

L 1778-66

ACCESSION NR: AP5024003

SUBMITTED: 26Dec64

NO REF SOV: 005

ENCL: 00

OTHER: 002

SUB CODE: IC, *GC*

ATD PRESS: *4112*

mlb
Card 2/2

L 52068-65 EWG(j)/EWT(m)/EPF(c)/EPF(u)-2/EPR/T/EWP(t)/EWP(b)/EWA(c)
 Pr-4/Ps-4/Pu-4 IJP(c) JD/JG
 UR/0363/65/001/004/0495/0497
 ACCESSION NR: AP5014078

AUTHOR: Buslayev, Yu. A.; Sinitsyna, S. M.; Polikarpova, M. A.

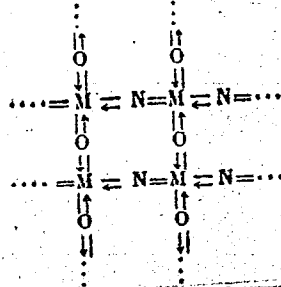
42
40
B

TITLE: Synthesis of niobium oxonitride

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 4, 1965, 495-497

TOPIC TAGS: niobium compound, inorganic polymer, thermal analysis, gravimetric analysis

ABSTRACT: Oxonitrides of transition elements apparently consist of polymers with cumulative bonds



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The authors found a method of synthesizing niobium oxonitride with a Nb:O:N ratio of 1:1.08:0.9. The starting reagents, NH_3 , NbOCl_3 and NH_4Cl , were reacted in an autoclave at 8 atm for 6 days. The product $\text{NbO}(\text{NH}_2)\text{NH}\cdot 3\text{NH}_4\text{Cl}$ was heated in argon to 600°C , yielding niobium oxonitride. Ultimate analysis of the latter showed its formula to be $\text{NbO}_{1.08}\text{N}_{0.90}$. The oxonitride was a dark-blue, finely crystalline powder soluble in water, alkalis, dilute and concentrated mineral acids (including HF) and common organic solvents. Thermogravimetric analysis showed that it is stable when heated in air up to 550°C ; above this temperature, it decomposes into niobium pentoxide. An x-ray diffraction study of the synthesized niobium oxonitride NbON showed that it did not contain niobium nitride or pentoxide impurities. Orig. art. has: 2 figures.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 13Jan65

ENCL: 00

SUB CODE: CC, GC

NO REF SOV: 001

OTHER: 003

me
Card 2/2

L 55951-65 EWT(m)/EPA(s)-2/EFF(c)/EWP(b)/EPF(n)-2/EPR/EWP(j)/T/EWP(t) Po-4/Pr-4/
Ps-4/Pt-7/Pu-4 IJP(c) JD/WW/JG/RM

ACCESSION NR: AP5014079

UR/0363/65/001/004/0498/0502
546.882:541.6

56
53

AUTHOR: Buslayev, Yu. A.; Sinitsyna, S. M.; Glushkova, M. A.; Yershova, M. M.; Polikarpova, M. A.

TITLE: Niobium-base inorganic polymers

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 4, 1965, 498-502

TOPIC TAGS: ²¹niobium nitryl chloride, inorganic polymer, niobium chloride, ir spectroscopy, polymer chain

ABSTRACT: The authors attempted to prepare niobium nitryl chloride NbNCl₂ from NbCl₅ and NH₄Cl in nitrobenzene. The actual formulas of the products obtained were determined as being Nb₂N₃Cl₇H₆ (I) (after washing with benzene and ether) and Nb₃NCl₂O_x(OH)_y (II) (after washing with water). Compound (I) is thought to consist of NbNHC1₃, NbNCl₂, and NH₄Cl. The difference between (I) and (II) is due to the elimination of NH₄Cl and apparently to a partial hydrolysis of (I). Both compounds were found to be diamagnetic (the magnetic properties were studied by V. I. Belova).

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L 55951-65

ACCESSION NR: AP5014079

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indicating a high degree of oxidation of Nb. The nature of the bonding in (I) was investigated by means of infrared spectroscopy with a UR-10 spectrophotometer (the IR spectra were recorded and the frequencies assigned by Yu. Ya. Kharitonov) in the range of $700-1000\text{ cm}^{-1}$ (with a maximum at 740 cm^{-1}), which was attributed to stretching vibrations in the ...NbN ...NbN ...NbN chains. An attempt was made to prepare compounds containing mixed chains composed of phosphorus, nitrogen, and niobium; to this end, a mixture of PCl_5 , NbCl_5 , and NH_4Cl was reacted in nitrobenzene at 160°C . The IR spectra of the products, $\text{P}_5\text{NbN}_{11}\text{Cl}_9\text{H}_{12}$ (III) and $\text{P}_5\text{Nb}_8\text{Cl}_4(\text{OH})$ (V), did not show any absorption bands due to stretching vibrations of the bonds in the ...NbNNbN... or ...PNPN... chains. This leads to the conclusion that the reaction of niobium and phosphorus pentachlorides with ammonium chloride yields products which are not a mixture of niobium and phosphorus nitryl chlorides, but constitute a niobium phosphonitryl chloride compound. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of Sciences SSSR)

Card 2/3

L 55951-65

ACCESSION NR: AP5014079

SUBMITTED: 19Jan65

NO REF SOV: 004

ENCL: 00

OTHER: 001

0
SUB CODE: IC

Card 3/3

BUSLAYEV, Yu.A.; KHARITONOV, Yu.Ya.; SINITSYNA, S.M.

Infrared absorption spectra of $NbCl_5$, NbO_2F , TaO_2F . Zhur.
neorg. khim. 10 no.2:533-535 F '65.2 (MIRA 18:11)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova
AN SSSR. Submitted July 4, 1964.

SINITSYNA, S.M.; SINITSYN, N.M.

Effect of the nature of neutral ligands on certain properties
of uranyl complex compounds. Zhur.neorg.khim. 10 no.4:923-926
Ap '65. (MIRA 18:6)

I. 08658-67 EMT(m)/EWP(j) RM

ACC NR: AP6015091

(A)

SOURCE CODE: UR/0020/66/168/001/0110/0112

AUTHOR: Sinitsyna, S. M.; Sinitsyn, N. M.

34

ORG: none

TITLE: Effect of the nature of acid-ligands on the formation of uranyl complexes with tri-n-butylphosphine oxide

SOURCE: AN SSSR. Doklady, v. 168, no. 1, 1966, 110-112

TOPIC TAGS: uranium compound, melting point, refractive index

ABSTRACT: Tri-n-butylphosphine oxide (TBPO), according to the literature, is an active extracting agent in the series

$(C_4H_9O)_3PO < (C_4H_9O)_2(C_4H_9)PO < (C_4H_9O)(C_4H_9)_2PO < (C_4H_9)_3PO$

where it forms a strong donor-acceptor bond with the uranyl group in complex uranyl compounds. The reactions of complex uranyl salts with TBPO were investigated by the synthesis of uranyl salts with a 20% solution of TBPO in heptane. All compounds were taken in stoichiometric amounts with the addition of H₂O (1/4 the amount of TBPO) at the end of the synthesis for a better separation of the phases. The $UO_2SO_4(TBPO)_3$ in the form of light yellow crystals was obtained from $UO_2SO_4[CO(NH_2)_2]_3$. It had a molecular weight of 937±18, a melting point of 137C, and a decomposition temperature of 280C. The $(UO_2)_4(SO_4)_4(TBPO)_{10}$ in the form of yellow crystalline powder was formed from

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UDC: 546.791.6

L 08658-67

ACC NR: AP6015091

$\text{UO}_2\text{SO}_4 \cdot 3\text{H}_2\text{O}$ and from $\text{K}_2[\text{UO}_2(\text{SO}_4)_2 \cdot 2\text{H}_2\text{O}]$. It had refractive index numbers α 1.512, β 1.520, and γ 1.532; a molecular weight of 3220; a melting point of 130-140C; and a decomposition temperature of 295C. The $\text{UO}_2\text{C}_2\text{O}_4(\text{TBPO})$ in the form of a light yellow sediment was formed from $(\text{NH}_4)_2[\text{UO}_2(\text{C}_2\text{O}_4)_2(\text{H}_2\text{O})_2]$. It had refractive index numbers α 1.535, β 1.539, and γ 1.575; and a decomposition temperature of 285C. The following phosphine oxide compounds were synthesized from complex uranyl compounds with single-charge acid-ligands. The $(\text{UO}_2)_2(\text{CH}_3\text{COO})_4(\text{TBFO})_3$ in the form of colorless crystals was synthesized from $\text{UO}_2(\text{CH}_3\text{COO})_2 \cdot 2\text{H}_2\text{O}$. It had a decomposition temperature of 265C and a molecular weight changing with time from 1160 to 875. The $\text{UO}_2(\text{ClO}_4)_2(\text{TBFO})_2$ was obtained by dissolving freshly prepared UO_3 in concentrated HClO_4 and subsequent reaction of the solution with the TBFO. It had a decomposition temperature of 180C. The $\text{UO}_2(\text{NO}_3)_2(\text{TFBO})_2$ was formed from $\text{UO}_2(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$, $\text{UO}_2(\text{NO}_3)_2[\text{CO}(\text{NH}_2)_2]_2$ and from freshly prepared UO_3 dissolved in concentrated HNO_3 . It had refractive index numbers α 1.546, β 1.533, and γ 1.561; a decomposition temperature of 265C; a melting point of 74C; and a molecular weight of 842. The $\text{UO}_2(\text{CNS})_2(\text{TBFO})_3$ was obtained from $\text{UO}_2(\text{CNS})_2(\text{H}_2\text{O}_3)$. It had a molecular weight of 1054 and a decomposition temperature of 325C. It was shown that the coordination number of the UO_2^{++} -group in complex compounds with TBFO does not depend on the nature of the acid-ligands and that reactions of the formation of complex compounds with TBFO cannot be described by the general formula even if it occurred with uranyl salts of the same type. The paper was presented by Academician I. I. Chernyayev 28 Aug 65.

SUB CODE: 07/ SUBM DATE: 16Jun65/ ORG REF: 005/ OTH REF: 001

Card 2/2 r. 9-

PROCESSES AND PROPERTIES OF ...

Ca

Toxic enteritis (changes in the intestinal mucosa caused by arsenic poisoning). *J. A. Suutsu, Arch. sci. Biol. (U. S. S. R.) 56, No. 1, 31-42 (in English, 42) (1960).* The disintegration of the cells of the intestinal mucosa as a result of As poisoning shows no relation to the lesion of the epithelium. An appreciable disintegration of the lymphoid elements of the intestinal mucosa is not accompanied by appreciable emergence of leucocytes from the vessels. *S. A. Karjala*

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ANATOMICAL LITERATURE CLASSIFICATION

ALPHABETIC INDEX

SINITSYNA, T. A.

FA 175T56

USSR/Medicine - Irritants

11 Jan 51

"Experimental Investigation on the So-Called Catarrhal Inflammation," T. A. Sinitsyna, Inst Exptl Med, Acad Med Sci USSR

"Dok Ak Nauk SSSR" Vol LXXVI, No 2, pp 265-268

Histological investigation made of conditions resulting in gastrointestinal tract of frog under action of mech irritants (infusorial earth or Lycopodium), mercuric chloride, sodium arsenite, croton oil, or bacterial agent.

175T56

SINITSYNA, T. A.

Rabbits, Coronary Arteries

Distribution and structure of coronary
arteries in a rabbit. Dokl. AN SSSR
63 no. 3, 1952

Institut Eksperimental'noy Meditsiny
Akademii Meditsinskikh Nauk SSSR.
recd. 12 Nov. 1951

SO: Monthly List of Russian Accessions, Library of Congress, August 1952 ~~1953~~, Uncl.

SINITSYNA, T. A.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Biological Chemistry

①
Technique for experimental reproduction of atherosclerosis of the coronary arteries of the heart. T. A. Sinitsyna. *Doklady Akad. Nauk S.S.S.R.* 93, 920-32(1953).—Prolonged feeding of rabbits with large quantities of hen egg yolk produces an especially sharp development of atherosclerotic processes in both the small and the large branches of the coronary arteries. The heart muscle develops necrosis of the muscle fibers with formation of welts or scars. The phenomena are close to those observed in humans in coronary atherosclerosis. G. M. Kosolapoff

SINITSYNA, T. A.

ANICHKOV, N. N., ZHABOTINSKIY, Yu. M. and SINITSYNA, T. A.

"On the Origin of Cells and Fibers in Inflammation," in Reports of the
Conference to Review Scientific Research for 1953, (Inst. Exptl. Med. Acad.
Med. Sci. U.S.S.R., Moscow 1954), pp. 41-42.

SINITSYNA, T.A.

Electrocardiographic observations during experimental atherosclerosis of the coronary arteries in rabbit. *Biul. eksp. biol. i med.* 37 no.3: 16-21 Nr '54. (MLBA 7:6)

1. Iz otdela patologicheskoy anatomii (zav. akademik N.N. Anichkov) instituta eksperimental'noy meditsiny (dir. chlen-korrespondent AMN SSSR D.A. Biryukov) AMN SSSR, Leningrad.

(ARTERIOSCLEROSIS, experimental,

*coronary, ECG)

(CORONARY DISEASE, experimental,

*atherosclerosis, ECG)

(ELECTROCARDIOGRAPHY, in various diseases,

*exper. atherosclerosis, coronary)

SINITSIINA, T. A.

USSR/Medicine - Anatomy

Card 1/1 : Pub. 22 - 47/48

Authors : Sinitcina, T. A.

Title : Myocardiac changes during experimental arteriosclerosis of the coronal arteria of the heart

Periodical : Dok. AN SSSR 97/5, 937-939, August 11, 1954

Abstract : Medical report on the anatomo-physiological myocardiac changes taking place during experimental arteriosclerosis of the coronal cardiac arteria. Five references: 4-USSR and 1-German (1919-1953). Illustrations.

Institution : Acad. of Med. Sc. USSR, Institute of Experimental Medicine

Presented by : Academician N. N. Anichkov, May 10, 1954

USSR / Human and Animal Morphology, Normal and Patho- S-4
logic -- Cardiovascular System

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59885

Author : Sinitsyna, T. A.

Inst : Institute of Experimental Medicine

Title : The Effect of Choline on the Development of Experi-
mental Atherosclerosis in Rabbits

Orig Pub: Yezhegodnik, In-t eksperim. med. Akad. nauk SSSR,
1955, L., 1956, 359-362

Abstract: The administration to rabbits of small doses of
choline (0.3 grams) simultaneously with 10 milli-
liters of a 5 percent cholesterol solution does not
prevent the development of alimentary hypercholes-
teremia. However, the gravity and extent of the

Card 1/2

SINITSINA, T.A.

Effect of choline and thyroxine in checking coronary atherosclerosis. *Biul. eksp. biol. i med.* 39 no.2:29-32 P '55. (MLRA 8:5)

1. Iz otdela patologicheskoy anatomii (zav. akademik N.N. Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad.

(ARTERIOSCLEROSIS, experimental,
atherosclerosis of coronary arteries, eff. of choline
& thyroxin on recur.)

(CHOLINE, effects,
on exper. atherosclerosis of coronary arteries, recur.)

(THYROXIN, effects,
on exper. atherosclerosis of coronary arteries, recur.)

(CORONARY DISEASES, experimental,
atherosclerosis, eff. of choline & thyroxin on recur.)

SINITZINA, T.A.

EXCERPTA MEDICA Sec.2 Vol.9/12 Physiology, etc. Dec 56

5489. SINITZINA T. A. Sect. of Pathol. Anat., Inst. for Exp. Med., Acad. of Med., Scis, Leningrad, USSR. *The reversion of an experimentally induced atherosclerosis of the coronary arteries under the influence of choline and thyroidine (Russian text) BULL. EXP. BIOL. MED. (Mosk.) 1955, 39/3 (74-76) Plus. 3

An experimental atherosclerosis with a severe hypercholesterolaemia was induced in 31 rabbits by feeding them with a 5% solution of cholesterol in sun-flower seed oil and a daily administration of methylthiouracil. Twelve days after the administration of choline as well as thyroidine a sharp decline of the hypercholesterolaemia was observed (e.g. from 3,120 mg./100 ml. to 190 mg./100 ml.). The decline of the hypercholesterolaemia continued further on and at the end of the experiments (in the 8th month) the level of cholesterol in the blood was practically normal. In the coronary arteries of the heart the animals with experimentally induced atherosclerosis (which developed after the administration of thyroidine as well as choline), distinct signs of resorption of the lipid deposits were observed: the appearance of big lipid drops in the fat plaques and also of small lipid drops in the medial and external coats. In the interstitial tissue of the adjacent myocardium a certain number of cells, with lipid inclusions in the protoplasm, were noticed. Three to 6 months after discontinuation of the treatment with thyroidine and choline, the plaques were nearly free from lipoids. If choline and thyroidine were not given (i.e., after discontinuation of the feeding with cholesterol), the lipoids remained in the plaques in considerable quantities, as long as 2.5 yr. later. Thus choline as well as thyroidine exerts a marked influence on the course of an experimentally induced atherosclerosis in rabbits by a sharp and rapid depression of the hypercholesterolaemia and the considerable acceleration of the resolution of the lipoids in the atherosclerotic plaques.

Sinitzina - Leningrad

USSR/Human and Animal Physiology. Metabolism.

T

Abs Jour: Ref Zhur-Biol., No 8, 1958, 36235.

Author : Iovyagina, T.N., Sinitsyna, T.A.

Inst :

Title : The Variants of Experimental Alimentary Hyper-
Cholesterolemia in Rabbits.

Orig Pub: sb. Ateroskleroz i kononaz nedostatochnost m.
Medgiz, 1956, 18-53

Abstract: Rabbits (61) on a growth ration, were fed daily for a period of 105-170 days 10 ml of a 5% solution of cholesterol (Ch) in sunflower oil. A constant dose of Ch produced in the rabbits various degrees of hypercholesterolemia (HCh); in 13% of the animals, regardless of the duration of Ch feeding (90-60 days) its blood content failed to increase significantly.

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USSR/Human and Animal Physiology. Metabolism.

T

Abs Jour: Ref Zhur-Biol., No 8, 1958, 36235.

Hch was produced in 2 of this group of animals only following simultaneous feeding of Ch and methyl-thiouracil (0.3 gm daily). Within 25 days the blood Ch of one rabbit rose from 140 to 700 mg%, of a second rabbit following 35 days of feeding from 100 to 2500mg%. The blood content of Lecithin increased to a lesser degree than Ch. The authors conclude that alimentary HCh in rabbits cannot be considered as a direct result of Ch overload in the body without relation to the individual metabolism particularities. This increases the importance of the rabbit as an experimental object for the study of the pathogenesis of atherosclerosis in man.

Card : 2/2

USSR/Human and Animal Physiology - Blood Circulation.

F-5

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31743

Author : Sinitsyna, T.A.

Inst :

Title : On the Influence of Choline on the Development of Experimental Arteriosclerosis in the Rabbit.

Orig Pub : V Sb.: Ateroskleroz i koronar. nedostatochnost'. M., Medgiz, 1956, 75-82.

Abstract : Eight rabbits received daily 5 ml of 5% solution of chlorestin (I) in sunflower oil, 0.3 g of methylthiouracil and 1 ml of a 10% solution of choline (II). Ten rabbits were given, along with the quantity indicated of I, 1 ml of a 10% solution of II. Eleven rabbits received daily 5 ml of a 5% solution of I and a 16% solution of II (0.4 g/kg). Duration of the experiments 4 months. Twenty-one rabbits received only I. In all of the rabbits hypercholesterinemia developed, but it was less in those that

Card 1/2

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SINITSINA, T. A.

USSR/Human and Animal Morphology - Lipoid Metabolism.

R-3

Abs Jour : Referat Zhur - Biologii, No 16, 1957, 70525

Author : Sinitzina, T.A., Lovyagina, T.N.
Title : Experimental Variants in Alimentary Hypercholesterolinemia in Rabbit.

Orig Pub : Dokl. AN SSSR, 1956, 110, No 6, 1126-1129

Abstract : Rabbits weighing 1800-2000 gm received daily in the course of 105-170 days through the stomach 10 ml. of 5% cholesterol in sunflower oil. After a prolonged cholesterol feeding, the increase in blood of the observed animals had a varied character; in some rabbits there was almost no increase in blood. Together with a more or less acute hypercholesterinemia we also noted lecithin increase; the lecithin increase less than Cholest. The "resistant" rabbits, towards hypercholesterinemia received 0.13 gm of methylthiouracil, after which the choles.in blood rapidly increased. The development

Card 1/2

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USSR/Human and Animal Morphology - Lipoid Metabolism. **APPROVED FOR RELEASE: 08/23/2000** CIA-RDP86-00513R001550810008-3

Abs Jour : Referat Zhur - Biologii, No 16, 1957, 70525

of alimentary hypercholesterolinemia in the rabbit cannot be considered as a result of simple overload of Chol. in the organism, and evidently the metabolic state has an important role in the development of alimentary hypercholesterolemia.

Card 2/2

- 100 -

On: Experimental Arteriosclerosis of Chicks.

20-3-53/59

studied at the corona arteries of the heart and at the aorta. Cholesterin was administered in butter or sunflower-seed-oil in single experimental series. Dose and concentration of the cholesterol were steadily increased. Arteriosclerotic alterations of various degrees were found macroscopically in the aorta of all cocks of the third experimental series in the case of which the "cholesterinaemia" increased up to 60-1700 mg⁰/_o. In the pectoral aorta of the cocks which have the greatest changes small plates are formed which flow together and project several times into the vascular internal diameter. To a smaller extent the plates were formed as few "combs" or "spores" in vicinity of the arterial branches. Microscopically the plates consisted of a great quantity of lipoids which were composed of either big drops or diffuse sediments. Among them there were various quantities of great lipoid "macrophages" beside an important quantity of double refracting drops. The experimental arteriosclerosis developed only by partly starving with simultaneous administering sclerosis. The great importance of the partly starving reduces the interest of these experiments for the pathogeny of human arteriosclerosis to a great extent. The mentioned spontaneous alterations of the aorta also disturb the right estimation of experimental arteriosclerosis. Also from the morphological point of view the disease of chicks does not offer any advantages. On the contrary the disease of rabbits is to a much greater extent analogous to the human one. A further advantage is the fact that the organs concerned are essentially greater in the case of rabbits. There are 2 figures and 1 Slavic re-

Card 2/3

On Experimental Arteriosclerosis of Chicks.

20-3-53/59

ference,
ASSOCIATION of the USSR Institute for Experimental Medicine of the ^{USSR} Academy of Medical Sciences
(Institut eksperimental'noy meditsiny Akademii meditsinskikh Nauk SSSR).
PRESENTED by Academician N.N.Anichkov, March 29, 1957.
SUBMITTED March 26th, 1957.
AVAILABLE Library of Congress.
Card 3/3

SEMIYER, T.A., Doc Bio Sci--(disc) "Experimental studies SM
atherosclerosis of ~~the~~ cardiac coronary arteries." Len, 1958. 27 pp
(Inst of Experimental Med of the Acad Med Sci USSR. Dept of Pathological
Anatomy), 200 copies. List of author's works at end of text (12 titles)
(L-8-38,121)

17 (4,0)
AUTHORS:

Sinitsyna, T. A., Lovyagina, T. N.

SOV/20-127-4-58/60

TITLE:

On the Method of Experimental Reproduction of Atherosclerosis in Rabbits

PERIODICAL:

Doklady Akademii nauk SSSR, 1959; Vol 127, Nr 4, PP 931 - 933 (USSR)

ABSTRACT:

The reproduction mentioned in the title is very important for the comprehension of many problems of the pathogenesis of atherosclerosis. Up to now the animal was given several doses of cholesterolin (e.g. in sunflower oil) by means of a gastric suction drain. But also feeding cholesterolin in other forms lead to changes in the aorta (Refs 1-3,5,6). The authors followed the development of hyper-cholesterinemia of rabbits and the atherosclerotic changes in the aorta and the coronary vessels caused by feeding cholesterolin with carrots or kchlrahi. Table 1 shows that using cholesterolin together with these vegetables was as effective as using it in sunflower oil. Thus, it is possible to produce high hyper-cholesterinemia in rabbits, causing considerable atherosclerotic changes, within comparatively short time (2-4 months). The authors even supposed that

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On the Method of Experimental Reproduction of
Atherosclerosis in Rabbits

SOV/20-127-4-58/60

6.7 months were needed to obtain similar changes if oil was used. No resistant rabbits were found in these investigations. In order to explain the greater effect of this kind of feeding cholesterol further investigations have to be carried out. There are 2 figures, 1 table, and 12 references, 5 of which are Soviet.

PRESENTED: April 11, 1959, by N. N. Anichkov, Academician

SUBMITTED: April 8, 1959

Card 2/2

SINITSYNA, T.A., doktor biologicheskikh nauk; POZHARISSEKIY, K.M., mladshiy nauchnyy sotrudnik

Stenosing coronary atherosclerosis in dogs. Kardiologiya 1 no.6:25-30 N-D '61. (MIRA 15:1)

1. Iz otdela patologicheskoy anatomii (zav. - akademik N.N.Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR. (ARTERIOSCLEROSIS)

ANICHKOV, N.N.; SINITSYNA, T.A.

Organization of experimental physiological investigations on the
problem of atherosclerosis. Vest. AMN SSSR 16 no.1:8-12 '61.
(MIRA 14:3)

1. Institut eksperimental'noy meditsiny AMN SSSR.
(ARTERIOSCLEROSIS)

KUDRYAVTSEVA, N.; LOVYAGINA, T.; SINITSINA, T.

Change in the conditioned reflex activity of dogs during prolonged cholesterol and methylthiouracil feeding. Biul. eksp. biol. i med. 53 no.4:46-49 Ap '62. (MIRA 15:4)

1. Iz fiziclogicheskogo otdela imeni I.P.Pavlova i otdela patologicheskoy anatomii Instituta eksperimental'noy meditsiny (dir. - deystvitel'nyy chlen AMN SSSR prof. D.A.Biryukov) AMN SSSR, Leningrad. Predstavlena deystvitel'nym chlenom AMN SSSR Kupalovym.

(CHOLESTEROL) (CONDITIONED RESPONSE)
(URACIL)

SINITSYNA, T. A. (Leningrad)

Comparative morphology of various models of experimental arterio-
sclerosis of the coronary arteries of the heart. Arkh. pat. no.7:
51-56 '61. (MIRA 15:4)

1. Iz Otdela patologicheskoy anatomii (zav. - akad. N. N. Anichkov)
Instituta eksperimental'noy meditsiny AMN SSSR.

(CORONARY VESSELS--DISEASES)
(ARTERIOSCLEROSIS)

SINITSINA, T.A.; LOVYAGINA, T.N.

Possibility of reproducing experimental atherosclerosis in rabbits by coconut oil administration. Kardiologiya 3 no.3: 50-53 My-Je '63. (MIRA 16:9)

1. Iz otdela patologicheskoy anatomii (zav.- akademik N.N. Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR) , (ARTERIOSCLEROSIS) (COCONUT OIL)

SINITSYNA, T.A.

Possibility of discovering lipid deposits at the early stages of
arteriosclerosis. Dokl. AN SSSR 148 no.6:1394-1396 F '63.
(MIRA 16:3)

1. Institut eksperimental'noy meditsiny AMN SSSR. Predstavleno
akademikom N.N.Anichkovym.

(ARTERIOSCLEROSIS) (LIPIDS)

SINITSINA, Tat'yana Aleksandrovna; SUKHOV, Yu.Z., red.; BUGROVA,
T.I., tekhn. red.

[Experimental atherosclerosis of the coronary arteries]
Eksperimental'nyi ateroskleroz koronarnykh arterii ser-
dtsa. Leningrad, Meditsina, 1964. 166 p.

(MIRA 17:3)



SINITSYNA, T.A.

Characteristics of the distribution and microscopic structure of the coronary arteries of the heart in some vertebrates and their importance in the reproduction and comparative pathology of experimental atherosclerosis. Vest. AMN SSSR 20 no.11:12-20 '65. (MIRA 19:1)

1. Institut eksperimental'noy meditsiny AMN SSSR, Leningrad.
Submitted July 23, 1965.

137-58-6-13363

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 316 (USSR)

AUTHORS: Zubarev, V. F., Sinitsyna, T. F.

TITLE: Structural Peculiarities of Iron in the Vicinity of Voids and Cavities (Osobennosti struktury chernoserdechnogo kovkogo chuguna vblizi pustot i rakovin)

PERIODICAL: Sb. nauchn. tr. Zhdanovsk. metallurg. in-t, 1957, Nr 4, pp 157-168

ABSTRACT: The purpose of the work performed was the investigation of structural changes occurring in bull's-eye malleable iron in the proximity of voids and cavities. Investigations were carried out on cast iron of type KCh 33-8 with the following chemical composition: 2.5-2.8% C, 0.8-1.4% Si, 0.4-0.6% Mn, less than 0.12% S, and less than 0.14% P. After annealing at temperatures of 880-975°C, the cast-iron components were normalized at a temperature 880-860° for a period of 17-22 minutes. The heat treatment cycle required 51 hours. The RB had a value of 89-97. The following facts were established: 1. Gas blisters, shrinkage cavities and porosities cannot serve as zones of separation of graphite owing to the fact that

Card 1/2

137-58-6-13363

Structural Peculiarities of Iron in the Vicinity of Voids and Cavities

they are always filled with gases which prevent the formation of graphitization centers. 2. The presence of large quantities of gas results in the formation of a decarburized layer which is obtained during high-temperature annealing operations. 3. Grain boundaries do not serve as cavities for separation of graphite but merely provide paths of least resistance for the movement of C atoms. 4. The experiments revealed characteristic peculiarities of graphitization in the vicinity of the shrinkage cavities. The assumption that these cavities serve as centers for accumulation of graphite was not corroborated by the experimental work; on the contrary, the formation of a decarburized zone and a graphite network, both of which impair the quality of the cast iron, is inevitable in the vicinity of such cavities.

1. Cast iron--Processing
 2. Cast iron--Structural analysis
 3. Cast iron--Test results
- A. S.

Card 2/2

USSR/Human and Animal Physiology - Blood Circulation.

T-5

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31739

Author : Sinitsyna, T.N.

Inst : -

Title : Experimental Investigations of Arteriosclerosis.

Orig Pub : V sb.: Ateroskleroz i koronar, nedostatochnost'. M., Medgiz, 1956, 24-39.

Abstract : Ten hens received 0.5 g of cholesterol (I) in butter daily in the course of 4-10 months. Through 10 months, cholesterol reached 200-225 mg%. In 8 of them, there were found no arteriosclerotic changes of the arteries. In 2, in the internal parts of the wall of the aorta, very fine single drops of lipoids were found. In the course of 6 months, 15 roosters received the same quantity of I; 5 of them in the last 2 months were given 0.2 g of methylthiouracil (II). The level of I in the blood did not raise over 30-40 mg%, while with the autopsy of some no changes of the

Card 1/3

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31739

aorta were found. Eighteen roosters in the course of 5 months received 15 ml of 5% solution of I in sunflower oil and part of the time they were starved. After semi-starvation, the I of the blood in the course of 2 months reached 600-1700 mg%, and in the thoracic aorta and venal arteries significant arteriosclerotic changes were found. In the localities of sharp development of arteriosclerotic changes in the internal muscular branches of the venal arteries, significant constriction of their lumen was noted, almost to their full occlusion; however, in a myocardium with dystrophic and scarring changes, it was not observed. In another series of experiments, 2 hen's egg yolks and 0.6 g of methylthiouracil were given to dogs in the course of 5 months daily, and then in the course of 6 months 10 ml of a 15% oil solution of I and the same quantity of II. Toward the end of the experiment, the content of I in the blood in these animals exceeded the norm only insignificantly

Card 2/3

USSR/Human and Animal Physiology - Blood Circulation.

T-5

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31739

and reached 125-194 mg%, while there were no changes in the arteries. Three other dogs in the course of 3 months were given daily only II at 0.6-1.2 g, and then in the course of 1 year 20 ml of a 15% solution of I and 1.2 g of II. Toward the end of the lives of these animals, the level of I grew to 192-580 mg% and significant arteriosclerotic changes were found in the aorta and venal arteries. The author considers that hens do not possess any advantages over rabbits as objects for the reproduction of arteriosclerosis; the insufficiency and advantages of dogs are also noted for experiments with experimental arteriosclerosis.

Card 3/3

GOSTEVA, A.S.; SINITSYNA, T.V.

~~_____~~
Determining boric and hydrofluoboric acids in lead electrolytes.
Zav.lab. 22 no.10:1180-1181 '56. (MLRA 10:5)

1.Gosudarstvenny nauchno-issledovatel'skiy eksperimental'nyy
institut podshipnikovoy promyshlennosti.
(Boric acid) (Electrolytes) (Lead)

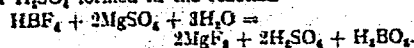
Sinit'syna, T. V.

1469. Determination of boric and fluoroboric acids in lead plating electrolytes. A. S. Gosteva and T. V. Sinit'syna (State Sci. Res. and Exp. Inst. of the Heavy Industry). *Zavod. Lab.*, 1956, 23 (10), 1160-1181.

2 3' } 4E4J
4E3d

ok

Hydrolysis of HBF_4 and $\text{Pb}(\text{BF}_4)_2$ to H_2BO_3 is carried out by boiling the soln. with MgSO_4 . The sample (5 ml of the electrolyte diluted ten times) is mixed with 15 ml of saturated MgSO_4 soln. and 30 ml of water and boiled under a reflux condenser for 1 hr. The cooled soln. is titrated with 0.1 N NaOH in the presence of methyl orange indicator, to give the BF_4^- content from the amount of H_2SO_4 formed in the reaction—



The titrated soln. is then treated with glycerol or mannitol and the total boric acid is determined.

G. S. SUTIN

RG

PM
MT

S/081/63/000/002/037/088
B155/B106

AUTHORS: Sinitsyna, T. V., Barysheva, G. V.

TITLE: Galvanized lead-tin alloy plating for articles of mark AB duraluminum

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1963, 363, abstract 24178. (Tr. Vses. n.-i. konstrukt. tekhnol. in-ta podshipnik. prom-sti, no. 2 (26), 1961, 108-116)

TEXT: A technique has been developed which gives good adhesion between a plating (an alloy of Pb with 10-20% Sn) and the basic metal. Characteristic of the process is the fact that the parts are first nickel-plated in an electrolyte containing (g/l): 200-240 $\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$, 150-280 $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$, and 180-220 HCl (s.g. 1.19), and are then washed and coated with a layer of Ni-P alloy in a solution containing (g/l): 180-200 $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$, 20-30 $\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$, 5-10 $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 9-12 H_3PO_4 . After this, the parts are coated with a layer of Pb-Sn alloy in a fluoborate electrolyte. The anodes are of Pb-Sn alloy (9-12% Sn). Details are given of a method for Card 1/2

S/276/63/000/003/002/006
A004/A127

AUTHORS: Sheyn, A. S., Tsareva, A. A., Kabanov, M. F., Sinitsyna,
T. V.

TITLE: Stainless steels for bearings intended for operation at
elevated temperatures

PERIODICAL: Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no. 3,
1963, 58, abstract 3B248 ("Tr. Vses. n.-i. konstrukt.-tekh-
nol. in-ta podshipnik, prom-sti", 1960, no. 4, (24), 3 - 14)

TEXT: Hardness tests were carried out after tempering at tempera-
tures in the range of from 120 to 550°C. Heat tests were performed in
the temperature range of 20 - 500°C, testing the notch toughness, hard-
ness and scale resistance at long-time holding. Dimensional changes were
tested at maximum operating temperatures, while the corrosion resistance
was tested in aggressive media (5% HNO₃ solution, alternative dipping;
5% NaCl solution, alternative dipping). As a result of testing eight
alloys it was found that, for the manufacture of bearings operating at
temperatures of up to 400°C, it is expedient of using the 18 (Kh18) steel.

Card 1/2

Stainless steels for bearings

S/276/63/000/003/002/006
A004/A127

The following heat treatment is recommended: Preheating up to 850°C final heating (in a salt bath) up to 1,150°C, 20 sec holding per 1 mm of cross section; heating in an electric furnace with air atmosphere up to 1,070 - 1,100°C, 1 - 1.5 minutes holding per 1 mm of cross section, cold treatment (slow cooling of the components down to -70 - 80°C, holding at -70°C for 30 - 60 minutes, heating up to the shop temperature in the air), one single tempering at 400°C for 5 hours. For the manufacture of bearing parts operating at temperatures from -200 to +100°C, a steel is recommended which, in comparison with the Kh18 grade steel, has a higher C-content. After cold treatment and tempering at 120°C, a hardness of HRC 63 - 64 could be obtained. For manufacturing heat-resistant bearings, operating in an oxidizing atmosphere and in media containing NaCl, 3X928 (EI928) steel can be used. There are 15 figures.

T. Kislyakova

[Abstracter's note: Complete translation]

Card 2/2

SINITSYNA, V. (Mozhaysk)

Efficient organization of socialist competition. Shvein.prom. no.5:
34-35 S-O '60. (MIRA 13:12)
(Socialist competition) (Mozhaysk--Clothing industry)

PESHKOVA, V.M.; MEL'CHAKOVA, N.V.; SINITSYNA, Ye.D.

Investigating the color reaction of zirconium with sulfophenyl-
azchromotropic acid. Izv.vys.ucheb.zav.; khim.i khim tekhn. 3
no.1:72-74 '60. (MIRA 13:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
Kafedra analiticheskoy khimii.
(Zirconium--Analysis)
(Naphthalenedisulfonic acid)

ACCESSION NR: AP4015147 S/0289/63/000/003/0003/0007

AUTHORS: Mironov, K. Ye.; Sinitsy*na, Ye. D.

TITLE: Solubility diagram of the ternary system Nd(No sub 3) sub 3 -HNO sub 3 -H sub 2 O at plus 25C

SOURCE: AN SSSR. Sib. otd. Izv., no. 11. Ser. khim. nauk, no. 3, 1963, 3-7

TOPIC TAGS: neodymium nitrate, solubility, nitric acid solubility, solubility diagram, neodymium nitrate monohydrate, neodymium nitrate tetrahydrate, neodymium nitrate hexahydrate, neodymium nitrate complex, neodymium nitrate nitric acid

ABSTRACT: The complete diagram of the ternary system Nd(NO₃)₃-HNO₃-H₂O was obtained (fig. and table). HNO₃ has a dehydrating action on neodymium nitrate hydrates. The HNO₃ concentrations which are in equilibrium with the mono-, tetra- and hexahydrate of neodymium nitrate and with neodymium nitrate or its complex with HNO₃

Card 1/62

ACCESSION NR: AP4015147

--Nd(NO₃)₃·nHNO₃ were determined. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Institut neorganicheskoy khimii, Sibirskogo otdeleniya AN SSSR Novosibirsk (Institute of inorganic chemistry, Sibirsk Division AN SSSR)

SUBMITTED: 01Nov62

DATE ACQ: 13Mar64

ENCL: 04

SUB CODE: CH

NO REF SOV: 006

OTHER: 007

Card 2/62

ACC NR: AP6023924 EWT(m)/EWP(t)/ETI IJP(c) JD/JG SOURCE CODE: UR/0363/66/002/007/13151 25
B

AUTHOR: Mironov, K. Ye.; Vasil'yeva, I. G.; Sinitsyna, Ye. D.

ORG: Institute of Inorganic Chemistry, SO, Academy of Sciences, SSSR, Novosibirsk
(Institut neorganicheskoy khimii SO Akademii nauk SSSR)

TITLE: Preparation and analysis of praseodymium monophosphide

SOURCE: AN SSSR. Izv. Neorg materialy, v. 2, no. 7, 1966, 1315-1316

TOPIC TAGS: praseodymium compound, phosphide

ABSTRACT: Praseodymium monophosphide was synthesized by reacting phosphine with $PrO_{1.83}$. It was found that in the formation of the product of stoichiometric composition PrP , a major role is played by the ratio of the oxide to phosphine. At a 3- to 4-fold excess of phosphine, x-ray diffraction and chemical analysis showed the product to contain 80-85 wt. % Pr and 0.5-3 wt. % P. PrP begins to form only when phosphine is present in a 10-15-fold excess; a homogeneous phosphidization product is obtained at a 100-200-fold excess of phosphine. The content of Pr and P in the product as a function of the temperature and duration of the experiment was determined. Praseodymium monophosphide of stoichiometric composition is obtained in highest yield at 1300 when the reaction lasts 1 hr 15 min to 1 hr 20 min. Chemical analysis of this product showed it to contain 18.1 wt. % P and 81.7 wt. % Pr. X-ray diffraction confirmed the

UDC: 546.656*181.1

Card 1/2

SINITSYNA, Ye.V.; GET'MAN, N.S.; VIDENSKIY, I.G.; KOGAN, Ye.I.;
SHIYANOV, P.G., red.; SEVRYUKOV, P.A., tekhn.red.

[Kursk Province; bibliography] Kurskaia oblast'; bibliograficheski ukazatel'. Kursk, Kurskoe knizhnoe izd-vo, 1959. 184 p. (MIRA 13:8)

1. Kursk (Province), Upravleniye vnutrennikh del. Arkhivnyy otdel.

(Bibliography--Kursk Province) (Kursk Province--Bibliography)

ZOLOTAREV, Ye.Kh.; SINITSYNA, Ye.Ye.

Chemoreceptive organs on the forelegs of ixodid ticks. Vest.
Mosk. un. Ser. 6: Biol., pochv. 20 no.1:17-25 Ja-F '65.
(MIRA 18:3)

1. Kafedra entomologii Moskovskogo universiteta.

SINITSYNA, Yu.A.

Use of scalp forceps in various forms of obstetric pathology.
Akush. i gin. 33 no.2:36-41 Mr-Apr '57. (MLRA 10:6)

1. Iz akushersko-ginekologicheskoy kliniki (zav. - prof. A.A. Lebedev) pediatricheskogo fakul'teta II Moskovskogo meditsinskogo instituta.

(DELIVERY

forceps, indic. & contraindic.)

AUTHORS: Sayasov, Yu. S., Sinitsyna, Yu.V. 57-28-6-25/34

TITLE: On the Theory of Concave Waveguides (K teorii vognutykh volnovodov)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 6, pp. 1293 - 1300 (USSR)

ABSTRACT: In the present paper the propagation of waves of the TE type in a waveguide, the cross section of which is bounded by the ellipse and by co-focal hyperbolae (figure 1) is investigated for the case of short gaps between the points of the hyperbola. Formulae for the membrane function and corresponding eigenvalues were found. For the basic wave of the type TE_{00} the dying-down coefficient γ_0 was calculated as well. It was found that γ_0 as the trigonometric function of the solution attains a minimum at $2\theta_0 \simeq 90^\circ$ between the asymptotes of the hyperbola $2\theta_0$. The final formula for γ_0 which corresponds to the optimal values of the parameters $\frac{k}{a}$ and η_0 , is:

Card 1/4

On the Theory of Concave Waveguides

57-28-6-25/34

$$\gamma_0 = 2 \sqrt{\frac{\omega k}{\sigma}} \frac{1}{a} \left(\frac{\xi_0}{\ln 2 \xi_0} \right)^{1/2}$$

The results of the calculations given make it possible to draw interesting mathematical conclusions. The cross section of the waveguide (figure 1) may be considered to be the deformation of a circle with cut-out sectors which are enclosed by two straight lines passing through the center. The relative elongation of the surface δ on which the membrane function U was determined is slight and is of the order $\delta \sim \left(\frac{\xi}{a} \right)^2$. Nevertheless this deformation is of a special character because it leads to a modification of the coherence of the domain. Therefore, the disturbances to which the eigenvalues and eigenfunctions U of the equation $\Delta U + \alpha^2 U = 0$ are subjected on this occasion turn out to be of a much more complex nature than in the case of ordinary regular deformations of the boundaries of a domain, which lead to the transformation of α and U into quantities of the order δ . As may be seen from the calculations carried out when investigating the change of coherence of the

Card 2/4

On the Theory of Concave Waveguides

57-28-6-25/34

domain, a whole spectrum of eigenfunctions and eigenvalues $U^{(2)}$ and $\alpha^{(2)}$ occurs in the first line, which does not exist in the limiting case of the circular domain (at $\delta = 0$). On the other hand, the eigenfunctions $U^{(1)}$ and the eigenvalues $\alpha^{(1)}$ in which transition to the circular domain takes place, are excited on the occasion of the latter's deformation into quantities of the order $\delta \ln^2 \delta$ and $\delta \ln \delta$ (formulae (12) and (13)). It is very instructive to compare these conclusions with the results obtained by analogous calculations of the disturbed coherence of the three-dimensional domain (Reference 4). In conclusion it must be pointed out that it is possible, by means of the described methods, to find also the functions U , which correspond to the fields of the type TE_{1n} ($1 \gg 1$). In this case, however, the results obtained are very voluminous and are therefore not given here. There are 2 figures and 6 references, 5 of which are Soviet.

Card 3/4

On the Theory of Concave Waveguide

57-28-6-25/34

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: August 14, 1957

1. Waveguides—Theory 2. Waves—Propagation
3. Mathematics

Card 4/4

SINITSYNA, YU. *1/2*

3
4E2c
U
Electrochemical character of aluminum protective alloys.
Aluminum-magnesium alloys. M. S. Trifel, A. L. Selter, and Yu. E. Sinitsyna. *Izv. Akad. Nauk Azerbaidzhan. S.S.R.* 1956, No. 6, 43-8 (In Russian).—The electrochem. properties of Al-Mg and Al-Mg-Zn alloys were investigated. Addn. of Mg shifted the initial electrode potential of the alloy toward the neg. side, but had little influence on the anodic polarization. Addn. of Zn to the Al-Mg alloy shifted somewhat the initial electrode potential toward the neg. side, with a simultaneous sharp decrease in anodic polarization. The high specific current efficiency at a high neg. potential permits utilizing the alloys for anodic protection of steel structures in sea water.
E. M. Eikin

fa
anf

NEGREYEV, V.F.; GADZHIYEVA, R.G.; SINITSYNA, Yu.Ye.

Perfected method for rubberizing piles of offshore structures.
Azerb. neft. khoz. 39 no.6:42-43 Je '60. (MIRA 13:10)
(Piling (Civil engineering)—Corrosion)

GADZHIYEVA, R.G., kand. khim. nauk; SHILTSYNA, Yu.Ye.; HEGREYEV,
V.F., red.; ZEYNALOVA, T., red. izd-va; AKHMEDOV, S., tekhn.
red.

[Protective rubber coatings in the control of sea water
corrosion]Rezinovye zashchitnye pokrytiia v bor'be s morskoi
korroziei. Baku, Azerneshr, 1961. 68 p. (MIRA 15:11)
(Rubber coatings) (Hydraulic structures—Corrosion)

GADZHIYEVA, R.G.; SINITSYNA, Yh.Ye.; Prinizhala uchastiye KEVORKOVA, T.A.

Development of paints with active admixtures for the protection of wet steel surfaces. Lakokras.mat. i ikh prim. no.2:9-12 '63.

(MIRA 16:4)

(Protective coatings)

(Surface-active agents)

NEGREYEV, V.F.; GADZHIYEVA, R.G.; SINITSYNA, Yu.Ye.

Selecting the primers and method of surface preparation for the painting of hydraulic structures operated in seawater. Lakokras. mat. i ikh prim. no.5:36-40 '63. (MIRA 16:11)

L 62136-65 EWT(m)/EPF(c)/EWP(i)/EPR/EWP(j)/T/EWP(t)/EWP(b)
Pc-4/Pr-4/Ps-4 JD/WW/RM

ACCESSION NR: AP5016944

UR/0303/65/000/003/0022/0025 41
687.612:687.633.263.3 36

AUTHOR: Sinityna, Yu. Ye.; Gadzhiyeva, R.G.; Kevorkova, T.A. B

TITLE: Modification of paint and varnish materials by surface-active compounds, making them applicable to wet surfaces

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 3, 1965, 22-25

TOPIC TAGS: surfactant, modified paint, underwater paint, corrosion prevention, wet surface painting, marine corrosion, paint additive

ABSTRACT: The need for anti-corrosion protection of the metallic structures of equipment for the off-shore oil industry has led to the development of special paints with surface-active additives which increase the adhesion of the paint and varnish when immersed in aqueous media. Wetting experiments are described which led to the selection (from 9 compounds) of appropriate types and optimum concentrations of surface-active additives for the ethynol paint EKZHS-40, epoxy-pitch paint made by Gipromornefia, protective polystyrene-zinc paint, and bituminous primer. A study of the absorption mechanism of numerous surface-active compounds on steel yielded a relationship between the adsorption characteristics of the compound and the protective properties of the modified paint

Card 1/2

L 62136-65

ACCESSION NR: AB5016944

and varnish coating. "The authors thank the personnel of the VNIIZh (Moscow Branch), VNIISINZh (Volgodonsk Branch), GIPKh and INKhP AN Azerb. SSR for supplying the samples." Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 009

OTHER: 000

Card

2/2

NEGREYEV, V.F.; GADZHIYEVA, R.G.; SINITSYNA, Yu.Ye.; Prinimali uchastiye:
ZEMSKOVA, L.N.; ALEKPEROVA, Yu.A.

Selecting the protective coating system for hydraulic engineering
structures operated in seawater. Lakokras.mat. i ikh prim. no.2:
40-44 '64. (MIRA 17:4)

COUNTRY : USSR
 CATEGORY : Cultivated Plants. Cereals. M

JOUR. : PZhBiol., No.14, 1958, No. 63303

AUTHOR : Petlinov, N. S., Sinitayna, A. A.
 INST. : Academy of Sciences USSR
 TITLE : On the Problems of Comparative Physiological Characteristics of Different Spring Wheat Varieties Under Conditions of Irrigation.

ORIG. PUB. : V sb.: Orosheniye s.-kh. kul'tur v Tsentr.-chernozem. polose RSFSR, Vyp. 2. M., AN SSSR, 1956, 340-347.

ABSTRACT : In 1949-1950, tests were conducted at Kursk ZOMS on the comparison of two spring wheat varieties (Lyutestsens 62 and Wheat-couch grass hybrid 22850) according to physiological indicators - suction power, osmotic pressure and the concentration of the cell sap in the leaves. In the less drought resistant variety, Wheat-couch grass hybrid 22850, the physiological indicators showed a better irrigation of the leaves, lower in comparison with the more drought resistant variety Lyutestsens 62. The Wheat-couch grass hybrid was also distinguished by a smaller

Card: 1/2

* Zonal Irrigation and Land Reclamation Station

ORIG. PUB. :

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550810008-3"

ABSTRACT : range of variations in these indicators. The magnitude of the suction power in the plants of this variety fluctuated between 6.70 and 17.77 atmospheres and the osmotic pressure - between 9.58 and 19.61. In Lyutestsens 62 these variations covered a wider range: 8.13-21.49 atmospheres in suction power and 12.69-23.44 atmospheres in osmotic pressure. Under the conditions of the test, Lyutestsens 62 variety was distinguished by a lesser physiological activity and productivity. In 1949, under the conditions of irrigation Wheat-couch grass hybrid 22850 produced a yield of 34.8 centners/ha and Lyutestsens 62 - 26.5 centners/ha.

Card: 2/2

USSR/Plant Physiology - Water Regimen

I.

Abs Jour : Ref Zhur - Biol., No 18, 1958, 82012

Author : Petinov, N.S., Prussakova, L.D., Sinitsyna, Z.A.

Inst : Institute of Plant Physiology, AS USSR

Title : Water Conditions and Plant Productivity

Orig Pub : Fiziol. rasteniy, 1957, 4, No 6, 554-565

Abstract : Summer wheat B-55 and sugar beet P-362 were grown in vegetation vessels with a soil moisture which was 35 and 70% (for wheat) and of 80% (for sugar beet) of its full moisture capacity. A direct connection between soil moisture on the one side and the water supply of the cells, the amount of free water, the relative degree of water saturation of the cells and the transpiration intensity - on the other was established. An inverse dependence of the value of the suction force, of the amount of

Card 1/2

SOV76-52-6-20/46

The Determination of the Velocity Constant of the Elementary Reactions in Methylacrylate Polymerization

by using a collection of slotted disks. The obtained functions of the logarithm of the polymerization velocity versus the logarithm of the concentration of the initiator are plotted in a graph. In the calculations the author proceed from the equation by Khauvink. Agreement is found with the data by Furman and Mesrobian (Ref 8). The initiation velocity is determined from the duration of the induction period in the presence of α, α' -diphenyl- β -picryl hydrazyl. From a comparison of the initiation velocity with the decomposition velocity of the dinitrileazofatty acid the efficiency of initiation is determined. The mean life of the polymer radicals was computed from an equation which is derived from measurements carried out according to the above mentioned method at a continuous or a discontinuous illumination. From the values obtained the kinetic constants for the given case are computed. They are compared in a table with the data obtained by other authors. There are 6 figures, 4 tables, and 12 references, 5 of which are Soviet.

rd 2/3

SOV/76-52-0-20/46
The Determination of the Velocity Constant of the Elementary Reactions in
Methylacrylate Polymerization

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Kurnova, Moskva
(**Institute of Physics and Chemistry imeni L. Ya. Karpov, Moscow**)

SUBMITTED: February 9, 1957

1. Acrylic resins--Polymerization 2. Acrylic resins--Chemical
reactions

Card 5/3

5(4)

AUTHORS: Sinitsyna, Z. A., Bagdasar'yan, Kh. S. SOV/76-32-12-2/32

TITLE: The Inhibiting Effect and the Structure of Inhibitors
(Ingibiruyushchiy effekt i stroyeniye ingibitorov) II. The
Inhibited Polymerization of Methyl Acrylate (II. Ingibirovannaya
polimerizatsiya metilakrilata)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 12,
pp 2663 - 2672 (USSR)

ABSTRACT: A study was made of hydrocarbons with an unstable hydrogen
atom, hydrocarbons with condensed or conjugate rings and
nitro-compounds. The reactivity was compared with the hydro-
carbons in which deuterium was substituted. R. I. Milyutinskaya
determined the deuterium content. Because of contradictory
results it was not possible to determine whether the formation
of polymers was by disproportionation or combination of
polymer radicals. In the case of hydrocarbons with an unstable
H-atom the cooperation of the latter in the polymerization
process has been confirmed: triphenyl deuterio-methane has a
weaker effect than triphenyl methane. - Fluorene and triphenyl
methane have an inhibiting effect whereas diphenyl methane,

Card 1/3

The Inhibiting Effect and the Structure of Inhibitors. SOV/76-32-12-2/32
II. The Inhibited Polymerization of Methyl Acrylate

dibenzyl and toluyl nitrile are ineffective. With condensed or conjugate ring hydrocarbons the effect decreases rapidly from anthracene to phenanthrene and stilbene; naphthalene, diphenyl, m-diphenyl-benzene and quinoline are ineffective. This gradation corresponds to the series found by M. Szwarc (Ref 12). Amines and phenols (phenol, aniline, diphenyl amine, diphenyl ether, hydroquinone, triphenyl carbinol) have no inhibiting effect α -naphthol inhibits, but naphthalene and α -fluoronaphthalene do not. All nitro-compounds inhibit. The effect of further substituents is in accordance with Hammett's rule, Hammett's constant ρ being 0.8. Nitrobenzene and nitro-deutero-benzene are equally effective. A polymerization by the transition of an H-atom from the phenyl ring to the polymeric radical does not take place in this case. C. Price (Ref 14) assumed a binding of the polymeric radical to the phenol ring with a simultaneous formation of an inactive radical. Bartlett and Hammond (Ref 16) assumed a binding of the polymeric radical to an O-atom of the nitro-group. However, the partial reduction of the nitro-group and polymerization by disproportionation is also possible. Polyani's rule on the

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The Inhibiting Effect and the Structure of Inhibitors. SOV/76-32-12-2/32
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effect of electron-acceptor substituents on the reaction heat was confirmed. With all inhibitors studied one molecule interrupts two kinetic chains. - Professor S. S. Medvedev cooperated in an advisory capacity. There are 3 figures, 3 tables, and 17 references, 6 of which are Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova Moskva
(Physico-Chemical Institute imeni L. Ya. Karpov, Moscow)

SUBMITTED: May 30, 1957

Card 3/3

SIMITSINA, Z.A., Cand Chem Sci -- (diss) "Study of inhibited
polymerization of vinyl compounds. Mos, 1959, 7 pp (State
Committee of the Council of Ministers USSR for Chemistry.
Order of Labor Red Banner Sci Res ~~Institut~~ Phys Chem Inst im
L. Ya. Karpov) 110 copies (KL, 36-59, 112)

- 18 ±

S/076/60/034/05/28/038
B010/B003

5.3831
AUTHORS:

Sinitsyna, Z. A., Bagdasar'yan, Kh. S.

TITLE:

The Inhibiting Effect and the Structure of Inhibitors.
III. Inhibited Polymerization of Vinyl Acetate 7

PERIODICAL:

Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 5,
pp. 1110-1116

TEXT: Continuing a previous paper the authors investigated the inhibited polymerization of vinyl acetate. They measured the initial rate of polymerization in the presence of different inhibitors, and determined the mean length of the polymeric chains viscosimetrically. Data on the polymerization of vinyl acetate (at 50°C; concentration of the monomer of 10.5 moles/l; initiator: azoisobutyric acid dinitrile) are given in Table 1. The rate of initiation was determined with diphenylpicrylhydracil (Fig. 2), and the induction period was measured (Table 2). Table 3 gives experimental data on the inhibition of the polymerization of vinyl acetate at 50° in the presence of $1.7 \cdot 10^{-2}$ moles/l of azoisc- 4

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The Inhibiting Effect and the Structure of
Inhibitors. III. Inhibited Polymerization
of Vinyl Acetate

S/076/60/034/05/28/038
B010/B003

butyric acid dinitrile by different inhibitors. The authors found that each molecule of the inhibitor tears two kinetic chains, and that the latter are not regenerated. Each chain forms a polymeric molecule. Substituents of electron donors and acceptors increase the reactivity of the phenyl ring with respect to the polyvinylacetate radical, i.e., they increase the effect of the inhibitor. The quantity k_x/k_p for nitrobenzene is higher by 3 orders of magnitude than that for other benzene derivatives. As already found in the polymerization of methylacrylate, the effect of substituents in nitrobenzene obeys the Hammett law ($\rho = 0.76$). The reactivity of the polyvinylacetate radical exceeds that of the polymethylacryl radical by 3-4 orders of magnitude. The authors established that $k_p/k_o^{1/2} = 0.275$ for vinyl acetate at 50°C. A scheme for the reaction between polymeric radicals, benzene derivatives, and hydrocarbons is suggested. There are 4 figures, 3 tables, and 16 references: 6 Soviet, 8 American, and 2 British.

SUBMITTED: July 23, 1958

Card 2/2

S/076/60/034/012/010/027
B020/B067

AUTHORS: Sinitsyna, Z. A. and Bagdasar'yan, Kh. S.
TITLE: Inhibiting Effect and Structure of Inhibitors. IV.
Inhibited Polymerization of Acrylonitrile
PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 12,
pp. 2736-2741

TEXT: In Refs. 1,2 the authors reported on the reactivity of various aromatic compounds to the polymethylacrylate- and polyvinylacetate radical by using inhibited polymerization. In this paper, the authors describe a similar study of the polyacrylonitrile radical. The initial rate of polymerization of acrylonitrile in dimethyl formamide was determined in the presence of various inhibitors and the mean chain length of the polymers formed was determined viscosimetrically. The rate of polymerization was measured dilatometrically with a degree of polymerization below 6%. Under these conditions polymerization proceeds homogeneously. All experiments were made at 50°C in vacuo. Azoisobutyric acid dinitrile was used as initiator. The polymer formed was isolated from the solution by

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Inhibiting Effect and Structure of Inhibitors.
 IV. Inhibited Polymerization of Acrylonitrile

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 B020/B067

adding an ether - heptane mixture (1:1). Viscosity was measured at 25°C in dimethyl formamide at different concentrations of the polymer. The results obtained are given in Table 1. They indicate that the ratio between the rate of polymerization V and the square root of the initiator concentration c is constant. Fig. 1 shows the dependence $\log[\eta]$ on M^2/V (M denotes the concentration of the monomer) while Fig. 2 shows the dependence $1/P$ (P denotes the mean length of the polymer chains) on V/M^2 according to the following equation:

$$1/P = 1/2(1 + \lambda) (k_0/k_g^2)(V/M^2) + k_M/k_g + k_S/k_g M \quad (2)$$

where λ the contribution of disproportionation in the bimolecular rupture, k_g the rate constant of the chain growth, k_M and k_S the constants of the rate of chain transfer by the molecules of the monomer and the solvent, and k_0 the constant of the rate of the total bimolecular rupture.

Neither the rate of polymerization nor the molecular weight of the polymers were reduced by addition of diphenyl picrylhydrazine (0.0005 mole/l), aniline (0.22 mole/l), naphthalene (0.20 mole/l), phenanthrene (0.10 mole/l), m-dinitrobenzene (0.10 mole/l), and symmetric

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Inhibiting Effect and Structure of Inhibitors. S/076/60/034/012/010/027
IV. Inhibited Polymerization of Acrylonitrile B020/B067

trinitrobenzene (0.004 mole/l). Inhibition is observed when adding anthracene, quinone, and dimethyl aniline to the reaction. The results of these experiments are given in Table 2. The value $k_g/k_o^{1/2}$ for acrylonitrile, which was obtained by comparing the rate of polymerization with the rate of initiation, is 0.085 at 50°C. Table 3 gives the values k_x/k_g , (k_x denotes the constant of the reaction rate of the polymer radical with the inhibitor molecule) and k_x for some inhibitors at 50°C. In the absence of the polarity effect, the values of the constant k_x decrease in all inhibitors in the same order. There are 2 figures, 3 tables, and 17 references: 8 Soviet, 7 US, and 2 German.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova, Moskva
(Physico-chemical Institute imeni L. Ya. Karpov, Moscow)

SUBMITTED: March 14, 1959

Card 3/3

1:45:44
S/020/62/147/006/029/034
B144/B186

AUTHORS: Bagdasar'yan, Kh. S., Sinitayna, Z. A.
TITLE: Sensibilized formation of ion-radicals of aromatic amines in the radiolysis of frozen organic glasses
PERIODICAL: Akademiya nauk SSSR.. Doklady, v. 147, no. 6, 1962, 1396-1398

TEXT: Continuing earlier studies (DAN, 144, 101 (1962)), the formation of cation-radicals was studied in organic glass frozen at -196°C and gamma-irradiated with $4.1 \cdot 10^{15}$ ev/g·sec. This glass contained 0.005 mole/l diphenyl or triphenyl amine dissolved in isopentane and methyl cyclohexane. The glass became blue-green (absorption maximum at 670 mμ) and the optical density increased proportionally to the dose up to $7 \cdot 10^{18}$ ev/g and then remained then constant. With a dose of $7.3 \cdot 10^{18}$ ev/g, the ion-radical concentration reached a constant value at an amine concentration of 0.005 mole/l. The value of this critical concentration was derived from tests with triphenyl amine. Taking the same value for the absorption coefficient of the triphenyl amine cation-radical as for tri-

Card 1/3 || NOT SELECTED FOR ABSTRACTING

S/020/62/147/006/029/034
B144/B186

Sensitized formation of ...

tolyl amine, namely $1.1 \cdot 10^4$; and using the optical density as found to be 0.080, the result was $C = 0.080 / 1.1 \cdot 10^4 \cdot 0.5 = 1.5 \cdot 10^{-5}$ mole/l. This value is by two orders less than that for triphenyl in polymethyl methacrylate, owing to the electron-acceptor activity of the ester group. The radiation yield of the cation-radicals is 0.16 in relation to the total energy absorbed by the amine. This value, which is 10 times higher than the energetically possible values, confirms the earlier conclusion that the cation-radical formation is not due to a direct radiation effect on the amines. Addition of CCl_4 increased the cation-radical yield from irradiated diphenyl amine; the critical concentration was 0.05 mole/l CCl_4 .

It is still not clear why CCl_4 had no effect on triphenyl amine. Even in 1:3 mixtures of diphenyl and triphenyl amines, only diphenyl cation-radicals was formed; the optical density at 670 m μ was slightly reduced, but the value 640 m μ , which is characteristic of triphenyl amine showed no increase. This unequal behavior of the two amines confirms the absence of a direct radiation effect on the amines. The energy transfer is directed toward the diphenyl amine which is the stronger electron-donor.

Card 2/3

BAGDASAR'YAN, Kh.S.; MURONTSEV, V.I.; SIMITSYNA, Z.A.

Two-quantum photochemical reaction. Photolysis of a frozen solution of diphenylamine in ethyl alcohol. Dokl. AN SSSR 152 no.2:349-351 S '63. (MIRA 16:11)

1. Fiziko-khimicheskiy institut im. L.Ya Karpova. Predstavleno Akademikom V.A. Karginym.

BAGDASAR'YAN, Kh.S.; SINITSYNA, Z.A.; MUROMTSEV, V.I.

Two-quantum photochemistry. Proof of the second-triplet state
molecules participating in the reaction. Dokl. AN SSSR 153
no.2:374-376 N '63. (MIRA 16:12)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavleno
akademikom S.S.Medvedevym.

L 19745-65 EWT(m)/EFF(c)/EWP(j) Pc-l/Pr-l ASD(p)-3/RAEM(i) RM/MLK

ACCESSION NR: AT4049366

S/0000/64/000/000/0265/0271

AUTHOR: Bagdasar'yan, Kh. S., Sinitsy*na, Z. A., Milyutinskaya, R. I.

B 1 /

TITLE: Kinetic study on the effect of antioxidants during the oxidation of rubber. I.
Kinetics of the uninhibited oxidation of rubber

SOURCE: Khimicheskiye svoystva i modifikatsiya polimerov (Chemical properties and the modification of polymers); sbornik statey. Moscow, Izd-vo Nauka, 1964, 265-271

TOPIC TAGS: synthetic rubber, rubber oxidation kinetics, antioxidant, benzoylperoxide, azodiisonutyronitrile

ABSTRACT: The kinetics of oxidation of 0.1 g specimens of sodium-butadiene rubber were studied at 60-100C under constant oxygen pressure in a thermostat equipped with a differential manometer, and also with oxygen circulation and freezing out of the decomposition products in a cold trap. The specimens were purified by reprecipitation and deposited from benzene solution as approximately 0.1-mm thick films. The tests showed that oxidation rates increased during an initial period, and that this lag period does not depend on the presence of inhibitors or their consumption. A second and nearly stationary period was followed by the rapid decrease of oxidation rates in the third and final period. The initial period was not affected by removal of oxidation products, nor by the thickness

Card 1/2

L 19745-65
ACCESSION NR: AT4049866

of the film, and addition of up to 3.58% benzoylperoxide or 4.68% azoisobutyronitrile⁴ did not change the rate of the stationary process, although the initial period decreased. The concentration of peroxides was determined in some runs by iodometric titration, revealing a stationary peroxide concentration of 23 and 14.5 mmol/mol monomer at 80 and 100° respectively, within an error of 2 and 3 mmols. The kinetic model was based on a radical chain reaction with branching and R. and RO₂. as species for rate determination. The stationary rate was found to be proportional to oxygen pressure and to increase with temperature; the effective activation energy was approximately 15 kcal/mol, the branching factor was at least 0.35, and the rate constant for decomposition of rubber peroxide was $(2.5 \cdot 10^{-2}) \cdot 10^{-2} \text{ min}^{-1}$ with an activation energy of approximately 21 kcal/mole. "The decomposition of benzoyl peroxide in rubber was studied by E. A. Trosman in the authors' laboratory. The authors thank A. S. Kuz'minskiy and L. G. Angert for helping with the work and evaluating the results." Orig. art. has: 1 table, 4 figures and 18 formulas.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute)

SUBMITTED: 18Jul63

ENCL: 00

SUB CODE: MT, OC

NO REF SOV: 003

OTHER: 002

Card 2/2

L 19746-65 EWT(m)/EPP(c)/EWP(j) Pc-4/Pr-4 RM/MLK

ACCESSION NO.: AT4049867

S/0000/64/000/000/0272/0274

AUTHOR: Sinitsy'na, Z. A., Bagdasar'yan, Kh. S.

TITLE: Kinetic study on the effect of inhibitors of rubber oxidation. II. Comparison of inhibitors and their mixtures

SOURCE: Khimicheskiye svoystva i modifikatsiya polimerov (Chemical properties and the modification of polymers); sbornik statey. Moscow, Izd-vo Nauka, 1964, 272-274

TOPIC TAGS: synthetic rubber, rubber oxidation kinetics, antioxidant

ABSTRACT: A study of the induction periods induced by various inhibitors during oxidation of sodium butadiene rubber at 100C in an apparatus described in the previous paper in the collection (AT4049866) showed that the length of the induction period depended directly on the amount of inhibitor added, and that phenothiazine (I), diphenyl-p-phenylenediamine (II), 2,2'-dimethyl-4,4'-dihydroxy-5,5'-di-tert.-butyldiphenylsulfide (III), and phenyl- β -naphthylamine (IV) were the most effective of 10 compounds tested. Thus, I produced induction periods of 3600 and 362 hrs. in concentrations of 0.001 and 0.0001 wt. % 0.01 wt. % II yielded 1380 hrs., 0.02 wt. % III yielded 1020 hrs., and 0.02 wt. % IV yielded 540 hrs., lesser effects being obtained with "Ca0-6" (2,2"-dihydroxy-3,3'-di-tert.-butyl-5,5'-dimethyl-diphenylsulfide), "Altax", Kaptax (2-mercaptobenz-

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L 19746-65

ACCESSION NR: AT4049867

thiazole), sulfur with 3.15% azoisobutyrodinitrile, and no detectable effect being produced by anthracene or 3-diethylaminomethylbenzthiazolethione-2. The nearly complete consumption of phenyl- β -naphthylamine during the induction period was proven by determining its concentration from the dye formed with p-nitroaniline. A synergistic effect was found with IV and "Ca0-6", most other combinations had additive effects, and a decrease in inhibitor activity was found with three combinations of IV. "The authors thank G. Ya. Richmond and Ye. N. Gur'yanova for providing some of the inhibitors" Orig. art. has: 2 tables.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute)

SUBMITTED: 18Jul63

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 002

OTHER: 000

Card 2/2

BAK DASR'YAN, Kh.S.; SIKITSYNA, Z.A.

Two-quantum photochemical dehydrogenation of alcohols by
aromatic amines at 77°K. Dokl. AN SSSR 160 no.3:625-628
Ja '65. (MIRA 18:3)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova. Submitted
July 17, 1964.

~~49-7-11/14~~ SINITSYNA, Z. L.
AUTHOR: Sinitsyna, Z. L.

49-7-11/14

TITLE: On determining small quantities of mixtures of radon and thoron. (Ob opredelenii malykh kolichestv radona i torona v ikh smesi).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1957, No.7, pp. 950-953 (USSR)

ABSTRACT: In prospecting and exploration of deposits of radioactive ores the measurement of the concentration of radioactive gases in the air of the soil is widely applied (emanation method). For determining the concentration of mixtures of radon and thoron the values of the total current in the ionization chamber are used which are determined for two measurements at differing times. On the basis of the two values of the total ionization current obtained at different times, it is possible with some degree of accuracy to compute the concentration of radon and thoron. Owing to the statistical nature of the radio-active decomposition, the errors of such determinations will be the larger the smaller the concentrations of the investigated gases. In this paper an evaluation is given of the potentialities of this method for separate determination of small quantities of radon and thoron in mixtures of these gases. In para.1

Card 1/2

Синицын З.Т.
MAMIOFE, S.M.; SINITSYNA, Z.T.

~~Removal of nickel salt admixtures from solutions of dihydrostreptomycin sulfate.~~ Removal of nickel salt admixtures from solutions of dihydrostreptomycin sulfate. Med.prom. 11 no.12:41-43 D'57. (MIRA 11:2)

1. Vsesoyuznyy nauchnoOissledovatel'skiy institut antibiotikov
(NICKEL SALTS) (STREPTOMYCIN)

SINITSYNA, Z.T.

MAMIOFE, S.M.; SINITSYNA, Z.T.; KHOKHLOV, A.S.

Methods for producing dihydrostreptomycin. Med.prom. 11 no.11:
16-20 N '57. (MIRA 11:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy instituta antibiotikov
(STREPTOMYCIN)

STREPTOMYCIN
MAMIOFE, S.M., SINITSYNA, Z.T., VEYS, R.A, KAN, A.M.

Effect of admixtures on the quality of streptomycin preparations;
certain inorganic admixtures [with summary in English]. Antibiotiki
3 no.1:115-119 Ja-F'58 (MIRA 11:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(STREPTOMYCIN,
admixtures, eff. on med. properties (Bus))

MAMIOFE, S.M., SINITSYNA, Z.T., KHOKHLOV, A.S.

Extraction and purification of the antibiotic polymyxin.
Antibiotiki 3 no.4:6-10 JI-Ag '58 (MIRA 11:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(POLYMYXIN)

MAMIOFE, S.M.; SAVITSKAYA, Ye.M.; BRUNS, B.P.; SINITSYMA, Z.T.; SHELLENBERG,
N.N.

Producing streptomycin sulfate by an ion-exchange method involving
methanol. Med.prom. 12 no.1:39-42 Ja '58. (MIRA 11:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(STREPTOMYCIN) (METHANOL)

MAMIOFE, S.M.; ~~SINITSYNA, Z.T.~~; KHOKHLOV, A.S.

Method for the isolation and chemical purification of polymyxin.
Report No.2. Antibiotiki 4 no.1:10-15 Ja-F '59.

(MIRA 12:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(ANTIBIOTICS, prep. of.
polymyxin, isolation & chem. purification (Bus))

KHOKHLOV, A.S.; SILAYEV, A.B.; STEPANOV, V.M.; YULIKOVA, Ye.P.; TROSHKO, Ye.V.;
LEVIN, Ye.D.; MAMIOFE, S.M.; SINITSYNA, Z.T.; CHI CHAN-TSIN [Ch'ih
Ch'ang-Ch'ing]; SOLOV'YEVA, N.K.; IL'INSKAYA, S.A.; ROSSOVSKAYA, V.S.;
DMITRIYEVA, V.S.; SEMENOV, S.M.; VEYS, R.A.; BEREZINA, Ye.K.;
RUBTSOVA, L.K.

A new type of polymyxin, polymyxin M. Antibiotiki 5 no.1:3-9 Ja-F
'60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov i
laboratoriya khimii belka i antibiotikov khimicheskogo fakul'teta
Moskovskogo ordena Lenina gosudarstvennogo universiteta imeni M.V.
Lomonosova.

(POLYMXIN)

SOLOV'YEVA, N.K.; DELOVA, I.D.; GERMANOVA, K.I.; SAVEL'YEVA, A.M.; KHOKHLOV,
A.S.; MAMIOFE, S.M.; SINITSYNA, Z.T.; PETROVA, M.A.; KOROLEVA, V.A.;
NAVASHIN, S.M.; FOMINA, I.P.; BUYANOVSKAYA, I.S.; VASILENKO, O.S.;
YEFREMOVA, S.A.; BEREZINA, Ye.K.; VEYS, R.A.; DMITRIYEVA, V.S.;
SEMENOV, S.M.; SHNEYERSON, A.N.

Polymycin, a new antibiotic from the streptotricin group. Antibiotiki
5 | no.6:5-10 N-D | 60. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov,
kafedra mikrobiologii Tsentral'nogo instituta usovershenstvovaniya
vrachey.

(ANTIBIOTICS)

BEKKER, Z.E.; RODIONOVA, Ye.G.; YEGOROVA, Ye.I.; SINITSINA, Z.T.; GINZBURG,
G.N.

Producer and biological properties of, and fermentation experiments
on preparation No. 125. Trudy Vses. inst. sel'khoz. mikrobiol. 17:
147-152 '60. (MIRA 15:3)

(Antibiotics)