsaturated linear polymers: ✓



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Cross-linking of hydrated cellulose fibers... S/190/61/003/006/002/019
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In the presence of compounds with mobile hydrogen atoms (amines, amides, alcohols) sulfur monochloride reacts with the hydrogen atoms:
 $R-OH + S_2Cl_2 \longrightarrow R-(O-S-S-Cl) + KCl$ (II). Cross-linking of the cellulose molecules occurs in the following way:

$cel-OH + S_2Cl_2 + OH-cel \longrightarrow cel-O-S-S-O-cel + 2HCl$ (III), mainly at closely packed points. Hydrated cellulose fiber in cord form, dried for 2 hr at 100°C (degree of polymerization 400-450) was treated with 2 and 5 ml of sulfur monochloride in dry benzene (198 and 95 ml) at 20°C. (1 g of S_2Cl_2 to 2 g of viscose cord, density of $S_2Cl_2 = 1.65 \text{ g/cm}^3$). The

mechanical and physicochemical properties of the viscose cord were tested after washing it 2-3 times with commercial benzene and drying it at 90-100°C. Break resistance and total deformation were tested at 25 and 100°C, sorption of steam at 25°C, sulfur content and deformation components at 25°C. Break resistance and breaking elongation measurements were made using a swing dynamometer with 2 scales: 0-10 kg and 0-30 kg, a compression length of 100 mm/min and an elongation rate of 300 mm/min. The 0.8-mm diameter cord fiber was first subjected to a stress of 70 g, and

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Cross-linking of hydrated cellulose fibers... S/190/61/003/006/002/019
B110/B216

then tested for 24 hr at standard temperature and -humidity conditions. The total elongation l_{tot} was tested on a fiber of length $l_v = 400$ mm and applying a stress of 70% of the mean strength, the residual elongation l_{plast} was determined after removing the load for 1 min from the fiber.

The elastic deformation l_{el} in percent was obtained from

$l_{el}/l_{tot} = [(l_{tot} - l_{plast})/l_{tot}] \cdot 100$. The mean strength, breaking elongation and components were averaged from 10 ruptures for each cord filament. According to tests, treatment with a 5% S_2Cl_2 solution

increases the strength by 15% (from 9.7 to 11.1) and the elastic elongation from 1.47 to 1.89 and brings about a uniform distribution of the strength over the length of the cord. Strength variations of the initial cord from the mean value by 1.1 kg were reduced to 0.7 kg, and the elastic elongation was increased from 4.4 to 5.3%. Since the S_2Cl_2 treatment has no effect on the sorptive properties, the increase of strength must be due to chemical cross-links, which prevent the sliding of macromolecules during elongation. The cross-links at points of weak molecular interaction effect

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Cross-linking of hydrated cellulose fibers...

S/190/61/003/006/002/019
B110/B216

uniformity of strength over the entire length. The reaction(III) was verified experimentally in the following manner: Primary and secondary cellulose acetate ($\gamma = 180-200$) were treated with 5% S_2Cl_2 solution. This rendered the secondary cellulose acetate insoluble in acetone, while the primary compound remained soluble in methylene chloride. Even at $100^\circ C$, as illustrated by the data, the strength is increased, elongation slightly reduced, the sulfur content increased by 0.4% (1 S atom to 100 cellulose units and 1 cel-O-S-S-O-cel bond to 100 glucose units), and dissolution decreased and decelerated, facts which all indicate the presence of cross links. Since side groups cel-O-S-S-Cl, cel-O-S-Cl which are not cross-linked, may also be present, there are more than 100 glucose units to each cross link. The considerable change in the mechanical properties produced by comparatively few cross links is explained by hydrogen bonds. The authors thank V. A. Kargin for discussing the results. There are 2 tables and 8 references: 5 Soviet-bloc and 3 non-Soviet-bloc. The two references to English-language publications read as follows: Ref. 6: S. Glaser, I. H. Schulmann, J. Polymer Sci. 14, 169, 1954. Ref. 7: I. H. Schulmann, S. Glaser, J. Polymer Sci. 14, 225, 1954.

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Cross-linking of hydrated cellulose fibers... S/190/61/003/006/002/019
B110/B216

ASSOCIATION: Institut khimii polimerov AN UzSSR (Institute of Polymer
Chemistry AS Uzbekskaya SSR)

SUBMITTED: March 21, 1960

Card 5/5

POGOSOV, Yu.L.; SHAFOSHCHIKOVA, S.T.; USMANOV, Kh.U.; AYKHOJIBAYEV, B.I.

Production of carboxymethylcellulose from delinting cotton seeds.
Khim. i fiz.-khim. prirod. i sint. polim. no.1:94-98 '62
(MIRA 18:1)

1. Chlen-korrespondent AN UzSSR (for Usmanov).

ACCESSION NR: AT4040807

S/3099/62/000/001/0197/0204

AUTHOR: Inoyatov, N., Zaurav, R. I., Aykhodzhayev, B. I.

TITLE: Interaction of sulfur monochloride with polyvinyl alcohol

SOURCE: AN UzSSR. Institut khimii. polimerov. Fizika i khimiya prirody*ldi i sintetiches-
kikh polimerov, no. 1, 1930, 197-204

TOPIC TAGS: polymer structure, polymer physical property, polyvinyl alcohol, sulfur
monochloride, polymer sulfide bridge, polymer solubility, polymer strength, polymer
sulfur content

ABSTRACT: To test the interaction of sulfur monochloride with polyvinyl alcohol, polymer
films of various thicknesses were prepared and subjected to various concentrations (1, 5
or 10 vol. %) of sulfur monochloride for 10 minutes to 48 hours at 25C. After the treatment
the films were removed and washed three times with ether, before being analyzed for the
content of bound sulfur, chloride and solubility in water at 70C. The mechanical properties
of the films were also tested with a dynamometer. The results show an increase in bound
sulfur with increasing sulfur monochloride concentration and time of interaction, but a sharp
decrease in solubility in water. Analyses for chloride were negative. As shown in the

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ACCESSION NR: AT40401107

Enclosure, the rupture strength and rupture elongation increased with increasing sulfur content (up to 0.7%), after which a further increase decreased the strength. The authors attribute the increase in strength to formation of crosslinking sulfide bonds in the parts of the macromolecule with the least dense packing. Orig. art. has: 4 figures and 1 chemical equation.

ASSOCIATION: Institut khimii polimerov AN Uz SSR (Institute of Polymer Chemistry, AN Uz SSR)

SUBMITTED: 00

DATE: 14.01.64

ENCL: 01

SUB CODE: OC, MT

NO REF SOV: 006

OTHER: 013

Card 2/3

ACCESSION NR: AT4046807

ENCLOSURE: 01

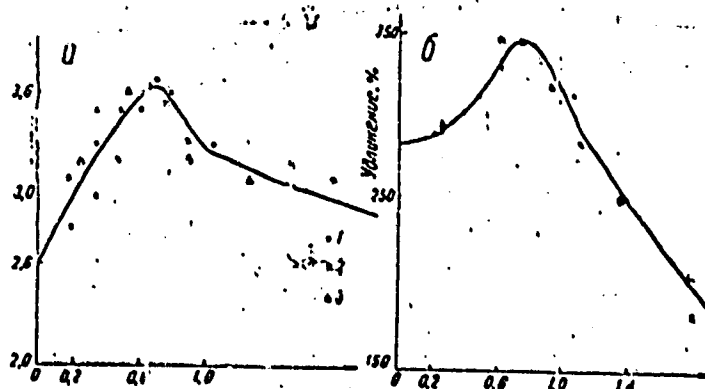


Figure 1.

Relationship between (a) rupture strength and (b) rupture elongation (in %) of polyvinyl alcohol and the content of bound S (in %): 1 - polymer treated with 1% solution of S_2Cl_2 ; 2 - polymer treated with 5% S_2Cl_2 ; 3 - polymer treated with 10% S_2Cl_2 .

Card 3/3

AYKHODZHAYEV, B.I.; USMANOVA, M.I.

Density of gutta-percha as dependent on the conditions of its
cross-linking. Khim. i fiz.-khim. prirod. i sint. polim. no.1:
220-225 '62 (MIRA 18:1)

AYKHODZHAYEV, B.I.; INOYATOV, N.; SHARIPDZHANOV, A.

Physicochemical properties of crosslinked polyvinyl alcohol.
Uzb.khim.zhurn. 7 no.1:40-43 '63. (MIRA 16:4)

1. Institut khimii polimerov AN UzSSR.
(Vinyl alcohol polymers)

L 13672-63

EWP(3)/EWT(m)/SDS Po-4 RM

ACCESSION NR: AP3003525

S/0291/63/000/003/0057/0063

AUTHORS: Inoyatov, N. Sh.; Larin, P. P.; Aykhodzhayev, B. I.

TITLE: Reaction between polyvinyl alcohol and sulfur sesquichloride

SOURCE: Uzbekiyskiy khimicheskiy zhurnal, no. 3, 1963, 57-63

TOPIC TAGS: polyvinyl alcohol, sulfur sesquichloride, sulfur, polyvinyl, chlorine, hydroxyl, infrared analysis, absorption coefficient

ABSTRACT: Polyvinyl alcohol and sulfur sesquichloride were reacted at 110°C. Films were prepared from technical grade polyvinyl alcohol having a molecular weight of 15,000-18,000 and containing 2.2% acetyl groups and 36.4% hydroxyl groups. The reaction vessel was a glass cylinder, 6 cm high and 10 cm i.d. and equipped with a polyethylene film bottom. A 2% aqueous solution of polyvinyl alcohol was poured into the cylinder. After evaporation of the water, a colorless transparent film of alcohol formed on the surface of the polyethylene. Its thickness varied from 0.3 to 0.4 mm depending upon the amount of alcohol solution. Polyvinyl alcohol films were dried to constant weight. Sulfur sesquichloride freshly distilled

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L 13672-63

ACCESSION NR: AP3003525

over sulfur and dissolved in anhydrous toluene, was used in the reaction. Concentrations employed were: 1.0, 5.0, 10.0, 20.0, 50.0, 75.0, and 100 vol. %. Polyvinyl alcohol and sulfur sesquichloride were reacted by refluxing the films with a sulfur sesquichloride solution. Amount of sulfur sesquichloride used up depended upon the concentration of its solution and the reaction time. In all experiments, 1 gm of the polymer was reacted with 100 ml of sulfur sesquichloride solution for 10-120 minutes at a constant temperature (110° C). Prior to the reaction, polymer films were subjected to additional drying at 105° C for 1 hour. After completion of the reaction, films were removed from the reaction flask and thoroughly washed with benzene to remove any adsorbed sulfur sesquichloride and free sulfur. The films were then dried for 5 hours in air and weighed. The amount of free sulfur in the samples did not exceed 0.4% of the original weight of polyvinyl alcohol. Films, heated in anhydrous toluene at 110° C for 10-120 minutes, served as controls. Samples of both the original and the reacted polyvinyl alcohol were analyzed for combined sulfur (chemical method), chlorine (Schiff method), hydroxyl groups (Verley method) and for unsaturation (Knop me-

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L 13672-63

ACCESSION NR: AP3003525

thod). These samples were also subjected to infrared analysis with a double-beam IKS-14 spectrometer with a sodium chloride prism for 1800-650 cm^{-1} range and a lithium fluoride prism for 3700-2700 cm^{-1} range. Because of the variation in film thickness, spectral data are presented in terms of absorption coefficients calculated from the Bouger-Lambert law. The results indicate that a polyvinyl alcohol and sulfur sesquichloride reaction leads to the replacement of some of the hydroxyl groups by atoms of sulfur or chlorine which causes an increase in the molecular weight of the polymer. An increase in the amount of combined sulfur leads to a gradual increase in amorphism of polyvinyl alcohol. An increase in the concentration of sulfur sesquichloride and in the reaction time between the alcohol and the sesquichloride leads to a decrease in the number of hydroxyl groups and the appearance of O-S-O; O-C-Cl; O-S-Cl; C-S-Cl; and C-Cl linkages. Orig. art. has: 2 figures, 7 formulas, and 2 tables.

ASSOCIATION: Institut khimii polimerov AN UzSSR (Institute of Polymer Chemistry, AN UzSSR)

SUBMITTED: 01Sep62

DATE ACQ: 23Jul63

ENCL: 00

SUB CODE: CH

NO. REF SOV: 011

OTHER: 000

Card 3/3

L 34149-65 ZPP(c)/EWT(j)/EWT(m)/T Po-h/Pr-4 EN/CS

ACCESSION NR: AT4049149

S/0000/64/000/000/0113/0121

22
21
6+1

AUTHOR: Inoyatov, N. Aykhodzhayev, B. I.

TITLE: Effect of structuration on the mechanical properties of polyvinyl alcohol

SOURCE: Khimicheskiye svoystva i modifikatsiya polimerov (Chemical properties and the modification of polymers); sbornik statey. Moscow, Izd-vo Nauka, 1964, 118-121

TOPIC TAGS: polyvinyl alcohol, structuration, crosslinking, polymer film, sulfur content, polymer mechanical property

ABSTRACT: The effect of crosslinking on the mechanical properties of polyvinyl alcohol (PVA) was investigated and the relationship between the structural changes and the mechanical properties was determined. PVA film was structurized (crosslinking + branching), at various concentrations at 110 C, and the mechanical properties were studied over a wide temperature range on the Polanyi dynamometer. The effect of the degree of structuration on the PVA stress-strain curve shows that as the amount of bound sulfur increased, the elongation and strength of the polymer changed considerably. Since the presence of crosslinks hinders orientation and the mutual displacement of macromolecules, it is assumed that the de-

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L 34149-65

ACCESSION NR: AT4040849

formability of PVA is decreased by structuration. The curve of total and residual elongation at different temperatures (25-250C) shows that an increase in bound sulfur content rapidly decreases the total and residual elongation, especially at high temperatures, when the initial PVA undergoes an irreversible deformation up to 50-600%, but the crosslinked samples, independently of the temperature, undergo a reversible deformation of 20-30%. The marked decrease in elongation at 250C is due to the drastic chemical changes in the polymer. The curve showing the variation in strength of PVA at 25C indicates that the strength first increased from 2.6 kg/mm² (initial samples) to 5.5 kg/mm² at 4.7% bound sulfur content, then decreased to 3.2 kg/mm² for the sample containing 11.5% bound sulfur. A further increase in bound sulfur content did not affect the strength of PVA. The elasticity modulus increased at the beginning of crosslinking (from 5300 kg/mm² for the initial sample to 20,000 kg/mm² at a 4.7% sulfur content), then decreased to 10,000 kg/mm² at a 7.01% sulfur content and later remained constant. The variation in strength and elasticity modulus of crosslinked PVA samples is explained by the macrostructural changes in the polymer. Structuration of the macromolecules first proceeds in the disordered regions of the polymer. The mechanical properties of polyvinyl alcohol in the

Card 2/3

L 34149-65

ACCESSION NR: AT4040849

ordered state are determined by the presence of both crosslinks and ordered regions, but in the case of the disruption of order it depends only on the number of crosslinks. Experimental data show that during structuration of a polymer leading to a change in its mechanical properties, in addition to the number and nature of crosslinks, the uniformity of their distribution in the regions of the macromolecules and the macrostructural changes in the polymer during crosslinking must also be taken into consideration. Orig. art. has: 5 figures.

ASSOCIATION: Institut khimii polimerov AN UzSSR (Polymer chemistry institute, AN UzSSR)

SUBMITTED: 22Aug62

ENCL: 00 SUB CODE: MI, OC

NO REF SOV: 011

OTHER: 000

Card 3/3

L 64183-65 EWT(m), EWP(j)/7 JAJ/RM		NR/0286/65/000/013/0009/0009 26	
ACCESSION NR: AP5021547		177.46.021.921.2.3 8	
AUTHOR: Stergiu, G. K.; Pogosov, Yu. L.; Stergiu, A. N.; Aykhodzhavev, B. I. 44, 55 44, 55 44, 55			
TITLE: A method for rot-proofing cellulose materials. Class 8, No. 172270 15			
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 9			
TOPIC TAGS: urea, glycol, organic sulfur compound, cellulose, material handling			
ABSTRACT: This Author's Certificate introduces: 1. A method for rot-proofing cellulose materials by treatment in alkaline solutions of copper salts. Resistance of cellulose materials to the action of ultraviolet rays, sunlight, weathering and microorganisms is improved by additional treatment in acetylthiohydantoin. 2. A modification of this method in which the acetylthiohydantoin is used in the form of a solution in an organic solvent.			
ASSOCIATION: none			
SUBMITTED: 17Jun54		ENCL: 00 SUB CODE: NT, OC	
NO REF SOV: 000		OTHER: 000	
Card 1/1 7/11			

• STERGIU, G.K., nauchnyy sotrudnik; STERGIU, A.N., nauchnyy sotrudnik;
AYKHODZHAYEV, B.I., nauchnyy sotrudnik; POGOSOV, Yu.I., nauchnyy
sotrudnik

Studying the reaction of rhodanine with cellulose in the presence
of cadmium salts. Tekst. prom. 25 no.4:52-53 Ap '65.

(MIRA 18:5)

1. Nauchno-issledovatel'skiy institut khimii i tekhnologii
khlopkovoy tsellyulozy (TsNIKhTTs).

SVISTUNOVA, R.P.; AYKHODZHAYEV, P.I.; FOGOSOV, Ya.I.

Synthesis and properties of cellulose acetomethacrylates. Plast.
massy no.0:57-59 '65. (MIRA 18:8)

(A) L 1558-66 EWT(m)/EWP(j) RM

ACCESSION NR: AP5021822

UR/0342/65/000/008/0012/0014
677.862.53

AUTHOR: Stergiu, G. K. (Research Associate); Aykhodzhayev, B.I. (Research Associate);
Pogosov, Yu. L. (Research associate)

TITLE: Imparting light fastness and decay resistance to cellulose materials

SOURCE: Tekstil'naya promyshlennost', no. 8, 1965, 12-14

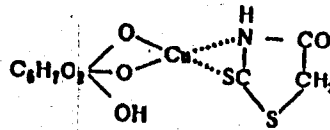
TOPIC TAGS: cellulose, thiazolidone, copper compound, rhodanine

ABSTRACT: Thiazolidones, which are heterocyclic compounds containing groups of atoms characteristic of fungicides and antioxidants, impart decay resistance, light fastness, and water repellency to cellulose materials. Since derivatives of cellulose and thiazolidones cannot be obtained directly, copper was used to prepare a rhodanine-copper-cellulose compound. The synthesis was carried out in two steps: (1) treatment of cellulose with 1-10% NaOH + 1% Cu SO₄ and (2) treatment of the copper-cellulose complex with a 0.25-0.50% alcohol solution of rhodanine. The following compound was formed:

Card 1/2

L 1558-66

ACCESSION NR: AP5021822



3

Tests showed that the bonds in this compound are stable to the action of dilute acids and are broken by alkalis. The introduction of copper and rhodanine into cellulose considerably increases its resistance to microorganisms and outdoor exposure, while it retains 90-100% of its strength. Orig. art. has: 3 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellyulozy (Scientific Research Institute of the Chemistry and Technology of Cotton Pulp)

SUBMITTED: 00

ENCL: 00

SUB CODE: 00, MT

NO REF SOV: 004

OTHER: 000

Cond 2/2 *MP*

ACC NR: ^{44, 55} AP6000278 ^{44, 55} BNT(m)/BNT(j)/T

JK/RM

AUTHORS: ^{44, 55} Stergiu, G. K., ^{44, 55} Stergiu, A. N., ^{44, 55} Pogosov, Yu. L., ^{44, 55} Aykhodzhaev, B. I.

SOURCE CODE: UR/0183/65/000/005/0035/0037

ORG: Scientific Research Institute for Chemistry and Technology of Cotton Cellulose, Tashkent (Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellyulozy)

TITLE: Protection of cellulose materials from destruction during the action of light-weathering

SOURCE: Khimicheskiye volokna, no. 5, 1965, 35-37

TOPIC TAGS: cellulose, cotton textile, textile, light aging

40
39
B

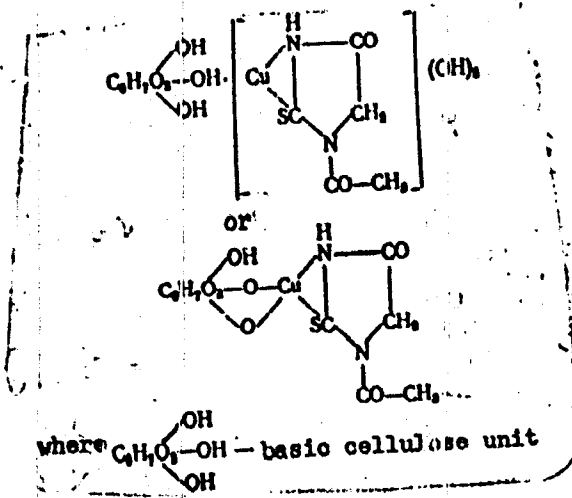
ABSTRACT: The properties and the experimental conditions for obtaining copper and l-acetyl-2-thioglycolurea derivatives of cellulose are described. The investigation is an extension of the previously reported work by G. K. Stergiu, Yu. L. Pogosov, B. I. Aykhodzhaev, and L. M. Maslennikova (avt. svid. 166644; Byull. izobr., No. 23, 1964). Cotton fabric, cotton fibers, viscose rayon, cellophane polyvinyl alcohol, and starch were treated with an alkaline copper solution and l-acetyl-2-thioglycolurea as described by Zh. A. Rogovin and N. N. Shorygina (Kimiya tsellyulozy i yeye sputnikov, Goskhimizdat, 1953, str. 210). The fabric assumed a khaki coloration. It is proposed that the reaction leads to the formation of the following compounds:

UDC: 677.463.021.34

Card 1/2

L 9624-66

ACC NR: AP6000278



The treated fabrics were found to be stable in 2N sulfuric acid and glacial acetic acid, and remained colorfast after 10 successive washings with soap or preparation OP-10. The stability of the treated fabrics under ultraviolet light, light-weathering, and the action of micro-organisms, was tested and found to be satisfactory. The experimental results are tabulated. It is concluded that cellulose materials modified by a treatment with copper and 1-acetyl-2-thioglycolurea possess a high light-weathering stability. Orig. art. has: 3 tables and 1 formula.

Card 2/2 SUB CODE: 07.11/ SUBM DATE: 16 Sep 64 / ORIG REF: 004 / OTH REF: 002

SHAPOSHNIKOVA, S.T.; IOANNIDIS, O.K.; AYKHODZHAYEV, B.I.; POGOSOV, Yu.L.

Mercurator of cellulose cinnamates and oleates. Vysokom.soed. 7
no.7:1129-1133 JI '68. (MIRA 18:8)

1. Nauchno-issledovatel'skiy institut khimii i tekhnologii i
khlopkovoy tsellyulozy i furanovykh proizvodnykh.

L 00746-66 EWT(n)/EWP(j)/T RM

ACCESSION NR: AP5020163

UR/0190/65/007/008/1314/1318

AUTHOR: Shaposhnikova, S. T.; Pogosov, Yu. L.; Aykhodzhayev, B. I.

TITLE: Synthesis and properties of cellulose furoates

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 8, 1965, 1314-1318

TOPIC TAGS: cellulose plastic, synthesis, solid physical property, solid mechanical property, esterification

ABSTRACT: The kinetics of the synthesis of cellulose furoates and some of the product properties were studied. Optimum esterification of cellulose with α -furancarboxylic acid chloranhydride was obtained in reaction media of pyridine + benzene (6 hours reaction) and in pyridine + dioxane (4 hours). Other HCl absorbent + solvent media (pyridine or dimethylaniline + DMF, ethyl acetate, nitrobenzene; dimethylaniline + dioxane or benzene) resulted in colored reaction products. The degree of esterification depended on the molar ratio of the reagents. All the cellulose pyromucate samples, regardless of extent of esterification, were

Card 1/2

L 00746-66

ACCESSION NR: AP5020963

insoluble in organic solvents but swelled in them. Cellulose furoates lose their strength at elevated temperatures, breaking down completely at 220C. Cotton fabrics whose fibers were subjected to partial esterification were resistant to putrefaction and to light and atmospheric action. Orig. art. has: 6 tables and 1 equation

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellyulozy (Scientific Research Institute of Cotton Cellulose Chemistry and Technology) 44,55

SUBMITTED: 20Aug84

ENCL: 00

SUB CODE: MT, GC

NR REF SOV: 003

OTHER: 003

Card 2/2

L 45157-66 EWT(m)/EW:(j)/T RM

ACC NR: AP6023235 (A) SOURCE CODE: UR/0342/66/000/004/0022/0023 24
13

AUTHOR: Shaposhnikov, S. T. (Research associate); Pogosov, Yu. L. (Research associate, Candidate of chemical sciences); Aykhodzhayev, B. I. (Research associate, Candidate of chemical sciences)

ORG: Scientific Research Institute of Chemistry and Technology of Cotton Pulp
(Nauchno-issledovatel'skiy institut khimii i tekhnologii Khlopkovoy tsellyulozy)

TITLE: Production of antiblastic mercurized bast fabrics

SOURCE: Tekstil'naya promyshlennost', no. 4, 1966, 22-23

TOPIC TAGS: textile, germicide, mercurized fabric, antiblastic fabric

ABSTRACT: The author presents the results of experiments involving three types of bast fabrics with various amounts of lignin, e. g., herap, industrial grade linen canvas and Kolonenka semi-bleached linen. The fabrics were treated with an aqueous solution of mercury acetate in order to make them antiblastic. The dependence of the degree of mercurization on the molar ratio of reaction components, the type of solvent, the temperature, and the duration of the reaction were studied in order to

Cord 1/2

UDC: 677.064.11.862.53

AYKHODZHAYEV, S.S.

Facies of peat bogs and the structure of coal seams in the Angern
region. *Vop. geol. Uzb.* no.2:96-104 '61. (MIRA 15:12)
(Angern region—Coal geology) (Angern region—Peat bogs)

AYKHODZHAYEV, S.S.

Quality of prospecting drilling in the Angren brown coal
deposit. Vop. geol. Uzb. no.3:133-137 '62. (MIRA 16:6)

(Angren region—Lignite)
(Angren region—Prospecting)

SHEKHTMAN, P.A.; AYKHODZHAYEV, S.S.

Prospecting in the Kyzyl-Kiy coal deposit. Izv.vys.ucheb.zav.;
geol. i razv. 5 no.5:83-94 My '62. (MIRA 15:6)

1. Sredneaziatskiy politekhnicheskiy institut.
(Fergana--Coal geology)
(Prospecting)

ARIPOV, A.A.; KURBINIYAZOV, K.; AYKHODZHAYEV, S.S.

Conditions governing the formation of Jurassic sediments in the Ustyurt and regions adjacent to it. Uzb.geol.zhur. 8 no.3:48-55 '64. (MIRA 18:12)

1. Institut geologii i geofiziki imeni Abdullayeva AN UzSSR.
Submitted Febr. 10, 1964.

AYNODZHAYEV, T.T.

AYNODZHAYEV, T.T.: "Establishment of the optimum plant density for raising seed of type 3876 amber hemp." Min. Higher Education USSR. Tashkent Agricultural Inst. Tashkent, 1956
(Dissertation for the Degree of Candidate in Agricultural Sciences)

So: Knizhnaya letopis', No. 18, 1956

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M-5

Abs Jour : Ref Zhur- Biol., No 7, 1958, 29903

Author : ~~Aykhodzhayev, T.F.~~

Inst : -

Title : The Effect of Plant Density on the Growth and Development of Seed Gambo Hemp.

Orig Pub : Sov. s. kh. Uzbekistana, 1957, No 4, 63-65.

Abstract : Field tests made at the Uzbek Experimental Station for Fiber Crops in 1953-1954 to study the relation of the 3876 variety gambo hemp's growth and development to the planting method and feeding bed have shown that the largest seed yield may be obtained with single-strip sowing having 15 and 20 cm space between the plants in the rows, and with double strip sowing when the space between the plants in the strip is 5 cm. The sowing rate should be 11. kg. per hectare for the seeds in double strip planting, and 8 kg. per ha. (with 100% suitability of the seeds)

Card 1/2

- 21 -

GAFUROV, A.T.; AYKHODZHAYEV, T.T.; ABDURASHITOV, K.; TURSUNOV, S.;
KOVAL'SKIY, N.I.; MULLOKANDOV, R.N.; REZNIK, G.F.; YAKUBOV, I.M.

Change of certain characteristics of cotton and kenaf under the
action of ultrasound. Prim. ul'traakust. k issl. veshch. no.14:
121-127 '61. (MIRA 14:12)

(Ambary hemp) (Cotton)
(Ultrasonic waves--Industrial applications)

AYIMPAEV, N. A., KRUTER, N. P., BARAN, I. S. N.

"Types of tularaemia foci in Kazakhstan, the conditions of their existence and the factors contributing to the incidence of tularaemia in these foci. p. 206.

Doklady soveshchaniye o parazitologicheskim problemam i prirodnoochagovym zoonozam. 22-29 Oktabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 264pp.

Central Asiatic Anti-plague Institutes/Alma Ata

ARKHANGEL'SKIY, D.S.; AYKIMBAYEV, M.A.; NESHETNIKOVA, P.I.

Ixodid tick *Dermacentor Daghestanicus* olen., 1929 as a possible carrier of the causative agent of Q fever. Report No. 1. Izv. AN Kazakh. SSR. Ser. med. i fiziol. no. 2:10-15 '60.

(MIRA 13:10)

(ALMA-ATA PROVINCE.—TICKS AS CARRIERS OF DISEASE)
(Q FEVER)

NIKOLAYEV, N.I., otv. red. (Saratov); LENSKAYA, G.N., zam. red.;
DOMARADSKIY, I.V., red.; DROZHEVKINA, P.S., red.;
KOROBKOVA, Ye.I., red.; AYKIBAYEV, K.A., red.;
TER-VARTANOV, V.N., red.; STYCHINSKIY, G.A., red.

[Specific prevention of particularly dangerous infections; a collection of scientific papers of antiplague institutions] Spetsificheskaya profilaktika osobo opasnykh infektsii; sbornik nauchnykh rabot protivochumnykh uchezhenii. Moskva, Meditsina, 1964. 383 p. (MIRA 17:6)

HUNGARY / Chemical Technology, Processing of Natural Gases
and Petroleum

H-23

Abs Jour : Ref. Zhur-Khimiya, No. 12, 1958, 41044-K

Author : Ayksingor.

Inst : Not given

Title : Technical materials in the petroleum processing industry

Orig Pub : Budapest, 1954(1955), 98 L., 18,50 Ft.

Abstract : No abstract

Card 1/1

AYLANAZYAN, N.M., kand.med.nauk

Presence of hyaluronidase in the cancerous tumors of the cervix
uteri and methods for its determination, Vop.rent.i onk. 6:303-
312 '61. (MIRA 16:2)

(HYALURONIDASE)

(UTERUS--CANCER)

AYLAMAZYAN, N.M.

Paths of the spreading of metastases and hyaluronidase inhibiting
agents in experimental tumors. Zhur. ekap. i klin.mod. 4 no.1:97-105
'64. (MIRA 17:9)

AYLASENKO, Yu., gornyy inzh.

Promoting creativeness. Sov.shakht. 10 no.4:14-15 Ap '61.
(MIRA 14:9)

(Donets Basin--Mining engineering)

1. AYLEY, M.

2. USSR (600)

4. Hydroelectric Power - Azerbaijan

7. The country of black gold and white coal, Acad. Tekh.molod. no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

AYLYAROV, Sh.S.

IBHAGIMOVA, Bibidzha Narimovna; AYLYAROV, Sh.S., red.; HUDCHENKO, A.M.,
red.izd-va; LEKANOVA, I.S., tekhn.red.

[Concise Turkish-Russian and Russian-Turkish dictionary of terms
used in foreign commerce] Kratkii turetsko-russkii i russko-turetskii
vneshnetorgovyi slovar'. Moskva, Vneshtorgizdat, 1957. 143 p.
(Turkish language--Dictionaries--Russian) (MIRA 11:4)
(Russian language--Dictionaries--Turkish)
(Commerce--Dictionaries)

AYMAGAMBETOV, K.

Work should be rhythmic and well organized. Mast. ugl. 4 no. 8:17
Ag'55. (MIRA 8:10)

1. Gornyy master shakhty no. 17 imeni Kalinina kombinata Karaganda-
ugol'

(Karaganda Basin--Coal mines and mining)

AYMALETDINOV, F

Epp
.R970

Kratkosrochnoye kreditovaniye mestnoy i kooperativnoy promyshlennosti
(Short-term credit in local and cooperative industries, by) F. Aymaletdinov
(1) Z. Melamed. Moskva, Gosfinizdat, 1955.
95 p.

AYMALEDINOV, F.

Our practice in issuing credit to collective farms.

Den. i kred. 14 no.9:37-42 S '56.

(MLBA 9:10)

(Agricultural credit) (Collective farms--Finance)

AYMALETDINOV, F.; DERGACHEVA, A.

Issuing credit to state farms according to their balances.
Den. i kred. 17 no.10:19-23 0 '59. (MIRA 12:12)
(Lukhovitsy--District--Agricultural credit)

AYMALETDINOV, F.

Strengthen business accounting on state farms. Den. i kred. 19
no.11:51-57 N 161. (MIRA 14:12)

1. Zamestitel' upravlyayushchego Moskovskoy oblastnoy kontoroy
Gosbanka.

(Moscow Province--State farms--Finance)

AYMALETDINOV, F.

Our suggestions. Den. i kred. 21 no.11:43-45 N '63.
(MIRA 17:2)

1. Zamestitel' upravlyayushchego Moskovskoy oblastnoy
kontoro: Gosbanka.

AYMANBETOV, M. A., Cand Med Sci (diss) -- "The possibility of regenerating the sciatic nerve in the rabbit after its nearly complete removal". Frunze, 1959. 23 pp (Kirgiz State Med Inst), 250 copies (KL, No 11, 1960, 137)

AYMANOV, K. (Moskva); RUMYANTSEV, I. (Moskva)

Photorelay using semiconductors and its application in the school.
Fig. v shkole 20 no.2:68-72 Mr-Apr '60. (MIRA 14:5)
(Photoelectric cells)
(Electric relays)

AYMANOV, Kenabaly; SHAKHMAYEV, N.M., red.; KULIKOV, V.N., red.;
POLUKAROVA, Ye.K., tekhn. red.

[Elements of automation and remote control in a secondary
school physics course] Elementy avtomatiki i telemekhaniki
v kurse fiziki srednei shkoly; posobie dlia uchitelei. Mo-
skva, Izd-vo APN RSFSR, 1963. 158 p. (MIRA 16:10)
(Physics—Study and teaching)

ACCESSION NR: AT4042429

S/0000/63/000/000/0099/0100

AUTHOR: Vittikh, M. V.; Aymanshin, I. A.

TITLE: The problem of the selection of solvents for the synthesis of ion exchange resins

SOURCE: Respublikanskoye nauchno-tekhnicheskoye soveshchaniye po ionnomu obmenu. Alma-Ata, 1962. Teoriya i praktika ionnogo obmena (Theory and practice of ion exchange) trudy* soveshchaniya. Alma-Ata, Izd-vo AN KazSSR, 1963, 99-100

TOPIC TAGS: resin, ion exchange resin, resin synthesis, polyethylenepolyamine, dibromoethane

ABSTRACT: The authors discuss the difficulties encountered in selecting common solvents for the reactants in the synthesis of certain ion exchange resins, due to the violent character of the reaction which necessitates limitation of the direct contact of the reactants. The problem is all the more difficult when polar substances interact with nonpolar. For the synthesis of an anion exchange resin from nonpolar polyethylenepolyamines and polar dibromoethane, the authors recommend the slow addition of 3:1 aqueous dibromoethane emulsion at 40-60C to a 1:1 aqueous polyethylenepolyamine solution. The dried gel is then crushed and sifted. The product is homogeneous and has adequate static exchange capacity, swelling abil-

Cord

1/2

~~1~~ 40983-68 EWT(1)/EWG(v)/EIC(t) Pa-5/Pas-2 GW

ACCESSION NR: AR5009011

S/0269/65/00/002/0032/0032

26
B

SOURCE: Ref. zh. Astronomiya. Otd. vyp., Abs. 2.51.271

AUTHOR: Ayala, R.; Yyves, M.; Ekalalu, Kh.

TITLE: Photographic observations of the nova V446 in Hercules in 1960

CITED SOURCE: Publikatsii Tartusk. astron. observ., v. 34, no. 1, 1963(1964), 70-80

TOPIC TAGS: astrophysics, Hercules, nova, astrograph, comparison star, color index

TRANSLATION: Observations of V446 Her were made with the astrograph of the Tartuskaya Observatoriya (Tartu Observatory) (D = 16 cm, f = 80 cm) during March-September 1960. A total of 57 photographs was obtained. Nine comparison stars were used. The article includes photographic estimates and curves of change of brightness of V446 Her obtained on the basis of observations by the authors and other data. The color index curve reveals a jumplike character of the development of brightness of the nova. Considerable variations of the brightness of the

Card 1/2

L 40983-65

ACCESSION NR: AR5009011

nova, reported by M. Antal and J. Villermaux, are not confirmed. Bibliography of 16 items. N. Perova.

SUB CODE: AA

ENCL: 00

Card *llc*
2/2

AYMUKHAMEDOVA, Gyu'laya (Mariya) Buranovna; ZAKHAROV, Klimentiy
Petrovich, inzh.; MUSTAYEV, A.K., otv. red.; SORONBAYEVA,
N.V., red. izd-va; ANOKHINA, M.G., tekhn. red.

[Importance and methods of production of glutamic acid, betaine,
and their derivatives] Znachenie i metody polucheniia glutamino-
voi kisloty, betaina i ikh proizvodnykh. Frunze, Izd-vo Akad.
nauk Kirgizskoi SSR, 1962. 138 p. (MIRA 16:1)
(Glutamic acid) (Betaine)

AYMUKHAMEDOVA, G.B.; RUKAVISHNIKOVA, Ye.P.; KOVALENOK, Z.P.

Effect of some pectins on saccharose in aqueous solutions.

Izv. AN Kir.SSR no.4:119-135 '57. (MLRA 10:7)
(Pectin) (Sucrose)

AYMUKHAMEDOVA, G.B.; RUKAVISHNIKOVA, Ye.P.

Nature of the inverting effect of some pectins on saccharose in
aqueous solutions. Inv. AN Kir. SSR no.5:21-33 '58. (MIRA 11:7)
(Iactin) (Sugar--Inversion)

TABLE I BOOK EXCERPTION 507/2618

Akademiya nauk Kirgizskoy SSR

Izvestiya. Seriya yestestvoznaniye i tekhnicheskikh nauk, tom 1, yep. 1 (News. Series on Natural and Technical Sciences, Vol 1, No. 1) Frunze, 1979. 164 p. 500 copies printed.

Ed.: P.T. Kabardin; Tech. Ed.: M.D. Anochina.

PURPOSE: This book is intended for research scientists and teachers in institutes of higher education who may be interested in developments and research trends in various scientific fields.

CONTENTS: The book contains 12 articles by persons affiliated with the Academy of Sciences Kirgiz SSR on studies in physical chemistry, industrial chemistry, applied physics (blasting dynamics), electric power engineering, electronics, agronomy, metallurgy, pure mathematics, etc. A bibliography of 1957 publications of the Academy includes works on history, archeology, economics, linguistics, literature, geology, biological sciences (botany, zoology, medicine), and technology. No personalities are mentioned. References accompany most of the articles.

Amundzhayev, G.P., M.K. Smoluchovskiy, and Z.A. Masluchovskiy, Tur-
kic Scientific Interpretation of Fiction 43

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Food Molecules 53

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Explosive Charge on the Scattering Speed of Ground Particles
During Blasting 57

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X-Ray Study of the Thermal Effect on Steel Samples Hardened After
Surface Heating by High-Frequency Currents 111

Krupnik, M.M., A.V. Poltavskiy, and Ye.S. Yermolayev. X-Ray Study
of Fragmentation and Grain Deformation in Steel During Torsion 123

Zemaliev, M. General Boundary Value Problem for a Nonlinear
Integro-Differential Equation With Small Parameter at the Highest
Derivative 129

Kram, L.M., and M.M. Ormashova. Bibliography of Publications
of the Kirgiz SSR Academy of Sciences in 1957 145

AVAILABLE: Library of Congress (46-051612) 17

AYMUKHAMMEDOVA, G. B.

AYMUKHAMEDOVA, G.J.

Viscosity of the molasses produced in the sugar factories of
Kirghizistan. Izv. AN Kir. SSR. Ser. est i tekhn. nauk 2
no.5:65-69 '60. (MIRA 13:9)
(Kirghizistan—Molasses)

AYMUKHAMEDOVA, G.B.; RUKAVISHNIKOVA, Ye.P.

Oxidative degradation of pectic substances of different origins.

Izv. AN Kir. SSR. Ser. est. 1 tekhn. nauk 3 no.2:5-11 '61.

(MIRA 16:7)

(Pectin)

AY: JKHAMEDOVA, G.B.; SHELUKHINA, N.P.; MASLINKOVSKAYA, Z.A.

Determination of pectic substances in the diffusion juice of
beet sugar plants by the nephelometric method. Izv. AN Kir.
SSR. Ser. est. 1 tekhn. nauk 3 no.2:13-22 '61.

(MIRA 16:7)

(Pectin) (Sugar manufacture)

AYMUKHAMEDOVA, G.B.; RUKAVISHNIKOVA, Ye.P.

Acceleration of sucrose hydrolysis in the presence of calcium
and magnesium pectins. Izv. AN Kir. SSR. Ser. est. i tekhn.
nauk 3 no.2:23-27 '61. (MIRA 16:7)

(Sucrose) (Hydrolysis) (Pectin)

AYMUKHAMEDOVA, G.I.; DAISHEV, M.I.; ZAKHAROV, K.P.

Recovery of betaine with the help of ionites. Izv. AN Kir.
SSR. Ser. ust. i tekhn. nauk 3 no.2:139-141 '61.
(MIRA 16:7)

(Betaine)

AYMUKHAMEDOVA, G. R.; DAISHEV, M. I.; ZAKHAROV, K. P.

Some considerations on the ion-exchange location in the beet sugar
manufacture. Izv. AN Kir.SSSR.Ser.est,i tekhn.nauk 4 no. 6:11-16
'62. (MIRA 17:5)

AYMUKHAMEDOVA, G. B.; DAISHEV, M. I.; ZAKHAROV, K. P.; RUKAVISHNIKOVA,
Ye. P.

Preparation of glutamic acid, acidol, and other valuable substances by the ion-exchange flowsheet from molasses and waste products of its processing. Izv. AN Kir. SSSR. Ser. est. i tekhn. nauk 4 no. 6:5-9 '62. (MIRA 17:5)

AYMUKHAMEDOVA, G. B.; KORNEVA, G. M.

Use of ultrasound for the extraction of substances from plants.
Izv.AN Kir.SSR.Ser.est.i tekhnauk 4 no. 6:17-24 '62.
(MIRA 17:5)

AYMUKHAMEDOVA, Mariya (Gul'sum) Buranovna; RUKAVISHNIKOVA,
Yelizaveta Prokhorovna; BAKASOVA, Z., otv. red.;
RASPONOMAREVA, V.I., red.

[Chemical control of the processes of production of glutamic acid, betaine, and their derivatives by the ion exchange method] Khimicheskii kontrol' protsessov polucheniia glutaminovoi kisloty, betaina i ikh proizvodnykh ionobmennym metodom. Frunze, Izd-vo AN Kirg.SSR, 1963. 57 p.
(MIRA 17:4)

AYNURBAMEDOVA, Mariya (Gul'tam) Buranovna; SHAYKHINA, Ninel'
Petrovna; BIKKOVA, Z.H., ed., ed.

[Poetic substances and methods of their determination]
Foktinovye veshchestva i metody ikh opredeleniia. Frunze,
Izd-vo "Ilim," 1964. 118 p. (MIRA 17:11)

А. МУХАМЕДОВ, И. С.

CA

11A

Removal of sericin from raw silk with solutions con-
taining products of sericin hydrolysis. V. N. Krestinskaya
and M. B. Almuhammedova. *Zhur. Priklad. Khim.* 24, 634-
6 (1951); cf. C.A.: 46, 6259c. -- Sericin (I) is extd. from cocoon
shreds with distd. H₂O, either by prolonged contact at
room temp. or by boiling for 2-3 hrs. Such a soln. ext. I from
raw silk more effectively than H₂O. J. P. Danchy

CA AYHUKHAMEDOVA, M.B.

The role of amino acids in the solution which removes serosine from raw silk. V. N. Krestinskaya and M. B. Almkhamedova. *Zhur. Priklad. Khim. (J. Applied Chem. (U.S.S.R.))* 24, 1296-1300 (1951); cf. *ibid.* 634.—The dialyzed soln. from solns. contg. serosine hydrolysis products is active in the removal of serosine from silk. Hence a true soln. or very highly disperse state of the active material is responsible for the effect. Amino acids are not the active material since the most active solns. have the lowest amino acid content. Concn. of soln. increases activity and the content of polypeptides, but the amino acid content drops to nearly zero. On standing the activity drops and polypeptide concn. drops while that of amino acids rises; the same occurs on boiling. G. M. Kosolapoff

CA
HYMUKHAMEDOVA, I. D.

11-11

Chemical composition of the stabilizer of sericin. V.
N. Krestinskaya and M. H. Alimukhamedova. *Zhur.
Priklad. Khim.* (J. Applied Chem.) 29: 1072-1074 (1956);
cf. C.I. 46, 71334. The activity of sericin obtained by
dialysis of colloidal sericin (prepd. by boiling the
concentrations in water) increases with increased content of poly-
peptides in such sericin. The activity is detd. by the ability
of the sericin to remove sericin from fibers. The activity is
detd. to a great extent by the concn. of free amino acids, but
sericin that are rich in amino acids after dialysis are inactive
and the activity must be ascribed to the presence of rather
high-mol.-wt. peptides in highly dispersed state. G. M. Kozolapoff

NYEIKHEDOVA, I. I.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Biological Chemistry

②
Chemical composition of the stabilizer of sericin. V. N. Krestinskaya and M. B. Alimkhamedova. *J. Appl. Chem. U.S.S.R.* 25, 207-13 (1952) (Engl. translation).—See C.A. 46, 9638g. H. L. H.

AYMUKHAMEDOVA, M. B.

Chemical characteristics of the colloidal fractions of molasses
(syrup) processed in the sugar plants of Kirghizia. Inv. AN Kir.
SSR no. 1:29-36 '55. (MIRA 9:9)
(Kirghizistan--Melasses--Analysis) (Kirghizistan--Sugar industry)

AYMUKHAMEDOVA, M.B.; KOVALENOK, Z.P.

Chemical composition and certain characteristics of molasses
produced in the Karabaly and Tokmak Sugar Plants in 1950/51
and 1952/53. Trudy Inst.khim. AN Kz.SSR.no.7:123-127 '56.

(MLRA 10:3)

(Molasses--Analysis)

AYMUTHAMEDOVA, M.B.; KOVALENOK, Z.P.

Molasses produced by the Novo-Troitskii Sugar Plant in 1950-1953.
Trudy Inst.khim, AN Kir.SSR no.7:129-136 '56. (MLRA 10:3)
(Molasses--Analysis)

AYMURZAYEV, I.A., inzh.

Make better use of track measuring cars. Put' i put.khoz. 6
no.5:15 '62. (MIRA 15:4)

1. Otdel puti Ksyl-Ordinskogo otdeleniya Kazakhskoy dorogi.
(Railroads--Track)

AYNBERG, A.A.

Mar 1947

USSR/Geophysics
Ionosphere - Research

"Problem of the Coefficient of the Ionosphere's Recombination and the Determination of Its Quantity at the Time of the 20 May 1947 Eclipse in Brazil." Ya. L. Al'pert, A.A. Aynberg, Lab Oscillation, Phys Inst Imeni P.N. Lebedev, Acad Sci USSR 4pp.

"Izv Akad Nauk SSSR, Ser Geograf i Geofiz." Vol. XI, No 2

Authors give numerical summary of results obtained by ionospheric research during the 9 June 1945 eclipse in the USSR, and results of calculations for supposed changes of the ionization layer during the expected eclipse on 20 May 1947 in Brazil. Establish that it is not possible to describe results of measurements in Moscow sufficiently well by usual equations of the ionization state, and that results of measurements correspond to nonintensive sporadic layer E. Submitted by Academician N.D. Papaleski.

Mbr., Lab. Oscillation, Physics inst. im. P.N. Lebedev, AS (Dept. Physico-Math. Sci.)

PA 50747

AYNBERG, A.

14 170T45

USSR/Geophysics - Ionosphere

Jun 49

"Problem Concerning the Altitude Distribution of Ionization and the Recombination Coefficient of the Ionosphere's F Layer," A. A. Aynberg

"Zhur Eksper i Teoret Fiz" Vol XIX, No 6, pp 515-20

Studies high-frequency characteristics of subject F layer by method which takes into account true distribution of ionization n according to altitude. Shows daily (24-hr) behavior of n at various heights (250-400 km) and calculates coefficient of recombination α on assumption of simple law of recombination. Submitted 29 Jan 49.

170T45

U.S.
sect. A

Geophysics.
Atmosphere: Meteorology

551.510.535

1968. On the statistical nature of the ionosphere.
YA. L. ALPERT AND A. A. ANTONOV. *Zh. Eksp. i
Teor. Fiz.*, 21, 389-400 (No. 3, 1951) in Russian.
Periodogram analysis of radio waves originating
from the F_2 -layer suggests that a large part of the
emission is of a random, or "statistical," nature. The
ratio of energies of the systematic to the random
components is estimated and it is inferred that this
ratio varies with the hour of day. The theoretical
model employed assumes that the systematic com-
ponent is simple harmonic in time. N. I. ANTONOV

NYNAPCO, L.F.

62
Problem of the genesis of charnockite and rocks of the charnockite series. L. P. Anlygin. *Izvst. Akad. Nauk S.S. S.R., Ser. Geol.* 1955, No. 1, 102-203. A report devoted to the problem of the origin of pyroxene granites participating in the intricate complex of crust formations of the base of the Precambrian of the southern part of the Kopyevsky crest. Chem. analyses of the rocks studied are given. Gladys S. Man...

CHAUSOV, Nikita Semenovich, kand.tekhn.nauk; Prizimali uchastiye:
GVOZDIKOV, B.F., inzh.-elektrik; KULAKOV, B.F., inzh.-elektrik;
SBORSHCHIKOV, S.G., inzh.-elektrik; PUKHLYANKO, A.A., inzh.-elektrik;
KORNEYEVA, V.P., tekhnik-elektrik; AYNBERG, V.D., programmist; MEL'NIKOVA,
M.G., programmist; KOZLOVA, R.Ya., programmist; ARKHIPOVA, A.A., programmist
VILKOV, G.N., red.izd-va; MOCHALINA, Z.S., tekhn.red.

[Using electronic computers in calculating engineering constructions
(programming the calculation of shallow shells and beams for the electronic
digital computer "Ural-1")] Primenenie elektronnykh vychislitel'nykh
mashin pri raschete inzhenernykh sooruzhenii (programirovanie rascheta
pologikh obolochek i sterzhei dlia ETsVM "Ural-1"). Moskva, Gos.izd-vo
lit-ry po stroit., arkhitekt. i stroit. materialam, 1962. 135 p. (Akademiia
stroitel'stva i arkhitektury SSSR. Institut stroitel'nykh konstruktsii.
Trudy, no.9). (MIRA 15:8)

(Electronic digital computers) (Elastic plates and shells)
(Beams and girders)

AINBERG, V.D.; SAESOVICH, L.L.; LIVSHIN, G.L., retsenzent;
BARANOVA, Z.S., inzh., red.

[Collection of problems and exercises with answers on
programming the "Ural-1" digital computer] Sbornik za-
dach i uprazhnenii po programirovanii dlia ETsVM "Ural-1"
s resheniami. Moakva, Mashinostroeniia, 1964. 350 p.
(MIRA 17:11)

ACC NR: AN6024648

Monograph

UR/

Aynberg, Viktor Davidovich; Gavrilenko, Yevgeniy Timofeyevich; Sabsovich, Leonid Leonidovich

Programming for "Ural"; "Ural-2", "Ural-3", and "Ural-4" electronic computers (Programirovaniye dlya elektronaykh vychislitel'nykh mashin tipa "Ural"; "Ural-2", "Ural-3", "Ural-4") Moscow, Izd-vo "Nauka", 1966. 367 p. biblio., tables. 20,000 copies printed.

Series note: Fiziko-matematicheskaya biblioteka inzhenera

TOPIC TAGS: digital computer, computer programming, ~~program processing~~, automatic programming/ Ural-2 computer, Ural-3 computer, Ural-4 computer

PURPOSE AND COVERAGE: This book is intended for persons using the Ural series of computers. The book may be also used as a textbook on computer programming. Command systems, programming methods and procedures for the Ural-2, Ural-3, and Ural-4 computers are discussed, and description is given of the application of these computers. Numerous examples of command application and programming processes are presented.

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UDC: 519.95

AYNBERG, V.D.; DUVALYAN, S.V.; KUZ'MIN, K.S.; SRAGOVICH, V.G., kand.
fiz.-matem. nauk, otv. red.

[Input, output, and exchange programs for "Ural-3" and "Ural-4"
computers. Part 1.] Programmy vvoda, vyvoda i obmena dlia
"Urala-3" i "Urala-4". Moskva. Pt. 1. 1965. 72 p. (Akademii
nauk SSSR. Vychislitel'nyi tsentr. Standartnye i tipovye
programmy dlia mashin "Ural," no.5) (MIRA 18:8)

AYNBERG, Ye. N.

36450.

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Effect of the spectral line shape of thermal vibrations in a CaCl-type lattice on heat capacity, mean square shift of atoms from the state of equilibrium, and the speed of sound.
Fiz. met. i metalloved. 14 no.1:141-144 J1 '62. (MIRA 15:7)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Crystal lattices) (Spectrum, Atomic)

238180

AYINORER I.

USSR/Electronics - Radio Receivers May 52
"A First-Class Radio Receiver," A. Irzhavskiy and
I. Aynbinder
"Radio" No 5, pp 28-32
Description of a receiver with long, medium, and
four SW bands (one general and three with band-
spread). Output power, 4 w; sensitivity, 75 μ v
on long-wave and 50 μ v on remaining bands; power
drain, 150 w; 15 tubes. Special features: input
circuit on long-wave band; band switch design;
noiseless tuning system.
238180

AYNBINDER, I.

PA 236T28

USSR/Electronics - Radio Receivers

Jun 52

"A First-Class Radio Receiver," A. Irzhavskiy and
I. Aynbinder

"Radio" No 6, pp 30-35

Conclusion of an article which appeared in "Radio,"
No 5, 1952. This article describes parts, includes
tabular data on circuit coils, gives structural
features and instructions on tuning the receiver.

236T28

AYNBINDER, I.

USSR/ Electronics - Radio receivers

Card 1/1 Pub. 89 - 13/28

Authors : Aynbinder, I.

Title : The "Dorozhnyy" radio receiver

Periodical : Radio 1, 22-25, Jan 1954

Abstract : A four tube portable radio receiver is described and the main components are discussed. Circuit diagrams; drawing.

Institution:

Submitted:

AYNBINDER, I.

USSR/Electronics - Portable Radio Receiver

Card 1/1

Author : Aynbinder, I.
Title : The "Dorozhnyy" Portable Radio-Receiver
Periodical : Radio 3, 20 - 23, Mar, 1954
Abstract : A portable radio-receiver, known as "Dorozhnyy", is described. Technical data and photographs of the instrument are given together with circuit diagrams.
Institution :
Submitted :

Aynbinder, I.

AYNBINDER, I.

An ultrashort wave block for radio receivers. Radio no. 12:39-42
D 157.

(Radio, Shortwave Apparatus and supplies)
(MIRA 10:11)

9(2,3)

PHASE I BOOK EXPLOITATION

SOV/1803

Aynbinder, Iosif Mironovich

Voprosy teorii i rascheta UKV kaskadov radioveshchatel'nogo priyemnika (Problems in the Theory and Design of VHF Stages for Broadcast Receivers) Moscow, Gosenergoizdat, 1958. 117 p. 26,000 copies printed.

Ed.: K. A. Shul'gin; Tech. Ed.: N. I. Borunov.

PURPOSE: This book is intended for radio specialists and advanced students of radio engineering vuzes and tekhnikums. It may also be useful to qualified radio amateurs.

COVERAGE: The author discusses basic problems in the design of very-high-frequency stages for modern broadcast AM/FM-combination receivers. He also explains some problems in the theory and design of heterodyne converters using triodes. He explains in detail the theory and calculation of noise level and sensitivity.

Card 1/4

Problems in the Theory (Cont.)

SOV/1803

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