ASKARKHODZHAYEVA, N. (Moskva)

Effect of overheating on the course and results of treatment of experimental streptococcal focal infection in rats. Pat. fiziol. i eksp. terap. 7 no.6:34-37 N-D '63. (MIRA 17:7)

1. Iz otdela khimioterapii (zav. - prof. A.M. Chernykh) Instituta farmakologii i khimioterapii (direktor - deystvitel'nyy chlen AMN SSSR prof. V.V. Zakusov) AMN SSSR.

ASKARKHODZHAYEVA, N.; PROKHOROVA, A.M.

Course of experimental focal streptococcal infection and bicillin treatment of it in white mice exposed to hyperthermia. Pathomorphological studies. Antibiotiki 9 no.4:355-360 Ap '64.

(MIRA 19:1)

1. Otdel khimioterapii (zav. - prof. A.M. Chernukh) Instituta farmakologii i khimioterapii AMN SSSR, Moskva.

ASKAROV, A. A.

29278 Porazheniye pecheni pri khronicheskikh batsillyar-nykh yazvennykh kolitakh. V sb: Nauch. sessiya Akad. nauk UzSSR 24–28 yanv. 1949 g. Doklady Med. sektsii. Tashkent, 1949, s. 52-64

SO: Letopsi' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

MILENKOV, S. M.; ASKAROV, A. A. (deystvitel'nyy chlen)

"Certain Peculiarities in the Structure of the Receptor of the Solar Plexus in Man, and Its Relation to Blood Vessels," Dokl. AN UzSSR, No. 12, pp. 43-47, 1949

1. Chair of Histology, Tashkent Medical Institute (for Milenkov)
2. Academy of Sciences UzSSR (for Askarov)

ASKAROV, A. A.

29261 Lecheniye yazvennoy bolezni sliz'yu salepa. V. sb: Nauch. sessiya Akad. Nauk UzSSR 24-28 yanv. 1949 g. Doklady Med. sektsii. Tashkent, 1949, s. 97-113

SO: Letopsi' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

ASKAROV, A. A.

"Atypical Forms of Dysentery," Voprosy Krayevoy Patologii (Questions of Pathology in the Kray), Tashkent, Vol. 1., 1952, pp 24-42.

ASKAROV, A.A.; FINKEL', A.A.

Gastritis and the tonic function of the stomach. Izv. AN Uz. SSR. Ser. med. no.1:45-50 '58. (MIRA 12:7)

1.Institut krayevoy meditsiny AN UzSSR.
(STOMACH--DISEASES)

ASKAROV, A.A.; YAKHONTOVA, Yu.V.

Biomycin treatment of right-sided colitis. Izv.AN Uz.SSR. Ser.med. no.4:5-9 '58. (MIRA 12:5)

1. Tashkentskiy gosudarstvennyy meditsinskiy institut.
(COLITIS) (AUREOMYCIN)

ASKAROV, A.A.; BLANFEL'D, A.Ye.

Changes in the psychological condition of patients with diseases of the large intestine. Izv.AN Uz.SSR.Ser.med. no.4:67-76 '58. (MIRA 12:5)

1. Tashkentskiy gosudarstvennyy meditsinskiy institut.
(COLITIS--PSYCHOSOMATIC ASPECTS)

ASKAROV, A.A., prof.; YAKHONTOVA, Yu.V., kand.med.nauk; PARPIYEV, K.M.

Clinical aspects of right-sided colitis. Med.zhur.Uzb. no.8-9: 18-23 Ag-S '58. (MIRA 13:6)

1. Iz 2-y terapevticheskoy kliniki Tashkentskogo gosudarstvennogo meditsinskogo instituta.
(COLITIS)

ASKAROV, A.A., prof.; FINKEL', A.A., dotsent

Symptomatology of stomach diseases in Abu Ibn Sina. Med.zhur. Uzb. no.8-9:95-98 Ag-S '58. (MIRA 13:6)

1. Chlen-korrespondent AN UzSSR (for Askarov)
(STOMACH--DISEASES) (AVICENNA, 980?-1057)

ASKAROV, A.A.; YAKHONTOV, Yu.V.; IL'KHAMOV, A.I.

Diet of national Uzbek dishes in the treatment of gastritis with secretory insufficiency. Izv.AN Uz.SSR.Ser.med. no.5:3-8 '59. (MIRA 13:3)

1. Tashkentskiy gosudarstvennyy meditsinskiy institut.
(DIET IN DISEASE) (STOMACH--INFLAMMATION)
(COOKERY, UZBEK)

ASKAROV, A.A.; FINKEL, A.A.

Terminal ileitis in insufficiency of Bauhin's valve in chronic colitis patients. Izv. AN Uz.SSR. Ser.med. no.6:49-54 '59. (MIRA 13:4)

1. Institut krayevoy meditsiny AN UzSSR.
(ILEUM--DISEASES) (COLITIS)

ABU ALI IBN SINA (AVICENNA) [deceased]; KARIMOV, U.I., kand.filolog. nauk [translator]; TERNOVSKIY, V.N., prof., akademik, otv.red.; ARENDS, A.K., kand.filolog.nauk, otv.red.; PETROV, B.D., kand.med. nauk, red.; AZIMDZHANOVA, S.A., kand.istor.nauk, red.; ASKAROV, A.A., red.; DZHUMAYEV, V.K., kand.med.nauk, red.; KARASIK, V.M., red.; RASULEV, A., starshiy nauchnyy sotrudnik, red.; MIL'MAN, Z.A., red.; BABAKHANOVA, A.G., tekhn.red.

[Canon of medical science] Kanon vrachebnoi nauki. Tashkent, Izd-vo Akad.nauk Uzbekskoi SSR. Book 5. 1960. 329 p. (MIRA 13:12)

1. Zaveduyushchiy otdelom nauchnogo opisaniya i katalogizatsii rukopisey Instituta vostokovedeniya Akademii nauk UzSSR (for Karimov). 2. Akademiya meditsinskikh nauk SSSR (for Ternovskiy). 3. Zaveduyushchiy otdelom izucheniya i publikatsii rukopisnykh pamyatnikov Instituta vostokovedeniya AN UzSSR (for Arends). 4. Zaveduyushchiy kafedroy istorii meditsiny Moskovskogo meditsinskogo instituta (for Petrov). 5. Chlen-korrespondent AN UzSSR (for Askarov). 6. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Karasik). 7. Institut vostokovedeniya AN UzSSR (for Rasulev).

(MEDICINE, ARABIC)

ABU ALI IBN SINA (AVICENNA) [deceased]; SAL'YE, M.A., kand.filol.nauk, starshiy nauchnyy sotrudnik [translator]; TERNOVSKIY, V.N., prof., akademik, otv.red.; PETROV, B.D., kand.med.nauk, red.; ASKAROV, A.A., red.; KARIMOV, U.I., kand.filol.nauk, red.; AZIMDZHANOVA, S.A., kand.istor.nauk, red.; ARENDS, A.K., kand. filol.nauk, red.; DZHUMAYEV, V.K., kand.med.nauk; RASULEV, A., starshiy nauchnyy sotrudnik; MIL'MAN, Z.A., red.; GOR'KOVAYA, Z.P., tekhn.red.

[Canon of medical science] Kanon vrachebnoi nauki. Tashkent, Izd-vo Akad.nauk Uzbekskoi SSR. Book 4. 1960. 767 p. (MIRA 13:12)

1. Institut vostokovedeniya AN UzSSR (for Sal'ye). 2. Akademiya meditsinskikh nauk SSSR (for Ternovskiy). 3. Zaveduyushchiy kafedroy istorii meditsiny Moskovskogo meditsinskogo instituta (for Petrov). 4. Zaveduyushchiy laboratoriyey Instituta krayevoy meditsiny, chlen-korrespondent AN UzSSR (for Askarov).

(MEDICINE, ARABIC)

MAKHKAMOV, G.M.; POGOSYANTS, A.I.; SVINKIN, S.N.; ASKAROV, A.A., zasl. deyatel' nauki, prof., red.; CHERNYAVSKAYA, A.B., red.; GOR'KOVAYA, Z.P., tekhn. red.

[Uzbekistan flat bread; technology and bakery formulas]Uzbekskie lepeshki; tekhnologiia i retseptura. Tashkent, Izd-vo AN UzSSR 1961. 68 p. (MIRA 15:10)

1. Chlen-korrespondent Akademii nauk Uzbekskoy SSR (for Askarov).

(Uzbekistan--Bread)

ASKAROV, A.A., prof.

Urgent problems in gastrointestinal pathology. Med. zhur. Uzb. no.4:3-7 Ap '61. (MIRA 14:5)
(UZBEKISTAN—DIGESTIVE ORGANS—DISEASES)

ASKAROV, A.A., prof.

Pathogenesis of amebiasis. Med. zhur. Uzb. no.8:23-30 Ag '61.
(UZBEKISTAN--AMEBIASIS) (MIRA 15:1)

ASKAROV, A.I., prof.; SULEYMANOVA, G.S., prof.; ASKAROV, U.A., kand. med. nauk

Dynamics of clinical, biochemical and cytological changes in the liver in heliotropic toxicosis treated by dry plasma transfusions. Med. zhur. Uzb. no.9:8-12 S '62.

(MIRA 17:2)

1. Iz kafedry fakul'tetskoy terapii Tashkentskogo gosudarstvennogo meditsinskogo instituta, Uzbekskogo instituta gematologii i perelivaniya krovi i Instituta krayevoy eksperimental'noy meditsiny AN UzSSR.

[illegible]CKAROV, A.A.; [illegible]'KULOV, A.I.; YU[illegible]ROVA, E.

Secretory function of the stomach in healthy people in a hot climate. Trudy Inst. klinich. eksper. med. no.5:61-65 '63.
(MIR 17:6)

ASKAROV, A.A., zasl. deyatel' nauki, prof.; ZAKHIDOV, Kh.Z., doktor med. nauk, prof.; DALIMOV, S.A., dots., glav. red.; KADYROV, A.A., kand. med. nauk, zam. glav. red.

[Latin-Uzbek-Russian dictionary of normal anatomy] Latino-uzbeksko-russkii slovar' po normal'noi anatomii. Tashkent, Gos.med.izd-vo Uzb.SSR, 1964. 265 p. (MIRA 17:11)

1. Chlen-korrespondent AN UzbekSSR (for Askarov).

TYULENEV, A.M.; BUZUNOV, I.A.; ASKAROV, A.A., kand. tekhn. nauk; OSTANKOV, A.G., kand. tekhn. nauk; IVANOV, A.I., kand. tekhn. nauk [deceased]; KHORST, G.O., kand. tekhn. nauk; BUTYRIN, M.V., kand. tekhn. nauk; PEREVERZEV, S.K., kand. tekhn. nauk; KRIVONOSOVA, N.A., red.

[Manual for irrigation engineers] Spravochnik gidrotekhnika-irrigatora. Tashkent, Uzbekistan. Pt.2. 1964. 328 p. (MIRA 18:10)

L 26350-66 EWT(1) RO

ACC NR: AP6017770 SOURCE CODE: UR/0242/65/000/003/0024/0025

AUTHOR: Aykarov, A. A. 32 B

ORG: Psychiatric Department, Andizhan Institute of Medicine (Kafedra psikhiatrii Andizhanskogo meditsinskogo instituta)

TITLE: Mental disorders in mercaptophos poisoning (preliminary report)

SOURCE: Meditsinskiy zhurnal, no. 3, 1965, 24-25

TOPIC TAGS: psychoneurotic disorder, organic phosphorus compound, poison effect, toxicology, cerebral cortex

ABSTRACT: This organophosphorus compound enters the human body through the respiratory tract, mucosa, skin, and alimentary canal. Since it has cumulative effects, it is dangerous even in small doses. Early symptoms of mercaptophos poisoning include general weakness, headache, vertigo, nausea, vomiting, adynamia, and lowering of blood pressure. In time some develop pain in the epigastrium, hidrosis, copious salivation, and spasms in the extremities. In severe cases there is a loss of consciousness and respiratory standstill, which results in death. Four persons studied by the author were tractor drivers who sprayed mercaptophos for 3 months without taking the necessary precautions such as putting on a mask, wearing special clothing, and washing their hands after work. They sought medical

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ACC NR: AP6017770

help only after a general deterioration in health - weakness, ready fatigability, headache, vertigo, pain in all the joints, poor sleep, and nightmares. Complaints included absent-mindedness, decreased efficiency, forgetfulness of recent happenings, anxiety, weepiness, extreme irritability, and suicide wishes. Treatment relieved most of the physical symptoms, but had no effect on the loss of memory, weakness, and lack of initiative. The clinical manifestations of mercaptophos poisoning stem from disruption of the connections between the higher regulatory functions of the central nervous systems. The various neurodynamic disorders in the cerebral cortex are the pathophysiological basis of the asthenic syndrome. Depending on the intensity and dynamics of this syndrome, it is reasonable to assume that active internal inhibition is weakened in some cases, whereas excitation is weakened in others. /JPRS/

SUB CODE: 06 / SUBM DATE: 18Sep64

Card 2/2 BLG

ASKAROV, F.A.; BIGAYEVA, A.R.

Geological time of magmatic processes in the Kyzyl Kum. Uzb. geol. zhur. 9 no.4:54-63 '65. (MIRA 18:9)

1. Institut geologii i geofiziki im. Kh.M.Abdullayeva AN UzSSR.

ASKARO[illegible], Kh. A.

ASKARO[illegible], Kh. A. - "Structural properties of forest areas in the region of the North-Tashkent Canal." Tashkent, 1955. Acad Sci Uzbek SSR, Inst of Buildings. (Dissertations for degree of Candidate of Technical Sciences.)

So: Knizhnaya letopis', No 46. 26 November 1955. Moscow.

ASKAROV, Kh. A.

Structural properties of soils of the region of the Tyuya-Buguz Reservoir. Dokl.AN Uz.SSR no.11:45-48 '58. (MIRA 11:12)

1. Institut vodnykh problem i gidrotekhniki AN UzSSR. Predstavlono akademikom AN UzSSR V.V. Poslavskim.
(Angren Valley--Soil mechanics)

ROZHDESTVENSKIY, Ye.D.; ASKAROV, Kh.A.

Effect of the qualitative composition of colloid-containing loess soils on sagging. Dokl. AN Uz.SSR no.2:35-37 '59. (MIRA 12:4)

1. Institut vodnykh problem i gidrotekhniki AN UzSSR. Predstavleno akademikom AN UzSSR A.S. Sadykovym.
(Soil mechanics) (Loess)

ASKAROV, Kh.A.; URMANOVA, G.L.

Settling characteristics of soils in the central part of the Golodnaya Steppe. Mat. po proiev. sil. Uzb. no.15:80-89 '60. (MIRA 14:8)

1. Institut vodnykh problem i gidrotekhniki AN Uzbekskoy SSR.
(Golodnaya Steppe—Soil mechanics)

ROZHDESTVENSKIY, Ye.D.; ASKAROV, Kh.A.; URMANOVA, G.L.; SHEYKHET, I.M.

Deep compaction of soils as a seepage preventing measure in canals. Mat. po proizv. sil. Uzb. no.15:214-220 '60. (MIRA 14:8)

1. Institut vodnykh problem i gidrotekhniki AN Uzbekskoy SSR.
(Golodnaya Steppe--Irrigation canals and flumes)
(Soil stabilization)

ASKAROV, M. A.

ASKAROV, M. A.

Optical Measurements

Application of the method of luminous cross section in measuring the profile of the cutter socket. Stan. i instr. 23 no. 5, 1952.

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

ASKAROV, M. A., MEGR

Dissertation: "On the Cooling of Cutters in Machining Hard and Alloy Steels." Cand Tech Sci, Georgian Polytechnic Inst, 10 May 54. (Zarya Vostoka, Tbilisi, 16 Apr 54)

SO: SUM 243, 19 Oct 1954

AUTHOR: Askarov, M.A.

TITLE: The Use of Cooling and Lubricating Cutting Liquid in Turning Heat-Treated and Alloy Steels. (Primeneniye okhlazhdayushche-smazyvayushchey zhidkosti pri tochenii tverdykh i legirovannykh staley)

PERIODICAL: Stanki i Instrument, 1957, No. 1. pp. 31-33 (U.S.S.R.).

ABSTRACT: A flat, powerful jet of coolant directed along the cutting edge can increase the life of a tool. A supply of 1.5 litres/min at the rate of 375 m/min is effective. The transfer of heat is increased manifold when bubble type boiling takes place in a layer of liquid. For this the front flank temperature should not exceed 125°C. Graphs for tool wear are shown for different conditions of cutting. The addition of oleic acid to the coolant (1%) substantially improves cooling, and reduces tool wear by about 30%, in cutting heat-treated and stainless steel. The effect is absent in cutting low carbon steel. The explanation lies in the lubricating effect, which is compensated in low carbon steel by the increased strength.

Card 1/2

TITLE: The Use of Cooling and Lubricating Cutting Liquid in Turning Heat-Treated and Alloy Steels. (Primeneniye okhlazhdayushche-smazyvayushchey zhidkosti pri tochenii tverdykh i legirovannykh staley.)

94

11 illustrations, including 2 photographs and 9 graphs, 1 Soviet reference.

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Card 2/2

ABKAROV, M. A., FEDOTOVA, O.Y., and LOSEV, Y.P.

"Symmetric diaminodiarylmethanes and polyamides," a paper presented at the 9th Congress on the Chemistry and Physics of High Polymers, 28 Jan-2 Feb 57, Moscow, Moscow Polytechnic Inst.

B-3,084,395

ASKAROV, M.A.

Name	:	ASKAROV, M. A.
Dissertation	:	Synthesis and study of arylaliphatic polyamides
Degree	:	Cand Tech Sci
Defended At	:	Min Higher Education USSR, Moscow Order of Lenin Chemicotechnological Inst imeni D. I. Mendeleyev
Publication Date, Place	:	1956, Moscow
Source	:	Knizhnaya Letopis' No 6, 1957

ASKAROV, M.A.

Synthesis and investigation of the [illegible] aliphatic polyamides. I. P. Losev, O. Ya. Fedotova, and [illegible] A. Askarov. Trudy Moskov. Khim.-Tekhnol. Inst. im. D. I. Mendeleeva 1957, No. 20, 75-8[illegible] (1957). — The condensation of o-toluidine and N-monoalkyltoluidines with HCHO in an acid medium [illegible] led to 7 sym. diamides in 70-90% yields. The N-alkyl-o-toluidines (I) were prepd. by the action of the alkyl bromide on a large excess of o-toluidine in an autoclave under pressure. N-Ethyltoluidine (168 g.) was dissolved in 90 ml. 36% HCl and 200 ml. H_2O, cooled to 13°, [illegible] added slowly [illegible] then [illegible] crystn. of [illegible] phenylmethane [illegible] [illegible] diamino-3,3'-dimethyldi[illegible] Other diamines were similarly prepd. but purified by vacuum distn. at [illegible] mm. [illegible] diamino-3,3'-dimethyldiphenylmethane, m. 158°, 86% yield; N,N'-di-Et analog, m. 63°, b_4 2[illegible]°, [illegible]; N,N'-di-Pr analog, m. 54°, b_4 276, 38% yield; N,N'-di-Bu, m. 62°, b_4 299°, 82%, mol. wt. 311; [illegible] analog, —, b_4 298°, 79%, 354; diisoamyl [illegible] 304°, 80%, 393; dioctyl analog, —, b_4 31[illegible]°, 81%, 45[illegible]; di-n-hexyl analog, —, [illegible]. The polyamides were obtained by heating a mixt. of the aromatic diamine and adipic acid in an inert gas on a Wood metal bath at 140-280° about 6 hrs. The course of the reaction was followed by acid no., m.p. of product, viscosity, and soly. in methanol and in tricresol. The polymers were repptd. by addn. of water to their alc. or tricresolic solns.: poly(3,3'-dimethyldiphenylene [illegible]), m. 320°, mol. wt. 8000-1[illegible] cresol; N,N'-diethylamide analog, 79°, [illegible] to 45 in methanol; N,N'-dipropylamide analog, [illegible] 6000, 10.2; N,N'-dibutylamide analog, 59-6[illegible]; N,N'-diisoamylamide analog, [illegible]; N,N'-di-n-hexylamide analog, 45-48° [illegible]; [illegible] analog, 40° [illegible]. — Replacement of H by alkyl and increase in the length of the N-alkyl groups strongly lowers the m.p. of the diamines, especially for odd nos. of C atoms in the alkyl substituent. Polycondensation of aromatic diamines with adipic acid leads to polyamides, mol. wt. 2000-18,000, sol. in org. solvents. The N,N'-dialkyl substituents in 4,4'-diamino-3,3'-dimethyldiphenylmethane strongly decreases the reactivity of the substances. The relation of phys. properties such as [illegible] viscosity, and mol. wt. of the polyamides [illegible] [illegible] and of other properties such as [illegible] of the polyamides with respect to [illegible] mol. wt., the differential and integral distribution curves, etc., are shown in 4 tables and 7 figures. P. H. R.

Distr: 4E4c(j)/4E4j

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"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000102330009-3

Condensation of aniline, o-toluidine and their N-monoalkyl derivatives with formaldehyde in acid medium. Preparation of symmetric diaminodiarylmethanes. [illegible] Ya. Fedotova, M. A. Askarov, and I. I. [illegible] (D. I. Mendeleev Chem. Technol. Inst., Moscow). Zhur. Obshchei Khim. 27, 75-80 (1957).—The best concn. of HCl in the condensation is 11% HCl and the best temp. is 48°. The yield remains constant after some [illegible] hrs. To 30 ml. 36% HCl, 200 ml. H_2O, and 150 g. o-MeC$_6H_4$NHEt at 13-15° was added 40.3 ml. 37% formalin and the mixt. heated 4 hrs. at about 50° yielding [4,4-Me(EtNH)C$_6H_3$]$_2$CH$_2$, 90%, m. 93°, b_1 285°. Similarly were obtained: 59% (p-H_2NC$_6H_4$)$_2$CH$_2$, m. 89°, b_1 242°; 70% [4-EtNHC$_6H_4$]$_2$CH$_2$, b_1 252°; 85% [3,4-Me(H_2N)C$_6H_3$]$_2$CH$_2$, m. 155°; 80% [3,4-Me(PrNH)C$_6H_3$]$_2$CH$_2$, m. 54°, b_1 [illegible] 78°; [illegible] [3,4-(BuNH)C$_6H_3$]$_2$CH$_2$, m. 82°, b_1 209° [illegible] C$_6H_3$]$_2$CH$_2$, b_1 298°; 80% [3,4-Me([illegible] 304°; 81% [3,4-Me(C$_6H_{11}$NH)C$_6H_3$]$_2$CH$_2$ [illegible]

G. M. Kosolapoff

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000102330009-3"

5(3,4)

AUTHORS: Fedotova, O. Ya., Askarov, M. A., Sedov, L. N.

SOV/153-58-4-17/22

TITLE: Dependence of Polyamides Melting Temperature on Their Structure (Zavisimost' temperatury plavleniya poliamidov ot ikh stroyeniya)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 4, pp 106 - 111 (USSR)

ABSTRACT: The physical properties of the polyamides are, as it is known, determined by the chemical structure of the macromolecules, by the polar groups contained in them, the number of the atoms in the member of the chain, and the presence and arrangement of the heteroatoms in the polymer chain. Thus, the melting temperature of the polyamides depends on the structure of the initial substances (Refs 1-3). The formula $y = 7x + 110$ (1) establishes a connection between the melting temperature of the even polyamides (with an even number of methylene groups in the elementary members) and the number of hydrogen bindings in the basic member, where y denotes the melting temperature, and x the number of hydrogen bonds

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in mole per cent. However, the melting temperatures calculated according to the formula (1) do not always agree with those experimentally found. The authors regarded it as possible to prove the dependence of the melting temperatures of the even aliphatic polyamides on the number of the methylene groups in a basic member of the chain. To determine the influence exerted by each pair of methylene groups in the aliphatic chain the differences of the experimentally found melting temperatures of various pairs of even polyamides were calculated. Therefrom the mean value q_m was calculated as arithmetic mean from several values. q_m turned out to be 22.2, i.e. the increase in number of the methylene groups by two decreases the melting temperature by 22.2°. From the experimental data the authors derived the equation $T = 375 - 22.2q = 375 - 11.1\ n$ (2), where T denotes the melting temperature in °C, q the number of methylene groups pairs, n the number of methylene groups in a main member. The same expression can be determined

graphically. The data in table 1 show a better agreement of the melting temperatures calculated according to formula (2) with the experimental data, than those of formula (1). In a similar way the formula

$T = 214 - \frac{73}{x}$ (3a) is suggested for the polyurethanes.

The melting temperature of all aliphatic and aryl aliphatic polyamides with an even number of methylene groups in the aliphatic part of the elementary member and with a linear structure can be expressed by the formula $T = 375 - 11{,}1n + 20m^2$ (6), if there are no substituents; in this case m denotes the number of phenylene groups in the elementary member. Table 3 gives the melting temperatures of the aryl aliphatic polyamides obtained experimentally as well as by the calculation with formula (6). There are 1 figure, 3 tables, and 22 references, 11 of which are Soviet.

Dependence of Polyamides Melting Temperature on Their Structure

SOV/153-58-4-17/22

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im.D.I. Mendeleyeva (Moscow Chemical Technological Institute imeni D.I.Mendeleyev) Kafedra tekhnologii vysokomolekulyarnykh soyedineniy (Chair of the Technology of High-Molecular Compounds)

SUBMITTED: January 10, 1958

Card 4/4

ASKAROV, M.A.; KUCHKAREV, A.B.; CHEBOTAREVA, V.M.

Aryl aliphatic polyamides. Uzb.khim.zhur. no.5:63-67 '58.
(MIRA 12:2)

1. Sredneaziatskiy politekhnicheskiy institut.
(Amides)

FEDOTOVA, O.Ya.; ASKAROV, M.A.; KUCHKAREV, A.B.

Condensation of aromatic amines with formaldehyde in acid media and synthesis of symmetrical diaminodiarylmethanes. Dokl. AN Uz. SSR no.6:31-35 '58. (MIRA 11:9)

1. Sredneaziatskiy politekhnicheskiy institut. Predstavleno chlenom-korrespondentom AN UzSSR Kh. U. Usmanovym.
(Toluidine) (Formaldehyde) (Condensation products (Chemistry))

AUTHORS: Fedotova, O. Ya., Askarov, M. A., Sedov, L. N. 79-28-3-47/61

TITLE: The Synthesis and the Investigation of the Poly-3,3'-Dimethyldiphenylmethaneadipin-N,N'-Diethylamide (Sintez i issledovaniye poli-3,3'-dimetildifenilmetanadipin-N,N'-dietilamida)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 775-779 (USSR)

ABSTRACT: The authors wanted to investigate the effect of the substitution at nitrogen and to synthesize a polymer soluble in usual solvents. Therefore they used in this work one of the widely applied methods of the modification of polyamides, that is to say using an N-alkylated diamine as initial product. N.N'-diethyl-4,4'-diamino-3,3'-dimethyldiphenylmethane (reference 2) served for this, which enters reaction with adipic acid according to the given scheme. The final product of polycondensation was a low-melting, brittle, vitreous yellow product soluble in most of the usual solvents. Experiments made it possible to find the best conditions for the synthesis of the polyamide: the highest molecular polymer is obtained by carrying out the reaction in the flow of an inert gas for five

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The Synthesis and the Investigation of the Poly-3,3'-Dimethyl- 79-28-3-47/61
diphenylmethaneadipin-N,N'-Diethylamide

hours with a subsequent vacuum treatment (3-5 mm) at 240--2600 C. This made it possible to increase the molecular weight of the polyamide from 5500-6500 to 9050-9330. For the purpose of further increasing the molecular weight of the polyamide the effect of an excess diamine (0,5 to 10% above the equi-molecular weight) on the molecular weight and the melting point was examined. It turned out that with 2% excess diamine in the polycondensation process - in molten as well as in dissolved state - the molecular weight of the polyamide can be increased from 8500-8780 to 11130-12000 and the melting point can be raised from 46 to 78%. From the mentioned melting points and the data on the molecular weight can be seen (table 1) that an interdependence exists between them. The analytical expression of this dependence is graphically represented by the equation $Bp = \frac{M-4000}{96,2}$, Bp denoting the boiling point, M the molecular weight. In order to support the validity of this equation a great number of samples of the poly-3,3'-dimethyl-diphenylmethaneadipin-N,N'-diethyl-amide were synthesized, their melting points and molecular weights being determined.

Card 2/3

The Synthesis and the Investigation of the Poly-3,3'-Dimethyl- 79-28-3-47/61
diphenylmethaneadipin-N,N'-Diethylamide

The comparison of these molecular weights with the values of those calculated from the melting point completely proves the above mentioned rules (table 2). There are 1 figure, 4 tables, and 6 references, which are Soviet.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Chemical Technological Institute imeni D. I. Mendeleyev)

SUBMITTED: May 9, 1957

Card 3/3

PHASE I BOOK EXPLOITATION SOV/5436

Askarov, M. A.

Polimernyye materialy (Polymeric Materials) Tashkent, Gos. Izd-vo UzSSR, 1959. 70 p. 2,000 copies printed.

Ed.: S. M. Kogan; Tech. Ed.: A. B. Bakhtiyarov.

PURPOSE : This booklet is intended for the general reader interested in polymerization and the various types of polymers and polymer products.

COVERAGE: The booklet reviews the stages of polymerization and the composition, properties, and applications of various types of polymers and polymer products. Numerous Soviet scientists outstanding in polymer science are cited. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

3

5(3), 15(8)

AUTHORS: Losev, I. P., Fedotova, O. Ya., Askarov, M. A., Sedov, L. N.

SOV/156-58-1-41/54

TITLE: The Synthesis and Investigation of Mixed Polyamides on the Basis of Aromatic Diamines and Adipic Acid (Sintez i issledovaniye smeshannykh poliamidov na osnove aromaticheskikh diaminov i adipinovoy kisloty)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 1, pp 159 - 161 (USSR)

ABSTRACT: The following substances were used for the mixed condensation with adipic acid: 4,4'-diamino-3,3'-dimethyl-diphenyl-methane and its N,N'-diethyl-, dipropyl- and dibutyl derivatives. Three binary systems of mixed polyamides were obtained. All of them are soluble in tricresol, sulphuric and formic acids, with the exception of those in which the ratio of the non-substituted diamine to the alkylated diamine was 0.2:0.8. These substances are alcohol-soluble, independently of the size of the alkyl radical. The N,N'-dipropyl- and N,N'-dibutyl derivatives of 4,4'-diamino-3,3'-dimethyl-diphenyl-methane bring about a more essential lowering of the melting point than does the polyamide of the N,N'-diethyl substituent. In

Card 1/3

The Synthesis and Investigation of Mixed Polyamides on the Basis of Aromatic Diamines and Adipic Acid

SOV/156-59-1-41/54

order to study the influence of the aromatic rings on the melting point of the condensation product mixed polymers were produced from AG-salt, the above-mentioned diamines, and adipic acid. Two types were thus obtained. The first group (constituted by 4,4'-diamino-3,3'-dimethyl-diphenyl-methane) yields little transparent to opaque substances. It is only with a molar ratio of 0.2:0.8 between fatty and aromatic diamines that a yellowish, vitreous product was obtained. The fusions of the polymers with aliphatic to aromatic diamine ratios of 0.8:0.2, 0.6:0.4, and 0.4:0.6 yield elastic filaments. Rising aliphatic diamine additions (AG-salt) result in a linear lowering of the melting point (Diagram). The second group (constituted by N,N'-diethyl-3,3'-dimethyl-diphenyl-methane) yields opaque white substances that are insoluble in the ordinary organic solvents. As in the first group, only the mixed polyamide with ratio of aliphatic: aromatic 0.2:0.8 constitutes an exception and forms a yellowish glass that dissolves on heating in methanol and that has an essentially lower melting point than the other products (Diagram). There are 2 figures, 1 table, and 6 refer-

Card 2/3

The Synthesis and Investigation of Mixed Polyamides on the Basis of Aromatic Diamines and Adipic Acid

SOV/156-59-1-11/54

ences, 4 of which are Soviet.

ASSOCIATION: Kafedra tekhnologii wysokomolekulyarnykh soyedineniy Moskovskogo khimiko-tekhnologicheskogo instituta im. D. I. Mendeleyeva (Chair of the Technology of High-molecular Compounds of the Moscow Institute of Chemical Technology imeni D. I. Mendelyev)

SUBMITTED: March 21, 1958

Card 3/3

AUTHORS: Fedotova, O. Ya., Losev, I. P., Askarov, M. A., Kostina, R. G.

SOV/79-29-2-65/71

TITLE: Polycondensation of Some N,N'-Dialkyl-substituted Derivatives of 4,4'-Diamino-3,3'-Dimethyldiphenyl Methane With Adipinic Acid (Polikondensatsiya nekotorykh N,N'-dialkilzameshchennykh proizvodnykh 4,4'-diamino-3,3'-dimetildifenilmetana s adipinovoy kislotoy)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 672-676 (USSR)

ABSTRACT: The authors earlier described the synthesis of polyamides, which they had obtained by polycondensation of 4,4'-diamino-3,3'-dimethyldiphenyl methane and its N,N'-diethyl-substituted derivative with adipinic acid. Reactions are dealt with here, taking place according to the same scheme, with the exception that the diamines used possess larger substituents at the nitrogen (R= C_3H_7, C_4H_9, C_5H_{11}, C_6H_{13} and C_8H_{17}). The polycondensation of propyl and butyl-substituted diamines with adipinic acid yielded two products, namely, poly-N,N'-dipropyl-3,3'-dimethyldiphenyl methane adipine amide and poly-N,N'-dibutyl-3,3'-dimethyldiphenyl methane adipine amide. These are

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Polycondensation of Some N,N'-Dialkyl-substituted Derivatives of 4,4'-Diamino-3,3'-Dimethyldiphenyl Methane With Adipinic Acid SOV/79-29-2-65/71

glass-like products, easily soluble in organic solvents; the former melts at 57° and the latter at 55°. Their molecular weights are between 4500 and 5200. The condensation of N,N'-dipropyl-4,4'-diamino-3,3'-dimethyldiphenyl methane with adipinic acid at 160° was found to lead chiefly to the monomer amide, while the other likewise yields the monomer and, in a smaller quantity, a dimer. Polyamides having the highest polycondensation degree (10-12) and the lowest amine and acid numbers formed at the optimum reaction temperature (260°). Moreover, also N,N'-diisoamyl-N,N'-dihexyl and N,N'-dioctyl-substituted diamine was caused to react in the same way (Table 1). A comparison was made of the properties of the polycondensation products; these properties depend on the amount of the substituent radical at the nitrogen atom, as well as on the disappearance of the hydrogen bonds. There are 6 figures and 2 tables.

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

Card 2/3

Polycondensation of Some N,N'-Dialkyl-substituted Derivatives of 4,4'-Diamino-3,3'-Dimethyldiphenyl Methane With Adipinic Acid SOV/79-29-2-65/71

SUBMITTED: December 28, 1958

Card 3/3

FEDOTOVA, O. Ya.; ASKAROV, M.A.; CHEBOTAREVA, V.M.

Aryl aliphatic polyamides. Uzb. khim. zhur. no.1:71-80 '60.
(MIRA 14:4)

1. Sredneaziatskiy politekhnicheskiy institut.
(Polyamides)

ASKAROV, M.A.; FEDOTOVA, O.Ya.; CHEBOTAREVA, V.M.

Synthesis of mixed polyamides. Uzb. khim. zhur. no.3:62-65 '60.
(MIRA 13:10)

1. Sredneaziatskiy politekhnicheskiy institut.
(Polyamides)

S/081/62/000/009/064/075
B101/B144

AUTHORS: Asharov, M. A., Fedotova, O. Ya., Chebotareva, V. M.

TITLE: Production of poly-3,3'-dimethyldiphenylmethanazelainamide and its copolymers with AH salt and caprolactam

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 591, abstract 9P36 (Dokl. AN UzSSR, no. 4, 1960, 29 - 31)

TEXT: Polyamides (PA) with molecular weights of 10,000 - 15,000 were produced by polycondensation of: 4,4'-diamino-3,3'-dimethyldiphenylmethane (I) with azelaic acid (II); I, II and AH salt; and I, II and ε-caprolactam. When I is polycondensed with II, vitreous PA with a m.p. of 233°C, soluble in cresols, formic, acetic and sulfuric acids, are formed. The polycondensation of I, II and AH salt, as well as that of I, II and ε-caprolactam at various molar ratios, gives rise to mixed PA with properties which vary regularly according to the ratios between their components; their m.p. are lower than those of the homogeneous PA and they are more soluble. The physicochemical properties of the polyamides obtained are given.

[Abstracter's note: Complete translation.]

Card 1/1

YAKUBOV, Anvar Mirabidovich, kand. khim. nauk; ASKAROV, M.A., kand. tekhn. nauk, retsenzent; ISROILOV, Z., red.; ALIMBOYEVA, R., tekhn. red.

[Polymers and their uses; textbook for teachers and students of the senior grades of secondary schools] Polimerlar va ularning ishlatilishi; urta maktab ukituvchilari va iukori sinf ukuvchilari uchun kullanma. Toshkent, Urta v olii maktab, 1961. 174 p. [In Uzbek]

(Polymers) (MIRA 15:6)

5.4600

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S/081/62/000/018/057/059
B168/B186

AUTHORS: Askarov, M. A., Savranskaya, S. D., Trubitsyna, S. N.

TITLE: Radiative polymerization of akrylonitrile in solid form, suspension and emulsion

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 18, 1962, 612, abstract 18R63 (In collection: Vopr. ispol'zovaniya mineral'n. i rastit. syr'ya Sredn. Azii. Tashkent, AN UzSSR, 1961, 118 - 122)

TEXT: Polymerization of akrylonitrile under the action of γ-radiation of Co^{60} with doses of $(5-25)\cdot10^4$ r is more rapid in an emulsion stabilized with polyvinyl alcohol and also in an aqueous solution (accompanied by formation of a suspension of the polymer) than in mass polymerization with these doses the rate of mass polymerization in a medium of N_2 is higher than in air, and the polymer is insoluble in dimethylformamide whereas soluble polymers form in air. [Abstracter's note: Complete translation.]

Card 1/1

ASKAROV, M.A.; SAVRANSKAYA, S.D.

Study of radical polymerization of acrylonitrile in the presence of silvan. Uzb.khim.zhur. 6 no.2:47-50 '62.

(MIRA 15:7)

1. Institut khimii polimerov, AN UzSSR.
(Acrylonitrile) (Radicals (Chemistry)) (Furan)

ASKAROV, M.A.; BANK, A.S.

Synthesis of some acrylic acid esters by the reaction of acryloyl chloride with alcohols. Khim. i fiz.-khim. prirod. i sint. polim. no.1:172-176 '62
(MIRA 18:1)

ASKAROV, M.A.; SEMENOVA, L.N.

Copolymerization of acrylonitrile with itaconic acid. Khim. i fiz.-khim. prirod. i sint. polim. no.1:177-182 '62
(MIRA 18:1)

SAVRANSKAYA, S.D.; ASKAROV, M.A.; AZIZKHANOV, T. Kh.

Polymerization of acrylonitrile in the presence of organomagnesium catalysts. Khim. i fiz.-khim. prirod. i sint. polim. no.1:183-188 '62
(MIRA 18:1)

ASKAROV, M.A.; DZUMERKAS, N.D.; PINKHASOV, S.R.

Copolymerization of acrylonitrile with acrylic acid esters.
Khim. i fiz.-khim. prirod. i sint. polim. no.1:189-196 '62
(MIRA 18:1)

L 114-64 EPR/EWP(j)/EPF(c)/EWT(m)/BDS ASD Pa-4/Pc-4/Pr-4 RM/WW/MAY

ACCESSION NR: AP3006872 S/0291/63/000/004/0053/0057

AUTHORS: Askarov, M. A.; Muratova, U. M.

TITLE: Investigation of copolymerization reaction of Alpha-chloroacrylic ethers with acrylic acid nitrile

SOURCE: AN UzbSSR. Uzbekskiy khimicheskiy zhurnal, no. 4, 1963, 53-57

TOPIC TAGS: block copolymerization, acrylonitrile, methyl-Alpha-chloroacrylate, ethyl-Alpha-chloro-acrylate, butyl-Alpha-chloroacrylate, specific viscosity, molecular weight, reactivity

ABSTRACT: The authors investigated the copolymerization reaction of acrylonitrile with chloroacrylates which contain a chloride atom in the Alpha-position and possesses properties of acrylic acid ethers. The block copolymerization of acrylonitrile was conducted with methyl-, ethyl-, and butyl-Alpha-chloroacrylates in the

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Card

L 114-64

ACCESSION NR: AP3006872

presence of 0.4% benzoyl peroxide at a temperature of 60 to 70C. The obtained polymers have a wide range of properties ranging from ebony-like to a glass-like, and with solubilities ranging from dimethylformamide soluble to the ones soluble in dichloroethane and acetone. The specific viscosities and the molecular weights of homopolymers were determined. The composition of copolymers according to their nitrogen and chloride contents showed that, of all Alpha-chloroacrylates, the most reactive one is methyl-Alpha-chloroacrylate. With an increase of molecular weight of ether, its reaction ability decreases. The least reactive one is butyl-Alpha-chloroacrylate. Orig. art. has: 1 table.

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

SUBMITTED: 03Jul62 DATE ACQ: 30Sep63 ENCL: 00

SUB CODE: CH NO REF SOV: 002 OTHER: 006

Card 2/2

ACCESSION NR: AP4010562 S/0291/63/000/006 /0066/0070

AUTHORS: Askarov, M.A.; Stratu, Z.A.

TITLE: Investigation of the polymerization of acrylonitrile and butyl methacrylate in the presence of metallic lithium and lithium amide in aqueous ammonia

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 6, 1963, 66-70

TOPIC TAGS: polymerization, acrylonitrile, butylmethacrylate, lithium, metallic lithium, lithium amide, aqueous ammonia

ABSTRACT: The polymerization of acrylonitrile and butylmethacrylate in aqueous ammonia was carried out at low temperature in the presence of blue lithium and lithium amide solutions. Polymers in high yields, with a specific viscosity of 0.23 for polyacrylonitrile and 0.8 for polybutylmethacrylate, were obtained. It was found that the amount of catalysts, the reaction time, temperature, and the medium in which the polymerization was carried out exert an influence on the polymerization. The reaction process is described.

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ACCESSION NR: AP4010562

Orig. art. has 1 table.

ASSOCIATION: Institute khimii polimerov AN UkSSR (Institute of polymer chemistry, AN, UkSSR)

SUBMITTED: 02Aug63 DATE ACQ: 11Feb64 ENCL: 00

SUB CODE: OH NO REF SOV: 005 OTHER: 002

Card 2/2

L 15600-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Ps-4/
Pc-4/Pr-4 RM/WW
ACCESSION NR: AP3004709 S/0190/63/005/008/1235/1239

AUTHORS: Askarov, M. A.; Trubitsy*na, S. N.

TITLE: Anionic copolymerization of acrylonitrile with vinyl monomers at low temperatures

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 5, no. 8, 1963, 1235-1239

TOPIC TAGS: copolymerization, anionic copolymerization, homopolymerization, acrylonitrile, vinyl acetate, low temperature

ABSTRACT: The technique is described in an earlier publication by M. A. Askarov, S. N. Trubitsy*na, Z. A. Stratu (Sb.: Voprosy* ispol'zovaniya mineral'nogo i rastitel'nogo sy*r'ya Sredney Azii, Izd. AN UzSSR, 1961, str. 123). It consists in copolymerization in a liquid ammonia medium in the presence of sodium amide as catalyst at -60C. Homopolymerization of the acrylonitrile, methylmetacrylate, and vinyl acetate monomers was conducted for periods up to 3 hours, using various amounts of catalyst. It was found that for acrylonitrile the optimum concentration of sodium amide was 0.002 gram-atom per mol, and that the polymerization proceeded instantaneously. For the methylmetacrylate and vinyl acetate monomers

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L 15600-63
ACCESSION NR: AP3004709

0.3 gram-atom per mol of the catalyst were required, coupled with a 2-hr reaction. Copolymerization of acrylonitrile with methylmetacrylate and of acrylonitrile with vinyl acetate in various proportions was conducted for a 2-hr period in the presence of 0.3 gram-atom catalyst per mol of the monomers. The resulting copolymers with methylmetacrylate had a 35 600-29 000) molecular-weight range and those with vinyl acetate one of 35 600-31 600. The 35 600 figure was that of the acrylonitrile homopolymer, 29 000 and 31 600 represented the molecular weights of the methylmetacrylate and the vinyl acetate homopolymers. Orig. art. has: 1 chart and 4 tables.

ASSOCIATION: Institut khimii polimerov AN UzSSR (Institute of Polymer Chemistry, Academy of Sciences, Uzbek SSR)

SUBMITTED: 03Feb62 DATE ACQ: 28Aug63 ENCL: 00

SUB CODE: CH NO REF SOV: 008 OTHER: 004

Card 2/2

ASKAROV, M.A.; TADZHIYEVA, M.A.; RAKHMANBERDYYEV, R.I.

Study of acrylonitrile polymerization in the two- and three-component systems. Uzb. khim. zhur. 7 no.2:65-70 '63. (MIRA 16:8)

1. Institut khimii polimerov AN UzSSR
(Acrylonitrile) (Polymerization)

ASKAROV, M.A.; MURATOVA, U.M.

Reactions involved in the copolymerization of α-chloroacrylic esters with acrylonitrile. Uzb. khim. zhur. 7 no.4:53-57 '63. (MIRA 16:10)

1. Institut khimii polimerov AN UzSSR.

ASKAROV, M.A.; AVLYANOV, K.A.; ALOVITDINOV, A.B.

Synthesis and study of α-bromoarcylic esters. Uzb. khim. zhur. 7 no.5:50-55 '63. (MIRA 17:2)

1. Institut khimii polimerov AN UzSSR.

ASKAROV, M.A.; STRATU, Z.A.

Polymerization of acrylonitrile and butyl methacrylate in the presence of metallic lithium and lithium amide in liquid ammonia. Uzb. khim. zhur. 7 no.6:66-70 '63. (MIRA 17:2)

1. Institut khimii polimerov AN UzSSR.

ACCESSION NR: AT4040806 S/3099/62/000/001/0189/0196

AUTHOR: Askarov, M. A.; Dzumerkas, N. D.; Pinkhasov, S. R.

TITLE: A study of the copolymerization of acrylonitrile with esters of acrylic acid

SOURCE: AN UzSSR. Institut khimii polimerov. Fizika i khimiya prirodny*kh i sinteticheskikh polimerov, no. 1, 1962, 189-196

TOPIC TAGS: copolymerization, acrylic ester copolymer, acrylonitrile copolymer, polymer structure, polymer physical property, propylacrylate, butylacrylate, amylacrylate, polymer solubility

ABSTRACT: The authors first describe the synthesis of n-propyl, n-butyl and n-amyl acrylate by the simultaneous saponification and esterification of acrylonitrile in the presence of the appropriate alcohol, H_2SO_4 and hydroquinone. After purification of both the ester and the acrylonitrile, their block copolymerization was then studied at 60C. Measured amounts of the monomers were placed into ampules with a benzoyl peroxide catalyst (0.5% by weight), sealed and placed into an oven at 60C for 32 hours. The yields were 63-91% of the theoretical. A detailed investigation of the properties of the copolymers at ratios of acrylonitrile to esters of 90:10, 75-25, 50:50, 25-75, 10:90, and 0:100 showed a consistent relationship between

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ACCESSION NR: AT4020697 S/0000/63/000/000/0020/0025

AUTHOR: Savranskaya, S. D.; Trubitsy*na, S. N.; Askarov, M. A.

TITLE: Polymerization of acrylonitrile in the presence of furan derivatives

SOURCE: Karbotsepny*ye vy*sokomolekulyarny*ye soyedineniya (Carbon-chain macromolecular compounds); sbornik statey. Moscow, Izd-vo AN SSSR, 1963, 20-25

TOPIC TAGS: acrylonitrile, acrylonitrile polymer, radiation polymerization, furan, furfural, furfuryl alcohol, sylvan, polymerization

ABSTRACT: In view of the possible importance of acrylonitrile copolymers in the manufacture of synthetic fibers, the radical polymerization of acrylonitrile in aqueous medium in the presence of ammonium persulfate and furan derivatives such as furfural, furfuryl alcohol and sylvan was investigated and the inhibitory effect of furans on the polymerization process was demonstrated. Furfural was a stronger inhibitor than furfuryl alcohol and sylvan. Similar results were obtained when the radiation-induced polymerization of acrylonitrile was carried out in a nitrogen or air atmosphere in the presence of furan derivatives under the influence of γ-rays from Co-60 (27-45 r/sec.). The experimental conditions and data are given and some of the other factors affecting radiation polymerization are discussed. Orig. art. has: 2 formulas and 2 tables.

Card 1/2

ACCESSION NR: AT4020697

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

SUBMITTED: 02Apr62 DATE ACQ: 20Mar64 ENCL: 00

SUB CODE: OC NO REF SOV: 007 OTHER: 001

Card 2/2

L 10825-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Pa-4 RPL RM/WW

ACCESSION NR: AP4045435 S/0190/64/006/009/1585/1590

AUTHOR: Sidel'kovskaya, F. P.; Shostakovskiy, M. F.; Ibragimov, F.; Askarov, M. A.

TITLE: Copolymerization of N-vinyllactams with vinylalkyl ethers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 6, no. 9, 1964, 1585-1590

TOPIC TAGS: copolymer, copolymerization initiator, diazoisobutyronitrile, N-vinyllactam, vinylalkyl ether, N-vinylpyrrolidone, N-vinylcaprolactam, vinylethyl ether, vinylisopropyl ether, vinylbutyl ether

ABSTRACT: Diazoisobutyronitrile was used as the initiator in a study of the copolymerization of N-vinylpyrrolidone (b. p. 94-95C/4 mm, $d_4^{20} = 1.0458$) and N-vinylcaprolactam (b. p. 94-95C/4 mm, $d_4^{20} = 1.029$) with vinylethyl ether, vinylisopropyl ether and vinyl-n-butyl ether. 5 g of monomer mixture, containing 0.1, 0.25, 0.50, 0.75, 0.90, and 1.0 mol of individual monomers, were reacted at 60 ± 1C for 72 hrs with 0.2% of the dinitrile in sealed ampoules gassed with N_2. The process produced 17 copolymers with a yield of up to 85.7% of theory and molecular weights of 550-150[illegible] Nitrogen content, solubility, molecular weight (cryoscopically in benzene), viscosity at 20C in dimethylformamide, and the copolymerization constants (graphically from the Mayo-Lewis integral equation) were determined for the copolymers and conditions were established for the preparation of

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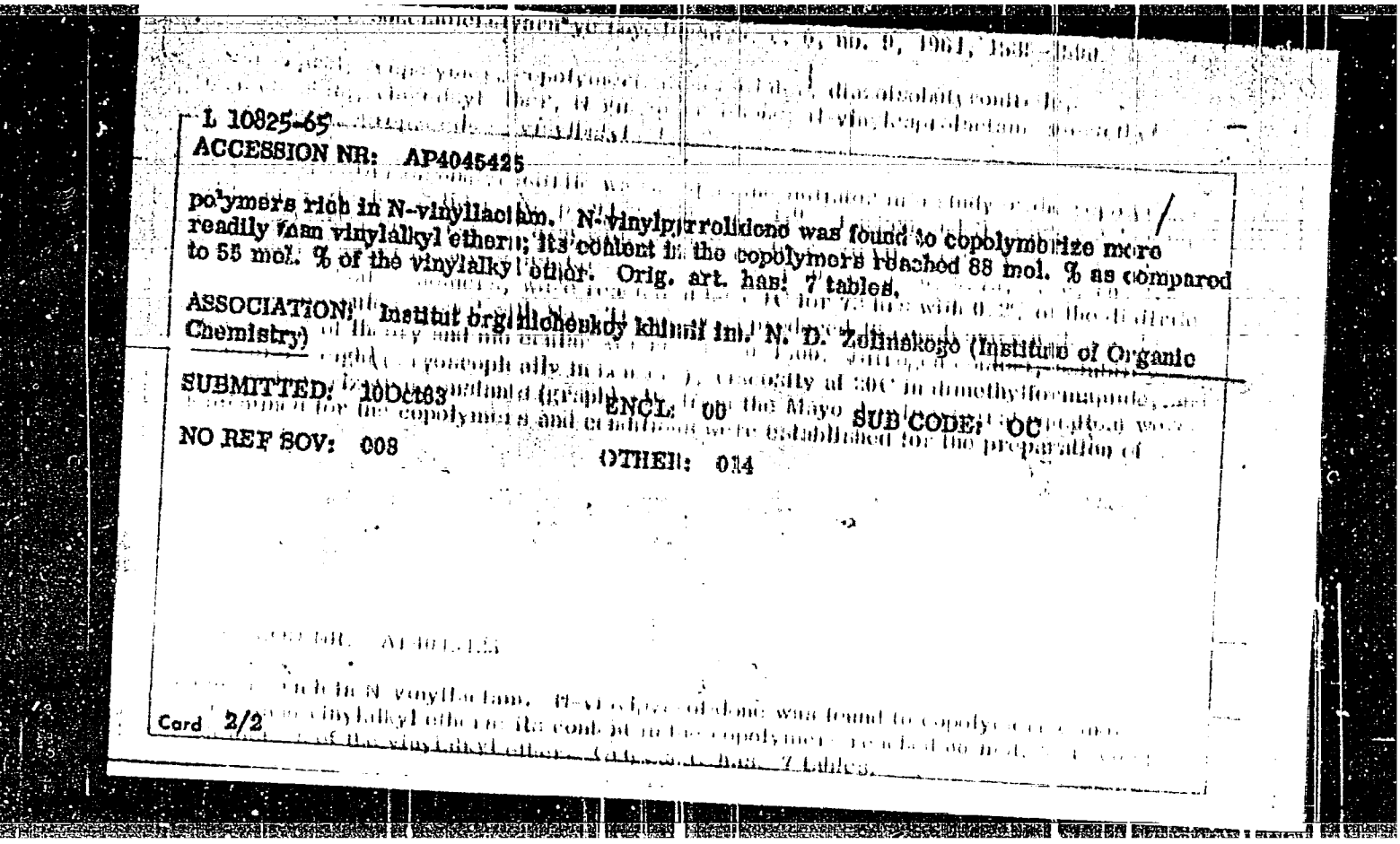

L 10825-65
ACCESSION NR: AP4045425

polymers rich in N-vinyllactam. N-vinylpyrrolidone was found to copolymerize more readily than vinylalkyl ethers; its content in the copolymers reached 88 mol. % as compared to 55 mol. % of the vinylalkyl ether. Orig. art. has: 7 tables.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo (Institute of Organic Chemistry)

SUBMITTED: 10Oct63 ENCL: 00 SUB CODE: OC

NO REF SOV: 008 OTHER: 014

Card 2/2

L 10759-65 EWT(m)/EPF(c)/EPR/EWP(j) T Pc-4/Pr-4/Pa-4 RPL/ASD(m)-3 RM/WW

ACCESSION NR: AP4047207 S/0190/64/006/010/1810/1813

AUTHOR: Sidel'kovskaya, F. P.; Askarov, M. A.; Ibragimov, F. B

TITLE: Copolymerization of N-vinyllactams with vinylphenyl and vinylcyclohexyl ethers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 6, no. 10, 1964, 1810-1813

TOPIC TAGS: N-vinyllactam, vinylphenyl ether, vinylcyclohexyl ether, copolymerization, diazoisobutyronitrile, caprolactim, N-vinylpyrrolidone

ABSTRACT: The copolymerization of N-vinylpyrrolidone (VP) and N-vinylcaprolactam (VC) with vinylphenyl ether (VPE) and vinylcyclohexyl ether (VCE) was investigated in the presence of diazoisobutyronitrile. The conditions for synthesis of the new copolymers are described, and the relationship between the mole fractions of the copolymer and the monomer mixture is graphed. The new copolymers are insoluble in water, diethyl and petroleum ethers, and soluble in acetone, benzene, chloroform, carbon tetrachloride and dimethylformamide. An increase in the concentration of N-vinyllactam in the initial mixture resulted in an increased yield of copolymer. Conditions were established for the formation of N-vinyllactam enriched copolymers. Polymer or copolymer yields as high as 61-67% and molecular weights of 800-1490 were obtained under optimal conditions. The solubilities and the

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L 10759-65
ACCESSION NR: AP4047207

monomer reactivity ratios are tabulated. For VP - VCE, $r_1=4.43 \pm 0.001$, $r_2=0.22 \pm 0.001$; for VP - VCE, $r_1=3.84$, $r_2=0$; for VC - VPE, $r_1=2.53 \pm 0.03$, $r_2=0.39 \pm 0.03$. The general reactivity factors were also calculated: for VC, $Q = 0.08$, $e = 1.55$; for VPE, $Q=0.27$, $e = 1.43$. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR (Institute of Organic Chemistry, AN SSSR)

SUBMITTED: 05Dec63 ENCL: 00 SUB CODE: OC

NO REF SOV: 001 OTHER: 007

Card 2/2

L 25639-65 EPF(c)/EPR/EWA(s)-2/EWP(j)/EWT(m)/T Pc-4/Pr-4/Pi-4/Pt-10
RPL RM/WW/JT
ACCESSION NR: AP5005263 S/0291/64/000/006/0045/0050

AUTHOR: Askarov, M. A.; Pirkhasov, S. R. (Deceased)

TITLE: The synthesis and polymerization of some chloroacrylates

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 6, 1964, 45-50

TOPIC TAGS: plastic, acrylate, methacrylate, chloroalkyl acrylate, chloroalkyl methacrylate, polymer solubility, organic solvent, flame resistant plastic, corrosion resistant plastic

ABSTRACT: β-chloroethyl and δ-chlorobutyl acrylates and methacrylates were obtained in high yields by a direct esterification of ethylene or tetramethylene chlorohydrin with the corresponding acid in the presence of 3.5—4% H_2SO_4 added as catalyst. The obtained monomers polymerized readily under the effect of benzoyl peroxide, day- or UV-light, or heating to 60 ± 1C. Glassy, colorless, transparent polymers were obtained which were insoluble in the organic solvents and only swelled in polar solvents (slightly in aromatic hydrocarbons). It was found that oxygen inhibits this polymerization. The insolubility was explained by crosslinking of double bonds formed as the result of a partial splitting off of HCl. The chloro-

Card 1/2

L 25639-65
ACCESSION NR: AP5005263

acrylates or chloromethacrylates obtained are prospective polymers which can be modified by the introduction of new groups and can be used for manufacturing flame- or corrosion-resistant plastics. Orig. art. has: 3 tables and 1 formula. [BN]

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellyulozy Goskomiteta khimicheskoy promyshlennosti pri Gosplane SSSR (Scientific Research Institute of Chemistry and the Technology of Cotton Cellulose of the State Committee of the Chemical Industry of Gosplan, SSSR)

SUBMITTED: 19Dec63 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 004 OTHER: 012 ATD PRESS: 3185

Card 2/2

BANK, A.S.; ASKAROV, M.A.

Emulsion copolymerization of acrylonitrile with acrylates.
Uzb.khim.zhur. 8 no.4:71-75 '64.

(MIRA 18:12)

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

ACCESSION NR: AT4042430 S/3103/64/000/002/0118/0123

AUTHOR: Askarov, M. A., Trubitsy*na, S. N.

TITLE: Low-temperature copolymerization of vinyl pyrrolidone with acrylonitrile, methyl methacrylate and vinyl acetate

SOURCE: AN UzSSR. Institut khimii polimerov. Khimiya i fiziko-khimiya prirodny*kh i sinteticheskikh polimerov, no. 2, 1964, 118-123

TOPIC TAGS: copolymerization, low-temperature copolymerization, vinyl pyrrolidone, acrylonitrile, methyl methacrylate

ABSTRACT: Copolymers with higher concentrations of the more active components were obtained by the anionic copolymerization of vinyl pyrrolidone with acrylonitrile, vinyl acetate or methyl methacrylate in aqueous ammonia, in the presence of sodium amide as a catalyst (0.5 g/mole), at -60C. Experiments showed that the molecular weight and specific viscosity of the copolymers varied with variations in the ratio of initial components. Thus an increase in the amount of the less active monomer (vinyl pyrrolidone in its combinations with acrylonitrile or methyl methacrylate, but vinyl acetate in the mixture of vinyl acetate and vinyl pyrrolidone) in the system lowered the copolymer yield, molecular weight, viscosity and temperature of decomposition. The anionic polymerization of vinyl pyrrolidone was found to depend

Card 1/2

ACCESSION NR: AT4042430

only slightly on the amount of catalyst because of the chain transfer reaction through the monomer. The effect of the amount of sodium amide (0.17-1.7 g/mole and of polymerization time (0.5-4.0 hrs.) on polymer yield is shown. The activity coefficients of the monomers in relation to the composition of the copolymers are tabulated and the differences in experimental data for the three different pairs of monomers are interpreted. Copolymers containing 20-30% vinyl pyrrolidone were found to be water-soluble. Orig. art. has: 2 tables.

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

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 005

OTHER: 004

Card 2/2

ACCESSION NR: AT4042431 S/3103/64/000/002/0149/0152

AUTHOR: Yuldashev, A.; Askarov, M. A.; Ibragimov, F.

TITLE: Synthesis of the dichloroanhydride of vinylphosphinic acid

SOURCE: AN UzSSR. Institut khimii polimerov. Khimiya i fiziko-khimiya prirodny*kh i sinteticheskikh polimerov, no. 2, 1964, 149-152

TOPIC TAGS: vinylphosphinic acid, thermosetting polymer, z-chlorethylphosphinic acid, triethylamine, diethylamine, aniline, dimethylformamide, z-chloroethylphosphinyl chloride, vinylphosphinyl chloride, organophosphorus polymer

ABSTRACT: The dichloroanhydride of vinylphosphinic acid is the basis for the synthesis of a great variety of derivatives of this acid which can, in turn, be used for the preparation of thermosetting organophosphorus polymers and the phosphorylation of cellulose. In the present paper, laboratory methods are described for the synthesis of the dichloroanhydride of vinylphosphinic acid by the reaction of amines or amides of lower carboxylic acids with the dichloroanhydride of β-chloroethylphosphinic acid in an inert solvent (dry benzene) at different temperatures. Triethylamine, diethylamine, aniline and dimethylformamide were used in the reaction, and the other experimental conditions were the same in all cases. The yield of vinylphosphinic acid dichloroanhydride decreased with increasing temperature. This is

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ACCESSION NR: AT4042431

due to the fact that amines, as well as alcohols, react actively with the chloroanhydrides of the phosphoric acids, yielding amides, at high temperatures. The optimal experimental conditions were found to be equimolar amounts of the amine or amide and β-chloroethylphosphinic acid dichloroanhydride at 0C, gradually increasing to 40 and then 60C. Yields of the product were 61.3-64.5% with the amines and only 41.52% of the theoretical with dimethylformamide. "A. D. Diyarov took part in carrying out the experiments." Orig. art. has: 2 chemical equations.

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

SUBMITTED: 00

ENCL: 00

SUB CODE: OC

NO REF SOV: 005

OTHER: 001

Card 2/2

YULDASHEV, A.; MURATOVA, U.M.; ASKAROV, M.A.

Phosphorylation of cotton cellulose by phosphorous acid esters via chlorocellulose. Vysokom. soed. 7 no.11:1923-1926 N '65.
(MIRA 19:1)

1. Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellyulozy. Submitted December 11, 1964.

L 23331-66 EWT(m)/EWP(j)/T WW/RM

ACC NR: AP6006978 (A) SOURCE CODE: UR/0190/66/008/002/0247/0250

AUTHORS: Ibragimov, F.; Sidel'kovskaya, F. P.; Askarov, M. A.

ORG: Institute of Organic Chemistry im. N. D. Zelinskiy, AN SSSR (Institut organicheskoy khimii AN SSSR)

TITLE: Synthesis of a graft copolymer of cellulose and polyvinylcaprolactam

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 2, 1966, 247-250

TOPIC TAGS: cellulose plastic, graft copolymer, redox reaction

ABSTRACT: Investigation of the synthesis of a graft copolymer of cellulose (I) and N-vinylcaprolactam (II) is described as a part of a general effort initiated earlier by F. Ibragimov, A. D. Virnik, F. P. Sidel'kovskaya, M. A. Askarov, and Z. A. Rogovin (ZhVKhO im. Mendeleyeva, 11, No. 2, 1966). This work was carried out to determine the effect of the size and structure of the lactam ring upon the grafting process and the properties of the product. As in previous work, the grafting was performed using H_2O_2-Fe^{2+} redox system. Fabric of viscose staple fiber served as a source of I. The effect of the concentration of H_2O_2 in the system upon the content of grafted II is illustrated in Fig. 1 (the optimal concentration is 0.008%). The effect of the temperature upon the reaction is shown in Fig. 2 (70C is most suitable). The optimal reaction time is 3 hours. The graft copolymer of I and II readily

Card 1/2

UDC: 541.64+661.728+678.746

L 23331-66

ACC NR: AP6006978

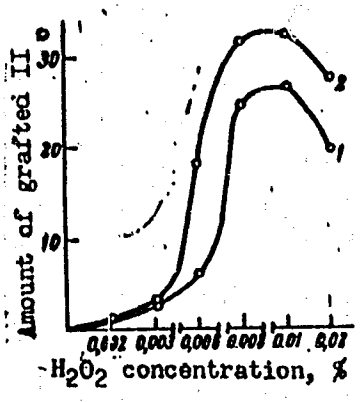


Fig. 1. Effect of H_2O_2 concentration upon the amount of grafted II (% of the copolymer weight). Graft conditions: ratio 50:1, temperature 70C, time 3 hours. 1 - II = 10%, 2 - II = 15%.

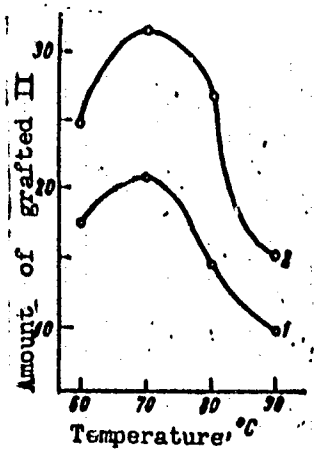


Fig. 2. Effect of temperature upon the amount of grafted II (weight % of copolymer). Graft conditions: ratio 50:1, time 3 hours; $[H_2O_2]$ = 0.008%, 1 - I = 10%, 2 - II = 15%.

absorbs acid dyes and is resistant to light. Orig. art. has: 4 figures.

SUB CODE: 07/ SUBM DATE: 27Feb65/ ORIG REF: 006/ OTH REF: 001

Card 2/2 UVR

L 27312-66 EWT(m)/EWP(1)/T/ETC(m)-6 WW/RM

ACC NR: AP6008974 (A) SOURCE CODE: UR/0190/65/007/011/1923/1926

AUTHORS: Yuldashev, A.; Muratova, U. M.; Askarov, M. A. 39 B

ORG: Scientific Research Institute of Chemistry and Technology of Cotton Cellulose (Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellyulozy) 15

TITLE: Phosphorylation of cotton cellulose by phosphorous acid esters via chlorocellulose

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 11, 1965, 1923-1926

TOPIC TAGS: cellulose, cellulose plastic, phosphorylation, phosphorous acid

ABSTRACT: This investigation was conducted to determine whether Arbuzov's rearrangement (A. Ye. Arbuzov. Izbrannyye trudy, Izd. AN SSSR, M., 1952, str. 41) can be induced when the alkyl halide is replaced by chlorocellulose. The reactions between chlorocellulose and trimethyl, triethyl and tripropyl phosphites, and dimethyl and diethyl phosphites were studied. The effect of temperature, extent of reaction, ratio of initial reactants, and chlorine content in the chlorocellulose on the degree of phosphorylation were also investigated. The experimental results are tabulated. It was found that phosphorylation was more rapid for acid esters than for neutral esters, and that the degree of phosphorylation was greater at the smaller size of the radical of the phosphite ester. The synthesized products were found to possess strong bactericidal properties and low combustibility. Orig. art. has: 4 tables and 2 equations. 15

SUB CODE: 11/ SUBM DATE: 11Dec64/ ORIG REF: 013/ OTH REF: 006

Card 1/1 90

UDC: 661.728.87+678.01:54

L 01046-67 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6019539 (A) SOURCE CODE: UR/0190/66/008/006/1012/1014

AUTHOR: Askarov, M. A.; Bank, A. S.

ORG: Scientific Research Institute of Chemistry and Technology of Cellulose, AN UzSSR (Nauchno-issledovatel'skiy institut khimii i tekhnologii tsellyulozy AN UzSSR)

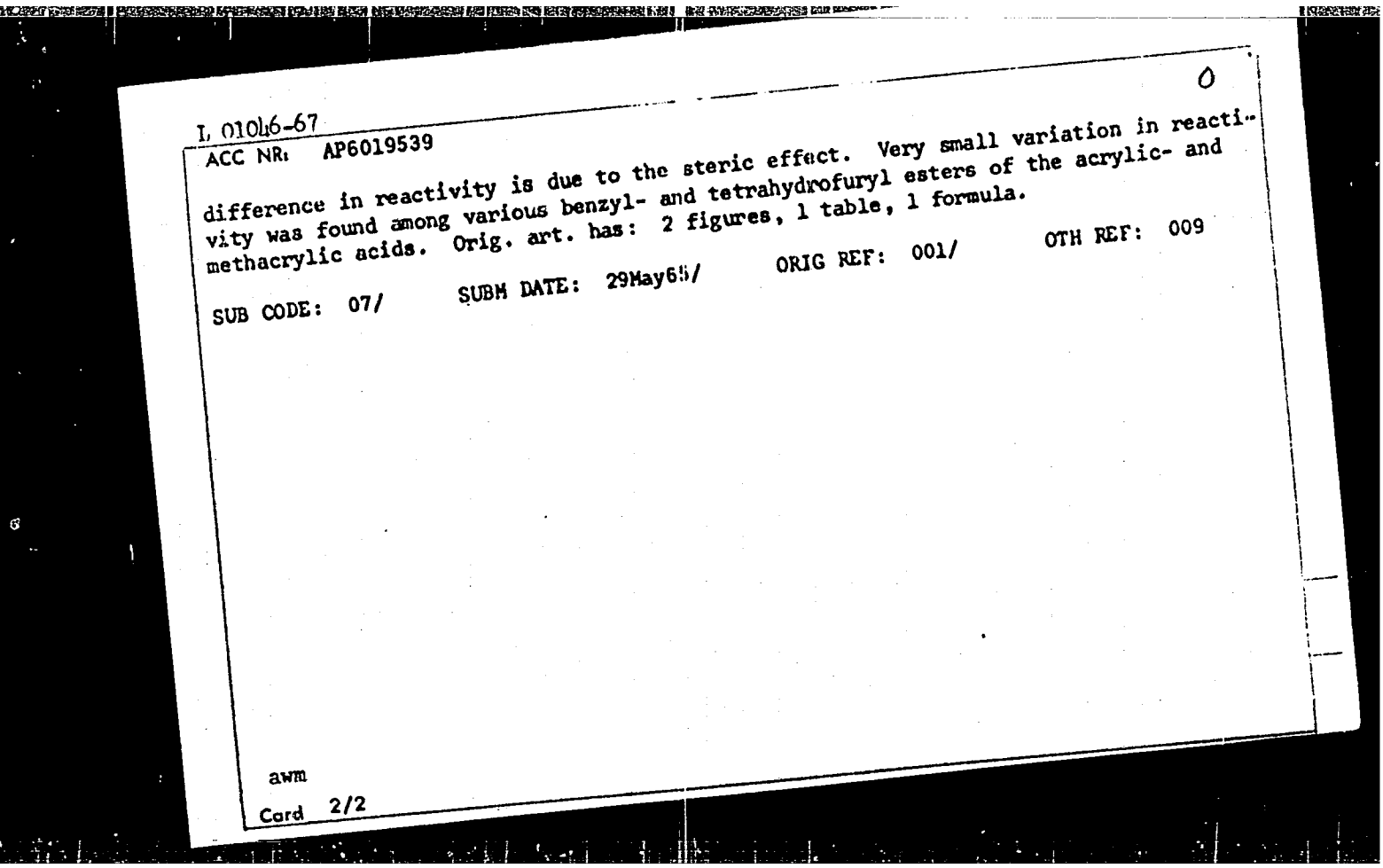
TITLE: Investigation of the copolymerization of acrylonitrile with benzyl- and tetrahydrofurylacrylates

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 6, 1966, 1012-1014

TOPIC TAGS: acrylic plastic, polyacrylonitrile, copolymerization, filler, acrylic copolymer, ACRYLONITRILE

ABSTRACT: Copolymerization of acrylonitrile with benzyl- and tetrahydrofuryl esters of acrylic- and methacrylic acids was studied in oil solvent at 60°C with $1.22 \cdot 10^{-2}$ mol/l dinitrile of azoisobutric acid. The object of the work was to examine the effect of structure of the acrylic esters on their reactivity in copolymerization reaction with acrylonitrile. The dependence of the copolymer composition upon the ratio between starting monomers and the dependence of copolymer softening temperature upon their composition are graphed. It was found that the benzylic- and tetrahydrofuryl esters of the acrylic- and methacrylic acids are more reactive in copolymerization with acrylonitrile than the corresponding (same carbon number) aliphatic esters. This

Card 1/2 UDC: 66.095.26+678.13+678.744+678.745



L 01046-67 0

ACC NR: AP6019539

difference in reactivity is due to the steric effect. Very small variation in reactivity was found among various benzyl- and tetrahydrofuryl esters of the acrylic- and methacrylic acids. Orig. art. has: 2 figures, 1 table, 1 formula.

SUB CODE: 07/ SUBM DATE: 29May65/ ORIG REF: 001/ OTH REF: 009

awm

Card 2/2

L 31562-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6008087 (A) SOURCE CODE: UR/0063/66/011/001/0119/0120

AUTHOR: Ibragimov, A. D.; Virnik, A. D./ Sidel'kovskaya, F. P./ Askarov, M. A. 44 B

ORG: Moscow Textile Institute (Moskovskiy tekstil'nyy institut); Institute of Organic Chemistry im. N. D. Zelinskiy (Institut organicheskoy khimii)

TITLE: Synthesis of a cellulose-polyvinylpyrrolidinone graft copolymer

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 11, no. 1, 1966, 119-120

TOPIC TAGS: cellulose, graft copolymer, hydrogen peroxide

ABSTRACT: A cellulose-polyvinylpyrrolidinone graft copolymer was synthesized by using a method proposed by D. I. Bridgeford (Ind. Eng. Chem., Prod. Res. Develop. 1, No. 1, 45, 1962) for the synthesis of other graft copolymers of cellulose. The effect of H_2O_2 concentration, temperature, and reaction time on the content of graft polyvinylpyrrolidinone (PVP) in the copolymer was investigated. It was found that the PVP content of the copolymer increases up to a 0.01% concentration limit of H_2O_2, beyond which the amount of graft PVP decreases. Up to 70C the content of graft PVP increases, but a further rise in temperature causes it to diminish. Both of these phenomena are interpreted in terms of the chain breaking process. The monomer concentration also has a substantial effect on the composition of

Card 1/2 UDC: 678.51

L 31562-66

ACC NR: AP6008087

the graft copolymer formed. It is concluded that the modification of cellulose materials by the grafting of PVP enables one to alter their properties considerably. The cellulose-PVP graft copolymer adsorbs acid dyes well and displays a high degree of lightfastness. Orig. art. has: 2 figures.

SUB CODE: 07 / SUBM DATE: 15Jun65 / ORIG REF: 005 / OTH REF: 001

Card 2/2 LC

ACC NR: AP7003782 SOURCE CODE: UR/0291/66/000/006/0025/0027

AUTHOR: Savranskaya, S. D.; Kravtsova, L. V.; Askarov, M. A.

ORG: NIIKhTTs

TITLE: Copolymerization of acrylonitrile and n-butyl methacrylate under the influence of organomagnesium catalysts

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 6, 1966, 25-27

TOPIC TAGS: acrylonitrile, copolymerization, methacrylate, Grignard reagent

ABSTRACT: In order to determine the influence of the nature of the solvent on the properties of an acrylonitrile - n-butyl methacrylate copolymer, the copolymerization was carried out at different temperatures with different monomer ratios in ethyl ether and toluene in the presence of the catalyst n-butylmagnesium bromide (0.4 mole of catalyst per mole of acrylonitrile was used). The specific viscosities of the products showed the presence of low-molecular substances. A decrease in reaction temperature raised the specific viscosity of the copolymer, this being characteristic of an anionic mechanism of polymerization of the monomers. Since the Grignard reagents constitute a complex equilibrium mixture and because of the presence of $(MgX)^+$, $(RMg)^+$ or $(Mg)^{++}$ ions, the initiation of the copolymerization may involve a stage of formation of intermediate complexes; in this case, the nature of the solvent and the conditions of the reaction medium play a considerable part in the initiation process. Orig. art.

Card 1/2

ACC NR: AP7003782

has: 1 figure and 1 table.

SUB CODE: 07/ SUBM DATE: 24Jun65/ ORIG REF: 001/ OTH REF: 005

Card 2/2

ASKAROV, Mikhail Arkad'yevich; KAPANADZE, Aleksandr Aleksandrovich

[Use of ultrasonics in industry] [Primenenie ul'trazvuka v promyshlennosti. Tbilisi, Gos.izd-vo "Sabchota Sakartvelo"] 1963. 75 p. [In Georgian] (MIRA 17:4)

ASKAROV, Sh.A.

Multiple sclerosis and rheumatic fever. Zhur. nevr. i psikh. 65 no.11:1653-1655 '65. (MIRA 18:11)

1. Kafedra nervnykh bolezney (zaveduyushchiy - prof. Ya.Ya. Gordon) Tashkentskogo instituta usovershenstvovaniya vrachey.