ACC NR: AT6028809

art. has: 3 formulas, 5 tables, and 1 figure.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

Card 2/2

POSPELOVA, L. A., Cand Chem Sci -- "Certain complex-acid compounds of cerium-IV." Mos, 1961 (Min of Higher and Secondary Specialized Education RSFSR. Mos Order of Lenin and Order of Labor Red Banner State Univ im M. V. Lomonosov). (KL, 4-61, 187)

GOLOVNYA, V.A.; POSPELOVA, L.A.; BOLOTOVA, G.T.

Acidocomplex compounds of cerium(IV) and uranium(IV). Zhur. neorg. khim. 5 no.10:2204-2210 O '60. (MIRA 13:10)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova Akademii nauk SSSR.

(Cerium compounds) (Uranium compounds)

GOLOVNYA, V.A.; POSPELOVA, L.A.

Carbonate compounds of trivalent cerium. Zhur. neorg. khim. 3 no.10:2253-2260 O '58. (MIRA 12:3)
(Cerium compounds)

5(2) SOV/78-4-7-44/44

AUTHORS: Golovnya, V. A., Pospelova, L. A.

TITLE: Reply to an Article by D. I. Ryabchikov "On the Valence State of Metal in Cerium Tetracarbonate" (Otvet na stat'yu D. I. Ryabchikova "O valentnom sostoyanii metalla v tetrakarbonate tseriya")

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 7, pp 1699-1701 (USSR)

ABSTRACT: The authors investigated the potentiometric data of D. I. Ryabchikov and are not able to confirm his statement about a tetravalent Ce in the guanidine complex with a formula $(CN_3H_6)_4[Ce(CO_3)_4]\cdot 2H_2O$. Their titration with Mohr's salt and with $KMnO_4$ (Figs 1,2) lead to different results. They maintain their opinion concerning a trivalent Ce and the formula $(CN_3H_6)_5[Ce(CO_3)_4\cdot 2H_2O]$ and show (Fig 3) the variously structured crystals of the two compounds, which exclude an error. There are 3 figures and 2 Soviet references.

Card 1/2

SOV/78-4-7-44/44

Reply to an Article by D. I. Ryabchikov "On the Valence State of Metal in Cerium Tetracarbonate"

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

SUBMITTED: March 3, 1959

Card 2/2

64534

S/078/60/005/05/09/037
B004/B016

5.2300

AUTHORS: Golovnya, V. A., Pospelova, L. A.

TITLE: Carbonate Compounds of Tetravalent Cerium 21

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 5, pp. 1036-1043

TEXT: This paper was intended to study the capability of Ce(IV) of forming complexes, mainly on carbonate basis, and to attempt to synthesize a compound containing more carbonate groups than the pentacarbonate of Lortié (Ref. 3). The authors describe the following syntheses: 1) sodium pentacarboceriate $Na_6[Ce(CO_3)_5H_2O]\cdot 11H_2O$ (analysis in table 1, thermogram in Fig. 1); 2) guanidine pentacarboceriate $(CN_3H_6)_6[Ce(CO_3)_5H_2O]\cdot H_2O$ (analysis in table 2), and the same compound with 3 molecules of crystallization water (Table 3) and 4 molecules of crystallization water (Table 4); 3) guanidine ammonium pentacarboceriate $NH_4(CN_3H_6)_5[Ce(CO_3)_2H_2O]\cdot 4H_2O$ (Table 5); 4) cobalt(III)-hexammine-pentacarboceriate $[Co(NH_3)_6]_2[Ce(CO_3)_5H_2O]\cdot 5H_2O$

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Carbonate Compounds of Tetravalent Cerium

S/078/60/005/05/09/037
B004/B016

(Table 6). Fig. 2 shows the thermogram of this compound with 4 molecules of crystallization water, Fig. 8 without crystallization water; 5) potassium pentacarboceriate $K_6[Ce(CO_3)_5H_2O]\cdot H_2O$ (Table 7, thermogram Fig. 7). On the basis of the paper by Yu. M. Tolmachev (Ref. 10) the tetracarboceriates corresponding to the compounds of Th^{4+} were expected to occur, and their synthesis was carried out: a) the guanidine salt $(CN_3H_6)_4[Ce(CO_3)_4(H_2O)_2]$ with different crystal water content (Table 8, thermograms Figs. 3,5,6), and the guanidine ammonium salt $(NH_4)_2\cdot(CN_3H_6)_2[Ce(CO_3)_4(H_2O)_2]$ (Table 9, thermogram Fig. 4). Further, the ammonium cobalt(III)-hexammine-hexacarboceriate $(NH_4)_2[Co(NH_3)_6]_2[Ce(CO_3)_6]\cdot 4H_2O$ was synthesized (Table 10). It may be seen from the thermograms that the tetracarboceriates contain two molecules of water in the inner sphere, the pentacarboceriates only one, and the hexacarboceriates none at all. The structure of these compounds is schematically shown in Fig. 9. The potentiometric titration of guanidine pentacarboceriate (Table 11), and of ammonium guanidine tetracarboceriate (Table 12) is graphically shown in Fig. 10. The results are indicative of an unequal bonding of the CO_3^{2-}-groups in the inner sphere. The coordination

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Carbonate Compounds of Tetravalent Cerium

S/078/60/005/05/09/037
B004/B016

number of tetravalent Ce equals 8 in its carbonate complexes. There are 10 figures, 12 tables, and 14 references, 4 of which are Soviet.

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

SUBMITTED: November 4, 1959

Card 3/3

POSPELOVA, L.A.

USSR.

Action of various antibiotics on whooping-cough bacteria. M. S. Zakharova and L. A. Pospelova (N. F. Gamalei Inst. Epidemiol. and Microbiol., Acad. Med. Sci. U.S.S.R., Moscow). *Zhur. Mikrobiol., Epidemiol. i Immunobiol.* 1954, No. 3, 3-7.—Biomycin, 0.43 γ per ml., and levomycetin, 4.3-0.43 γ per ml. of synthetic media, inhibit growth of whooping-cough bacteria. Whooping-cough infection in mice can be prevented if either antibiotic is administered immediately or on the day following infection twice daily in doses of 0.2 g. for 10-14 days. The duration of treatment by biomycin can be shortened to 5 days if administered 2 days before infection and 3 days after. Biomycin effectiveness is greatly reduced if administered 6 days after infection.

J. A. Stekol

POSPELOVA, L. A.

USSR/Medicine - Whooping cough FD-2310

Card 1/1 Pub 148 - 11/36

Author : Zakharova, M. S.; Dadash'yan, M. A.; Bostrem, G. G.; Pospelova, L. A.

Title : Application of biomycin for the treatment of patients with whooping cough

Periodical : Zhur. mikro. epid i immun. No 2, 34-37, Feb 1955

Abstract : Describe favorable results obtained in the therapy with biomycin of whooping cough affecting children. One reference, USSR, since 1940. Two tables.

Institution : Division of Children's Infectious Diseases, 2 d Moscow Medical Institute imeni I. V. Stalin; Institute of Epidemiology and Microbiology imeni N. F. Gamaleya, Academy Medical Sciences USSR

Submitted : July 8, 1954

AUTHORS: Golovnya, V. A., Pospelova, L. A. S07/78-3-10-6/35

TITLE: Carbonate Compounds of Trivalent Cerium (Karbonatnyye soyedineniya trekhvalentnogo tseriya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 10, pp 2253-2260 (USSR)

ABSTRACT: The complex carbonate compounds were ascertained by systematical investigations. The synthesis that is formed by cerium-dicarbonate complexes together with ions of ammonium and sodium was described. The complexes of cerium-dicarbonate have the following empirical composition:

$Na_2CO_3 \cdot Ce_2(CO_3)_3 \cdot 12\ H_2O$

$K_2CO_3 \cdot Ce_2(CO_3)_3 \cdot 12\ H_2O$

$(NH_4)_2CO_3 \cdot Ce_2(CO_3)_3 \cdot 6\ H_2O$

$Tl_2CO_3 \cdot Ce_2(CO_3)_3 \cdot 6\ H_2O$

These complex compounds are expressed by the following stoichiometric formulae: $Me\left[Ce(CO_3)_2\right] \cdot n\ H_2O$.

Dicarbonate-cerium complexes are soluble in excess alkaline carbonate solutions. The tetra- and pentacarbonate complexes of

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SOV/78-3-10-6/35

, Carbonate Compounds of Trivalent Cerium

cerium were produced. The tetracarbonate-cerium complex was isolated by guanidine and cobalt hexamine: $(CN_3H_6)_5[Ce(CO_3)_4]\cdot 2\,H_2O$ and $[Co(NH_3)_6]_5[Ce(CO_3)_4]_3\cdot 15\,H_2O$.
The synthesis of compounds of pentacarbonate-cerium complexes was also carried out by guanidine and cobalt hexamine:
$(NH_4)_5[Co(NH_3)_6]_3[Ce(CO_3)_5]_2\cdot 12\,H_2O$ and
$(CN_3H_6)_5[Co(NH_3)_6]_3[Ce(CO_3)_5]_2\cdot 12\,H_2O$.
The compounds of the pentacarbonate of cerium are coarsely crystalline and show a distinct yellow-orange color. The compounds were analytically, crystaloptically and thermographically investigated. It can be seen from the thermogram that three effects appear: the first at 80°C, which corresponds to the dehydration, and the third, which indicates the decomposition of the compound. There are 6 figures, 1 table, and 13 references, 0 of which is Soviet.

SUBMITTED: May 16, 1958

Card 2/2

85605

5.2620 2209, 1273, 1318

S/078/60/005/010/022/030/XX
B017/B067

AUTHORS: Golovnya, V. A., Pospelova, L. A., and Bolotova, G. T.

TITLE: Acido Complex Compounds of Cerium (IV) and Uranium (IV)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 10, pp. 2204-2210

TEXT: On the basis of the coordination theory, the authors derive genetic series of complexes of tetravalent uranium and tetravalent cerium with different acid addenda. Table 1 shows such series of uranium (IV) and cerium (IV) from diacido- to hexaacido sulfate complexes. The coordination number of complex compounds of cerium (IV) and uranium (IV) is 8. Water enters these complex compounds as inner addendum so that in all cases, even when not all places are occupied by acido groups, the coordination number is 8. The thermographic analyses of the sulfate compounds of uranium (IV) and cerium (IV) indicate that four water molecules are contained in the inner sphere of complex compounds. Table 2 shows the dehydration temperatures of cerium (IV)- and uranium (IV)-sulfate complexes with eight water molecules and with four water molecules. The distribution of the addenda

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85605

Acido Complex Compounds of Cerium (IV) and Uranium (IV)

S/078/60/005/010/022/030/XX
B017/B067

in the inner spheres of penta- and hexasulfate complex compounds is discussed. It is assumed that bivalent acid radicals are also capable of occupying two coordination places. The authors succeeded in synthesizing the following complexes with two different acid addenda by partial, gradual exchange of the addenda of the inner sphere:
$Rb_4[U_2(C_2O_4)_3(SO_4)_3] \cdot 6H_2O$; $(NH_4)_6[U_2(C_2O_4)_3(SO_4)_4] \cdot 4H_2O$;
$Rb_6[U_2(C_2O_4)_3(SO_4)_4] \cdot 4H_2O$; $(CN_3H_6)_3NH_4[U(CO_3)_3C_2O_4] \cdot nH_2O$;
$(CN_3H_6)_8(NH_4)_2[U_2(CO_3)_8C_2O_4] \cdot 6H_2O$; $(CN_3H_6)_5NH_4[Ce_2(CO_3)_5F_4]$;
$(CN_3H_6)_3(NH_4)_3[Ce(CO_3)_4SO_4] \cdot H_2O$; $(CN_3H_6)_4(NH_4)_4[Ce(CO_3)_4(SO_4)_2]$;
$(CN_3H_6)_3(NH_4)_2[Ce(CO_3)_3F_3]$; $(CN_3H_6)_3(NH_4)_3[Ce(CO_3)_3F_4]$. The synthesis of these compounds and their properties will be described in subsequent papers. There are 4 figures, 4 tables, and 16 references: 1 Soviet, 1 Canadian, 1 Danish, 12 German, and 2 Italian.

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85605

Acido Complex Compounds of Cerium (IV) and Uranium (IV)

S/078/60/005/010/022/030/XX
B017/B067

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

SUBMITTED: November 14, 1959

X

Card 3/3

GOLOVNYA, V.A.; POSPELOVA, L.A.

Carbonate compounds of tetravalent cerium. Zhur.neorg.khim.
5 no.5:1036-1043 My '60. (MIRA 13:7)

1. Institut obshchey i neorganicheskoy khimii im. N.S.
Kurnakova Akademii nauk SSSR.
(Cerium compounds)

POSPELOVA, L.A.; ZAYTSEVA, T.F.

Trivalent cerium acetate compounds. Zhur. neorg. khim. 10 no.5:1097-1106 My '65. (MIRA 18:6)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

PICHUGINA, V.P., vrach; POSPELOVA, L.A., vrach

Treatment of phlegmons at a stomatological polyclinic.
Vop. obshchei stom. 17:68-69 '64.

(MIRA 18:11)

LAPITSKIY, A.V.; POSPELOVA, L.A.; ARTAMONOVA, Ye.P.

Study of the dissolving action of water and of mineral acids on niobium and tantalum pentoxides. Zhur.neorg.khim.1 no.4:650-659 Ap '56. (MLRA 9:10)

1.Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Oxides) (Solubility)

KUPRIYANOVA, A.I.; OMEL'CHENKO, A.D., i.o. Glavnogo metodista; YERMOLENKO, I.V.; POSPELOVA, L.P.; ZHURAVLEV, N.N.; GRIGOR'YEV, V.V., otvetstvennyy redaktor; BEDNARSKAYA, G.A., redaktor; PAVLOVA, M.M., tekhnicheskiy redaktor

[The "Volga Valley" pavilion; a guidebook] Pavil'on "Povolzh'e; putevoditel'. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 29 p.
(MIRA 9:12)

1. Moscow. Vsesoyuznaya sel'skokhozyaystvennaya vystavka, 1954-
2. Direktor pavil'ona (for Zhuravlev)
(Volga Valley--Agriculture)
(Moscow--Agricultural exhibitions)

ABRAMOV, Nikolay Nikolayevich, prof., doktor tekhn. nauk; POSPELOVA,
Margarita Mikhaylovna, kand. tekhn. nauk; SKVORTSOVA, I.P.,
red. izd-va; KASIMOV, D.Ya., tekhn. red.

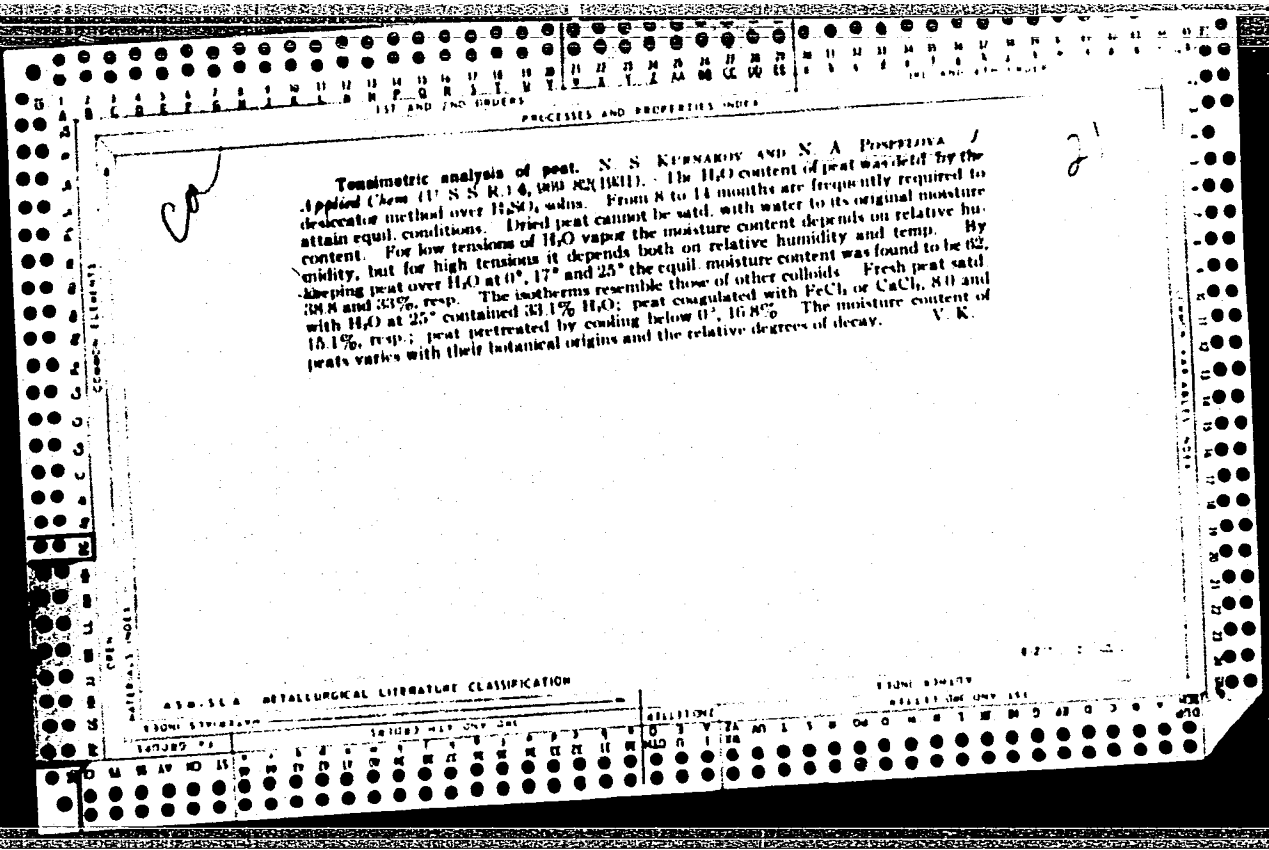
[Design of water conduit networks] Raschet vodoprovodnykh setei.
2. izd., perer. i dop. Moskva, Gosstroiizdat, 1962. 227 p.
(MIRA 15:5)

(Water-supply engineering)

POSPELOVA, M. M. Cand. Tech. Sci.

Dissertation: "Technological Analysis of the Methods for Planning and Calculation of City Water Supply Systems in the USA and Possibility of Their Use in Our Practice." Moscow Order of the Labor Red Banner Construction Engineering Inst imeni V.V. Kuybyshev, 27 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)



Tensimetric analysis of peat. N. S. Kurnakov and N. A. Pospelova. *J. Applied Chem.* (U.S.S.R.) 4, 880-82(1931). — The H_2O content of peat was detd. by the desiccator method over H_2SO_4 solns. From 8 to 14 months are frequently required to attain equil. conditions. Dried peat cannot be satd. with water to its original moisture content. For low tensions of H_2O vapor the moisture content depends on relative humidity, but for high tensions it depends both on relative humidity and temp. By keeping peat over H_2O at 0°, 17° and 25° the equil. moisture content was found to be 62, 38.8 and 33%, resp. The isotherms resemble those of other colloids. Fresh peat satd. with H_2O at 25° contained 33.1% H_2O; peat coagulated with $FeCl_3$ or $CaCl_2$ 8.0 and 15.1%, resp.; peat pretreated by cooling below 0°, 16.8%. The moisture content of peats varies with their botanical origins and the relative degrees of decay. V. K.

2

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

B-I-2

Tensimetric analysis of peat. N. S. KURNAKOV and N. A. [illegible] (J. Appl. Chem., Russia, 1931, 4, [illegible]).—The H_2O content of peat, determined by the desiccator method over H_2SO_4 solutions, varies with the botanical origin and degree of decay. Dried peat cannot be saturated with H_2O to its original H_2O content. For low v.p. the H_2O content depends on the R.H., but for high v.p. it depends on temp. also. When peat was kept over H_2O at 0°, 17°, or 25° the equilibrium H_2O content was 62, 38·8, or 33%, respectively. Fresh peat saturated with H_2O at 25° contained 33·1% H_2O; peat coagulated with $FeCl_3$ or $CaCl_2$ 8·0 or 15·3%, respectively; and peat pretreated by cooling below 0° 16·8%.

CH. ABS.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

LAPSHIN, V.V.; POSPELOVA, N.A.; GRINBLAT, V.N.; Prinimali uchastiye:
BATULINA, N.A.; TRUBKINA, O.Ya.

Effect of the structure and molecular weight of polypropylene on its properties. Plast. massy no.2:20-22 '66.
(MIRA 19:2)

ANDREYEV, A.S.; POSPELOVA, N.A.

Determination of small amounts of phosphorus, calcium, magnesium, and copper in complex alloy steels. Trudy LPI no.201: 56-76 '59. (MIRA 13:3)
(Phosphorus--Analysis) (Calcium--Analysis)
(Magnesium--Analysis) (Copper--Analysis)

[illegible]

POSPELOVA,N.

Vegetable and fruit gardening enthusiasts. Sov.profsoiuzy 3 no.8:53 Ag'55. (MLRA 8:10)

1. Instruktor Yaroslavskogo oblastnogo soveta profsoyuzov
(Yaroslavl Province--Working-men's gardens)

BARSOV, Nikolay Nikolayevich, dotsent, kand.geograf.nauk; BONIFAT'YEVA, Lidiya Ivanovna, dotsent, kand.geograf.nauk; BURENKO, Sergey Fedorovich, dotsent, kand.geograf.nauk; GITLITS, Semen Aleksandrovich, dotsent, kand.ekonom.nauk; GUREVICH, Priam Vladimirovich, prof.; DARINSKIY, Anatoliy Viktorovich, dotsent, kand.geograf.nauk; DOLININ, Aleksey Arkad'yevich, dotsent, kand.geograf.nauk; DOROSHKEVICH, Lyudmila Ivanovna, dotsent, kand.geograf.nauk; YEFIMOVA, Yelena Semenovna, kand.geograf.nauk; LAVROV, Sergey Borisovich, dotsent, kand. geograf.nauk; LEDOVSKIKH, Stepan Ivanovich, dotsent, kand.geograf. nauk; NEVEL'SHTEYN, Grigoriy Solomonovich, dotsent, kand.geograf. nauk; NIKOLAYEVA, Nadezhda Vasil'yevna, dotsent, kand.geograf.nauk; OGANESOV, Vladimir Artem'yevich, kand.geograf.nauk; PINKHENSON, Dmitriy Moiseyevich, dotsent, kand.geograf.nauk; POSPELOVA, Nataliya Georgiyevna, prof., doktor ekonom.nauk; SEMEVSKIY, Boris Nikolayevich, prof., doktor geograf.nauk; SUTYAGIN, Pavel Grigor'yevich, dotsent, kand.geograf.nauk; SHTEYN, Viktor Moritsovich, prof., doktor ekonom.nauk; YEROFEYEV, I.A., red.; SMIRNOVA, N.P., red.; TYUTYUNNIK, S.G., red.kart; BORISKINA, V.I., red.kart; KOZLOVSKAYA, M.D., tekhn.red.

[Economic geography of foreign countries; student manual] Ekonomicheskaia geografiia zarubezhnykh stran; posobie dlia studentov. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1960. 702 p. 4 maps (MIRA 13:12)

(Geography, Economic)

POSPELOVA, N.N.; PAVLOVA, Z.Ye.

Possibility of false positive serological reactions to syphilis in examinations of blood doror plasma. Probl.gemat.i perel. krovi no.5:56 '62. (MIRA 15:8)

1. Iz Ivanovskoy oblastnoy stantsii perelivaniya krovi 'dir. N.V. Samoylova, nauchnyy konsul'tant - prof. P.M. Maksimov) i Ivanovskogo oblastnogo kozhno-venerologicheskogo dispansera (nauchnyy rukovoditel' - prof. M.S. Bragin).

(SYPHILIS—DIAGNOSIS) (BLOOD DONORS)

POSPELOVA, Nataliya Nikolayevna; ROZENTUL, M.A., red.; ZUYEVA, N.K., tekhn. red.

[A.I.Pospelov, 1846 - 1916] A.I.Pospelov, 1846-1916. Moskva, Gos. izd-vo med. lit-ry, 1962. 85 p. (MIRA 15:4)
(POSPELOV, ALEKSEI IVANOVICH, 1846 - 1916)

KHOMUTOV, N.Ye.; POSPELOVA, N.V.

Anodic processes taking place in the electrolysis of carbonates.
Trudy MKHTI no.26:85-95 '59. (MIRA 13:9)
(Carbonates) (Electrolysis) (Electrodes)

POSPELOVA, T.A.; KOBOZEV, N.I.

Catalytic synthesis of hydrogen peroxide from the elements on palladium. Part 3: Active centers of the catalytic decomposition of hydrogen peroxide on palladium. Zhur.fiz.khim. 35 no.6:1192-1197 Je '61. (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Hydrogen peroxide) (Palladium)

MILEU,St.M.,acad.; POSTELNICU,D.; TEODORU,V.

Some observations on the structure of the pineal gland in aged birds and animals. Rumanian M. Rev. 3 no.3:14-15 Jl-S '59.

1. "Prof. C.I.Parhon" Institute of Geriatrics,and "Dr. Victor Babes", Institute.

(PINEAL BODY)
(POULTRY)
(CATTLE)
(SHEEP)

POSPELOV A. M.

[illegible] USSR

[illegible] Cultivated Plants. Grains. Leguminous Grains. [illegible] I

[illegible]

[illegible] : [illegible]

[illegible] : ~~All-Union Inst.~~ of Mechanization of Agricult[illegible]

[illegible] : [illegible]

[illegible] : [illegible]

[illegible] : [illegible]

[illegible] [illegible]

COVERAGE: The book is the third collection of reports read at the seminar on automatic control and computer engineering of the NTO priborostroyeniya (Scientific and Technical Society for Instrument Making), the MVTU im. Baumana (Moscow Higher Technical School imeni Bauman), and the MAI im. Ordzhonikidze (Moscow "Order of Lenin" Aviation Institute imeni Ordzhonikidze). It contains papers on current topics in automatic control and computer engineering which, according to the author, are significant for the solution of problems involved in the complex automation of industrial processes by means of control machines and includes discussion of the design of linear and nonlinear automatic control systems. The book covers some questions related to the dynamics of such systems, ways of increasing operational speed, and means of obtaining optimum transient processes. Automatic control systems involving discrete computers, systems with variable parameters, sampled-data control systems, the dynamic accuracy of these systems during random motions, and the theory of sampled-data systems are discussed. No personalities are mentioned. References are found at the end of each article.

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AVAILABLE: Library of Congress

Card 4/4

AC/rb/sfm
9/21/60

GOLOVNYA, V.A.; POSPELOVA, L.A.

Determination of refraction values for cerium sulfate compounds. Zhur. neorg. khim. 6 no.7:1574-1581 Jl '61. (MIRA 14:7)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova Akademii nauk SSSR.

(Cerium sulfate)

POSPELOVA, Natal'ya Georgiyevna; BORISOVA, K., red.; CHEPELEVA, O.,
tekhn.red.

[Algeria; an account of its economy and political situation]
Alzhir; ekonomiko-politicheskii ocherk. Moskva, Izd-vo
sotsial'no-ekon.lit-ry, 1959. 104 p. (MIRA 12:6)
(Algeria--Economic conditions)

POSPELOVA, Nataliya Georgiyevna.

Leningrad Finance-Economics Inst, Academic degree of Doctor of Economic Sciences, based on her defense, 17-18 June 1954, in the Council of the Moscow Finance Inst. of her dissertation entitled: "Formation of National Markets Under Conditions of a Colonial Regime Based on the Example of some Arab Countries (Syria and Lebanon)".

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VA K, List no 8, 2 April 55, Byulleten'
MVO SSSR, No. 14, July Moscow pp 4-22, Uncl.
JPRS/NY-429

1. POSPELOVA, P. M.

2. USSR (600)

4. Lenin, Vladimir Il'ich, 1870-1924

7. For the twenty-seventh anniversary of the death of V. I. Lenin. Visnyk AN URSR No. 1 1951

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

ZAZOVSKAYA, I.A.; POSPELOVA, R.V.; SHAVRIN, O.N.

Evaluating the dimensions of mosaic blocks by the width of X-ray lines. Fiz. met. i metalloved. 14 no.2:301-303 Ag '62. (MIRA 15:12)

1. Petrozavodskiy gosudarstvennyy universitet.
(X-ray crystallography)

POSPELOVA, T.A.; KOBOZEV, N.I.; YEREMIN, Ye.N.

Palladium catalyzed synthesis of hydrogen peroxide from the elements. Zhur. fiz. khim. 35 no.2:298-305 F '61. (MIRA 16:7)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Hydrogen peroxide) (Heat of formation)

S/076/61/035/003/005/023
B121/B203

11.1190

AUTHORS: Pospelova, T. A. and Kobozev, N. I.

TITLE: Catalytic synthesis of hydrogen peroxide from elements on palladium. II. Active centers of palladium in H_2O_2 synthesis

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 3, 1961, 535-542

TEXT: The authors studied the active centers of the catalyst in H_2O_2 synthesis. They discussed the mechanism of catalysis in the formation of H_2O_2 and water from detonating gas on palladium and platinum catalysts. The catalysts were prepared by a method described earlier by the authors together with Ye. N. Yeremin (Ref. 1: Zh. fiz. khimii, 35, 298, 1961). The effect of an inert carrier (silica gel) on the reaction rate and on the H_2O_2 yield was investigated. Volume processes were found to play no important role in the H_2O_2 formation. When studying the structure of active centers of Pd in catalytic H_2O_2 synthesis, a palladium doublet (Pd_2) was

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Catalytic synthesis ...

found to be active. When comparing the activities of Pd black and of the adsorption catalyst Pd/SiO_2 (containing the same Pd amount), the formation rate of H_2O_2 was found to be 15 times higher on the adsorption catalyst than on Pd black. The catalytic activities of platinum and palladium in H_2O_2 synthesis were compared; the mechanism of catalysis on Pt and Pd catalysts was found to be different. Hydrogen peroxide occurs as a primary product on active Pd_2 centers, whereas water occurs on the atomic active centers of platinum. The active Pt centers were studied in papers by one of the authors (Ref. 6: Zh. fiz. khimii, 13, 1939; 14, 663, 1940) and by N. A. Reshetovskaya (Ref. 5: Dissertatsiya, MGU, 1947). The higher affinity of Pd to hydrogen is the cause of the catalytic formation of hydrogen peroxide on the Pd catalyst. The following mechanism was found for the catalysis of detonating gas on the Pd catalyst: first stage: adsorption of hydrogen to the active Pd_2 centers, and dissociation into atoms according to:

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Catalytic synthesis ...

$\left[\begin{array}{c}Pd\\ \hline Pd\end{array}\right] + H_2 \longrightarrow \left[\begin{array}{c}Pd\\ \hline Pd\end{array}\right]\begin{array}{l}H\\ H\end{array}$; second stage: adsorption of oxygen with formation of the adsorbed radical HO_2 or of ion pairs $H^+ + HO_2^-$: $\left[\begin{array}{c}Pd\\ \hline Pd\end{array}\right]\begin{array}{l}H\\ H\end{array} + O_2 \longrightarrow \left[\begin{array}{c}Pd\\ \hline Pd\end{array}\right]\begin{array}{l}H\\ HO_2\end{array}$ or $\left[\begin{array}{c}Pd\\ \hline Pd\end{array}\right]\begin{array}{l}H^+\\ HO_2^-\end{array}$; third stage: formation of H_2O_2 or HO_2^- ion according to

$$\left[\begin{array}{c}Pd\\ \hline Pd\end{array}\right]\begin{array}{l}H^+\\ HO_2^-\end{array} \longrightarrow \underset{\text{in the gaseous phase}}{Pd + H_2O_2} \quad \text{or} \quad \left[\begin{array}{c}Pd\\ \hline Pd\end{array}\right] + \underset{\text{in solution}}{\frac{H_3O^+}{HO_2^-}} .$$

The mechanisms of the catalytic reaction of detonating gas on Pt and Pd catalysts differ in the cleavage of the bond of the oxygen molecule. On the Pd catalyst, the oxygen chain -O-O- is maintained and, thus, the formation of H_2O_2 made possible, whereas on platinum both oxygen-molecule bonds are cleft. There are 4 figures, 4 tables, and 14 references: 7 Soviet-bloc and 7 non-Soviet-bloc. The reference to the English-language publication reads as follows: R. P. Donelly, C. N. Hinschelwood, J. Chem. Soc., 131, 1727, 1929.

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S/076/61/035/003/005/023
B121/B203

Catalytic synthesis ...

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

SUBMITTED: June 4, 1959

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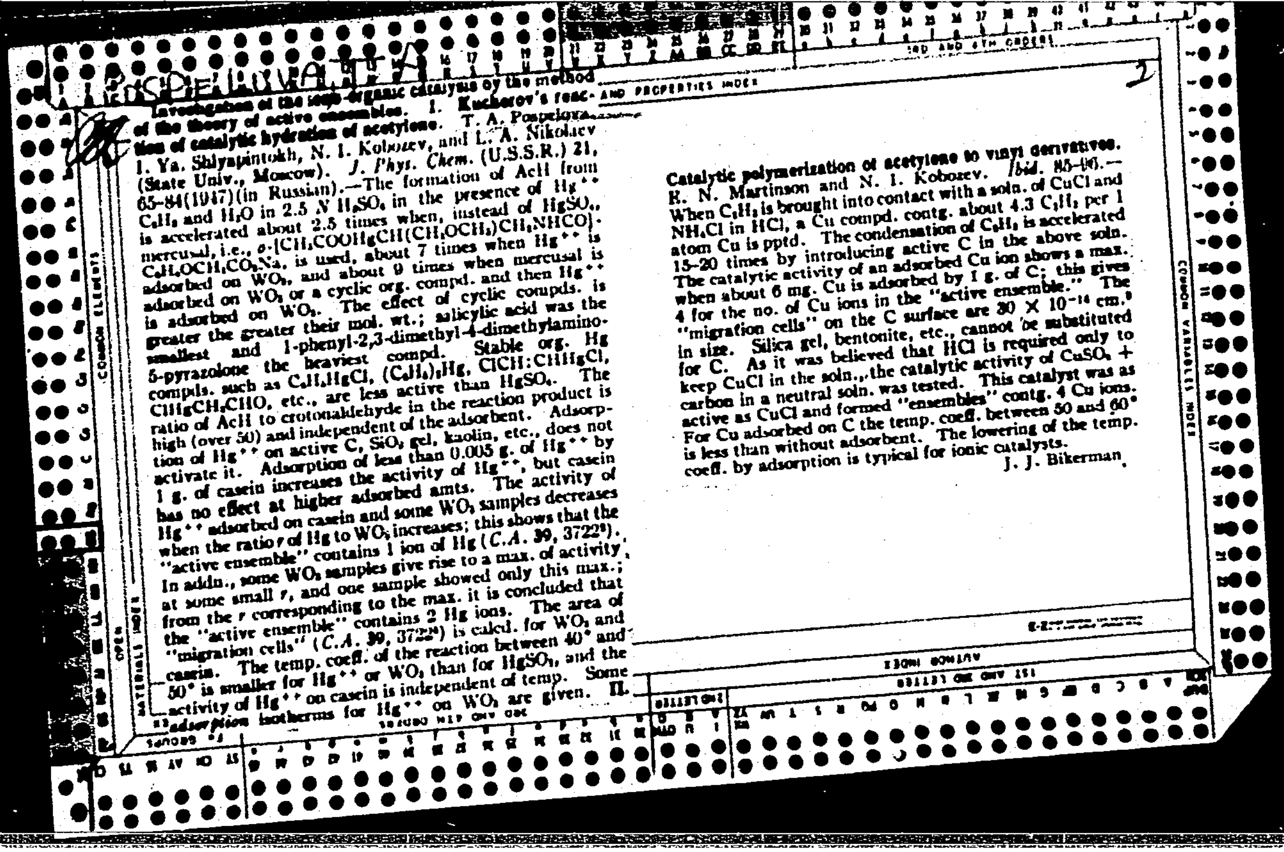

POSPELOVA, T.A.

2

Investigation of the iono-organic catalysis by the method of the theory of active ensembles. I. Kucherov's reaction of catalytic hydration of acetylene. T. A. Pospelova, I. Ya. Shlyapintokh, N. I. Kobozev, and L. A. Nikolaev (State Univ., Moscow). *J. Phys. Chem.* (U.S.S.R.) 21, 65-84(1947)(in Russian).—The formation of AcH from C_2H_2 and H_2O in 2.5 *N* H_2SO_4 in the presence of Hg^{++} is accelerated about 2.5 times when, instead of $HgSO_4$, mercusal, i.e., *o*-$[CH_2COOHgCH(CH_2OCH_3)CH_2NHCO]$-$C_6H_4OCH_2CO_2Na$, is used, about 7 times when Hg^{++} is adsorbed on WO_3, and about 9 times when mercusal is adsorbed on WO_3 or a cyclic org. compd. and then Hg^{++} is adsorbed on WO_3. The effect of cyclic compds. is greater the greater their mol. wt.; salicylic acid was the smallest and 1-phenyl-2,3-dimethyl-4-dimethylamino-5-pyrazolone the heaviest compd. Stable org. Hg compds. such as C_2H_5HgCl, $(C_2H_5)_2Hg$, $ClCH:CHHgCl$, $ClHgCH_2CHO$, etc., are less active than $HgSO_4$. The ratio of AcH to crotonaldehyde in the reaction product is high (over 50) and independent of the adsorbent. Adsorption of Hg^{++} on active C, SiO_2 gel, kaolin, etc., does not activate it. Adsorption of less than 0.005 g. of Hg^{++} by 1 g. of casein increases the activity of Hg^{++}, but casein has no effect at higher adsorbed amts. The activity of Hg^{++} adsorbed on casein and some WO_3 samples decreases when the ratio *r* of Hg to WO_3 increases; this shows that the "active ensemble" contains 1 ion of Hg (*C.A.* 39, 3722^9). In addn., some WO_3 samples give rise to a max. of activity at some small *r*, and one sample showed only this max.; from the *r* corresponding to the max. it is concluded that the "active ensemble" contains 2 Hg ions. The area of "migration cells" (*C.A.* 39, 3722^9) is calcd. for WO_3 and casein. The temp. coeff. of the reaction between 40° and 50° is smaller for Hg^{++} or WO_3 than for $HgSO_4$, and the activity of Hg^{++} on casein is independent of temp. Some adsorption isotherms for Hg^{++} on WO_3 are given. II. **Catalytic polymerization of acetylene to vinyl derivatives.** *Ibid.* 85-96.—R. N. Martinson and N. I. Kobozev. When C_2H_2 is brought into contact with a soln. of CuCl and NH_4Cl in HCl, a Cu compd. contg. about 4.3 C_2H_2 per 1 atom Cu is pptd. The condensation of C_2H_2 is accelerated 15-20 times by introducing active C in the above soln. The catalytic activity of an adsorbed Cu ion shows a max. when about 6 mg. Cu is adsorbed by 1 g. of C; this gives 4 for the no. of Cu ions in the "active ensemble." The "migration cells" on the C surface are 30×10^{-14} cm.^{2} in size. Silica gel, bentonite, etc., cannot be substituted for C. As it was believed that HCl is required only to keep CuCl in the soln., the catalytic activity of $CuSO_4$ + carbon in a neutral soln. was tested. This catalyst was as active as CuCl and formed "ensembles" contg. 4 Cu ions. For Cu adsorbed on C the temp. coeff. between 50 and 60° is less than without adsorbent. The lowering of the temp. coeff. by adsorption is typical for ionic catalysts.

J. J. Bikerman

PITSKHELAURI, Ye.N.; POSPELOVA, T.A.

Desulfurization with ozone of ligroin and kerosene distillates of Devonian oil from the Romashkino field. Izv. vys. ucheb. zav.; neft' i gaz 3 no.3:91-98 '60. (MIRA 15:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Romashkino region—Petroleum—Refining)

24786
S/152/61/000/006/001/003
B103/B206

11.1210

AUTHORS: Pitskhelauri, Ye. N., Pospelova, T. A., Kruglikova, V. S.

TITLE: Desulfurization of straight-run kerosene distillate by ozonization and adsorption

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, no. 6, 1961, 81-87

TEXT: Starting from the results of previous investigations (Ye. N. Pitskhelauri and T. A. Pospelova, Ref. 1: "Neft' i gaz", no. 4, 1960) and publication data (I. L. Gurevich et al., Ref. 2: Pererabotka nefti (Petroleum processing), t.2. Gostoptekhizdat, 1958, str. 158; L. G. Gurvich, Ref. 3: Nauchnyye osnovy pererabotki nefti (Scientific basis of petroleum processing), 1925, p. 515; Ye. N. Karaulova, Ref. 4: "Itogi nauki" (Results from Science), Chapter "Khimicheskiye nauki" (Chemical Sciences). Izd. AN SSSR, 1958, p. 130), the authors assumed that the method of the oxidation of sulfur containing fuel compounds by ozone with subsequent adsorption of the oxidation products, will considerably increase the effectiveness of desulfurization. The methods of ozonization and analyses were taken from a

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previous paper (Ref. 1). Characteristics of the investigated kerosene distillate of Devonian petroleum from Romashki: boiling temperature 155-255°C, density 0.802, total sulfur content 0.35%, iodine number 6.6. Alumosilicate catalyst, Cherenkov aluminum oxide, silica gel from the Voskresenskiy zavod (Voskresensk Plant), bentonite and activated charcoal were used as adsorbents. The distillate was oxidized with ozonized oxygen (ozone concentration about 0.5-1%) at room temperature in the presence of water (5:1). The adsorption of acid products and resins was made in a glass- and metal column, respectively. The rate of introduction of the distillate was 0.5-1.0 ml/min. In the case of bentonite, the distillate was previously rinsed with 10% NaOH solution at low temperature (0.5% of the weight of the distillate). Before the process, the adsorbents were roasted at t = 400-500°C. The adsorption effectiveness was judged by the relative consumption of the adsorbent A as ratio between the amount of adsorbent in g and the amount by weight of the refined distillate; A = g adsorbent/g distillate. The distillate was considered to be refined when its acid content amounted to 1-2 mg/100 ml, and the resin content did not exceed 3-5 mg/100 ml. The consumption of ozone and adsorbent was decisive in obtaining a suitable degree of desulfurization. Therefore, the authors investigated the effect of the ozonization intensity α (α = ozone adsorption/g sulfur) and relative consumption of the adsorbent A on the degree of desulfurization β ($\beta = S_{initial} - S_{rest}/S_{initial}$). When the ozonization intensity is varied between 1.7 and 4.0, the optimum result (β = 96% and A = 0.24) was reached at $\alpha = 3$. As shown in Table 2, silica gel and alumosilicate catalyst are the most effective adsorbents. Tables 5 and 6 show the changes of the distillate in the ozone-adsorption refining process. The authors summarize their results as follows: 1) The ozonization-adsorption process safeguards and ozonization intensity of 97% when using kerosene distillate. The ozone consumption amounts to about 10 kg per 1 t distillate, and the yield of the refined product to 97-98%. 2) The high effectiveness of the ozone-adsorption process is achieved by the interaction between the oxidation of sulfur containing compounds and the subsequent selective adsorption of the oxidation products, which results in considerable desulfurization and reduction of heat consumption during steaming of the adsorbent to between one fourth and one fifth (as compared with the method of direct adsorption, MNI imeni Gubkina (Moscow Petroleum Institute imeni I. M. Gubkin) (Ref. 2). 3) The ozone-adsorption process yields a product puri-

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Desulfurization of straight-run ...

fied to a higher degree (from acid compounds and resins) than the ozonization method, with a simultaneous reduction of the heat consumption to one tenth during the second processing of the distillate. 4) The oxidation products formed through the effect of ozone from sulfur containing compounds are selectively adsorbed to an almost equal degree by the two synthetic adsorbents (silica gel and alumosilicate catalyst); but the alumosilicate catalyst reduces the concentration of the peroxide compounds in the refined distillate four times more actively than silica gel. 5) The special tests of the refined distillate for stability showed that the distillate can be stored in daylight for two years without deterioration of its quality. Tests for thermal stability under dynamic conditions proved that the purification process described increases the stability of the distillate, specially at 150°C. Studies by Gal'pern and Novozhilova (Ref. 4) are mentioned. The specific surface of the adsorbent was determined by the senior staff member A. Ye. Agronomoy. Thermal stability was studied at the Nauchno-issledovatel'skiy institut goryuchikh i smazovykh materialov (Scientific Research Institute of Fuels and Lubricants) under the direction of senior staff member Z. A. Sablina. There are 1 figure, 7 tables, and 6 Soviet-bloc references.

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Desulfurization of straight-run ...

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

SUBMITTED: February 11, 1961

Legend to Table 2: (1) Adsorbent; (2) refined distillate, ml; (3) yield of distillate without steaming of the adsorbent, %; (4) degree of desulfurization, $\beta = S_{initial} - S_{rest}/S_{initial}$; (5) relative consumption of adsorbent A = g adsorb/g distillate; (6) silica gel; (7) alumosilicate catalyst; (8) aluminum oxide; (9) activated charcoal; (10) bentonite.

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POSPELOVA, T.A.; KOBOZEV, N.I.

Catalytic synthesis of hydrogen peroxide from the elements on palladium. Part 2: Active centers of palladium in the synthesis of H_2O_2. Zhur. fiz. khim. 35 no.3:535-542 Mr '61. (MIRA 14:3)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Palladium) (Hydrogen peroxide)

POSPELOVA, T.A.
Moscow State U imeni M.V. Lomonosov.

POSPELOVA, T.A.: "The catalytic cynthesis of hydrogen peroxide from its elements using palladium." Moscow State U imeni M.V. Lomonosov. Moscow, 1956. (Dissertation for the Degree of Candidate in Chemical Sciences)

SO: Knizhnaya Letopis', No. 20, 1956

S/152/60/000/004/003/003
B001/B054

AUTHORS: Pitskhelauri, Ye. N. and Pospelova, T. A.

TITLE: Desulfurization by Ozone of Ligroin- and Kerosene Distillates of Devonian Petroleum From the Romashki Deposit

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1960, No. 4, pp. 91 - 98

TEXT: Because of an increasing share of up to 75% of sulfurous petroleum in the total production of the USSR, the problem of efficient desulfurization of the above-mentioned distillates is of great importance. Considering the scientific and technical progress made in ozone production (Refs. 4-7), it is convenient to use this strongest oxidizing agent to desulfurize petroleum distillates. The present paper studies the ozonization- and temperature conditions, the nature of the gas to be ozonized, the water addition during oxidation of the sulfurous compound, and the formation of neutral and acid products during the desulfurizing experiments of the above distillates. The optimum ozonization temperature was,

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Desulfurization by Ozone of Ligroin- and Kerosene Distillates of Devonian Petroleum from the Romashki Deposit

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in general, between 10 and 20°C. The degree of desulfurization of the distillate depends on the intensity α of ozonization: $\alpha = g_{ozone}/g_{sulfur}$. In the case of kerosene- and ligroin distillates, the maximum desulfurization degree is attained at $\alpha = 5-6$. The efficiency of the desulfurizing method is determined by the desulfurization degree β (percentage ratio of the sulfur removed to its initial content). In the ozonization, not only the sulfurous but also the unsaturated compounds are oxidized, which increases the acidity and the resin content and makes a purification necessary (treatment with water, steam distillation of the ligroin distillate, or vacuum distillation of the kerosene distillate with addition of $Ca(OH)_2$ to bind the acid components). The sulfurous distillate may be oxidized by ozonized air or ozonized oxygen (a purely economic problem). If this process is conducted in the presence of water, it is possible to reduce the formation of resins and prevent the formation of electrostatic charges. The following was observed in the oxidation of the fraction distilling over between 135 and 235°C of the petroleum investigated which contained 0.14% of sulfur: 1) The light sulfurous

Desulfurization by Ozone of Ligroin- and Kerosene Distillates of Devonian Petroleum From the Romashki Deposit

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distillates are practically fully freed from all sulfurous compounds. 2) The purified product still contains 0.01-0.02% of sulfur, is free from resins, and shows an acidity of up to 1 mg of KOH per 100 ml, and an iodine number of 1.4. 3) The yield in purified distillate is 97% by volume; its mean molecular weight and boiling point remain unchanged. 4) Between 6 and 9 kg of ozone per 1 ton of raw distillate are used to desulfurize the light distillate (containing 0.14% of sulfur). There are 3 figures, 4 tables, and 14 references: 9 Soviet, 1 US, and 4 German.

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

SUBMITTED: July 20, 1959

Card 3/3

S/076/61/035/002/005/015
B124/B202

AUTHORS: Pospelova, T. A., Kobozev, N. I., and Yeremin, Ye. N.

TITLE: Catalytic synthesis of hydrogen peroxide from its elements on palladium. I. Conditions for the production of hydrogen peroxide.

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 2, 1961, 298-305

TEXT: A comparison of the free formation energies of water and hydrogen peroxide from their elements (-56.56 kcal for liquid water, and -28.23 kcal for liquid H_2O_2) shows that on catalysis the H_2-O_2 reaction may proceed in two directions, i.e.,

$$\begin{tikzcd}
H_2 + O_2 + (\text{catalyst } \Phi) \arrow[r, "\text{II}"] \arrow[dr, "\text{I}"'] & H_2O_2 \arrow[d, "\text{III}"] \\
 & H_2O
\end{tikzcd}$$

where, due to the low stability of the H_2O_2 molecules in the presence of the catalyst H_2O_2 and water are decomposed thus causing the masking of the second process. For this reason the authors studied the optimum conditions for the synthesis of

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H_2O_2 from the elements on palladium on the one hand and its decomposition at the same catalysts on the other. The detonating gas was catalyzed in a kinetic vessel of Shpital'skiy type. The time dependence of the H_2O_2 yield was studied on palladium black in a mixture of KCN(0.001 N) and sulfuric acid (0.1 N) as well as on aluminum gel (%Pd = 5.47). The gas mixture consisted of 20% hydrogen and air; the activity of the catalyst was measured from the absorption of 2 cm^3 of the mixture. The experimental results are given in Fig. 1. They indicate that in both cases (mainly in Pd/Al_2O_3) the H_2O_2 yield is strongly reduced with time although the absorption of the mixture continues (ΔV increases). In this case, the initial yield exceeds 80% on Pd black, i.e., almost pure H_2O_2 is formed. Hence H_2O_2 is formed as primary product of the catalysis of detonating gas. Its catalytic decomposition causes the formation of water. The authors studied the effect of a number of acids, mixtures of KCN with different acids, ammonia and Hg^{2+} solutions in H_2SO_4 (Table 1). Without introduction of catalyst poisons only water is formed. The most efficient inhibitor of H_2O decomposition is plumbic acid, followed by dilute HCl; the effect of the other acids is weaker while NH_3 and Hg^{2+} solutions inhibit both, formation and decomposition of H_2O_2. In this case, the acids do not enter an irreversible reaction and their decrease in quantity in the reaction is caused by absorption on the catalyst (Table 2). It was found that a) the stabilizing effect of HCN (Fig. 3) and HCl (Fig. 4) is especially marked at low concentrations and that it passes through an optimum; b) the optimum synthesis of H_2O_2 is achieved at a stoichiometric ratio of $H_2:O_2 = 1$, c) the H_2O_2 yield increases with increasing temperature (Table 4), and d) the acid carriers SiO_2 and WO_3 give higher H_2O_2 yields than the amphoteric Al_2O_3 (Table 5). The following scientists are mentioned: N. I. Kobozev and V. L. Anokhin (Ref. 3: Z. phys. Chem., Abt. B, 13, No. 1-2, 1931), M. V. Polyakov and collaborators (Ref. 4: Zh. fiz.-khimii, 7, 453, 1933; 8, 954, 1934; 6, 1241, 1249, 1932; Acta phys.-chim. URSS, 2, 211, 1935), N. D. Zelinskiy and M. B. Turova (Ref. 6: Ber. 18, 1884, 1885), P. M. Stadnik (Ref. 9: Dokl. AN SSSR, 87, 1952; Zh. fiz. khimii, 28, 1954), N. A. Bakh (Ref. 11: Trudy Bakha, no. 1, Abt. 2, Kap. 1, 1937), S. Levina and R. Rozentreter (Ref. 13: Zh. fiz. khimii, 13, 1939), A. I. Shlygin (Ref. 14: Uch. zap. Kazakhsk. un-ta, 13, 1951), D. V. Sokol'skiy and collaborators (Ref. 15:

Catalytic synthesis of hydrogen peroxide...

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Dokl. AN SSSR, 113, 1957; 493, 1954). There are 5 figures, 5 tables, and 17 references: 7 Soviet-bloc and 10 non-Soviet-bloc. 1 reference to English-language publications reads as follows: E. B. Maxted, L. K. Moon, E. Overgage, Disc. Faraday Soc., 8, 135, 1950).

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

SUBMITTED: May 14, 1959

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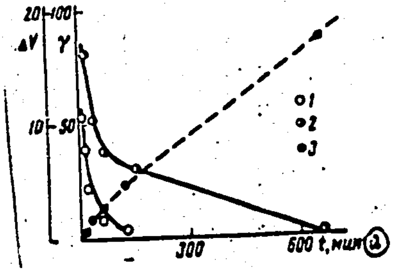
Catalytic synthesis of hydrogen peroxide...

Fig. 1: dependence of the H_2O_2 yield on the reaction time.
Legend: 1) H_2O_2 (γ) yield on the Pd/Al_2O_3-catalyst; 2) H_2O_2 (γ) yield on palladium black; 3) absorption of the gas mixture by palladium black (ΔV); a) t, min.



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Catalytic synthesis of hydrogen peroxide...

Legend to Table 1:
1) name of the poison; 2) concentration; 3) yield in H_2O_2; 4) total rate of catalysis of the poison in the solution; 5) without poison; 6) not determined; (A = total rate of catalytic conversion of detonating gas).

① Название яда	② Концентрация яда в растворе	③ Выход H_2O_2 т. %	④ Общая скорость катализа	
			A	$A_{H_2O_2}$
⑤ Без яда	0	0	0,59	0
HCN	0,0003N	51,7	0,11	0,06
KCN	0,0006N	37,0	0,05	0,02
KCN + H_2SO_4	H_2SO_4 — 0,075N KCN — 0,0003N	62,0	0,15	0,10
KCN + HNO_3	HNO_3 — 0,025N KCN — 0,0003N	59,0	0,20	0,13
KCN + HCl	HCl — 0,025N KCN — 0,0003N	58,3	0,12	0,08
H_2SO_4	0,03N	38,8	0,60	0,27
HNO_3	0,03N	40,0	0,65	0,30
HCl	0,03N	55,2	0,80	0,50
HBr	0,0003N	46,9	0,44	0,24
HJ	0,0002N	22,0	0,07	0,02
$(COOH)_2$	0,005N	25,0	0,50	0,16
CH_3COOH	0,040N	27,6	0,52	0,18
HCOOH	0,100N	22,0	0,51	0,14
C_6H_5OH	0,050N	⑥ Не опред.	0,67	—
NH_4OH	0,003N	0	0,05	0
$HgCl_2 + H_2SO_4$	$HgCl_2$ — 0,001N H_2SO_4 — 0,100N	0	0	0

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Catalytic synthesis of hydrogen peroxide...

Legend to Table 2: 1) moles; 2) g-atom.

① $\frac{H_2O_2 \text{ молей}}{Pd \text{ г-атом}}$ ②	① $\frac{H_2O_2 \text{ молей}}{HCN \text{ молей}} \cdot 10^3$ ①	① $\frac{H_2O_2 \text{ молей}}{Pd \text{ г-атом}}$ ②	① $\frac{H_2O_2 \text{ молей}}{HCl \text{ молей}} \cdot 10^3$ ①
2,73	24,6	20,3	0,076
2,90	6,54	41,1	0,031
3,41	2,00	46,9	0,018
5,30	0,76	58,7	0,007
5,30	0,19	68,3	0,005
5,81	0,10	66,1	0,003
4,78	0,02	61,3	0,001

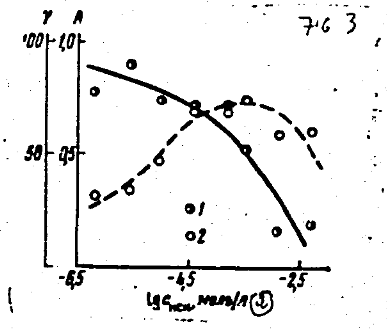

Fig. 3: Dependence of the total rate of catalytic conversion of detonating gas and the H_2O_2 yield on the concentration of HCN. Legend: 1) total rate of catalytic conversion (A); 2) H_2O_2 (γ) yield; a) mole/l.

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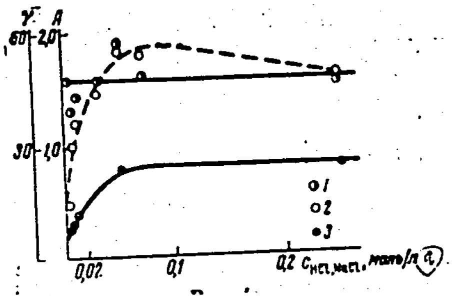
Catalytic synthesis of hydrogen peroxide...

Fig. 4: Dependence of the total rate of catalytic conversion of detonating gas and the H_2O_2 yield on the ratio $H_2:O_2$ in the gas mixture.
Legend: 1) total rate of catalytic conversion (A); 2) H_2O_2 (γ) yield; a) mole/l.



Legend to Table 4: 1) packing degree of the catalyst; 2) experimental temperature; 3) yield in.

① Степень заполнения катализатора, α	② Температура опытов, °C	③ Выход H_2O_2 γ, %	A	$A_{H_2O_2}$
0,0042	31	34,0	3,23	1,35
0,0098	35	33,0	3,83	1,52
0,0042	25	40,2	2,09	0,98
0,0098	25	41,6	3,57	1,73
0,0042	14	50,5	1,33	0,77
0,0098	14	51,7	2,30	1,33
0,0042	3,6	59,7	0,57	0,38
0,0098	3,6	59,6	1,24	0,82

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S/076/61/035/002/005/015
B124/B202

Catalytic synthesis of hydrogen peroxide...

Legend to Table 5: 1) % palladium; 2) carrier; 3) yield; 4) aluminogel; 5) tungsten trioxide; 6) carbon no. 1; 7) silicagel no. 1.

① % палладия	② Носитель	③ Выход H_2O_2 т. %	A	$A_{H_2O_2}$
0,07 0,28 0,72 1,11	④ Алюмогель	0 3,8 6,1 9,2	1,06 1,71 1,58 1,88	0 0,08 0,15 0,22
0,08 0,25 0,42 0,80 1,56	⑤ Вольфрамовый ангидрид	4,2 23,8 20,8 20,7 28,9	0,75 1,56 1,36 1,30 1,04	0,04 0,46 0,35 0,36 0,37
0,73 1,83	⑥ Уголь № 1	16,4 20,6	1,84 1,41	0,38 0,36
0,05 0,27 0,66 1,03	⑦ Силикагель № 1	28,1 37,2 34,7 30,7	3,11 3,49 3,42 3,11	1,07 1,54 1,42 1,15

Card 9/9

IOGANZEN, B.G.; LAPTEV, I.P.; POSPELOVA, V.M.; SLAVINA, T.P.; ARKHIPOVA, N.P.; BELOV, M.I.; BURCHAK-ABRAMOVICH, N.I.

Book reviews. Izv. Vses. geog. ob-va 96 no.6:528-534 N-O '64 (MIRA 18:1)

POSPELOVA, V.M.; KOVALENOK, A.V.

Morphology and biology of the gall gnat Dasyneura sibirica Marik. (Diptera, Itonididae) injurious to the yellow acacia. Nauch.dokl. vys.shkoly; biol.nauki no.4:20-24 '62. (MIRA 15:10)

1. Rekomendovana kafedroy zoologii bespozvonochnykh Tomskogo gosudarstvennogo universiteta im. V.V.Kuybysheva.

[illegible] (SIBERIA, WESTERN--GALL GNATS)
(SIBERIA, ESTERN--ACACIA--DISEASES AND PESTS)

1. Pospelova, V.M.

2. USSR (600)

4. ASINO DISTRICT - AGRICULTURAL PESTS

7. Material for studying harmful agricultural pests of Asino District (Tomsk Province). Trudy Tomsk. un. 114, 1951.

9. <u>Monthly List of Russian Accessions</u>. Library of Congress, March 1953 Unclassified

1. POSPELOVA, V. M.

2. USSR (600)

4. Agricultural Pests-Asino District

7. Material for studying harmful agricultrual pests of Asino District (Tomsk Province). Trudy Tomsk.un. 114, 1951.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

POSPELOVA, V. M.

6836. Pospelova, V. M. Opyt nashey krolikovodcheskoy fermy.
(kolkhoz "Put' k kommunizmu". Grigor'ev. Rayona. Lit. zapis' A. A.
Shilova). Molotov, Kn. izd., 1954. 23 s s. ill. 20 sm. (Uchastnik
Vsesoyuz. s.-kh. vystavki). 51000 ekz. 25 k.--(55-2168)
636.92.083 st (47.813)

SO: Knizhnaya Letopis' No. 6, 1955

USSR / General and Special Zoology. Insects. Insect and Mite Pests. P

Abs Jour: Ref Zhur-Biol., No 12, 1958, 54349.

Author : Pospelova, V. M.
Inst : Tomsk Univ.
Title : The Click Beetles of the Forest Zone of Western Siberia.

Orig Pub: Tr. Tomskogo un-ta, 1956, 142, 195-200.

Abstract: This article deals with the species composition of click beetles (35 species) in the southern areas of the Tomskaya Oblast. The article gives the distribution of the species according to three biotypes, the characteristic of the destructive activity of the larvae, and the phenology of the dark click beetle (Agriotes obscurus). The results of the application of poisoned bait and of seed dusting with hexachlorocyclohexane are also given.

Card 1/1

KUDRYASHEV, L. I.; FOSPELOVA, V. T.

"Application of variational methods to solution of unsteady heat-conduction problems for different boundary conditions."

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

Kuybyshev Aviation Inst.

POSPELOVA, V.V.

Biological characteristics of diphtherial bacteriophages. Report No.2: Adsorption capacity of bacteriophages; properties of secondary phage-resistant strains of Shigella; antigenic properties of phages. Zhur. mikrobiol. epid. i immun. 29 no.11:90-95 N '58. (MIRA 12:1)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.
(BACTERIOPHAGE,
of Shigella, adsorption, phage-resist., & antigenic properties (Rus))
(SHIGELLA,
bacteriophage, adsorption, phago-resist., antigenic properties (Rus))

USSR/Virology - Bacterial Viruses (Phages). E

Abs Jour : Ref Zhur Biol, No 6, 1959, 23779

Author : Pospelova, V.V.
Inst : -
Title : Biological Peculiarities of Diphtherial Bacteriophages. Report I: Obtaining of Phages from Patients. The Range of Action and Stability to Inactivating Agents.

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol., 1958, No 6, 43-49

Abstract : In an investigation of 32 washings, obtained from the fauces of 23 patients with diphtheria, for the presence of diphtherial bacteriophage, it was possible to isolate phages in three washings; in one patient once and in another twice. The discovery of phage in patients coincided with the period of recovery. The phages isolated from patients (B, Ip, In) as well as from cultures (C, Cp) were active against a majority of tested

Card 1/2

USSR/Virology - Bacterial Viruses (Phages). E

Abs Jour : Ref Zhur Biol., No 6, 1959, 23779

cultures of gravis type and lysed an insignificant part of cultures of mitis type. A relation between the toxicity of diphtherial cultures and their stability to phages was not discovered. Tested bacterial phages inactivated quickly: in acid buffer solution after heating to 55°, under influence of UV-rays. After irradiation with visible light, phages, inactivated by UV-rays, reactivated partially. With a midium pH within the limits of 7.4 - 8.6, phages stably preserved activity. -- Ya.I. Rautenshteyn

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and levomycin) did not reveal any lysogenic effect of the

Card 1/2 UDC: 576.851.49.095.877:576.858.9

ACC NR: AP6024441

M-phage on either *S. gallinarum* or *S. typhimurium*. Since all group B *Salmonellae* containing 01 antigen are lysogenic, it is obvious that the phage controlling the occurrence of the 01 component in *S. typhimurium* (group B) cannot be related to M-phage, which causes formation of the 01 antigen in *S. gallinarum* (group D); this antigen must be controlled by different factors in the two bacteria. [WA-50; CBE No. 11]

SUB CODE: 06/ SUBM DATE: 14Oct65/ ORIG REF: 004/ OTH REF: 006/
ATD PRESS: [WA-50; CBE No. 11]

Card 2/2

DAVYDOVA, N.V.; POSPELOVA, V.V.; TELITCHENKO, M.M.

Interrelations between algae and micro-organisms. Report No. 3: The effect of Chlorella vulgaris and Scenedesmus obliquus algae on the survivability of bacteriophages to Salmonella typhimurium. Biul.eksp.biol.i med. 54 no.11:84-87 N '62. (MIRA 15:12)

1. Iz Biologo-pochvennogo fakul'teta Moskovskogo ordena Lenina i ordena Trudovogo Krasnogo Znameni Gosudarstvennogo universiteta imeni Lomonosova. Predstavlena deystvitel'nym chlenom AMN SSSR N.N.Zhukovym-Verezhnikovym.

(ALGAE) (SALMONELLA) (BACTERIOPHAGE)

PETROVSKAYA, V.G.; PROZOROVSKIY, S.V.; CHZHOU GUAN'-YUAN' [Chou Kuan-yuan];
POSPELOVA, V.V.

Auxotrophic variants of Salmonella typhimurium obtained under the effect of ultraviolet rays. Report No.2: Studies on virulent and immunogenic properties. Zhur. mikrobiol., epid. i immun. 33 no.7:116-122 Jl '62. (MIRA 17:1)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

POSPELOVA, V.V.

Biological characteristics of diphtherial bacteriophages. Report No.1: Obtaining phages from patients; range of action and resistance to inactivating agents. Zhur.mikrobiol.epid. i immun. 29 no.6:43-49 Je '58 (MIRA 11:7)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

(CORYNEBACTERIUM DIPHTHERIAE,
  bacteriophage, detection in patients (Rus))
(BACTERIOPHAGE,
  of Corynebacterium diphtheriae, detection in patients (Rus))

POSPELOVA, V.V.

Electron microscopic investigation of diphtherial bacteriophages.
Zhur.mikrobiol.epid. i immun. 30 no.2:40-44 F '59.
(MIRA 12:3)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

(BACTERIOPHAGE,
of Corynebacterium diphtheriae, electron microscopy (Rus))
(CORYNEBACTERIUM DIPHTHERIAE,
bacteriophage, electron microscopy (Rus))
(MICROSCOPY, ELECTRON,
of Corynebacterium diphtheriae bacteriophage (Rus))

POSPELOVA, V. V.: Master Med Sci (diss) -- "Properties of diphtheria bacteriophages". Moscow, 1959. 16 pp (Acad Med Sci USSR, Inst of Epidemiology and Microbiology im Honorary Acad N. F. Gamaleya), 200 copies (KL, No 13, 1959, 113)

POSPELOVA, Ye.

Development of the meat and dairy industry. Vop.ekon. no.1:135-140 Ja '59. (MIRA 12:1)
(Meat industry) (Dairy industry)

POSPELOVA, Ye.; VASIL'YEVA, Ye.

Economic conference of industrial and academic workers in the Kiev District of Moscow. Vop.ekon. no.8:146-148 Ag '60. (MIRA 13:7)
(Moscow--Costs, Industrial)

POSPELOVA, Ye.

Concentration and specialization of the food industry. Vop. ekon. no.4:140-146 Ap '62. (MIRA 15:4)

(Food industry)

[illegible]

POSPELOVA, Yevdokiya Alekseyevna; OPATSKIY, L.V., otvetstvennyy red.;
KONYUKHOV, V.D., red.izd-va; MOSKVICHEVA, N.I., tekhn.red.

[Main problems of the distribution of the Soviet dairy industry]
Osnovnye voprosy razmeshcheniia molochnoi promyshlennosti SSSR.
Moskva, Izd-vo Akad. nauk SSSR, 1958. 167 p. (MIRA 11:3)
(Dairying)

POSPELOVA, YE A

Rukovodstvo dlya sborshchikov moloka. Moskva, Pishchepromizdat, 1955.
55 p. diagrs., tables.

L 39433-65

ACCESSION NR: AP5007668 S/0020/65/160/006/1434/1436

12

AUTHOR: Stepanyan, Ye. P.; Geselevich, Ye. L.; Pospelova, Ye. P.; Bakulev, A. N.

B

TITLE: Investigation of oxidative phosphorylation in heart muscle under artificial blood circulation conditions

SOURCE: AN SSSR. Doklady, v. 160, no. 6, 1965, 1434-1436

TOPIC TAGS: dog, oxidative phosphorylation, heart, muscle, heart stoppage, induced hypothermia, artificial blood circulation, oxygen intake, adenosine triphosphate

ABSTRACT: Oxidative phosphorylation changes were investigated in heart muscle of dogs after prolonged stoppage of the heart in two experimental series. In both series, experimental animals were anesthetized and stoppage of the heart and coronary perfusion of 60 min duration were conducted under artificial blood circulation. The first series was staged under moderate hypothermic conditions with heart stoppage induced by cold, and the second series was staged under normal temperature conditions with heart stoppage induced

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ACCESSION NR: AP5007668 0

electrically. Control animals in the first group were killed immediately after anesthesia, and control animals in the second group were killed after 1 hr of anesthetization combined with a thoracotomy and cannulation. Oxidative phosphorylation was determined in heart muscle tissue before and after incubation. Oxygen intake was measured by Warburg's manometric method. The incubation mixture consisted of a potassium-phosphate buffer 1/15 M, $MgCl_2$ 0.01 M, and succinate 0.04 M. The phosphate acceptor system consisted of adenosine triphosphate 0.01 M, glucose 0.01 M, and hexokinase 2 mg for an incubation mixture of 2 ml and a tissue suspension of 400 mg. Incubation time was 20 min. Oxygen intake, inorganic phosphorus level, and the phosphorus-oxygen ratio served as indices. Adenosine triphosphatase activity in the tissue and adenosine triphosphate in the blood were also determined. Findings show that oxidative phosphorylation in heart muscle, after prolonged stoppage of the heart and with artificial blood circulation, is reduced under conditions of moderate hypothermia and normal temperature. No correlation was found between decrease in oxygen intake and phosphorylation as observed in the control groups. Adenosine triphosphatase activity was also significantly reduced, with the reduction higher under

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ACCESSION NR: AP5007668

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conditions of moderate hypothermia than under normal temperature. Results indicate that despite coronary perfusion, prolonged stoppage of the heart with artificial blood circulation leads to significant changes of energy exchange processes in the heart muscle and this may contribute to malfunctioning of myocardium contraction. Orig. art. has: 2 figures.

ASSOCIATION: Institut serdechno-sosudistoy khirurgii Akademii meditsinskikh nauk SSSR (Institute of Cardiovascular Surgery of the Academy of Medical Sciences SSSR)

SUBMITTED: 05Jun64 ENCL: 00 SUB CODE: LS

NR REF SOV: 007 OTHER: 005

Card 3/3

STEPANYAN, Ye. P.; TAMARKINA, E.D.; POSPELOVA, Ye.P.

Significance of determining creatine phosphokinase for the early diagnosis of myocardial infarct. Kardiologiia 4 no.4:
27-30 Jl-Ag '64 (MIRA 19:1)

1. Biokhimicheskaya laboratoriya (zav. - prof. Ye.P. Stepanyan) i sosudistoye otdeleniye (zav. - prof. Yu. Ye. Berezov) Instituta serdechno-sosudistoy khirurgii (direktor - prof. S.A. Kolesnikov; nauchnyy rukovoditel' - akademik A.N. Bakulev) AMN SSSR, Moskva. Submitted August 15, 1963.

POSPELOVA, Ye.P.

Comparison of the transaminase level and antitoxic function of the liver in patients with mitral heart defects. Khirurgiia 36 no.7:124-126 Je '60. (MIRA 13:12)
(TRANSAMINASE) (LIVER) (MITRAL VALVE—DISEASES)

POSPELOVA, Ye.P.

Study of the activity of serum lactic dehydrogenase and the antitoxic liver function in patients with mitral heart defects prior to and after commisurotomy. Grud. khir. 5 no.2:44-47 Mr-Ap'63 (MIRA 17:2)

1. Iz biokhimicheskoy laboratorii (zav. - prof. Ye.P. Stepanyan) Instituta serdechno-sosudistoy khirurgii (direktor - prof. S.A. Kolesnikov, nauchnyy rukovoditel' - akademik A.N.Bakulev) AMN SSSR. Adres avtora: Moskva, V-49, Leninskiy prosp., d.8. Institut serdechno-sosudistoy khirurgii AMN SSSR.

POSPELOVA, ~~Ye.P.~~

Functional state of the liver in patients with mitral heart defects before and after surgery. Khirurgiia 35 no.9:46-52 '59. (MIRA 13:12)

(MITRAL VALVE--DISEASES) (LIVER)

POSPELOVA, YE. S.

USSR/Metals - Lead, Antimony Alloys Analysis Jan 50

"Determination of Small Quantities of Nickel in Antimony and Lead-Antimony Alloys," O. P. Azrel'yan, A. S. Andreyev, Ye. S. Pospelova, Sci Res Btry Inst, 1 p

"Zavod Lab" Vol XVI, No 1

Offers new method for determining nickel in antimony without its separation and simple and very sensitive method for determining very small amounts of nickel in lead-antimony alloys. Latter method employs electrolysis for eliminating lead from solution. One case of analysis by this method gave results: 0.0013, 0.0011, 0.0013, and 0.0013% of nickel.

PA 159T53

POSPELOVA, Ye. S.

USSR/Chemistry - Nickel Lead-Acid Storage Batteries Nov/Dec 51

"Determination of Small Admixtures of Nickel in Lead and Active Substances of the Lead-Acid Storage Battery," A. S. Andreyev, O. P. Azrel'yan, Ye. S. Pospelova, Sci Res Storage Battery Inst, Leningrad

"Zhur Analit Khim" Vol VI, No 6, pp 375-382

Finding method given in GOST 2076-43 inadequate for detn of Ni in Pb, proposes new method. Sepd Ni by electrolytic pptn of Pb as dioxide, making copptn of Ni impossible; detd Ni colorimetrically with dimethylglyoxime; found max concns of Pb, Cu, Fe not interfering with reactions and optimum conditions for reaction. Worked out method for soln of active substances of storage battery using Feigl's reaction. Proposed method for detn of small amts of Ni in Pb and active mass of storage battery.

PA 195T34

POSPELOVA, Yevdokiya Alekseyevna; SLASTENKO, Yevgeniy Naumovich;
MAYEVSKIY, I.V., doktorekon. nauk, otv. red.; MAZOVER,
Ya.A., red. izd-va; SHEVCHENKO, G.N., tekhn. red.

[Production specialization in the food and light industries] Spetsializatsiia proizvodstva v pishchevoi i legkoi promyshlennosti. Moskva, Izd-vo AN SSSR, 1963. 310 p.
(MIRA 17:2)

KUSOV, V.N.; POSPELOVA, Z.K.; PETESHEV, V.M.

Changes in the blood and urine of animals infected with tick-borne paralysis. Trudy Inst.zool.AN Kazakh.SSR 12: 226-235 '60. (MIRA 13:7)

(Ticks as carriers of disease)
(Blood—Analysis and chemistry)
(Urine—Analysis and pathology)
(Veterinary medicine)