GINODMAN, L.M.; SOLOV'YEVA, T.A.

Determination of pepsin and gastroxine in the gastric juice in man. Vop. med. khim. 11 no.2:87-89 Mr-Ap '65.

(MIRA 18:10)

1. Institut khimii prirodnykh soyedineniy AN SSSR i Institut pitaniya AMN SSSR, Moskva.

KOZLOV, L.V.; GINODMAN, L.M.

Energy characteristics of the ester bond in N-acetylamino acid esters. Biokhimiia 30 no.5:1051-1054 S-O '65. (MIRA 18:10)

1. Institut khimii prirodnykh soyedineniy AN SSSR, Moskva.

KOZLOV, L.V.; GINODMAN, L.M.; OREKHOVICH, V.N.

Relation between pepsin catalyzed reactions of transpeptidation and isotopic oxygen exchange. Dokl. AN SSSR 161 no.6:1455-1457 Ap '65. (MIRA 18:5)

1. Institut khimii prirodnykh soyedineniy AN SSSR. 2. Deystvitel'nyy chlen AMN SSSR (for Orekhovich).

GINODMAN, L.M.; NESTEROVA, A.P.; OREKHOVICH, V.N.; SAVOSHCHENKO, I.S.; SOLOV'YEVA, T.A.

Chromatographic study of the gastric juice in chronic gastritis and peptic ulcer. Vop. med. khim. 10 no.6:604-610 N-D '64. (MIRA 19:1)

1. Institut khimii prirodnykh soyedineniy AN SSSR i Institut pitaniya AMN SSSR, Moskva.

MAL'TSEV, N.I.; GINODMAN, L.M.; OREKHOVICH, V.N.

Origin of oxygen of the carboxyl group of the product formed in the course of pepsin-catalyzed transpeptidation reactions. Dokl. AN SSSR 165 no.5:1192-1195 D '65. (MIRA 19:1)

1. Institut khimii prirodnykh soyedineniy AN SSSR. 2. Deystvitel'nyy chlen AMN SSSR (for Orekhovich). Submitted February 17, 1965.

ZETSEROV, B.M., inzh.; GINODMAN, P.I.

Blocking of the grounding switch blade in distribution systems.
Elek.sta. 32 no.9:62-66 S '61. (MIRA 14:10)
(Electric currents—Grounding)

GINODMAN, V. A.

Mekhanizatsiia ucheta i vychislitel'nykh rabot. Chast' 1, Eksploatatsiia schetnykh mashin. Moskva, Mashigiz, 1950. 310 p.

(Mechanization of the accounting system and calculating operations. Part 1. Performance of calculating machines.)

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953

GINODMAN, YE. A.

33490. K Diagnostike Infarkta Bokovoy stenki Levogo Zhelvdochka. Terapevt. Arkhiv, 1949, Vyp. 5, c. 71-75

SO: Letopis'nykh Statey, Vol. 45, Moskva, 1949

GINODMAN, Ye. A.

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NIKITENKO, I.K. (Orenburg, Leninskaya ul., d.45); GIN[illegible], A.G.

Traumatic amputation of the upper extremity together with the scapula. Ortop., travm. i protez. 25 no.7:47 Jl '64.

(MIRA 18:8)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. S.I.Vilesov) Orenburgskogo meditsinskogo instituta.

ORAKHOVATS, D.; DOBREVA, N.; NACHEV, N.; VASILEV, A.; GINOVSKA, Fr.;
VELCHEV, G.

Phosphorus content in the erythrocytes of venous and spleen blood.
Izv biol med. BAN 3 no.3:21-28 '59. (EEAI 10:4)

1. Katedra po fiziologiia pri VMI, Sofiia.
(PHOSPHORUS)
(BLOOD)
(SPLEEN)

GINSAR', V.A.

Problems of labor organization and wages in the manufacture of granulated sugar. Sakh. prom. 32 no. 6:45-50 Je '58. (MIRA 11:7)

1. Kiyevskiy gosudarstvennyy universitet.
(Wages)
(Sugar industry)

GINSBARG, R., kand.tekhn.nauk

Transactions no. 19 of the Central Scientific Research Institute of the Economics and Operation of Water Transportation; problems of hydraulic engineering. Rech. transp. 20 no.9:54 S '61.
(MIRA 14:9)
(Bibliography--Hydraulic engineering)

GINSBARG, R.I.

GINSBARG, R.I., kandidat tekhnicheskikh nauk; SHAFIR, I.N., kandidat tekhnicheskikh nauk; PETROV, P.F., nauchnyy redaktor; SEMENOVA, M.M., redaktor izdatel'stva; STUDENETSKAYA, V.A., tekhnicheskiy redaktor.

[Prevention of damage to seaport dock stuctures] Preduprezhdenie avarii morskikh prichal'nykh sooruzhenii. [n.p.] Morskoi transport, 1953. 267 p. (MLRA 7:7)
(Harbors) (Embankments)

GINSBARG,R.I., kandidat tekhnicheskikh nauk; DMITRUK,B., inzhener

A pier of new design built on screw piles. Mor.flot 15 no.10:22-23 O'55. (MIRA 8:12)

(Piers) (Piling (Civil engineering))

GINSBARG, R. I., kandidat tekhnicheskikh nauk.

Some conclusions arrived at in connection with damage to the Genoa breakwater, Forana. Mor.flot 16 no.11:21-22 N'56. (MIRA 10:1)

1. Chernomorproyekt.
(Genoa--Breakwaters)

BRYUM, Abram Isayevich, inzh.; VORONOV, Petr Andreyevich, dotsent, kand. tekhn.nauk [deceased]; GINSBARG, Ruvin Izrailevich, kand.tekhn.nauk; KUTEYNIKOV, Aleksandr Nikolayevich, inzh.; FEDOROV, Aleksandr Timofeyevich, prof. [deceased]; SHAPOVALOV, Petr Borisovich, inzh.; SHIKHIYEV, Fuad Maksimovich, dotsent, kand.tekhn.nauk; YAVLENSKIY, S.D., retsenzent; KRUGLENKO, N.K., retsenzent; MATLIN, G.M., kand. tekhn.nauk, red.; KSENOFONTOVA, Ye.F., red.izd-va; TIKHONOVA, Ye.A., tekhn.red.

[Sea ports and harbor facilities] Morskie porty i portovye sooruzheniia. Moskva, Izd-vo "Morskoi transport," 1959. 519 p. (MIRA 12:12)

(Harbors)

SHIKHIYEV, Fuad Maksimovich; YEROFEYEV, Nikolay Ivanovich; GINSBARG, Ruvim Izrailevich; TSEYTLIN, Grigoriy Yul'yevich; OBERMEYSTER, A.M., red.; MARCHUKOVA, M.G., red. izd-va; TIKHONOVA, Ye.A., tekhn. red.

[Organization and equipment of sea ports] Ustroistvo i oborudovanie morskikh portov. Moskva, Izd-vo "Morskoi transport," 1960. 413 p. (MIRA 14:5)

(Harbor)

GINSBARG, R.I., kand. tekhn. nauk; NIKOLAU, V.I., inzh.

Mooring structures built with shells of large diameter. Transp. stroi. 15 no.11:20-21 N '65. (MIRA 18:11)

GINSBERG, M. A., Engineer

"Investigation of the Structure and Properties of Alkali Cellulose."
Sub 22 Nov 51, Moscow Textile Inst

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

SO: Sum. No. 480, 9 May 55

VASIL'YEV, Grigoriy Vasil'yevich; GINZBERG , S.Kh., retsenzent;
L'VOVA, I.A., red.

[Water supply for enterprises of the textile industry]
Vodosnabzhenie predpriiatii tekstil'noi promyshlennosti.
Moskva, Legkaia industriia, 1964. 273 p. (MIRA 17:11)

GINSBURG

See also:

GINTSBURG

GINZBURG

GINSBURG, A. G., Daily to improve the veterinary measures [Includes a report of the Conference of the Chiefs of Administrations of Veterinary Medicine of the Ministries of Agriculture of Allied Republics, and of Directors of Veterinary Laboratories of the Republics, which took place on April 19-22, 1961, at the Ministry of Agriculture of USSR. Chief Veterinary Surgeons of many regions of RSFSR, Ukrainian and Moldavian SSR, as well as scientific workers of many scientific research institutes, and others took part also]

Veterinariya Vol 38, No 7, July 1961 p. 11.

GINSBURG, A.N.

CA

11A

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

The inhibition by acetaldehyde of oxidation reactions catalyzed by pyridine proteins. A. N. Ginsburg and A. D. Gavrikova. *Biokhimiya* 12, 109-20(1947). During the investigation of the biochem. mechanism of the toxic action of MeCHO (I), it was found that I inactivated many dehydrogenases, especially those contg. diphosphopyridine nucleotide (CoI). The component of the dehydrogenase enzyme on which I directed its action was not the apoenzyme but the CoI. I combined with 1-methyl-1,2-dihydronicotinamide to give *1-methyl-2-ethylidene-1,2-dihydronicotinamide*, which could not be obtained in an analytically pure condition; *picrate*, $C_{15}H_{15}N_5O_8$, m. 172-5°: *methiodide*, $C_{10}H_{15}IN_2O$, m. 150-6°. I does not combine with CoI, but does so with reduced CoI (H_2-CoI), the condensation taking place at the α-methylene group of the pyridine ring. The product has an ultraviolet absorption max. at 290 mμ, compared to 340 mμ given by H_2-CoI. The condensation product of H_2-CoI with I after hydrolysis with dil. acids gives *2-ethylidene-1,2-dihydronicotinamide*; *picrolonate*, $C_{18}H_{18}O_5N_6$, m. 222.5-3.5°. I does not combine with the adenine residue of H_2-CoI. The inactivation of pyridine proteins by I is due to the denaturation of their prosthetic groups. The 2-ethylidene-1,2-dihydronicotinamide-substituted CoI is devoid of catalytic activity. H. Priestley

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND LEVELS

PROCESSES AND PROPERTIES INDEX

GINSBURG, A.N.

CA

11a

Reaction of methyl iodide and dimethyl sulfate with reduced codehydrogenase I and with 1-methyl-1,2-dihydronicotinamide. A. N. Ginsburg and L. S. Kleimenova. *Biokhimiya* 14, 230-7(1949); cf. *C.A.* 43, 705*d*.—When reduced codehydrogenase I (H_2-CoI) is treated with MeI or Me_2SO_4, it loses its biocatalytic properties. The ultraviolet absorption "dihydroband" with a max. of 340 mμ disappears, and is replaced by an absorption max. of 260 mμ. Evidently, a structural change has occurred in the nicotinamide residue of the diphosphopyridine nucleotide. 1-Methyl-1,2-dihydronicotinamide (I) on methylation with MeI or Me_2SO_4 yields the HI or $MeSO_4H$ salt of *1-methyl-2-methyl-1,2-dihydronicotinamide* (II); *picrate*, $C_{14}H_{15}O_8N_5$, m. 162-70° (decompn.). The ultraviolet absorption max. of 300 mμ given by I has been replaced by a max. of 285 mμ shown by II. On further alkylation, the alkyl group no longer attaches itself to the C but to the ring N. Thus, II and MeI form the *methiodide; picrate*, $C_{15}H_{17}O_8N_5$, m. 172-8° (decompn.). II and EtI give the *ethiodide*, m. 150-8° (decompn.); *picrate*, $C_{16}H_{19}O_8N_5$, m. 178-80° (decompn.). If I is assumed to have the formula $N^*(Me)CH^-H^*C.CO^-(NH_2)CH:CH:CH$, then an easy explanation is found for the mobility of the H, the salt formation, and the coloration of the compds. The inactivation of H_2-CoI by MeI and Me_2SO_4 is assumed to follow the same path as that given by II. H. Priestley

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

5 (3)

AUTHORS: Garkusha, G. A., Ginsburg, A. M. SOV/79-29-5-33/75

TITLE: Production of Some 2,4-Dinitro-phenyl Derivatives of Lysine and of Intermediate Products of Its Synthesis (Polucheniye nekotorykh 2,4-dinitrofenil'nykh proizvodnykh lizina i poluproduktov sinteza yego)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1554-1558 (USSR)

ABSTRACT: At present a considerable number of 2,4-dinitro-phenyl derivatives of amino acids is synthesized, but the data published on some of them are contradictory. This holds also for the lysine derivatives (Refs 2-9). ε-N-2,4-dinitro-phenyl and the ε-N-benzoyl derivative of lysine were obtained from the solution of the copper complex salt of lysine. For its production not the basic copper carbonate was used but the copper nitrate which is well soluble both in water and alcohol. The removal of copper from the reaction product was carried out (in the benzoyl derivative) by hydrochloric acid or (in the case of the dinitro-phenyl derivative) by hydrochloric acid and subsequent treatment with hydrogen

Card 1/3

Production of Some 2,4-Dinitro-phenyl Derivatives SOV/79-29-5-53/75
of Lysine and of Intermediate Products of Its Synthesis

sulfide. Thus, the difficulties in the purification which had been reported by R. Porter and F. Sanger (Ref 4) were avoided. ε-N-2,4-dinitro-phenyl lysine which is difficultly soluble in water as well as its easily soluble monochlorine hydrate were formed. The monochlorine hydrate contains no crystal water so that the melting points given by other authors (Refs 4, 5, 6) can be explained by insufficient purity. Further, the authors prepared the following compounds: α-N-benzoyl-ε-N-2,4-dinitro-phenyl lysine by benzoylation of the above-mentioned monochlorine hydrate, and α-N-2,4-dinitro-phenyl-ε-N-benzoyl lysine by dinitro-phenylation of ε-N-benzoyl lysine. The latter was obtained both from the copper complex salt of lysine and benzoyl chloride and likewise from ε-caprolactam by a new method. Therefrom the chloride of ε-amino caproic acid can easily be formed in good yield. It is brominated with red phosphorus and bromine, and offers a good yield of ε-amino-α-bromo caproic acid. Whereas the dinitro-phenylation of ε-amino-caproic acid meets with no difficulties the preparation of the reaction product of the dinitro-phenylation of ε-amino-α-bromocaproic acid in pure

Production of Some 2,4-Dinitro-phenyl Derivatives SOV/79-29-5-33/75
of Lysine and of Intermediate Products of Its Synthesis

state was difficult. In the experimental part directions are given for the formation of: (1) ε-N-benzoyl lysine, (2) chlorine hydrate of ε-amino-caproic acid, (3) ε-amino-α-bromo-caproic acid, (4) the dinitro-phenyl derivative of 2, (5) the dinitro-phenyl derivative of 3, (6) ε-N-2,4-dinitro-phenyl lysine, (7) ε-N-2,4-dinitro-phenyl-α-N-benzoyl lysine, and (8) ε-N-benzoyl-α-N-2,4-dinitro-phenyl lysine. The microanalysis of the substances was carried out by V. D. Zolotnikova. There are 10 references.

SUBMITTED: April 27, 1958

Card 3/3

GINSBURG, A. S.

"Drying theory problems of moist materials."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Moscow Technological Inst of Food Industry.

GINSBURG, B.Ya., doktor tekhn.nauk

Evaluating the traction force of tractors with the help of dimensionless parameters. Mekh. i elek. sots. sel'khoz. 19 no. 3:9-14 '61. (MIRA 14:6)

1. Vsesoyuznyy sel'skokhozyaystvennyy institut zaochnogo obrazovaniya.
(Tractors)

GINSBURG, E.S.; LIPSHTEYN, R.A.; KHAYKINA, S.E.

Resistance of gas turbine metals to vanadium corrosion during the use of sulfur-bearing fuel oils. Issl. po zharopr. splav. 6:140-145 '60. (MIRA 13:9)
(Gas turbines--Corrosion) (Vanadium)

GINSBURG, G.D.

Some data on the tebetisol in the Omsukchan basin. Uch. zap. NIIGA. Reg. geol. no.4:239-245 '64.

(MIRA 18:12)

MAKSIMYUK, Ye.A.; GINSBURG, G.S.; AGREST, F.B; MANDEL'SHTEYN, V.Yu.

Polarographic and spectrophotometric studies of the properties of complex compounds as dependent on the conditions of their formation. Zhur. prikl. khim. 37 no.6:1233-1237 Je '64.
(MIRA 18:3)

GINSBURG, L.N., prof., doktor po tekhnicheskite nauki (SSSR)

Results from the development and introduction of spinning machines with high drafters in the spinning of bast fibers. Tekstilna prom. 11 no.5:13-14 '62.

L 12684-63 EPR/EPF(c)/EWP(j)/EWT(m)/BDS AFFTC/ASD Ps-4/Pc-4/Pr-4 RM/WW
ACCESSION NR: AP3001594 S/0138/63/000/005/0020/0023 73

AUTHOR: Shershnev, V. A.; Ginsburg, L. V.; Dogadkin, B. A. 71

TITLE: Kinetics of vulcanized rubber structuration by phenol-formaldehyde derivates 15

SOURCE: Kauchuk i rezina, no. 5, 1963, 20-23

TOPIC TAGS: kinetics of structuration, vulcanized rubber, phenol-formaldehyde derivate, methylol group

ABSTRACT: The study was conducted on natural rubber as well as on synthetic rubbers SKS-30-AM and SKS-30-1, which were heated with rolling at 160 and 180C with 2,6-dimethylol-4-butylphenol and the resin 101, a p-butylphenol-formaldehyde oligomer. Two types of mixtures were used, each containing 12% of resin 101, while only one of them contained 3% of stannous chloride. The resulting products were characterized by low break test values, especially in the absence of stannous chloride. In another series of experiments, 12, 3, and 1 parts of 2,6-dimethylol-4-butylphenol and 3% stannous chloride were added to natural rubber under similar conditions. These produced vulcanized rubbers of a higher break test, as compared with resin 101, which was not adversely affected by

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L 12684-63
ACCESSION NR: AP3001594

2

aging. The authors conclude that the effectiveness of a vulcanizing agent 15 may be related to the number of methylol groups contained therein, which are responsible for the formation of cross links. Orig. art. has: 3 charts and 2 tables.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonsova (Moscow Institute of Advanced Chemical Technology)

SUBMITTED: 00	DATE ACQ: 08Jul63	ENCL: 00
SUB CODE: 00	NO REF SOV: 004	OTHER: 006

Card 2/2

GINSBURG, N. N.

"STI" Anthrax Vaccine," Sbornik rabot Nauchnoissledovatel'skogo instituta epidemiologii i gigieny Krasnoy Armii (Collection of Papers from the Epidemiology and Hygiene Research Institute of the Red Army), 1, Medgiz, 1946

with A.L.Tamarin and V.M.Putimov wrote a chapter in above book - "Serum Medium as a Diagnostic of Anthrax Variants," pages 93-101

with N.F.Kopylov, A.L.Tamarin, and R.A.Saltykov - "The Question of Stability of the Basic Biological Features of Anthrax Vaccine Strain STI-I," pp. 142-52

GINSBURG, N. N.

May 1947

U USSR/Medicine - Anthrax Vaccine
Vaccines

"Results of Application of Anthrax Vaccine STI During 1944-1946," I. F. Kopylov, N. N.Ginsburg, Scientific and Research Institute of Epidemiology and Hygiene of the Soviet Army, 2 pp

Veterinariya, No 5

Mostly tabular results of the use of STI vaccine on horses, sheep, pigs, and deer during the years 1944 to 1946.

PA 17T8

GINSBURG, N.N., prof.

Problem of living vaccine in poliomyelitis. Vest. AMN SSSR 13
no.12:39-46 '58. (MIRA 12:1)

1. Institut po izucheniyu poliomiyelita AMN SSSR.
(POLIOMYELITIS, immunol.
vaccine, live virus (Rus))

GINSBURG, N.N.

Some questions in the theory of live vaccine and vaccination against poliomyelitis with Sabin vaccine. Vop.virus. 4 no.5:620-624 S-O '59.
(MIRA 13:2)

(POLIOMYELITIS, immunol.)

GINSBURG, N.N.; KASYMOV, K.T.

Production of colonies (plaques) of poliomyelitis virus on human embryo tissue culture. Vop.virus. 4 no.6:742-743 N-D '59.
(MIRA 13:3)

1. Institut po izucheniyu poliomiyelita AMN SSSR, Moskva.
(POLIOMYELITIS VIRUS culture)

GINSBURG, N.N.; KASYMOV, K.T.; AL'TSHTEYN, A.D.

Comparative study of various methods of titrating virus-neutralizing antibodies to the poliomyelitis virus in tissue culture. Vop. virus. 5 no. 1:20-25 Ja-F '60. (MIRA 14:4)

1. Institut po izucheniyu poliomiyelita AMN SSSR, Moskva.
(POLIOMYELITIS) (ANTIGENS AND ANTIBODIES)

GINSBURG, N.N.; MASLOVA, T.N.

Phagocytic capacity in cellular elements of macrophage cultures in vitro. Report No. 2. Zhur. mikrobiol., epid. i immun. 40 no.4:62-66 Ap '63. (MIRA 17:5)

1. Iz Gosudarstvennogo kontrol'nogo instituta meditsinskikh biologicheskikh preparatov imeni Tarasevicha.

GINSBURG, N.N.; FEDOTOVA, Yu.M.

Comparative study of vaccinal and virulent anthrax strains in human embryonal tissue culture. Zhur. mikrobiol., epid. i immun. 40 no.11: 3-7 N '63. (MIRA 17:12)

1. Iz Instituta imeni Gamalei AMN SSSR.

GINSBURG, N.N.; MAKARENKO, I.G. (Moskva)

Reactions of human embryo cell cultures to the contact with anthrax vaccines and virulent strains. Arkh. pat. no.7:41-45 '64. (MIRA 18:7)

1. Laboratoriya zhivykh vaktsin (zav. - prof. N.N.Ginsburg) Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei (direktor - prof. P.A.Vershilova) AMN SSSR.

L 45668-65 EWA(b)-2/EWA(j)/EWT(l) JR

ACCESSION NR: AP5013169 UR/0016/64/000/009/0104/0107

17

18

B

AUTHOR: Ginsburg, N. N.; Saltykov, R. A.; Arkhipova, V. R.

6

TITLE: Stability of biological properties of anthrax vaccine strain STI-1

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 9, 1964, 104-107

TOPIC TAGS: anthrax, vaccine

Abstract: Signs of dissociation were discovered in cultures of strain STI-1, which for 20 years after isolation had been re-inoculated periodically and kept in a 30% glycerin solution: a pattern of growth not typical of the anthrax microbe appeared both on solid media and in liquid media. A spore culture of strain STI-1 of the third generation, stored in a dry (lyophilized) state for 18 years, had maintained all the biological characteristics of the strain: both its growth pattern on culture media and its reactogenicity and immunogenicity for animals. The new standard spore dry culture of STI-1 strain is recommended for preparation of live anthrax vaccine; it should replace other lines now used in research.

Orig. art. has 1 table.

Card 1/2

L 45668-65

ACCESSION NR: AP5013169

ASSOCIATION: Gosudarstvennyy kontrol'nyy institut meditsinskikh biologicheskikh preparatov im. Tarasevicha (State Control Institute for Inspection of Medical Biological Preparations)

SUBMITTED: 28Mar63	ENCL: 00	SUB CODE: LS
NO REF SOV: 008	OTHER: 000	JPRS

Card 2/2

KHESIN, Ya.Ye.; GINSBURG, N.N.; FEDOTOVA, Yu.M.

Karyometric study of the cell response of single-layer tissue cultures of human embryo to infection by vaccinal strains of bacteria. Dokl. AN SSSR 158 no.5:1190-1192 O '64. MIRA 17:10)

1. Institut epidemiologii i mikrobiologii im. N.F.Gamaleya AMN SSSR. Predstavleno akademikom A.N.Bakulevym.

L 27196-66 EWT(1)/T JK

ACC NR: AP6017459 SOURCE CODE: UR/0016/66/000/001/0125/0130

22

β

AUTHOR: Ginsburg, N. N.; Maslova, T. N.

ORG: Institute of Epidemiology and Microbiology im. Gamaleya, AMN SSSR (Institut epidemiologii i mikrobiologii AMN SSSR)

TITLE: Quantitative evaluation of phagocytosis by macrophages in vitro of anthrax 6 bacilli of differing degrees of virulence. Communication 2. Results of quantitative calculations

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 1, 1966, 125-130

TOPIC TAGS: anthrax, bacteria, experiment animal

ABSTRACT: The article contains a discussion of the results of comparative study of the quantitative aspect of phagocytosis by macrophages obtained from normal and anthrax-immune animals, of anthrax bacilli avirulent (STI-1) and virulent for guinea pigs (Variant 71/12 II of Tsenkovskiy vaccine). The calculations showed that the growth and reproduction of bacteria of strains STI-1 and Tsenkovskiy 0 71/12 had certain characteristics in the presence of normal and immuno macrophages. A quantitative evaluation of the results of the experiments did not reveal any advantage of immune macrophages over normal macrophages in the intensity of phagocytosis, but in the presence of immune cells, inhibition of growth of bacteria of both strains was more noticeable. One can assume that immune and normal macrophages of guinea pigs "attack" bacteria of avirulent and virulent strains with practi-

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UDC: 576.851.55: 612.112.3-083

Card 1/2

L 27196-66

ACC NR: AP6017459

0

cally identical activity, which varied within the limits of 35-50 cells per 1 mm. The method worked out by the authors for making calculations made it possible to obtain data which objectively characterize the process of phagocytosis and its dynamic development. Orig. art. has: 3 figures and 1 table. [JPRS]

SUB CODE: 06 / SUBM DATE: 03Dec64

Card 2/2

GINSBURG, S. A.

Rabinovich, D. I., Ginsburg, S. A. and Luriy, L. I. "Recirculation of gases in boiler installations", Trudy In-ta (Odes, in-t inzhenerov mukomol. prom-sti i elevator. khozva im. Stalina), Vol. II, 1948, p. 150-62, - Bibliog: 10 items.

L 06109-67

ACC NR: AP6023617 SOURCE CODE: UR/0105/66/000/007/0085/0089

AUTHOR: Ginsburg, S. A. (Doctor of technical sciences); Stavrovskiy, A. N. (Engineer); Shlimovich, V. D. (Engineer)

27
B

ORG: VNIIE

TITLE: Special-purpose computers for calculating economic distribution of active loads in power systems [A review]

SOURCE: Elektrichestvo, no. 7, 1966, 85-89

TOPIC TAGS: electric power system, electric power transmission, special purpose computer

ABSTRACT: Based on 1957-65 Soviet, 1955-62 Western, and 1959-64 Japanese literature, a review is presented which covers the following points: Scope of problems and type (mostly analog) of computer. Representation of incremental-rate characteristics of plants. Allowance for network losses. Uses of special-purpose computers and economic efficiency: (a) prediction of load diagrams, (b) counseling the dispatcher, and (c) automatic control. Data re uses of special-purpose computers in the following power systems is presented: Estonian Power System; Sverdlovsk, Chelyabinsk, Bashkir ASSR, Donbass Power Systems; Ural Joint Dispatching System; European-SSSR Joint Dispatching System; Altay Power System; Georgian SSR Power System; West-Siberian Joint Dispatching System; Hungarian Joint Dispatching System; S. California, Edison Co; West Penna; Ohio, Edison Co; Colorado Public Service Co; unnamed Soviet Power System; Kusu, Tubu, Japanese System; Tugoku, Tokyo System. Orig. art. has: 1 table.

SUB CODE: 09,19 / SUBM DATE: none / ORIG REF: 023 / OTH REF: 020

UDC: 681.142.35:621.31

Card 1/1 ZC

4142. Rapid method of identifying grades of butadiene-acrylonitrile (Sverdlovsk Rubber Technical Articles Works). O. B. Klimenko and H. B. Ginzburg. *Byulleten po Obmenu Opytom v. ~~Prom. Rezino-Tekh.~~ Izdelii*, 1956, No. 3, 30-1; *Kauch. i Rezina*, 1957, No. 1, 47.

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SPIROVA, V., aspirant; YAGLINA, K.; RITMAN, I.; GINSBURG, V.

Assembly-line work and wage payment systems. Sots. trud 6 no.8: 105-115 Ag '61. (MIRA 14:8)

1. Kafedra politekonomii Ural'skogo gosudarstvennogo universiteta (for Spirova). 2. Nachal'nik otdela truda i zarabotnoy platy fabriki "Uralobuv'" (for Yaglina). 3. Nachal'nik konstruktorskogo byuro Moskovskoy obuvnoy fabriki imeni Kapranova (for Ritman). 4. Starshiy inzh. gruppy organizatsii proizvodstva fabriki "Uralobuv" (for Ginsburg).
(Shoe industry) (Assembly-line methods)
(Wage payment systems)

GINSBURG, V.A.

~~GINSBERG, V. A.~~

USSR/Chemistry - Organic Compounds of Silicon
Chemistry - Silicon Compounds, Organic

Jan/Feb 49

"Success in the Field of Chemistry of Monomeric Silicon Organic Compounds," A. Ya. Yakubovich, V. A. Ginsburg, Moscow, 14½ pp

"Uspekhi Khimii" No 1

Summary of all work done on the chemistry of monomeric silicon organic compounds since 1933. Most of the source material is by scientists other than those of USSR.

PA 28/49T2

GINSBURG, V. A.

PA 193T20

USSR/Chemistry - Organoelemental Compounds

Nov/Dec 51

"The Diazo Method for the Synthesis of Aliphatic Organoelemental Compounds," A. Ya. Yakubovich, V. A. Ginsburg, Moscow

"Uspekh Khim" Vol XX, No 6, pp 734-758

Reviews this field thoroughly, pointing out that the method, as far as aliphatic compds are concerned, was developed by a group of USSR investigators headed by A. N. Nesmeyanov. Lists reaction data and properties of many resulting products in connection with the synthesis or

193T20

USSR/Chemistry - Organoelemental Compounds (Contd)

Nov/Dec 51

organophosphorus and organoarsenic compds (substituted phosphines and arsines, halogenoalkyl phosphonic and arsonic acids, phosphine oxides, arsine oxides, etc). Reviews own work. As far as P and As compds are concerned, lists some data obtained by G. Kamay. Bibliography (57 refs) is about 50% Russian, 50% foreign.

193T20

GINSBURG, V.A.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Organic Chemistry

(3)

Synthesis of heteroorganic compounds of the aliphatic series by the diazo method. I. Synthesis of compounds of elements of group V: antimony, arsenic, and bismuth organic compounds. A. Ya. Yakubovich and S. P. Makarov. *J. Gen. Chem.* (U.S.S.R.) 22, 1669-74(1952)(Engl. translation).—See *C.A.* 47, 8010e. II. Synthesis of compounds of group V elements—organophosphorus compounds. A. Ya. Yakubovich and V. A. Ginsburg. *Ibid.* 1575-82.—See *C.A.* 47, 9254g. III. Synthesis of compounds of elements of group IV. Organosilicon compounds. A. Ya. Yakubovich and V. A. Ginsburg. *Ibid.* 1821-5.—See *C.A.* 47, 9256e. IV. Synthesis of compounds of elements of group IV. Organotin compounds. A. Ya. Yakubovich, S. P. Makarov, and G. I. Gavrilov. *Ibid.* 1827-32.—See *C.A.* 47, 9257b.

USSR/Chemistry - Organophosphorus Compounds

Sep 52

"Synthesis of Organo-Elemental Compounds of the Aliphatic Series by the Diazo Method. II. Synthesis of Compounds of Group V Elements - Organophosphorus Compounds," A. Ya. Yakubovich, V. A. Ginsburg

"Zhur Obshch Khim" Vol 22, No 9, pp 1534-1542

The diazo method of synthesizing organo-elemental compds of the aliphatic series can be used for obtaining organophosphorus compds. Phosphorous

232T19

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tribromide and trichloride react with diazomethane, diazoethane, and diazobutane to form the corresponding primary alpha-halogenoalkylphosphorus compds whose properties and derivs are described. Phosphorus pentachloride reacts with diazomethane and diazoethane to form the corresponding secondary and tertiary alpha-halogenoalkyl derivs of phosphorus. Phosphorus oxychloride and oxybromide in analogous reactions do not form compds having the C - P bond.

(CA 47 no. 18:9254 '53)

232T19

Full translation - /M.

GINSBURG,V.A.

YAKUBOVICH, A.YA., GINSBURG, V.A.

Phosphinic Acids

Some properties of derivation of trichloromethyl-phosphinic acid. Dok. AN SSSR, 82, No. 2, 1952.

SO: Monthly List of Russian Accessions, Library of Congress, June 195~~3~~2, Uncl.

GINSBURG, V. A.

USSR/ Chemistry   Synthesis methods

Card : 1/1   Pub. 151 - 32/33

Authors : Yakubovich, A. Ya., and Ginsburg, V. A.

Title : Synthesis of elemento-organic compounds of the aliphatic series by the diazo-method. Part 6.- Synthesis of compounds of the V-group elements - phospho-organic compounds. Trichloromethylphosphinic acid and its deriv.

Periodical : Zhur. ob. khim. 24/8, 1465 - 1473, August 1954

Abstract : Data on the synthesis of organo-elementary compounds of the V-group (phosphoro-organic compounds). The chemical properties of di- and trihalidemethylphosphinic derivatives, obtained from the reaction of chloromethyldichlorophosphine with Cl and Br, are described. Eight references: 7 USSR and 1 USA (1946 - 1952). Table.

Institution : .....

Submitted : February 12, 1954

Full translation, NIH m/M

YAKUBOVICH, A. Ya.; GINSBURG, V. A.

"Synthesis of Hetero-Organic Compounds of the Aliphatic Series by the Diazo Method VII Synthesis of Compounds of Elements of the V Group- Organophosphorus Compounds- Trichloromethylphosphonic Acid and Its Transformations," Zhur Obshchei Khim 24, 2250-6 (1954).

N. D. Zelinskii Institute of Organic Chemistry of the Academy of Sciences and M. V. Lomonosov State University, Moscow.

Report B-85365, 3 Jun 55

GINSBURG, V.A.

"Fluorine chemistry". Vol.1. J.Simons, ed.[Translated by I.L.Knuniants, and others]. Reviewed by V.A.Ginsburg. Khim.nauka i prom. 1 no.3:360 '56. (MLRA 9:9)
(Fluorine) (Simons, Joseph, 1897-)

AUTHORS: Ginsburg, V. A., Yakubovich, A. Ya. 79-28-3-38/61

TITLE: The Synthesis of the Element Organic Compounds of the Aliphatic Series According to the Diazo Method (Sintez elementoorganicheskikh soyedineniy alifaticheskogo ryada diazometodom). VIII. The Synthesis of the Element Organic Compounds of the Vth Group. Phosphorus Organic Compounds. Experiments for the Synthesis of Di- and Trihalide Alkylphosphines and Some Reactions of the Alkylchloride Derivatives of Phosphorus (VIII Sintez soyedineniy elementov V gruppy. Fosfororganicheskiye soyedineniya. Opyty sinteza di- i trigaloidalkilfosfinov i nekotoryye prevrashcheniya khloralkil'nykh proizvodnykh fosfora)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 728-735 (USSR)

ABSTRACT: In experiments by which the authors tried to extend their own discovered diazosynthesis of phosphorus organic compounds of the aliphatic series also to the synthesis of secondary and tertiary alkylphosphines, according to the given scheme 1, they found that the chloromethyldichloro-

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The Synthesis of the Element Organic Compounds of the Aliphatic Series According to the Diazo Method. VIII. The Synthesis of the Element Organic Compounds of the Vth Group. Phosphorus Organic Compounds. Experiments for the Synthesis of Di- and Trihalide Alkylphosphines and Some Reactions of the Alkylchloride Derivatives of Phosphorus

79.28 5-38/61

phosphine and α-chlorethyldichlorophosphine react with diazomethane but that, on the conditions considered here, the di- and tri(alkylchloride)-phosphines were lacking. In their place phosphorus organic compounds of complicated structure were obtained which, as regards their properties, were similar to the solid by-products forming in the reaction of the aliphatic diazocompounds with trichloro- and triphosphorus bromide. In the chlorination of the product obtained in the mentioned reaction tri (trichloromethyl)-phosphinedichloride, di-(chloromethyl)-phosphinic- and phosphoric acid were separated in form of aniline salts. Investigations are carried out with regard to the reaction scheme and the structure of the mentioned compounds. It was shown that the chloromethyl- and β-chlorethylphosphinates at higher temperature enter the reaction according to Arbuzov, the esters of methylene- and ethylenediphosphinic acid being formed correspondingly

Card 2/3

The Synthesis of the Element Organic Compounds of the Aliphatic Series According to the Diazo Method. VIII. The Synthesis of the Element Organic Compounds of the Vth Group. Phosphorus Organic Coompounds. Experiments for the Synthesis of Di- and Trihalide Alkylphosphines and Some Reactions of the Alkylchloride Derivatives of Phosphorus

79-28-3-38/61

with triethyl-phosphite. The chloromethyltrimethyl- and chloromethyltriethoxysilane are analogously converted to the trimethylsilyle- and triethoxysilylemethylphosphinate. In the chlorination of tri- (chloromethyl)-phosphine oxide with phosphorus pentachloride the tri- (trichloromethyl)-phosphine dichloride was obtained, which in hydrolysis converted to tri-(trichloromethyl)-phosphinehydroxychloride. This product can not be hydrolized and converts with aniline to the oxide of the tri- (trichloromethyl)-phosphine.
There are 6 references, 4 of which are Soviet.

SUBMITTED: January 25, 1957.

Card 3/3

79-28 3-39/61

AUTHORS: Ginsburg, V. A., Privezentseva, N. F.

TITLE: On Iodine Derivatives of Methylphosphine (O yodistykh proizvodnykh metilfosfina)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 736-739 (USSR)

ABSTRACT: Of the iodine anhydrides of phosphorus organic acids only phenyldi-iodo-phosphine has been described until now. It was synthetized according to ref. 2 by the reaction of phenyldichlorophosphine with gaseous hydrogen iodide as hydriodide. It was shown that for the synthesis of the alkyl-phosphine iodide the reaction of chloroanhydrides of alkylphosphinic- and alkylsubphosphinic acids with hydrogen iodide can be valid. This is shown in this work by the formation of iodine derivatives in methylphosphine. In treating dichloranhydride of the methylphosphinic acid with gaseous hydrogen iodide dark-green crystals of the iodine derivative CH_3PJ_4 are precipitated, which, dissolved in water converts to methylphos-

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phinic acid with strong separation of iodine. As is known, pentaiodide is very unstable. According to Fursman and Lipkin (Ref. 3) some compounds of three-valent phosphorus (triphenylphosphite!) form a number of iodine derivatives with a complex-bound iodine, among them $(C_6H_5O)_3PJ_4$ and $(C_6H_5O)_3PJ_9$. In order to prove that the methyltetraiodide phosphorus synthetized by the authors derives from five-valent phosphorus as regards its structure it was treated with an excess of dry sodium ethylate on which occasion a diethylmethylphosphinate resulted under conditions excluding oxidation; this excludes to a certain extent the possibility of a complex structure in form of $CH_3PJ_2 \cdot J_2$. Besides methyltetraiodide of phosphorus, a resinous product was obtained which on the action of water converts to methylphosphinic acid. All in all the reaction process can be represented by the following formula: $3CH_3POCl_2 + 8\ HJ \longrightarrow 2\ CH_3PJ_4 + CH_3PO\ (OH)_2 + 6\ HCl$. In the reaction of methyldichlorophosphine with hydrogen a crystalline product is obtained which has the composition $CH_3PJ_2 \cdot HJ$, methyldi-iodophosphine. It seems that the aliphatic dichlorophosphines react with HJ similar to the

On Iodine Derivatives of Methylphosphine 79-28 3-39/61

aromatic ones (Refs. 1, 2): $CH_3PCl_2 \xrightarrow{3HJ} CH_3PJ_2 \cdot HJ + HCl$. The free methyliodidephosphine is obtained by the action of yellow phosphorus in carbon disulfide. All reactions within the series of methylphosphine iodides are represented by the last scheme.
There are 5 references, 1 of which is Soviet.

SUBMITTED: January 25, 1957,

Card 3/3

79-28-4-39/60

AUTHORS: Yakubovich, A. Ya., Ginsburg, V. A.

TITLE: On the Interaction Between Hydrazine and Carbon Disulfide (O vzaimodeystvii gidrazina s serouglerodom)
Experiments for the Synthesis of Diisothiocyanogen (Opyty sinteza diizorodana)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 4, pp. 1031-1035 (USSR)

ABSTRACT: One of the authors formerly has shown that according to modified method by Kaluz on certain conditions alkylendiisothiocyanates can be obtained. In this work the authors synthesized by analogous methods the simplest representatives of this compound series - the diisothiocyanogen SCN-NCS, which was unknown hitherto. The scheme of this synthesis can be represented as follows:

$$NH_2NH_2 + 2CS_2 + 2NaOH \longrightarrow \underset{(I)}{(NHCSSNa)_2} \qquad (1)$$

$$(NHCSSNa)_2 + 2ClCOOC_2H_5 \longrightarrow \underset{(II)}{(NHCSSCOOC_2H_5)_2} \qquad (2)$$

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79-28-4-39/60

On the Interaction Between Hydrazine and Carbon Disulfide Experiments for the Synthesis of Diisothiocyanogen

$$(NHCSSCO_2C_2H_5)_2 \xrightarrow{\text{pyrolysis}} \underset{(III)}{(NCS)_2} + 2COS + 2C_2H_5OH \quad (3)$$

In the interaction between hydrazine and carbon disulfide in aqueous alkali medium the disodium salt of the hydrazine--bis-dithiocarbonic acid was obtained. In the reaction of this salt with chlorocarbonic ester and phosgene the corresponding dianhydrides $(NHCS_2CO_2C_2H_5)$ and $(NHCS_2)COCl)_2$ form. The dianhydride of the hydrazine-bis-dithiocarbonic and ethylcarbonic acid changes in heating to 150°C into the ethyl carbonate of the 2,5-dithiol-1,3,4-thiadiazole. The latter decomposes at 250°C and forms the ethyl thiocyanate. The formation of diisothiocyanogen is not observed in this case. Also in the decomposition of the dianhydride of the hydrazine-bis-dithiocarbonic and chlorocarbonic acid the diisothiocyanogen was not obtained. It was shown that the alkyl thiocyanogencarbonic esters decompose in heating and thereby form alkyl thiocyanates. There are 9 references, 1 of which is Soviet.

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79-28-4-39/60

On the Interaction Between Hydrazine and Carbon Disulfide
Experiments for the Synthesis of Diisothiocyanogen
SUBMITTED: January 25, 1957

Card 3/3

79-28-4-40/60

AUTHORS: Yakubovich, A. A., Makarov, S. P., Ginsburg, V. A.

TITLE: A Production Method for Fluorine Derivatives of the Organometal Compounds of Silicon, Tin and Sulfur (Metod polucheniya ftorproizvodnykh kremniya, olova i sery)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 4, pp. 1036-1038 (USSR)

ABSTRACT: In the series of the elementorganic compounds very often alkoxy groups, which are bound to the concerned element, are by action of acid chlorides exchanged for chlorine. The possibility of the analogous exchange of alkoxy groups for fluorine by reaction with acid fluorides has up to now been investigated yet specially. The authors investigated this reaction at alkoxy compounds of silicon, tin and sulfur. On that occasion showed up that the acid fluorides of carboxylic acids, in particular the easily accessible acetyl fluoride, react with the alkoxy compounds of the named elements under formation of the corresponding fluorides:

$$R_mEl(OR')_{n-m} + CH_3COF \longrightarrow R_mEl(OR')_{n-m-1}F + CH_3COOR'$$

The described reaction takes place easier if the central atom,

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28 4 40/60

A Production Method for Fluorine Derivatives of the Organometal Compounds of Silicon, Tin and Sulfur

to which the alkoxy groups are bound is an electropositive
element. Thus alkoxy compounds of tin exchange the alkoxy
groups on occasion of reaction with acetyl fluoride already
in the cold for fluorine. At the corresponding compounds
of silicon and sulfur the exchange takes place at heating up.
In all cases the fluorine compounds form with high yield.
By alteration of the ratio of the reaction partners in the
case of polyalkoxy compounds not only one but also a higher
number of alkoxy groups can be exchanged. So, e.g. from di-
ethyldiethoxy tin a monofluoride and a difluoride can be obtained;
of tetraethoxy tin in case of surplus of acetylfluoride
easily forms tin tetrafluoride.
The reaction of acetyl fluoride with alkoxy silanes was in-
vestigated at the example of tetrabutoxysilane. In this case
forms in case of heating up to 80° tributoxyfluorsilane
with a yield of 60 - 70 %. The reaction of tetraethoxysilane
with benzoyl fluoride was investigated already before by
Peppard, Brown and Johnson (Ref 2), but these authors could
not observe any exchange of the alkoxy groups for fluorine.
Polyfluorsilanes are obtained more easily by Grignard's re-
action from silicon tetrafluoride, which was observed by

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79-28-4-40/60

A Production Method for Fluorine Derivatives of the Organometal Compounds of Silicon, Tin and Sulfur

the authors already before in the synthesis of ethylsilanefluorides (Ref 3):

$$SiF_4 \xrightarrow{RMgX} RSiF_3 \xrightarrow{RMgX} R_2SiF_2$$

The reaction of acetyl fluoride with alkoxy compounds of sulfur was investigated at the example of dimethyl sulfate. On that occasion formed the methyl ester of the fluorsulfonic acid with a yield of 60 % at conduction of acetylfluoride vapor into boiling dimethyl sulfate. From the experimental results comes out that the reaction of the carboxylic acid fluorides with alkoxy compounds of various elements is a commonly appliable important method for the synthesis of the concerned fluorine compounds. As the initial products - alkoxy compounds of the concerned elements and carboxylic acid fluorides - in general are easily accessible compounds, the described method earns general preparative interest. In an experimental part exactly are described the synthesis and the properties of diethylethoxy tin fluoride, diethyl tin

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A Production Method for Fluorine Derivatives of the Organometal Compounds of Silicon, Tin and Sulfur

fluoride, tin tetrafluoride, tributoxyfluorsilane, diethyldifluorsilane, ethyltrifluorsilane, and of the methyl ester of the fluorsulfonic acid. There are 3 references, 1 of which is Soviet.

SUBMITTED: February 22, 1957

Card 4/4

S/079/60/030/007/018/020
B001/B067 82300

5.3700C

AUTHORS: Ginsburg, V. A., Privezentseva, N. F., Rodionova, N. P., Dubov, S. S., Makarov, S. P., Yakubovich, A. Ya.

TITLE: Reaction of Nitrogen Oxides With Polyfluorinated Ethylenes. 1 Synthesis and Reduction of Polyfluorinated Nitroso Compounds

IX

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 7, pp. 2406 - 2409

TEXT: In continuation of the papers (Refs. 1-7) on the reactions of nitrosyl halides with halogenated olefins the authors studied the reaction of N_2O_3 with polyfluorinated ethylenes where nitroso compounds might have been expected as is the case with non-fluorinated unsaturated compounds. In the reaction of N_2O_3 in the gaseous state with tetrafluoro ethylene at room temperature a liquid of deep-blue color, 2-nitro-1,1,2,2-tetrafluoro-nitroso-ethane, is readily formed (Refs. 6,7). Besides this main product (yield more than 60%) a dinitro derivative of tetrafluoro

Card 1/3

Reaction of Nitrogen Oxides With Polyfluorinated Ethylenes. Synthesis and Reduction of Polyfluorinated Nitroso Compounds

S/079/60/030/007/018/020
B001/B067 82300

ethylene and a small amount of non-identified high-boiling products is formed. In the same way a chlorine-containing nitro-nitroso compound is formed from N_2O_3 and trifluoro-chloro ethylene. The nitroso compounds synthesized by the authors and some other scientists (Refs. 3,8,9), as well as other polyfluorinated nitroso compounds, are rather stable, and form no dimers. In the infrared spectrum the nitroso compounds obtained from tetrafluoro ethylene show characteristic frequencies of the valence vibrations of the bonds N = O and C – N at 6.2 μ and 12.25 μ which practically agree with the frequencies observed in analogous compounds by J. Mason (Ref. 10). The same nitroso compounds are formed in the reaction of NO with tetrafluoro- or trifluoro-chloro ethylene on irradiation with ultraviolet light. The reduction of the nitro-nitroso compounds with hydriodic acid in ether medium yields the acid fluoride of nitro-difluoro-acetohydroxamix acid which was separated as etherate ($NO_2CF_2CFClNO$). The structure of the nitro-nitroso compound which was obtained from N_2O_3 and trifluoro-chloro ethylene shows that in the

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Reaction of Nitrogen Oxides With Polyfluorinated Ethylenes. Synthesis and Reduction of Polyfluorinated Nitroso Compounds

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reaction the addition of N_2O_3 takes place in such a way that the nitroso group is linked with the carbon atom which has a higher electron density. There are 17 references: 4 Soviet and 4 German.

SUBMITTED: June 4, 1959

X

Card 3/3

S/079/60/030/007/019/020
B001/B067 82301

5.3100C

AUTHORS: Ginsburg, V. A., Privezentseva, N. F., Shpanskiy, V. A., Rodionova, N. P., Dubov, S. S., Khokhlova, A. M., Makarov, S. P., Yakubovich, A. Ya.

TITLE: Reaction of Halogens, Nitrogen Oxide, and Polyfluorinated Ethylenes in Ultraviolet Light. Synthesis and Thermal Decomposition of Polyfluorinated Aliphatic Nitroso Compounds

X

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 7, pp. 2409 - 2415

TEXT: In continuation of their earlier paper (Ref. 1) the authors studied the reaction of polyfluorinated ethylene with NO and halogen in ultraviolet light. They assumed that atomic chlorine or bromine would also lead to the formation of β-halogen nitroso compounds. In fact, the authors of the present paper showed that in the reaction of nitrosyl chloride with symmetrical difluoro-dichloro ethylene, 1,2-difluoro-1,2,2-trichloro-nitroso ethane results in good yields. This compound

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Reaction of Halogens, Nitrogen Oxide, and Polyfluorinated Ethylenes in Ultraviolet Light. Synthesis and Thermal Decomposition of Polyfluorinated Aliphatic Nitroso Compounds

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proved sufficiently stable and could be isolated (compound 6 in the Table). The experiments showed, as had been theoretically expected, that in all cases the corresponding nitroso alkanes were obtained in sufficient yields on irradiation of the gas mixtures NO + Cl_2 or NO + Br_2 with polyfluorinated ethylenes (such as tetrafluoro-, trifluoro-chloro-, or trifluoro ethylene at the ratio olefin : NO : Hal_2 = 1 : 1 : 1/2) (Table). These compounds have an intensive blue color, and are stable liquids. Besides them also the corresponding alkylene dihalides as well as β-nitrogen halide compounds are always separated from the reaction mass. Probably they are products of a partial oxidation of the nitroso compounds. In reducing the nitroso compounds obtained from trifluoro ethylene by means of hydrogen iodide the corresponding fluorides of the chloro-difluoro- and bromo-difluoro-acetohydroxamic acids are formed which indicates the addition of the halogen to the CF_2 group of the olefin in the reaction between NO, Hal_2, and olefin. The pyrolysis of

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Reaction of Halogens, Nitrogen Oxide, and Polyfluorinated Ethylenes in Ultraviolet Light. Synthesis and Thermal Decomposition of Polyfluorinated Aliphatic Nitroso Compounds

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the $ClCF_2CF_2NO$ and $NO_2CF_2CF_2NO$ nitroso compounds at 120-130° yields the polyfluorinated ethylenimines $ClCF_2CF_2N = CFCF_2Cl$ and $NO_2CF_2CF_2N = CFCF_2NO_2$, respectively. There are 1 table and 8 references: 3 Soviet, 1 US, and 2 German. X

SUBMITTED: June 4, 1959

Card 3/3

GINSBURG, V.A.; ZELENIN, G.Ye.; DUBOV, S.S.; MAKAROV, S.P.; YAKUBOVICH,
A.Ya.

Synthesis of esters of thioazocarboxylic acids. Zhur.ob.khim.
30 no.8:2689-2692 Ag '60. (MIRA 13:8)
(Azo compounds) (Acids)

GINSBURG, V.A.; VASIL'YEVA, M.N.; DUBOV, S.S.; YAKUBOVICH, A.Ya.

Reactions of phosphites with azo compounds. Zhur. ob. khim. 30 no.9:2854-2863 S '60. (MIRA 13:9)
(Phosphites) (Azo compounds)

GINSBURG, V.A.; YAKUBOVICH, A.Ya.

Reaction of aldehydes with trialkyl phosphites. Zhur. ob. khim. 30
no.12:3979-3987 D '60. (MIRA 13:12)
(Aldehydes) (Phosphorous acid)

GINSBURG, V.A.; YAKUBOVICH, A.Ya.

Addition of trialkyl phosphites to acrylic systems. Zhur. ob. khim. 30 no.12:3987-3992 D '60. (MIRA 13:12)
(Phosphorous acid) (Acrylic acid) (Acrylonitrile)

DUBOV, S.S.; GINSBURG, V.A.; KADINA, M.A.; RODIONOVA, N.P.; RODKIN, S.A.;
MAKAROV, S.P.; FILATOV, A.S.; YAKUBOVICH, A.Ya.

Appearance of the azo group in vibration and electron spectra.
Zhur.VKHO 6 no.5:596-597 '61. (MIRA 14:10)
(Azo compounds--Spectra)

YAKUBOVICH, A.Ya.; SOLOVOVA, O.P.; DUBOV, S.S.; CHELOBOV, F.N.; STEFANOVSKAYA, N.N.; GINSBURG, V.A.

Structure and polymerization of compounds containing a trifluorovinyl group. Zhur. VKhO 6 no.6:709-711 '61. (MIRA 14:12)
(Vinyl compound polymers)

YAKUBOVICH, A.Ya.; STEFANOVSKAYA, N.N.; MIKHAYLOVSKIY, L.P.; FAYERMAN, S.L.;
SOLOVOVA, O.P.; ROZENSHTEYN, S.M.; GINSBURG, V.A.

Structure and polymerization of compounds containing a trifluorovinyl group. Zhur. VKhO 6 no.6:712-713 '61. (MIRA 14:12)
(Vinyl compound polymers)

YAKUBOVICH, A.Ya.; GINSBURG, V.A.; MAKAROV, S.P.

Preparation of fluorine derivatives of phosphorus. Zhur.ob.khim. 31 no.5:1517-1518 My '61. (MIRA 14:5)
(Phosphinic acid) (Fluorine compounds)

YAKUBOVICH, A.Ya.; GINSBURG, V.A.; MAKAROV, S.P.; SHPANSKIY, V.A.;
PRIVEZENTSEVA, N.F.; MARTYNOVA, L.L.; KIR'YAN, B.V.; LEMKE, A.L.

Oxidation, reduction, and disproportionation of polyfluonitrosoalkanes. Dokl. AN SSSR 140 no.6:1352-1355 O '61. (MIRA 14:11)

1. Predstavleno akademikami I.L.Knunyantsem i M.I.Kabachnikom.
(Paraffins) (Nitroso compounds) (Oxidation-reduction reaction)

MAKAROV, S.P.; YAKUBOVICH, A.Ya.; GINSBURG, V.A.; FILATOV, A.S.; ENGLIN, M.A.; PRIVEZENTSEVA, N.F.~~; PRIVEZENTSEVA,~~ N.F.; NIKIFOROVA, T.Ya.

Reactions of polyfuorinated nitrosoalkanes with amines. Dokl. AN SSSR 141 no.2:357-360 N '61. (MIRA 14:11)

1. Predstavleno akademikami I.L.Knunyantsem i M.I.Kabachnikom. (Nitroso compounds) (Amines)

DUBOV, S. S.; GINSBURG, V. A.

Problem of the appearance of the azo group in vibrational and electron spectra. Zhur. VKHO 7 no.5:583-584 '62.
(MIRA 15:10)

(Azo compounds—Spectra)

GINSBURG, V.A.; YAKUBOVICH, A.Ya.; FILATOV, A.S.; SHPANSKIY, V.A.; VLASOVA, Ye.S.; ZELENIN, G.Yo.; SERGIYENKO, L.F.; MARTYNOVA, L.L.; MAKAROV, S.P.

Production, pyrolysis, and photolysis of polyfluorinated azo compounds of the aliphatic series. Dokl. AN SSSR 142 no.1:88-91 Ja '62. (MIRA 14:12)

1. Predstavleno akademikami I.L. Knunyantsem i M.I. Kabachnikom. (Azo compounds) (Fluorination)

GINSBURG, V.A.; YAKUBOVICH, A.Ya.; FILATOV, A.S.; ZELENIN, G.Ye.;
MAKAROV, S.P.; SHPANSKIY, V.A.; KOTEL'NIKOVA, G.P.;
SERGIYENKO, L.F.; MARTYNOVA, L.L.

Heterolytic transformations of polyfluorinated azo alkanes.
Dokl. AN SSSR 142 no.2:354-357 Ja '62. (MIRA 15:2)

1. Predstavleno akademikami I.L.Knunyantsem i M.I.Kabachnikom.
(Azo compounds)
(Fluorine compounds)

34750
S/020/62/142/003/017/027
B106/B110

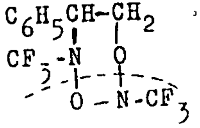
11,1135
5.2420
11.2131

AUTHORS: Makarov, S. P., Shpanskiy, V. A., Ginsburg, V. A., Shchekotikhin, A. I., Filatov, A. S., Martynova, L. L., Pavlovskaya, I. V., Golovaneva, A. F., and Yakubovich, A. Ya

TITLE: Reactions of polyfluorinated nitroso-alkanes with unsaturated compounds

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 3, 1962, 596 - 599

TEXT: Trifluoronitroso methane is used as an example of some reactions of polyfluorinated nitroso-alkanes with unsaturated compounds. These addition reactions take place easily (in an autoclave at -70 to 0°C). Monomers and polymers containing 1 mole of nitroso compound per olefin mole, form. Styrene and trifluoronitroso methane also form a compound with the molar ratio 1 : 2 which decomposes into 1 mole of nitroso compound, formaldehyde, and the corresponding imine when heated to 70 - 80°C. Therefore it has the structure



$$\begin{array}{ccc} C_6H_5CH & - & CH_2 \\ | & & | \\ CF_3-N & & O \\ | & & | \\ O & - & N-CF_3 \end{array}$$

. Trifluoronitroso methane adds to diphenyl

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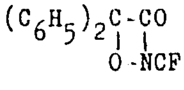
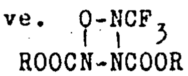
ketene even more easily under the formation of  $\begin{array}{l}(C_6H_5)_2C-CO\\ \qquad\quad\;\;|\quad\;|\\ \qquad\quad\;\;O-NCF_3\end{array}$ which decomposes when heated to 300°C mainly forming trifluoromethyl isocyanate (Bp. 33°C, yield 35%) and traces of trifluoronitroso methane. The latter also reacts with $R_FC{\equiv}CX$ alkines ($X = Cl, Br$; $R_F = CF_3, CF_2Cl, CFCl_2$) at room temperature in an autoclave.  $\begin{array}{c}O-NCF_3\\ |\quad\;|\\ ROOCN-NCOOR\end{array}$ forms on heating trifluoronitroso methane with azodicarbonic acid esters to 100 - 150°C under pressure. Diazomethane and trifluoronitroso methane react at -70°C to give a polymeric nitron $[CF_3N(O)CH_2]_n$ under nitrogen separation. Phosphazines and trifluoronitroso methane react violently at -70°C following the scheme $(C_6H_5)_3P=N-N=CH_2 + CF_3NO \longrightarrow CH_2O + [(C_6H_5)_3P=N-N=NCF_3] \xrightarrow{-N_2} (C_6H_5)_3P=NCF_3$. The product of this reaction also forms from triphenyl phosphine and trifluoromethyl azide under the same conditions. Trifluoronitroso methane and methyl isocyanide react

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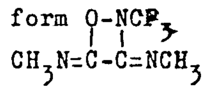
vigorously when heated to 25°C in an autoclave to form



$$\begin{array}{l} \ \ \ \ \ \ \ \ \ \ \ \ \ \ O-NCF_3 \\ CH_3N{=}C-C{=}NCH_3 \end{array}$$

which decomposes into trifluorinated dimethyl carbodiimide and methyl isocyanate when heated to 350 - 400°C in vacuo. These reactions demonstrate the great tendency of the N=O groups of trifluoronitroso methane to addition reactions with nucleophilic and electrophilic compounds. For comparison, some additions similar to the above reactions were conducted with polyfluorinated azomethines: $CF_3N{=}CF_2$ (Bp. -33°C) and $CF_3N{=}CFCl$ (Bp. -5°C). In all cases, the additivity of the C=N groups of these compounds was much lower. On reaction of $CF_3N{=}CF_2$ with diphenyl ketene (autoclaved for 12 hrs at 180°C), not addition, but dimerization of the initial substance took place. The dimer also formed in almost quantitative yields by reaction between $CF_3N{=}CF_2$ and pyridine at -70 - 50°C. With aniline, the dimer converts into the anilide of the monomer, when subjected to pyrolysis (>500°C) it dissociates into the monomer ($CF_3N{=}CF_2$). Unlike the polyfluorinated azomethines above, difluoro formimine easily

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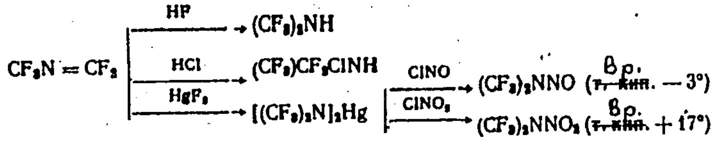
reacts with diphenyl ketene to form the adduct $(C_6H_5)_2CCO \cdot 2CF_2NH$. Addition reactions with hydrogen fluoride, hydrogen chloride, and mercuric fluoride following the schemes



are very characteristic for the polyfluorinated azomethines in question. The tendency of polyfluorinated substances with double bonds to addition reactions with olefins therefore decreases as follows: N=O > N=N > N=C. Table 1 shows the physical constants of the compounds synthesized for the first time. There are 1 table and 12 references: 4 Soviet and 8 non-Soviet. The three most recent references to English-language publications read as follows: E. E. Griffin, R. N. Haszeldine, Proc. Chem. Soc., 1959, 369; 1960, 1151 - 1155; C. E. Griffin, R. N. Haszeldine, J. Chem. Soc., 1960, 1398; J. Crawford, J. Polym. Sci., 45, No. 145, 261 (1960).

S/020/62/142/003/017/027
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PRESENTED: June 1, 1961, by M. I. Kabachnik, Academician

SUBMITTED: May 30, 1961

Table 1. Compounds synthesized for the first time.

Legend: (a) Compound; (b) Bp. (Fp.), °C/mm; (c) determined, %; (d) calculated, %; (e) Fp. * Non-distillable yellow oil; ** molecular weight (in acetic acid) : determined 580, calculated for the pentamer 565.

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SMIRNOV, K. M.; GINSBURG, V. A.; YAKUBOVICH, A. Ya.

Reaction of fluoroacetylene with mercury salts. Zhur. VKHO 8 no.2:231-232 '63. (MIRA 16:4)

(Acetylene) (Mercury salts)