NOVIKOVA, N.G.

NOVIKOVA, N.G. "Xeromorphism of the Top Leaves of Leaves of Weed Plants and its evolutionary Significance." Moscow State U imeni M.V. Lomonosov. Moscow, 1956. (Dissertation for the Degree of Candidate in Biological Science)

So: Knizhnaya Letopis', No. 18, 1956,

PAVLOVA, N.F.; DEGTYAREV, K.A.; NOVIKOVA, N.G.

Testing of coke produced in high-capacity ovens. Koks i khim. no.11: 25-28 '63. (MIRA 16:12)

1. Yasinovskiy koksokhimicheskiy zavod.

NOVIKOVA, N. G.

"Unusual" celestial phenomena Moskva, Gos. izd-vo tekhn.-teoret. lit-ry, 1950. 65 p. (Nauchno-populiarnaia biblioteka) (51-25567)

QB975.N6

NOVIKOVA, N.G.; BAYEV, K.L., professor, redaktor; MELENTSEV, V.A., re-[illegible]; GAVRILOV, S.S., tekhnicheskiy redaktor.

["Unusual" phenomena in the skies] "Neobyknovennye" nebesnye iavleniia. Pod red. K.L.Bayeva. Izd. 2. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1951. 63 p. (Nauchno-populiarnaia biblioteka, no.24) [Microfilm] (MLRA 7:11)
(Meteorology)

NOVIKOVA, N.G.; BAYEV, K.L., redaktor

["Unusual" celestial phenomena] "Neobyknovennye" nebesnye iavleniia. Pod. red. K.L.Baeva. Izd. 4-e. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1953. 63 p. (Nauchno-populiarnaia biblioteka, no.24) [Microfilm] (MLRA 7:9)

(Astronomy) (Meteorology)

NOVIKOVA, N.G.

Unusual phenomena. Nauka i zhizn' 22 no.12:45-48 D '55.
(Meteorological optics) (MLRA 9:2)

LIPIN, A.I.; NOVIKOVA, N.I., inzh., red.

[Equipment for applying metallic and paint coatings] Oborudovanie dlia naneseniia metallicheskikh i lako-krasochnykh pokrytii. Moskva, 1963. 70 p. (Materialy zavodskogo opyta, no.3) (MIRA 17:4)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy institut nauchnoy i tekhnicheskoy informatsii.

ESTERKIN, M.A., inzh.; NOVIKOVA, N.I., inzh., red.

[Mechanisms and equipment for the collection and processing of metal chips] Mekhanizmy i oborudovanie dlia svora i pererabotki metallicheskoi struzhki. Moskva, 1963. 82 p. (Mekhanizatsiia i avtomatizatsiia tekhnologicheskikh protsessov; materialy zavodskogo opyta, no.4)
(MIRA 17:9)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy institut nauchnoy i tekhnicheskoy informatsii.

NOVIKOVA, N.I.

Use of oxygen baths in the compound sanatorium and health resort treatment of coronary stenosis with manifestations of stenocardia. Vop.kur., fizioter. i lech. fiz. kul't 30 no.5:431-434 S-O '65. (MIRA 18:12)

1. Terapevticheskaya klinika (zav. - prof. S.R.Tatevosov) Instituta meditsinskoy klimatologii i klimatoterapii imeni Sechenova (dir. B.V.Bogutskiy).

NOVIKOVA, N.M.

(4)

The chemical nature of the so-called structural proteins. I. N. Bulankin, N. M. Novikova, and E. V. Parina (A. M. Gor'kii State Univ., Kharkov). *Ukrain. Biokhim. Zhur.* 25, 147–53 (in Russian, 153–6)(1953).—To det. the chem. compn. of structural proteins and the possible variations caused by different methods of isolation, livers of 3–4-month-old white mice were extd. with a 30% urea in Edsall soln. (I), Edsall soln. alone (II), and 10% NaCl soln. in carbonate buffer. The exts. were pptd. by dilg. with 5 vol. of water at 0°. The isolated structural proteins represent a liponucleoprotein complex composed of nucleic acids of phospholipide tissues. Soln. I was a more effective solvent, extg. the proteins almost completely. The slight difference in ribonucleic acid content of the whole tissue and the ext. could be due to the presence of free ribonucleic acid in the cytoplasm, which is not extd. There was no difference in the various fractions of P extd. with solvent I or II. NaCl was not suitable. The structural proteins are obviously preformed in the organism and can be readily detd. by urea soln.

B. Gutoff

Novikova, N. M.

MD

√Changes in the composition of liver tissue under conditions of stimulated synthesis. N. M. Novikova. *Trudy Nauch. Issledovatel. Inst. Biol., Khar'kov. Gosudarst. Univ.*, 3, No. 21, 99–111(1954); *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 6793.—In adult rats kept on a protein-free diet for 10 days there occurred a considerable reduction in proteins, in lipides, in acid-sol. P, and to a lesser degree in ribonucleic acid (RNA), but not in deoxyribonucleic acid (DNA). Upon return to normal diet general synthetic processes are stimulated and the wt. of the liver and of the entire animal increase. Anabolic synthesis is irregular; it occurs principally in proteins, followed by RNA and then phospholipides. The compn. of the oxidized proteins of the liver of the adult rat also differs from the normal; there is a comparative lessening in the proteins and phospholipides, an increase in the nucleic acid, and a lowering in the N:P and RNA:DNA ratios. B. S. Levine

BULANKIN, I.N.; NOVIKOVA, N.M.; PARINA, Ye.V.

Chemical nature of so-called structural proteins. Uch.zap. KHGU 53:73-80 '54. (MIRA 11:11)

1. Kafedra biokhimii Khar'kovskogo gosudarstvennogo universiteta imeni A.M. Gor'kogo.
(PROTEINS)

NOVIKOVA, N. M.

Growth changes in the liponucleoprotein complexes in brain and in liver tissues. L. N. Bulankin, I. Yu. Lantodub, N. M. Novikova, I. K. Papakina, and L. A. Freukel. *Uchenye Zapiski Khar'kov. Univ.* 53, *Trudy Nauch.-Issledovatel. Inst. Biol.* 21, 87-98(1954); *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 1423.—The structural proteins of the brain and liver of rats 1–3, 30, 90, and 270–360 days old were extd. with 30% urea in Edsall soln. and pptd. by the 5-fold addn. of H_2O. Detns. were made for total N, lipide, and nucleic acid P in the extd. material and in the intact tissue. In both instances the content of protein and of phospholipides increased with growth. The quantity of nucleic acid, especially deoxyribonucleic acid (DNA), was reduced. The ratio of ribonucleic acid/DNA increased. This was more evident in the structural proteins than in whole tissue. With the growth of the organism there may be a replacement of the nucleoprotein complex by lipides and by protein-lipide complex caused by the lowering in the protein-synthesizing processes of the organism. B. S. Levine

(4)

NOVIKOVA, N.M.

Changes in the composition of liver tissues under conditions of "excited" synthesis. Uch.zap. KHGU 53:99-111 '54.(MIRA 11:11)

1. Kafedra biokhimii Khar'kovskogo gosudarstvennogo universiteta imeni A.M. Gor'kogo.
(PROTEIN METABOLISM) (LIVER)

[illegible] Novikova, N.M.

USSR/Human and Animal Physiology - Liver. R-7

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 70800

Author : Novikova, N.M.
Title : Changes in Tissue Composition in the Liver of Young Animals in Regenarative and "Excited" Syntheses.

Orig Pub : Uch. Zap. Kharkovsk. un-ta, 1956, 68, 21-23

Abstract : In rats reaching at the end of the test, 2 month of age, 2/3 of the liver was removed. Phosphoric fractions and N was determined in the regenerating liver after 2, 4 and 6 days. The majority of P containing substances reached a maximum concentration after 4 days and decreased at the 6th day; however, the P of nucleins continued to increase. N-concentration increased during the entire experiment. In the dry defatted substance of the regenerating liver, at the end of 36 hours, there was already an increase in nucleins and protein. Between 36 hrs and 4-th day the quantity of protein and nucleins

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GREBENNIKOVA, N.P.; NOVIKOVA, N.M.

Cytological investigation of the liver of young and old rats during a protein-free diet, subsequent normal nutrition, and gegeneration. Uch. zap KhGU 108:149-159 '60. (MIRA 14:3)

1. Kafedra biokhimii Khar'kovskogo gosudarstvennogo universiteta.
(LIVER) (AGE) (MALNUTRITION)
(REGENERATION (BIOLOGY))

NOVIKOVA, N.M.

Changes in the composition of liver tissue in old animals under conditions of a protein-free diet, subsequent normal nutrition, and regeneration. Uch. zap KHGU 108:161-177 '60. (MIRA 14:3)

1. Kafedra biokhimii zhivotnykh Khar'kovskogo gosudarstvennogo universiteta.
(LIVER) (AGING) (MALNUTRITION)
(REGENERATION (BIOLOGY))

NOVIKOVA, N. M., Cand Bio Sci, "Peculiarities ~~[illegible]~~ of the metabolism of nucleic acids in the liver of animals of various ages under artificial stimulation of protein synthesis." Khar'kov, 1961. (Khar'kov State Med Inst). (KL, 2-61, 205).

NOVIKOVA, N. M.

"Investigation of the Change of the Modulus of Elasticity in the Process of Vulcanization of Natural Butadienestyrol Rubber." Sub 23 Apr 51, Moscow Inst of Fine Chemical Technology imeni M. V. Lomonosov.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Cand Chem Sci

NOVIKOVA, N. M. FD 195

USSR/Chemistry - Rubber and Elastomers

Card 1/1

Authors : Bartenev, G. M., Ratner, S. B., Novikova, N. M., Konenkov, K. S.

Title : Testing of rubber in regard to its resistance to low temperatures by measuring the loss of elasticity

Periodical : Khim. prom. 4, 32-34 (224-226), June 1954

Abstract : Authors regard as unsatisfactory the standard procedure GOST 408-53 in which the resistance of rubber to low temperatures is determined by measuring the increase in rigidity on the basis of the ratio of deformation at t^c to deformation at 20°. Describe in detail a procedure developed by them in which the temperature T is determined at which the rigidity of the rubber increases by the factor 1/K. As distinguished from the GOST procedure, determination of K (coefficient of resistance to low temperatures) by the new method does not depend on the time during which the deforming force is applied. Four USSR references, one since 1940; two foreign references. Three graphs, two figures.

SOV/69-21-1-1/21

15(9)

AUTHORS: Bartenev, G.M. and Novikova, N.M.

TITLE: The Percussion Deformation of Rubber (Deformatsiya reziny pri udare).

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 1, pp 3-8 (USSR)

ABSTRACT: Ye. V. Kuvshinskiy and Ye. A. Sidorovich [reference 5] developed a method of determining the elastic properties of rubber during percussion, and proposed a theory of a method which permits the determination from experimental data of two independent constants of rubber, the dynamic elastic modulus and the angle of mechanical losses. A pendulum elastometer, described in detail, was used for the experiment. As a result of graphic and analytical calculations, the authors found that at a permanent initial percussion speed, a proportional correlation between the kinetic energy and the square of the percussion deformation occurs. The coefficient of this proportionality is called a "percussion modulus". The correlation also holds for

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low temperatures, so that the frost stability can be estimated by the sharp change in the percussion modulus. The names of M.M. Reznikovskiy and E.L.Chernyakova are also mentioned in the article. There are 7 graphs, 2 diagrams and 8 references, 5 of which are Soviet and 3 English.

ASSOCIATION: Nauchno-Issledovatel'skiy institut rezinovoy promyshlennosti (The Scientific Research Institute of the Rubber Industry), Moscow.

SUBMITTED: June 10, 1957.

S/138/60/000/007/007/010
A051/A029

AUTHORS: Bartenev, G.M.; Novikova, N.M.

TITLE: An Instrument and Method Used for the Determination of High-Elastic Properties of Rubber at Low Temperature

PERIODICAL: Kauchuk i Rezina, 1960, No. 7, pp. 28 - 33

TEXT: A method for the testing of rubber elasticity was developed and the УПКМ-3 (UPKM-3) instrument (Fig. 1) designed by the NIIRP was applied to this purpose. It can be used for the simultaneous testing of 8 samples of different rubbers by means of a special attachment designed by D.I. Smirnov and B.S. Tsu Yun Khan. The functioning principle of the attachment is described. Formula (1) was derived which can serve as the basis for the quick determination of rubber elasticity at low temperature. Two factors, the frost-resistance $T_{0,1}$ and the duration of the forces acting under static deformation, τ, are taken into consideration. In developing the method for rubber elasticity testing at low temperatures two possibilities had to be noted: 1) the testing of newly-processed rubber, 2) the testing of mass-produced rubber. The authors refer to the ISO instrument and the method recommended by the International Organization of Standards and point out

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An Instrument and Method Used for the Determination of High-Elastic Properties of Rubber at Low Temperature

that these are applicable only to the second group of rubber. The method of the ISO does not include the determination of the effect of the temporary conditions of deformation on the frost-resistance of the rubber and the instrument does not ensure the rapid determination of this relationship, since it can handle only static load conditions. The UPKM-1 instrument does not have these disadvantages. With this instrument the frost-resistance index at dynamic (1,500 bendings/min) and static conditions can be determined in compression deformations. A period of 30 sec is suggested for the static tests. The design of the UPKM-1 instrument was improved (Ref. 3). A mixture of dry ice and alcohol served as the coolant since an alcohol medium at low temperatures does not affect the results of the experiments (Refs. 4 and 5). It was found that the UPKM-3 can replace 8 standard instruments since it requires less time for the test. A detailed explanation is given of the testing method. Using formula (1) the frost-resistance index can be calculated. Formulae 2 and 3 represent the frost-resistance coefficients for cases of compression deformation and elastic restoration, respectively. The latter factors k and k' are numerically equal to each other, i.e., $k = k'$. Figure 2

An Instrument and Method Used for the Determination of High-Elastic Properties of Rubber at Low Temperature

shows that the two curves coincide for the temperature dependence of the frost-resistance coefficient of commercial rubber on CHH-18 (SKN-18) base under compression and at restoration. The experiments and the tests carried out with the UPKM-3 show that it can be recommended for determining the characteristics of rubber used for sealing parts and in various shock absorbers. The instrument can also be used for determining the degree of crystal formation in rubber during cooling without stress. Other methods do not include the testing of rubber for crystal formation which leads to a loss of the elastic properties, just as in the case of vitrification. The problems of vitrification and crystallization in rubber are further discussed, describing the factors which affect the crystallization, e.g., vulcanization, presence of sulfur, accelerator, amount of the masticator, state of tension of the rubber sample and how the crystallization affects the density and hardness of the rubber. The testing method for crystallization is explained in detail. It usually takes from 10 to 30 days, depending on the rate of the rubber crystallization. The crystallization index is taken to be the provisional period of crystallization, determining the time which it takes the rubber to increase its

An Instrument and Method Used for the Determination of High-Elastic Properties of Rubber at Low Temperature

hardness by a factor of 2 (Fig. 4). It is further pointed out that the instrument can be used for experiments on crystallization determination in rubber, which has been subjected to preliminary tension by means of a micro-bolt at room temperature. Otherwise the entire procedure is similar to that of crystallization determination of rubber in a relaxed state. There are 4 graphs, 1 set of photographs and 12 references: 5 Soviet and 7 English.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry)

ROZEN, A.M.; KHORKHORINA, L.P.; YURKIN, V.G.; NOVIKOVA, N.M.

Interaction of tributyl phosphate and tributyl phosphate solvate with diluents. Dokl. AN SSSR 153 no.6:1387-1390 D '63. (MIRA 17:1)

1. Predstavleno akademikom A.N. Frumkinym.

NOVIKOVA, N-M.

SIDOROV, M. Ye., prof., NOVIKOVA, N.M.

Combined anesthesia in gynecological operations [with summary in English]. Akush. i gin. 34 no.2:74-77 Mr-Ap '58. (MIRA 11:5)

1. Iz akusherako-ginekologicheskoy kliniki (zav. - prof. M.Ye. Sidorov) Kazanskogo instituta usovershenstvovaniya vrachey imeni V.I. Lenina.

(GENITALIA, FEMALE, surg.
local anesth.,with hypothermia (Rus))
(HYPOTHERMIA
in gyn.surg., with local anesth. (Rus))
(ANESTHSIA, LOCAL
potentiation with hypothermia in gyn.surg. (Rus))

NOVIKOVA, N.M.

Local anesthesia with use of ganglion-blocking and neuroplegic drugs in extirpation of the uterus. Akt. vop. obezbol. no.2: 203-206 '59. (MIRA 14:5)

1. Iz akushersko-ginekologicheskoy kliniki (zaveduyushchiy - prof. N.V.Sidorov) Kazanskogo instituta usovershenstvovaniya vrachey imeni V.I.Lenina.
(LOCAL ANESTHESIA) (AUTONOMIC DRUGS)
(UTERUS--SURGERY)

NOVIKOVA, N.M.

Neuroplegic substances in combination with local anesthesia in surgery for cancer of the uterine corpus and cervix. Sov. med. 25 no.8:40-43 Ag '61. (MIRA 15:1)

1. Iz akushersko-ginekologicheskoy kliniki (zav. - prof. N.Ye. Sidorov) Kazanskogo instituta usovershenstvovaniya vrachey imeni V.I.Lenina.

(HYSTERECTOMY) (UTERUS--CANCER) (AUTONOMIC DRUGS) (LOCAL ANESTHESIA)

ALEKSEYEV, A.F.; BORISENKO, A.P.; GLIKSON, V.I.; GROMOVA, N.F.; KRASOVSKAYA, A.I.; NOVIKOVA, M.M.; OVCHAROVA, A.I.; KHVOYNIK, P.I.; CHURAKOV, V.P.; SHASTITKO, V.M.; GEORGIYEV, Ye.S., red.; SHIL'DKROT, V.A., red.; LEVCHUK, K.V., red.; LEKAKOVA, I.S., tekhn.red.

[Prices on the world capitalistic market; a handbook] Tseny mirovogo kapitalisticheskogo rynka; spravochnik. Moskva, Vneshtorgizdat, 1958. 391 p. (MIRA 12:7)

1. Moscow. Nauchno-issledovatel'skiy kon"yunkturnyy institut. (Prices)

NOVIKOVA, N. N.

"Organometallic Compounds of Mercury." XXVI. Interaction of Symmetrical Aryl Compounds of Mercury with Aluminium and the Synthesis of Organoaluminium Compounds," Iz. Ak. Nauk SSSR, Otdel. Khim. Nauk, No. 6, 1942. Mbr., Inst. Organic Chemistry. -1942-.

NOVIKOVA, N. N.

~~KABACHNIK, M. I.~~

Phospho-organic compounds, IV, Derivatives of 2-chloroethanephosphonic acid. M. I. Kabachnik, P. A. Rossiyskaya and N. N. Novikova. Bull. Adad. Sci. URSS, Classe sci. chim. 1947, 97-100

Dry EtOH (13.8g.), 23.4g. pyridine, and 120 cc. Et_2O, treated with cooling and stirring with 27g. $ClCH_2CH_2POCl_2$ (I) in Et_2O, let stand overnight, and filtered, give 18 g. $ClCH_2CH_2PO(OEt)_2$, b_4 92-4°, d_4^{20} 1.1565, d_4^{20} 1.1558, n_D^{22} 1.4390. ~~Similarly, 18.2 g.~~

(for more of the abstract see card on KABACHNIK, M. I.)

NOVIKOVA, N.N.

Atypical cultures of intestinal bacteria in water from the Stalin Water Works and their hygienic evaluation. Uch.zap. Mosk.nauch.issl.inst.san.i gig. no.4:18-21 '60 (MIRA 16:11)

Comparative study of the effectivenessof standard methods for calculating the indices of fecal pollution of open waters. Ibid.:25-28

*

MITYAGINA, Z.M.; NOVIKOVA, N.N.

More material on an apparatus for preparing extracts. Apt. delo 9 no. 4:66-67 Jl-Ag '60. (MIRA 13:8)

1. Kafedra tekhnologii lekarstv i galenovykh preparatov Permskogo farmatsevticheskogo instituta.
(PHARMACY—EQUIPMENT AND SUPPLIES)

NOVIKOVA, N.N.

Qualitative reactions of benzylpenicillin. Apt. delo 9 no.6:19-23 N-D '60. (MIRA 13:12)

1. Kafedra tekhnologii lekarstv i galenovykh preparatov (zav. - dotsent Z.M. Mityagina) Permskogo farmatsevticheskogo instituta.
(PENICILLIN)

NOVIKOVA, N.N.; TYDEL'SKAYA, I.L.

Egg albumen as an L-transforming medium for certain streptococcal groups. Lab. delo. no.1:50-53 '65. (MIRA 18:1)

1. Bakteriologicheskaya laboratoriya Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy meditsiny im. N.D. Strazhesko (direktor - prof. A.L. Mikhnev), Kiyev.

L 9305-66 EWT(m)/EWP(j) RM

ACC NR: AT6000049 SOURCE CODE: UR/0000/65/000/000/0136/0141

AUTHOR: Nel'son, K. V.; Novikova, N. N.

ORG: None

TITLE: Spectroscopic study of the isomerizing effect of vulcanizing agents of cis-polybutadiene

SOURCE: Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka. Kolebatel'nyye spektry i molekulyarnyye protsessy v kauchukakh (Oscillating spectra and molecular processes in rubbers), Leningrad, Izd-vo Khimiya, 1965, 136-141

TOPIC TAGS: IR spectrum, vulcanization, polybutadiene, rubber chemical

ABSTRACT: The article deals with the isomerizing effect of the most common ingredients of sulfur vulcanization of cis-polybutadiene (SKD rubber), i.e., Captax (mercaptothiazole), Altax (dibenzothiazole disulfide), sulfur, dipenylguanidine, zinc oxide, and stearic acid. The sulfur content varies from 0.15 to 62% of the weight of the rubber, and the content of the other ingredients ranges from 0.15 to 8 wt.%. The rubber films are spread on NaCl windows, vulcanized for 2 hr at 143C, and their infrared spectra are taken with Hilger H-800 and UR-10 spectrophotometers. The microstructure of polybutadiene isomerized by the above agents is also studied. The rate constants of the isomerization of cis-polybutadiene containing sulfur are found to be substantially lower than those for Captax and Altax. The data show that the

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indicated ingredients have various activating effects; this is consistent with the concept of the isomerization mechanism of cis-polybutadiene according to which corresponding intermediate π complexes (of Captax, Altax, or sulfur) are formed with the double bond of the elementary unit of the chain. Orig. art. has: 4 figures and 2 tables.

SUB CODE: 07, 11 / SUBM DATE: 10Jun65 / ORIG REF: 001 / OTH REF: 003

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sions as examples, and investigated the physical, mechanical, ties of emulsions prepared on this basis. The emulsions were prepared essentially by diluting the initial PR-2 emulsion with a solution of polyvinyl acetal. The preparation of the polyvinyl acetal and of the emulsion are briefly described. Several types of polyvinyl acetal were investigated. The tests consisted of determining the swelling of the gelatin and polymer-gelatin emulsion layers, the [illegible] dimensions, the mechanical strength, and the photographic grain density and the fog-

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ACC NR: AT7000923

ging ability. In view of the fact that addition of small amounts of polymer, practically 10% of the weight of the gelatin, made the system colloidally unstable, the authors carried out experiments to determine the optimal conditions of coagulation of the fine-grain nuclear emulsion, washing, and peptization of the precipitate, and also to study the feasibility of producing after peptization a system which is colloidally stable for all values of pH. These tests consisted of determining the influence of gelatin and KNO_3 on the peptization of the coagulant, aging tests, and tests on the effects of reducing the gelatin content. The results show that polyvinyl acetal can be used as a substitute for a fraction of the gelatin, but a gelatin/polymer ratio of about 22.5 is still required to prepare a workable emulsion. Orig. art. has: 9 figures and 5 tables.

SUB CODE: 11,07/ ~~20~~/ SUBM DATE: 00/ ORIG REF: 007/ OTH REF: 001

Card 2/2

NOVIKOVA, N. R., PERFILOV, N. A. and PROKOF'YEVA, E. I.

"Very fine grain emulsions for nuclear research," a paper submitted 6th the International Conference on Radioisotopes in Scientific Research, Pairs 9-20 Sep 57.

PERFILOV, N. A., PROKOF'YEVA, E. I., NOVIKOVA, N. R., LOZHKIN, O. V., DAROVSKIKH, V. F., and DENISENKO, G. F. (Institut du Radium, Leningrad, USSR)

"Sur Les Principes de Preparation d'emulsiosn a Grains Tres Fins Pur Les Recherches Nucleaires et Leurs Proprietes."

paper presented at Program of the Second International Colloquium on Corpuscular Photography. Montreal, 21 Aug - 7 Sep 1958.

Encl: B-3,114,647.

CHICOM/28-3-5-4/20

21 (0)

AUTHOR: N. A. Perfilov, N. P. Novikova, E. I. Prokofeva

TITLE: Extremely Fine-Grained Nuclear Emulsion

PERIODICAL: Yüan Tzŭ Nêng, 1958, Vol 3, Nr 5, pp 438-443

ABSTRACT: The authors discovered a method for manufacturing extremely fine-grained nuclear emulsion. A method of potential control reportedly can provide good reproducibility. The most probable size of the grains were 0.04-0.08 u. The principle and process are described. Three different types of emulsion are presented and illustrated by microphotographs and figures. The first type is a low-sensitivity "π-9 fragment" emulsion, that can be used to detect particles with specific ionization losses, such as highly charged fragments, α-particles with energies from 20-30Mev. and 5-7Mev. protons. The second type is "π-9 sensitive" emulsion which can be used to detect protons with energies of approximately 50 Mev. The third type is the "πP relativistic" emulsion, that can detect minimum ionization charged particles. The authors also reported that the first type emulsion film will not change in characteristics after a year storage period. The second type

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does not change in a period of 6-8 months. The storage properties of the third type has not been investigated in detail. There are 10 figures, 1 table and 6 non-Chicom references.

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NOVIKOVA, N. R.

AUTHORS. Perfilov, N. A., Novikova, N. R., Prokof'yeva, Ye. I. 89-1-5/29

TITLE: A Particular Fine Emulsion for Nuclear Investigations (Csobo melkozernistyye emul'sii dlya yadernykh issledovaniy).

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 1, pp. 45 - 51 (USSR).

ABSTRACT: A production method for nuclear photoemulsions is described, in which the measurements of the microcrystals are 0.04 - 0.08 μ and which are very uniformly distributed in the entire layer. In order to warrant reproducibility in production, a method of "potentiometer control" is given. By this method it is possible with great accuracy to attain the aim that, in the mixing of the components of the photoemulsion, the ratio between bromine- and silver ions always remains constant. The time of emulsion fixation is determined by the quantity to be produced. For 100 ml liquid emulsion it is ~ 18 m.
According to the registration sensitivity with respect to charged particles the photoemulsions produced can be divided into 3 groups which differ only as to small additions and the manner of sensibilization.
Type I. Emulsion "P - 9 for Fission Products", with this emulsion highly ionized ions of fission fragments, 20 - 30 MeV α-particles, and 5 - 7 MeV protons can be recorded.

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SOV/77-4-1-7/22

AUTHOR: Novikova, N.R.

TITLE: The Effect of Iodide on the Properties of an Especially Fine-Grained Nuclear Emulsion (Vliyaniye yodida na svoystva osobomelkozernistoy yadernoy emul'sii)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 1, pp 49-55 (USSR)

ABSTRACT: The basic results of this work were obtained in Dec 1955. The author has studied foreign and domestic literature carefully, but found that the effect of iodide on the properties of emulsions that are sensitive to ionizing radiation has not been studied in detail before. So this investigation was concerned with the effect of iodide on the scattering, light sensitivity and sensitivity towards electrons and α particles of a fine-grained nuclear emulsion. This emulsion was manufactured in accordance with type P-9 emulsion and contained different amounts of potassium iodide.

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The Effect of Iodide on the Properties of an Especially Fine-Grained Nuclear Emulsion

The ratios of silver iodide to silver halide expressed by molecular percentage was 0; 2.5; 5; 7.5; 15; 20 (Photo 1). Light sensitivity was expressed by GOST units, sensitivity to α particles and electrons by the units established by A.L. Kartuzhanskiy. The author found that the effect of iodide on the light sensitivity and the sensitivity to α particles of a non-sensitized nuclear emulsion is analogous to its effect on the light sensitivity of photographic emulsions. The effect of iodide on sensitivity to electrons is negative. Increased concentration of silver iodide in the emulsion decreases its ability of being sensitized by gold the same degree. Increased concentration of surplus Ag ions makes the degree of scattering grow to a determined maximum and decrease after this maximum has been reached, despite a further increase of the concentration.

SOV/77-4-1-7/22

The Effect of Iodide on the Properties of an Especially Fine-Grained Nuclear Emulsion

The author was assisted by laboratory **head** Professor N.A. Perfilov, Professor K.S. Lyalikov, I.R. Protas, and Ye.I. Prokof'yeva who helped in the emulsion synthesis. There are 5 tables, 6 graphs, 1 photo and 12 references, 9 of which are Soviet, 1 Canadian, 1 English and 1 German.

ASSOCIATION: Radiyevyy institut imeni V.G. Khlopina AN SSSR (The Radium Institute imeni V.G. Khlopin of the AS USSR)

SUBMITTED: May 7, 1957

Card 3/3

PERFILOV, N.A.; PROKOF'YEVA, Ye.I.; NOVIKOVA, N.R.

Increasing the sensitivity of an extra-fine-grained emulsion by the use of the double sensitization method. Trudy Radiev.inst.AN SSSR 9:268-270 '59. (MIRA 14:6)
(Photographic emulsions)

NOVIKOVA, N.R.

Effect of iodide on the properties of an extra-fine-grained nuclear emulsion. Trudy Radiev.inst.AN SSSR 9:271-278 '59. (MIRA 14:6)
(Photographic emulsions)

NOVIKOVA, N.R.

Nuclear track emulsions made from lead and silver salts. Zhur. nauch.i prikl.fot.i kin. 5 no.2:145-146 Mr-Ap '60. (MIRA 14:5)

1. Radiyevyy institut im. Khlopina AN SSSR.
(Photographic emulsions) (Photography, Particle track)

PERFILOV, N.A.; PROKOF'YEVA, Ye.I.; NOVIKOVA, N.R.; LOZHKIN, O.V.; DAROVSKIKH, V.F.; DENISENKO, G.F.

Manufacturing principle and properties of extra-fine grain emulsions for nuclear investigations. Zhur.nauch.i prikl.fot. i kin. 5 no.4:262-273 Jl-Ag '60. (MIRA 13:8)

1. Radiyevyy institut im. V.G.Khlopina AN SSSR.
(Photographic emulsions)
(Photography, Particle track)

NOVIKOVA, N. R., Cand Tech Sci -- "Increasing the sensitivity and dispersion ability of extra fine-grained emulsion for nuclear studies." Len, 1961. (Min of Culture RSFSR. Leningrad Inst of Film Engineers) (KL, 8-61, 246)

NOVIKOVA, N.R.; ZAKHAROV, V.I.

Electron-microscopic study of the emulsification process and of the ripening of superfine-grained emulsions. Zhur.nauch.i prikl.fot. i kin. 6 no.4:247-250 Jl-Ag '61. (MIRA 14:11)

1. Radiyevyy institut imeni V.G. Khlopina AN SSSR.
(Photographic emulsions)

PERFILOV, N.A.; NOVIKOVA, N.R.; ZAKHAROV, V.I.

Investigating the anomalous recrystallization of extrafine grain nuclear emulsions during the second ripening. Zhur.nauch.i prikl. fot. i kin. 6 no.5:338-344 S-O '61. (MIRA 14:9)

1. Radiyevyy institut AN SSSR.
(Photography, Particle track)
(Photographic emulsions)

PERFILOV, N.A.; NOVIKOVA, N.R.; ZAKHAROV, V.I.; VIKHREV, Yu.I.

Photographic emulsion PR-2 for nuclear research. Atom. energ. 11 no.6:543-544 D '61. (MIRA 14:11)
(Photographic emulsions) (Nuclear research)

PERFILOV, N.A.; NOVIKOVA, N.R.; ZAKHAROV, V.I.

Magnitude and structure of the developed grains in extra fine-grained nuclear emulsions. Zhur.nauch.i prikl.fot.i kin. 8 no.1:62-63 Ja-F '63. (MIRA 16:2)

1. Radiyevyy institut AN SSSR imeni V.G.Khlopina.
(Photography, Particle track) (Photographic emulsions)

ZAKHAROV, V.I.; NOVIKOVA, N.R.; PERFILOV, N.A.; FADINA, Ye.V.

Properties of fine-frain nuclear emulsions dependent on the pAg and the temperature of emulsification and first ripening.
Zhur. nauch. i prikl. fot. i kin. 9 no.1:21-27 Ja-F'64.
(MIRA 17:2)

L 07164-67 EWT(1) IJP(c)
ACC NR: AT6029517 (A) SOURCE CODE: UR/3180/66/011/000/0135/0160

AUTHOR: Novikova, N. R.

ORG: none

TITLE: Synthesis of photographic emulsions for nuclear studies

SOURCE: AN SSSR. Komissiya po khimii fotograficheskikh protsessov. Uspekhi nauchnoy fotografii, v. 11, 1966. Khimiya fotograficheskikh emul'siy. Strukturnyye svoystva fotograficheskikh sloyev (Chemistry of photographic emulsions. Structural properties of photographic films), 135-160

TOPIC TAGS: photographic emulsion, nuclear emulsion

ABSTRACT: After reviewing the history of the use of photographic emulsions in the Soviet Union and other countries, the author describes in detail the methods of synthesis of such emulsions. These include (1) synthesis in excess bromide ions (ammonia method, ammonia-free double solvent method and ammonia-free three-solvent method), (2) synthesis in excess silver ions and (3) the diffusion method. A comprehensive list of the emulsions (and their applications) manufactured by various firms is given. A table indicating the characteristics of relativistic nuclear emulsions obtained by different researchers at different times is also presented. Of the large number of nuclear emulsions synthesized at various institutes, those most commonly used in the Soviet Union have been developed at NIKFI by K. S. Bogomolov and co-workers and N. A.

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L 07164-67
ACC NR: AT6029517

Perfilov and co-workers at the Radium Institute (Radiyevyy institut). Improvements in the properties of nuclear emulsions should be concerned with decreasing the size of their single crystals and increasing the density of the grains in the tracks of relativistic particles. Orig. art. has: 14 figures and 1 table.

SUB CODE: 14/ SUBM DATE: none/ ORIG REF: 026/ OTH REF: 044

Card 2/2 mfe

ZAKHAROV, V.I.; NOVIKOVA, N.R.; PERFILOV, N.A.; FADINA, Ye.V.

Pyrogallolamidol developer for nuclear emulsions. Zhur.nauch. i prikl.fot. i kin. 9 no.6:422-425 N-D '64. (MIRA 18:1)

NOVIKOVA, N. S.

Novikova, N. S. (Biology) Determination of the daily roach ration of the North Caspian Sea directly in the sea. P. 107

Chair of Ichthyology
July 24, 1950

SO: Herald of the Moscow University, Series on Physics-Mathematics and Natural Sciences, No. 3, No. 5, 1951

NOVIKOVA, N.S.

Behavior of the Northern Caspian roach on their feeding grounds.
Vop.ikht.no.7:36-51 '56. (MLRA 10:3)

1. Kafedra ikhtiologii Moskovskogo gosudarstvennog universiteta im. M.V. Lomonosova.
(Caspian Sea--Roach (Fish))

NOVIKOVA, N.S.

Some data on feed rations of codfish and haddock of the Barents Sea. Dokl. AN SSSR 146 no.4:960-962 O '62.
(MIRA 15:11)

1. Polyarnyy nauchno-issledovatel'skiy i proyektnyy institut morskogo rybnogo khozyaystva i okeanografii im. N.M. Knipovicha. Predstavleno akademikom Ye.N. Pavlovskim.
(Barents Sea--Fishes--Food)
(Barents Sea--Codfish)

NOVIKOVA, N.S.

Some problems of feeding habits and food behavior of cod and haddock in the Barents Sea. Trudy MMBI no.7:3-47 '65.

Role of ctenophores as food for Barents Sea cod and haddock. Ibid.:61-67 (MIRA 18:8)

1. Polyarnyy nauchno-issledovatel'skiy i proyektnyy institut morskogo rybnogo khozyaystva i okeanografii imeni N.M. Knipovicha i Murmanskiy morskoy biologicheskiy institut AN SSSR.

NOVIKOVA, N.S.; GERASIMOVA, L.V.

Quantitative equivalents for field analysis of the feeding habits of cod. Trudy MMBI no.7:68-78 '65.
(MIRA 18:8)

1. Polyarnyy nauchno-issledovatel'skiy i proyektnyy institut morskogo rybnogo khozyaystva i okeanografii imeni N.M. Knipovicha i Murmanskiy morskoy biologicheskiy institut AN SSSR.

NOVIKOVA, N.S.

Bacterial diseases of kok-saghyz. Report no.1. Mikrobiol.zhur. 9 no.48-52 '48. (MIRA 9:12)

1. Iz otdela bakteriozov rasteniy (zav. otdelom - K.I.Bel'tyukova) Instituta mikrobiologii imeni akademika D.K.Zabolotnego Akademii nauk USSR.
(UKRAINE--KOK-SAGHYZ--DISEASES AND PESTS)

NOVIKOVA, N. S.

"Are Kok-Saghyz Seeds the Source of Infection in Bacteerial Withering of the Kok-Saghyz Peducle?" Mikrobiol Zhur, Kiev, Vol. 12, No. 4, pp 99-104, 1950.

NOVIKOVA, N.S.

Sources and ways of spreading infection in bacterial wilt of receptacles of kok-saghyz. Mikrobiol.zhur. 13 no.2:48-61 '51. (MLRA 9:9)

1. Iz otdela bakteriozov rasteniy (zav. otdelom - K.I.Bel'tyukova) Instituta mikrobiologii imeni akademika D.K.Zabolotnogo Akademii nauk USSR.

(UKRAINE--KOK-SAGHYZ--DISEASES AND PESTS)

NOVIKOVA, N.S.

Bacteriophage phenomena in bacterial epiphytic affections of certain agricultural plants. Mikrobiol.zhur. 14 no.3:46-57 '52. (MLRA 6:11)

1. Z Institutu mikrobiologii Akademii nauk URSR.
(Botany--Pathology) (Bacteriophagy)

Novikova, N. S.

MD

Capacity for atmospheric nitrogen fixation in bacteria belonging to the epiphytic microflora. N. S. Novikova. *Mikrobiologiya* 24, 705–9(1955).—Tomato, potato, and maize leaves and blossoms do not support growth of *Azotobacter chroöcoccum* (strain K). Some common epiphytes which are widely distributed on plant parts growing above ground are able to fix atm. N_2, e.g. *Bacterium herbicola* and *Pseudomonas eisenbergii*. Most active of all these is *B. herbicola* (9.5–13.1 mg. N per g. of sucrose consumed). *B. cornea* and *B. paracloacae* showed less activity, and *Erwinia carotovora* none at all. Some tests were made on other host plants (lupine, clover, cucumber). Julian P. Smith

NOVIKOVA, N. S.

NOVIKOVA, N. S. -- "Increasing the Productivity of the Wheat Spike on the Basis of Stage Analysis of the Conditions of Occurrence of the Third and Fourth Stages of Organogenesis." Moscow Order of Lenin and Order of Labor Red Banner State U imeni M. V. Lomonosov. Moscow, 1956. (Dissertation for the Degree of Candidate of Biological Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956

PUCHKOVA, L.I.; Prinimali uchastiya: OSIPOVA, T.T.; NOVIKOVA, N.S.

Study and evaluation of the spinning characteristics of the new synthetic fibers. Nauch.-issl.trudy TSNIKHBI za 1958 g: 3-20. (MIRA 16:1)

(Cotton--Testing)

IZRAIL'SKIY, V.P., prof.; doktor biolog.nauk; SHUSTOVA, L.N., kand.med. nauk; GOHLENKO, M.V., doktor biolog.nauk; MURAV'YEV, V.P.; BEREZOVA, Ye.F., doktor biolog.nauk; SUDAKOVA, L.V., mikrobiolog; GRUSHEVOY, S.Ye., doktor sel'skokhoz.nauk; HEMLIYENKO, F.Ye., doktor biolog.nauk; BEL'TYUKOVA, K.I., doktor biolog.nauk; STARYGINA, L.P., kand.biolog.nauk; PERSHINA, Z.G., kand.biolog.nauk; ART'YEM'YEVA, Z.S., mikrobiolog; NOVIKOVA, N.S., kand.biolog.nauk; OSNITSKAYA, Ye.A., fitopatolog; YASHNOVA, N.V., fitopatolog-mikrobiolog; MIKZAHEK'YAN, R.O., kand.biolog.nauk; TETYUREVA, I.V., red.; PEVZNER, V.I., tekhn.red.

[Bacterial diseases of plants] Bakterial'nye bolezni rastenii. Izd.2., perer. i dop. Moskva, Gos.izd-vo selkhoz.lit-ry, 1960. 467 p. (MIRA 13:7)

1. Chlen-korrespondent Ukrainskoy AN (for Murav'yev).
(Bacteria, Phytopathogenic) (Plant diseases)

NOVIKOVA, Nina Samoylovna; SOLOV'YEVA, A.I., red.izd-va; DAKHNO, Yu.B., tekhn. red.

[Bacterial flora of the aerial organs of plants] Bakterial'naia flora nadzemnykh organov rastenii. Kiev, Izd-vo AN USSR, 1963. 87 p. (MIRA 17:2)

CHESNOKOV, V.A.; RAKHIMOV, G.; BUSHUYEVA, T.M.; NOVIKOVA, N.V.

Effect of warming up of leaves on the photosynthesis and activity of isolated chloroplasts. Vest. LGU 19 no.15:105-110 '64.
(MIRA 17:11)

NOVIKOVA, N.V. (Kiyev)

Distribution of the influenza virus in various organs in experimental infection. Vrach delo no.6,105-108 Je '61. (MIRA 15:1)

1. Institut infektsionnykh bolezney AMN SSSR.
(INFLUENZA—MICROBIOLOGY)

USSR/Human and Animal Physiology. Blood. Blood Chemistry. T

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93063.

Author : Novikova, N.V., Kuz'menko, I.I.
Inst :
Title : Study of the Polarographic Effect of Blood Proteins in Normal and Castrated Animals.

Orig Pub: Probl. endokrinol. i gormonoterapii, 1956, 2, No 2, 103-108.

Abstract: A polarographic study of the blood proteins of 300 normal and castrated rabbits and dogs was undertaken using the method of E. M. Malatyuk (theses of reports to scientific session dedicated to 30th anniversary of the Hygienic Institute of Labor and Occupational Diseases, Moscow, 1953, 24 - 26), to determine the point of equi-

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librium of the waves (PEW). In castrated dogs there was no change in % of the total protein in the serum, but the peak of the polarographic waves and PEW in the serum of normal dogs was lower than that of castrated dogs where the first shifts were noted on the 19th day of castration. About the 30th day these indices decreased, and again became high in 1½ months and maintained this level. In rabbits the lowered amount of protein in % in the serum, plasma, and Hg noted 10 days following castration, was maintained at this level for 1½ months and returned to normal about the 3rd month. The polarographic indices (PI) of blood protein were most noticeably changed after 1½ months. Species differences were noted according to PI in the protein of the blood and in the Hg of dogs and rabbits.

USSR/Human and Animal Physiology. Blood. Blood Chemistry. T

Abs Jour: Ref Zhur-Biol., No. 20, 1958, 93063.

PI in normal and castrated animals apparently differed through changes following castration of the polarographic active -SH and -S-S groups in the structure of the protein molecules. -- A.D. Belaberedova.

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NOVIKOVA, N.V. (Khar'kov)

Polarographic effect of blood proteins of normal and castrated animals during the action of pervitin and sodium amytal [with summary in English]. Probl. endok. i gorm. 4 no.4:89-92 Jl-Ag '58 (MIRA 11:10)

1. Iz otdela fiziologii (zav. dots. B.A. Vartapetov) Ukrainskogo instituta eksperimental'noy endokrinologii (dir. kand.med.nauk S.V. Maksimov).

(BLOOD PROTEINS, eff. of drugs on methamphetamine & amobarbital in castrated animals (Rus))
(AMPHETAMINE, related cpds.
methamphetamine, eff. on blood proteins in castrated animals (Rus))
(AMOBARBITAL, eff.
on blood proteins in castrated animals (Rus))
(CASTRATION, eff.
on amobarbital & methamphetamine action on blood proteins in animals (Rus))

NOVIKOVA, N.V.; KUZ'MENKO, I.I. (Khar'kov)

Effect of sodium bromide, methyltestosterone, and a methyltestosterone-sodium bromide combination on serum proteins in castrated animals [with summary in English]. Probl.endok. i gorm. 5 no.1:51-54 Ja-F '59. (MIRA 12:3)

1. Iz fiziologicheskogo otdela (zav. - dots. B.A. Vartapetov) Ukrainskogo instituta eksperimental'noy endokrinologii (dir. - kand. med. nauk S.V. Maksimov).

(CASTRATION,
eff. of sodium bromide & methyltestosterone alone & in combination on blood proteins (Rus))
(BROMIDES, effects,
sodium bromide, on blood proteins in castrated animals, alone & with methyltestosterone (Rus))
(TESTOSTERONE, rel. cpds.
methyltestosterone, eff. on blood proteins in castrated animals, alone & with sodium bromide (Rus))
(BLOOD PROTEINS, eff. of drugs on,
methyltestosterone & sodium bromide, alone & in combination, in castrated animals (Rus))

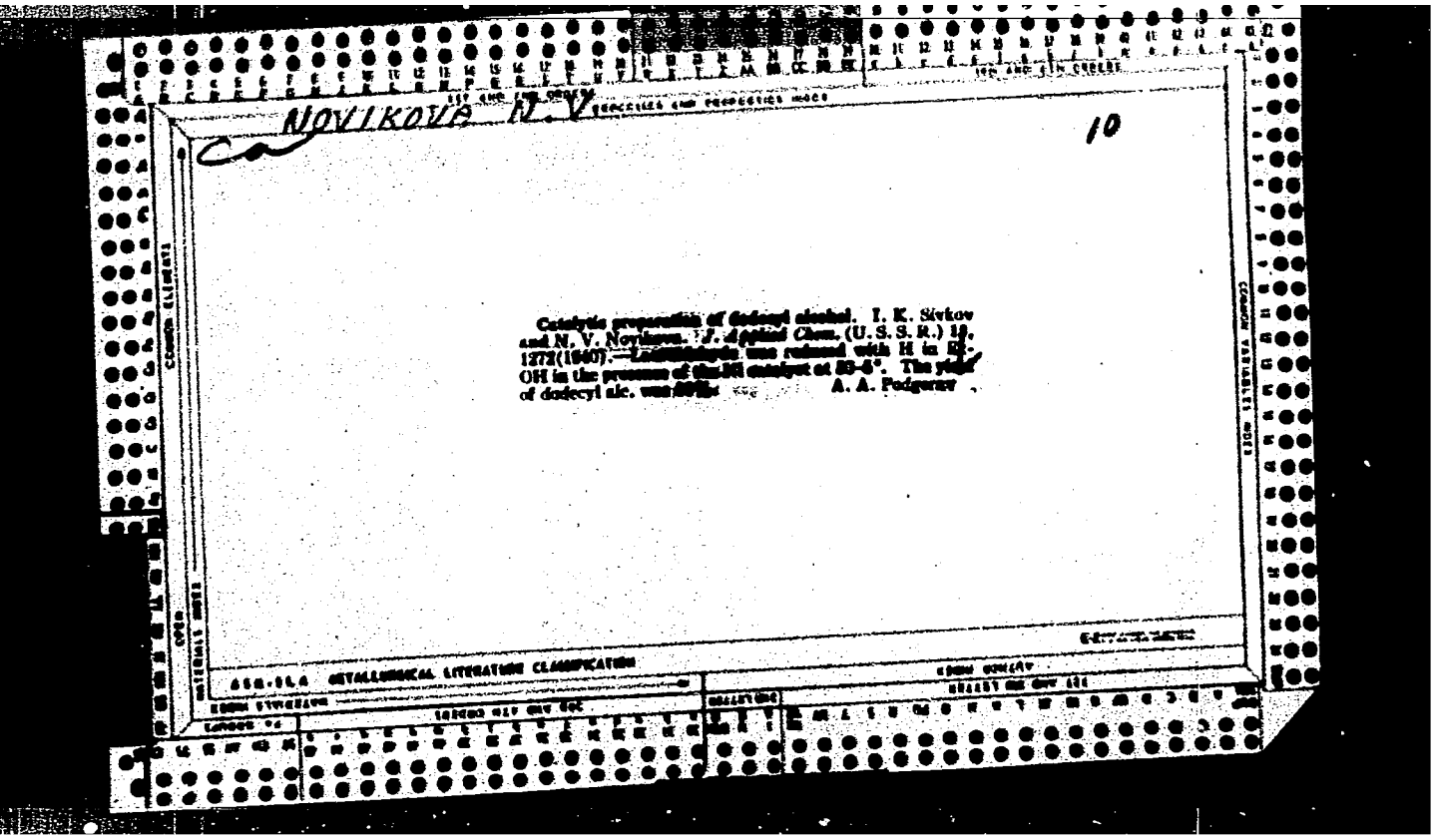
VARTAPETOV, B.A.; NOVIKOVA, N.V. (Khar'kov)

Effect of ganglionic blocking agents (benzohexonium and pyrilene) on the blood serum proteins and arterial pressure in animals with postcastration hypertension. Probl. endokr. gormonoter. 9 no.4:15-22 Jl-Ag'63 (MIRA 17:1)

1. Iz fiziologicheskogo otdela (zav. - prof. B.A. Vartapetov) Ukrainskogo instituta eksperimental'noy endokrinologii (dir.- kand.med. nauk S.V. Maksimov).

NOVIKOVA, N.V. (Kiyev)

Problem of viremia in mice following aerosol infection with influenza virus. Sbor.nauch.trud. Inst.infek.bol. no.4:75-78 '64. (MIRA 18:6)



NOVIKOVA, N. V.

USSR/Chemistry

Card 1/1

Authors : Nesmeyanov, A. N. Academician, Borisov, A. E., and Novikova, N. V.

Title : Isopropenyl mercury and thallium compounds and investigation of their chemical properties

Periodical : Dokl. AN SSSR, 96, Ed. 2., 289 - 292, May 1954

Abstract : Isopropenyl mercury and thallium compounds were derived from the reaction of mercury salts with isopropenyllithium which in turn was obtained from the reaction of metallic lithium and isopropenyl bromide in a dry ester medium. The isopropenyllithium in ester reacts with mercuric bromide forming isopropenyl mercury bromide with yield of 68%. Recrystallized from acetone it continuously melted at 167°. Isopropenyllithium is an ester solution reacts easily with thallium trichloride forming diisopropenyl thallium. Four references; 3 USSR since 1895.

Institution : Academy of Sciences USSR, Institute of Elementary-Organic Compounds

Submitted : March 13, 1954

20-119-3-29/65

AUTHORS: Nesmeyanov, A. N., Member, Academy of Sciences, USSR, Borisov, A. Ye., Novikova, N. V.

TITLE: Conservation of Propenyl Radical Configuration in Metal to Metal Transition Reactions (Sokhraneniye konfiguratsii propenil'nogo radikala v reaktsiyakh perekhoda ot metalla k metallu)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 3, pp. 504-505 (USSR)

ABSTRACT: The authors continue their papers on the stereochemistry of the atom exchange reactions (ref 1). The atoms are connected with the olefine-hydrocarbon. The authors realized several transitions of the cis- and correspondingly of the trans-propenyl-radical in starting from the stereo-isomeric-1-bromo-1-propenes (table 1). These bromides were transformed by action of lithium in ether at +5 to -7°C into corresponding stereoisomeric lithium-propenyl compounds and further into several propenyl-organometallic compounds of Hg, Sn and Tl by subsequent exchange reactions at reduced temperatures. Corresponding stereoisomers of crotonic acid were formed

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by CO_2 action. The configuration of the initial bromo-propene is known as well as rhe configuration of the crotonic- and isocrotonic acid. The configuration of the two compounds of lithium-propenyl which were formed by lithium action on an ether solution of a corresponding bromo-propene at 5 to -7°C was proved by the presence of frequencies 700 and 1623 cm^{-1} in the infrared spectrum which belong to the substances formed by cis-bromo-propene, whereas in the same spectrum of its stereoisomer frequencies 975 and 1645 cm^{-1} occur. This characterizes the first organolithium substance as cis-, the latter as a trans-isomer. The exchange reactions of these isomers of lithium-propenyl with $HgBr_2$ and $TlBr_3$ passed under conservation of their configurations, exactly like all other exchange reactions of the metals investigated by the author. This is proved by the delimitation of the trans-formation region of the cis-lithium-propenyl from the domain of the trans-lithium compound and by the method of even and uneven cycles (ref 1). The transitions 6,7; 7,8; 5; 7, 8, 12, 11, 5; 7, 8, 12, 11, 9, 6 and 11, 9, 10

actually contain in the transformation series of trans-lithium-propenyl and the corresponding transformations 18, 19; 19, 20, 17; 19, 20, 24, 17; 23, 24; 23, 21, 22 - 2, 3, 5, 6 terms; they are cyclic, i.e. they return each time to the initial stereoisomer, independently of the number of terms. Therefore each probability of reactions with inversions of configuration is excluded. Thus the above material once more confirms the rule concerning the conservation of configuration in electrophil or homolytical substitutions of an olefine-hydrocarbon (ref 3) put up by the authors. The transformations 1, 13, 8, 20, 11 and 23 are here apparently homolytical, whereas the others are electrophil. There are 1 table, and 8 references, 5 of which are Soviet.

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

SUBMITTED: November 20, 1957

NESMEYANOV, A.N., akademik; BORISOV, A.Ye.; NOVIKOVA, N.V.

Retention of the propenyl configuration in the reactions of cis- and trans-propenyllithium with oxo-compounds. Dokl. AN SSSR 119 no.4:712-715 Ap '58. (MIRA 11:6)
(Lithium) (Aldehydes) (Ketones)

5(3)
AUTHORS: Nesmeyanov, A. N., Borisov, A. Ye., Novikova, N. V. SOV/62-59-2-11/40

TITLE: Exchange Reactions of the Isopropenyl Compounds of Mercury, Thallium and Tin (Reaktsii obmena izopropenil'nykh soyedineniy rtuti, talliya i olova)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 2, pp 259-262 (USSR)

ABSTRACT: In the present paper the reactions of the double exchange of isopropenyl compounds of mercury and thallium as previously described (Ref 1) with salts of heavy metals were investigated. On fusion of diisopropenyl thallium bromide with tin bromide at 200-220° the diisopropenyl tin dibromide with a melting point of 100-101° was obtained. This readily reacts with mercury bromide and forms isopropenyl mercury bromide. This yields in alkali diisopropenyl mercury. In acetone this reaction proceeds in a more complex manner. It essentially resembles one of the variations of the interaction of symmetric organic mercury compounds with stannous salts. From the reaction products of diisopropenyl mercury with thallium tribromide at room temperature in ether the diisopropenyl

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thallium bromide was obtained. This is decomposed at 190-194°. The interaction of diisopropenyl mercury with tin dibromide yields in various solvents isopropenyl mercury bromide, diisopropenyl tin dibromide, tetraisopropenyl tin and metallic mercury. There are 3 Soviet references.

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

SUBMITTED: May 24, 1957

NOVIKOVA, N.V.

5(3)

AUTHORS: Nesmeyanov, A. N., Borisov, A. Ye., Novikova, N. V., Osipova, M. A.

SOV/62-59-2-12/40

TITLE: Synthesis of Organo-Tin Compounds From Organomercurials and Stannous Salts in Inert Solvents (Sintez olovoorganicheskikh soyedineniy iz rtutnoorganicheskikh soyedineniy i soley dvuvalentnogo olova v inertnykh rastvoritelyakh)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 2, pp 263-266 (USSR)

ABSTRACT: In the present paper the interaction of organomercurials with stannous salts in an inert solvent not containing any mobile hydrogen atom was investigated. It was proved that in this connection no side reaction takes place in which $(RO)_2SnX_2$ is formed such as with the application of alcohol and acetone as solvent. From the reaction of dipropenyl mercury with stannous bromide dipropenyl tin was obtain. In the case of diisopropenyl mercury, diisopropenyl tin dibromide, tetraisopropenyl tin and isopropenyl mercury bromide were precipitated. The reaction of diphenyl mercury, di-p- and di-o-toluene mercury, di-α-naphthyl mercury and

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diethyl mercury with stannous chloride as well as diphenyl mercury with stannous bromide yielded normal reaction products. There are 3 Soviet references.

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

SUBMITTED: May 24, 1957

SOV/62-59-4-11/42

5(3)
AUTHORS: Nesmeyanov, A. N., Borisov, A. Ye., Novikova, N. V.

TITLE: On the Possibility of a Synthesis of Organic Tin Compounds by the Reduction of Organic Thallium Compounds With Salts of Divalent Tin (O vozmozhnosti sinteza olovoorganicheskikh soyedineniy vosstanovleniyem talliyorganicheskikh soyedineniy solyami dvuvalentnogo olova)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 4, pp 644-646 (USSR)

ABSTRACT: In the present work the interaction of cis- and trans-dipropenylthallium bromide, diisopropenylthallium bromide, di-α-naphthylthallium bromide with tin bromide and the interaction of diphenylthallium chloride and di-p-tolylthallium chloride with tin chloride upon heating of the reaction products ground to a powder, without solvents, was investigated. The yield of reaction products was between 50% and 85%. A stereo isomer mixture of dipropenyl tin bromide, diisopropenyl tin dibromide, diphenyl tin dichloride, di-p-tolyl tin dichloride and di-α-naphthyl tin dibromide appears to have thus been obtained. This reaction was also investigated in various solvents. A re-

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action of diisopropenyl thallium bromide with tin bromide in acetone can be effected only with difficulty. It does not react in benzene and ligroin solutions even when heated. On the other hand, cis-cis-dipropenyl thallium bromide reacts with tin bromide in benzene at 50^0 to form dipropenyl tin dibromide and thallium dibromide. This reaction is similar to the reaction investigated (Ref 3) between organo-mercury compounds and divalent tin salts and is effected with relative ease. This reaction can be used as a method of synthesizing organic tin compounds of the type R_2SnX_2. There are 6 references, 4 of which are Soviet.

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

SUBMITTED: July 12, 1957

NOVIKOVA, N.V.

5 (3)

AUTHORS: Nesmeyanov, A. N., Borisov, A. Ye., Novikova, N. V. SOV/62-59-7-10/38

TITLE: Preservation of the Configuration of the Radical in the Metal Exchanging Reactions of Propenyl Metal Organic Compounds (Sokhraneniye konfiguratsii radikala v reaktsiyakh obmena metalla propenil'nykh metalloorganicheskikh soyadineniy)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 7, pp 1216-1224 (USSR)

ABSTRACT: This paper belongs to a series of investigations on the stereochemical exchange of atoms bound to olefin carbon. The relative scheme shows that the cis- or transconfiguration of the olefin radical remains preserved in an electrophilic or homolytic substitution. As initial materials for the investigations cis- and trans-1-bromopropene were used. The lithium salts of these compounds were subjected to a metal exchange. Lithium was replaced by mercury, thallium or tin. The configuration of the stereoisomeric lithium propenyl was determined by means of the infrared absorption spectrum and the configuration of the Hg-, Tl- and Sn-compounds was determined by means of the infrared spectrum and according to the method of even and uneven numbers

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of links in the cycles. The investigation of the metal exchange was carried out at room temperature. The metals were exchanged in an electrophilic reaction. A reaction hitherto unknown was noticed: $R_2SnCl_2 + TlCl_2 \longrightarrow R_2TlCl_2 + SnCl_4$. In the experimental part the various exchange reactions are described. There are 7 references, 2 of which are Soviet.

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

SUBMITTED: November 12, 1957

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5(3)

AUTHORS: Borisov, A. Ye., Novikova, N. V. SOV/62-59-9-27/40

TITLE: Exchange Reactions of Organotin Compounds With Thallium (III) Chloride

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 9, pp 1670-1672 (USSR)

ABSTRACT: In the title reaction, the authors previously observed (Ref 1) a smooth transformation of various organotin compounds to organothallium compounds. These investigations are continued in the present paper by studying the reaction between tetraethyl-, butyl-, phenyl-, o- and p-tolyl-, o-anisyl, the stereoisomeric propenyl-, isopropenyl-, and vinyl compounds of tin with thallium (III) chloride. The initial substances were obtained by the Grignard reaction, stereoisomeric tetrapropenyl- and isotetrapropenyl tin being prepared for the first time. A representation of the geometric configuration of these compounds is given in accordance with the views of Nesmeyanov and papers by the same author (Ref 1). All compounds reacted smoothly with $TlCl_3$ in ether or chloroform solution at room temperature. Data of initial substances and reaction products are given in table 1.

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The cis- and trans-tetrapropenyl compounds immediately form R_2TlCl, the others form mixtures of R_2TlCl and $RTlCl_2$. The phenyl compounds yield compounds of the latter type only. The tetraethyl and tetrabutyl compounds gave no exchange reaction. Only compounds of the type $Tl_3(TlCl_6)$, as well as ethyltin chloride and butyltin chloride were precipitated. The physical constants of some of the thallium compounds obtained are given in table 2. There are 2 tables and 3 references, 1 of which is Soviet.

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

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