AKIMOVA L.N

AKIMOVA, L.N.; KIRYUKHINA, Z.V. [deceased].

Protein microstructure models. Part 2: Preparation of N-aminoacyldiketo-
piperazines from imino-ester (o,o-dibenzyl-2,5-dihydropyrazine).
Zhur.ob.khim. 27 no.7:1917-1921 Jl '57.   (MIRA 10:10)

1.Moskovskiy gosudarstvennyy universitet.
              (Piperazine)   (Pyrazine)

AKIMOVA L. N.

AKIMOVA, L.N.; GAVRILOV, N.I.; AKIMOVA, A.A.

On some properties of N-benzylated peptides. Part 2. Zhur. ob.
khim. 27 no.8:2268-2273 Ag '57.   (MIRA 10:9)

1. Moskovskiy gosudarstvennyy universitet.
                              (Peptides)

SOV/55-58-1-1/33

AUTHORS: Vovchenko,G.D., Gavrilov,N.I.,and
              Akimova,L.N.

TITLE: The Albumen Problem From the Point of View of Modern Sciences
              (Problema belka v svete nekotorykh dannykh sovremennoy nauki)

PERIODICAL: Vestnik Moskovskogo universiteta, Seriya fiziko-matematicheskikh i
              yestestvennykh nauk, 1958, Nr 1, pp 3-22 (USSR)

ABSTRACT: The paper gives a detailed survey of the modern state of research
              of albumen. The albumen problem is denoted to be the central
              question of philosiphy and natural sciences, where numerous
              extracts from the "dialectics of the nature" of Engels as well as
              several citations of Lenin shall certify this point of view. In
              connection with the political tendency of the article is the
              special consideration of the Soviet research of albumen. The authors
              mention: Zelinskiy,N.D. and his school (chemistry of amino acids
              and other products of the albumen hydrolysis), Gavrilov,N.I. (form
              of albumen moleoules), Talmud,D.L. (legalities of the structure
              of globular albumens), Kargin,V.A., Vilenskiy,V.A. (physical
              chemistry of albumens), Belozerskiy,A.N., Prokof'yev,M.A.,
              Mançylov,S.Ye.(nuoleoproteids), Kedrovskiy, B.V., Rumyantsev,A.V.,
              Nasonov,D.N. (morphology and physiology of the cellular structure

Card 1/2

The Albumen Problem From the Point of View of Modern Sciences SOV/55-58-1-1/33

of albumens), Engel'gardt,V.A., Lyubimova,M.N.(demounting of
albumen in muscles), Pavlov,I.P., Danilevskiy,A.Ya., Bakh,A.N.,
Blagoveshchenskiy,A.V. (ferments and their synthesis), Pryanishnikov
D.N. (change of nitrogen of plants), Orekhovich,V.N. (cellular
albumen), Konikova,A.S., Kritsman,M.G. (changes of albumen as
a carrier of life).
There are 48 references, 31 of which are Soviet, 2 Swiss, 8 German,
5 American, 1 Italian, and 1 Swedish.

ASSOCIATION: Laboratoriya khimii belka imeni akad. N.D.Zelinskogo (Laboratory
of Albumen Chemistry imeni Academician N.D.Zelinskiy)
SUBMITTED: August 29, 1957

Card 2/2

AKIMOVA L.N.

79-2-26/64

AUTHORS: Akimova, L. N. , Kuranova, I. P. , Gavrilov, N. I.

TITLE: On the Models of Protein Microstructure (O modelyakh mikrostruktur
               belka) III. On the Structure of Phenylalaninanhydride Derivatives
               (III. O strukture proizvodnykh fenilalaninangidrida)

ABSTRACT: In the preceding report it was shown that the formation of N-amino-
               acylderivatives of phenylalaninanhydride takes place especially
               smoothly and with a good yield, when the phenylalaninanhydride is
               acted upon by chlorine anhydrides of amino acids (reference 1).
               Formerly, in the investigation of the behavior of N-aminoacyl deri-
               vatives of glycine anhydride, their extraordinary stability in an
               alkaline medium and a peculiar behavior toward the influence of
               hydrazine were emphasized (reference 2). This resulted in the fol-
               lowing: 1) The addition of hydrazine to the CO-groups of the phtha-
               lyl protection in the performance of the reaction in the cold in
               ether or alcohol; 2) the splitting off of the phthalyl group on
               heating in alcohol and 3) the splitting of the diketopiperazine
               ring with the formation of phthalyltripeptide-hydrazide, without a
               breaking of the acyl bond. In the present work the properties of
               the phenylalaninanhydride derivatives were investigated and their
               easy hydrolyzation under the influence of aqueous and alcoholic

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79-2-26/64

On the Models of Protein Microstructure. III. On the Structure of Phenylalanin-anhydride Derivatives

alkali-solutions and hydrazine was shown. Thus the influence of the aminoacid composition, as well of the anhydride as of the acyl group upon the properties of these derivatives was for the first time observed in the example of the aminoacyl derivatives of two anhydrides (glycine anhydride and phenylalanine anhydride). The influence exerted by the aminoacid composition upon the stability of the N-aminoacyl- as well as the acyclic bonds was noticed in the investigation of the properties of the aminoacid anhydride derivatives synthesized by the authors. It was found that the stability of the cyclic bond in aminoacyl anhydrides is not only dependent on the aminoacid composition of the anhydride but also on the amino acids which are contained in the amine-acyl-side group. In contrast to the easily decomposing aminacyl derivatives of phenylalaninanhydride the same glycine anhydride derivatives (according to their aminoacid composition of the aminacyls) are extremely stable. Thus the stability of the NH-CO-linkage is different in an isolated cycle and in a cycle with the N-aminoacyl linkage and depends on the amino acids which are contained in the cycle of the aminoacyl group. The stability of the N-acyl- and N-aminoacyl linkages directly depends on the aminoacid composition of the anhydride. It becomes especially obvious in the investigations of the interaction

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79-2-25/64

On the Models of Protein Microstructure. III. On the Structure of Phenylalanin-anhydride Derivatives

products of the anhydride derivatives with hydrazine. The N-amino-acyl form of the linkage, as one of the chemical compounds of di-ketopiperazine with amino acids and their derivatives, cannot be investigated separately, isolated from the amino acids which parti-cipate in their formation. Summary: 1) The synthesis of the N-amino-acyl derivatives of the phenylalaninanhydrides was described: N,N'-di-phthalyl glycyl- and N,N'-di-phthalylalanyl-phenylalanylanhydri-de. 2) The earlier expressed assumption on the mechanism of the elimination of the N-aminoacyl group from these compounds under the influence of hydrizine was confirmed. 3) The authors investi-gated their behavior under the conditions of the biuret reaction of protein (4 % NaOH). The authors showed their decomposition under the influence of alkali, to phthaloylglycyl-phenylalanyl-phenylala-nine and phthaloyl-alanyl-phenylalanyl-phenylalanine. 4) On the basis of titration values (according to Vil'shtetter) a decompo-sition scheme of N-N'-di-phthalylvalyl-phenylalanine anhydride under the influence of alkali was suggested. There are 1 table, and 4 references, all of which are Slavic.

Card 3/4

79-2-26/54

On the Models of Protein Microstructure. III. On the Structure of Phenylalanin-
anhydride Derivatives

ASSOCIATION: Moscow State University
                (Moskovskiy gosudarstvennyy universitet)

SUBMITTED: January 7, 1957

AVAILABLE: Library of Congress

Card 4/4

AKIMOVA, L.N.

Diketopiperazines, structural elements of the protein molecule
(diketopiperzine theory of protein structure). Khim.belka no.1:
35-88 '61.   (MIRA 15:1)

(Proteins) (Piperazine)

AKIMOVA, L.N.

Bonds formed between diketopiperazines and amino acids. Khim.belka
no.1:89-140 '61.   (MIRA 15:1)
          (Proteins) (Piperazine) (Amino acids)

AKIMOVA, L.N.

Fermentation of diketopiperazines. Khim.belka no.1:245-255 '61.
(MIRA 15:1)

(Piperazine) (Fermentation)

GAVRILOV, N.I.; GRIGOR'YEVA, I.P.; AKIMOVA, L.N.; YEROKHIN, V.K. [deceased]

Certain properties of trityl peptides.   Zhur. ob. khim. 31 no.3:739-
742 Mr '61.   (MIRA 14:3)

1. Moskovskiy gosudarstvennyy universitet.
            (Peptides)

20742

S/020/61/137/002/016/020
B103/B215

// P200

AUTHORS: Stesik, L. N., Akimova, L. N., and Apin, A. Ya.

TITLE: Determination of the width of the reaction zone, and the
             parameters of the detonation wave of a compact explosive

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 2, 1961, 369-371

TEXT: The authors measured the width of zone a of the chemical reaction
and detonation wave of a compact explosive with practically optimum density
(1.58 g/cm^3), namely H (N) ballistite powder with a nitroglycerin content of
approximately 27%. The charges had a diameter of 40 mm and a height of
60 mm. The powder was fired by a lensshaped charge guaranteeing a plain
detonation front. The detonation velocity was 7010 m/sec. The zone width
is the distance between the front of the shock wave and the Chapman-Jouguet
plane. The authors determined the zone width by the methods of R. Duff,
E. Houston (Ref. 1: J. Chem. Phys., 23, 1263 (1955))and A. N. Drëmin,
P. F. Pohkil, (Ref. 2: DAN, 127, no. 6, 1245 (1959)), in which first the
shape of mass velocity u is determined by an aluminum plate moved by the

Card 1/5

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Determination of the width...

S/020/61/137/002/016/020
B103/B215

explosion. If the shock adiabatic of the metal, and the detonation velocity are known, a can be calculated from the formula

$$a = b \frac{(D - V)(u + c - D_1)}{D_1(u + c - V)} \quad (1),$$

where b denotes the thickness of the metal plate, at which a discontinuity on the curve $u = f(\delta)$ occurs; D is the detonation velocity, D_1 the average velocity of the shock wave in section b of the metal, V the average velocity of the moving boundary between explosive and metal, u and c velocities of mass and sound in the metal with a depth of b. The discontinuity of curve $u = \varphi(\delta)$ (δ - thickness of the metal) has been experimentally proved. The mass velocity of the metal at this point is determined by pressure and mass velocity of the detonation products in the Chapman-Jouguet plane of the detonation wave. The authors used 0.3-5 mm aluminum plates, whose shock adiabatic was known. Table 1 and Fig. 1 give the experimental results. The values of mass velocity of the aluminum adjacent to the powder was

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Determination of the width...

S/020/61/137/002/016/020
B103/B215

calculated from the known shock adiabatics. The authors found the discontinuity of the curve $u = \varphi(\delta)$ to occur at a plate thickness of 0.85 mm. $D_1 = 7520$ m/sec, $V = 1730$ m/sec, $u = 1360$ m/sec, $c = 7590$ m/sec. Hence, a reaction zone width of 0.12 ± 0.4 mm was obtained. In formula (1), however, the rebound of the detonation wave on the boundary between explosive and metal is not taken into account. The authors determined the width of the non-disturbed reaction zone of powder N on the basis of the function of Ref. 2 which gives the relation between the measured value of a and the dynamic rigidity of explosive and metal (the dynamic rigidity is the product of initial density and velocity of the shock wave $(\rho_o D)$). The above width is 0.15 ± 0.5 mm. On the basis of their experiments, the authors determined the polytropic curves of the detonation products (for method of calculation see Ref. 6: A. N. Drëmin et al., DAN, 128, no. 5, 989, 1959):
$P = 2.4 \cdot 10^{10}\rho^{2.80}$ bar (2). The values characterizing the state of the substance in the Chapman-Jouguet plane are: $P = 204 \cdot 10^9$ bar, $\rho = 2.14$ g/cm³, $c = 5160$ m/sec, $u = 1840$ m/sec. Since the average value $\overline{u}$ in the reaction zone is 1.25 times as high as u in the above plane, the authors calculated

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B103/B215

Determination of the width...

the duration of the chemical reaction of powder N in the detonation wave as
follows: $t = a/(D - \bar{u}) = 3.3 \cdot 10^{-8}$ sec. According to their calculations,
the critical diameter d_{cr} of the powder N is 28 mm. They proved d_{cr}/a to
be approximately 200. Since the detonation velocity of compact powder does
not depend on the diameter of the charge, critical and ideal velocities
practically do not differ. Hence, the authors conclude that the detona-
tion vanishes without ejecting the incompletely reacting substance from the
reaction zone. This vanishing is caused by radial expansion of the detona-
tion products occurring along the edges of the charge. It is known
(Ref. 8, H. Eyring, R. Powell et al., Chem. Rev., 45, 69, 1949) that the
detonation front is bent due to this expansion, i.e., the smaller the
radius of the charge, the more it is bent. The current of substance is
diverged when passing the bent front. This means that the radial expansion
of the substance behind the front of the convex detonation wave covers the
whole cross section of the charge, irrespective of the distance covered by
the dispersion wave. A certain curvature of the front causes the pressure
to decrease to an extent which stops further expansion of the detonation.

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Determination of the width... `

S/020/61/137/006/016/020
B103/B215
20742

There are 1 figure, 1 table and 10 references: 8 Soviet-bloc.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences)

PRESENTED: October 29, 1960 by V. N. Kondrat'yev, Academician

SUBMITTED: October 26, 1960

Card 5/5

AKIMOVA, L. N.

GOFMAN, A.; FREY, A.I.; RUTSHMANN, I.; OTT, Kh.; SHEMYAKIN, M.M.; KISHFALUDI, L.; KOCHETKOV, N.K.; DEREVITSKAYA, V.A.; PROKOF'YEV, M.A.; SHABAROVA, Z.A.; FILIPPOVA, L.A.; SHANKMAN, S.; KHAYGA, S.; LIV, F.; ROBERTS, M.Ye.; GAVRILOV, N.I.; AKIMOVA, L.N.; KHLUDOVA, M.S.; MAKSIMOV, V.I.; IZELIN, B.M.; SHEPPARD, R.K.; SHKODINSKAYA, Ye.N.; VASINA, O.S.; BERLIN, A.Ya.; SOF'INA, Z.P.; LARIONOV, L.F.; KNUNYANTS, I.L.; GOLUBEVA, N.Ye.; KARPAVICHUS, K.I.; KIL'DISHEVA, O.V.; MEDZIGRADSKIY, K.; KAFTAR, M.; LEV, M.; KORENSKI, F.; BUASSONA, R.A.; GUTTMAN, St.; KHOYGENIN, R.L.; ZHAKENO, P.A.; BAZHUS, S.; LENARD, K.; DUAL'SKI, S.; SHREDER, Ye.; SHMIKHEN, R.; KHOKHLOV, A.S.

Results of the Fourth European Symposium on the chemistry of peptides. Abstracts of reports. Zhur. VKHO 7 no.4:468-476 '62.

(MIRA 15:8)

1. Aktsionernoye obshchestvo "Sandos", Bazel', Shveytsariya (for Gofman, Frey, Ott, Rutshmann). 2. Farmatsevticheskaya fabrika "G.Rikhter", Budapesht, Vengriya (for Kishfaludi, Korenski, Dualski). 3. Institut khimii prirodnykh soyedineniy AN SSSR, Moskva (for Kochetkov, Derevitskaya, Shemyakin, Khokhlov). 4. Laboratoriya khimii belka Moskovskogo gosudarstvennogo universiteta (for Prokof'yev, Shabarova, Filippova, Gavrilov, Akimova, Khludova). 5. Fond meditsinskikh issledovaniy, Passadena, Kaliforniya, Sev.Soyed.Shtaty Ameriki (for Shankman, Khayga, Liv, Roberts). 6. Laboratoriya khimii belka Instituta organicheskoy

AKIMOVA, L.N.; KORSUNSKAYA, L.O.

Effect of the combined protection of amine group in peptides on their properties. Zhur.ob.khim. 32 no.9:2809-2812 S '62.

(MIRA 15:9)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
        (Peptides)   (Amines)

PONOMAREV, V.V.; ALEKSEYEVA, T.A.; AKIMOVA, L.N.

Heats of combustion of some peptides. Zhur. fiz. khim. 36 no.4:872-873 Ap '62.

(MIRA 15:6)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Heat of combustion) (Peptides)

PONOMAREV, V.V.; ALEKSEYEVA, T.A.; AKIMOVA, L.N.

Heats of combustion of some anhydrides. Zhur.fiz.khim. 36
no.5:1083-1085 My '62.   (MIRA 15:8)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
                (Anhydrides) (Heat of combustion)

AKIMOVA, L.N.; GOLUBOVSKAYA, L.Ye.

Aminoacyl derivatives of amino acid anhydrides. Vest.Mosk.un.Ser.2:
Khim. 18 no.2:49-52 Mr-Ap '63.
                                                        (MIRA 16:5)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.
                                        (Amino acids)

AKIMOVA, A.A.; AKIMOVA, L.N.

Behavior of some dipeptides in prolorged thermal extraction with organic solvents. Vest. Mosk. un. Ser. 2: Khim. 18 no.5:62-64 S-O '63.   (MIRA 16:11)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.

S/076/63/037/001/026/029
B101/B186

AUTHORS: Po[n]omarev, V. V., Alekseyeva, T. A.; Akimova, L. N.

TITLE: Heats of combustion of valyl phenyl alanine, phenyl alanyl
              anhydride, and glycyl valyl anhydride

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 1, 1963, 227 - 228

TEXT: The heats of combustion were determined by a microcalorimeter for valyl phenyl alanine, phenyl alanyl anhydride, and glycyl valyl anhydride that had been chromatographically tested for purity. Results: valyl phenyl alanine, m.p. 236 - 237°C, ΔH = -1816.84 $\pm$ 0.36; phenyl alanyl anhydride, m.p. 290 - 291°C, ΔH = -2239.01 $\pm$ 0.22; glycyl valyl anhydride, m.p. 250 - 251°C, ΔH = -948.05 $\pm$ 0.16 kcal/mole. There is 1 table.

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

SUBMITTED: August 30, 1962

Card 1/1

BORISOVA, A.P.; AKIMOVA, L.N.; SAVICH, I.A.

Study of the biuret complex of gramicidin C derivatives with
t e amino group. Vest. Mosk. un. Ser. 2: Khim. 20 no.1:33-35
Ja-F '65.
(MIRA 18:3)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

AKIMOVA, L.N.; VOLKOVA, L.S.

Using double (N-benzylcarbobenzoxy) protection for the synthesis of optically active peptides. Vest. Mosk. un. Ser. 2: Khim. 20 no.1:65-68 Ja-F '65.

(MIRA 18:3)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.

L 55025-65   EWT(m)/EWP(j)/T   Pc-4   RM   UR/0189/65/000/002/0091/0094

ACCESSION NR: AP5011856

AUTHORS: Khludova, M. S.; Akimova, L. N.

TITLE: Synthesis of chelate compounds of certain aminoacid derivatives

SOURCE: Moscow. Universitet. Vestnik. Seriya 2. Khimiya, no. 2, 1965, 91-94

TOPIC TAGS: aminoacid, chelate compound

ABSTRACT: The paper is an extension of work reported previously by L. N. Akimova and V. S. Kvapishevski (Vestn. Mosk. un-ta, ser. khimii No. 3, 1965) Procedures for synthesis of methyl l-tyrosinesalicylate (I)
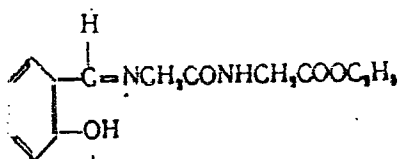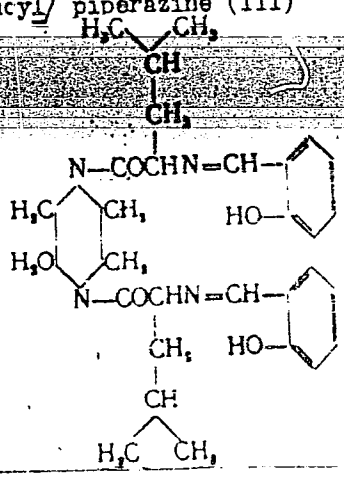
$$\text{(ring)}-CH=N-CH(COOCH_3)-CH_2C_6H_4OH,$$
$$\text{(ring)}-OH$$

ethyl glycylglycinesalicylate (II)

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ACCESSION NR: AP5011856

$$C=NCH_2CONHCH_2COOC_2H_5$$

(with phenol ring bearing OH, and H on top)

disalicylal - /N,N^1- dileucyl7 piperazine (III)

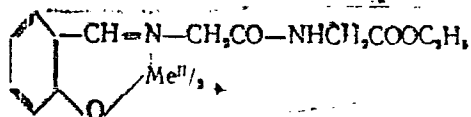(structure with piperazine ring, N—COCHN=CH— groups, HO— phenol rings, H$_3$C CH$_3$ isopropyl groups, CH$_2$ chains)

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L 55025-65
ACCESSION NR: AP5011856

and the Cu(IV) Ni(V), and Co(VI) complexes of ethyl glycylglycinesalicylate are given. The melting points are: I- 172C, II- not given, III- 196C, IV- not given, V- 260C (chars), VI- 218C. The yields are: I- 88%, II- 90%, III- 90%, IV- 54%, V- 52%, VI- 50%. The general formula of the metal complexes is

$$-CH=N-CH_2CO-NHCH_2COOC_2H_5$$
$$Me^{II}/_3$$

Orig. art. has: 5 formulas.

ASSOCIATION: Moskovskiy universitet, Kafedra organicheskoy khimii (Moscow University, Department of Organic Chemistry)

SUBMITTED: 26Jun64   ENCL: 00   SUB CODE: OC, GC

NO REF SOV: 005   OTHER: 007

Card 3/3

FRIDMAN, S.D.; KLEVKE, V.A.; BELYAYEVA, N.N.; KIRINDASOVA, R.Ya.;
    SVESHNIKOVA, V.S.; Prinimali uchastiye: AKIMOVA, M.D.;
    FUTORYANSKAYA, M.Ya.

Condensation of urea with formaldehyde for the production of
fertilizers with slowly assimilable nitrogen. Zhur. prikl.
khim. 38 no.5:1091-1097 My '65.   (MIRA 18:11)

STRUTINSKIY, V.M.; GROSHEV, L.V.; AKIMOVA, M.K.

Spectra of gamma rays produced in the capture of thermal neutrons by
heavy nuclei. Part 2. Zhur.eksp.i teor.fiz. 38 no.2:598-611 F '60.

(Gamma rays)   (Neutrons—Capture)

(MIRA 14:5)

88462

24.6900

S/056/60/039/006/054/063
B006/B063

AUTHORS: Akimova, M. K., Blokhintsev, L. D., Dolinskiy, E. I.

TITLE: Angular Distribution and Polarization of Neutrons Emitted
               in Muon Capture of Some Light Nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
               Vol. 39, No. 6(12), pp. 1806-1817

TEXT: A study of the angular distribution and polarization of neutrons
emitted from nuclei as a result of the reaction $\mu^- + P \rightarrow N + \nu$ gives
information on the muon-nucleon weak interaction constant. Formulas for
angular distribution and polarization (Refs. 1-4) have been obtained in
different approximations, and numerical calculations have been made for
several concrete cases. The very extensive calculations presented here are
based on the theory of universal Fermi interaction, and have been made on
the assumption that the interaction of "stripped" fermions can be
described by V- and A-type four-fermion coupling. All relativistic terms
which are of first order in v_n/c (v_n – nucleon velocity), including weak

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Angular Distribution and Polarization of.
Neutrons Emitted in Muon Capture of Some
Light Nuclei

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S/056/60/039/006/054/063
B006/B063

magnetism and effective pseudoscalar interaction, are taken into account.
The Hamiltonian H_{eff} describing the muon capture is taken from Ref. 7,
and from the universal Fermi interaction with conservation of the vector
current it follows that

$$g_V^{(\mu)} = 0.972\, g_V^{(\beta)}, \quad \mu = 1 + \mu_P - \mu_N = 4.71, \quad g_A^{(\mu)} = 0.999\, g_A^{(\beta)}, \quad \text{and}$$

$g_P^{(\mu)} = 8 g_A^{(\beta)}; \quad g_V^{(\beta)}$ - Fermi coupling constant, for β-decay of nucleons;
μ_P, μ_N - anomalous magnetic moments of proton and neutron in nuclear
magnetons; $g_A^{(\beta)}$ - Gamow-Teller coupling constant for β-decay of nucleons.
These assumptions and results of a previous paper (Ref. 3) are used to
derive formulas for the emission probability of neutrons with given
kinetic energy from a nucleus, for the angular distribution and the
polarization for the case of direct neutron emission:

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Angular Distribution and Polarization of
Neutrons Emitted in Muon Capture of Some
Light Nuclei

S/056/60/039/006/054/063
B006/B063

$$dW(E_N, \theta) = G^{(\mu)2} W_0(E_N) [I(E_N) + P_\mu K_1(E_N)\cos\theta] dE_N d\Omega_N/4\pi, \quad (4)$$

$$I(E_N) = (1 + 3\lambda^2) + 2 [1 + 2\lambda\mu - \lambda^2(\varkappa - 1)]\gamma_1(E_N) +$$
$$+ [2\mu^2 + \lambda^2(\varkappa - 1)^2 + 1]\gamma_2(E_N), \quad (5)$$

$$K_1(E_N) = -\{(-1 + \lambda^2)\beta_0(E_N) + 2[-1 + 2\lambda\mu +$$
где
$$+ \lambda^2(\varkappa - 1)]\beta_1(E_N)\gamma_1(E_N) + [2\mu^2 - \lambda^2(\varkappa - 1)^2 - 1]\beta_2(E_N)\gamma_2(E_N)\}, \quad (6)$$

$$G^{(\mu)} = g_V^{(\mu)} \cdot 10^{49} \frac{\vartheta p \varepsilon^{-1} \cdot c \varkappa^{-3}}{erg}, \quad \lambda = - g_A^{(\mu)}/g_V^{(\mu)}, \quad \varkappa = g_P^{(\mu)}/g_A^{(\mu)},$$

$$q(E_N, \theta) = 1 + P_\mu \alpha_1(E_N)\cos\theta,$$
$$\alpha_1(E_N) = K_1(E_N)/I(E_N). \quad (7)$$
$$\quad (8)$$

$$P_N^{\parallel}(E_N) = L_1(E_N)/I(E_N),$$
$$L_1(E_N) = -2\{\lambda(\lambda + 1)\beta_0(E_N) + \quad (9)$$
$$+ \lambda[2(\mu + 1) - \varkappa]\beta_1(E_N)\gamma_1(E_N) + [\mu^2 - \lambda(\varkappa - 1)]\beta_2(E_N)\gamma_2(E_N)\}. \quad (10)$$

Card 3/8

Angular Distribution and Polarization of
Neutrons Emitted in Muon Capture of Some
Light Nuclei

88462
S/056/60/039/006/054/063
B006/B063

The angle, θ, of neutron emission is measured with respect to the direction of polarization of the μ^- mesons; their degree of polarization on the K-orbit of the mesic atom at the instant of capture is denoted by P_μ. The neutron kinetic energy lies in the interval $(E_N, E_N + dE_N)$. The coefficients W_0, β_k, and γ_k have been calculated by the computer "Strela" of MGU (Moscow State University) for the nuclei of C^{12}, Ne^{20}, Si^{28}, and S^{32} on the following assumptions: The state of the protons in the nucleus may be described by the nuclear shell model with jj-coupling; spin-orbit splitting of proton levels is neglected. A square-well potential for the shell model is assumed with $R = r_0 A^{1/3}$. The interaction between neutron and nucleus is described by a complex square well:

$$V_N(r) = \begin{cases} -U_N(1+i\,f\,), & r < R \\ 0 & r > R \end{cases}$$

with the same R; computations are performed for $f = 0$, -0.10, and -0.15; the coordinate dependence of the wave function ψ_μ of the muon on the

Card 4/8

88462

Angular Distribution and Polarization of   S/056/60/039/006/054/063
Neutrons Emitted in Muon Capture of Some   B006/B063
Light Nuclei

K-orbit is taken into account. Numerical results are summarized in
Tables 1 and 2. Fig. 1 shows $W_0(E_N)$ for the three values of f (curves 1-3).
The values of α in Table 1 are defined by $\psi_\mu = \sqrt{\alpha^3/\pi}\, e^{-\alpha r}$, $\alpha = 2 m_\mu e^2/\hbar^2$. Fig.2
shows $\beta_0(E_N)$ again for the three values of f. In the final section, the
results obtained are compared with experimental data and discussed in
detail. Professor I. S. Shapiro is thanked for discussions. A. Ye.
Ignatenko is mentioned. There are 7 figures, 3 tables, and 20 references:
8 Soviet, 10 US, 1 Italian, and 1 Japanese.
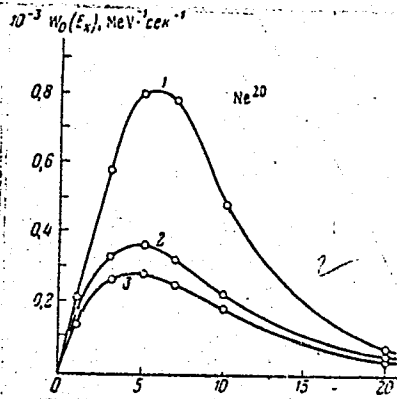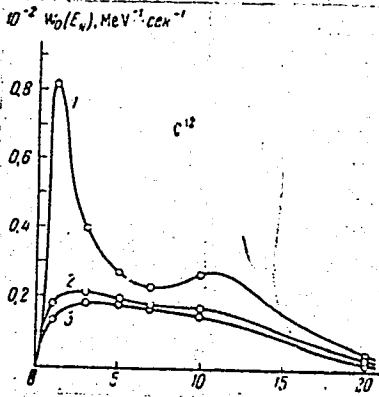
ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo
              universiteta (Institute of Nuclear Physics of Moscow State
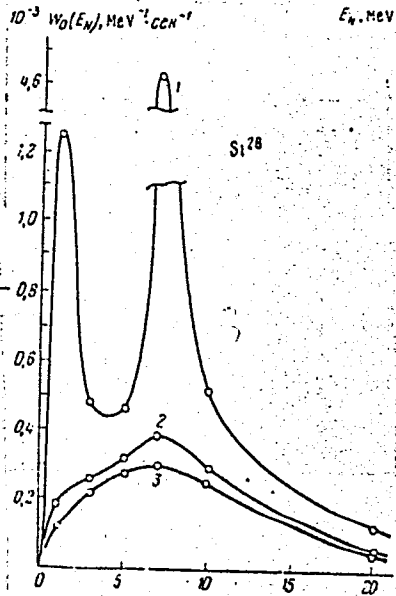   University)

SUBMITTED: July 29, 1960

Card 5/8

88462

S/056/60/039/006/054/063
B006/B063

Card 6/8

88462
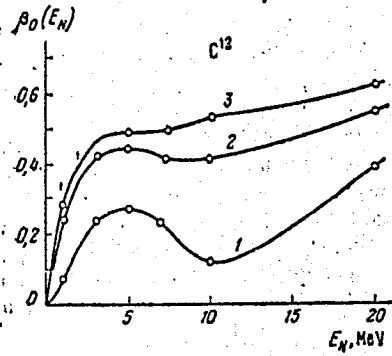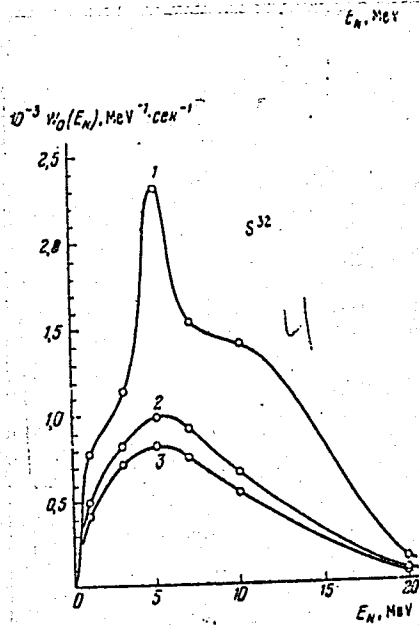
Fig. 4

Card 7/8

88462

S/056/60/039/054/063
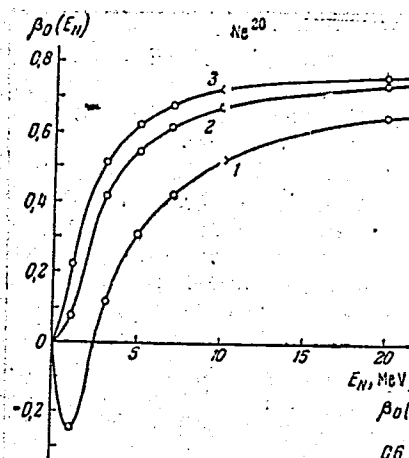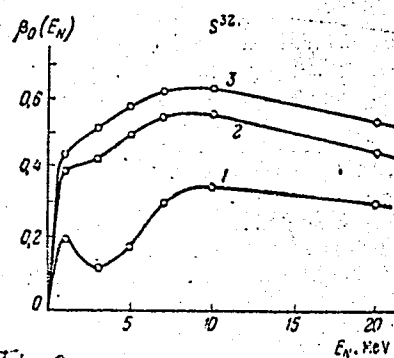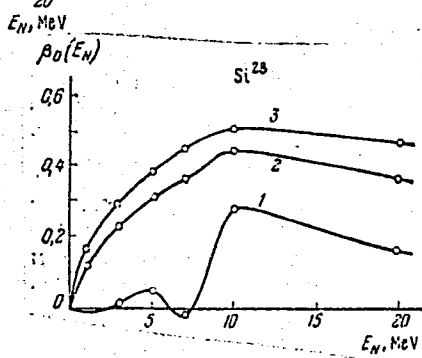B006/B063

Card 8/8

Fig 2

LUK'YANOV, A.V.; TEPLOV, I.B.; AKIMOVA, M.K.; DITKIN, V.A, prof., otv. red.;
    KORKINA, A.I., tekhn. red.

    [Tables of Coulomb wave functions (Whittaker functions)] Tablitsy
    volnovykh kulonovskikh funktsii (funktsii Uittekera). Moskva,
    Vychislitel'nyi tsentr AN SSSR, 1961. 22p p.   (MIRA 14:7)
            (Coulomb functions—Tables, etc.)

SOV/80-32-3-25/43

5(3)

AUTHORS: Chudakov, M.I., Sukhanovskiy, S.I., Akimova, M.I.

TITLE: On the Benzoid Structure of Hydrolytic Lignin (O benzoidnoy strukture gidroliznogo lignina)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 3, pp 608-613 (USSR)

ABSTRACT: The changes of the structure of technical lignins occurring during chemical and technical treatment are investigated here. Hydrolytic lignin gives 2.4% of benzenepolycarboxylic acids on oxidation. It has a benzoid structure which may be re- presented by five benzene rings connected by -C-C-bonds. The alkaline activation of hydrolytic benzene in aqueous solution at 180°C produces ligninic acids, in which the benzoid struc- tures comprise 8%. These acids give 25.2% of polycarboxylic acids when oxidized, among them also mellitic acid. They are. completely soluble in alkali and organic solvents. The carbon substance in lignin is arranged in a regular order by alkaline activation. It is characterized by the condensation of carbon into plane hexagonal lattices.

Card 1/2

Cn the Benzoid Structure of Hydrolytic Lignin   SOV/80-32-3-25/43

There is 1 table and 13 references, 5 of which are Soviet,
4 English, 2 German, 1 Canadian, and 1 American.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitnospirtovoy promyshlennosti (All-Union Scientific-
Research Institute of the Hydrolytic and Sulfite-Alcohol
Industry)

SUBMITTED: May 8, 1958

Card 2/2

AKIMOVA, M. S.

"Nekotoryye itogi izucheniya paleoantropologii Priural'ya i vopros o drevnikh vengrakh."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

ROSHCHIN, G.V.; ORURK, I.A.; AKIMOVA, M.Ya.;REDKOVA, G.P.

Use of a specialized electrónic network analyzer and digital computers in the study of processes in electric power systems. Sbor. rab.po vop.elektromekh.no.8:49-60 '63.

(MIRA 16:5)

(Electric network analyzers)   (Electric power distribution)

ROSHCHIN, G.V.; AKIMOVA, M.Ya.

Specialized electronic analog computer for studying processes
in electric power systems. Sber. rab. po vop. elektromekh.
no.10:120-128 '63.   (MIRA 17:8)

AKIMOVA, N., GINTSBURG, M.

New method of heating the cold engine of a Moskvich automobile.
Avt.transp.33 no.10:33 O '55.   (MLRA 9:1)
                    (Automobiles--Engines)

AKIMOVA, N.; KOROBKO, A.; TSAR'KOV, A.

Changes in the vocational composition of workers on the "Bolshevik"
State Farm, Moscow Province. Biul. nauch. inform.: trud i zar.
plata 4 no.3:46-50 '61.   (MIRA 14:3)
            (Moscow Province—Farm mechanization)
            (Moscow Province—Agricultural laborers)

AKIMOVA, N.A.

Separating two anthracene fractions. Koks i khim. no.3:57 '58.
(MIRA 11:3)

1. Zaprozhskiy koksokhimicheskiy zavod.
(Anthracene)

NEVEROV, V.A. [Nevierov, V.A.]; AKIMOVA, N.A. [Akymova, N.A.]; BABICH, D.D. [Babych, D.D.]; VINOGRADOVA, T.V. [Vynohradcva, T.V.]

Economic utilization of waste gases from the direct synthesis of phenyltrichlorosilanes. Khim. prom [Ukr.] no.1:56-57 Ja-Mr '65.
(MIRA 18:4)

SHANGIN, N.I.; AKIMOVA, N.I.

Hygienic education of the workers and foremen in steel mills. Gig.
i san. no.11:37-39 N '54.   (MLRA 7:12)

1. Iz TSentral'nogo nauchno-issledovatel'skogo instituta sanitarnogo
prosveshcheniya.
        (INDUSTRIAL HYGIENE
            hyg. educ. of workers & supervisors in metallurgic indust.)

P \<IAIoJP, N I .

AKIMOVA, N.I. (Moskva)

Organization and methodology in training iron and steel plant
foremen in hygiene. Gig.truda i prof.zab. 1 no.3:51-53 My-Je '57.
(MIRA 11:1)

1. TSentral'nyy institut sanitrnogo prosveshcheniya Ministerstva
zdravookhraneniya SSSR.
        (IRON INDUSTRY--HYGIENIC ASPECTS)
        (INDUSTRIAL HYGIENE--STUDY AND TEACHING)

L 21337-65   EPA(s)-2/EWT(m)/EPF(c)/EPR/EWP(j)/T   Pc-4/Pr-4/Ps-4/Pt-10
RPL   WW/JW/RM

ACCESSION NR: AT5001006   S/2850/64/011/000/0036/0041

AUTHOR: Zhubanov, B. A., Rafikov, S. R., Pavlenko, L. V., Moshkevich, S. A.,
Akimova, N. I.

TITLE: Studies in the field of polymer synthesis. Part 15. Synthesis of polyamides prepared from m- and p-xylylenediamine, adipic, sebacic and isophthalic acid

SOURCE: AN KazSSR. Institut khimicheskikh nauk. Trudy, v. 11, 1964. Sintez i
issledovaniye vysokomolekulyarnykh soyedineniy (Synthesis and research of high-molecular
compounds), 36-41

TOPIC TAGS: polycondensation, polyamide synthesis, xylylenediamine, adipic acid

Card   1/2

L 21332-65

ACCESSION NR: AT5001006

...merization at 260-265C   Thermal stability at 237-287C and the typical behavior of a

... acid polycondensation ...

xylylene-isophthalamide was 90%, the maximum measured viscosity 0.11, and severe conditions produced crosslinked and insoluble polymers. Decomposition of the amorphous polyamide started at 350C. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: Institut Khimicheskikh nauk, Akademiya Nauk Kazakhskoy SSR (Institute of Chemical Sciences, Academy of Sciences of the Kazakh SSR)

SUBMITTED: 00   ENCL: 00   SUB CODE: OC, MT

NO REF SOV: 001   OTHER: 004

Card 2/2

AKIMO V A. N. M.

SEMENOV, Vasiliy Ivanovich; KUTSENKO, Petr Prokof'yevich; PADUCHIN,
    Leonid Pudovich; AKIMOVA, N.M.,otvetstvennyy redaktor;
    LYBOV, M.K.,redaktor; SUSHKEVICH, V.I.,tekhnicheskiy redaktor

[Automatization of telephone communication in a district]
Avtomatizatsiia telefonnoi sviazi v raione. Moskva, Gos.
izd-vo lit-ry po voprosam sviazi i radio, 1956. 37 p.
                                                      (MLRA 10:5)

            (Telephone, Automatic)

SUKHODOYEV, Igor' Vasil'yevich; AKIMOVA, N.M., otv.red.; SVERDLOVA, I.S.,
     red.; SLUTSKIN, A.A., tekhn.red.

[K-3 high-frequency telephone apparatus] Apparatura vysoko-
chastotnogo telefonirovaniia sistemy K-3. Moskva, Gos.izd-vo
lit-ry po voprosam sviazi i radio, 1961. 37 p.
                                             (MIRA 15:2)

     (Telephone--Equipment and supplies)

AKIMOVA, N. P.

Akimova, N. P. "On the seasonal dynamics of tree groves of Prisamar'e,"
Nauch. zapiski (Dnepropetr. gos. un-t), Vol. XXXII, 1948, p. 57-64

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

A K I M O V A, N. P.

AKIMOVA, N. P.

"Natural Seminal Reproduction of Arboreous and Fruticose
Species in Artificial Forests of the Steppe Zone of the Ukrainian
SSR." Min Higher Education, Dnepropetrovsk State U imeni Tercentenary
of the Reunion of the Ukraine with Russia, Dnepropetrovsk, 1955.
(Dissertation for the Degree of Candidate in Diological Sciences)

SO: M*955, 16 Feb 56

A K I M O V A, N. P.

Akimova, N.P.

USSR/Forestry - Biology and Forest Typology.   J-2

Abs Jour   :   Referat Zhur - Biologiya, No 16, 25 Aug 1957, 69076

Author   :   Akimova, N.P., Taranenko, V.E.
Inst   :
Title   :   On the Question of Natural Self-Reseeding in Veliko-
                Anadole.

Orig Pub   :   Nauchn. zap. Dnepropetr. in-t, 1955, 48, 121-128

Abstract   :   The best self-reseeding tree in Veliko-Anadole is the
                ash tree (especially the fluffy ash), and the sharp-
                leaf maple is also good. Self-sowing of oak and elms
                is negligible. Of the bushes in the young growth near
                woods, the tartar maple and magaleb cherry reseed them-
                selves very well. A strong effect on the process of self-
                renewal is exerted by the degree of humidity. Effective
                self-renewal occurs in shaded and semi-shaded plantings.
                In semi-illuminated plantings, the self-renewal is consi-
                derably weakened because of a greatly developed grassy

Card 1/2   - 1 -

AKIMOVA, N.P.

Natural reproduction by seeds in trees and shrubs of cultivated
forests in the steppe zone of the Ukraine. Ukr.bot.zhur. 18
no.4:68-73 '61.
(MIRA 14:8)

1. Dnepropetrovskiy gosudarstvennyy universitet, kafedra
geobotaniki.
(Ukraine—Forest reproduction)

MARKUS, G.A.; Prinimali uchastiye: ZHIVOGLAZOVA, L.Ye.; NIKITINA, V.A.; AKIMOVA, N.V.; GOL'DINA, F.M.; SMIRNOVA, A.M.

New reagents based on products from the coal chemicals industry. (MIRA 16:2)
Koks i khim. no.2:52-54 '63.

1. Fenol'nyy zavod (for Markus). 2. Ukrainskiy uglekhimicheskiy institut (for all except Markus).
(Coke industry—By-products)   (Chemical tests and reagents)

ACCESSION NR: AP4044388

AUTHOR: Dzis'ko, V. A.; Makarov, A.D.; Borisova, M.S.; Akimova, N.V.

TITLE: Effect of chemical composition and mode of preparation on the physicochemical and catalytic properties of oxide catalysts of complex composition. I Zirconium silicate catalysts

SOURCE: Kinetika i kataliz, v. 5, no. 4, 1964, 681-688

TOPIC TAGS: silica, zirconium oxide, zircon, catalyst, catalyst preparation, catalyst acidity, silicagel, oxide catalyst

ABSTRACT: The effect of the mode of preparation and thermal treatment on the catalytic activity of zirconium silicate (ZrO_2-SiO_2) catalysts prepared by different methods (impregnation and coprecipitation) was investigated. Tabulated experimental data obtained for samples based on sodium silicate, all annealed 4 hrs. at 500C, show that an increase in the pH of the medium from 5 to 8 during aging decreases the surface from 300 to 180 m^2/g, while the amount of chemisorbed sodium ions strongly increases. The ion-exchange washing of freshly precipitated gel permits the sodium ion content to be decreased to 0.006%. The effect of the zirconium dioxide content on the physicochemical properties of catalysts based on silicon ethylate was also investigated. After the addition of 0.1% ZrO_2 to silicagel, a
Card 1/3

ACCESSION NR: AP4044388

noticeable acidity appears. All catalysts containing more than 0.33% ZrO_2 ionize anthraquinone. At 1% ZrO_2 and below, the concentration of the acid centers increases proportionally to an increase in ZrO_2 content. For samples containing 1-25% ZrO_2 the increase in the concentration of acid centers proceeds slowly. With a further increase in the ZrO_2 content, the concentration of acid centers passes through a flat maximum, then decreases, the maximum concentration of acid centers on the surface being 1.3 μ equiv./m^2 at 14-57 mol.% ZrO_2. The reasons for the slight change in the number of acid centers on the surface when the ZrO_2 content is increased above 25% are given. The catalytic activity of the samples in the decomposition of isopropyl and ethyl alcohols was also studied in relation to the chemical composition of the samples. In the range of 10-25% ZrO_2, the specific activity is approximately constant. When the catalytic activity and the concentration of acid centers were plotted against ZrO_2 content in the catalyst, the activity varied in direct proportion to the concentration of acid centers on the surface. The activity is also affected by impurities from the air or alcohol, especially strongly in the case of samples with a low ZrO_2 content. The effect of thermal treatment on the catalytic properties of these catalysts was also investigated; the data are tabulated. It is concluded that the activity of ZrO_2-SiO_2 catalysts is determined by the number of acid centers on the surface and that the catalytic activity of the acid centers does not depend on the ratio of ZrO_2 to SiO_2, the mode of preparation or the thermal treatment. "The authors express

Card   2/3

ACCESSION NR: AP4044388

their gratitude to Yu. G. Sy*cheva, M. V. Kostyukova and L. Dronova for taking part in the experimental work." Orig. art. has: 3 figures, 4 tables and 3 formulas.

ASSOCIATION: Institut kataliza SO AN SSSR (Institute of Catalysis, SO AN SSSR); Fiziko-khimicheskly institut im. L. Ya. Karpova (Institute of Physical Chemistry)

SUBMITTED: 10Oct63

SUB CODE: IC, GC   NO REF SOV: 006

ENCL: 00

OTHER: 001

Card 3/3

ACCESSION NR: AP4044389   S/0195/64/005/004/0689/0695

AUTHOR: Dzis'ko, V. A.; Borisova, M. S.; Akimova, N. V.

TITLE: Effect of chemical composition and mode of preparation on the physicochemical and catalytic properties of oxide catalysts of complex composition. II. Aluminosilicate catalysts

SOURCE: Kinetika i kataliz, v. 5, no. 4, 1964, 689-695

TOPIC TAGS: alumina, silica, aluminosilicate, catalyst, silicic ethylate, ammonia, anthraquinone, catalytic activity, acidity, catalyst preparation, oxide catalyst, ampholite, catalyst acidity, cumol cracking

ABSTRACT: The effect of the mode of preparation on the acidity and catalytic properties of aluminosilicate catalysts prepared by different methods (impregnation and coprecipitation) was investigated; the data are tabulated. The measurements showed that aluminosilicate catalysts are strong acids: almost all the samples ionized anthraquinone, except those which had a very small number of acid centers. Treatment with moist nitrogen at 150C did not affect acidity. The ratio of the number of acid centers in hydrated and anhydrous samples, characterizing the degree of reaction of the aluminum oxide, depended on both their Al_2O_3 content and the mode of preparation. Treatment of impregnated silicagel with ammonia increased the
Card 1/3

ACCESSION NR: AP4044389

degree of combination of aluminum oxide. In a sample containing 5% Al_2O_3, all the aluminum oxide was combined with silicon dioxide and the degree of reaction remained higher than for samples not treated with ammonia. One result of the different degrees of reaction of aluminum oxide with silica is the different number of acid centers on the surface of the catalyst. Samples obtained by coprecipitation have the highest number of acid centers. On increasing the Al_2O_3 content from 0.1 to 1%, the number of acid centers increases proportionally to the Al_2O_3 content. A further increase in the Al_2O_3 content decreases the growth of acid centers. In the range of 20-75% Al_2O_3, equivalent to a change in $SiO_2:Al_2O_3$ ratio from 6.6 to 0.5, the concentration of acid centers remains constant, about 1 $\mu equiv./m^2$. At an Al_2O_3 content higher than 75% the concentration decreases. When the catalytic activity of synthetic samples was tested in the cracking of cumol, it was found that the catalytic activity of the acid centers in catalysts containing 1-90% Al_2O_3 is approximately constant and does not depend on the mode of preparation or the ratio of catalyst components. It is concluded that the velocity constant related to a single acid center is a characteristic value for the catalytically active component and can be used for the rational evaluation of substances having catalytic activity in processes of an acidic nature. "The authors thank M. V. Kostyukova for determining the acidity of the samples." Orig. art. has: 1 figure, 3 tables and 3 formulas.

Card   2/3

ACCESSION NR: AP4044389

ASSOCIATION: Institut kataliza SO AN SSSR (Institute of Catalysis, SO AN SSSR); Fiziko-khimicheskiy institut im. L. Ya Karpova (Institute of Physical Chemistry)

SUBMITTED: 07Jan64

ENCL: 00

SUB CODE: IC, OC

NO REF SOV: 012

OTHER: 006

Card 3/3

IGNAT'YEVA, L.A.; TUMANOVA, L.A.; AKIMOVA, N.V.

Studying the effect of a catalytic poison on the hydroxy' coating of
oxidic catalysts by the infrared spectroscopy method. Zhur.prikl.
spekt. 2 no.4:331-335 Ap '65.

(MIRA 18:8)

AKIMOVA, O. D.

Akimova, O. D. "On the algae florain the Western Dvina River. A hydrobiological study of the Western Dvina near Vitebsk", Uchen. zapiski (Belorus. gos. un-t), Issue 7, 1948 p. 19-32, - Bibliog: 13 items.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 11, 1949).

S/137/62/000/004/110/201
A052/A101

/P. 8200

AUTHORS: Rauzin, Ya. R., Akimova, O. F., Tarasov, V. R.

TITLE: On the effect of macrostructure on the strength of bearing cups

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 48-49, abstract
             41289 ("Tr. Vses. n.-i. in-ta zh.-d. transp.", no. 221, 1961, 72-84)

TEXT: Bearing steels of ШX 15 (ShKh15) and ШX 15CГ (ShKh15SG) grades
were investigated. The increase of density, obtained by the pressure work with
a high degree of reduction in area raises σ_w and contact endurance of a hardened
bearing steel. An increase of service life of axle bearing elements can be
secured by a combination of a high metallurgical quality of the initial ingot with
a pressure work (flattening) with a high degree of reduction in area. By passing
over from a mixed fiber pattern, produced with the use of standard technology of
forging cups on forging machines, to a longitudinal one the average service life
of bearings can be increased by a factor of $\sim$ 1.4.
                                                    T. Rumyantseva

[Abstracter's note: Complete translation]

Card 1/1

RAUZIN, Ya.R., kand.tekhn.nauk; AKIMOVA, O.F.; TARASOV, V.R.

Effect of the macrostructure on the strength of antifriction bearing
rings. Trudy TSNII MPS no.221:72-84 '61.   (MIRA 15:1)
(Roller bearings--Testing)

AKIMOVA, O.L.

Hymaline therapy of peptic ulcer of the stomach and duodenum under polyclinic conditions. Sov. med. 24 no. 5:126-128 My '60.
(MIRA 13:10)

1. Iz pervogo terapevticheskogo otdeleniya (zav. M.Ya. Rynskaya).
Ob"yedinennoy polikliniki Ministerstva putey soobshcheniya
(nachal'nik A.G. Sarkisov).
(HYMALINE)

AKIMOVA, O.L. (Moskva)

Conservative treatment of cholelithiasis in a polyclinic
including the use of cholelithin. Vrach. delo no.2:43-46
F '62.
(MIRA 15:3)

1. Pervoye terapevticheskoye otdeleniye (zav. - zasluzhennyy
vrach RSFSR M.Ya. Rynskaya) Ob"yedinennaya poliklinika Ministerstva
putey soobshcheniya (nachal'nik - zasluzhennyy vrach RSFSR A.G.
Sarkisov, nauchnyy rukovoditel' - prof., doktor med.nauk, L.M.
Levitskiy).

(CHOLAGOGUES)
(CALCULI, BILIARY)

"APPROVED FOR RELEASE: 06/05/2000   CIA-RDP86-00513R000100630004-7

MEDNIKOV, F.A.; AKIMOVA, R.A.; USHKOVA, Ye.V.

Processing of tar-impregnated wood in continuous screw units.
Gidroliz. i lesokhim.prom. 14 no.2:5-7 '61.   (MIRA 14:3)

1. Leningradskaya lesotekhnicheskaya akademiya im. S. M. Kirova.
                    (Wood—Chemistry)

PETROV, B.S.; AKIMOVA, R.A.

All-Union classification system for products of the veneer
industry, boards, and plastics. Der. prom. 14 no.7:15-16
Jl '65.
(MIRA 19:1)

1. Lesotekhnicheskaya akademiya im. S.M. Kirova.

AKIMOVA, R.N.; KRIVORUCHKO, R.A.

Qualities of erythrocytes preserved in alcohol-glucose-citrate blood.
Probl.gemat. i perel.krovi 1 no.2:45-48 Mr-Ap '56.   (MIRA 10:1)

1. Iz L'vovskogo nauchno-issledovatel'skogo instituta perelivaniya
krovi (dir. - dotsent D.G.Petrov)
        (BLOOD BANKS,
            erythrocyte mass preserv. in alcohol-glucose-citrate blood)
        (ALCOHOL, ETHYL
            alcohol-glucose-citrate solution for erythrocyte mass
            preserv.)
        (GLUCOSE
            same)
        (CITRATES
            same)

AK/AAOWA, B.W.

AKIMOVA, R.N.; KRIVORUCHKO, R.A.

Two-stage method of preparing an alcohol-glucose-sucrose-citrate
suspension of erythrocytes. Probl.gemat. i perel.krovi 2 no.5:
(MIRA 11:1)
51-55 S-O '57.

1. Iz L'vovskogo nauchno-issledovatel'skogo instituta perelivaniya
krovi (dir. - dotsent D.G.Petrov)
        (BLOOD TRANSFUSION
            alcohol-glucose-saccharose-cytrate suspension of
            erythrocytes, two-stage method for prep.)

AKIMOVA, R.N., starshiy nauchnyy sotrudnik

Transfusion of aminokrovin with erythrocytes in the clinic. Akt.vop.
perel.krovi no.7:303-308 '59.   (MIRA 13:1)

1. L'vovskiy institut perelivaniya krovi (direktro instituta - starshiy
nauchnyy sotrudnik D.G. Petrov).
                        (BLOOD PLASMA SUBSTITUTES)

AKIMOVA, R.N.; KRIVORUCHKO, N.A.; YAES, S.B.; NOVIKOVA-DANTSIGER, T.L.

Effect of transfusion with cationized blood on the hemodynamics,
blood proteins, and phagocyte activity of the leukocytes in blood
loss. Probl.gemat.i perel.krovi 5 no.6:50-55 Je '60.

(HEMORRHAGE)   (BLOOD TRANSFUSION)   (BLOOD PROTEINS)   (MIRA 13:12)
                (PHAGOCYTOSIS)

(

AKIMOVA, R. N. (Kiyev)

Development of tumors of the kidneys in rats. Vrach. delo no.6:
7-12 Je '62.
(MIRA 15:7)

1. Laboratoriya endokrinologii i gormonoterapii (zav. - doktor
biologicheskikh nauk N. M. Turkevich) Ukrainskogo nauchno-
issledovatel'skogo instituta eksperimental'noy i klinicheskoy
onkologii.

(KIDNEYS--TUMORS)   (URACIL)

YAYES, S.B.; NOVIKOVA-DANTSIGER, T.I.; AKIMOVA, R.N.; KRIVORUCHKO, R.A.

State of hemopoiesis and gases of the blood in transfusions
of blood preserved with cation exchangers following hemorrhages.
Sbor. trud. L'vov. nauch.-issl. inst. perel. krovi i neotlozh.
khir.no.4:168-176 '60   (MIRA 16:12)

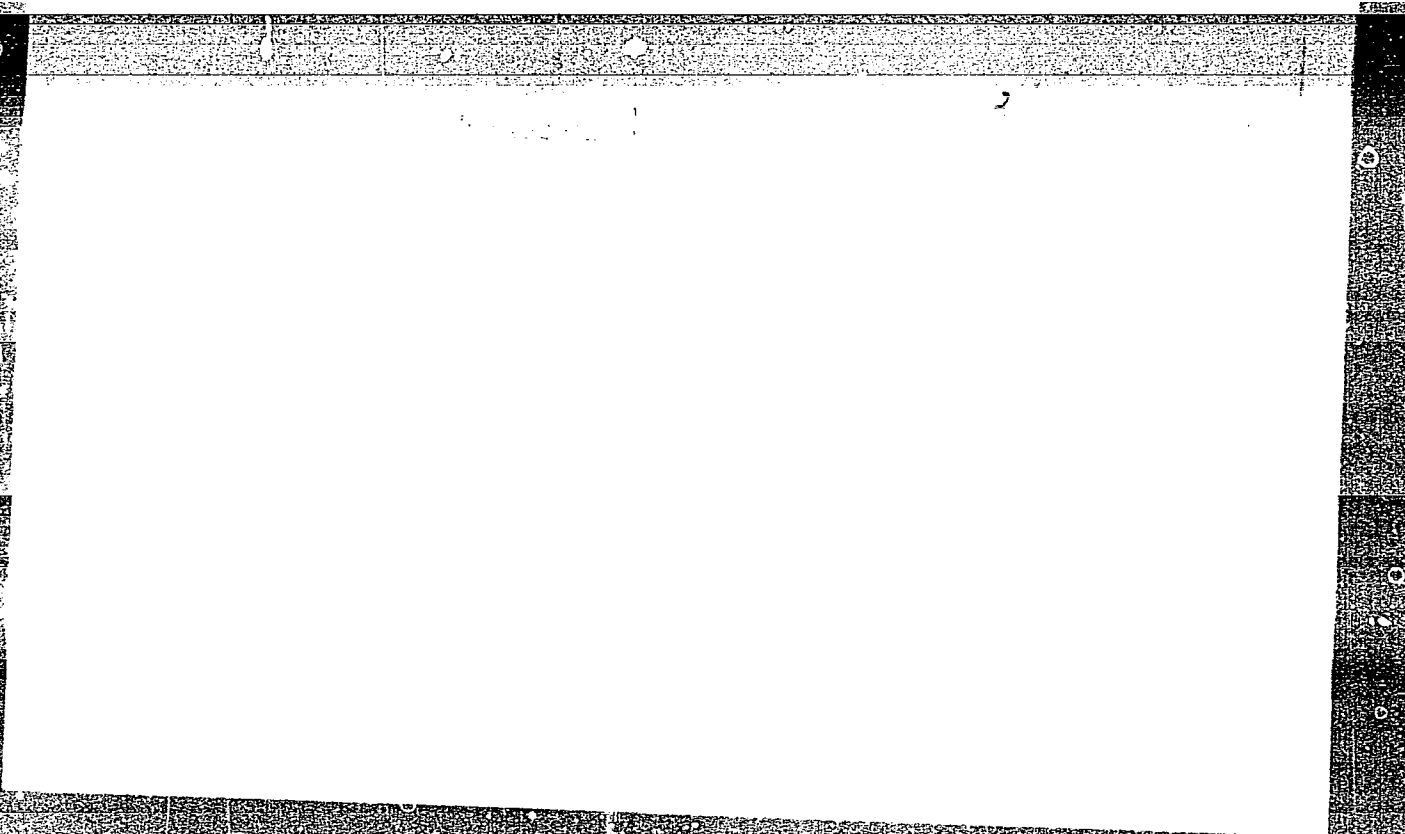AKIMOVA, R.N. (Kiyev, Krasnoarmeyskaya ul. 111/113, kv.64)

Strain of transplantable renal rat carcinoma (strain RA). Vop. onk. 9 no.12:51-55 '63.

(MIRA 17:12)

1. Iz laboratorii endokrinologii i gormonoterapii (zav. - dr. biol. nauk N.M. Turkevich) Ukrainskogo nauchno-issledovatel'- skogo instituta eksperimental'noy i klinicheskoy onkologii (direktor - akademik AN UkrSSR R.Ye. Kavetskiy).

...tiny of chlorophanes ... in a ... ...romentic
...cleavage of the ... ...own that the ...
...

USSR/Organic Chemistry. Synthetic Organic Chemistry.   E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26885.

Author : Sokolov, N.N.; Akimova, S.M.
Inst :
Title : Research in Region of Organocyclosiloxanes.
II. Ethylchlorocyclosiloxanes.

Orig Pub: Zh. obshch. khimii, 1956, 26, No. 8, 2276 - 2279.

Abstract: The following $(C_2H_5SiHO)n$ (Ia - Ic) (Ia: $n = 3$, Ib: $n = 4$, Ic: $n = 5$) were produced by the hydrolysis of $C_2H_5SiHCl_2$ with a mixture of water and C_2H_5OH (the yield in %, boiling point in $^\circ C/mm$, n^{20}_D and d_{20}^{20} are enumerated): Ia - 48, 105/20, 1.4153, 0.9835, melting point 100°;

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USSR/Organic Chemistry. Synthetic Organic Chemistry.   E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26886.

Ib - 33, 136.2/20, 1.4178, 0.9922; Ic - 11, 165.2/20, 1.4222, 1.0012. A mixture of 1,3,5-triethyl-1-chlorocyclotrisiloxane (II), boiling point 125°/20 mm, melting point -65°, d_{20}^{20} = 1.0876, of 1,3,5-triethyl-1,3-dichlorocyclo-siloxane (III), boiling point 150-151°/20 mm, melting point -60°, d_{20}^{20} = 1.1928, and of tri-(ethylchloro)-cyclotrisiloxane (IV), boiling point 126-127°/2 mm, melting point -43°, d_{20}^{20} = 1.2591, was received at the chlorination

Card 2/4

USSR/Organic Chemistry. Synthetic Organic Chemistry.   E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26886.

of Ia without solvents at 30-35°. The chlorination of Ib and Ic under same conditions results correspondingly in tetra-(ethylchloro)-cyclotetrasiloxane (V), boiling point 163-165°/ 2 mm, melting point -62°, $d_{20}^{20} = 1.2745$, and penta-(ethylchloro)-cyclopentasiloxane (VI), boiling point 187-190°/2 mm, melting point -40°, $d_{20}^{20} = 1.2988$. Hydrolyzed under soft conditions, II converts into 1,3,5-triethyl-1-oxycyclotrisiloxane, yield 88%, boiling point 112-114°/ 2 mm, $n_{D}^{20} = 1.4288$, $d_{20}^{20} = 1.0588$. The hydrolysis

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USSR/Organic Chemistry. Synthetic Organic Chemistry.   E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26886.

of III by same methods results in 1,3,5-triethyl-1,3-dioxycyclotrisiloxane, yield 68%, melting point -8°, n^{20}_D = 1.4345, d^{20}_{20} = 1.1207. The preparation of hydroxyl derivatives of IV, V and VI in free state did not succeed. See RZhKhim, 1957, 8102, for report I.

Card 4/4

KUZNETSOV, V.I.; AKIMOVA, T.G.

Organic coprecipitants. Part 13: Coprecipitation of tetravalent plutonium. Radiokhimiia 2 no.3:357-363 '60.   (MIRA 13:10)
(Plutonium compounds)

KUZNETSOV, V. I.; AKIMOVA, T. G.

Organic coprecipitants. Part 14: Improved method of coprecipitating uranium from natural waters. Radiokhimiia 2 no.4:426-430 '60.   (MIRA 13:9)
                (Uranium)   (Precipitation (Chemistry))

21.3200

77250
SOV/89-8-2-15/30

AUTHORS: Kuznetsov, V. I., Akimova, T. G.

TITLE: Pu (IV) Coprecipitation With Organic Coprecipitants.
               Letter to the Editor

PERIODICAL: Atomnaya energiya, 1960, Vol 8, Nr 2, pp 148-150 (USSR)

ABSTRACT: Plutonium, like any other element of the periodic table,
               can be coprecipitated by a convenient choice of co-
               precipitant. The "Nitrate" Method. In acid solutions
               containing nitrate ion, Pu(IV) forms a typically weakly
               ionized complex anion $Pu(NO_3)_6^{2-}$. Consequently, such Pu

               can be precipitated in the form of salts of this nitrate
               anion with precipitates of nitrates of heavy organic
               cations; e.g., the butyl ester of rhodamine B. Since
               such analogous weakly ionized nitrate anions are produced
               by, besides Pu(IV), only a few other elements $\underline{/}$U(IV),
               Th(5), Ce(IV)$\underline{/}$, the above method is highly selective.
               To coprecipitate, one adds to a 200 ml solution of 3 N
Card 1/6 HNO_3 containing Pu(IV) approximately 130 g NH_4NO_3, 1 gm

phenolphthalein powder (it facilitates the filtration
of the precipitate which has a tendency to stick to
the walls), and 40 ml of a slightly warmed 1% solution
of rhodamine butyl ester. Crimson-colored precipitate,
with entrained Pu is now filtered off and washed with
an approximately 50% solution of NH_4NO_3 in approxi-

mately 1.8 N HNO_3, to which one adds sufficient
rhodamine butyl ester to obtain a not too large, but
easily noticeable precipitate, which is then put
together with the paper filter in the crucible. One
adds 2 ml of a saturated solution of $(NH_4)_2SO_4$ slowly

dries, and ignites, raising the temperature slowly to

500^0 C. (If $(NH_4)_2SO_4$ is not added, ignition can be

accompanied by flashing.) The residue contains co-
precipitated plutonium. Table 1 presents the degree
of precipitation.

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Pu (IV) Coprecipitation With Organic   77250
Coprecipitants. Letter to the Editor   SOV/89-8-2-15/30

Table 1. Coprecipitation of Pu(IV) using the
nitrate of rhodamine butyl ester.

DILUTION OF Pu	COPRECIPATION OF Pu, %
$1:2\cdot10^8$	100
$1:1\cdot10^9$	100
$1:2\cdot10^9$	97; 100
$1:1\cdot10^{10}$	89; 90
$1:2\cdot10^{10}$	76; 82

Table 2 contains results of coprecipitation of Pu(IV)
with simultaneous separation from other elements.

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Card 4/6   77250   SOV/89-8-2-15/30   TABLE 2

OTHER ELEMENTS PRESENT		WT OF IGNITED PRECIPITATE, MG	COPRECIPITATION OF Pu, %
No other elements added		—	99; 100
Me (I):	Li + Na + K + Rb + Cs	1	95
Me (II):	Cu; Be (BeSO$_4$); Mg; Ca	everywhere 1-2	93; 100; 100; 80
	Sr + Ba; Zn + Cd; Pb; Mn; Co + Ni	everywhere 1-2	95; 92; 90; 96; 97
Me (III):	Rare earth elements ; Bi; Sb (SbCl$_3$)	<1; ~7; ~15	101; 103; 96
	B (Na$_2$B$_4$O$_7$); Al; Cr; Fe	everywhere 1-2	90; 85; 93; 95
Me (IV):	Ge; Th; U (UCl$_4$)	~20, ~43, ~43	87; 55; 54
	Zr; Sn (SnCl$_4$); V (VOSO$_4$)	everywhere 1-2	92; 90; 100
Me (V):	P (Na$_2$HPO$_4$)	<1	86
Me (VI):	U; Mo [(NH$_4$)$_6$Mo$_7$O$_{24}$]	~7; <1	94; 90

Caption on next card

Pu (IV) Coprecipitation With Organic
Coprecipitants. Letter to the Editor   SOV/89-8-2-15/30

Caption to Table 2.

Table 2. Coprecipitation of Pu(IV) with simultaneous
          separation from other elements.

Coprecipitation of Pu(IV) in Form of Cyclic Salts. At appropriate
pH values Pu(IV) forms soluble cyclic salts with many
organic reagents containing the sulfo group.   An aqueous
solution of 100 mg of the complex-forming agent is added
to 200 ml of an acidified solution containing Pu; the pH
is adjusted to the required value and the solution is
aged for 10-20 mm.   After that, with stirrring, one adds
5 to 7 ml of a 1% solution of methyl violet or methylene
blue.   Precipitate is slowly dried and ignited at approxi-
mately 500° C.   Starting with a $1:2\cdot10^9$ dilution of Pu(IV)
(0.1 γ in 200 ml) and pH from 1 to 4, Pu is coprecipi-
tated to the extent of 95-100%, if one uses arsenazo;
stilbazo, chromotrope 2B, and others.   The coprecipita-
tion is, in general, more complete but less selective
than with the nitrate method.   Using this last method

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Pu (IV) Coprecipitation With Organic
Coprecipitants. Letter to the Editor

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at pH approximately 5 to 7, one can also coprecipi-
tate Pu(III), but the selectivity is smaller than
in the Pu(IV) case.   There are 2 tables; and 5 ref-
erences, 3 Soviet, 2 U.K. The U.K. references are:
D. Carswell, J. Lawrence, J. Inorg. and Nucl. Chem.,
11, 69 (1959); J. Brothers, R. Hart, W. Mathers,
J. Inorg. and Nucl. Chem., 7, 85 (1958).

SUBMITTED: November 24, 1959

Card 6/6

KUZNETSOV, V.I.; AKIMOVA, T.G.

Organic coprecipitators. Part 15: Coprecipitation of americium.
Radiokhimiia 3 no,6:737-742 '61.   (MIRA 14:12)
                    (Americium)
                    (Precipitation(Chemistry)

L 54478-65   EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EWF(j)/T/EWT(t)/EWP(c)   Pc-4/Pr-4/Pu-4
IJP(c)   JD/GS/RM
ACCESSION NR: AT5013636   UR/0000/65/000/000/0044/0049

AUTHOR: Kuznetsov, V. I.; Akimova, T. G.; Yeliseyeva, O. P.

TITLE: Organic coprecipitants. Part 19. Coprecipitation of curium in the form of chelates

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Radiokhimicheskiye metody opredeleniya mikroelementov (Radiochemical methods for determining trace elements). Moscow,

TOPIC TAGS: radioisotope separation, curium, crystal violet, curium coprecipitant, curium chelate, arsenazo, crystal violet

ABSTRACT: The paper describes the concentration of curium (Cm^{242}) in the form of chelates with organic coprecipitants. Curium 242, an α emitter, was determined radiometrically with an α counter. At pH $\approx$ 4.75, curium precipitates almost quantitatively with the precipitate formed by arsenazo and crystal violet even from solutions with a dilution as low as $1:1.1 \times 10^{18}$ ($2 \times 10^{-8}\gamma$ Cm in 20,000 ml). A complete coprecipitation of curium when other chelating agents are used in combination with crystal violet takes place at pH $\approx$ 2.5-8.5 (arsenazo II), $\approx$ 1-0

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L 54478-65
ACCESSION NR: AT5013636

(arsenazo III and 4,4'-biphenyl-3,3'-dicarboxy-bis(∠ 2-azo⟩-1,8-dihydroxy-3,6-naphthalenedisulfonic acid)). Reagents having molecules of larger size coprecipitate curium over a wider pH range than do structurally similar reagents with smaller molecules. Coprecipitation with the precipitate formed by arsenazo and crystal violet at pH 4.5 permits the separation of curium from magnesium present in amounts 10^{11} times as high. "The authors express their thanks to G. N. Yakovlev (Doctor of Chemical Sciences) for providing the curium preparation." Orig. art. has: 3 figures, 4 formulas and 3 tables.

ASSOCIATION: None

SUBMITTED: 12May63   ENCL: 00   SUB CODE: IC,GC

NO REF SOV: 002   OTHER: 004

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L 54477-65   EWT(m)/EPF(c)/EPF(n) 2/EWG/m)/EWP(j)/T/EWP(t)/EWP(b)   Pc-4/Pr-4/
Pu-4   IJP(c)   JD/JG/GS/RM   UR/0000/65/000/000/0049/0054
ACCESSION NR: AT5013637   542.65:661.7:546.796

AUTHOR: Kuznetsov, V. I.; Pisenko, L. P.; Akimova, T. G.

TITLE: Organic coprecipitants. Part 23. Coprecipitation of protactinium(V) in
[...] arsenazo group

[...]
elements), [...] Moscow, [...]

TOPIC TAGS: radioisotope separation, protactinium precipitation, organic co-
[...] arsenazo crystal [...]

[...] A preparation of Pa^{233}, which is a [...] emitter, was used in [...] coprecipitation

tion showed that [...]
is present as an anion, and to a lesser extent from the other [...]
ly complete coprecipitation of Pa with arsenazo I also requires the presence of

Card 1/3