

Abstract A N ...
All members in the equation are expressed in terms of real or
imaginary homogeneous liquid moving speed ...
Herbage. Convective factors are introduced ...
and ...

Klimentov, H.N.

BOGDANOV, V.Ya., inzhener; **KLIMENTOV, A.N.,** inzhener; **CHIBOTAROV, Y.N.,**
inzhener.

Improve the equipment and technology for hydraulic mining. Mech.
trud.rab 9 no.10:27-29 - 0 '55. (MIRA 9:1)
(Hydraulic mining)

KLIMENTOV, A.N.

AID P - 2588

Subject : USSR/Engineering

Card 1/1 Pub. 35 - 11/20

Author : Klimentov, A. N., Kand. Tech. Sci.

Title : Flow of earth materials, their hydraulic radius and Reynolds number

Periodical : Gidr stroi, ¹⁴ 4, 33-35, Ap 1955

Abstract : A mathematical analysis on the mixture of water and earth material flowing in a channel is given. One Russian reference, 1951.

Institution : None

Submitted : No date

LIMENTOV, B. V.

Mnogootrasl'voi Kubanskii kolkhoz [Diversified Kuban collective farm]. Moskva,
Gos. izd-vo sel'khoz, lit-ry, [1953]. 160 p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 12 March 1954.

KLIMENTOV, B.V.

[Field practices on collective and state farms] Polevye opyty
v kolkhosakh i sovkhosakh. Izd.2., ispr. i dop. Moskva, Gos.
izd-vo sel'khoz.lit-ry, 1959. 180 p. (MIRA 13:8)
(Field crops)

KLIMENTOV, G.

KLIMENTOV, G. Forecasting the inflow of water into a mine. Tr. from the Russian. p. 362. Vol. 4, no. 12, Dec. 1956. RUDY. Praha, Czechoslovakia.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

KUZNETSOVA, E. D.; KLIMENTROY, L. N. Engrs.

Electric Welding

Welding on insulator hooks. Elek. sta. 23, no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.

KLIMENTOV, L.V.

Landform dynamics of the lower Dniester floodland. Izv. Vses.
geog. ob-va 95 no.6:533-536 N-D '63. (MIRA 17:1)

KLIMENTOV, L.V.

Floating masses of reeds and cattails on the Lower Dniester and the Dnieper, their origin, and some characteristics. Bot.sbur.[Ukr.] 10 no.3:34-41 '53.
(MLRA 6:8)

1. Odes'kyi universytet im. I.I.Mechanikova.
(Dniester river--Fresh-water flora) (Fresh-water flora--Dniester river)

KLIMENTOV, L.V.

Bushes of the lower reaches of the Dnieper and Dniester Rivers,
their origin and some characteristics. Izv.Vses.geog.ob-va 86
no.1:80-85 Ja-F '54. (MLBA 7:2)
(Dnieper River--Fresh-water flora) (Fresh-water flora--
Dnieper River) (Dniester River--Fresh-water flora)
(Fresh-water flora--Dniester River)

KLIMENTOV, L.V.

Biology of the reed (*Phragmites communis* Trin.) and its relation to certain specific features of flood-plain marshes. Nauch. dokl. vys. shkoly; biol. nauki no.1:113-116 '60. (MIRA 13:2)

1. Rekomendovana kafedroy sistematiki rasteniy Odesskogo gosudarstvennogo universiteta im. I.I. Mechnikova.
(Reed (Botany))

KLIMENTOV, L.V.

On the vegetation and land form of the lower Dniester floodplain
and changes that have occurred in them. *Izv.Vses.geog. ob-va*
92 no.3:235-250 My-Je '60. (MIRA 13:6)
(Dniester Valley--Physical geography)

KLDMENTOV, L. V. (Odessa)

Spreading of reeds by runners. Bot. zhur. 48 no. 3:450-452
Nr '63. (MIRA 16:4)

(Odessa region—Reed (Botany))

ALIMENTOV, L. V.

What are the flood lands? Izv Vses geog ob-va 96 no. 1:
64-67 Ja-P '64. (MIRA 17:5)

KLIMETOV, L.V.

Definition of the concept "plavni." Bot. zhur. 49 no.1:127-130
Ja '64. (MIRA 17:2)

1. Odesskiy gosudarstvennyy universitet.

KLIMENTOV, L.V.

Change in the landform and vegetation in the estuary section
of the floodland of the lower Dniester and its floodlands. Trudy
Od. un. 152. Ser. geol. i geog. nauk no.9:93-106 '62.

(MIRA 17:6)

5(1),25(5)

AUTHORS:

Klimentov, M. G., Kopovoy, P. M.

SOV/64-58-7-14/18

TITLE:

Calcination of Bicarbonate With Indirect Steam
(Kal'tsinatsiya bikarbonata glukhim parom)

PERIODICAL:

Khimicheskaya promyshlennost', 1958, Nr 7, pp 440-441 (USSR)

ABSTRACT:

The soda production according to the ammonia method is carried out in some enterprises, among them at the Sterlitamakskiy *sodovyy* zavod (Sterlitamak Soda Works), on obsolete plants. Drying drums are used which need larger amounts of expensive fuels and have other disadvantages in addition to this. In the above-mentioned branch experiments with drying plants of the dry-box type with indirect steam heating were carried out. The plant is a vertical drum with four heating levels which have a distance of 400 mm from each other. The heating surface was produced by casting a steel tube coil with cast iron and processing the surface on a lathe. Each level has a steam and condensation water tube. The bicarbonate is filled in through the upper opening and the soda through the lower bunker. The mixing is carried out by means of scrapers which secure the same height of the charge at all levels. Steam of 11 atmospheres absolute pressure was used. In the experiments a

Card 1/2

Calcination of Bicarbonate With Indirect Steam

SOV/64-58-7-14/18

capacity of 320 kg soda/24 hours per 1 m² heating surface was attained. It was found that the efficiency of the level driers is higher than that of the drying drums. The power consumption is much lower with the former, and there exists a better possibility of controlling temperature, and the plant can be adjusted to operation in vacuum. With a lower volume required smaller heating surfaces are present and the bicarbonate does not bake together due to the indirect steam heating and does not stick to the levels and scrapers. There are 2 tables.

Card 2/2

KLIMENTOV, P. P. (Assb)

"Investigation of Certain Radio Engineering Circuits with Negative Parameters." Cand Tech
Sci, Moscow Electrical Engineering Inst of Communications. 11 Mar 54. Dissertation
(Vechernyaya Moskva Moscow, 26 Feb 54)

SO: SUM 186, 19 Aug 1954.

KLIMENTOV, P. P.

KAMENSKIY, Grigoriy Nikolayevich, 1894-

; KLIMENTOV, P.P.; OVCHINNIKOV, A.M.

[Hydrogeology of mineral deposits] Gidrogeologiya mestorozhdenii
polesnykh iskopaemykh. Pod red. G.N.Kamenskogo. Moskva, Gos. izd-
vo geol. lit-ry, 1953. 354 p. (MLRA 7:6)

(Geology, Economic)

(Mines and mineral resources)

KLIMENTOV, P. P.

"The Hydrogeology of Mineral Formations," by G. N. Kamensky, P. P. Klimentov and A. M. Ovtchinnikov, and authorized by the General Administration for Higher Education of the Ministry of Culture of USSR to be used as a textbook in Geological Institutes. Published by the State Publishing House for Literature on Geology, Moscow, 1953.

Foreword	3
Chapter I. A Short Historical Survey of the Development of Hydrogeology	5
Chapter II. Conditions of Irrigation in Mineral Formations	15
Chapter III. Hydrogeological Conditions of Some Types of Mineral Formations	37
Chapter IV. The Chemical Composition of Water in Mineral Formations.	94
Chapter V. Water Supply Systems for Exploitation and Draining	122
Chapter VI. Estimations of Water Supply (Infiltration)	132
Chapter VII. Methods of Draining Mineral Formations (Underground Mining).	188
Chapter VIII. Measures for Fighting Ground Waters in Open Pit Mining	257
Chapter IX. Hydrogeological Analysis in Prospecting	303
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The book gives a survey of Mining Hydrogeology from the theoretical, methodical and practical points of view. It gives information on the presence of water in different geological structures, the chemical composition of ground waters, observations on infiltration and its effect on rock. It explains the best measures to use for fighting infiltration and methods of hydrogeological analysis and hydrogeological service.

SO: 38305

KLIMENTOV, P. P.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1972 and 1973. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1974)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Kamenskiy, G. N. Klimentov, P. P. Ovchinnikov, A. M.	"Hydrogeology of Deposits of Useful Minerals"	Moscow Geological Prospecting Inst- itute imeni S. Ordzhonikidze

SO: W-30604, 7 July 1974

KLIBENTOV, P. P.

5409. Gidrogeologiya. Kratkiy kurs obshchey i rudnichnoy gidrogeologii. (Uchebnik dlya geol.-razved. tekhnikov). M., Gosgeoltekhizdat, 1954. 312 s. s ill. i kart.; 2 l. skhem. i kart. 22 sm. 15,000 eks. 7r.95k. V per. —M tit. 1. oshibочно: Kratkiy kurs obshchey i rudnichnoy geologii.—Bibliogr: S. 303—306 —(55-1043) 551.49-44 (016.3)

SO: Knizhnaya Letopis', Vol. 1, 1955

KLIMENTOV, Petr Platonovich

Academic degree of Doctor of Geological-Mineralogical Sciences, based on his defense, 29 December 1954, in the Council of the Moscow Geological-Res Inst imeni Ordshonokidze, of his dissertation entitled: "Hydrogeological basis of prognosis of water inflow into mine openings and measures for draining."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no.9, 16 April 55, Byulleten' MVO SSSR, No. 14, Jul 56, Moscow, pp 4-22, Uncl. JPRS/NY-429

KLIMENTOV, P.P.

New theory for determining water influx in mines. Rasved. 1 ekh. no. 20 no. 5:41-47 '54. (MIRA 10:1)
(Water, Underground) (Mine drainage)

W-31429, 2 Sep 55

KLIMENTOV, P.F., OVCHINNIKOV, A.M., redaktor; ENTIN, M.L., redaktor;
KISHINEVA, A.A., tekhnicheskii redaktor

[Hydrogeology; brief course of general and mine hydrogeology]
Gidrogeologiya; kratkii kurs obshchei i rudnichnoi gidrogeologii.
Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geologii i okhrane
nedr, 1955. 311 p. [Microfilm] (MIRA 8:3)
(Water, Underground) (Mine water)

✓ 2379. Klitmantsev, P. P. Determination of the coefficient of filtration for a given excavation from a solid aperture to the extent of one degree of determination of the level. *Trudy Vuzovskogo Nauchno-Issledovatskogo Instituta Gidrotekhnicheskogo Stroitel'stva*, No. 1, 1974, 46-48, 20 p., 10 illustrations, 1 table, Rev. 6401.

3

A graphical solution of the Laplace equation is put forward for the yield of the ideal well, coinciding with the Laplace equation of P. Kuznetsov for the radius of influence of such a well when the flow is steady. In the case of a water-bearing layer of the type of a pumping out, the coefficient of filtration is determined by the influence. Kuznetsov in [1974] also considers the case of a water-bearing layer. It has to be pointed out that the radius of the zone of influence of a well conditioned by steady pumping is a function of the radius of influence. The radius of contour of the zone of discharge of the water-bearing layer is introduced.

Translation from *Engineering Geology*, Vol. 15, No. 1, 1977, p. 107-110.

~~SYROVATKO, M.V. KLIMENTOV, P.P.~~
~~P.P. KLIMENTOV, P.P.~~

SYROVATKO, M.V.

Review of the book "Hydrogeology of mineral deposits" written by
G.H.Kamenskii, P.P.Klimentov, A.M.Ovchinnikov. Reviewed by M.V.
Syrovatko. Sov.geol. NO. 100-105 '55. (MLRA 8:11)
(Mines and mineral resources) (Kamenskii, Grigori Nikolaevich,
1894-) (Klimentov, P.P.) (Ovchinnikov, A.M.)

KLIMENTOV, P.P.

Analysis of the effect of deposit relief on the quantity of water
inflow into mine workings. Rasved. i okh. nedr 22 no. 1:45-48 Ja '56.
(NIRA 9:5)

(Water, Underground) (Mine drainage)

KLIMENTOV, P.P.

Basic requirements for sinking and constructing hydrogeological wells. *Izv. vys. ucheb. zav. i geol. i razv. i no.12:123-130 D*
'58. (MIRA 12:12)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.
(Water, Underground)

SOV/132-59-6-8/16

3(2)

AUTHOR: Klimentov, P.P.
TITLE: On the Problem of Hydrogeological Sampling of Bore-Holes Used for Mapping
PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 6, pp 47 - 51 (USSR)

ABSTRACT: The author describes the utilization of bore-holes, drilled for structural mapping purposes, as hydro-geologic observation points and different types of samplers to be used in these bore-holes. Usually, the bore-hole must have been thoroughly cleaned and the drilling fluid pumped out before samples of ground water could be taken for analysis. The samplers proposed by the author very much simplify this operation. The construction of these samplers is very simple (Figures 1 and 2). They consist of a long metallic tube with rubber compartments, and a sample-taking compartment either at the end of the tube or in the

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SOV/132-59-6-8/16

To the Problem of Hydrogeological Sampling of Bore-Holes Used
for Mapping

middle between two rubber chambers. When the air is pumped into this tube the rubber parts inflate and isolate the part of bore-hole from which water for analysis is to be taken. The action of these samplers is described in detail. There are 3 diagrams.

ASSOCIATION: MGRI

Card 2/2

KLIMENTOV, P.P.

Special methods for shaft sinking in quicksand. Izv. vys. ucheb.
zav.; geol. 1 rasv. 2 no.6:117-125 Ja '59 (MIRA 13:3)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordshonikidse.
(Shaft sinking)

KLIMENTOV, P.P.

Graphic method for the determination of the reduced power of underground streams. Izv. vys. ucheb. zav.; geol. i razved. 3 no.9:87-97 8 '60. (MIRA 13:12)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordashonididse. (Water, Underground--Graphic methods)

KLIMENTOV, Petr Platonovich; LANGE, O.K., sasluzhennyi deyatel' nauki, prof.,
retsensent; CHAPOVSKIY, Ye.G., nauchnyy red.; SKVORTSOV, V.P., red.
izd-va; IVANOVA, A.G., tekhn. red.

[Methodology of hydrogeological investigations] Metodika gidrogeolo-
gicheskikh issledovaniy. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry
po geol. i okhrane neдр, 1961. 389 p. (MIRA 1416)
(Water, Underground)

KLIMENTOV, P.P.

Role of hydrogeology in the development of the national economy of the
Chinese People's Republic. Trudy MGRI 38:114-120 '60. (MIRA 14:5)
(China—Water, Underground)

KLIMENTOV, Petr Platonovich; PYKHACHEV, Georgiy Borisovich; TOLSTIKHIN, N.I., prof., retsenzent; SHAGUYANTS, S.A., prof., retsenzent; DAVIDOVICH, V.I., dots., retsenzent; ASATUR, K.G., dots., retsenzent; NOVOZHILOV, V.N., dots., retsenzent; PAUKER, N.G., starshiy nauch. sotr., retsenzent; KRASIL'NIKOVA, N.P., ass., retsenzent; ABRAMOVA, S.K., otv. red.; SLAVOROSOV, A.Kh., red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[Dynamics of underground water] Dinamika podzemnykh vod. Moskva, Gos.nauchno-tekhn.isd-vo lit-ry po gornomu delu, 1961. 514 p.
(MIRA 14:12)

(Water, Underground)

KLIMENTOV, P.P.

Hydrogeological investigation in boring for thermal waters.
Izv.vys.ucheb.zab.;geol.i razv. 4 no.9:94-107 B '61. (MIRA 14:9)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze.
(1961)

KLIMENTOV, Petr Platonovich, prof.; FEDOSEYEV, I.A., red.; KAPYSHEVA, V.S., red.isd-va; GOROKHOVA, S.S., tekhn. red.

[General hydrogeology] Obshchaya gidrogeologiya. Iss.2., perer.
Moskva, Vysshaya shkola, 1962. 210 p. (MIRA 16:2)
(Water, Underground)

SEDENKO, Matvey Vasil'yevich; ^{USA}TOLSTIKHIN, N.I., retsenzent; KLIMENTOV, P.P.,
retsenzent; ZHELTOV, P.I., retsenzent[deceased]; CHAPOVSKIY, Ye.G.,
red.; FEDOTOVA, A.I., red.isd-va; GUROVA, O.A., tekhn. red.

[Hydrogeology and engineering geology]Gidrogeologiya i inzhener-
naia geologiya. Moskva, Gosgeoltekhizdat, 1962. 356 p.
(MIRA 16:2)

(Water, Underground) (Engineering geology)

KLIMENTOV, P.P.

Effect of underground waters on the process of underground
gasification of coal deposits. Izv. vys. ucheb. zav.; geol. i
razv. 6 no.4:106-119 Ap '63. (MIRA 1616)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordshonikidse.
(Coal gasification, Underground)
(Water, Underground)

KLIMENTOV, P.P.

Hydrogeological studies for purposes of underground gasification
of coal deposits. Izv. vys. ucheb. zav.; geol. i razv. 6
no.9:104-119 S '63. (MIRA 17:10)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordshonikidse.

KLIMENTOV, P.P.

Hydraulic fracture for the underground gasification of coal deposits.
Izv. vys. ucheb. zav.; geol i razv. 7 no.10:97-105 0 '64. (MIRA 18:7)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordashonkida.

KLIMENTOV, V.

A case of injury of the subclavian artery in thoracoplasty. *Sovrem. med.*,
Sofia 8 no.9:100-102 1957.

1. Is sanatoriuma na SOHS - Iskretz Gl. lekar: S. Simeonov.
(COLLAPSE THERAPY, compl.
perop. inj. of subclavian artery in thoracoplasty)
(ARTERIES, SUBCLAVIAN, wounds and inj.
perop. in thoracoplasty)

KLIMENTOV, V.; CHERNEV, B.

Epidemiology of osteoarticular tuberculosis in Bulgaria during
the period of 1952-1960. Khirurgia 15 no.2/3:193-195 '62.

(TUBERCULOSIS OSTEOARTICULAR epidemiol)

KLIMENTOV, V. B.

89-12-4/29

AUTHORS: Klimentov, V. B., Gryazev, Y. M.

TITLE: Measurement of Neutron Resonance Absorption Integrals (Izmereniye rezonansnykh integralov pogloshcheniya neytronov)

PERIODICAL: Atomnaya Energiya, 1957, Vol. 3, Nr 12, pp. 507-514 (USSR)

ABSTRACT: The measurements were carried out in a swimming-pool reactor. Its critical radius was 35 cm and its height was 60 cm. The active zone contained 10 kg U²³⁵ and the relation H/U²³⁵ amounted to 330. Natural uranium and ordinary water were used as heterogeneous reflector. In the center of the active zone a thermal flow of neutrons of less than 10⁸ n/cm².sec was measured. The resonance integrals were measured by the aid of the statistical method of the reactivity modification of the reactor and they provided the following results:

Element	Resonance absorption Integral in barn	Element	Resonance Absorption Integral in barn	Element	Resonance Absorption Integral in barn
B	280±40	Cd	11,7±2,7	Cs	169±23
N	4,8±2,4	Ge	3,5±2,9	Ba	12,6±1,7
F	2,3±0,5	Se	9,6±1,2	Sm	1790±270

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Measurement of Neutron Resonance Absorption Integrals.

89-12-4/29

Cl	$12,8 \pm 1,7$	Br	118 ± 14	Od	67 ± 8
K	$3,5 \pm 1,7$	Rb	$9,0 \pm 2,8$	Hf	1470 ± 200
Ti	$3,8 \pm 0,9$	Sr	$10,0 \pm 2,6$	Ta	474 ± 62
V	$3,3 \pm 0,8$	Zr	$3,7 \pm 0,5$	W	290 ± 35
Cr	$2,6 \pm 1,1$	Mo	$13,8 \pm 1,7$	Os	180 ± 20
Mn	$11,7 \pm 1,5$	Ag	466 ± 70	Ir	2000 ± 490
Fe	$2,3 \pm 0,4$	In	2220 ± 300	Hg	$72,4 \pm 8,0$
Co	$38,3 \pm 4,0$	Sn	$5,7 \pm 0,7$	Th	$61,8 \pm 12,0$
Ni	$3,2 \pm 0,5$	Sb	106 ± 13	U	224 ± 40
Cu	$3,7 \pm 0,8$	Te	106 ± 13		
Zn	$3,4 \pm 0,8$	I	106 ± 12		

There are 2 tables, 6 figures and 9 references, 3 of which are Slavic.

SUBMITTED:

May 10, 1957

AVAILABLE!
Card 2/2

Library of Congress

KLIMENTOV V. I.
FEYBERG, S. M., VOROBYEV, E. D., GRYASEV, V. M., KLIMENTOV, V. B., LYASH-
CHENKO, N. Ya., TSIKANOV, V. A.

"Uranium-Water Intermediate Reactor Used for Obtaining High-Intensity
Neutron Fluxes."

paper to be presented at 2nd UN Intl. Cong. on the peaceful uses of Atomic
Energy, Geneva, 1 - 13 Sept 58.

KLIMENTOV, V. B.

35093

S/185/62/007/001/001/014
D299/D302

21-1000
AUTHORS:

Pasichnyk, M.V., Barchuk, I.P., and Klymentov, V.B.

TITLE:

Experimental study of the physical parameters of the VVR-M reactor of the Institute of Physics of the Academy of Sciences UkrSSR

PERIODICAL:

Ukrayins'kyi fizychnyy zhurnal, v. 7, no. 1, 1962, 3-13

TEXT: The VVR-M reactor, built at the Institute of Physics of the AS UkrSSR, is an improved version of the light-water moderated reactor VVR-S. The design and characteristics of the reactor are described in V.V. Goncharov et al. (Ref. 1: "Trudy" of the Second International Conference on the Peaceful Uses of Atomic Energy, Geneva 1958 Doklady sovetskikh uchenykh, v. 2, Atomizdat, M., 1959). The improvement resulted in a fivefold increase in the power level of the reactor and in a tenfold increase in the density of the neutron flux in the active section. The results are given of experiments conducted during the operation of the reactor at almost-zero power. The critical experiment of the reactor at almost-zero power. The critical experiment was completed when a power of 5000 kw was reached
Card 1/3

X

Experimental study of the physical ...

S/185/62/007/001/001/014
D299/D3C2

ched. Two types of active section were studied: 1) With central configuration, and 2) A shifted section. The loading of the section and the disposition of all the elements of the reactor are shown in two figures. The attainment of critical size was controlled by means of three starting devices. The pre-critical experiments were conducted in the presence of a radium-beryllium neutron source. Graphs are shown of the multiplication, upon reaching the critical state; according to these graphs, the critical mass of the reactor with beryllium neutron moderator equals 50.5 fuel units (1.39 kg/ U²³⁵). The efficiency of manual rod-control (with respect to the shell-and-tube heat exchangers (THE)) was estimated. The relative distribution of the thermal-neutron flux was determined by the method of activated copper indicator wires (0.7 to 1.0 mm in diameter). The distribution curves show a maximum of thermal-neutron flux at a distance of 4 - 5 cm from the outer THE-elements. The mean value of the neutron flux for a distribution down the central THE-elements, is $\bar{N}_2 = 0.48$, whereas the maximum value $N_{rel} = 0.6$. The distribution curves are almost symmetrical, with the exception of one curve, whose nonsymmetri-

Card 2/3

X

Experimental study of the physical ...

S/185/62/007/001/001/014
D299/D302

cal shape is due to the influence of the boron automatic-control rods. Calibration of control rods: The following control-rods were calibrated: 1) The automatic control rod, 2) the first- and the second manual control-rods, and 3) the precision control-rod. The manual control-rods contain boron carbide. The automatic control-rod is of steel or boron carbide. Calculations showed that upon reaching a power of 5000 kw, the reactor contained a maximum flux of thermal neutrons -- $0.5 \cdot 10^{14}$ neutr./cm²sec. With an active section of $5.5 \cdot 10$ cm³, the mean flux of thermal neutrons was $0.37 \cdot 10^{14}$ neutr./cm²sec. The authors express their thanks to the personnel of the reactor of the Institute of Physics of the AS UkrSSR, who started the reactor, and of the Institute of Atomic Energy of the AS USSR im. I.V. Kurchatov. There are 12 figures, 2 tables and 2 Soviet-bloc references.

ASSOCIATION: Instytut fizyky AN URSR (Institute of Physics of the AS UkrRSR), Kyiv

SUBMITTED: March 6, 1961

Card 3/3

X

PASECHNIK, M.V. [Pasiornyk, M.V.]; BARCHUK, I.F.; KLIMENTOV, V.B.
[Klymentov, V.B.]

Experimental investigation of the physical parameters
of the VVR-M [water moderated-water cooled] reactor of the
Institute of Physics of the Academy of Sciences of the
Ukrainian S.S.R. Ukr.fiz.sbur. 7 no.1:3-14 Ja '62. (MIRA 15:11)

1. Institut fiziki AN UkrSSR, Kiyev.
(Kiyev—Nuclear reactions)

L 1h219-66 EWT(d)/EWT(m)/EWP(v)/EWP(k)/EWP(h)/EWP(1) DIAAP
ACC NKT AP8005535 SOURCE CODE: UR/0089/66/020/001/0083/0065

AUTHOR: Klimentov, V. B.; Nachinoruk, V. A.; Kopchinskiy, G. A.; Yaroshevich, V. F.; Strutsinskiy, V. A.; Popov, V. D.; Nikonov, A. V.

ORG: none

TITLE: Test stand at the Institute of Physics AN UkrSSR

SOURCE: Atomnaya energiya, v. 20, no. 1, 1966, 63-65

TOPIC TAGS: nuclear engineering, nuclear reactor, reactor fuel element, test stand

ABSTRACT: A test stand for critical assemblies was put into operation at the Institute of Physics AN UkrSSR at the end of 1964. The installation uses assemblies of fuel elements of the VVR-M research reactor; the moderator is ordinary water; the side reflector is made from the beryllium reflectors of the VVR-M reactor. The stand is located in a separate building. The radioactive zone is separated from the control panel by one meter of concrete shielding. The installation is equipped with sensitive monitoring and measuring systems as well as with systems for automatic and remote control. All precautions have been taken to assure reliable nuclear

UDC: 621.039.572

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L 11219-66
ACC NR: AP6005838

safety and automatic control of the critical assemblies. A dc amplifier is connected to a galvanometer for monitoring currents in the ionisation chamber down to 10^{-12} amp. Two recording potentiometers and a pulse rate counter are used for monitoring the power level. The instruments give reliable readings below the subcritical power level. Automatic control of the process is possible during operation at a power of more than 0.03 w which corresponds to an average thermal neutron flux of about $0.4 \cdot 10^6$ neutrons/cm²·sec. The automatic regulator consists of two KXK-56 ionization chambers connected in parallel, a potentiometric power controller with a high impedance input and a steel absorber, an electronic amplifier and an amplidyne. This automatic regulator is extremely convenient for operation with critical assemblies. It may be used for rapid compensation of a chain reaction at "zero" power levels and for calibration of control rods. The unit increases work safety and accuracy of holding a constant power level when detectors are activated. In addition to the steel absorber in the automatic regulator, chain reaction may be controlled by two or three boron remote control rods. An emergency signal automatically brings these rods together with three emergency safety rods into the radioactive zone of the assembly. All control and safety rods are moved by servo drives which are connected to selsyns and position indicators. Operational experience at

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L 11219-66

ACC NR: AP600555

the Institute of Physics has shown that the test stand is a versatile tool which
may be conveniently used for experimental research in physics and nuclear engineer-
ing. Orig. art. has: 4 figures. [14]

SUB CODE: 18/

SUBM DATE: 29Jul69/

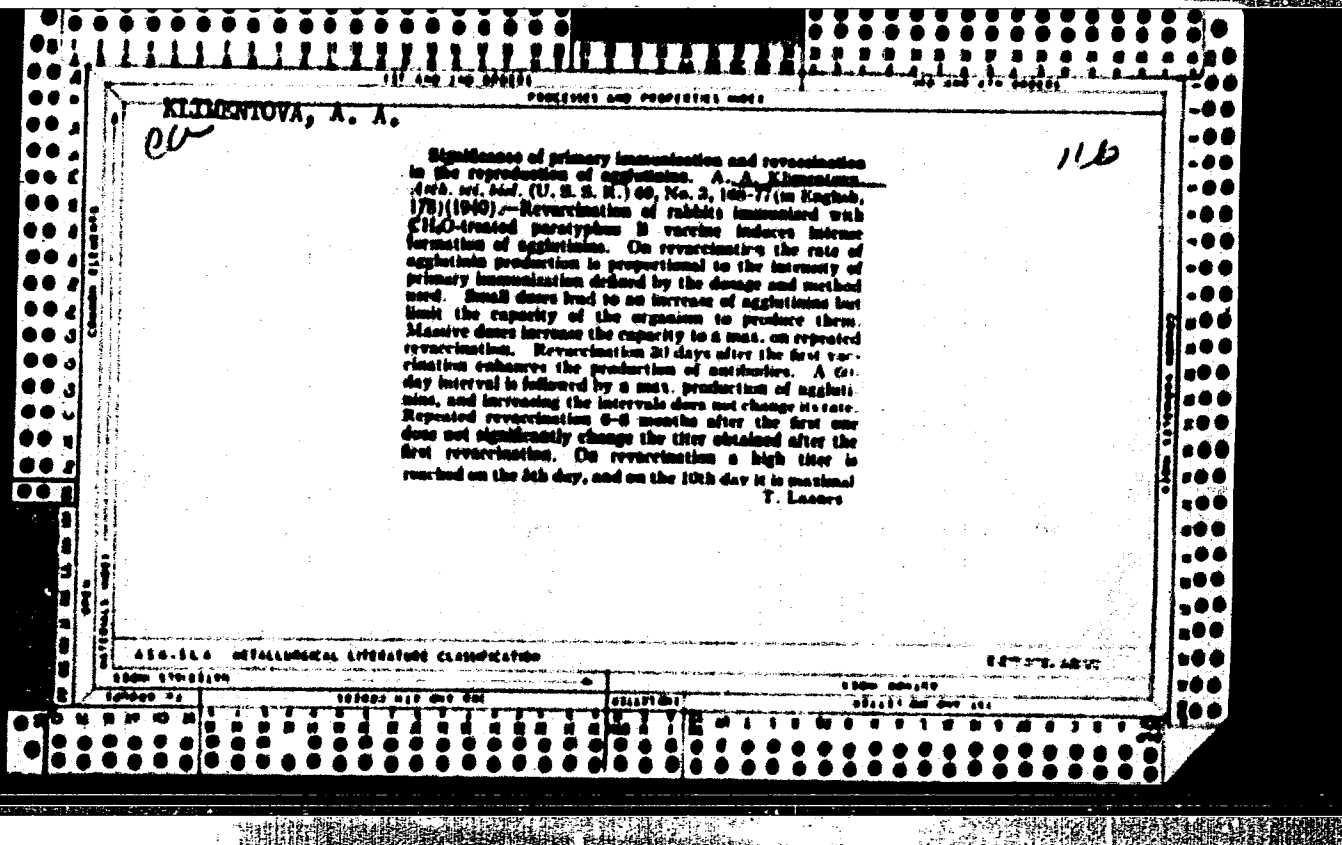
ATD PRESSY

4195

TS
Card 3/3

AKULINICHEV, I.T.; ANDREYEV, L.F.; BAYEVSKIY, R.M.; BAYKOV, A.Ye.; BUYLOV, G.G.
GAZENKO, O.G.; GRYUNTAL', R.G.; ZAZYKIN, K.P.; KLIMENTOV, Yu.P.;
MAKSIMOV, D.G.; MERKUSHKIN, Yu.G.; MONAKHOV, A.V.; PETROV, A.P.;
RYABCHENKOV, A.D.; SAZONOV, N.P.; UTYAMYSHEV, R.I.; FREYDEL', V.R.;
KHIL'KEVICH, B.G.; SHADRINTSEV, I.S.; SHEVANDINA, S.B.; ESAULOV,
N.G.; YAZDOVSKIY, V.I.

Method and means of medical and biological studies in a space
flight. Probl. kosm. biol. 3:130-144 '64. (MIRA 17:6)



KLIMENTOVA, A. A. and UCHTEL', I. Ya.

"Problemy Reaktivnosti Uchenii Infetsii i Immyunitete
(Problems of Reactivity in the Theory of Infection and
Immunity), Medgiz, 1950, pp 197-198.

KLIMENTOVA, A.A.

Significance of conditioned reflexes in the formation of specific agglutinins. Zhur.mikrobiol.epid. i immun. no.8:80-84 Ag '55.
(MLRA 8:11)

1. Iz Instituta epidemiologii i mikrobiologii imeni N.F.Gazalei
AMN SSSR (dir.--prof. G.V.Vygodchikov)
(REFLEX, CONDITIONED,
eff. on agglutinin form.)
(AGGLUTINATION,
specific agglutinin form.,eff. of conditioned reflex)

KLI ENTOMA, A. A., SHUKANOVAN G, Y., YAKOVLEVA, YE. A.

"Immunogenesis and conditioned reflexes."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists,
and Infectionists, 1959.

L 62623-65 EWT(1)/EWA(J)/EWA(b)-2 JK

ACCESSION NR: AP5011283

UR/0016/65/000/004/0096/0101

AUTHOR: Klimentova, A. A.; Fryazinova, I. B. 17

TITLE: Immunogenesis and cellular reactions of lymph nodes under conditions of vitamin C deficiency 16

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 4, 1965, 96-101 15

TOPIC TAGS: animal, guinea pig, immunology, vitamin C, vitamin deficiency, lymph node, antibody, antigen, complement fixation

ABSTRACT: The effect of a vitamin C deficiency on antibody formation in regional lymph nodes was investigated in guinea pigs in two experimental series using a corpuscular antigen and a soluble antigen. Control animals were maintained on a Lecoq diet and a 30 mg. daily dose of ascorbic acid. A vitamin C deficiency was induced in the experimental animals by a Lecoq diet with the daily dose of ascorbic acid reduced to 0.5 mg in the first series, and 0.3 mg in the second series. Animals of the first series were immunized with a corpuscular Rickettsia mooseri antigen and animals of the second

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L 62623-65

ACCESSION NR: AP5011283

series were immunized with a soluble diphtheria anatoxin to determine complement fixation reactions. Groups of animals were killed at periods of 1 to 25 days following immunization. Body weight changes, blood serum protein fraction levels, ascorbic acid levels of organs, antibody titer fluctuations of lymph nodes and blood, and cellular changes of lymph nodes served as indices. Results show that in the first series, complement fixing antibodies were found in the regional lymph nodes and blood by the 3d day and reached a peak by the 5th day. The antibody level of the blood was considerably higher than that of the regional lymph nodes, and remained high up to the 15th day. In the first series, the vitamin C deficiency tended to increase antibody formation slightly compared to control animals. In the second series, diphtheria antitoxin levels of the regional lymph nodes and blood were similar to those of control animals, but appeared a few days later and titers were slightly higher. On the basis of present findings, the immunological response of animals does not appear to be significantly affected by a vitamin C deficiency. Orig. art. has: 2 figures & 1 table.

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L 62623-65

ACCESSION NR: AP5011283

ASSOCIATION: Institut epidemiologii i mikrobiologii im. Gamalei
AMN SSSR (Institute of Epidemiology and Microbiology AMN SSSR)

SUBMITTED: 06Mar64

ENCL: 00

SUB CODE: LS

NR REF SOV: 011

OTHER: 005

llc
Card 3/3

KLIMENTOVA, A.A.; FIYAZINOVA, I.B.

Immunogenesis and cellular reaction of the lymphatic nodes in
C-hypovitaminosis. Zhur.mikrobiol., epid. i immun. 42 no.4:96-
101 Ap '65. (MIRA 18:5)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

KLIMENTOVA, A.S.; FEDOROVA, N.A.

Outbreak of dysentery of alimentary origin. Zhur.mikrobiol.,
epid. i immun. 42 no.9:143-144 S '65.

(MIRA 18:12)

1. Submitted March 28, 1964.

SITKOVSKIY, P.A.; KOMAROV, G.V.; BRUSENCEV, V.F.; KREMNITSKIY, N.N.;
MAMAYEV, M.G., kand.tekhn.nauk; SMIRNOV, A.V., kand.tekhn.nauk;
AFANAS'YEV, I.V.; VOLOD'KO, I.F., kand.tekhn.nauk; KEGEL'YAROV, S.A.;
KONDRAT'YEV, V.V.; KARLINSKAYA, M.I.; NIKOLAYEV, M.I., kand.tekhn.
nauk; DOROKHOV, S.M.; PISHCHUROV, P.V.; KLIMENTOVA, A.V.; ROZHENLAT,
Zh.I.; FANDYEV, V.V., kand.tekhn.nauk; KULIKOV, P.Ye.; SHIMANOVICH,
S.V.; DELITSIN, M.V., retsentsent; BRAUDE, I.D., retsentsent; BARYSHEV,
A.M.; retsentsent; GRIGORYANTS, A.S., retsentsent; IGNAFYUK, G.L.,
retsentsent; KALABUGIN, A.Ya., retsentsent; KREMNITSKIY, N.D.,
retsentsent; POPOV, K.V., retsentsent; ORLOVA, V.P., red.; LETEV,
V.Ya., red.; SOKOLOVA, N.N., tekhn.red.; FEDOTOVA, A.F., tekhn.red.

[Handbook for hydraulic and agricultural engineers] Spravochnik
gidrotekhnika meliorators. Moskva, Gos.isd-vo sel'khoz.lit-ry,
1958. 766 p. (MIRA 12:3)
(Hydraulic engineering) (Agricultural engineering)

SAVITSKIY, Leopol'd Mikhaylovich; FOKIN, D.P.; KLIMENTOVA, A.V.;
OVCHINNIKOV, V.V.; VAINSHTEYN, I.S.; ZAPIVAKHIN, A.Y., red.;
PROKOF'YEVA, L.N., tekhn.red.

[Economic effectiveness of land improvement] Ekonomicheskaya
effektivnost' melioratsii zemel'. Moskva, Gos.isd-vo sel'khoz.
lit-ry, 1960. 143 p. (MIRA 13:10)
(Reclamation of land)

KLIMENTOVA, J.

ACTH in the treatment of hyperemesis. Cesk. gynec. 29 no.9:
691-694 N°54

1. Gyn.-por.odd. ZUNĚ v Gottwaldově (vedoucí MUDr. J. Pěkorný).

KLIMENTOVA, N. V., KOLESNIKOV, G. S. and DAVYDOVA, S. L. (USSR)

Polimery soderzhashchie germanii
Germanium containing polymers
IUPAC 8 I:156-9

report presented at the Intl. Symposium on Macromolecular Chemistry, Moscow,
14-18 June 60

KLIMENTOVA, M.

KLIMENTOVA, M.

Problems concerning the technique of preparing meals in collective eating places.
p.126 (Vyziva Lidu. Praha. Vol. 9, no. 9, Sept. 1954)

East

SO: Monthly List of European Association (EEA), LC, Vol. 1, No. 6,
June 1955, Wash.

KLIMENTOVA, M.

Reason for the insufficient thickening of some jams and marmalades. (Supplement)

P. 25 (Ministry of Health, Research Institute for Organization of Health Service)
Vol. 12, No. 7/8, July/Aug. 1957.

SO: Monthly Index of East European Accessions (AEEI) Vol. 6, No. 11 November 1957.

KLIMENTOVA, M.

Preserving vitamin C in ready-cooked meals. (Supplement)

p. 37 (VYZIVA LIDU) Vol. 12, no. 11, Nov. 1957,
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,
March 1958

KLIMENTOVA, M. I.

KOLEBNIKOV, G.S.; KLIMENTOVA, N.V.

Tributylboron as a catalyst for polymerization of unsaturated compounds. *Izv. AN SSSR. Otd. khim. nauk no. 5:652-653 Ny '57.*

(MIRA 10:8)

1. Institut elementorganicheskikh soedineniy Akademii nauk SSSR;
(Boron organic compounds) (Catalysts) (Polymerization)

Bu B is shown to be a very effective catalyst for the polymerization of Ph-CH:CH₂, CH₂:CHCN, and CH₂:CMeCO Me; the use of 2% catalyst results in rapid polymerization of the monomers within a few hrs.; acrylonitrile, however, polymerizes but sluggishly.

AUTHORS: Kolesnikov, G. S., Fedorova, L. S., SOV/62-58-7-15/26
Tsetlin, B. L., Klimentova, N. V.

TITLE: Carbon Chain Polymers and Copolymers (Karbonsepnnye polimery i sopolimery) Communication 5. The Synthesis and the Properties of the Copolymers of Acrylonitril and Methyl Methacrylate (Soobshcheniye 5. Sintez i svoystva sopolimero-
metilmetakrilata)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 7, pp 886 - 890 (USSR)

ABSTRACT: The present paper deals with the explanation of the influence of the correlation of the monomers (in the initial mixture) on the composition (structure) of the copolymer at a relatively high rate of reaction. The authors further deal with the investigation of the dependence of some properties of the copolymers on their structure. The authors produced acrylonitrile and methyl methacrylate copolymers by means of an emulsion at a high rate of reaction. Furthermore the structure of these copolymers was determined. It was found that minimum values of the characteristic viscosity of the copolymers on the one hand, and of the temperatures of the passage into highly elastic and more liquid

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Carbon Chain Polymers and Copolymers. Communication 5: SOV/62-58-7-15/26
The Synthesis and the Properties of the Copolymers of Acrylonitril and Methyl Methacrylate

state on the other hand correspond to copolymers of different structure. It was also found that methyl methacrylate copolymers with acrylonitrile (up to 30 molar % of acrylonitrile) approach poly methyl methacrylate very closely as regards its stability. There are 3 figures, 2 tables, and 11 references, 2 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR
(Institute of Elemental-organic Compounds, AS USSR)

SUBMITTED: December 30, 1956

Card 2/2

5(3)

AUTHORS:

Kolesnikov, G.S., Klimentova, N.V.

SOV/62-58-11-18/26

TITLE:

Carbon Chain Polymers and Copolymers (Karbotsnepnyye polimery i sopolimery)
Communication 5. Copolymerization of Acrylonitrile and Methyl Methacrylate in the Presence of Tributyl Boron (Soobshcheniye 5. Sopolimerizatsiya akrilonitrila i metilmetakrilata v prisutstvii tributilbora)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 11, pp 1383 - 1387 (USSR)

ABSTRACT:

By provisional experiments the authors have ascertained that methyl methacrylate is polymerized by activated borofluoride etherate if its solution in toluene with tributyl boron is heated. At the same time the polymerization of methyl methacrylate also takes place, if the activator is not present, but in the presence of tributyl boron. The first series of experiments was carried out for the purpose of ascertaining the influence of the concentration of catalyst and activator on the composition, yield and properties of the copolymer. Results are given (Table 1). It has been ascertained that for the production of a copolymer of maximum molecular weight a concentration of the catalyst of the

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Carbon Chain Polymers and Copolymers. Communication 5.
Copolymerization of Acrylonitrile and Methyl Methacrylate
in the Presence of Tributyl Boron

SOV/62-58-11-18/26

order of 2 - 3 molecular % of the sum of monomers must be used. It can be seen (Table 2) that the concentration of the activator has practically no influence on the composition of the polymer and on the yield. In order to explain the influence of temperature on the process of copolymerization a further series of experiments has been carried out (Table 3). It can be seen that the yield of copolymers remains practically constant at temperatures of 30° and above. At 30-40° the characteristic viscosity reaches its maximum. In the following series of experiments (Table 4) the influence of the time of reaction on the copolymerization was investigated. It can be gathered from this table that a prolongation of the time of reaction from 0,5 to 2 hours results in a noticeable increase of the yield. A longer time of reaction exerts smaller influence. The characteristic viscosity increases, if the time of reaction is extended up to 3 hours. It has been tried to ascertain the influence of the relations of monomers on the copolymerization. For this purpose a further series of experiments was carried out, the results of which are given (Table 5). It was ascertained that the content of acrylonitrile in the copolymer

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Carbon Chain Polymers and Copolymers. Communication 5.
Copolymerisation of Acrylonitrile and Methyl Methacrylate
in the Presence of Tributyl Boron

SOV/62-58-11-18/26

in all cases was smaller than in the initial mixture of monomers. The summary concentration of monomers in the reaction mixture is not unimportant for the copolymerization process. An intensified concentration of monomers leads to an increase in the yield of copolymers and to an increase of the characteristic viscosity, if all other conditions remain the same. There are 5 tables and 2 references, 1 of which is Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR
(Institute of ~~Elemental~~organic Compounds of the Academy of Sciences,
USSR)

SUBMITTED: March 21, 1957

Card 3/3

KOLESHNIKOV, G.S.; KLIMENTOVA, N.V.

Carbon chain polymers and copolymers. Part 10: Block polymerisation of methylmethacrylate in the presence of tributylborane. Vysokom. soed. 1 no.3:362-366 Nr '59. (MIRA 12:10)

1. Institut elementoorganicheskikh soedineniy AN SSSR.
(Polymerisation) (Methacrylic acid) (Borane)

5(3)

AUTHORS:

Kolesnikov, G. S., Klimentova, N. V., SOV/62-59-4-26/42
Yermolayeva, T. I.

TITLE:

Carbon Chain Polymers and Copolymers (Karbonsepnnye polimery i sopolimery). Communication 0. Polymerization of Styrene and Methylmethacrylate in Solution in the Presence of Tributyl Boron (Soobshcheniye 0. Polimerizatsiya stirola i metilmetakrilata v rastvore v prisutstvi tributilbora)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 4, pp 727-730 (USSR)

ABSTRACT:

In the present work methylmethacrylate and styrene were polymerized in the presence of variously concentrated tributyl boron whereas the other conditions remained unchanged. The results of the polymerization of methylmethacrylate are shown in table 1, those of the polymerization of styrene in table 2. Hence it can be seen that under the reaction conditions assumed and with a concentration of the catalyst less than 2 mol% the yield of the polymer is considerably reduced. The influence of the temperature on the polymerization process was investigated in two consecutive experimental series. The results are shown in tables 3 and 4. Hence it appears that

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Carbon Chain Polymers and Copolymers.

SOV/62-59-4-26/42

Communication 8. Polymerization of Styrene and Methylmethacrylate in Solution in the Presence of Tributyl Boron

the polymer yield rises with temperature in both cases. As a rule, the specific viscosity of the polymer solution is not influenced by temperature changes. The influence of the duration of polymerization on the yield and molecular weight of the polymers was investigated in two further experimental series. The results are shown in tables 5 and 6. It was found that the polymethylmethacrylate yield increases in the course of three hours and then remains constant. With styrene the yield remains constant already after one hour. The concentration of the solvent influences the molecular weight of the polymer in so far as the solvents usually are the carriers of the chain. The effect of the concentration of the solvent on the polymerization was investigated in two further experimental series (Tables 7 and 8). It was found that a stronger concentration on the monomers in the solvent causes a considerable increase of the methylmethacrylate yield and in both cases causes an increase of the molecular weight. There are 8 tables and 3 Soviet references.

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Carbon Chain Polymers and Copolymers.

80V/62-59-4-26/42

Communication 8. Polymerization of Styrene and Methylmethacrylate in
Solution in the Presence of Tributyl Boron

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR
(Institute of Elemental-organic Compounds of the Academy of
Sciences, USSR)

SUBMITTED: July 10, 1957

Card 3/3

5(3)

AUTHORS:

Kolesnikov, G. S., Fedorova, L. S.,
Tsetlin, B. L., Klimentova, N. V.

SOV/62-59-4-27/42

TITLE:

Carbon Chain Polymers and Copolymers (Karbonsepnyye polimery i sopolimery). Communication 9. Synthesis and Properties of Copolymers of Vinylidene Chloride With Acrylonitrile and Methylmethacrylate (Soobshcheniye 9. Sintez i svoystva sopolimerov khloristogo vinilidena s akrilonitrilom i metilmetakrilatom)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 4, pp 731-735 (USSR)

ABSTRACT:

In the present work an attempt was made of finding out the effect of the composition of copolymers of vinylidene chloride with acrylonitrile and methylmethacrylate on their transition temperatures in various physical states and on their solubility in organic solvents. In the synthesis of the copolymers and in the investigation of their properties the same methods were used as in the investigation of the copolymers of acrylonitrile with methylmethacrylate (Ref 16). The results obtained in the investigation of the composition and properties of the copolymers of the system vinylidenechloride-acrylonitrile

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Carbon Chain Polymers and Copolymers.

SOV/62-59-4-27/42

Communication 9. Synthesis and Properties of Copolymers of Vinylidene Chloride With Acrylonitrile and Methylmethacrylate

are shown in table 1. The conditions were similar in all cases. The only change was in the ratio of the monomers in the initial solution. The values of the vitrification temperature (T_{st}) and the flowing temperature (T_f) of the copolymers were determined from the thermomechanical compression curves (Fig 1). Table 1 shows that a higher vinylidene chloride-monomer content in the initial solution reduces the yield of the copolymer. Of all copolymers obtained only that with 44.1 mol% vinylidene chloride content is soluble in acetone. This copolymer has the least viscosity and the lowest T_{st} . Upon transition from the homopolymer of vinylidene chloride to copolymers with already smaller quantities of acrylonitrile the thermomechanic curves assume the form which is characteristic of normal thermomechanic curves of linear amorphous polymers. The values T_{st} and T_f decrease rapidly. Table 2 shows the investigation results of the system vinylidene chloride-methylmethacrylate. Figure 2 shows the thermomechanic curves for the samples of

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Carbon Chain Polymers and Copolymers.

SOV/62-59-4-27/42

Communication 9. Synthesis and Properties of Copolymers of Vinylidene Chloride With Acrylonitrile and Methylmethacrylate

this system. All copolymers are easily soluble in dichloroethane. Copolymers with a content of 20 mol% vinylidene chloride are soluble in acetone. With a higher vinylidene chloride content they become insoluble in acetone. Copolymers with a high vinylidene chloride content have a low T_{st} and T_t

just as in the system vinylidene chloride-acrylonitrile. Numerous copolymers of this system have a comparatively low T_t and sufficiently high T_{st} . For this reason it might be possible to manufacture these copolymers by means of casting methods. There are 2 figures, 2 tables, and 30 references, 1 of which is Soviet.

ASSOCIATION: Institut elementoorganicheskikh sovedineniy Akademii nauk SSSR
(Institute of Elemental-organic Compounds of the Academy of Sciences, USSR)

SUBMITTED: July 18, 1957
Card 3/3

KLIMENTOVA, N. V.

International symposium on macromolecular chemistry, Moscow, 1962.

... on the synthesis of ... (International Symposium on Macromolecular Chemistry, Moscow, 1962) ...

... The International Union of Pure and Applied Chemistry, ...

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

... This is volume I of a collection with ... papers on macromolecular chemistry in Moscow. The editorial ...

... The synthesis and properties of ...

... Synthesis and properties of ...

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8/190/60/002/004/016/020
B004/B056

15.8114 2109,2200,1581

AUTHORS: Kolesnikov, G. S., Davydova, S. L., Klimentova, N. V.

TITLE: Carbochain Polymers and Copolymers. XXII. Synthesis, Polymerization, and Copolymerization of Methacrylyltriethyl Germanium ↑

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 4, X
pp. 563-566

TEXT: It was the aim of the authors to synthesize methacryl derivatives of germanium and to produce their polymers. In the present paper, a report is given on the results obtained by the hitherto unknown methacrylyltriethyl germanium (MATEG). This compound was synthesized according to the scheme $(C_2H_5)_3GeBr + CH_2=C(CH_3)COOK$.

$\xrightarrow{CH_3OH} CH_2=C(CH_3)COOGe(C_2H_5)_3$. The infrared spectrum of this compound and, for comparison, the infrared spectrum of methylmethacrylate are

Card 1/2

Carbochain Polymers and Copolymers. XXII.
Synthesis, Polymerization, and Copolymerization
of Methacrylyltriethyl Germanium

84515
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B004/B056

shown in Fig. 1. In the presence of benzoylperoxide or azoisobutyric acid dinitrile MATEG polymerized to form transparent products. Further, also copolymerization with methylmethacrylate and styrene was attained. Because of the low activity of MATEG, the copolymers contained considerably less MATEG than the initial mixture with methylmethacrylate (1 : 194; 1 : 239 instead of 1 : 4; 1 : 10; see Table). The thermal properties of the polymer and its copolymers are represented in Fig. 2. The polymer of MATEG softens at 180 - 185°C, its copolymer with methylmethacrylate at a lower temperature, and the copolymer with styrene at about 145°C. The authors thank G. L. Slonimskiy for the thermomechanical examination, N. A. Chumayevskiy for the infrared spectra. There are 2 figures, 1 table, and 5 references: 2 Soviet, 1 US, 1 British, and 1 German.

ASSOCIATION: Institut elementoorganicheskikh sovedineniy AN SSSR
(Institute of Elemental-organic Compounds AS USSR)

SUBMITTED: January 15, 1960

Card 2/2

38893

S/190/62/004/007/009/009
B119/B180

158070

AUTHORS: Kolesnikov, G. S., Davydova, S. L., Klimentova, N. V.

TITLE: Carbochain polymers and copolymers. XL. Polymerization and copolymerization of methacrylic and acrylic derivatives containing germanium

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 7, 1962, 1098-1102

TEXT: Copolymerizing methacrylyl triethyl germanium with styrene at 60°C the authors found the relative activities of the two components to be 0.93 ± 0.08 and 1.05 ± 0.02 respectively. The following new compounds were synthesized: $\text{CH}_2=\text{C}(\text{CH}_3)\text{COOGe}(\text{C}_4\text{H}_9)_3$ (1) (b.p. 130-132°C at 4 mm Hg; d_{20}^{20} 1.0166; n_D^{20} 1.4602 at 20°C); $\text{CH}_2=\text{C}(\text{CH}_3)\text{COOGe}(\text{C}_6\text{H}_5)_3$ (2) (m.p. 180°C); $\text{CH}_2=\text{C}(\text{CH}_3)\text{COOGe} \equiv (\text{C}_6\text{H}_{11})_3$ (3) (m.p. 82-84°C); $\text{CH}_2=\text{CHCOOGe}(\text{C}_2\text{H}_5)_3$ (4) (b.p. 88-90°C at 12 mm Hg; d_{20}^{20} 1.1530; n_D^{20} 1.4582 at 20°C); $\text{CH}_2=\text{CHCOOGe}(\text{C}_4\text{H}_9)_3$ (5) (b.p. 131°C at 4 mm Hg;

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Carbochain polymers and copolymers...

S/190/62/004/007/009/009
B119/B180 d_{20}^{20} 1.0131; n_D 1.4609 at 22°C; $\text{CH}_2-\text{CHCOOGe}(\text{C}_6\text{H}_5)_3$ (6) (m.p. 178-178.5°C).

Compounds 1, 3, 4, and 5 were polymerized separately (initiator: azoisobutyric acid dinitrile), and compounds 1, 4, and 5 were copolymerized (20 mole% each in the reaction mixture) with styrene or methyl methacrylate. Polymer yields were 40-60%, and copolymers 52-60%. $[\eta]$ of the polymers lies between 0.30 and 1.20 (solvent: pyridine, dimethyl formamide), that of the copolymers between 0.35 and 1.45 (solvent: dimethyl formamide). Maximum Ge content in the copolymers is 7.58% (in the case of 5, with methyl methacrylate). 1 polymerizes in emulsion in the presence of potassium persulfate. The thermomechanical properties of some of the polymers were determined. There are 1 figure and 4 tables. The most important English-language reference is: P. R. Mayo, P. M. Lewis, J. Amer. Chem. Soc., 66, 1594, 1944.

ASSOCIATION: Institut elementoorganicheskikh sovedineniy AN SSSR.
(Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: May 5, 1961

Card 2/2

KOLENIKOV, G.S.; DAVYDOVA, S.L.; YAMPOL'SKAYA, M.A.; KLIMENTOVA, N.V.

Interaction of mono- and dicarboxylic acids with trialkyl derivatives
of boron and aluminum. Izv. AN SSSR. Otd.khim.nauk no.5:841-844
My '62. (MIRA 15:6)

1. Institut elementoorganicheskih soedineniy AN SSSR.
(Boron organic compounds) (Aluminum organic compounds)
(Acids, Organic)

KOLESNIKOV, G.S.; DAVYDOVA, S.L.; KLIMENTOVA, N.V.

Carbochain polymers and copolymers. Part 40: Polymerization
and copolymerization of methacrylic and acrylic derivatives
containing germanium. Vysokom.soed. 4 no.7:1098-1102 J1 '62.
(MIRA 15:7)

1. Institut elementoorganicheskikh soedineniy AN SSSR.
(Germanium organic compounds)
(Methacrylic acid) (Acrylic acid)

L 4147-69 EPT(m)/EPT(o)/EPT(EPT(s))/T P-4/P-4/P-4 RPL 24/05/84 35

AT 5002118 S/0000/64/000/000/0113/0117 33

Kolesnikov, G. S.; Davydova, S. L.; Klimentova, N. V. B41

Synthesis of methacrylates and acrylates containing elements of groups III and IV of the periodic table

AN SSSR Institut neftekhimicheskogo sinteza State Institute of Monomers (Structure and Properties of Monomers) Moscow Izd-vo NKhK 1964, 113-117

Aluminum methacrylate, acrylate, boron methacrylate, aluminum methacrylate, aluminum acrylate, tin methacrylate, boron acrylate, aluminum acrylate, silicon acrylate, aluminum methacrylate, germanium acrylate, etc.

Methacrylates and acrylates of trialkyl-substituted silicon, tin, and lead were synthesized and their properties were studied. The effect of aluminum and unsaturation on the polymerization rate in the presence of nitrobenzene and other solvents was studied. Copolymerization of dialkyltin methacrylates with styrene in organic solvents (except nitrobenzene) and in the presence of various initiators led to solid polymers and copolymers. Methacrylates of tin and lead and acrylates of tin and lead.

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L 41147-65
ACCESSION NR: AT5002118

with methylmethacrylate and styrene¹ in accordance with the radical mechanism. form-
ent, colorless, glassy polymers and copolymers. ²
properties

ASSOCIATION: None

SUBMITTED: 30Jul64

ENCL: 00

SUB CODE: OC,GC

NO REF SOV: 013

OTHER: 011

bo
2/2

KLIMENTOVA, K.V.; KORSHAK, V.V.; SUPRUN, A.P.

Polymerization and copolymerization of 3,3-dichloro-1-propene, *Izv. AN SSSR. Ser. khim. no.7:1264-1266 '65.* (MIRA 18:7)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

KLIMENTOVA, T.A., bibliograf

Using the publication of the All-Union Institute of Scientific
and Technological Information in the Science and Technology
Library of the Azerbaijani Republic. NTI no.12:22 '63.
(MIRA 17:6)

1. Respublikanskaya nauchno-tekhnicheskaya biblioteka
Gosudarstvennogo komiteta nauchno-issledovatel'skikh rabot
Soveta Ministrov Azerbaydzhanskoy SSR, Baku.