"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

7

Polarographic determination of nitrobenzene. I. A. Korshunov, A. V. Ryabov, L. N. Sazanova, and A. S. Kirillova. *Zavodskaya Lab.* 14, 519-22(1948); cf. *C.A.* 43, 4585e.—Nitrobenzene can be detd. polarographically in aq. solns., in aniline, in benzidine, and also mixed with dinitrobenzene. Reduction of nitrobenzene occurs in acid, neutral, and alk. solns. and the form of the wave in all cases is suitable for measurement. The potential of the semi-wave of the reduction of nitrobenzene is affected by the pH of the buffer soln. only in the acid range. There is no directly proportional relationship between the diffusion current and the concn. of the nitrobenzene. The temp. coeff. of the diffusion current of nitrobenzene is about 1.5% for each degree and depends linearly upon the temp. Hence, the temp. of the test soln. must be maintained const. within 0.5-1.0°. For concns. of nitrobenzene of 10^{-3} mol./l. and higher, max. are formed which interfere with the measurements. The addn. of gelatin depresses the max. and moves the potential of the semiwave to the neg. side. For detns., the nitrobenzene is dissolved in alc., acetone, or dioxane and the resulting soln. is added to the buffer in the electrolyzer in such amts. that the concn. of the nitrobenzene should not exceed 10^{-3}-2×10^{-3} mol./l. It is necessary to compensate the non-Faraday current and to expel the dissolved O beforehand. The latter is done by passing an inert gas through the buffer soln. before the sample is added. For concns. of about 10^{-3} mol./l. the detn. can be made with an error of 2-3%. Detns. of small amts. of nitrobenzene in the presence of aniline or benzidine were made by mixing the test soln. with 1 vol. of concd. HCl and 4 vol. of aniline or 2 vol. benzidine and 1 vol. HCl and then polarographing. Calcn. were made from a curve showing diffusion current in microamps. against % nitrobenzene in aniline. The curve was constructed from standard solns. of nitrobenzene in aniline which did not contain nitrobenzene. Acid solns. contg. nitrobenzene and in which the HNO_3 concn. is not over 1.0-1.5 N can be detd. directly without the addn. of a buffer.

B. Z. Kamich

Inst. Chem., Gor'kiy State U.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A. V.

USSR/Chemistry - Reduction, Electro-Polarography Nov 49

"Polarographic Determination of Picric Acid," M. B. Neyman, L. I. Kuzmetsov, I. B. Rainovich, A. V. Ryabov, Inst of Chem, Gor'kiy State U, 4 pp

"Zavod Lab" No 11

Describes experiments of electroreduction of picric acid on mercury-drop cathode. Determines most favorable conditions for its quantitative determination by polarographic methods. Includes four graphs.

PA 153T11

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A. V.

USSR/Chemistry - reduction, Electro-Bromine Compounds Nov 49

"Electroeduction of Bromacetic Acid and Bromoform on a Mercury-Drop Cathode," Ye.M. Sheyanova, Inst of Chem, Gor'kiy State U; M.B. Neyman, T.A. Petukhovskaya, A.v.Ryabov, 3 1/2 pp

"Zavod Lab" NO 11

Results of experiments show that many organic compounds containing halogen atoms can be determined polarographically. Moreover, new technique can be used for compounds into which halogen atoms can easily be introduced, e.g., unsaturated compounds can be bromated and resultant bromides determined. Discusses mechanism of cathode reaction, with three diagrams.

PA 153T10

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

USSR/Chemistry - Polarography 21 Oct 49

"Polarographic Determination of Halogen Derivatives," M. B. Neyman, A. V. Ryabov, Ye. M. Sheyanova, Gor'kiy State U

"Dok Ak Nauk SSSR" Vol LXVIII, No 6, pp 1065-1068

Results of studies of electroreduction on mercury dropping cathode of halogen deriv of organic compd. Studied electroreduction of halogen deriv in water, alc, and dioxane sol cont 0.1 N KCl, 0.1 N HCl, 0.1 N LiCl, 0.1 N LiOH, and 0.1 $(CH_3)_4NI$. Table introduces parameters characterizing electroreduction of halogen deriv of aliphatic series on

[redacted] 172T6

USSR/Chemistry - Polarography (Contd) 21 Oct 49

mercury dropping cathode. Derives general formula describing electroreduction. Data introduced should lead to further use of polarographic analysis in scientific research laboratories and organic synthesis industry. Submitted by Acad A. N. Frumkin 11 Aug 49.

[redacted] 172T6

RYABOV A. V.,

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.

USSR.

Polarographic reduction of dibromoethane and chloro-1,2-dibromoethane—bromination products of ethylene and vinyl chloride. A. V. Ryabov, G. D. Banova, and L. I. Ehmov. *Uchenye Zapiski Gorkovskogo Gosudarstvennogo Univ.* 1953, No. 24, 81-9; *Referat. Zhur., Khim.* 1954, No. 22213.—The reduction of dibromoethane (I) and chloro-1,2-dibromoethane (II) formed during bromination of C_2H_4 (III) and vinyl chloride (IV) with Br-H_2O contg. [illegible] with NaBr was studied at a dropping Hg cathode. [illegible] II were reduced polarographically, [illegible] v., resp., regardless of the pH. The calcd. values of the coeff. α in $E = E_{0.5} - (0.05\alpha/\alpha) \log i/(i_0 - i)$ are for I 0.2, and for II 0.34; thus, the reduction of I and II was irreversible. A mixt. of I and II and correspondingly III and IV could be analyzed polarographically. The method consisted of absorbing the gaseous product in Br-H_2O, combining the excess Br with a 5% soln. of NH_3, and analyzing the soln. polarographically. The max. was depressed by an addn. of 0.02% gelatin. In alk. soln. II was hydrolyzed noticeably.

M. Hosch

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A. F., Cand Tech Sci -- (diss) "Research into temperature stresses in plates." Khar'kov, 1960. 18 pp; (Ministry of Higher Education Ukrainian SSR, Khar'kov Construction Engineering Inst); 150 copies; price not given; (KL, 22-60, 139)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.

USSR/Chemistry - Polarographic analysis

Card 1/1 Pub. 22 - 16/45

Authors : Ryabov, A. V., and Panova, G. D.

Title : Polarographic analysis of unsaturated organic compounds

Periodical : Dok. AN SSSR 99/4, 547-549, Dec 1, 1954

Abstract : The application of the polarographic method during the analysis of unsaturated organic compounds is discussed. The polarographic analysis method was applied in the study of gaseous unsaturated-compounds - ethylene, propylene, n-butylene, vinyl chloride, etc. - as well as liquid unsaturated-compounds - allyl alcohol, dichloroethylene, methylmethacrylate, methacrylic acid, butylacrylate, butylmethacrylate, etc. The results obtained are tabulated. Two USSR references (1948 and 1949). Tables.

Institution : State University, Gorkiy

Presented by: Academician A. N. Frumkin, June 26, 1954

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, AV

Category: USSR/Fitting Out of Laboratories. Instruments, Their Theory, H. Construction and Use.

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 31145

Author : Ryabov A. V., Tarakanov O. G., Khurtin L. I.
Inst : not given
Title : Magnetic Viscosimeter-Dilatometer.

Orig Pub: Zavod. laboratoriya, 1956, 22, No 9, 1111-1112

Abstract: The instrument described permits to measure simultaneously the volume and viscosity of the sample filling the reaction ampule of the instrument, having a capacity of 8-10 ml, and to determine, by repeating these measurements, changes of the above stated parameters on polymerization of the sample. The volume is calculated by determining the difference in level of the mercury contained in a U-shaped burette, or in a graduated capillery, connected with the ampule with the sample. Viscosity is determined from the rate of descent of an iron ball located in the reaction ampule. The movement of the ball can also be actuated by the

Card : 1/2 Gorkiy State U. -11-

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.

32-6-36/54

AUTHOR: RYABOV, A.V., TARAKANOV, O.G.

TITLE: Dilatometric Equipment for the Investigation of Polymerization Kinetics. (Dilatometricheskaya ustanovka dlya issledovaniya kinetiki polimerizatsii, Russian)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol 23, Nr 6, pp 746 - 748 (U.S.S.R.)

ABSTRACT: The principle component of the equipment for the purification of the monomer from air is an ampule from which the monomers are led into the dilatometer. The monomer to be investigated is put into an ampule and a reception device is inserted into the air-filled Duar vessel. After the faucet is opened a vacuum pump is set in operation. The monomer is transferred into the reception device, after which the faucet is turned off and the reception device is taken out of the Duar vessel. The ampule is then placed into the vessel and the monomer is transferred from the reception device into the ampule. The monomer is protected against the influence of air by mercury, which is transferred from the 5th to the 1st ampule. The investigation ended with the transfer of the monomer from ampule 1 into the reaction ampules of the dilatometer.

ASSOCIATION: State University "Gorkiy".

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

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66989
SOV/81-59-13-48341

5.3831

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 13, p 575 (USSR)

AUTHORS: Tarakanov, O.G., Ryat., A.V.

TITLE: The Copolymerization of Methylmethacrylate With Methacrylic Acid

PERIODICAL: Tr. po khimii i khim. tekhnol., 1958, Nr 2, pp 270 - 272

ABSTRACT: For a mixture of monomers of 85% methylmethacrylate (I) and 15% of methacrylic acid (II) the exponential temperature dependence of the initial and maximum copolymerization rate as well as of the time of copolymerization have been established. The total energy of activation of the initial process of copolymerization is equal to 17.5 kcal/mole. The initial polymerization rate depends linearly on the concentration of benzoyl peroxide in the power of 1/2. With an increase in the content of II in a mixture with I from 0 to 0.225 molar parts the polymerization rate increases. An increase in the content of II from 0 to 0.322 molar parts results in a linear increase of the maximum polymerization rate.

M. Leonov

Card 1/1

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

L 45815-66 EWT(m)

ACC NR: AR6023257 SOURCE CODE: UR/0058/66/000/003/A049/A049

18
B

AUTHOR: Bakhtin, V. I.; Ryabov, A. V.

TITLE: Calculation of the counting threshold voltage of halogen self-quenching counters

SOV/81-59-10-37457

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 577 (USSR)

AUTHORS: Ryabov, A.V., Terakanov, O.G.

PERIODICAL: The Copolymerization of Methylmethacrylate with Butylacrylate

ABSTRACT: The kinetics of combined polymerization of methylmethacrylate (I) with butylacrylate (II) at 60°C has been investigated; the initiator was benzoyl peroxide. The initial polymerization rate of a mixture of the composition 85% I and 15% II is proportional to the square root of the concentration of the initiator. Equations of polymerization rate have been derived for three cases: 1) the initiation takes place mainly at the expense of I; 2) the initiation takes place mainly at the expense of II; 3) the initiation takes place both at the expense of I and II approximately in an equal degree. The experimental results obey well the equation of I. From the data on the composition of polymers the constants of the com-

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L 10633-66 EWT(m)/EWP(j)/T/EWP(t)/EWP(b)/ETC(m) IJP(c) JD/WW/RM

ACC NR: AR5023520 SOURCE CODE: UR/0275/65/000/008/A027/A027

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 8A203

43
B

AUTHOR: Bakhtin, V. I.; Ryabov, A. V.

TITLE: Experimental investigation of the working parameters of halogen self-quenched counters depending on their gas-mixture pressure

CITED SOURCE: Uch zap. Mordovsk. un-t. vyp. 36, 1964, 100-111

TOPIC TAGS: bromine, neon, argon, gas filled counter

TRANSLATION: Experiments were conducted on a vacuum outfit which permitted exhausting and filling test counters from a tank in which Br, Ne, and Ar gases were mixed at various component ratios. Curves of the counter working parameters and firing voltages vs. each gas content, with constant pressure of two other gases, are presented. A method of calculation is offered, as well as nomographs for determining the counting start for various pressures of the filling gas-mixture components. Bib 1.

SUB CODE: 18

Card 1/1 UDC: 621.387.4

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

5(3,4)

AUTHORS: Ryabov, A. V., Tarakanov, O. G. SOV/153-58-4-18/22

TITLE: Change of the Viscosity of a Reaction System During the Block Polymerization of Methyl Methacrylate in Methacrylic Acid (Izmeneniye vyazkosti reaktsionnoy sistemy v protsesse blochnoy polimerizatsii metilmetakrilata s metakrilovoy kislotoy)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 4, pp 112 - 116 (USSR)

ABSTRACT: The viscosity properties of the reaction medium are constantly changed during the polymerization of the monomers. The viscosity-mechanical properties of the system are one of the main factors that influence the reaction velocity especially in the late stages of the polymerization (Refs 1-5). The methyl methacrylate polymerization in the presence of benzoyl peroxide is considerably accelerated beginning from about a 20% transformation (Ref 6). Also the polarization degree increases (Ref 7). The latter phenomenon (the co-

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called Trommsdorff or gel effect, Ref 8) is connected with the radical break constant decrease, if the medium is sufficiently viscous. Although several recent papers prove the dependence of the life of free radicals on the thoroughness of the polymerization, the alteration of viscosity has never been controlled (Refs 8-16). The authors of the present paper intended to investigate the process mentioned in the title of the mixtures of methyl methacrylate (MMA) with methacrylic acid (MAA) to the highest possible degree of transformation. It was interesting to determine the viscosity corresponding to the beginning of the reaction acceleration. Already earlier (Ref 17), the authors described a magnetic viscosimeter-dilatometer (Fig 1) which considerably simplifies the complex and long operations in the study of the said problem. Figures 2 and 3 show the curves of the dependence of the viscosity logarithm in poise units on the thoroughness of the transformation of the monomeric mixture consisting of

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

85% MMA + 15% MAS, or of 82% MMA + 18% MAS, respectively at 35-60°. Figure 4 shows the curves of the alterations of viscosity during the same **polymerization** in the case of different compositions of the initial monomeric mixture. As may be seen herefrom the viscosity of the systems in polymerization increased with the increase of the MAA part in it. This increase is apparently connected with the increase of the potential barrier, or in other words, with the decreasing elasticity and mobility of the macromolecules at the expense of the polar MAA molecules. Hydrogen bonds between the carboxyl groups are formed there. To determine the viscosity corresponding to the initial acceleration the curve is used that characterizes the reaction velocity (Fig 5). It could be proved that the reaction acceleration corresponds to the viscosity values between 100 and 500 poise units. Within this range the diffusion rate is then considerably decreased. Figure 6 shows the curve of the dependence of the polymerization initial velocity

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

Change of the Viscosity of a Reaction System During the Block Polymerization of Methyl Methacrylate in Methacrylic Acid SOV/153-58-4-18/22

on the temperature. Empirical equations are mentioned for this curve (3) as well as for the full activation energy of the copolymerization. There are 6 figures and 10 tables, 4 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii gri Gor'kovskom gosuniversitete im. N.I.Lobachevskogo (Scientific Research Institute of Chemistry at Gor'kiy State University imeni N.I.Lobachevskiy) Kafedra kolloidnoy khimii (Chair of Colloid Chemistry)

SUBMITTED: November 1, 1957

Card 4/4

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

5.3831

5(3)

67847

AUTHORS: Ryabov, A.V., Guzeyev, V.V., Tarakanov, O.G.

S/153/59/002/06/025/029
B115/B0C0

TITLE: II. The Change in Viscosity of the Reaction System During Bulk Polymerization of Methyl Methacrylate With Methacrylic Acid

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 6, pp 954-955 (USSR)

ABSTRACT: This paper is devoted to the investigation of the viscosity during bulk polymerization of methyl methacrylate (MMA) and its mixture with methacrylic acid (MAA) in dependence on the content of various initiators in the monomer mixture. The azodinitrile of isobutyric acid (ADNB), the azodinitrile of 2,4-dimethyl valeric acid (ADNV), benzoyl peroxide (BP), and diacetyl (DA) were used as initiators. Values obtained for the initial polymerization rate of MMA in the presence of the initiators mentioned are given (Table). A diagram representing the dependence of the initial rate for the polymerization of a monomer mixture consisting of 85% MMA and 15% MAA on the ADNB concentration is also given (Fig 1), from which the linear dependence of the initial polymerization rate on the square

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

67847

II. The Change in Viscosity of the Reaction System During Bulk Polymerization of Methyl Methacrylate With Methacrylic Acid

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B115/B000

root of the ADNB concentration may be seen. In additional figures (Figs 2 and 3), the dependence of the logarithm of viscosity on the conversion degree of MMA and its mixture with 15% MAA in the presence of various initiators is given. The change of the viscosity for a monomer-polymer mixture consisting of 85% MMA and 15% MAA in dependence on the conversion degree is also investigated for various concentrations of the initiator ADNB (Fig 4). From the table and the figures, it may be seen that the viscosity of the polymerization system corresponding to a defined conversion degree decreases with the increase in activity and the concentration of the initiator, respectively. The shapes of the curves logarithm of viscosity conversion degree of the polymerization system depend only little on the initiator used and its concentration. It was shown by an analysis of the curves of the change of the polymerization rate as well as of the curves of the change of viscosity of the reaction system (Ref 1) that the viscosity for MMA and its mixture with 15% of MAA corresponding to the gel effect is 100 to 500 P, and does not depend on the com-

Card 2/3

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67847

II. The Change in Viscosity of the Reaction System During Bulk Polymerization of Methyl Methacrylate With Methacrylic Acid

S/153/59/002/06/025/029
B115/B000

position of the initiator and its concentration. The authors thank docent Ye.I.Fedotova for the ADNV put to their disposal for the experiments. There are 4 figures, 1 table, and 2 Soviet references.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet imeni N.I.Lobachevskogo, kafedra vysokomolekulyarnykh soyedineniy (Gor'kiy State University imeni N.I.Lobachevskiy, Chair of Macromolecular Compounds)

SUBMITTED: September 11, 1958

Card 3/3

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

FROLOVA, M.I.; RYABOV, A.V.

Light aging of polymethyl methacrylate. Part 1: Kinetics of gas evolution under the influence of light of various wavelengths. Quantum yield of photodegradation. Vysokom.soed. 1 no.10:1453-1456 O '59. (MIRA 13:3)
(Methacrylic acid) (Photochemistry)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

L 17870-66 EWT(m)/EWP(j)/T/ETC(m)-6 WW/RM

ACC NR: AR6004376 SOURCE CODE: UR/0081/65/000/015/S031/S031

AUTHOR: Frolova, M.I.; Yefimov, L.I.; Ryabov, A.V.

4/5
B

ORG: none

TITLE: Polymethymethacrylate aging under light. III. Study of decay under light using ultraviolet and infrared spectra

SOURCE: Ref. zh. Khimiya, Abs. 15S190

REF SOURCE: Tr. po khimii i khim. tekhnol. Gor'kiy, vyp. 2(10), 1964, 304-310

TOPIC TAGS: polymethylmethacrylate, light aging, IR spectrum, UV spectrum, benzoyl peroxide, vacuum chamber

TRANSLATION: Samples of polymethylmethacrylate (PMMA) obtained by block polymerization in a vacuum and under atmospheric conditions in the presence of benzoyl peroxide, azoizobutyric acid dinitrile, or by means of photoinitiation, were investigated. The presence of bathochrome displacement of UV absorption and the presence of a new maximum absorption in PMMA were disclosed. This indicates the formation of new groups. Using IR spectrometry, the assumption of formation of isolated conjugate double bonds was confirmed. Oxygen does not noticeably affect the character of the spectra of irradiated PMMA samples. A method of photo decomposition of PMMA in a vacuum was suggested. See report 2, R.Zh. Khim., 1962, 1R43. V. Agasandyan.

SUB CODE: 07

Card 1/1

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

L 01088-67 DJ

ACC NR: AP6026312 (A) SOURCE CODE: UR/0113/66/000/005/0029/0031

AUTHOR: Genbom, B. B. (Candidate of technical sciences); Kobylyanskiy, V. N.; Kirman, A. M.; Gudz, G. S.; Ryabov, A. V.; Gomma, E. F.; Starinskiy, A. D.; Atoyan, K. M. (Candidate of technical sciences)

ORG: L'vov Polytechnical Institute (L'vovskiy politekhnicheskiy institut); L'vov Bus Plant (L'vovskiy avtobusnyy zavod)

TITLE: Experimental investigation of the power capacity of brake mechanisms

SOURCE: Avtomobil'naya promyshlennost', no. 5, 1966, 29-31

TOPIC TAGS: vehicle braking system, test stand, vehicle component

ABSTRACT: The authors describe a combination stand developed at the L'vov Polytechnical Institute to be used for both inertial and constant braking tests. A diagram of the installation is shown in the accompanying figure. The principal elements of the stand are: 100 kw electric motor 1; clutch and gearbox 2 mounted on the clutch bracket; flywheel 3 with a moment of inertia of 16 kg·sec^2; brake mechanism 4 with the drum mounted on the flywheel shaft while the disc and shoes are mounted on the clutch shaft 5 which is coaxial with the flywheel shaft. The stand is equipped for measuring the braking moment and the moment on the release shaft, the temperatures of the brake linings and drum, the rotational velocity of the drum, the pressure in the brake chamber and rod travel. Provision is made for programmed control of brake operation. The device may be used for studying the effect of a variety of factors on the power capacity of braking mechanisms. Orig. art. has: 4 figures, 3 tables.

Card 1/2 UDC: 629.11.013.001.5

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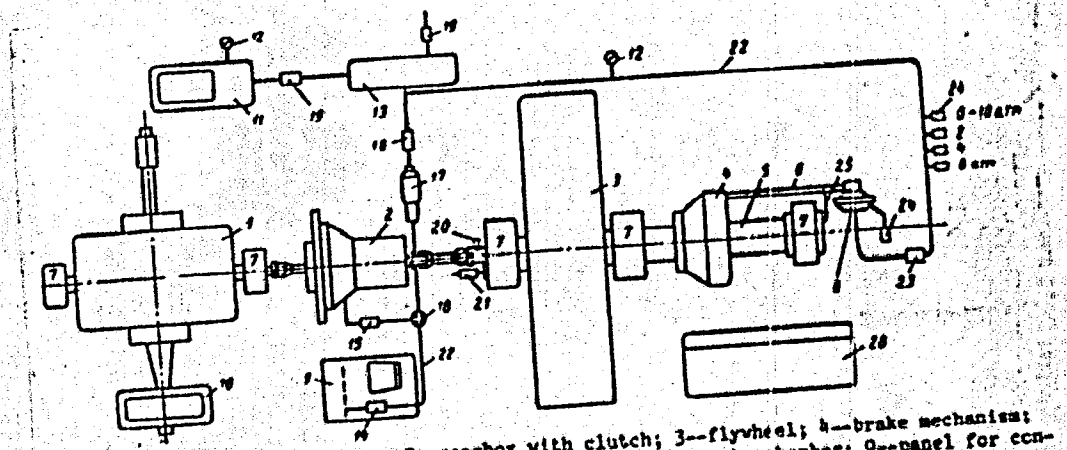
"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

L 01088-67

ACC NR: AP6026312



1--balance-type electric motor; 2--gearbox with clutch; 3--flywheel; 4--brake mechanism; 5--brake shaft; 6--release shaft; 7--support bearings; 8--brake chamber; 9--panel for controlling clutch and gear ratio; 10--VKM-57 weighing device; 11--main receiver; 12--manometer; 13--working receiver; 14--hydraulic cylinder; 15--clutch disconnection cylinder; 16--valve; 17--pneumohydraulic cylinder; 18--GA-13M electric valve; 19--EKR-8 electropneumatic valve; 20--contact breaker; 21--DT-6M tachogenerator; 22--pipeline; 23--EK-49 electropneumatic valve; 24--pressure gauge; 25--rod travel gauge; 26--control panel.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 002

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

SOLDATOV, V.M.; KYABOV, A.V.

Preparation of new symmetrical triazines. Reaction of N-phenyl (β-mercaptoethyl)amine with cyanuric chloride, 2,4-diphenylamino-6-chloro-1,3,5-triazine, and 2-phenylamino-4,6-dichloro-1,3,5-triazine. Trudy po khim. i khim.tekh. no.1:110-112 '64.

(MIRA 18:12)

1. Submitted January 8, 1964.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

ATOYAN, K.M., kand. tekhn. nauk; GENBER, B.D., kand. tekhn. nauk; DRUKOV, Yu.I., kand. tekhn. nauk; TOPOL'NIK, V.D.; NAGORNYAK, G.A.; NIKITIN, N.N.; RYABOV, A.V.

Power consumption for driving auxiliary units and its effect on the traction and speed characteristics of the LAZ motorbuses. Avt. prom. 31 no.3:30-32 Mr '65. (MIRA 18:2)

1. L'vovskiy politekhnicheskiy institut i L'vovskiy avtobuseyy zavod.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

[illegible], Ye.I.; DYTNERSKIY, Yu.I.; [illegible], I.V.; [illegible], A.V.

Calculating the flooding rate for gas-solid systems in down-comerless plate towers. Trudy MKHTI no.47:35-38 '64. (MIRA 18:9)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.; SEMCHIKOV, Yu.D.; VAKHRUSHEVA, V.N.

Particularities of styrene copolymerization with 2-vinylpyridine.
Trudy po khim.i khim.tekh. no.1:188-189 '63. (MIRA 17:12)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RAZUVAYEV, G.A.; LAPSHIN, N.M.; KHIDEKEL', M.L.; [illegible], B.N.; [illegible], A.V.

Nitrogen-containing peroxide compounds as initiators of vinyl monomer polymerization. Vysokom. soed. 6 no.4:1068-1071 Je '64 (MIRA 18:2)

1. Nauchno-issledovatel'skiy institut khimii Gor'kovskogo gosudarstvennogo universiteta imeni Lobachevskogo.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.; SEMCHIKOV, Yu.D.; SLAVNITSKAYA, N.N.

Complex formation of methacrylic acid and 2-vinylpyridine with polar compounds. Trudy po khim.i khim.tekh. no.1:161-164 '63. (MIRA 17:12)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.; YEMEL'YANOV, D.N.

Apparatus for studying the physicomechanical properties of polymerizing masses. Zav. lab. 30 no.6:762-763 '64 (MIRA 17:8)

1. Gor'kovskiy gosudarstvennyy universitet imeni N.I. Lobachevskogo.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

ACCESSION NR: AP4040486 S/0190/64/006/006/1068/1071

AUTHORS: Razuvayev, G. A.; Lapshin, N. M.; Khidekel', M. L.; Mory*ganov, B. N.; Ryabov, A. V.

TITLE: Nitrogen containing peroxides as polymerization initiators of vinyl monomers. 3

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 6, 1964, 1068-1071

TOPIC TAGS: vinyl monomer, methyl methacrylate polymerization, methacrylic acid polymerization, styrene polymerization, acrylonitrile polymerization, polymerization initiator, nitrogen containing peroxide, phenylperoxycarbamate, phenylperoxycarbamate decomposition kinetics

ABSTRACT: The purpose of the present investigation consisted of determining whether a tertiary butyl radical (located behind the peroxide bridge of the groupings N-COOO and NCH_2OO) would affect the superior performance of the N-COOO group as polymerization initiator. The initiator activities of tert.butyl-N-phenylperoxycarbamate (I), N-tert.butylperoxymethylbenzamide (II), and N,N'-bis-(tert.

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ACCESSION NR: AP4040486

butylperoxymethyl)urea(III) on the polymerization of methylmethacrylate, methacrylic acid, styrene, and acrylonitrile were investigated. The polymerization of methylmethacrylate was conducted in block, in the presence of 0.05 mole% of the initiator per mole of the monomer, at 18-60C for initiator (I) and at 60C for initiators (II) and (III). It was found that peroxide (I) was the most effective (in its presence the activation energy was 19.6 kcal/mole). Similar tests with methacrylic acid, styrene, and acrylonitrile confirmed the superior performance of the initiator containing the N-COOO grouping. Additional experiments were conducted on the kinetics of decomposition of (I) in benzene at 60-80C. The decomposition was found to proceed generally according to a first order reaction. The activation energy was estimated as 30.5 kcal/mole. Orig. art. has: 2 charts.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii Gor'kovskogo gosudarstvennogo universiteta im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry at Gorkiy State University)

SUBMITTED: 10Jul63 DATE ACQ: 06Jul64 ENCL: 00

SUB CODE: GC NO REF SOV: 001 OTHER: 005

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

L 6871-65 EWT(m)/EPF(e)/EPR/EWP(j)/T Pe-4/Pr-4/Ps-4 RPL/ASD(m)-3 EM/
ACCESSION NR: AR4041678 WW S/0081/64/000/007/S010/S010 56

SOURCE: Ref. zh. Khimiya, Abs. 7S55

AUTHOR: Ryabov, A. V.; Semchikov, Yu. D.; Vakhrusheva, V. N.

TITLE: Properties of copolymerization of styrene with 2-vinylpyridine

CITED SOURCE: Tr. po khimii i khim. tekhnol. Gor'kiy, vy*p. 1, 1963, 188-189

TOPIC TAGS: copolymerization, styrene, 2-vinylpyridine, copolymer

TRANSLATION: To improve the alternation of monomeric sections in copolymer of styrene and 2-vinylpyridine (I) copolymerization of the latter in the presence of CH_3COOH (II) was studied. It was shown that, on the basis of comparing composition curves and constants of copolymerization corresponding to them, copolymers obtained in presence of 1.4 mole of II in 1 mole of I (temperature 22°, ultraviolet irradiation, $r_1=0.16\pm0.02$ and $r_2=0.36\pm0.04$) have more uniform alternation of sections than copolymers obtained in usual conditions (temperature

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L 6871-65
ACCESSION NR: AR4041678

0

50°, 0.25% benzoyl peroxide, $r_1 = 0.57 \pm 0.03$ and $r_2 = 1.33 \pm 0.04$). There is suggested the mechanism of action of II founded on formation of complex of bonds between I and II due to rigid H-bonds from undivided electron pair of nitrogen, leading to appearance of excess positive charge on double bond of I. Opposite polarization of double bonds of styrene and I leads to alternation of monomers in copolymerization.

SUB CODE: OC, GC ENCL: 00

Card 2/2

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

KISELEV, V.S.; KASTAL'SKIY, Ye.M.; RYABOV, A.V.

Efficient methods for gravity surveying on a 1:200,000 scale employing a helicopter and using barometric leveling under the conditions of the northeast of the U.S.S.R. Sbor.luch.rats. predl. pt. 2:3-4 '63. (MIRA 17:5)

1.Severo-Vostochnoye geologicheskoye upravleniye.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

S/0020/64/154/005/1135/113

ACCESSION NR: AP4016510

AUTHOR: Byabov, A. V.; Semchikov, Yu. D.; Slavnitskaya, N. N.; Vakhrusheva, V. N.

TITLE: The possibility of regulating the degree of rotation in the copolymerization of styrene with 2-vinylpyridine

SOURCE: AN SSSR. Doklady*, v. 154, no. 5, 1964, 1135-1138

TOPIC TAGS: rotation control, styrene vinylpyridine copolymer, vinylpyridine, polarity, polarity change, vinylpyridine complex, proton donor, dissociation constant, double bond polarity

ABSTRACT: To create copolymerization conditions assuring rotation in the styrene-2-vinylpyridine copolymer, the polarity of the double bond of one of the monomers must be changed. The polarity of the double bond of the 2-vinylpyridine was changed by forming complexes with proton donor materials which formed a hydrogen bond with the nitrogen atom, decreasing the electron density of the 2-vinylpyridine:

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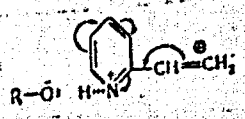
"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

ACCESSION NR: AP4016510



The importance of the structure of this complex increases with the increase in proton donor properties of R-O-H; it can be evaluated by the dissociation constant of its aqueous solutions. The greater the dissociation constant of the material, the more the electron density of the double bond decreases; the greater the difference in polarity of the double bonds of the monomers, the greater the degree of rotation and the smaller the product $r_1 \cdot r_2$. The effect on the rotation of the monomers during copolymerization of acetic acid, phenol, methanol and ethanol decreases in the given order. In the equation

$$\lg \frac{r_1^0 \cdot r_2^0}{r_1 \cdot r_2} = -(p_1 + p_2)\, pK.$$

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

ACCESSION NR: AP4016510

the relationship between the lg $(r_1^0 \cdot r_2^0 / r_1 \cdot r_2)$ and the pK is a straight line function. Thus it is possible to obtain a copolymer with the desired structure by copolymerization in a given medium if the pK of the "acid" solution is known. Orig. art. has: 3 figures and 3 equations.

ASSOCIATION: Nauchno-issledovatel-skiy institut khimii pri Gor'kovskom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry at the Gor'kov University)

SUBMITTED: 04Oct63

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: CH, PH

NO REF SOV: 002

OTHER: 004

Card 3/3

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.; YAKOVLEV, A.T.

Conducting seismic prospecting operations in the shoals of the northwestern part of the Caspian Sea. Geofiz. razved. no.12:11-18 '63. (MIRA 16:11)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

YAKOVLEV, A.T.; RYABOV, A.V.

Self-propelled unit for drilling blast holes from pontoon. Geofiz. razved. no.7:140-143 '62. (MIRA 15:7)
(Boring machinery)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

LAPSHIN, N.M.; MORYGANOV, B.N.; RAZUVAYEV, G.A.; RYABOV, A.V.; KHIDEKEL', M.L.

Nitrogen-containing peroxide compounds as initiators of vinyl monomer polymerization. Part 1. Vysokom.soed. 3 no.12:1794-1799 D '61. (MIRA 15:3)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete imeni N.I.Lobachevskogo.
(Vinyl compounds) (Peroxides) (Polymerization)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.; SEMCHIKOV, Yu.D.; SLAVNITSKAYA, N.N.

Effect of dimethylformamide admixtures on the composition of copolymers of methacrylic acid with methyl methacrylate and with styrene. Dokl.AN SSSR 145 no.4:822-824 Ag '62. (MIRA 15:7)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N.I.Lobachevskogo. Predstavleno akademikom A.V.Karginym.
(Formamide) (Methacrylic acid) (Styrene)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RAZUVAYEV, G.A.; RYABOV, A.V.; ZHIL'TSOV, S.F.; SOKOLOVA, V.A.; VOSKOBOYNIK, G.A.

Initiating action of organomercury compounds in vinyl polymerization. Vysokom.soed. 4 no.3:371-375 Mr '62. (MIRA 15:3)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete imeni Lobachevskogo.
(Vinyl compound polymers) (Mercury organic compounds)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

S/020/62/145/004/018/024
B110/B144

AUTHORS: Ryabov, A. V., Semchikov, Yu. D., and Slavnitskaya, N. N.

TITLE: Effect of dimethyl formamide additions on the composition of copolymers of methacrylic acid with methyl methacrylate and with styrene

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 4, 1962, 822 - 824

TEXT: The effect of adding dimethyl formamide and ethyl alcohol to mixtures of methacrylic acid with methyl methacrylate and of methacrylic acid with styrene was studied by viscosimetry. Results: (1) A distinct maximum occurring in the viscosity - composition curve proved the formation of hydrogen bonds between the carboxyl group of methacrylic acid and the polar additions. (2) Increasing the additions, particularly of dimethyl formamide, decreases the proportion of methacrylic acid because complexes are formed which diminish the reactivity. Such additions result in increasing the copolymerization constant $r_1 = K_{11}/K_{12}$ and in decreasing $r_2 = K_{22}/K_{21}$ owing to the loss in reactivity and consequent reduction of

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

S/0:0/62/145/004/018/024
B110/B144

Effect of dimethyl formamide ...

K_{12} and K_{22}. There are 4 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry at the Gor'kiy State University imeni N. I. Lobachevskiy)

PRESENTED: March 24, 1962, by A. V. Kargin, Academician

SUBMITTED: March 21, 1962

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

34988
S/190/62/004/003/008/023
B110/B144

5.3830

AUTHORS: Razuvayev, G. A., Ryabov, A. V., Zhil'tsov, S. F., Sokolova, V. A., Voskoboynik, G. A.

TITLE: Initiation of vinyl polymerization by organomercury compounds

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 3, 1962, 371-375

TEXT: On the basis of M. M. Koton's investigations (Dokl. AN SSSR, 88, 991, 1953) the effect of oxygen on the polymerization of methyl methacrylate (I) and acrylonitrile is studied at 30-50°C in the presence of dicyclohexyl mercury (II), diisopropyl mercury (III), diethyl mercury (IV) and diphenyl mercury (V), cyclohexyl mercury chloride (VI) and phenyl mercury chloride (VII). The polymerization rate increases with the temperature. The compounds do not dissociate at 30 and 50°C. II and III decompose rapidly at room temperature in the presence of small oxygen amounts. Unstable peroxide compounds which initiate the polymerization, are formed from oxygen and II and III. With stable V and mercury chlorides, oxygen has an inhibiting effect. Its increase first accelerates then decelerates polymerization owing to the decomposition of organometallic

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compounds and to the inhibiting effect of oxygen. Increase in oxygen pressure reduces the molecular weight to a constant value. Maximum conversion corresponds to constant minimum molecular weight and probably also to a maximum content of radicals formed. $r_1 = 0.8$, $r_2 = 0.9$ holds for 6 hrs copolymerization of styrene and I at 50°C initiated by 0.3 mole% of II and in 14 hrs copolymerization of acrylonitrile and I at 30°C initiated by 0.3 mole% of III. Since these relative activities are similar to those of free radical copolymerization, II and III cause free radical polymerization. In the absence of O_2, hydroquinone additions of 50-500 mole% of the initiator reduced the conversion degree of I from 12 to 2-5%, and the molecular weight from 1,500,000 to 300,000. An induction period of 5.5 hrs was found in the polymerization with IV in air. There are 3 figures and 4 tables. The most important reference to English-language publications reads as follows: F. M. Lewis, F. R. Mayo, W. F. Hulse, J. Amer. Chem. Soc., 67, 1701, 1945.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universiteteim. N. I. Lobachevskogo (Scientific Chemical Research Institute of the Gor'kiy State University imeni N. I. Lobachevskiy)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

FROLOVA, M.I.; NEVSKIY, L.V.; RYABOV, A.V.

Light aging of polymethyl methacrylate. Part 2: Study of photodegradation process with the aid of radioactive C^{14}. Vysokom. soed. 3 no.6:877-881 Je '61. (MIRA 14:6)
(Methacrylic acid) (Photochemistry)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

30910
S/190/61/003/012/004/012
B101/B110

15.8610 2209

AUTHORS: Lapshin, N. M., Moryganov, B. N., Razuvayev, G. A., Ryabov, A. V., Khidekel', M. L.

TITLE: Nitrogenous peroxide compounds as initiators of polymerization of vinyl monomers. I

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 12, 1961, 1794 - 1799

TEXT: On the basis of literature data stating that the initiating activity of peroxide compounds is intensified by addition of amines, the authors investigated the initiating effect of peroxides which already contain amine or amide groups in their molecules. Initiators were synthesized as follows: Cumyl-N-phenyl peroxy carbamate and hexamethylene-N,N'-bis-α-cumyl-peroxy carbamate according to Refs. 6, 7 (see below), the other peroxide compounds according to A. Rieche et al. (Chem. Ber., 92, 1206, 1959). N,N',bis-(cumyl peroxy methyl)-urea was first synthesized by the authors: urea was shaken in 2 N H_2SO_4 with cumyl peroxide and formalin. After 12 hr storing in the refrigerator, the peroxide crystallized out

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B101/B110

Nitrogenous peroxide...

(melting point 120 - 121°C, yield 42%). The initial rate of polymerization of monomers cleaned in vacuum by distillation: methyl methacrylate (MMA); methacrylic acid (MA); acrylonitrile (AN); styrene (St) was measured dilatometrically. Results are given in a table. Polymerization was achieved in bulk. A distinct dependence of the initiating effect on the structures of peroxides was found. Peroxides with group >N-CO-O-O were more active than peroxides with group >N-CH_2-O-O. Furthermore, the nature of the monomer especially the chemical nature of the groups between the nitrogen atom and the peroxide group influences the initiating effect of peroxides. The optimum temperature for polymerization also depended on structure of monomer and peroxide. Peroxides with group >N-CH_2-O-O were most effective at elevated temperatures (St: >120°C) while the optimum temperature for cumyl-N-phenyl-peroxy carbamate (for MMA, MA, and AN) was 20 - 60°C. The insignificant activity of this compound in polymerization of styrene (120°C) is ascribed to its low temperature stability. The initial rate of polymerization depended on temperature according to the Arrhenius equation. The activation energy was 11.4 kcal/mole. For the dependence of the initial rate v_{in} on the concentration c_0 of the initiator

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

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B101/B110

Nitrogenous peroxide...

(in the concentration range $0.187 \cdot 10^{-3}$ to $0.44 \cdot 10^{-3}$ molar parts), it was found: $v_{in} = 3.5\sqrt{c_o} + 0.0448$. There are 5 figures, 1 table, and 9 references: 2 Soviet and 7 non-Soviet. The three references to English-language publications read as follows: Ref. 3: M. Imoto, S. Choe, J. Polymer Sci., 15, 485, 1955; Ref. 6: E. L. O'Brien, T. M. Beringer, R. B. Mesrobian, J. Amer. Chem. Soc., 79, 6238, 1957; Ref. 7: C. Y. Pedersen, J. Organ. Chem., 23, 252, 1958.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry at the Gor'kiy State University imeni N. I. Lobachevskiy)

X

SUBMITTED: January 5, 1961

Table. Initial rates of polymerization of MMA, MA, AN, and St with initiation by means of nitrogenous peroxides.

Legend: (A) Initiator; (B) formula; (C) concentration c_o of the initiator,

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

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B101/B110

Nitrogenous peroxide...

moles/1000 g of monomer; (D) initial rate v_H (= v_{in}) of polymerization, % of conversion/min·10; (a) MMA at 60°C; (b) MA at 60°C; (c) AN at 50°C; (d) St at 120°C; (e) does not initiate; (1) cumyl-N-phenyl peroxy carbamate; (2) N-cumyl peroxy methyl benzamide; (3) bis-benzaminomethyl peroxide; (4) hexamethylene-N,N'-bis-α-cumyl peroxy carbamate; (5) N,N'-bis-(cumyl-peroxy-methyl)-urea; (6) bis-(dicyclohexyl aminomethyl)-peroxide; (7) cumyl peroxy methyl dimethylamine; (8) cumyl peroxy methyl dicyclohexylamine.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

30910
S/190/61/003/012/004/012
B101/B110

Nitrogenous peroxide...

Table

(A) Инициатор	(B) Формула	(C) Концентрация инициатора, моль/л	(D) Начальная скорость прививания (v_0), % привитого /мин·10			
			(a) Метилметакрилат	(b) Метилметакрилат	(c) Акрилонитрил	(d) Стирол
1 Кумил-N-фенилпероксикарбамат	$C_6H_5NHCO-O-O-C(CH_3)_2C_6H_5$	0,0073	4,8	≈30	27,5	2,29
2 N-Кумилпероксиметилбензамид	$C_6H_5CONHCH_2-O-O-C(CH_3)_2C_6H_5$	0,0073	не инициирует	0,509	0,943	4,50
3 *бис*-Бензаминометилпероксид	$C_6H_5CONHCH_2-O-O-CH_2NHCOC_6H_5$	0,0073	0,419	0,509	0,52	6,34
4 Гексаметилен-N,N'-*бис*-2-кумилпероксикарбамат	$C_6H_5-C(CH_3)_2O-OC(O)NH(CH_2)_6NH(O)C-O-OC(CH_3)_2C_6H_5$	0,0060	0,516	0,74	2,90	9,35
5 N,N'-*бис*-(Кумилпероксиметил)мочевина	$C_6H_5C(CH_3)_2O-OCH_2NHCONHCH_2-O-OC(CH_3)_2C_6H_5$	0,0060	0,19	0,60	0,42	3,55
6 *бис*-(Дициклогексиламинометил)пероксид	$(C_6H_{11})_2NCH_2-O-O-CH_2N(C_6H_{11})_2$	0,0060	0,3	не инициирует	0,25	1,90
7 Кумилпероксиметилдиметиламин	$(CH_3)_2NCH_2-O-O-C(CH_3)_2C_6H_5$	0,0060	0,15	0,3	0,195	1,25
8 Кумилпероксиметилдициклогексиламин	$(C_6H_{11})_2NCH_2-O-O-C(CH_3)_2C_6H_5$	0,0060	0,83	1,57	0,537	3,98

X

Card 5/5

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

23769

S/190/61/003/006/012/019
B110/B208

11.2217 also 2209

AUTHORS: Frolova, M. I., Nevskiy, L. V., Ryabov, A.V.

TITLE: Light aging of polymethyl methacrylate. II. Study of photolysis by radioactive carbon C^{14}

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 6, 1961, 877 - 881

TEXT: The study of the gases separated during light aging of polymers (e.g., polymethyl methacrylate = PMMA) is of importance in the clarification of destruction reactions and in the development of rational stabilization methods. An attempt is made in the present study to explain the formation mechanism of photolysis gases by C^{14}, and the relationship between the mechanism of gas evolution and the photolysis of PMMA. PMMA samples labeled with C^{14} in different positions were subjected to block polymerization at 45°C with subsequent heating to 110°C, and then freed of the monomer by three-fold precipitation with methanol from acetone solution. The powder samples with linear particle dimensions of 0.5

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23769

S/190/61/003/006/012/019
B110/B208

Light aging of polymethyl methacrylate.
II. Study of ...

- 1.5 mm were irradiated with the ПРК-2 (PRK-2) mercury quartz lamp in glass boats at ~ 10^{-6} mm Hg residual pressure for 50 hr. The pressure there increased to 6-7 mm. The reaction vessel 6 for the combustion of the gases formed was then fitted to the device shown in the Fig. Stopcock 2 was closed and the whole plant was evacuated by means of a rough vacuum pump through the stopcocks 3,4,5. A part of the gases was then conducted into vessel 7 by opening stopcock 2. The necessary amount of oxygen flew in through stopcock 9. The gas to be analyzed which was mixed with oxygen in vessel 8 was oxidized over copper oxide at 750 - 850°C, carbon dioxide was collected in 12, the water vapor in 11. In vessel 13 the radioactive carbon dioxide was diluted with ordinary CO_2 up to the volume required for filling the counter, radioactivity was measured in 14. Gas evolution in the presence of oxygen and nitric oxide was studied in a similar way. The gases could be quantitatively burned in the plant. The macromolecular chains may be ruptured by primary action

Card 2/7

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23769

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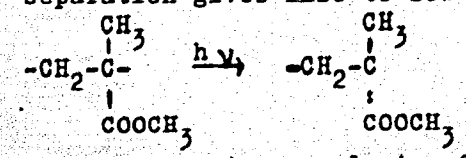
B110/B208

Light aging of polymethyl methacrylate.
II. Study of ...

of light and by secondary reaction, as the radiant energy of ПРК-2 (PRK-2) lamps of 120 kcal/mole is sufficient for the rupture of chemical compounds. In the case of UV radiation the ester groups are most sensitive. Their separation gives rise to low- and high-molecular radicals:



The mass spectrum analysis of the gases formed in the photolysis of PMMA in vacuo disclosed a short lifetime of the low-molecular radicals owing to their reaction with the surrounding molecules. The formation of methyl formate was also confirmed by mass spectrum analysis (characteristic peaks): $COOCH_3 + RH \longrightarrow HCOOCH_3 + R^{\bullet}$ ($R^{\bullet}$ = macroradical). UV radiation

Card 3/7

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B110/B208

Light aging of polymethyl methacrylate.
II. Study of ...

destroys methyl formate under formation of a complicated gas mixture. The separation of lateral ester groups is supported by the activity data of the decomposition gases of PMMA-3 and PMMA-4 samples. As the activity decreased after three-fold reprecipitation it is assumed to be due to impurities. No monomeric methyl methacrylate molecules are split off in this connection. In the PMMA-1 and PMMA-2 decomposition, the subsequent decomposition of methyl formate gives rise to the formation of CO_2 and other gases which react with the polymer chains and thus separate from the gas phase. In the photolysis in the presence of oxygen, carbon from the α-methyl group and a quaternary carbon atom were detected. The exact relationship between the reactions causing the macromolecular chain rupture (1) and those of ester group separation (2) could not be established. (1) can only be primary in the rupture of C-C-bonds at the quaternary C-atom like in the rupture due to electron action. When the α-methyl group is split off in the photolysis of PMMA-4 (PMMA-4) in vacuo:

$$-CH_2-\underset{COOCH_3}{\overset{CH_3}{C}}- \rightarrow -CH_2-\underset{COOCH_3}{\overset{CH_3}{\dot{C}}}-$$

Card 4/7

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

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S/190/61/003/006/012/019
B110/B208

Light aging of polymethyl methacrylate.
II. Study of ...

the methyl radical also reacts with polymer chains or radicals. The authors thank V. A. Kargin for his advice and M. V. Tikhomirov for studying the mass spectra of the gases. There are 1 figure, 1 table, and 16 references: 5 Soviet-bloc and 11 non-Soviet-bloc. The most important references to English-language publications read as follows: Ref. 4: J. H. Flinn, W. K. Wilson, W. L. Morrow, J. Res. Nat. Bur. Stand., 60, 229, 1958. Ref. 6: L. H. Wartman, Industr. and Engng. Chem., 47, 1013, 1955. Ref. 7: D. E. Winkler, J. Polymer Sci., 35, 3, 1959.

SUBMITTED: July 28, 1960

Card 5/7

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.; GUZEYEV, V.V.; TARAKANOV, O.G.

Viscosity changes of the reaction system in the process of block polymerization of methyl methacrylate with methacrylic acid. Report No.2. Izv.vys.ucheb.zav.; khim.i khim.tekh. 2 no.6: 954-955 '59. (MIRA 13:4)

1. Gor'kovskiy gosudarstvennyy universitet imeni N.I. Lobachevskogo. Kafedra vysokomolekulyarnykh soyedineniy.
(Acrylic acid) (Polymerization) (Viscosity)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.Ye.

More attention to mechanization. Khleb. i kond. prom. 1 no.12:18-19 D '57. (MIRA 11:1)

1. Khlebozavod No.4 Permskogo tresta khlebopecheniya.
(Bakers and bakeries--Equipment and supplies)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, A.V.; TARAKANOV, O.G.

Change of viscosity of the reacting mixture in block polymerization of methyl methacrylate with methacrylic acid. Izv.vys. ucheb.zav.; khim.i khim.tekh. 1 no.4:112-116 '58. (MIRA 11:11)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosuniversitete imeni N.I. Lobachevskogo, Kafedra kolloidnoy khimii.
(Methacrylic acid) (Polymerization)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

KULEBAKIN, V.S., akademik, otv. red.; PETROV, B.N., akademik, otv. red.; BODNER, V.A., doktor tekhn. nauk, red.; VORONOV, A.A., doktor tekhn. nauk, red.; IVAKHNENKO, A.G., red.; ISHLINSKIY, A.Yu., akademik, red.; KOSTYUK, O.M., kand. tekhn. nauk, red.; KRASSOV, I.M., kand. tekhn. nauk, red.; KUNTSEVICH, V.M., kand. tekhn. nauk, red.; KUKHTENKO, A.I., red.; RYABOV, B.A., doktor tekhn. nauk, red.; SIMONOV, N.I., doktor fiz.-mat. nauk, red.; ULANOV, G.M., doktor tekhn. nauk, red.; FEDOROV, S.M., kand. tekhn. nauk, red.; TSYPKIN, Ya.Z., doktor tekhn. nauk, red.; CHINAYEV, P.I., kand. tekhn. nauk, red.; KRUTOVA, I.N., kand. tekhn. nauk, red.; RUTKOVSKIY, V.Yu., kand. tekhn. nauk, red.

[Invariancy theory in automatic control systems; transactions] Teoriia invariantnosti v sistemakh avtomaticheskogo upravleniia; trudy. Moskva, Nauka, 1964. 503 p. (MIRA 18:2)

1. Vsesoyuznoye soveshchaniye po teorii invariantnosti i yeye primeneniyu v avtomaticheskikh ustroystvakh. 2d, Kiev, 1962. 2. Chlen-korrespondent AN Ukr.SSR (for Ivakhnenko, Kukhtenko).

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

L 21195-65 EWT(d)/EPF(n)-2/EWP(1) Po-4/Pq-4/Pg-4/Pae-2/Pu-4/Pk-4/Pl-4
IJP(c)/AEDC(a)/ASD(a)-5/SSD/AFMD(c)/AFETR/AFTC(p)/RAEM(a)/RAEM(i)/ESD(dp)
ACCESSION NR: AP5001329 WW/BC S/0102/64/000/006/0011/0017

AUTHOR: Ryabov, B. O. (Ryabov, B. A.) (Moscow)

TITLE: Estimating the stability of self-oscillations in some nonlinear servo-systems

SOURCE: Avtomatyka, no. 6, 1964, 11-17

TOPIC TAGS: automatic control, automatic control design, automatic control system, automatic control theory

ABSTRACT: Based on published Soviet sources, conditions of stability of self-oscillations are considered in a servosystem which had n generalized linearly-interdependent coordinates and a coordinate σ with a relay characteristic (a servosystem with a z-shaped symmetrical characteristic). An inequality (16) is developed which describes the stability conditions. Orig. art. has: 28 formulas.

ASSOCIATION: none

SUBMITTED: 03Jul63 ENCL: 00

SUB CODE: IE NO REF SOV: 008 OTHER: 000

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B.A. [Riabov, B.O.] (Moskva)

Evaluation of the stability of self-oscillation conditions of some nonlinear servosystems. Avtomatyka 9 no.6:11-17 '64. (MIRA 18:1)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B. A.

PA 175T79

USSR/Physics - Servo Mechanism 1 Apr 50
Self-Excitation

"Determining the Parameters Governing the Steady Self-Excited Oscillations of Certain Systems," B. A. Ryabov, Inst Auto and Telemech, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXI, No 4, pp 663-666

Mathematically considers servosystem consisting of n "linear" elements and of element whose generalized coordinate can take only one of 2 extreme values; e.g., system of auto regulation with slide valve, gate, choke, etc, which reverse instantaneously from one extreme position to another. Submitted 4 Oct 49 by Acad V. S. Kulebakin.

175T79

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B. A.

PA 175T47

USSR/Mathematics - Servo Mechanics 11 Jul 50

"Self-Oscillations in Certain Servo Systems Due to the Presence of Dry (Coulomb) Friction," B. A. Ryabov

"Dok Ak Nauk SSSR" Vol LXXIII, No 2, pp 283-286

Discusses method which permits: (1) to set up regime of steady-state self-oscillations in system consisting of n generalized coordinates and described by n-1 linear differential eq, and (2) to det main parameters. Submitted by Acad V. S. Kulebakin 13 Apr 50.

175T47

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

KOZLOV, Andrey Stepanovich; RYABOV, B.A., doktor tekhnicheskikh nauk, retsenzent; TIKHMENEV, S.S., doktor tekhnicheskikh nauk, retsenzent; KOZLOV, M.S., kandidat tekhnicheskikh nauk, redaktor; PETROVA, I.A., redaktor; ZUBAKIN, I.M., tekhnicheskiy redaktor.

[A theory of gyroscopic aeronautical instruments] Teoriia aviatsionnykh giroskopicheskikh priborov. Moskva, Gos.izd-vo obor.promyshl., 1956. 255 p. (Aeronautical instruments) (Gyroscope) (MLRA 9-5)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B.A.

Natural vibrations in servosystems with nonlinear members displaying nonsymmetrical characteristics. Avtomatyka no.2:3-14 '56.(MLRA 9:10)

1.Moskovs'kiy ordena Lenina aviatsiyniy institut imeni S.Ordzhonikidze.
(Servomechanisms)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B.A.

Determining the parameters of self-oscillation in certain servo systems having a tripositional symmetrical characteristic of the nonlinear element [with summaries in Russian and English]. Avtomatyka no.3:49-55 '57. (MIRA 10:10)

1. Moskovskiy ordena Lenina aviatsiynyi institut imeni S.Ordzhonikidze.
(Servomechanisms)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

PEL'POR, Dmitriy Sergeyevich; RYABOV, B.A., doktor tekhn. nauk, prof., retsenzent; PAVLOV, V.A., doktor tekhn. nauk, retsenzent; UKHOV, K.S., doktor tekhn. nauk, prof., retsenzent; SUVOROVA, I.A., red.

[Gyroscopic instruments and automatic pilots] Giroskopicheskie pribory i avtopiloty. Moskva, Mashinostroenie, 1964. 388 p. (MIRA 17:4)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

ODINTSOV, Anatoliy Alekseyevich; RYABOV, B.A., prof., retsenzent; NIKITIN, Ye.A., dots., retsenzent; SHESTOV, S.A., assist., retsenzent; SAYDOV, P.I., prof., red.; KHRUSTALEVA, N.I., red. izd-va; MURASHOVA, V.A., tekhn. red.

[Desgin of electrical elements of gyroscopic devices]Proektirovanie elektroelementov giroskopicheskikh ustroistv. Moskva, Vysshaia shkola, 1962. 190 p. (MIRA 15:12)
(Gyroscope)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

S/024/62/000/005/011/012
E140/E135

16.6000

AUTHOR: Ryabov, B.A. (Moscow)

TITLE: Steady-state oscillations in relay systems with internal feedback

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Energetika i avtomatika, no.5, 1962, 157-162

TEXT: The method of generalised coordinates is applied to the study of the modification of relay system self-oscillation parameters (period, amplitude) by means of internal feedback. The solution is developed on the interval between two successive operations of the relay, during which time the linear part of the system and the feedback circuit are isolated and have no mutual influence. They can then be considered as independent sub-systems and solved independently. A graphical method is used. There are 5 figures.

SUBMITTED: June 26, 1962

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

GEVONDYAN, Tigran Arutyunovich; KISELEV, Lev Timofeyevich; RYABOV, B.A., doktor tekhn. nauk, prof., retsenzent; ZAKAZNOV, N.P., kand. tekhn. nauk, retsenzent; DOBROGURSKIY, S.O., doktor tekhn. nauk, prof., zasl. deyatel' nauki i tekhniki, red.; YELISEYEV, M.S., red. izd-va; MODEL', B.I., tekhn. red.

[Devices for measuring and recording vibrations] Pribory dlia izmereniia i registratsii kolebanii. Moskva, Mashgiz, 1962. 467 p. (MIRA 15:4)

(Vibration--Measurement)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

FRIDLENDER, Gavriil Oskarovich, doktor tekhn. nauk, prof.; KOZLOV, Mikhail Stepanovich, kand. tekhn. nauk, dotsent; RYABOV, B.A., doktor tekhn. nauk, prof., retsenzent; BROMBERG, P.V., doktor tekhn.nauk, prof., retsenzent; BODNER, V.A., doktor tekhn. nauk prof., red.; SUVOROVA, I.A., red. izd-va; NOVIK, A.Ya., tekhn. red.

[Aeronautical gyroscopic instruments] Aviatsionnye giroskopicheskie pribory. Pod red. V.A.Bodnera. Moskva, Gos.nauchno-tekhn. izd-vo Oborongiz, 1961. 390 p. (MIRA 15:1)
(Artificial horizons (Aeronautical instruments))
(Gyroscopic instruments)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B.A.

"Bestimmung der dynamischen parameter von objekten und elementen des systems automatischer regelung."

Report submitted for the 4th Intl. Electrical Engineering Conference East Germany 26-30 Oct 1959

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

MEDVEDEVA-ORLOVA, Tamara Pavlovna; RYABOV, B.A., doktor tekhn. nauk, prof., red.; GRIGORASH, K.I., red. izd-va; ROZHIN, V.P., tekhn. red.

[Manual for designing aeronautical instruments] Posobie po proektirovaniiu aviatsionnykh priborov. Pod red. B.A.Riabova. Moskva, Gos. nauchno-tekhn.izd-vo Oborongiz. No.3. [Lever transmission increase gears] Rychazhnye peredatochno-mnozhitel'nye mekhanizmy. 1961. 85 p. (MIRA 14:8)

1. Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze. (Gearing)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

YURKEVICH, A.P.; VOVCHENKO, N.Ya; RIABOV, B.A., doktor tekhn. nauk, prof., red.; GRIGORASH, K.I., red izd-va; ORESHKINA, V.I., tekhn. red.

[Calculation of electric measuring devices and power compensated systems] Raschet elektricheskikh izmeritel'nykh ustroistv i sistem s silovoi kompensatsiei. Pod red. B.A.Riabova. Moskva, Gos. nauchno-tekhn. izd-vo Oborongiz, 1961. 126 p. (MIRA 14:8)
(Electric measurements) (Electronics in aeronautics)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B.A., doktor tekhn.nauk

Evaluating minor changes in the roots of the characteristic equation of a linear control system. Trudy MAI no.120:36-41 '60. (MIRA 13:9)

(Automatic control) (Equations)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

SOLODOVNIKOV, V.V., prof., doktor tekhn.nauk, red.; BOGOLYUBOV, N.N., akademik, red.; ISHLINSKIY, A.Yu., akademik, red.; KAZAKEVICH, V.V., prof., doktor tekhn.nauk, red.; LYAPUNOV, A.A., prof., doktor fiz.-mat.nauk, red.; PETROV, B.N., red.; POPOV, Ye.P., prof., doktor tekhn.nauk, red.; POSPELOV, G.S., prof., doktor tekhn.nauk, red.; RYABOV, B.A., prof., doktor tekhn.nauk, red.; ANISIMOV, B.V., dotsent, kand.tekhn.nauk, red.; PETROV, V.V., dotsent, doktor tekhn.nauk, red.; PLOTNIKOV, V.N., dotsent, kand.tekhn.nauk, red.; USHAKOV, V.B., doktor tekhn.nauk, red.; POLYAKOV, G.F., red.izd-va; SOKOLOVA, T.F., tekhn.red.

[Automatic control and computer engineering] Avtomaticheskoe upravlenie i vychislitel'naia tekhnika. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. No.3. 1960. 489 p. (MIRA 13:7)

1. Chlen-korrespondent AN SSSR (for B.N.Petrov).
(Automatic control) (Electronic calculating machines)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B.A., prof., doktor tekhn.nauk, red.; GRIGORASH, K.I., red.izd-va; ORESHKINA, V.I., tekhn.red.

[Handbook for the design of aeronautical instruments] Posobie po proektirovaniiu aviatsionnykh priborov. Pod red. B.A.Riabova. Moskva, Gos.nauchno-tekhn.izd-vo Oborongiz. No.2. [Manometer-type navigational instruments] Manometricheskie navigatsionnye pribory. 1960. 129 p. (MIRA 13:9)

1. Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze.
(Aeronautical instruments)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B.A.

PHASE I BOOK EXPLOITATION SOV/4274
SOV/11-S-120

Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze

Voprosy rascheta aviatsionnykh priborov i sistem upravleniya; sbornik statey (Problems in the Design of Aviation Instruments and Control Systems; Collection of Articles) Moscow, Oborongiz, 1960. 157 p. (Series: Its: Trudy, vyp. 120). Errata slip inserted. 3,650 copies printed.

Sponsoring Agency: RSFSR. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya.

Ed. (Title page): B. A. Ryabov, Doctor of Technical Sciences, Professor; Ed. (Inside book): V. M. Tokar'; Tech. Ed.: V. I. Oreshkina; Managing Ed.: A. S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for engineers and technicians working in the planning and design of devices and control systems and can also be used by students in the electromechanical departments of schools of higher technical education.

Card 1/3

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

COVERAGE: The book consists of articles containing results achieved by the Department of Aeronautical Devices and Automatic Equipment of the Moscow Aviation Institute imeni Ordzhonikidze in the development of aeronautical devices and automatic equipment. The book covers the following: design of a transformer for an extremal regulator and telemetering systems, the problems of the dynamics of linear and nonlinear control systems, modeling, membrane origin, and the design of devices for measuring flying altitude and the revolutions of engines. No personalities are mentioned. References are found at the end of some articles.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

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AVAILABLE: Library of Congress

Card 3/3

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

BODNER, Vasiliy Afanas'yevich, prof., doktor tekhn.nauk; FRIDLENDER, Gavriil Oskarovich; CHISTYAKOV, Nikolay Iosafovich. Prinimali uchastiye: KOZLOV, M.S.; OLIZAROV, V.V.; RYABOV, B.A., prof., doktor tekhn.nauk; BURAKOVA, O.N., red.; GARNUKHINA, L.A., tekhn.red.

[Aeronautical instruments] Aviatsionnye pribory. Pod red. V.A. Bodnera. Moskva, Gos.nauchno-tekhn.izd-vo, 1960. 512 p. (MIRA 13:7)

(Aeronautical instruments)

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PHASE I BOOK EXPLOITATION SOV/4273

Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze

Posobiye po proyektirovaniyu aviatsionnykh priborov. vyp. 1: Elektromekhanicheskiye pribory (Textbook on the Design of Aviation Instruments. No. 1: Electromechanical Instruments) Moscow, Oborongiz, 1960. 98 p. Errata slip inserted. 7,500 copies printed.

Sponsoring Agency: RSFSR. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya.

Ed.: B. A. Ryabov, Doctor of Technical Sciences, Professor; Ed. of Publishing House: K. I. Grigorash; Tech. Ed.: V. I. Oreshkina; Managing Ed.: A. S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for students of electromechanical departments of schools of higher technical education and for engineering and technical personnel engaged in calculating and designing the types of instruments dealt with in the book.

Card 1/4

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

COVERAGE: The textbook describes methodology and fundamentals for calculation of the principal electromechanical aircraft instruments, e.g., magnetic induction tachometers, remote-control electric manometers, resistance thermometers, and capacitive fuel gauges. New solutions are proposed for some instrument calculations. No personalities are mentioned. There are 22 references, all Soviet.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

22(1) SOV/3-59-3-45/48

AUTHOR: Ryabov, B.A., Doctor of Technical Sciences, Professor

TITLE: Bibliography (Bibliografiya). A Book on Calculating and Designing Elements of Automatic Systems (Kniga o raschëte i proyektirovanii elementov avtomaticheskikh sistem)

PERIODICAL: Vestnik vysshey shkoly, 1959, Nr 3, pp 92 - 93 (USSR)

ABSTRACT: The article is a review of the book of S.P. Kolosov named "Elements of Automatic Aircraft Equipment", recommended by the USSR Ministry of Higher Education as a training aid for aeronautical vuzes. It was published by Oborongiz in 1958. There is 1 Soviet reference.

ASSOCIATION: Moskovskiy aviatsionnyy institut imeni S. Ordzhonikidze (Moscow Aeronautical Institute imeni S. Ordzhonikidze)

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RYABOV, B.D. (Orenburg - 1-ya Goncharnaya ul, d.50); PIS'MENOV, I.A.

Nonepithelial beningn gastric tumors complicated by hemorrhage. Vest. khir. 91 no.8:125 Ag'63 (MIRA 17:3)

1. Iz kliniki obshchey khirurgii (zav. - prof. A.S. Al'tshul') Orenburgskogo meditsinskogo instituta.

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L 40906-65 EWT(m)/EWP(w)/EPF(c)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) MJW/JD/WB

ACCESSION NR: AP5009278 S/0369/65/001/001/0027/0031

31
30
B

AUTHOR: Kuslitskiy, A.B.; Mindyuk, A.K.; Rudenko, V.P.; Ryabov, B.F.

TITLE: Corrosion resistance and corrosion-fatigue strength of hardened ShKh 15 steel

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 1, 1965, 27-31

TOPIC TAGS: steel corrosion, steel fatigue strength, hardened steel, corrosion resistance, electroslag melting, electroslag refining, vacuum melting/shKh 15 steel

ABSTRACT: Comparative corrosion-resistance and corrosion-fatigue strength tests were made on samples of ball-bearing steel with different degrees of contamination by nonmetallic impurities and different densities. Six types of ShKh 15 steel (made by six different technological variants) were thus tested. A 3% NaCl solution was used as the corrosive medium. The corrosion resistance of electroslag and vacuum steels was found to be virtually the same and somewhat greater than that of the ordinary variety made in an open arc furnace. The 3% NaCl corrosive medium sharply decreased the cyclic strength of hardened steel. Steels subjected to electroslag remelting were found to be somewhat better in this regard. Fatigue tests on the six types of steel showed that the more aggressive the corrosive medium or more severe the testing conditions (preliminary

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ACCESSION NR: AP5009278

corrosion of the samples), the smaller the difference in the properties of these types, i.e., the less they differed from one another. Orig. art. has: 3 figures.

ASSOCIATION: FMI AN Ukr SSR, Lvov

SUBMITTED: 20Jul64 ENCL: 00 SUB CODE: MM

NO REF SOV: 006 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

[illegible]

[illegible] on resistance and [illegible] strength of [illegible] 15 [illegible] steel manufactured by electroslag refining and vacuum melting. [illegible] (MIRA 19:1)

1. [illegible] Institute of [illegible], Lvov. Submitted [illegible], 1964.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

KUSLITSKIY, A.B.; RYABOV, B.F.

Chamber for fatigue tests of rotating specimens in an atmosphere of vapors or heated air. Fiz.-khim. mekh. mat. 1 no.2:247-248 '65. (MIRA 18:6)

1. Fiziko-mekhanicheskiy institut AN UkrSSR, L'vov.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

L 22493-65 AFWL/AEDC(a)/ASD(f)-3/AFMDC

ACCESSION NR: AP5002420 S/0286/64/000/024/0024/0024

AUTHORS: Dobrovol'skiy, V. L.; Kaspruk, Yu. V.; Ryabov, B. I.; Sharov, Yu. N.; Mikhaylina, S. N.; Ivanov, Yu. V.; Budrik, G. V 7 B

TITLE: A method of raising and holding a cassete, with a source of ionizing radiation, in a vertical pipe in a suspended state. Class 21, No. 166975

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1964, 24

TOPIC TAGS: dynamic pressure, liquid flow, gas flow

ABSTRACT: This Author Certificate presents a method of applying the dynamic pressure of a liquid or gas current to raise and hold a cassete, with a source of ionizing radiation, in a vertical pipe in a suspended state.

ASSOCIATION: none

SUBMITTED: 28Nov62 ENCL: 00

SUB CODE: ME NO REF SOV: 000 OTHER: 000

Card 1/1

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L 10920-66 EWT(1)/EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) AM/AT

ACC NR: AP6009606 SOURCE CODE: UR/0369/66/002/001/0003/0009

AUTHORS: Karpenko, I. V.; Ryabov, B. P.; Lutsiv, M. P.; Babey, Yu. I.

ORG: Physico-Mechanical Institute, AN UkrSSR, L'vov (Fiziko-mekhanicheskiy institut AN UkrSSR)

TITLE: Method for determining axial residual stresses in metal surface layers

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 1, 1966, 3-9

TOPIC TAGS: stress distribution, metal stress, steel / 45 steel, 40Kh steel

ABSTRACT: A method for measuring residual axial stresses in the surface layers of solid cylindrical specimens is presented. It consists of measuring with resistance strain gages the deformations which result during continuous etching of a semi-cylindrical portion of the rod and relating these deformations to the residual stresses. Based on the equations proposed by I. A. Birger (Ostatochnyye napryazheniya, Mashgiz, 1963), an equation for the residual stresses as a function of deformation and etching depth is derived in the form

$$\sigma_{ост} = -\frac{E}{\left[\frac{2(r-\delta_i)+\pi y_{c_i}}{I_{\delta_i}} l(\delta_i) - \frac{\pi}{F_{\delta_i}}\right](r-\delta_i)} \frac{d\varepsilon}{d\delta_i} + E\int_0^{\delta_i} A(\delta_{i-1}) \frac{d\varepsilon}{d\delta_{i-1}} d\delta_{i-1},$$

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ACC NR: AP6009606

where

$$\Delta_1+\Delta_2+\ldots+\Delta_n=\delta_i$$

and

$$I_{\delta_i}=\frac{\pi}{8}[(r-\delta_i)^4+r^4];\quad F_{\delta_i}=\frac{\pi}{2}[(r-\delta_i)^2+r^2];$$

$$y_{\varepsilon_i}=\frac{4[(r-\delta_i)^3-r^3]}{3\pi[(r-\delta_i)^2+r^2]}.$$

The derivatives $d\varepsilon/d\delta_i$ can be obtained from the experimental data, using parabolic approximations. The term

$$B=\frac{E}{\left[\frac{2(r-\delta_i)+\pi y_{\varepsilon_i}}{I_{\delta_i}}l(\delta_i)-\frac{\pi}{F_{\delta_i}}\right](r-\delta_i)},$$

can be constructed graphically to simplify the calculations. Sample curves of residual stress distributions in 20- and 150-mm diameter rods made of steels 45 and 40Kh are presented to demonstrate the procedure. Orig. art. has: 13 formulas and 4 figures.

SUB CODE: 11,20/ SUBM DATE: 21Sep65/ ORIG REF: 002

Card 2/2

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV, B.L.

PAVLOV, V.A., kandidat tekhnicheskikh nauk, dotsent; TUNIMANOV, A.Z., inzhener; ANTONOV, A.K., inzhener; GUSHCHINA, L.M., inzhener; RIVKIN, S.S., doktor tekhnicheskikh nauk; SAYDOV, P.I., kandidat tekhnicheskikh nauk dotsent; PEL'POR, D.S., doktor tekhnicheskikh nauk, professor; RYABOV, B.L., doktor tekhnicheskikh nauk, professor; TIKHMENEV, S.S., doktor tekhnicheskikh nauk, professor; FRIDLENDER, G.O., doktor tekhnicheskikh nauk, professor; CHISTYAKOV, N.I., doktor tekhnicheskikh nauk, professor.

Can V.A. Pavlov's book "Aircraft gyroscope instruments" be recommended for use as a textbook? Priborostroenie no.1:29-31 Ja '57. (MIRA 10:4)

1. Chlen pravleniya Leningradskogo otdeleniya nauchnogo inzhenerno-tekhnicheskogo obshchestva priborostroitel'noy promyshlennosti (for Tunimanov). 2. Chlen pravleniya Vsesoyuznogo nauchnogo inzhenerno-tekhnicheskogo obshchestva priborostroitel'noy promyshlennosti (for Gushchina) 3. Moskovskoye Vysshaye tekhnicheskoye uchilishche imeni Baumana (for Pel'por, Tikhmenev). 4. Moskovskiy aviatsionnyy institut imeni Serge Ordzhonikidze (for Ryabov). 5. Voyenno-vozdushnaya inzhenernaya akademiya imeni N.Ye. Zhukovskogo (for Chistykov)
(Gyroscope)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446310007-5

RYABOV B.M.

GOREV, A.A., doktor tekhnicheskikh nauk, professor; ZALESSKIY, A.M., doktor tekhnicheskikh nauk, professor; RYABOV, B.M., kandidat tekhnicheskikh nauk.

[Impulse characteristics of long spark gaps] Impul'snye kharakteristiki bol'shikh iskrovykh promezhutkov. [n.p.] Gosenergoizdat, 1948? 20 p. [Microfilm] (MLRA 7:11)

(Electric spark)

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