"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

38292

S/190/62/004/006/019/026
B110/B138

15.8620

AUTHORS: Usmanov, Kh. U., Larin, P. P., Tashpulatov, Yu. T., Musayev, U. N., Tillayev, R. S.

TITLE: The IR spectra of graft copolymers of polystyrene and perchlorovinyl with acrylonitrile, obtained under γ-radiation

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 6, 1962, 907-912

TEXT: The IR spectra were investigated for the graft copolymers of polystyrene with acrylonitrile (PSA) and perchlorovinyl with acrylonitrile (PCA), obtained by γ-radiation. The graft copolymers were prepared according to the authors (Mezhdunarodnyy simpozium po makromolekulyarnoy khimii (International Symposium on Macromolecular Chemistry), Moskva, iun' 1960 g. sektsiya III, p. 270). The radiation dose was 1 - 10,000,000 roentgen. For spectral analysis KBr compacts were produced. A double-beam IR spectrophotometer type ИКС-14 (IKS-14) was used with NaCl prism for 2.5 - 15μ. Homopolymerization of acrylonitrile and graft copolymerization with polystyrene takes place during graft copolymerization. Since the spectrum of the graft copolymer differed from that of the initial

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S/190/62/004/006/019/026
B110/B138

The IR spectra of graft...

polymer, grafting of polyacrylonitrile and polystyrene presumably occurred during irradiation. The graft copolymer of polystyrene with acrylonitrile corresponded to oscillations at: 2.86 - 2.94μ to hydrogen bond (N.....H); 3.28 and 3.32μ = asymmetric oscillations of the CH_2 group; 3.43 and 3.52μ = valency oscillations of the CH_2 group; 4.45μ = C≡N valency oscillations; 5.13, 5.31 and 5.53μ = harmonics of the monosubstituted benzene ring; 5.98μ = C=O valency oscillations; 6.24μ = oscillations of the C=C bond of the benzene ring; 6.69μ = oscillation of the benzene ring; 6.87, 7.09, 7.20μ = deformation oscillations of the CH_2 group; 7.94μ = C-H deformation oscillations; 8.44, 8.66μ = oscillations of the monosubstituted benzene ring; 9.13, 9.34μ = C-C skeleton oscillations; 10.99, 11.80μ = CH oscillations of the monosubstituted benzene; 3.16, 14.28μ = non-flat deformation oscillations of the CH group of the monosubstituted benzene ring. The insolubility of the copolymer (C = 73.77%, H = 6.81%, N = 13.47%, O = 5.95%) is explained by: (1) grafting, (2) appearance of new bonds (2.86 - 2.94μ: N....H hydrogen bond). For the graft copolymer of perchlorovinyl and acrylonitrile there corresponded the bands: 2.91μ to NH valency oscillations in the NH_2 group; 3.39μ = C-H deformation oscillations;

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5.81μ = C=O valency oscillations; 7.03μ = CH_2 deformation oscillations; 7.37, 9.83μ = C≡N valency oscillations; 10.39μ = C-C skeleton oscillations; 13.17μ = C-Cl valency oscillations; 14.80μ = C-H deformation oscillations. The appearance of the band at 2.91, 5.81, 7.37 and 9.83μ presumably proves saponification of the C≡N to the O=C-NH_2 group owing to HCl separation and air humidity. For the graft copolymer of perchlorovinyl with acrylonitrile the following oscillations appear: 3.40μ = CH_2 valency oscillations, 4.42μ = C≡N valency oscillations; 5.99μ = C=O valency oscillations; 6.67, 6.87μ = CH_2 deformation oscillations; 7.19, 7.36, 7.94 and 8.36μ = C-H deformation oscillations; 9.13, 9.34μ = -C-C-C- skeleton oscillations; 13.10μ = C-Cl valency oscillations. There are 2 figures.

ASSOCIATION: Institut khimii polimerov AN UzSSR (Institute of the Chemistry of Polymers AS UzSSR). Tashkentskiy gosudarstvennyy universitet im. V. I. Lenina (Tashkent State University imeni V. I. Lenin)

SUBMITTED: April 14, 1961

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.

M.V.Lomonosov - father of Russian chemistry; on the 250th anniversary of his birth. Uzb.khim.zhur. 6 no.1:7-10 '62. (MIRA 15:3)

(Lomonosov, Mikhail Vasil'evich, 1711-1765)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; PILOSOV, M.Ya.

Modification of cotton cellulose by organic diisocyanates. Uzb. khim.zhur. 6 no.1:26-38 '62. (MIRA 15:3)

1. Institut khimii polimerov AN UzSSR.
(Cellulose) (Isocyanic acid)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; SHATKINA, V.P.

Standard method of cellulose recovery from cotton fiber. (MIRA 15:7)
Uzb.khim.zhur. 6 no.2:24-27 '62.

1. Institut khimii polimerov AN UzSSR.
(Cellulose) (Cotton)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; TASHPULATOV, Yu.

X-ray diffraction study of cotton fiber during the vegetative period. Uzb.khim.zhur. 6 no.2:39-42 '62. (MIRA 15:7)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina i Institut khimii polimerov AN UzSSR.
(Cotton)
(X rays--Diffraction)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; MININA, V.S.; DUSHIN, V.A.; ZININA, M.A.

Costra kenaf (Hibiscus cannabinus) as new raw material for the production of furfurole and protein fodder. Uzb.khim.zhur. 6 no.2:79-80 '62. (MIRA 15:7)

1. Institut khimii polimerov AN UzSSR i Yangiyul'skiy gidroliznyy zavod.

(Kenaf) (Furaldehyde)
(Feeding and feeds)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; GAFUROV, T.; DUSTMUKHAMEDOV, Kh.

Cross-linking of a cellulose macromolecule as a method for modification of its properties. Uzb.khim.zhur. 6 no.6:31-36 '62. (MIRA 16:2)

1. Institut khimii polimerov AN UzSSR.
(Cellulose) (Cotton)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

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USMANOV, KH.U., AZIZOV, U.O.

Proprietes des copolymeres obtenus par le greffage de monomeres vinyliques sur la cellulose

Report submitted for the International Symposium of Macromolecular chemistry Paris, 1-6 July 63

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 13536-63 EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Pc-4/Pr-4 RM/WW

S/0291/63/000/003/0064/0069

65

63

ACCESSION NR: AP3003526

AUTHORS: Usmanova, M. I.; Usmanov, Kh. U.

TITLE: Molecular weight determination of standard polystyrene samples by the osmotic method.

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 3, 1963, 64-69

TOPIC TAGS: polystyrene, osmotic method, Ostwald viscometer, Hellfritz osmometer, benzene, cyclohexane, permeability.

ABSTRACT: Determinations were carried out at 25C with an Ostwald viscometer and a modified Hellfritz osmometer. The stainless steel osmometer could be used either at room temperature or at elevated temperature. The membranes could be inserted from both sides thus permitting rapid establishment of equilibrium. Cellophane membranes had to be pretreated in order to become permeable to the solvent molecules. Pretreatment consisted of: rinsing in distilled water; soaking in a 10% solution of sodium hydroxide for 1 hour; thorough rinsing; and finally soaking in a mixture of water with the corresponding solvent. After the insertion of the membranes, the seal was checked with compressed air and the

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L 13536-63
ACCESSION NR: AP3003526

osmometer was placed in a cylinder with pure solvent (benzene, reagent grade). The osmometer was rinsed 5-6 times with the solvent. Specific permeability constant (G) was calculated according to Kuhu's equation using data obtained for pure solvent. This data related the difference between levels in both capillaries (oh) to time (t). Osmotic pressure of standard polystyrene solutions was determined using concentrations from 0.1gm to 1.5gm per 100 ml in each of the three solvents. Osmotic equilibrium was established in 6,8,12 or 20 hours depending upon the concentration of the solution. Upon completion of the experiment, the concentration of the polystyrene remaining after osmosis was determined from the weight of the residue, the weight of the solution, and the density of the solvent at the temperature of the experiment. Osmotic pressure was calculated from the density of the solution (d_t) and the difference between the levels in both capillaries (oh). Relationships between viscosity (ordinate) and concentration in gm/100ml (abscissa) for three polystyrenes (S-102, S-111 and S-114) in toluene, benzene, chloroform, and cyclohexane are presented. Molecular weights determined by the osmotic method and the viscosities are in agreement with those reported by foreign investigaters. Orig. art. has: 3 figures and 2 tables.

ASSN: Inst. of Polymer Chemistry, AN UzSSSR

Card 2/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; AKHMAMEDOV, K.; MININA, V.S.

Variation in the carbohydrate composition of hydrolyzates of the husk of naturally stripped seeds in stepped hydrolysis. Izv. AN Turk. SSR. Ser. fiz.-tekh., khim. i geol. nauk no.4:38-42 '63. (MIRA 17:2)

1. Institut khimii polimerov AN Uzbekskoy SSR i Institut khimii AN Turkmenskoy SSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

NIKONOVICH, G.V.; LEONT'YEVA, S.A.; USMANOV, Kh.U.

Electron microscope studies of modified cellulose fibers. Khim.volok no.6:55-61 '63. (MIRA 17:1)

1. Tashkentskiy institut khimii polimerov UzSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 11414-63 EPF(c)/EPR/EWP(j)/EWT(m)/BDS AFFTC/ASD Pr-4/Ps-4/Pc-4

ACCESSION NR: AP3004713 RM/MAY/WW S/0190/63/005/008/1277/1277 77

AUTHOR: Usmanov, Kh. U.; Yul'chibayev, A. A.; Mukhamedzhanov, R.; Gordiyenko, A. A.; Valiyev, A.; Patenko, A. A.; Dordzhin, G. S.

TITLE: Radiation-induced polymerization of vinyl fluoride 14

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 5, no. 8, 1963, 1277

TOPIC TAGS: fluorocarbon polymer, poly(vinyl fluoride), poly(vinyl chloride), Ftoroplast-4, Teflon polytetrafluoroethylene, radiation-induced polymerization, cobalt 60, gamma rays, initiator. benzoyl peroxide, radical polymerization

ABSTRACT: The higher heat, chemical, and light resistance of poly(vinyl fluoride) (PVF) as compared to poly(vinyl chloride) and the possibility of substituting PVF in certain cases for Ftoroplast-4 [polytetrafluorethylene, or Teflon] have prompted a study of the synthesis of PVF by radiation-induced polymerization. The monomer was prepared from pure HF and C_2H_2, separated from excess HF and C_2H_2 and irradiated in sealed ampoules with γ-rays from a Co^{60} source at a dose rate of 34 r/sec. Irradiation in the absence of initiators yielded waxy products. In the presence of benzoyl peroxide a yellowish solid product was obtained.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 14414-63
ACCESSION NR: AP3004713

The PVF yield increased in both cases with an increase in the radiation dose. Acceleration of the polymerization in the presence of the initiator indicates that the polymerization follows the radical mechanism.

ASSOCIATION: none

SUBMITTED: 11Mar63 DATE ACQ: 28Aug63 ENCL: 00

SUB CODE: CH, MA NO REF SOV: 000 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

PUTIYEV, Yu.P.; TASHPULATOV, Yu.; GAFUROV, T.; USMANOV, Kh.U.

Interaction of cellulose with some hydroxyl-containing compounds studied by infrared spectroscopy. Uzb.khim.zhur. 7 no.1:28-33 '63. (MIRA 16:4)

1. Institut khimii polimerov AN UzSSR.
(Cellulose) (Hydroxy compounds) (Spectrum, Infrared)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

GAFUROV, T.G.; USMANOV, Kh.U.; IGAMBERDYYEV, I.I.; DUSMUKHAMEDOV, Kh.; ZAUROV, R.I.

Imparting crease-resistance to cotton fabrics treated with unsaturated aldehyde. Uzb. khim. zhur. 7 no.2:71-75 '63. (MIRA 16:8)

1. Institut khimii polimerov AN UzSSR.
(Crease-resistant fabrics)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; KALABANOVSKAYA, Ye.I.; GRANITOVA, O.I.; SHARAFUTDINOVA, E.G.

Study of relaxation processes in cellulose fibers subjected to gamma-radiation. Uzb. khim. zhur. 7 no.2:76-79 '63. (MIRA 16:8)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina i Altayskiy sel'skokhozyaystvennyy institut.
(Cellulose) (Gamma rays)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

IOSILEVICH, A.I.; USMANOV, Kh.U.; IOANNIDIS, O.

Phosphorylation of lignin. Uzb. khim. zhur. 7 no.5:61-63 '63. (MIRA 17:2)

1. Institut khimii polimerov AN UzSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; YUL'CHIBAYEV, A.A.; TYAGAY, E.D.; BEKMAYEVA, A.D.

Change of the structure of cotton cellulose when treated with acid solutions. Uzb. khim. zhur. 7 no.6:84-87 '63. (MIRA 17:2)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

MININA, V.S.; USMANOV, Kh.U.; RUNOVA, L.N.

Modification of the chemical composition of cotton stalks in long storage. Gidroliz. i lesokhim.prom. 16 no.8:15-16 '63. (MIRA 17:1)

1. Institut khimii polimerov AN UzSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

SADOVNIKOVA, V.I.; USMANOV, Kh.U.; KOZ'MINA, O.P.

Increasing the thermal stability of cotton fiber by means of its partial cyanoethylation. Zhur. prikl. khim. 36 no.11: 2522-2526 N '63. (MIRA 17:1)

1. Institut khimii polimerov i institut vysokomolekulyarnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

RAZIKOV, K. Kh.; USMANOV, Kh. U.; AZIZOV, U. O.

"Electronmicroscopic investigation of the microstructure of radiation-grafted cellulose copolymer."

report submitted to 3rd European Regional Conf, Electron Microscopy, Prague, 26 Aug-3 Sep 64.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; MININA, V.S.; ZARIPOVA, A.M.; SHARKOV, V.I., doktor tekhn.nauk, prof., otv. red.; SOKOLOVA, A.A., red.

[Prospects of the chemical processing of cotton waste] Perspektivy khimicheskoi pererabotki otkhodov khlopkovodstva. Tashkent, Izd-vo "Nauka" UzSSR, 1964. 125 p. (MIRA 17:11)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

ACCESSION NR: AT4042432 S/3103/64/000/002/0175/0182

AUTHOR: Usmanov, Kh. U., Tillayev, R. S., Musayev, U. N., Yuldasheva, Kh.

TITLE: Thermomechanical properties and plasticizing of grafted copolymers obtained by radiation polymerization

SOURCE: AN UzSSR. Institut khimii polimerov. Khimiya i fiziko-khimiya prirodny*kh i sinteticheskikh polimerov, no. 2, 1964, 175-182

TOPIC TAGS: grafted copolymer, acrylonitrile, polystyrene, polyvinylchloride, vinyl perchloride, glass temperature, Gamma-irradiation, plasticizer, saponified copolymer, radiation polymerization, polymer plasticizing, polymer thermomechanical property

ABSTRACT: A study of the thermomechanical properties of grafted copolymers obtained by grafting acrylonitrile on polystyrene, polyvinyl chloride and vinyl perchloride showed that the glass temperature T_c of these copolymers, regardless of the ratio of the components, corresponds essentially to the glass temperature of the initial polymers, but that the flow temperature T_t lies above the temperature of chemical stability of the products. Copolymers, as compressed tablets (3-4 mm thick and 7 mm in diameter), were tested before and after irradiation at doses of 1-10 Mr. The thermomechanical curves were plotted with the dynamometric scales of Kargin and Sogolova at a constant load for 10 sec., at a specific

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ACCESSION NR: AT4042432

load of 1.4 kg/cm^2. The curves obtained for all the copolymers, with or without plasticizers were quite similar, and showed less effect of temperature than on pure polymers. Tabulated irradiation data showed that the thermomechanical properties of grafted copolymers remain almost unchanged under the influence of irradiation. This indicates the greater stability of grafted copolymers to γ-rays as well as to high temperatures. The flow of grafted copolymers is therefore considered to be almost independent of grafting. An investigation of the plasticizing of grafted copolymers showed that grafted copolymers synthesized from two homopolymers which have a common plasticizer remain unchanged in their compatibility with this plasticizer. For grafted copolymers containing, on the one hand, chains able to plasticize (polystyrene, polyvinyl chloride) and, in the other component, unplasticizable rigid chains (polyacrylonitrile), the compatibility with the plasticizer is low and limited. The change in thermomechanical properties (decrease in Tc) with increasing plasticizer concentration (tetralin or methylbenzoic ether) is plotted. In addition, analytical data for nitrogen content and acid number of the grafted copolymers are tabulated. The thermomechanical curves of saponified vinyl perchloride and polyacrylonitrile grafted copolymers showed that the glass temperature is decreased and the plasticity is increased by saponification. A further increase in plasticity is produced by plasticizers, especially glycerol. Such an increase could never be obtained by plasticizing unsaponified grafted copolymers. Orig. art. has: 2 tables and 3 figures.

Card 2/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

ACCESSION NR: AT4042432

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

ENCL: 00

SUBMITTED: 00

OTHER: 000

SUB CODE: OC

NO REF SOV: 006

Card 3/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 57492-65 EWT(m)/T/EWP(j) Po-L RM

ACCESSION NR AP5019321 UR/0291/64/000/006/0051/0054

AUTHOR: Usmanov, Kh. U.; Shatkina, V. P.

TITLE: On the interaction between cellulose and propylene oxide

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 6, 1964, 51-54

TOPIC TAGS: cellulose, propylene, synthetic material

ABSTRACT: The authors studied cotton cellulose (fiber) and cotton fabric following exposure to the action of propylene oxide. They found that a 25% NaOH solution should be used [illegible] preliminary activation of the cellulose in the treatment with this compound.

When cellulose reacts with propylene oxide, its reactivity in hydrolysis and solution is increased.

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 57492-65

ACCESSION NR: AP5019321

As a result of the treatment with propylene oxide, cellulose fabric acquires durable wear-resisting properties of starched fabrics. This treatment con- [illegible] propylene oxide vapors for 2.6 hours [illegible] and elongation of the fabric [illegible] tion were found to decrease [illegible]

Orig. art. has: 3 tables.

[illegible] Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy [illegible] SSSR [illegible] and Technology of Cotton [illegible]

State Committee on Chemical [illegible]

SUBMITTED: [illegible] SUB CODE: MT, GC

NR REF SOV: 002 OTHER: 003 JPRS

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 60142-65 EWT(m)/EPF(c)/EPF(n)-2/EWP(j)/T Pc-4/Pr-4/Pu-4 GG/JAJ/RM

ACCESSION NR: AT5019596

AUTHOR: Usmanov, Kh. U.; Tilleyev, F.

TITLE: Radiation copolymerization of acrylonitrile with sylvan

SOURCE: Tashkent. Universitet. Nauchnyye trudy, no. 257, 1964. Fiziko-khimiya polimerov i neorganicheskaya khimiya (Physical chemistry of polymers and inorganic chemistry), 3-10

TOPIC TAGS: acrylonitrile, sylvan, radiation polymerization, polyacrylonitrile, Ansyl copolymer

ABSTRACT: Acrylonitrile was copolymerized with sylvan by sealing the purified monomers (present in various proportions) in glass ampoules and irradiating them with gamma rays from radioactive cobalt. The yield and properties of the copolymer (Ansyl) depend on the dose, irradiation rate, monomer ratio, and presence of solvents and their nature. As the irradiation rate increased from 20 to 505 r/sec, the copolymer yield decreased from 38.5 to 23.3%, possibly because of a decrease in the effectiveness with which primary radicals initiate the copolymerization, since they have a greater tendency to react with one another rather than with the monomer molecule. As the proportion of acrylonitrile in the original mixture increased, the

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L 60142-65
ACCESSION NR: AT5019596

2

polyacrylonitrile content of the copolymer rose, indicating that acrylonitrile is more reactive than the sylvan monomer when acted upon by gamma rays. The calculated copolymerization constants were r_{An} = [illegible] and r_{Sylv} = [illegible]. Addition of dimethylformamide (DMF), acetone, methanol, and CCl_4 to the mixture of monomers in amounts up to 10 vol. % decreases the copolymer yield, then increases it from 15 to 55% in the case of acetone, from 16 to 80% in the case of DMF, and [illegible] and [illegible]% in the case of methanol and CCl_4 respectively. The heats of solution and swelling and the densities of the Ansyl copolymers were determined. The thermomechanical curves of the Ansyl copolymers were found to change with the irradiation dose. As the latter increased from $5 \cdot 10^6$ to $25 \cdot 10^6$ r, the yield temperature rose, apparently owing to a more extensive copolymerization and increase in the molecular weights of the products. Beyond $25 \cdot 10^6$ r, the deformability became limited as a result of cross-linking. Orig. art. has: 7 figures and 4 tables.

ASSOCIATION: Tashkentskiy gosudarstvennyy universitet im. V. I. Lenina (Tashkent State University) 44

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

NO REF SOV: 003 OTHER: 001

Card 2/2 AH

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 60144-65 EWT(1)/EWT(m)/EWP(e)/EWP(n)-2/EWP(t)/T/EWA(h)/EWA(1) Pe-4/Pr-4/
Peb/Pu-4 GG/JAJ/RM
ACCESSION NR: AT5013598

AUTHOR: Usmanov, Kh. U., Tillayev, [illegible]

TITLE: Radiation grafting of methacrylic acid to butadiene rubber

SOURCE: Tashkent. Universitet. Nauchnyye trudy, no. 257, 1964. Fiziko-khimiya polimerov i neorganicheskaya khimiya (Physical chemistry of polymers and inorganic chemistry), 22-25

TOPIC TAGS: radiation polymerization, methacrylic acid, butadiene rubber, graft copolymer

ABSTRACT: The grafting of methacrylic acid to butadiene rubber (SKB) was carried out in sealed glass ampoules in the presence of air by exposing the mixtures to Co^{60} gamma radiation. The degree of grafting increases with the irradiation dose and monomer concentration in the initial mixture. However, as the monomer concentration rises above 50%, the amount of the homopolymer increases, reducing the degree of grafting. The latter is also reduced by [illegible] radiation rate from 19 to 600 r/sec; this is apparently due to [illegible] from radicals [illegible] increasingly with one another [illegible] dition of 40-60 wt. % benzene to [illegible]

Card 1/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 60144-65

ACCESSION NR: AT5019598

degree of grafting (an increase from 80 to 92% in copolymer yield). However, addition of 30-60% methanol, which dissolves the graft polymer only, not the initial rubber, decreased the copolymer yield [illegible] The thermomechanical properties of the rubber [illegible] ture [illegible]

that the yield of [illegible] this is associated with a reduction of its molecular weight, [illegible] a degradation of the polymer. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Tashkentskiy gosudarstvennyy universitet im. V. I. Lenina (Tashkent State University)

SUBMITTED: 00

NO REF SOV: 001

OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 60145-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EWP(j)/T/EWA(h)/EWA(1) Pc-4/Pr-4/Pe
Pu-4 GG/JAJ/RM
ACCESSION NR: AT5019599

AUTH [illegible]

SOURCE: Tashkent, Universitet. Nau[illegible] polimerov i neorganiche[illegible] chemistry, [illegible]

TOPIC TAGS: vinyl acetate, perchlor vinyl, graft [illegible] radiation [illegible] tion

ABSTRACT: Powdered perchlor vinyl [illegible] (vinyl chloride) and various amounts of vinyl acetate were sealed in glass am[illegible]

Card 1/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 60145-65

ACCESSION NR: AT5019599

The rise in the yield of this homopolymer with increasing irradiation dose is explained by the fact that the initial polymer is less radiation-sensitive than the

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[illegible]/EWA(h)/EWA(1) Fc-4/Fr-4/Peb/

[illegible]
under the influence of [illegible]

[illegible]
polimerov i [illegible]
(chemistry), 30-43

TOPIC TAGS: methacrylic acid, methacrylamide, radiation polymerization

[illegible]
properties of the copolymers were studied. [illegible]

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 60146-65

ACCESSION NR: AT5019600

and density [illegible] for the constituent homopolymers. The copolymers and homopolymers [illegible] state [illegible] composition [illegible]

[illegible] Tashkentskiy [illegible] State University)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

ACCESSION NR: AP4040479 S/0190/64/006/006/0997/1000

AUTHOR: Larin, P. P.; Musayev, U. N.; Tashpulatov, Yu. T.; Tillayev, R. S.; Usmanov, Kh. U.

TITLE: IR spectra of copolymers of acrylonitrile and 2-methylfuran

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 6, 1964, 997-1000

TOPIC TAGS: copolymer, acrylonitrile, furan. 2-methyl, copolymer Ansil, radiation induced copolymerization, bulk copolymerization, solution copolymerization

ABSTRACT: The IR spectra of acrylonitrile--2-methylfuran (Ansil') copolymers have been studied. The copolymers were prepared by irradiating mixtures of the pure monomers both in bulk and in various solvents from a Co^{60} source. The study has confirmed the formation of copolymers. From the results it was assumed that in radiation-induced copolymerization of acrylonitrile and 2-methylfuran in solution, solvent molecules add to the ends of the copolymer molecules and accelerate termination. This assumption was confirmed by the fact that "Ansil'" copolymers prepared in solution have a lower molecular weight than those bulk copolymerized.

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

ACCESSION NR: AP4040479

The addition of the solvent is probably accompanied by a partial cyclization of polyacrylonitrile segments to form conjugated C=N bonds. Orig. art. has 2 figures.

ASSOCIATION: Institut khimii polimerov AN UzSSR(Institute of Polymer Chemistry, AN UzSSR); Tashkentskiy gosudarstvenny°y universitet im. V. I. Lenina (Tashkent State University)

SUBMITTED: 25May63 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 003 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

PUTIYEV, Yu.P.; TASHPULATOV, Yu.T.; GAFUROV, T.G.; USMANOV, Kh.U.

Cellulose modification studied by infrared spectroscopy. Vysokom.soed. 6 no.8:1415-1419 Ag '64. (MIRA 17:10)

1. Institut khimii polimerov AN Uzbekskoy SSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

RAZIKOV, K. Kh.; USMANOV, Kh.U.; AZIZOV, U.A.

Supermolecular structures of graft copolymer based on cotton cellulose and methacrylic acid. Vysokom. soed. 6 no.11:1959-1961 N '64 (MIRA 18:2)

1. Institut khimii i tekhnologii khlopkovoy tsellyulozy, Tashkent.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

ADYLOV, A.; TASHPULATOV, Yu.; GAFUROV, T.; USMANOV, Kh.U.

Interaction between cellulose and methylolthiourea. Uzb.khim.zhur. 8 no.1:87-90 '64. (MIRA 17:4)

1. NIITsF Gosplana SSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

RAZIKOV, K.Kh.; AZIZOV, U.; USMANOV, Kh.U.

Electron microscopy of cotton cellulose and its copolymers. Part 1: Particular features of cotton cellulose microstructure and of its radiation-induced graft copolymer with methacrylic acid. Uzb.khim.zhur. 8 no.2:66-72 '64. (MIRA 17:5)

1. NIITsF Goskhimneftekomiteta pri Gosplane SSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

AZIZOV, M.A.; KATS, A.L.; LARIN, P.P.; TASHMULATOV, Yu.T.; USMANOV, Kh.U.

Infrared absorption spectra of the complex compounds of copper of monopyridinecarboxylic acids and their derivatives. Uzb.khim. zhur. 8 no.5:47-53 '64. (MIRA 18:5)

1. Tashkentskiy farmatsevticheskiy institut i Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellyulozy Gosudarstvennogo komiteta khimicheskoy promyshlennosti pri Gosplane SSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U., otv. red.; KISELEVA, V.N., red.

[Trace elements in agriculture; reports] Mikroelementy v sel'skom khoziaistve; doklady. Tashkent, Izd-vo "Nauka" UzSSR, 1965. 448 p. (MIRA 18:12)

1. Respublikanskoye soveshchaniye po probleme "Mikroelementy v sel'skom khozyaystve. 1st, Tashkent, 1963.
2. Chlen-korrespondent AN UzSSR (for Usmanov).

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; MININA, V.S.; AKMAMEDOV, K.G.

Determining the speed of hydrolysis of cotton-husk cellulose diluted with sulfuric acid. Izv. AN Turk. SSR. Ser. fiz.-tekh., khim. i geol. nauk no.1:118-120 '65. (MIRA 18:7)

1. Institut khimii AN Turkmenskoy SSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

[illegible]

ACCESSION NR: AP5013983

UR/0183/65/000/003/0046/0052
647.46

AUTHORS: Nikonovich, G. V.; Leont'yeva, S. A.; Usmanov, Kh. U.

TITLE: Application of dispersion, hydrolysis, and mercerization to the study of supermolecular structure

SOURCE: Khimicheskiye volokna, no. 3, 1965, [illegible]

TOPIC TAGS: molecular structure, fiber, fibrillar structure, dispersed system, hydrolysis [illegible] fiber, [illegible] fiber, [illegible] fiber, [illegible] fiber, [illegible] fiber

[illegible]

ysis, [illegible] Chatillon from Italy, Fa[illegible] rial for electron microscopic examination [illegible] with subsequent ultrasonic irradiation [illegible] for 30 minutes.

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 57083-66

ACCESSION NR: AP5013983

Hydrolysis was carried out for 30 minutes at the boiling point of 2.5N H_2SO_4. For further studies the material was treated with 15% alkali for 2½ hours at 0C and also with 62% H_2SO_4 for five minutes at room temperature. Two types of supermolecular structure were found. The BX, Meril, and Fortisan broke down during dispersion into rather long, fine, homogeneous fibrillar layers, with smooth even edges. Chatillon and Fabelta showed [illegible] the greatest concentration occurring at about 700 Å. Crystallites of the second group proved to lack uniformity. They varied in shape and size, tending to be ellipsoidal or strongly bent. Mercerization of the first group produced crystallites resembling [illegible] The same treatment [illegible] group produced a compact mass of particles of indeterminate shape. The structure of BX and Fortisan is compared to a system of densely packed plates (lamellar packets). The structure of Chatillon and Fabelta corresponds more [illegible]

ASSOCIATION: [illegible] tsellyulozy, Tashkent (Scientific Research Institute of the Chemistry and Technology of Cotton Cellulose)

SUBMITTED: 05May64 ENCL: 00 SUB CODE: GC, MT

NO REF SOV: 001 OTHER: 011

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 16171-66 EWT(m)/EPF(n)-2/EWP(j)/T/EWA(h)/EWA(l) WW/GG/RM

ACC NR: AP5025431 SOURCE CODE: UR/0291/65/000/004/0040/0044

AUTHOR: Usmanov, Kh. U.; Tillayev, R. S.; Tashmukhamedov, S. A.

72
B

ORG: Tashkent State University im. V. I. Lenin (Tashkentskiy gosuniversitet)

TITLE: Radiation grafting of styrene and methylmethacrylate on chlorinated poly(vinyl chloride)

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 4, 1965, 40-44

TOPIC TAGS: polymer, irradiation, polyvinyl chloride, styrene, methylmethacrylate, thermomechanical property, elasticity, gamma ray

ABSTRACT: To avoid oxidative destruction, the authors applied the direct method of simultaneous irradiation of the polymer and the monomer in the absence of oxygen. The chlorinated poly(vinyl chloride) (I), η 0.80 in $(CH_2Cl)_2$ at 25C, styrene (II), and Me methacrylate (III) were additionally purified from any traces of admixtures. The experiments were carried out as follows. To powdered I in an ampul was added II or III, respectively, the ampul was evacuated by the usual

Card 1/2

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 16171-66

ACC NR: AP5025431

method of freezing and melting, at 10^{-3} - 10^{-4} mm, sealed in vacuo, and irradiated by γ-rays (^{60}Co) in doses of 0.25-6.0 mr, intensity 200 r/sec. The experimental results (dose, ratio I-II or I-III, weight gain after extraction of monomer, II- or III-content in the copolymer, and % yield of the final product) are given. Owing to the resistance of the benzene nucleus, graft copolymerization of II requires higher radiation doses than that of III. Determinations of thermo-mechanical properties of the copolymers showed that grafting II or III onto I results in a decrease of the Mackian elasticity region of I. Orig. art. has: 2 figures and 2 tables.

SUB CODE: 07 / SUBM DATE: 05Feb65/ ORIG REF: 005/ OTH REF: 003

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

NIKONOVICH, G.V.; LEONT'YEVA, S.A.; BURKHANOVA, N.D.; USMANOV, Kh.U.

Structure of the surface and ultra-thin sections of polynosic fibers. Khim. volok. no.5:54-59 '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellyulozy, Tashkent.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 23710-66 EWT(m)/EPF(n)-2/EWP(j)/T/EWA(h)/ETC(m)-6/EWA(1) IJP(c)
ACC NR: AP6008693 WW/GG/RM SOURCE CODE: UR/0291/65/000/005/0059/0062

AUTHOR: Tashmukhamedov, S. A.; Tillayev, R. S.; Latypov, T.; Usmanov, Kh. U. (Corresponding member AN UzSSR)

ORG: Tashkent State University im. V. I. Lenina (Tashkentskiy gosuniversitet)

TITLE: Grafting of methyl methacrylate to butyl rubber under the influence of gamma radiation

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 5, 1965, 59-62

TOPIC TAGS: gamma irradiation, irradiation effect, graft copolymer, butyl rubber, polymethyl methacrylate, methylmethacrylate, polymer, monomer

ABSTRACT: Graft copolymers of butyl rubber (copolymer of isobutylene with 2.0-3.0% isoprene) with methyl methacrylate were synthesized radiochemically by simultaneously irradiating a mixture of the polymer and monomer in the absence of atmospheric oxygen with Co^{60} gamma rays. After extraction of the polymethyl methacrylate homopolymer (PMMA), the degree of grafting and yield of the graft copolymer decreased with increasing irradiation dose for a polymer-to-monomer ratio of 1:1 and 1:0.6, and also in the solvent dichloroethane. The copolymers formed had a variable composition; their formation was confirmed by turbidimetric titration. A study of the kinetics of swelling of the copolymers in various liquids showed that the nature of the side chain in the

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 23710-66

ACC NR: AP6008693

graft copolymer causes a decrease in the affinity of the system obtained for some liquids and an increase for others. A study of the viscosity of solutions of the graft copolymers in benzene at 30°C revealed that as the content of graft PMMA in the copolymer diminishes (with rising irradiation dose), the intrinsic viscosity of the solutions decreases. This is attributed not only to a drop in the proportion of graft PMMA in the copolymer but also to the degradation of macromolecules of the initial polymer under the influence of gamma radiation. Orig. art. has: 2 figures, 1 table.

SUB CODE: 07/ SUBM DATE: 05Feb65/ ORIG REF: 002/ OTH REF: 002

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 34847-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM S/0286/65/000/006/0061/0061

ACCESSION NR: AP5008544

AUTHOR: Vasil'yeva, N. V.; Stergiu, G. K.; Usmanov, Kh. U.; Nadol'skiy, Ya. V.; Kostyushko, G. A.; Andreyev, A. G.

TITLE: A method for vulcanizing rubber stock. Class 39, No. 169244

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 61

TOPIC TAGS: rubber vulcanization, polychloroprene latex

ABSTRACT: This Author's Certificate introduces a method for vulcanizing rubber stock based on polychloroprene. A vulcanizing group which contains a vulcanization accelerant is used. A wider selection of vulcanization accelerants is provided by using a product of the interaction of thiourea with hydrogen peroxide.

ASSOCIATION: none

SUBMITTED: 04Aug61

NO REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: MT, GC

Card 1/1

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 3993-66 EWP(e)/EWT(m)/EPF(c)/EWP(1)/EWP(j)/EWP(b)/EWA(c) RPL WW/RM/WH

ACC NR: AP5025675 UR/0286/65/000/018/0025/0025
547.321.07

AUTHOR: Usmanov, Kh. U.; Yul'chibayev, A. A.; Dordzhin, G. S.; Patenko, A. A.; Asamov, M. K.

TITLE: Preparative method for vinyl fluoride. Class 12, No. 174622

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 25

TOPIC TAGS: vinyl fluoride

ABSTRACT: An Author Certificate has been issued for a preparative method for vinyl fluoride. The method involves the reaction of acetylene with hydrogen fluoride (1/1.5 molar ratio) in the presence of aluminum fluoride catalyst on heating. To increase the vinyl fluoride yield, the reactants are passed through a 15/1 aluminum fluoride/graphite mixture which had been pre-saturated with hydrogen fluoride, at about 380C. [SM]

ASSOCIATION: none

SUBMITTED: 11Dec64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4120

Card 1/1

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 33513-65 EWC(j)/EPF(c)/EPR/EWA(h)/EWT(m)/EWP(j)/T/EWA(1) Pc-4/Pr-4/Ps-4/Pab
ACCESSION NR: AP5003823 RPL WW/RM S/0190/65/007/001/0019/0024

37
B

AUTHORS: Azizov, U.; Usmanov, Kh. U.; Sadykov, M. U.

TITLE: Grafted copolymers of cellulose with styrene

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 1, 1965, 19-24

TOPIC TAGS: cellulose, styrene, graft copolymer, radiation grafting/ DSh 3M dynamometer, Mak Ben sorption apparatus

ABSTRACT: Grafted cellulose-styrene copolymers were obtained under γ-ray (Co^{60}) radiation. The graft copolymerization kinetics and some copolymer properties were studied. Fibrous cellulose in styrene solutions (5, 10 and 20% concentration) was subjected to $1 \times 10^6 - 5 \times 10^6$ roentgen of γ-radiation at 70-72 roentgen/second. The mechanical properties were measured on a DSh-3M dynamometer (65% relative humidity), heat of H_2O wetting on a microcalorimeter, and steam sorption on a Mak-Ben sorption apparatus in vacuum at 25C. It was found that grafting occurred in solutions of polar solvents (methanol) but not in nonpolar solvents (benzene, etc). The grafting kinetics (see Fig. 1 on the Enclosure) showed that the amount of grafted styrene increased with cellulose: styrene ratio and amount of radiation at

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 33513-65
ACCESSION NR: AP5003823

the same radiation intensity (54% for 3:4 at 5 x 10^6 roentgen; 49 for 3:4 at 3 x 10^6; 0 for 3:4 at 10^6). It was also found that the strength of the fibers was not greatly affected (4.10 gm at 12.1% styrene, 3.94 at 47%) by grafting, but that they became more resistant to mineral acids. The heat of H_2O wetting [illegible] increased styrene content [illegible] at [illegible] at [illegible] the water vapor [illegible] 25% and [illegible]; 4.3 at 47% and [illegible]. [illegible] has [illegible] figures and [illegible]

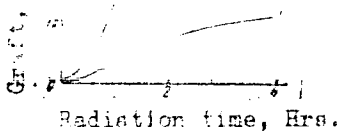
ASSOCIATION: Nauchno-issledovatelskiy institut khimii i tekhnologii khlopkovoy [illegible] Technology

SUBMITTED: [illegible]

Card 2/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3



Card 3/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; TILLAYEV, R.S.; MUSAYEV, U.N.

Density of graft copolymers obtained by radiation. Vysokom. soed. 7 no.8:1310-1313 Ag '65. (MIRA 18:9)

1. Tashkentskiy gosudarstvennyy universitet imeni V.I.Lenina.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

RAZIKOV, K.Kh.; USMANOV, Kh.U.; AZIZOV, U.A.

Fibrous structure of copolymers of cellulose with methacrylamide and methyl acrylate. Vysokom.soed. 7 no.10:1798-1801 O '65. (MIRA 18:11)

1. Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellyulozy, Tashkent.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 11610-66 EWT(m)/EWP(j)/T WW/RM

ACC NR: AP6001867 SOURCE CODE: UR/0190/65/007/012/2132/2138

AUTHORS: Nikonovich, G. V.; Leont'yeva, S. A.; Shatkina, V. P.; Usmanov, Kh. U.; Adylov, A. A.; Tashpulatov, Yu. T.

ORG: Institute for Chemistry and Technology of Cotton Cellulose, Tashkent (Institut khimii i tekhnologii khlopkovoy tsellyulozy)

TITLE: Study of supermolecular structure of cross-linked cellulose derivatives. The products of the reaction of cellulose and epichlorohydrin

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 12, 1965, 2132-2138

TOPIC TAGS: cellulose, polymer, cellulose plastic, synthetic fiber, electron microscopy, molecular structure, solid mechanical property

ABSTRACT: The supermolecular structure and some of the properties of the products obtained in the reaction between cellulose and epichlorohydrin were studied to elucidate the effect of supermolecular structure on the properties of cross-linked cellulose derivatives. The work was carried out mainly by electron-microscopy, but IR and x-ray spectra were also investigated. Mechanical properties such as strength, elongation, etc under dry and wet conditions were also studied. The results are presented in graphs and tables (see Fig. 1). It is concluded that the reaction of epichlorohydrin with cellulose proceeds via a bifunctional mechanism forming intramolecular cross-links, and it is suggested that, in the case of intermolecular

Card 1/2

UDC: 661.728+678.01:53+678.01:54

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 11610-66

ACC NR: AP6001867

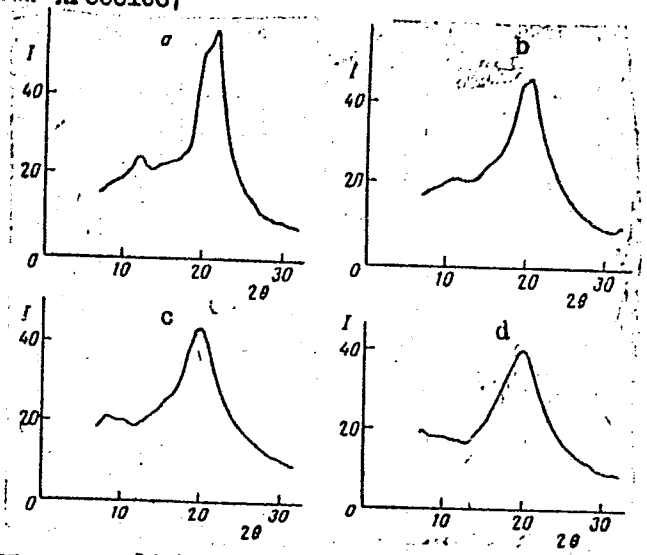


Fig. 1. X-ray diffraction spectra of fibers modified by epichlorohydrin with different weight gain: a - mercerized, not treated; b - 13.6%, c - 46.7%, d - 67.0%.

addition, cross-links are formed between the cellulose microfibrills in the layers of the secondary walls of the fibers. It was found that cross-linkage improves the elastic properties of the cellulose, particularly in wet environments. Orig. art. has: 2 tables, 2 graphs, and 2 photographs.

SUB CODE: 11/ SUBM DATE: 26Jan65/ ORIG REF: 003/ OTH REF: 007

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOVA, R.M.

Relation between the proteolytic activity of the thyroid gland and the hormone iodine content in the blood. Uzb. biol. zhur. 9 no.4:12-15 '65. (MIRA 18:10)

1. Institut krayevoy meditsiny AMN SSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

TASHMUKHAMEDOV, S.A.; TILLAYEV, R.S.; USMANOV, Kh.U.; LATYPOV, T.

Grafting of methyl methacrylate into butyl rubber under the effect of gamma rays. Uzb. khim. zhur. 9 no.5:59-62 '65.
(MIRA 18:12)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.
Submitted Feb. 5, 1965.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

NIKONOVICH, G.V.; USMANOV, Kh.U.

Effect of certain methods of processing on the structure of a secondary wall of cotton fiber. Zhur.prikl.khim. 38 no.3:617-622 Mr '65. (MIRA 18:11)

1. Submitted July 1, 1963.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, Kh.U.; YUL'CHIBAYEV, A.A.; SIRLIBAYEV, T.

Turbidometric titration of solutions of the graft copolymers of polymethylmethacrylate and vinyl chloride. Plast. massy no.2:73-74 '66. (MIRA 19:2)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 23329-66 EWT(m)/EWP(j)/T/ETC(m)-6 WW/RM

ACC NR: AP6006975 (A) SOURCE CODE: UR/0190/66/008/002/0231/0234

AUTHORS: Yuldashev, A.; Perlina, R. V.; Sadykov, M. M.; Usmanov, Kh. U. 32 37

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

TITLE: Phosphorylation of modified cellulose preparations with phosphoric chloroanhydrides

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 2, 1966, 231-234

TOPIC TAGS: cellulose plastic 44,55, phosphorylation, organic phosphorus compound

ABSTRACT: The effect of a small amount of aldehydic or primary hydroxyl groups present in position 2 and 3 of cellulose (I) upon the phosphorylation process of I with phosphoric dichloroanhydride (II) has been investigated. The reagents in the ratio I:II = 1:3 were reacted in 30 ml of benzene and 10 ml of pyridine at 75--80C for 30 minutes. The reactivity of the various cellulose preparations toward phosphorylation was determined from the amount of P taken up during the reaction. Phosphorylation of the native cellulose was described, and the mechanism was suggested by Wu. Mei-yen, T. A. Zharova, and Z. A. Rogovin (Zh. prikl. khimii, 35, 1820, 1962). Phosphorylation of the modified cellulose proceeds according to the following schemes: a) oxidized cellulose

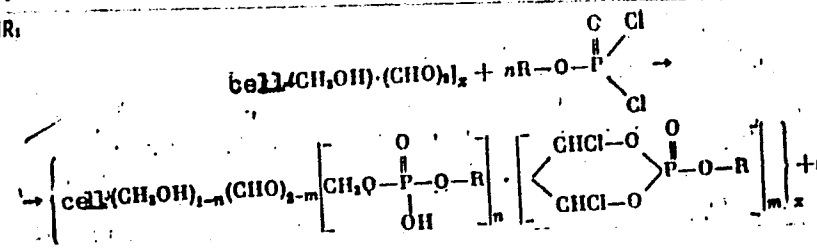
Card 1/2 UDC: 661.728.87

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

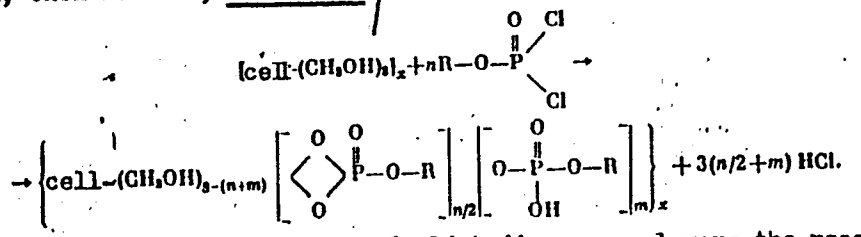
"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 23329-66

ACC NR:



b) oxidized, then reduced, cellulose



It was established that the presence of aldehydic groups lowers the reactivity of the cellulose toward phosphorylation, while the presence of primary hydroxyl groups doubles it. The product obtained in the latter case is fireproof. Orig. art. has: 3 tables and 4 equations.

SUB CODE: 07/ SUBM DATE: 23Feb65/ ORIG REF: 011/ OTH REF: 002

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, K.Yu., kand.med.nauk

Histopathology of the brain of some internal organs in Heliotropin toxicosis (toxic hepatitis with ascites) and its pathogenesis. Med.zhur.Uzb. no.11:59-64 N '58. (MIRA 13:6)

1. Iz laboratorii Instituta normal'noy i patologicheskoy morfologii AMN SSSR (direktor - akademik A.I. Abrikosov [deceased]) i kafedry gistologii (zav. - dotsent K.Yu. Usmanov) Tashkentskogo gosudarstvennogo meditsinskogo instituta.
(ALKALOIDS--TOXICOLOGY) (BRAIN--DISEASES) (LIVER--DISEASES)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, I. Yu., [illegible] --([illegible])" [illegible] changes of the [illegible] [illegible] nervous system in heliotropic toxicosis (so-called toxic hepatitis with ascites -- THA)." [illegible], [illegible]. [illegible] ([illegible] Institute [illegible]), 250 copies ([illegible], [illegible])

-73-

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, K. Yu., Doc Med Sci -- "Histologic morphology of the central nervous system and of certain internal organs in heliotropic toxicosis." Tashkent, 1961. (Ryazan' State Med Inst im Acad I. P. Pavlov) (KL, 8-61, 258)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

To be submitted for the International Symposium on Macromolecular Chemistry, Montreal, Canada, 27 Jul -1 Aug 1961.

USSR

BIRSHTEYN, T. M., Institute of High Molecular Chemistry, Academy of Sciences USSR, Leningrad, jointly with KRIGBAUM, W. R., and KANEKO, M., Duke University, Durham, N.C. - "Elasticity of cube lattice chain networks" (Group 2)

DOGADKIN, Boris A., and DONDOV, A. A., Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov - "Interaction of polyethylene with sulphur" (Groups 4-5)

KARGIN, Valentin A., Head, Laboratory of Colloidal Chemistry, Scientific Research Physico-Chemical Institute imeni L. Ya. Karpov, Moscow - "The formation of big crystal structures in polymers and their properties" (Group 2. Invited lecture)

KRENTSEL', B. A., TOPCHIEV, A. V., and DAKALO, L. A., Institute of Petroleum, Academy of Sciences USSR, Moscow - "Polymerization of some epoxy compounds" (Group 3-B)

MEDVEDEV, Sergey S., SPIRIN, YU. A., AREST-YAKUBOVICH, A. A., POLYAKOV, D. K., and GANTMAKHER, A. R., Scientific Research Physico-Chemical Institute imeni L. Ya. Karpov, Moscow - "Polymerization catalyzed by lithium and lithium alkyl" (In German) (Group 3-B)

NAMETKIN, S. S., TOPCHYEV, A. V., and POLAK, L. S., Institute of Petrochemical Synthesis, Academy of Sciences USSR, Moscow - "On the catalytic polymerization and radiochemistry of allylsilans" (Group 3-A)

PIOTROVSKIY, K. B., All-Union Scientific Research Institute of Synthetic Rubber imeni S. V. Lebedev, Leningrad - "Temperature effect on polymer structure in diene polymerization by alkali metals" (Group 3-B)

PODDUBNYY, I. Ya., and YERENBURG, Ye. G., All-Union Scientific Research Institute of Synthetic Rubber, Leningrad - "Study of branching in regular isoprene polymers" (Group 1)

PODDUBNYI, I. Ya. MOGEVITSKIY, M. F. RABINERSON, M. A., and PERMINOV, A. P. All-Union Scientific Research Institute of Synthetic Rubber imeni S. V. Lebedev, Leningrad - "Nature of molecular-weight distribution and properties of styrene-butadiene rubbers depending on polymerization conditions" (Group 3-A)

PRAVEDNIKOV, A. N., TELESHOV, Ye. N., YING, She-k'ang, and MEDVEDEV, S. S., Scientific Research Physico-Chemical Institute imeni L. Ya. Karpov, Moscow - "Investigation of the mechanism of radiolysis of polymers containing quaternary atoms of carbon" (Group 4-5) Prof. Yu. U.

TSVETSOV, Viktor M., Institute of High Molecular Compounds of the Academy of Sciences USSR, Leningrad - "Stereo-regularity and optical anisotropy of macromolecules" (Group not specified)

USMANOV, Khamdan YU., and SUSHKEVICH, T. I., Academy of Sciences USSR, Tashkent, Uzbekistan - "The investigation of the cotton cellulose polydispersity according to the molecular weight" (Group not specified)

YENIKOLOPYAN, N. S., Institute of Chemical Physics of the Academy of Sciences USSR, Moscow - "On the kinetics of formaldehyde polymerization and polyformaldehyde degradation" (Group 3-B)

USMANOV, Kh. Yu.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 45575-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6027003 (A) SOURCE CODE: UR/0291/66/000/002/0040/0043

AUTHOR: Musayev, U. N.; Usmanov, Kh. U.; Babayev, T. M.

ORG: Tashkent State University im. V. I. Lenin (Tashkentskiy gosuniversitet)

33

B

TITLE: Synthesis and study of the properties of graft copolymers of polystyrene with methacrylic acid. Part 1: Effect of irradiation dose on the grafting

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 2, 1966, 40-43

TOPIC TAGS: graft copolymer, methacrylic acid, polystyrene

ABSTRACT: The purpose of the work was to find the optimum conditions for the synthesis of a graft copolymer of polystyrene (PS) and methacrylic acid (MAC) by the radiation method. Mixtures of the monomer and polymer in various weight ratios were placed in glass ampoules and irradiated with Co^{60} γ rays in the presence of air and at 10^{-3} mm Hg, and the copolymer was separated by extracting the homopolymers with benzene and methanol. It is shown that the synthesis takes place at low irradiation doses. As the dose increases, the effectiveness of the grafting diminishes. The optimum conditions of the synthesis were found to be: an irradiction dose of about 250,000 r, a source power of 100 r/sec, and a 50:50 ratio of polymer to monomer without solvents. Orig. art. has: 1 figure and 3 tables.

SUB CODE: 07/ SUBM DATE: 10Mar65/ ORIG REF: 004

Card 1/1 LC

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

KHADZHIYEV, K.Kh.; USMANOV, M.K.

Quantitative determination of free amino acids in feces by the paper chromatography method. Lab. delo no. 8:459-462 '64. (MIRA 17:12)

1. Kafedra biokhimii (zaveduyushchiy - prof. A.S.Volynskiy) i kafedra infektsionnykh bolezney (zaveduyushchiy - prof. T.Kh. Nadzhmitdinov) lechebnogo fakul'teta Tashkentskogo meditsinskogo instituta.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USSR/Cultivated Plants - Fruits. Berries. M-6

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30061

Author : Usmanov, M.U.

Inst : The Fruit and Berry Institute of the Academy of Sciences Uzbek SSR; Tashkent Agricultural Institute.

Title : Experiments in the Artivicial Pollination of Grape Varieties with Functional Female Flowers.

Orig Pub : Dokl. AN UzSSR, 1956, No 12, 39-42 (Res. Uzbek)

Abstract : In the gardens of the Fruit and Berry Institute of the Academy of Sciences Uzbek SSR and the Tashkent Agricultural Institute in 1949-1950 one pollinated varieties (Nimrang, Katta-Kurgan and Charas) with functional female flowers with the pollen of individual varieties and a mixture of the pollens of 9 varieties. In the same grape varieties having functional female flowers, there was a

Card 1/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USSR/Cultivated Plants - Fruits. Berries. M-6

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30061

great variation in the amount of normally developing berries in relation to the pollinating variety, when the flowers were pollinated with pollen from diverse monoecious varieties. The amount of normally developing berries in the presence of pollination of diverse grape varieties having functional female flowers with the pollen of one and the same monoecious variety was also heterogeneous. Pollination with the mixture, in any event, yielded better results than with the pollen of even the best pollinating varieties. The selective capacity in fecundation grarantees the best bunches of grapes.

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, N. K.

Application of Generalized Analytic Functions to the Theory of Shells Without Moments

Izv. AN Latv. SSR, No 5, 1954, pp 115-132

With the aid of what the author terms the theory of generalized analytical functions he reduces the boundary value problem of the momentless theory of shells to a singular integral equation. Similar results had been presented by Vekua in Matem. sb., Vol 31, No 2, 1952, pp 217-314. The abstractor, S. A. Tersenov, notes that the present article is marred by misprints. (RZhMat, No 5, 1955)

SO: Sum. No 639, 2 Sep 55

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, N.U., Cand Med Sci -- (diss) "The Treatment of Intensive Suppurative Diseases by Means of Furacillin," Stalinabad, 1960. (Stalinabad State Medical Institute imeni Abuali Ibn-Sino); 200 copies; price not given. (KL, 24-60, 136)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, N.U.

Treatment of acute suppurative diseases with furacilin. Zdrav.Tadzh. 7 no.1:29-32 Ja-F '60. (MIRA 13:5)

1. Iz kafedry obshchey khirurgii (zav. - dotsent K.T. Tadzhiyev) Stalinabadskogo meditsinstituta imeni Abuali ibni Sino.
(FURACILIN) (SUPPURATION)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, N.U.

Treatment of acute suppurative diseases with furacillin.
Khirurgiia 37 no.3:67-72 Mr '61. (MIRA 14:3)

1. Iz kafedry obshchey khirurgii (zav. - dotsent K.T. Tadzhiyev) Stalinabadskogo meditsinskogo instituta imeni Avitsenny.
(FURALDEHYDE)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

TADZHIYEV, K.T.; USMANOV, N.U.

Treatment of chronic pleural empyema by myoplasty. Grudn. khir. 5 no.3:58-59 My-Je'63 (MIRA 17:1)

1. Iz kafedry obshchey khirurgii (zav. - prof. K.T. Tadzhiyev) Meditsinskogo instituta imeni Abu-Ali Ibn -Siny (Avitsenny), Dushanbe. Adres avtorov: g. Dushanbe, ul. Lenina, d. 159, Meditsinskiy institut.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

TADZHIYEV, K.T.; KAS'YANOVA, N.V.; USMANOV, N.U.

Some problems of the treatment of thyrotoxicosis. Zdrav.Tadzh. 10.no.1:32-36 '63. (MIRA 16:7)

1. Iz kafedry obshchey khirurgii (zav.-prof. K.T.Tadzhiyev) Tadzhikskogo meditsinskogo instituta imeni Abuali ibni Sino.
(THYROID GLAND--DISEASES)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

L 58894-65 EWA(h)/EWT(1)/EWT(m)/EWP(b)/EWP(t) Peb IJP(c) JD

ACCESSION NR: AP5019012 UR/0286/65/000/012/0038/0038
621.382.235

AUTHOR: Mogilevskiy, B. M.; Usmanov, O.

TITLE: A high temperature semiconductor rectifier. Class 21, No. 171924

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 38

TOPIC TAGS: semiconductor rectifier, semiconductor diode

ABSTRACT: This Author's Certificate introduces a high temperature semiconductor rectifier made in the form of a rod of semiconductor material with a square cross [illegible] electrode on [illegible] and a platinum electrode on the other [illegible] rectifier is made [illegible]

ASSOCIATION: none

SUBMITTED: 10Jan64 ENCL: 01 SUB CODE: EC, SS

NO REF SOV: 000 OTHER: 000

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, P.D.

Influence of temperature on the nature of the change in the cytogenetic effects of radiation. Dokl. AN Tadzh. SSR 6 no.2:34-37 '63. (MIRA 17:4)

1. Otdel fiziologii i biofiziki rasteniy AN Tadzhikskoy SSR. Predstavleno akademikom AN Tadzhikskoy SSR K.T.Poroshinym.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

NASYROV, Yu.S., otv. red.; SAPOZHNIKOV, D.I., red.; PROKOF'YEV, A.A., red.; ZALENSKIY, O.V., red.; MAKSUMOV, A.N., red.; KARIMOV, Kh.Kh., red.; LOGINOV, M.A., red.; GILLER, Yu.Ye., red.; USMANOV, P.D., red.; KAS'YANENKO, A.G., red.; RAKHMANINA, K.F., red.

[Contribution of plant physiology to agriculture; problems of photosynthesis and metabolism] Fiziologiia rastenii - sel'skomu khoziaistvu; voprosy fotosinteza i obmena veshchestv. Dushanbe, Izd-vo AN Tadzhikskoi SSR, 1965. 131 p. (MIRA 18:4)

1. Akademiya nauk Tadzhikskoy SSR, Dushanbe. Institut fiziologii i biofiziki rastenii.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, R., starshiy nauchnyy sotrudnik

Weather ships. Znan.sila 35 no.5:42 My '60. (MIRA 13:7)

1. Ekspeditsiya na pervom sovetskom korable pogody "A.I.Voyeykov."
(Meteorological stations)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, R., starshiy nauchnyy sotrudnik

Weather and space. Av. i kosm. 45 no.9:89-90 '62.
(MIRA 15:10)

1. TSentral'nyy institut prognozov.

(Astronautics in meteorology)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

RUSTAMOV, Kh.; YULDASHEV, A.; USMANOV, R.

Hydrolysis of ethyl iodide in the presence of anion exchangers.
Uzb. khim. zhur. no. 2:23-26 '60. (MIRA 14:1)

1. Sredneaziatskiy politekhnicheskiy institut.
(Ethane) (Ion exchange)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

RUSTAMOV, Kh.R.; USMANOV, R.

Condensation of furfurole with nitromethane in the presence of anion exchangers. Uzb. khim. zhur. 7 no.4:44-46 '63. (MIRA 16:10)

1. Tashkentskiy politekhnicheskiy institut.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, R.F.

Causes for the Formation of the Planetary Frontal Zone (Jet Stream) and the Subtropic Belt of High Pressure Meteorol. i gidrologiya, No 3, 1953, pp 41-45

Utilizing the charts of Simpson (for the radiational balance of the Earth) and of Brooks (for the mean topography) for the isobaric surfaces over the terrestrial globe, the author arrives at the conclusion that the median line of the planetary frontal zone (the jet stream) in the southern hemisphere coincides with the line of null values of the general influx of heat into the atomsphere. Along this line is observed the intense process of frontogenesis both advective and also nonadvective. The zonal axis of the subtropic "belt" of high pressure also closely coincides with the indicated lines; this means that the subtropic belt of high pressure is found under the zone of frontogenesis, which favors the preservation of the belt of high pressure in the course of the entire year.

RZhGeol editor's comment: The author's assertion concerning the coincidence of the axis of the jet stream with the line of null thermal balance quantitatively is in no way correct (the charts of the radiational balance of Simpson do not give any basis for this; the author adduces no factual data on the thermal balance). The causes for the formation of the subtropic zone of high pressure under the jet stream remain unexplained. (RZhGeol, No 5, 1954)

SO: Sum. No. 568, 6 Jul 55

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

USMANOV, R.F.

FEDOROV, Ye.Ye., professor; PREDTECHENSKIY, P.P.; BUCHINSKIY, I.Ye.; SEYANINOV, G.T., professor; BOSHNO, L.V.; ALISOV, B.P.; BIRYUKOV, N.N.; GAL'TSOV, A.P.; GRIGOR'YEV, A.A., akademik; EYGENSON, M.S., professor; MURETOV, N.S.; KHROMOV, S.P.; BOGDANOV, P.N.; LEBEDEV, A.N.: SOKOLOV, V.N.; YANISHEVSKIY, Yu.D.; SAMOYLENKO, V.S.; USMANOV, R.F.; CHUBUKOV, L.A.; TROTSENKO, S.Ya.; VANGENGEYM, G.Ya.; SOKOLOV, I.F.; STYRO, B.I.; TEMNIKOVA, N.S.; ISAYEV, E.A.; DMITRIYEV, A.A.; MALYUGIN, Ye.A.; LIEDEMAA, Ye.K.; SAPOZHNIKOVA, S.A.; RAKIPOVA, L.R.; POKROVSKAYA, T.V.; BAGDASARYAN, A.B.; ORLOVA, V.V.; RUBINSHTEYN, Ye.S., professor; MILEVSKIY, V.Yu.; SHCHERBAKOVA, Ye.Ya.; BOCHKOV, A.P.; ANAPOL'SKAYA, L.Ye.; DUNAYEVA, A.V.; UTESHEV, A.S.; RUDNEVA, A.V.; RUDENKO, A.I.; ZOLOTAREV, M.A.; NERSESYAN, A.G.; MIKHAYLOV, A.N.; GAVRILOV, V.A.; TSOMAYA, T.I.; DEVYATKOVA, A.M.; ZAVARINA, M.V.; SHMETER, S.M.; BUDYKO, M.I., professor.

Discussion of the report (in the form of debates) [of the current state climatological research and methods of developing it]. Inform. sbor.GUGMS no.3/4:26-154 '54. (MLRA 8:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Fedorov). 2. Glavnaya geofizicheskaya observatoriya im. A.I.Voeykova (for Predtechenskiy, Lebedev, Yanishevskiy, Isayev, Rakipova, Pokrovskaya, Orlova, Rubinshteyn, Budyko, Shcherbakova, Anapol'skaya, Dunayeva, Rudneva, Gavrilov, Zavarina). 3. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (for Buchinskiy).

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4. Vsesoyuznyy institut rastenievodstva (for Selyaninov, Rudenko). 5. Bioklimaticheskaya stantsiya Kislovodsk (for Boshno). 6. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova (for Alisov). 7. Ministerstvo putey sobshcheniya SSSR (for Biryukov). 8. Institut geografii Akademii nauk SSSR (for Gal'tsov, Grigor'yev). 9. Geofizicheskaya komissiya Vsesoyuznogo geograficheskogo obshchestva (for Eygenson). 10. Ministerstvo elektrostantsiy i elektropromyshlennosti SSSR (for Muretov). 11. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova (for Khromov). 12. TSentral'nyy nauchno-issledovatel'skiy gidrometeorologicheskiy arkhiv (for Sokolov, Zolotarev). 13. Gosudarstvennyy okeanograficheskiy institut (for Samoylenko). 14. TSentral'nyy institut prognozov (for Usmanov, Sapozhnikova). 15. Institut geografii Akademii nauk SSSR i TSentral'nyy institut kurortologii (for Chubukov). 16. Nauchno-issledovatel'skiy institut imeni Sechenova, Yalta (for Trotsenko). 17. Arkticheskiy nauchno-issledovatel'skiy institut (for Vangengeym).

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18. Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (for Sokolov). 19. Institut geologii i geografii Akademii nauk Litovskoy SSR (for Styro). 20. Rostovskoe upravlenie gidrometsluzhby (for Temnikova). 21. Morskoy gidrofizicheskiy Institut Akademii nauk SSSR (for Dmitriyev). 22. Vsesoyuznyy institut rasteniyevodstva (for Malyugin). 23. Akademiya nauk Estonskoy SSR (for Liedemaa). 24. Akademiya nauk Armyanskoy SSR (for Bagdasaryan). 25. Leningradskiy gidrometeorologicheskiy institut (for Milevskiy).

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26. Gosudarstvennyy gidrologicheskiy institut (for Bochkov). 27. Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (for Uteshev). 28. Upravlenie gidrometsluzhby Armyanskoy SSR (for Nersesyan). 29. Leningradskoye upravleniye gidrometsluzhby (for Mikhaylov, Devyatkova). 30. Tbilisskiy gosudarstvennyy universitet (for Tsomaya). 31. TSentral'naya aerologicheskaya observatoriya (for Shmeter).
(Climatology)

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USMANOV, R.F. (Moskva)

Role of planetary frontal zones in the system of total atmospheric circulation. Uch.zap.Kaz.un. 115 no.10:141-142 '55. (MLRA 10:5)
(Atmosphere)

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BROUNOV, Petr Ivanovich; USMANOV, R.F., redaktor-sostavitel'; VITEL'S, L.A., otvetstvennyy red.; PISAREVSKAYA, V.D., red.; BRAYNINA, M.I., tekhn. red.

[Selected works] Izbrannye sochineniia. Leningrad, Gidrometeor. izd-vo. Vol.1. [Synoptic meteorology] Sinopticheskaia meteorologiia. 1957. 302 p. (MIRA 11:2)
(Meteorology)

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USMANOV, R. F.

"Vertical Profile of the Atmosphere Over the Indian Ocean,"
by R. F. Usmanov, Meteorologiya i Gidrologiya, No 4, Apr 57,
pp 24-28

On 13 May 1956 the Soviet vessel Ob' left Antarctica on its return passage through the Indian Ocean from the Davis Sea to the Red Sea. On the way, oceanographic, meteorological, and aerological observations were made.

This brief article presents some results of these observations. Curves of average daily values of air temperature, water temperature, and atmospheric pressure on a meridianal passage of the Indian Ocean (13 May-12 June 1956), and curves of temperature and specific humidity for a given elevation of a radiosonde at Mirnyy on the morning of 13 May and near the equator on the morning of 3 June 1956 are given. A table gives the daily isobaric altitude (in decameters) for five millibar ranges and the daily altitude (in decameters) and temperature of the tropopause for the period 13 May-12 June 1956. (U)

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USMANOV, R F

3(5) p + PHASE I BOOK EXPLOITATION SOV/1637

Akademiya nauk SSSR. Kompleksnaya antarkticheskaya ekspeditsiya.

Opisaniye ekspeditsii na dizel'-elektrokhode "Ob', "1955-1956 gg. (Description of the Expedition Aboard the Diesel-electric Ship "Ob'" 1955-1956) Moscow, Izd-vo AN SSSR, 1958. 237 p. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Sovet po antarkticheskim issledovaniyam. Chief Ed.: I. P. Bardin, Academician; Resp. Ed. for this vol.: V.G. Kort, Professor, Chief, 1st trip of the Marine Antarctic Expedition, USSR Academy of Sciences; Editorial Board: A.A. Afanas'yev (Chief, Main Administration of the Northern Sea Route, Sea Route, MMF),V.G. Bakayev (Minister of Sea Transport), V. F. Burkhanov (Deputy Chief, Main Administration of the Northern Sea Route), A.A. Zolotukhin (Chief, Main Administration of the

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001858130011-3

Description of the Expedition SOV/1637

Hydrometeorological Service), V.G. Kort (Professor, Chief, 1st trip of the Marine Antarctic Expedition, USSR Academy of Sciences), M.M. Somov (Chief, Combined Antarctic Expedition, USSR Academy of Sciences), V. V. Frolov (Director, Arctic Scientific Research Institute, Main Administration of the Northern Sea Route), D. I. Shcherbakov (Chairman, Council for Antarctic Research, USSR Academy of Sciences; Eds. of Publishing House: L.I. Sprygina, and B. S. Shokhet; Tech. Ed.: P. S. Kashina.

PURPOSE: This volume is intended for the general reader.

COVERAGE: The Report of the Combined Antarctic Expedition of the AN SSSR, headed by N. N. Somov, contains an account of the work on the first trip of the Diesel-electric ship "Ob'" to the Antarctic and the aims and problems involved, including the establishment of an observatory at Mirnyy. A major part of the book is devoted to scientific research in aerology, meteorology and actinometry,

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