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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEV, Ye. F.; ZHULANOVA, Z.I.

Acetylation of paraaminobenzoic acid in roentgen-irradiated rats. Vop. med. khim. 5 no.1:10-15 Ja- F '59. (MIRA 12:3)
(ROENTGEN RAYS, effects,
on PABA acetylation in rats (Rus))
(PARAAMINOBENZOIC ACID, metab.
acetylation, eff. of x-rays in rats (Rus))

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"Khimicheskaya Zashchita Organizma ot Ionizirushchikh Izlucheniy (Chemical Protection of the Organism From Ionizing Radiation)," edited by V. S. Balabukha; Moscow, Atomizdat, 1960, pp 1-151

The volume consists of a table of contents (attached), an introduction in which the author outlines the purpose of the book, and two sections. The first section deals with the problem of the chemical protection of the organism from penetrating radiation. A brief analysis is given of the contemporary state of the problem, data obtained in experiments are cited, and the theories of the mechanism of the protective action of some chemicals (aminothiols and pyrimidine derivatives) are examined.

The second section deals with the problem of the elimination of radioactive isotopes from the organism. The effectiveness of certain chemicals which, when introduced into the organism, have the capacity to form with the isotopes stable compounds which would be readily eliminated from the organism is examined.

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REMANTSEV, Ye. P.

23

PHASE I BOOK EXPLOITATION SOV/5628

Akademiya nauk SSSR. Institut biologicheskoy fiziki

Rol' perekisey i kisloroda v nachal'nykh stadiyakh radiobiologicheskogo effekta (Role of Peroxides and Oxygen During Primary Stages of Radiobiological Effects) Moscow, 1960. 157 p. 4,500 copies printed.

Responsible Ed.: A. M. Kuzin, Professor; Ed. of Publishing House: K. S. Trincher; Tech. Ed.: P. S. Kashina.

PURPOSE : This collection of articles is intended for scientists in radiobiology and biophysics.

COVERAGE: Reports in the collection deal with the role of peroxides and oxygen in the primary stages of a radiobiological effect. They were presented and discussed at a symposium held December 25-30, 1958, organized by the Institut biofiziki AN SSSR, (Institute of Biophysics, AS USSR). Twenty-eight Moscow scientists, radiobiologists, radiochemists, physicists, and

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physical chemists took an active part in the symposium. Between the time of its conclusion and the publication of the present book some of the materials were expanded. In addition to the authors the following scientists participated in the discussion: L. A. Tummerman, V. S. Tongur, G. M. Frank, Yu. A. Kriger, E. Ya. Grayevskiy, N. N. Demin, B. N. Tarusov, and I. V. Vereshchenskiy. References follow individual articles.

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Zhulanova, Z. I., I. A. Korovina, and Ye. F. Romantsev. Formation of Organic Peroxides in an Organism During Irradiation on an X-Ray Apparatus With a Dose Rate of 130 r/sec 43

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Mikhlin, D. M. (Deceased) [Institut biokhimii im. A. N. Bakha AN SSSR - Institute of Biochemistry imeni A. N. Bakh, AS USSR]. Effect of Ionizing Radiation of Oxidation-Reduction Reactions in a Cell 67

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

PHASE I BOOK EXPLOITATION SOV/[illegible]

Radiatsionnaya meditsina; posobiye dlya vrachey i studentov ([illegible] Textbook for Physicians and Students). Moscow, Atomizdat, [illegible] 6,000 copies printed.

Eds.: A.I. Burnasyan, Docent and A.V. Lebedinskiy, Professor; [illegible] N.A. Vlasova.

PURPOSE: This textbook is intended for students in [illegible] physicians interested in the applications of radiation [illegible] and medicine.

COVERAGE: This is a handbook on the applications of radiation [illegible] diagnosis and treatment of diseases, basic methods in [illegible] disease, and existing methods of dosimetric control. [illegible] based on the results of experimental research in [illegible] material from foreign sources containing data on the [illegible] sites in Japan, and on clinical studies of [illegible] in the USA. No personalities are mentioned. [illegible]

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Regularity patterns in the development of acute radiation sickness.
Causes of death from ionizing radiation. Aftereffects of atomic explosion [illegible]
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ROMANTSEV, Ye.F.

Effect of L-cysteine and of β-mercaptoethylamine on oxygen content in venous blood. Med.rad. 5 no.2:19-20 F '60. (MIRA 13:12)

(ETHYLAMINE) (CYSTEINE) (BLOOD—OXYGEN CONTENT)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEV, Ye.F.

Effect of certain protective substances on the oxygen requirements of muscle tissue in rats. Med. rad. 5 no.4:86 Ap '60. (MIRA 13:12)

(ETHYLAMINE) (CYSTEINE) (MUSCLE)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

RAMANTSEV, YE. N. (USSR)

"Excretion of Dische-Positive Compounds after Irradiation with Rapid Neutrons."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEV, Ye.F.; ZHULANOVA, Z.I.

Effect of protective agents and hypoxia on the formation of organic peroxides. Radiobiologiia 1 no.1:73-77 '61. (MIRA 14:7)
(RADIATION PROTECTION) (ANOXEMIA)
(PEROXIDES)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

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D298/D303

AUTHOR: Romantsev, Ye. F.

TITLE: The excretion of Dishe compounds from the body with irradiation from fast neutrons and gamma-rays

PERIODICAL: Radiobiologiya, v. 1, no. 4, 1961, 508-511

TEXT: Since change in the DRN metabolism is one of the early biochemical responses to irradiation, the author studied the change in the excretion of Dishe-positive compounds with the urine in rats irradiated with fast neutrons in sublethal and lethal doses. An attempt was also made to determine the relative biological effectiveness of gamma-irradiation. Gamma-irradiation was effected from a Co^{60} source at an intensity of 5.1 r/min. in doses of 84.6, 253.9 and 507.9 r. Irradiation with fast neutrons was effected with the ИРТ-1000 (IRT-1000) reactor at the Institut atomnoy energii AN SSSR (Institute of Atomic Energy, AS USSR). The doses in this case were 84.6, 253.9 and

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The excretion of...

507.9 r, at an intensity of 5.1 r/min. In the first few days after irradiation with gamma-rays, the excretion of Dishe-positive compounds with the urine increased in proportion to the total dose of radiation and reached its maximum (85% above normal) with a total dose of 507.9 r. At a dose of 84.6 r, no changes in the Dishe-compounds' content was noticed. At a dose of 253.9 r, Dishe-compound excretion rose by 52%. With fast neutron irradiation, the increase in the excretion was proportional to the total radiation dose, but ensued at much lower doses of absorbed energy: at 84.6 r it increased by 33% and at 253.9 r - by 96%. Further increase in the total radiation dose to 507.9 r caused no increase in the excretion of Dishe-positive compounds with the urine. There are 1 figure, 2 tables and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: J. Pařizek, M. Arient, Z. Dienstbier, J. Skoda, Nature, 182, 1958.

SUBMITTED: April 7, 1961

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEV, Ye.F.; ZHULANOVA, Z.I.

Excretion of Dichet-positive compounds from the body in the utilization of substances for chemical protection from the action of ionizing radiations. Med. rad. 6 no.1:49-52 '61. (MIRA 14:3)
(RADIATION PROTECTION)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

PETROV, R.V.; KOROGODIN, V.I.; LYASS, F.M.; NEYFAKH, A.A.; ROMANTSEV, Ye.F.; VEREVKINA, N.M., red.; MORGUNOVA, G.M., tekhn. red.

[Contribution of radiology to the development of the medical and biological disciplines]Vklad radiologii v razvitie mediko-biologicheskikh distsiplin. [By] R.V.Petrov i dr. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1962. 145 p. (MIRA 15:9)
(RADIOBIOLOGY) (RADIOLOGY, MEDICAL)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

PHASE I BOOK EXPLOITATION SOV/6407

Romantsev, Yevgeniy Fedorovich

Radiatsiya i khimicheskaya zashchita (Radiation and Chemical Protection) Moscow, Gosatomizdat, 1963. 206 p. 6500 copies printed.

Ed.: A. V. Matveyeva; Tech. Ed.: Ye. I. Mazel'.

PURPOSE: This book is intended for specialists in a variety of fields who are interested in present-day problems in radiobiology and for doctors and students.

COVERAGE: The book studies the mechanisms by which chemical radioprotective agents counteract the effects of ionizing radiation and analyzes the primary biochemical and physicochemical processes which accompany the irradiation of living cells. Of particular interest are specific reaction links and mechanisms which are common to more than one chemical radioprotector.

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Compounds such as vitamins and hormones, the mechanism of whose action increases the general radioresistance of the organism, occupy a special position among chemical radioprotectors. Separate chapters deal with the primary physicochemical processes which occur with irradiation, including disturbances of the correlation of biochemical processes in cellular microstructures, and examine the relation of these processes to the protective mechanisms. Radioprotective agents have important applications for medicine, the atomic energy industry, and spaceflight. References are listed following each chapter. There are a total of 527 citations, of which approximately 170 are from Russian, 290 from English, 30 from French, 20 from German, 9 from Italian, and 8 from other sources. No personalities are mentioned.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEV, Ye.F.

New data on the mechanism of protector action. Trudy MOIP. Otd. biol. 7:102-107 '63. (MIRA 16:11)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEV, Ye.F.; TIKHOMIROVA, M.V.

Protection of animals from gamma rays with the help of some aminophenones. Radiobiologiia 3 no.1:126-129 '63. (MIRA 16:2)

(GAMMA RAYS--SAFETY MEASURES) (PROPIOPHENONE)
(ACETOPHENONE) (BUTYROPHENONE)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

GROMOV, V.A.; ZHULANOVA, Z.I.; ROMANTSEV, Ye.F.; SKOLIN, D.D.; SOKOLOVA, G.N.

Changes in the composition of liver lipid fractions in animals exposed to radiation. Radiobiologiia 4 no.3:378-380 '64. (MIRA 17:11)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

[illegible]V, [illegible], [illegible], N.I.

Mechanism of the radio-protective activity of ortho-, meta- and parauminopropiophenones. Radiobiologiia [illegible] '64.
(MIRA [illegible])

1. Institut biofiziki Ministerstva zdravookhraneniya [illegible], Moskva.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

KALISTRATOV, G.V.; ROMANTSEV, Ye.F. (Moskva)

Distribution and elimination of S^{35}-labeled β-mercaptopropylamine from the organism of mice. Farm. i toks. 27 no.3:364-367 My-Je '64. (MIRA 18:4)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

KALISTRATOV, G.V.; ROMANTSEV, Ye.F. (Moskva)

Nature of the bonds between β-mercaptopropylamine and the proteins of liver cell nuclei. Vop. med. khim. 11 no.4: 38-41 Jl-Ag '65. (MIRA 18:8)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ACC NR: AM6026752 Monograph UR/

Romantsev, Yevgeniy Fedorovich; Blokhina, Vera Dmitriyevna; Koshcheyenko, Nikolay Nikolayevich; Filippovich, Igor' Vladimorovich

Early radiation and biochemical reactions (Ranniye radiatsionno-biokhimicheskiye reaktsii) Moscow, Atomizdat, 1966. 270 p. illus., biblio., tables. 2200 copies printed.

TOPIC TAGS: radiation biochemical effect, radiobiology, ~~radiation biologic effect~~, radiation chemistry, ~~radiation sensitivity~~, ~~radiation resistance~~, radiation sickness, ~~chemical radiation protection~~, DNA, RNA, antiradiation drug, radiation cell effect

PURPOSE AND COVERAGE: This book is intended for biologists and biochemists concerned with problems of radiation biochemistry. The authors investigate the nature of early biochemical changes in the living cell following irradiation, and the effect of protective chemicals used in counteracting radiation in the living organism. The formation of peroxides and peroxide-like compounds, the effect of radiation on the synthesis of DNA and information RNA, the formation of macroergs, and other radiation problems in radiation biochemistry are discussed. An attempt is also made to determine the relationship between the operational mechanism of several protective chemicals and "radiosensitive" biochemical reactions. Each chapter is accompanied by an extensive list of references.

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ACC NR: AM6026752

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SUB CODE: 06/ SUBM DATE: 24Jan66/ ORIG REF: 336/ OTH REF: 805

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

S/056/62/043/001/047/056
B102/B104

AUTHORS: Barkov, L. M., Mukhin, K. N., Ogurtsov, V. V., Romantseva, A. S., Svetlolobov, I. A., Chuyeva, S. A., Shlyapnikov, R. S., Likhachev, M. F., Stavinskiy, V. S., Strunov, L. N.

TITLE: The problem of the D^+-meson

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 1(7), 1962, 335-337

TEXT: The authors have searched for a D^+-meson production or a decay among 14,000 pairs of photographs. A propane bubble chamber with pulsed magnetic field was irradiated with a beam of positively charged particles (momentum $\approx$1.8 Bev/c) containing up to 9% K^+ mesons. The processes looked for were $K^+ + p \rightarrow D^+ + \Sigma^+$ and

$$D^+ \nearrow K^0 + \pi^+$$
$$\searrow K^+ + \pi^0$$

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The problem of the D^+-meson

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B102/B104

The first branch of the decay reaction is the more possible. Neither a process $K^+ + p \rightarrow D^+ + \Sigma^+$ nor one of the type $K^+ + n \rightarrow D^+ + \Sigma^0$ could be found. It is inferred that the D^+ meson production cross section in K^+N reactions will be smaller than $1.2 \cdot 10^{-29} cm^2$.

ASSOCIATION: Institut atomnoy energii (Institute of Atomic Energy) (R. S. Shlyapnikov); Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research) (L. N. Strunov)

SUBMITTED: April 25, 1962

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEVA, A.S.

31541
S/627/60/002/000/024/027
D299/D304

3.2410 (2205, 2705, 2805)

AUTHORS: Varfolomeyev, A. A., Gerasimova, R. I., Gurevich, I.I., Makar'ina, L.A., Romantseva, A. S., and Chuyeva, S. A.

TITLE: Electron-photon showers with energies of 11^{11} - 10^{13}ev. in nuclear emulsions

SOURCE: International Conference on Cosmic Radiation. Moscow, 1959. Trudy. v. 2. Shirokiye atmosfernyye livni i kaskadnyye protsessy, 299-306

TEXT: A detailed investigation was carried out of 15 electron-photon showers with energies $>10^{11}$ ev., at low depths. In contradistinction to other works, the results are compared with those obtained for cascades by the Monte Carlo method. Six emulsion stacks were used, with total volume of about 10 liters. In 5 of the stacks of emulsion Р-НИКФИ (R-NIKFI), the grain density of relativistic electrons was 30 - 35 grains per 100 μ. The energy E_γ of primary quanta which generate the shower, was determined from the

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

number of cascade electrons of energy higher than $\mathcal{E}_c$ = 300 Mev, at a depth of 2.5 - 3.0 t_0. A table lists (for comparison) the values of E_γ, obtained by the Monte Carlo method and by formula

$$R = \frac{1}{16,1}\left\{45,0 + \ln\left[\left(\frac{2x}{E}\right)^2 (1 + 140\ x)\right]\right\} \qquad (1)$$

where x is the distance from the pair vertex in cm; this formula is semiempirical and represents the ratio of ionization losses of pairs to those of relativistic electrons; the ionization losses are due to mutual shielding of electron and positron fields. In the experiments, particular care was taken to detect the vertices of the electron-positron pairs, formed at depths $\leqslant 1.5\ t_0$. After determining the lateral shower distribution, the energy of the electrons of the pairs was measured by means of multiple scattering (to an accu-

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

racy of 20 - 30%) for energies of up to $(5-7)\cdot 10^8$ ev. The total number of pairs formed at depths $\leqslant 1.0\ t_0$ and $\leqslant 1.5\ t_0$ with energies higher than (1-2) Mev, is plotted in two figures, from which it is evident that the experimental points fit better the curve which takes into consideration the influence of the medium on the bremsstrahlung (the curve obtained by Migdal's formula); the curve obtained by Bethe-Heitler's formula does not fit the experimental results. The figures also show that not one of the 15 showers under consideration is anomalous. Apparently, the majority of so-called "anomalous" showers, described in literature, can be explained by statistical fluctuations in the cascades or by improper determination of the energy of primary electron-positron pairs. Another figure exhibits the experimental curves of longitudinal shower development; here, too, no appreciable deviations from the corresponding theoretical curves are observed. A table lists data on the number of pairs formed at small distances $r < 0.5\mu$ from the nearest electron track; these data might be useful in analyzing the cross-section for pair formation by high-energy electrons. There are 4

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31541
S/627/60/002/000/024/027
D299/D304

Electron-photon showers ...

figures, 3 tables and 21 references: 10 Soviet-bloc and 11 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: K. Pinkau. Nuovo Cim., 3, 1285, 1956; H. Fay. Nuovo Cim., 5, 293, 1957; J. Iwadare. Phil. Mag., 3, 680, 1958; S. K. Srnivasan, J. S. Butcher, B. A. Chartres, H. Messel. Nuovo Cim., 9, 77, 1958.

Card 4/4

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 58337-65 EWT(m) Peb DIAAP UR/3136/64/000/700/0001/0015
ACCESSION NR: AT5010445

AUTHOR: Kruchinin, S. P.; Mukhin, K. N.; Romantseva, A. S.; Svetlolobov, I. A.; Sulkovskaya, M. M.; Chuyeva, S. A.; Shlyapnikov, R. S.

TITLE: Elastic p-p scattering at 1.45 BeV

SOURCE: Moscow. Institut atomnoy energii. Doklady, no. 700, 1964. Uprugoye (p-p)-rasseyaniye pri 1,45 Bev, 1-15

TOPIC TAGS: elastic scattering, proton proton scattering, pion scattering, differential cross section

ABSTRACT: A propane bubble chamber was used to investigate the angular dependence of elastic scattering of protons by protons at an incident-proton momentum of 2.2 BeV/c, which is higher than the energies used in earlier investigations. The protons came from the 10 BeV accelerator of the Joint Institute of Nuclear Research. A total of 17,000 pairs of stereophotographs was scanned, ~ 900 cases of elastic π^+p and pp scattering cases were analyzed, and the reduction of these data made it possible to determine the differential cross section of elastic pp scattering at 1.45 BeV over the entire angle interval of 0--90° (c.m.s.). Calculations based on

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L 58337-65

ACCESSION NR: AT5010445

the optical model with a small region of phase shift gave best agreement with the experimental data with parameter values $R_1 = 0.45$ F, $R_2 = 0.95$ F, $a = 0.344$, and $\varphi = 1.77$ rad. (R--interaction radius, φ--phase shift, a--amplitude of transmitted wave for a unit amplitude of incident wave). In the energy region from 0.38 to 30.9 BeV, the differential cross section is proportional to $A \exp(-P_{c.m.s.}/P_0)$, with $A = 115$ mb/sr and $P_0 = 143$ MeV/c. "The authors thank I. I. Gurevich for valuable advice, A. P. Benediktov, V. I. Baranov, and A. V. Tel'nov for help in operating the equipment, and V. S. Balova, L. S. Baturina, and A. A. Kondrashina for participating in the measurements." Orig. art. has: 5 figures, 9 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NR REF SOV: 001 OTHER: 012

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

VARFOLOMEYEV, A.A.; GERASIMOVA, R.I.; MAKAR'INA, L.A.; ROMANTSEVA, A.S.; CHUYEVA, S.A.

Ionization along the track of a high-energy electron-positron pair. Zhur.eksp. i teor.fiz. 36 no.3:707-716 Mr '59. (MIRA 12:5)

(Ionization) (Photography, Particle track)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEVA, A.S.

"ELECTRON-PHOTON CASCADES WITH ENERGIES FROM 10^{11} TO 10^{-13} ev IN NUCLEAR EMULSIONS"

A.S. Romantseva, A.A. Varfolomeyev, R.I, Gerasimova, I.I. Gurevich, L.A. Makaryina S.A. Chuyeva

Fifteen electron-photon cascades with energies from 10^{11} to 10^{13} ev, recorded in six emulsion stacks with a total volume of lo l, have been investigated.

The energies of the primary photons evoking the cascades were determined by the energy spectrum of the cascade electrons at a depth of $2.5 \div 3t_0$ (t_0 - rad. unit).

The grain density and the gap density were measured for the first pairs. In all the pairs with energies $3x10^{11}$ ev, a decrease in grain density at the apex caused by the screening effect was discovered.

The following experimental relation of the ionization losses of pair (1) was obtained:

where Iperis the specific ionization electron loss at the ionization plateau, x is the distance from the apes of the pair in cm, and E is the energy of the photon which produced the pair.

The expression obtained for I/21pe may be used to determine the E energy from experimental values for I. An estimation of the E error is given, taking into consideration the screening effect.

The number of electron-positron pairs produced at depths of $1.ot^o$ and $1.5t_0$ was measured.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEVA, A.S. (CONTINUED)

The results agree with the calculated data obtained by the Monte Carlo method, taking into consideration the effect of the medium of Bremsstrahlung (laundau-Pomeranckuk and Ter-Mikaelyan effects).

report presented at the International Cosmic Ray Comference, Moscow 6-11 July 1959

For 10 cascades with E.1.8x10^{11} ev, the probability of p ( )^2 from the criterion / 2, is 2.5 + when compared with the curves which do not consider the effect of the medium, and 80-95% when compared with the calculations that take into consideration the effect of the medium on the Bremsstrahlung.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

VARFOLOMEYEV, A.A.; GERASIMOVA, R.I.; GUREVICH, I.I.; MAKAR'INA, L.A.; ROMANTSEVA, A.S.; CHUYEVA, S.A.

Effect of the density of the medium on bremsstrahlung in electron-photon showers involving energies from 10^{11} to 10^{13} ev. Zhur. eksp. i teor. fiz. 38 no.1:33-45 Jan '60. (MIRA 14:9)
(Bremsstrahlung) (Cosmic rays)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

6

BARKOV, L.M.; MUKHIN, K.N.; OGURTSOV, V.V.; ROMANTSEVA, A.S.; SVETLOLOBOV, I.A.; CHUYEVA, S.A.; SHLYAPNIKOV, R.S.; LIKHACHEV, M.F.; STAVINSKIY, V.S.; STRUNOV, L.N.

The problem of the D $\dagger$ -meson. Zhur. eksp. i teor. fiz. 43 no.1:335-337 Jl '62. (MIRA 15:9)

1. Ob"yedinennyy institut yadernykh issledovaniy (for Strunov).
(Mesons)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

Romantseva, A. S.

Angular distribution of fragment from the fission of uranium-238 by neutrons of different energies. A. A. Varfolomeev, A. S. Romantseva, and V. M. Kutukova. *Doklady Akad. Nauk S.S.S.R.* 105, 693-5(1955).—The angular distribution was detd. of fission fragments from the natural mixt. of U isotopes interacting with neutrons of ~4, 12-, 14- and 17-m.e.v. energy. A correlation is observed between the direction of scattering of fission fragments from heavy nuclei and the direction of flight of the particles causing fission. The liquid-drop model cannot account for this. On the Hill and Wheeler collective model of the nucleus, transmission of the energy of the impinging particle to surface vibrations of the nucleus (across "wall" of nucleus) is possible, and in principle there can exist a direct convection between the momentum of the impinging particle and the direction of scattering of the fragments. A detn. of the dependence of the anisotropy of the fission fragment on the energy of the particle causing fission and on the fissioning nucleus is of significance for the mechanism of fission.

J. J. Mitchell

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

21(8) SOV/56-36-3-3/71

AUTHORS: Varfolomeyev, A. A., Gerasimova, N. I., Makar'ina, L. A., Romantseva, A. S., Chuyeva, S. A.

TITLE: Ionization Along the Tracks of Electron-Positron Pairs of High Energy (Ionizatsiya vdol' sleduy elektronno-pozitronnykh par vysokoy energii)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 3, pp 707-716 (USSR)

ABSTRACT: In the introduction the authors discuss the problem and the results of several already published works dealing with this subject. Table 1 contains for the 5 investigated showers (K-53, O-202, D-84, D-44 and I-103) the data of the emulsion piles in which they were recorded (see previous paper by the same authors, reference 7); table 2 contains a list of the E_γ-values according to Janossy (Yanoshi) (Refs 10, 12) and according to Chudakov (Ref 1). (Today it is possible to obtain more exact E_γ-values from curves by the Monte Carlo method by taking the influence exercised by matter on bremsstrahlung into account. The publication of respective results has been announced). A very detailed chapter of this paper deals with gauging of the emulsions (type R-NIKFI). The follow-

Card 1/3

Ionization Along the Tracks of Electron-Positron Pairs of High Energy

ing experimental data concern the track densities of five high-energy electron-positron pairs in these emulsions. Measurements were carried out on the first pairs of electron-photon showers. Pair energy was determined from the energy spectrum of the cascade electrons at a distance of 2.5 - 3 radiation lengths from the vertex of the first pair. In three cases pair energy was nearly $.10^{12}$ ev and in two cases it was approximately 3.10^{11} ev. Track density was determined by two methods: from the grain density in the track and from the gap length distribution coefficient. Compared with a particle for which the specific energy loss is twice as great as the ionization loss of the electron, the track density of the pair near the vertex was found to be smaller. This decrease of the pair track density can be explained by the mutual screening of the electron and positron during ionization. The results obtained are compared with the theoretical ionization curves for pairs calculated by A. Ye. Chudakov (Ref 1). The authors finally thank Professor I. I. Gurevich for his interest and discussions, A. A. Kondreshina for his help in

Card 2/3

SOV/56-36-3-9/71

Ionization Along the Tracks of Electron-Positron Pairs of High Energy

evaluating measuring results, and D. M. Samoylovich and his group for developing the piles of emulsion plates. There are 8 figures, 2 tables, and 21 references, 3 of which are Soviet.

SUBMITTED: August 18, 1958

Card 3/3

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

SHKLYAR, F. R.; TIMOFEYEV, V. N.; Prinimali uchastiye: PAKHALUYEV, K. M., inzh.; KOROLEV, N. M., inzh.; CHEREMNYKH, V. I., laborant; GERASIMOV, G. I., laborant; ROMANTSEVA, E. P., laborant; RUZHENTSEVA, T. M., laborant

Experimental investigation of the regenerative heat exchange process. Sbor. nauch. trud. VNIIMT no.8:119-136 '62. (MIRA 16:1)

(Air preheaters--Testing)
(Heat--Transmission)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

STEPANOV, Georgiy Yur'yevich. Prinimali uchastiye: SIROTKIN, Ya.A.; NAUMOVA, L.G.; ROMANTSEVA, L.I.; SHUSTOV, S.N., red.; BRUDNO, K.F., tekhn. red.

[Fluid dynamics of turbomachine cascades]Gidrodinamika reshetok turbomashin. Moskva, Fizmatgiz, 1962. 512 p. (MIRA 15:8)

(Turbomachines--Fluid dynamics)
(Cascades(Fluid dynamics))

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

1265B

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEVA, L.M.; SOLODKIN, I.S.

Corrosion of nitrided steel by the combustion products of sulfur fuels. Uch. zap. MGPI 99:87-93 '57.

(MIRA 12:3)

(Steel--Corrosion) (Sulfur compounds)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

SOV/137-58-12-24821

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 118 (USSR)

AUTHORS: Romantseva, L. M., Solodkin, I. S.

TITLE: Corrosion of Nitrogenized Steel by Products of Combustion of Sulfur-containing Fuel (Korroziya azotirovannoy stali produktami sgoraniya sernistogo topliva)

PERIODICAL: Uch. zap. Mosk. gos. ped. in-ta, 1957, Nr 99, pp 87-93

ABSTRACT: An investigation was made of the effect of the S content of fuel (F) on the corrosive activity of its combustion products (CP) on nitrogenized 38KhMYuA steel. Experiments were performed with F containing 0.11, 1.15, and 2.2% S. Specimens were subjected to the action of CP for 10 min, whereupon they were placed into a moisture chamber and left there first for one day and then for four days. It was found that the corrosive aggressiveness of CP increased with the increase of the S content in the F. An investigation was made of the dissolution of the nitrogenized layer of 38KhMYuA steel in H_2SO_4, H_2SO_3, H_2CO_3, HNO_3, formic, acetic, and butyric acids and in their mixtures which can be formed in CP. The experiments were carried out for 10 hours and the concentration of the acids was 0.5N. It was established that

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SOV/137-58-12-24821

Corrosion of Nitrogenized Steel by Products of Combustion of Sulfur (cont.)

the most corrosive component of the CP is H_2SO_4. Dethylamine, diethylaniline, butylphosphate, and hexylphosphate (1% by volume) were added to the sulfur-containing F, and the effect of these additions on the corrosion of nitrogenized steel in the CP was studied. It was established that additions of amines and phosphates to F slow down greatly the development of corrosion of 38KhMYuA steel in the CP of sulfur-containing F.

G. M.

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

BELKIN, I.M.; [illegible]ANTSEVA, L.M.; SUKHANOVA, V.A.; COLOSHCHEPOV, I.M., ed.

[Plastics in armored equipment] Plastmassy v bronetankovoi [illegible]. Moskva, Voenizdat, 1965. 136 p. (MIRA 18:9)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEVA, L.M.; KOZLOVA, I.V.

Chemical processes on electrodes during electrolysis. Khim. v shkole 13 no.5:25-40 S-O '58. (MIRA 11:9)
(Electrochemistry)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 07162-67 EWP(j)/EWT(m) RM

ACC NR: AP6028198 SOURCE CODE: UR/0189/66/000/002/0080/0082

AUTHOR: Romantseva, T. I.; Gromova, M. I.; Peshkova, V. M.

ORG: Analytical Chemistry Department (Kafredra analiticheskoy khimii)

20
B

TITLE: Study of complexing in the system neodymium - 5,7-dichlorooxine - amyl acetate - water

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 2, 1966, 80-82

TOPIC TAGS: neodymium compound, stability constant, chelate compound

ABSTRACT: Complexing between Nd and 5,7-dichlorooxine (Cl_2OX) was studied in the system Nd - Cl_2OX - amyl acetate - H_2O. The overall and successive stability constants of the complex formed were calculated by the methods of (1) Bjerrum (graphically and by computation) and (2) Dyrssen and Sillen. The complex was found to have the composition $Nd(Cl_2OX)_3$. The overall stability constant is -4.37, whereas the corresponding constant for the Nd - Cl_2OX - chloroform - H_2O system is -4.58. This indicates that the advantage of amyl acetate over chloroform in extracting dichlorooxine complexes of rare earths lies in the fact that the extraction with amyl acetate begins in a more acidic medium, i. e., under conditions where the rare earth ion cannot hydrolyze. Orig. art. has: 3 figures, 1 table and 1 formula.

SUB CODE: 07/ SUBM DATE: 21Jul65/ ORIG REF: 002/ OTH REF: 004

Card 1/1 hrs UDC: 543.7 546

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 30277-65 EWP(j)/EWT(m)/EWP(t)/ETI IJP(c) RM/JD/JG

ACC NR: AP6013827 SOURCE CODE: UR/0189/65/000/006/0074/0078

AUTHOR: Romantseva, T. I.; Gromova, M. I.; Peshkova, V. M.

ORG: Chair of Analytical Chemistry, Moscow State University (Kafedra analiticheskoy khimii, Moskovskiy gosudarstvennyy universitet)

56
B

TITLE: Spectrophotometric determination of neodymium in the presence of praseodymium and samarium

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 6, 1965, 74-78

TOPIC TAGS: spectrophotometric analysis, neodymium, praseodymium, samarium, absorption spectrum, organometallic compound

ABSTRACT: Absorption spectra of complex compounds formed by neodymium, samarium and praseodymium with 7-iodo-8-hydroxyquinoline-5-sulfonic acid were studied. A strong hypsochromic shift of the absorption band of this reagent in alkaline media, combined with the bathochromic shift of the characteristic absorption maximum of the complex formed by this reagent with neodymium, creates favorable conditions for determining neodymium at λ_{max} 581 mμ. Neodymium was determined in Nd-Pr and Nd-Sm pairs in water--alcohol solutions at pH 8.0-11.0, using two wavelengths: λ_1 581 mμ and λ_2 590 mμ. The data show that the method used permits a sufficiently accurate determination of neodymium in praseodymium and samarium in amounts of 0.0043-0.043 mg/ml (or $3 \cdot 10^{-5}$ -

UDC: 543.7

Card 1/2

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 30227-66

ACC NR: AP6013827

- $1 \cdot 10^{-4}$ M) at Nd:Pr(Sm) ratios of 1:99 to 1:8. Orig. art. has: 4 figures, 2 tables, 3 formulas.

SUB CODE: 07/ SUBM DATE: 22Mar65/ ORIG REF: 009/ OTH REF: 005

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 34174-66 EWT(m)/EWA(h)/ETI IJP(c) JD/JG

ACC NR: AP6010716 SOURCE CODE: UR/0189/66/000/001/0073/0078

AUTHOR: Romantseva, T. I.; Gromova, M. I.; Peshkova, V. M.

ORG: Analytic Chemistry Department, Moscow State University (kafedra analiticheskoy khimii, Moskovskiy gosudarstvennyy universitet)

TITLE: Use of different variants of spectophotometric measurements in the determination of erbium in holmium and thulium and of ytterbium in lutetium

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 1, 1966, 73-78

TOPIC TAGS: spectrophotometric analysis, erbium, holmium, thulium, ytterbium, lutetium

ABSTRACT: Continuing a study of the spectrophotometric analysis of rare earth mixtures for their individual components, the authors have compared different variants of the spectrophotometric method and attempted to show their applicability to the analysis of separate pairs of rare earth elements, taking as an example complex compounds of a series of elements of the yttrium subgroup with 7-iodo-8-hydroxyquinoline-5-sulfonic acid. Absorption spectra of water-alcohol solutions of complexes of erbium, holmium, thulium, ytterbium, and lutetium were studied. Erbium was determined in Er-Ho and Er-Tm pairs, and a statistical treatment of the results showed that the errors had a random character in the case of the Er-Tm pair, whereas in the case of Er-Ho the results were systematically high. However, Er was reliably determined in Ho by also

Card 1/2 UDC: 543.7

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 34374-66

ACC NR: AP6010716

making use of a differential method. Ytterbium was determined in the Yb-Lu pair; mathematical treatment of the results showed the errors to be random in character, but the standard deviation was fairly appreciable. The methods employed permitted the determination of Er in amounts from 3 to 10% (9×10^{-5} M - 3×10^{-4} M) in Tm and from 5 to 10% (1.5×10^{-4} M - 3.0×10^{-4} M) in Ho, and the determination of Yb in amounts from 15 to 30% (4.5×10^{-4} M - 9.0×10^{-4} M) in Lu. Orig. art. has: 6 figures and 4 tables.

SUB CODE: 07/ SUBM DATE: 02Apr65/ ORIG REF: 006

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 29946-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AP4044080 S/0189/64/000/004/0057/0061

AUTHORS: Gromova, M.I.; Romantseva, T. I.; Peshkova, V. M.

28
27
B

TITLE: Using the absorption spectra of the dichloroxinates of praseodymium, neodymium and samarium for the determination of these elements

SOURCE: Moscow. Universitet. Vestnik. Seriya 2. Khimiya, no. 4, 1964, 57-61

TOPIC TAGS: praseodymium, neodymium, samarium, spectrophotometric determination, dichlorohydroxyquinoline, rare earth dichloroxinate, extraction, coefficient of extinction, absorption spectrum

ABSTRACT: The spectrophotometric determination of praseodymium, neodymium and samarium, or mixtures of these, complexed with 5,7-dichlorohydroxyquinoline was investigated. Optimum extraction of these complexes from aqueous solutions with chloroform is in the pH 6.5 -7 to 8.5-10 range; below pH 6.5 complex formation is in progress. The rare earth salts were dissolved in dilute $HClO_4$, the reagent was

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 29946-65
ACCESSION NR: AP4044080

used as a 0.1% solution in 3N HCl. The absorption spectra of the rare earth dichloroxinates were obtained. All three complexes absorb strongly in the 395-400 millimicron region; Nd has several peaks, while Pr and Sm show no peaks in the 500-850 millimicron region; the Nd maximum at 581 millimicrons is most pronounced; Sm has a maximum at 1085 millimicrons. Concentrations of the elements in Nd-Pr and Nd-Sm mixtures were determined by solution of the equation $D = l \sum_{a=1}^{n} \varepsilon_{\lambda_a} \cdot c_a$, where n = 2, λ_1 = 581 and λ_2 = 640 millimicrons for Nd-Pr, and λ_1 = 581 and λ_2 = 1085 millimicrons for Nd-Sm mixtures. The coefficients of extinction ε for the selected wave lengths (in millimicrons) for the various complexes: Pr, at λ = 581, ε = 10.34 and at λ = 640, ε = 7.85; Sm, at λ = 1085, ε = 5.0 and at λ = 581, ε = 3.6; Nd, at λ = 581, ε = 63.0 and at λ = 640, ε = 7.8. Because of the limited solubility of these rare earth complexes in chloroform, the determinable concentration of Nd in Pr and Sm is in the 1×10^{-4} to 5×10^{-4} M range (0.014-0.072 mg/ml of Nd in the presence of 0.12-0.07 mg/ml of Pr or 0.13-0.075 mg/ml of Sm). Pr and Sm cannot be determined in the presence of relatively large amounts of Nd. Orig. art. has: 2 tables and 3 figures.

Card 2/3

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L 29946-65

ACCESSION NR: AP4044080

ASSOCIATION: MGU, Kafedra analiticheskoy khimii (Moscow State University, Department of Analytical Chemistry)

SUBMITTED: 24Mar64 ENCL: 00

SUB CODE: IC, OP NR REF SOV: 001 OTHER: 009

Card 3/3

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ROYNISHVILI, N. N.

1 - Rmf

Distribution of charged particles in electron nuclear showers according to their momentums. L. D. Gedevanishvili, Z. Sh. Mandzhavidze, N. N. Roinishvili, E. I. Tsagareli, A. I. Tsintsabadze, and G. E. Chikovani. *Bull. Acad. Sci. U.S.S.R., Phys. Ser.* 6, 677-8(1955)(English translation).—See *C.A.* 50, 7618e. B. M. R.

Nuc Sci

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GEDEVANISHVILI, L.D.; MANDZHAVIDZE, Z.Sh.; ROYNISHVILI, N.N.; TSAGARELI, E.I.
TSINTSABADZE, A.I.; CHIKOVANI, G.Ye.

Pulse distribution of charged particles in electronic and nuclear showers. Izv. AN SSSR. Ser. fiz.19 no.6:748-749 N-D '55.(MIRA 9:4)

1.Institut fiziki AN Gruz.SSR i Tbilisskiy gosudarstvennyy universitet imeni I.V.Stalina.
(Cosmic rays) (Nuclear physics)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROYNISHVILI, N.N.

AUTHOR: MANDZHAVIDZE, Z.SH., ROYNISHVILI, N.N., CHIKOVANI, G.Ye. 56-7-61/66

TITLE: Observation of the Anomalous Decay of Charged Particles in the Wilson Chamber. (Nablyudenie anomal'nogo raspada zaryazhenncy chastitsy v kamere Vil'sona, Russian)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol 33, Nr 7, pp 303-303 (U.S.S.R.)

ABSTRACT: A slow particle with a more than 20-fold ionization enters the WILSON chamber (observation took place in the Elbrus Laboratory) and decays, on which occasion it emits a positive particle with a momentum of 352^{+94}_{-61} MeV/c at an angle of 95°. At present it is presumed that the decay of a particle which is heavier than a K-meson, was observed. (With 1 Illustration).

ASSOCIATION: Physical Institute of the Georgian Academy of Sciences of the U.S.S.R. (Institut fiziki Akademii nauk Gruzinskoy S.S.R.

PRESENTED BY:

SUBMITTED: 19.4.1957

AVAILABLE: Library of Congress

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ROMANTSEVA, L.M.; KOZLOVA, I.V.

Nikolai Nikolaevich Zinin; 75th anniversary of his death. Khim. v shkole 10 no.5:17-26 S-O '55. (MIRA 8:11)
(Zinin, Nikolai Nikolaevich, 1812-1880)

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ROMANTSEVA, L.M.; KOZLOVA, I.V.

Tagged atom method and its application. Khim.v shkole 10 no.3: 3-17 My-Je '56. (MLRA 9:8)

(Radioactive tracers)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

BALUDA, V.P.; CHERNAYA, V.V.; MALIAROVSKIY, V.N.; TSYNKALOVSKIY, I.B.; ROMANTSEVA, T.B.

Functional state of the blood coagulation system in healthy subjects. Probl. gemat.i perel. krovi 6 no.1:59-61 '61. (MIRA 14:2)
(BLOOD—COAGULATION)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

NOTKINA, M.A.; SOLODOVNIK, S.M.; BARANOVA, L.L.; LUSHINA, V.K.; ROMANTSEVA, T.I.

Increasing the sensitivity of the determination of impurities in pure metals. Zav.lab. 28 no.2:176-177 '62. (MIRA 15:3)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoy promyshlennosti.
(Metals—Spectra)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

NAZAROVA, Z.F.; BATOG, A.Ye.; YENAL'YEV, V.D.; ROMANTSEVICH, M.K.

Condensation of tertiary amyl hydroperoxide with some carbonyl compounds. Zhur. ob. khim. 34 no.7:2430-2432 Jl '64 (MIRA 17:8)

1. Ukrainskiy nauchno-issledovatel'skiy institut plastmass, Donetsk.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEVICH, M.K.

CZECH

Condensation of olefin oxides with halogen compounds of antimony. M. S. Malinovskii and M. K. Romantsevich (L. Franko State Univ., Lvov). Sb[illegible] Khim. 2, 1366-9(1963).—Satn. of 14.6 g. $SbCl_3$ with 25 g. ethylene oxide, with cooling, followed by 3 days at room temp. gave after evapn. of excess oxide 23 g. oil, which decomp. at 120°, identified as $Sb(OCH_2CH_2Cl)_3$, d_{20} 1.7604; heated with H_2O it gave Sb_2O_3 and $ClCH_2CH_2OH$. Letting 14.27 g. $SbCl_3$ and 5.51 g. ethylene oxide stand in MePh 24 hrs. gave after evapn. 19.78 g. viscous liquid which solidified on standing, m. 67°, identified as crude $(ClCH_2CH_2O)_2SbCl$. Treatment of 3.48 g. oxide with 18.04 g. $SbCl_3$ similarly gave crude $ClCH_2CH_2OSbCl_2$, m. 69-70°. Propylene oxide (12 g.) and 8.07 g. $SbCl_3$ gave after 3 days 14.23 g. oily $C_6H_{12}O_2Cl_3Sb$, d_{20} 1.4944, which is also decomposed by H_2O, EtOH, AcOH. Epichlorohydrin and $SbCl_3$ gave after 2 days $C_9H_{15}O_3Cl_4Sb$, oil, d_{20} 1.8451. Treatment of 12 g. ethylene oxide with 18.08 g. $SbBr_3$ in MePh gave after standing overnight 24.60 g. oily $C_4H_{10}O_2Br_3Sb$, d_{20} 2.3161, which is readily attacked by H_2O, yielding $HOCH_2CH_2Br$. Reaction of ethylene oxide with $BiCl_3$ at 50° in MePh gave a sol. product, $(ClCH_2CH_2O)_3Bi$, and an insol. product, $(ClCH_2CH_2O)_2BiCl$. G. M. K.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEVICH, M. K.:

Romantsevich, M. K.: "The interaction of alpha-oxide compounds containing organochlorosilanes." Min Higher Education USSR. L'vov State U imeni Ivan Franko. Chair of Organic Chemistry. L'vov, 1956. (Dissertation of the Degree of Doctor of Chemical Science)

SO: Knizhnaya letopis', No 27, 1956. Moscow. Pages 94-109; 111.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSEVICH, M.K.

Synthesis and transformations of oxygen-containing organosilicon compounds. III. Reactions of propylene oxide with alkyl(aryl)chlorosilanes. M. F. Shostakovskii, M. S. Malinovskii, M. K. Romantsevich, and D. A. Kochkin (N. D. Zelinskii Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). *Izvest. Akad. Nauk S.S.R., Otdel. Khim. Nauk* 1956, 632-4; cf. *C.A.* 50, 11235a.—To 29.04 g. propylene oxide (I) was added 75.36 g. iso-BuEtSiClH keeping the temp. at 30-5°; after 8 hrs. at 35-45° and standing overnight, the mixt. gave 84.9% *iso-BuEtSiHOCH₂CHMeCl*, b_1 50-50.5°, n_D^{20} 1.4330, d_4^{20} 0.9161. Similarly were obtained (b.p., n_D^{20}, and d_4^{20} given): 76.3% *MeSiH(OCH₂CHMeCl)₂*, b_1 90.5-1°, 1.4350, 1.0915; 77.1% *Me₂SiOCH₂CHMeCl*, b_1 75.5-6°, 1.4378, 1.0765; 69.3% *EtSiH(OCH₂CHMeCl)₂*, b_1 85.2-5.4°, 1.4405, 1.0880; 72% *CH₂(CHSiH(OCH₂CHMeCl)₂)₂*, b_1 140.5-1°, 1.4537, 1.1457. Shaking $EtSiH(OCH_2CHMeCl)_2$ with concd. HNO_3 and heating 1 hr. at 50° gave $MeCHClCO_2H$. The results indicate that the ring of I opens at the primary C atom. Also in *Bull. Acad. Sci. U.S.S.R. Div. Chem. Sci.* 1956, 639-41(Engl. translation). G. M. K.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

Romantsevich, M. K.

Reaction of epichlorohydrin and methyl glycidyl ether with organochlorosilanes. M. S. Malinovskii and M. K. Romantsevich (State Univ., Lvov). *Zhur. Obshchei Khim.* 27, 1080-5(1957); cf. *C.A.* 49, 4505*f*.—Chlorosilanes with epichlorohydrin give ring opening at the secondary C atom. Addn. of 29.76 g. epichlorohydrin to 14.95 g. $MeSiCl_3$ at 30-5° and heating 10 hrs. at 60° gave 77.3% $MeSi[OCH(CH_2Cl)_2]_3$ (I), b_5 202-4°, n_D^{20} 1.4912, d_D 1.3894. Similarly were prepd.: 62.2% $Me_2SiOCH(CH_2Cl)_2$, b_{20} 105-7°, 1.4394, 1.0762; 76.2% $Me_2Si[OCH(CH_2Cl)_2]_2$, b_5 135-7°, 1.4771, 1.2791; 87.5% $MeSiH[OCH(CH_2Cl)_2]_2$, $b_{5.4}$ 132°, 1.4802, 1.3124; 73.5% $Et_2Si[OCH(CH_2Cl)_2]_2$, b_5 136-8°, 1.4786, 1.2352; 77.5% $EtSi[OCH(CH_2Cl)_2]_3$, b_5 191-3°, 1.4915, 1.3634; $EtSiH[OCH(CH_2Cl)_2]_2$, $b_{5.4}$ 139°, 1.4799, 1.2805. I with $Na_2Cr_2O_7$ in aq. H_2SO_4 gave $CO(CH_2Cl)_2$. Reaction with Et_3SiCl failed to take place. Me glycidyl ether (27.43 g.) with 14.95 g. $MeSiCl_3$ gave 29.3% $MeSi[OCH(CH_2Cl)CH_2OMe]_3$, b_5 176-70.5°, 1.4579, 1.2054. Similarly were prepd.: 71.4% $Me_2Si[OCH(CH_2Cl)CH_2OMe]_2$, b_5 119.5-20°, 1.4495, 1.1321; 77.1% $Me_2SiOCH(CH_2Cl)CH_2OMe$, b_{20} 86.5-8°, 1.4273, 0.9956; 76% $MeSiH[OCH(CH_2Cl)CH_2OMe]_2$, b_5 118.5-20°, 1.4495, 1.1491; 72.2% $EtSi[OCH(CH_2Cl)CH_2OMe]_3$, b_5 181-3°, 1.4599, 1.1968; 66.4% $Et_2Si[OCH(CH_2Cl)CH_2OMe]_2$, b_5 137-8°, 1.4588, 1.1202; 72.5% $EtSiH[OCH(CH_2Cl)CH_2OMe]_2$, b_4 128-30°, 1.4513, 1.1396. The structure of the products was confirmed by oxidation as above to $MeOCH_2COCH_2Cl$ and reduction of this with Zn-AcOH to $MeOCH_2Ac$, b_{20} 117°, d_{20} 0.9558. The previous report by Andrianov, *et al.* (*C.A.* 50, 6302*i*), as to orientation of the reaction of epichlorohydrin with chlorosilanes is severely criticized. G. M. K.

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Distr: 4E4j/4E3d/4E2c(j) KM

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Romantsevich M. 46

Reaction of ethylene oxide and cyclohexene oxide with organochlorosilanes. M. S. Malinovskii and M. K. Romantsevich (State Univ., Lvov). *Zhur. Obshchei Khim.* 27, 1873-6(1957).—Reaction of olefin oxides with chlorosilanes yields 2-chloroalkoxy derivs. Into 25.8 g. $EtSiHCl_2$ in dry Et_2O was introduced dry ethylene oxide yielding 80% $EtSiH(OCH_2CH_2Cl)_2$, b_6 66.5-8°, n_D^{20} 1.4464, d_{20} 1.1523. Similarly prepd. were: 75.7% $EtBuSiH(OCH_2CH_2Cl)$, b_6 50°, 1.4349, 0.9267; 79.7% $ClCH_2SiMe(OCH_2CH_2Cl)_2$, b_3 109°, 1.4671, 1.2671; 75.5% $Cl_2CHSiMe(OCH_2CH_2Cl)_2$, $b_{2.5}$ 117-18°, 1.4795, 1.3454; 68.3% $EtSi(OCH_2CH_2Cl)_3$, $b_{2.5}$ 123-4°, 1.4597, 1.2369; 75.3% $Et_2Si(OCH_2CH_2Cl)_2$, b_4 96-7°, 1.4526, 1.1011; 67.5% $EtPhSiH(OCH_2CH_2Cl)$, b_6 98-9°, 1.5043, 1.0522; 76.4% $Me_2PrSiOCH_2CH_2Cl$, b_{15} 71-2°, 1.4331, 0.9472; 59.2% $Me_3SiOCH_2CH_2Cl$, b_{22} 72-3°, 1.4593, 1.3814. Similar reaction of cyclohexene oxide, requiring 10 hrs. at 60° for completion, gave: $(o\text{-}ClC_6H_{10}O)_3SiMe$, 70.3%, $b_{2.5}$ 211-14°, 1.4971, 1.1806; 73.4% $(o\text{-}ClC_6H_{10}O)_2SiMe_2$, $b_{2.5}$ 152-4°, 1.4844, 1.1178; 68.7% $o\text{-}ClC_6H_{10}OSiMe_3$, b_3 60-1.5°, 1.4565, 0.9931; 75.2% $(o\text{-}ClC_6H_{10}O)_2SiHMe$, b_3 156-7°, 1.4865, 1.1404; 94.2% $(o\text{-}ClC_6H_{10}O)_4Si$, m. 47-51°. The chloroethyl derivs. are rapidly hydrolyzed by H_2O especially in the presence of acids. The reaction with ethylene oxide has an appreciable induction period.

G. M. Kosolapoff

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4E4j
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5 (3)

AUTHORS: Malinovskiy, M. S., Romantsevich, M. K. SOV/79-29-3-29/61

TITLE: On the Reaction of Propylene Oxide With Organochlorosilanes (O vzaimodeystvii okisi propilena s organokhlorsilanami)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 888-891 (USSR)

ABSTRACT: In the present paper the synthesis of eight β-chloropropoxy-organosilanes hitherto not published is described and the way of cleavage of the oxide ring in the propylene oxide on the reaction with organochlorosilanes is investigated. This reaction (1) may proceed in two directions:

$$CH_3-\underset{\diagdown O \diagup}{CH-CH_2} + R_nSiCl_{4-n} \longrightarrow \begin{cases} R_nSi(OCH_2CHClCH_3)_{4-n} & (a) \\ R_nSi(O\underset{CH_3}{\underset{|}{C}}HCH_2Cl)_{4-n} & (b) \end{cases} \qquad (1)$$

R. Sauer and W. Patnode (Ref 2) suggested the scheme (2) for the analogous reaction with ethylene oxide. As the chlorosilanes always contain traces of HCl, the ethylene oxide is transformed by them into the ethylene chlorohydrin. The latter reacts with organochlorosilanes according to scheme (3)

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under regeneration of the hydrogen chloride which, for its part, reacts according to scheme 2 with the ethylene oxide. The propylene oxide reacts with the organochlorosilanes in the same way, only its oxide ring is cleaved with HCl in two directions, to the primary and secondary carbon. This yields a mixture of two chlorohydrins, (a) and (b) (Scheme 4), with considerable predominance of the isomer which corresponds to direction (a) (Ref 3, according to Petrov). For this reason the second step, the reaction of chlorohydrin with the organochlorosilanes, proceeds in two directions (5) and (6). On the oxidation of the hydrolysis products of the ethers obtained with nitric acid (Ref 1) a small amount of α-chloropropionic acid is formed which permits reaction (6) but indicates that the reaction of the propylene oxide with organochlorosilanes chiefly causes the formation of isopropylidene compounds corresponding to formula (b) in scheme (1). This assumption was supported by the oxidation of the hydrolysis products of the ethers with nitric acid and the chromium mixture. In the first case the α-chloropropionic acid resulted in low yield and in the second case

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chloroacetone was obtained in good yield which confirms equation (5) or the direction (b) in scheme (1). Thus in the above reaction the isomer with the oxygen at the secondary carbon atom prevails in the mixture of isomers obtained. There are 1 table and 5 references, 3 of which are Soviet.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

SUBMITTED: February 1, 1958

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[illegible], [illegible]; [illegible], [illegible]; [illegible], [illegible]; [illegible], [illegible]

[illegible] of some tert-amylperacylates. Ukr. khim. zhur. [illegible] no. [illegible] '64. (MIRA 17:10)

1. Karaimskiy [illegible]-issledovatel'skiy institut plasticheskikh mass, Donetsk.

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ROMANTSEVICH, M.K. [Romantsevych, M.K.]; SHOLOGON, I.M. [Sholohon, I.M.]; BARANOVSKAYA, N.F. [Baranovs'ka, N.F.]; SIRENKO, N.N.

Synthesis of dicyclopentadienedicarboxylic acid. Khim. prom.[Ukr.] no.1:20-22 Ja-Mr '65. (MIRA 18:4)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

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SOMOKINA, A.N.; BATOG, A.Ye.; ROMANTSEVICH, M.K.

Furen-containing perestors. Zhur. org. khim. 1 no.11:2050-2051 N '65. (MIRA 18:12)

1. Submitted October 24, 1964.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 21778-66 EWT(m)/EWP(j)/EWP(t) IJP(c) JD

ACC NR: AP6002511 SOURCE CODE: UR/0286/65/000/023/0018/0018

60
B

AUTHORS: Shologon, I. M.; Kapitonov, V. M.; Romantsevich, M. K.

ORG: none

21

TITLE: A method for obtaining bicyclopentadienyl titanium derivatives, containing silicon. Class 12, No. 176583 [announced by Ukrainian Scientific Research Institute for Plastics (Ukrainskiy nauchno-issledovatel'skiy institut plastmass)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 18

TOPIC TAGS: organotitanium compound, organosilicon compound, organic chemistry, titanium, silicon, sodium

ABSTRACT: This Author Certificate presents a preparative method for obtaining bicyclopentadienyl titanium derivatives containing silicon. The sodium derivatives of cyclopentadienyltrialkyl (aryl) silane are treated with titanium tetrachloride at -30 to -40C in an organic solvent, e.g., tetrahydrofurane.

SUB CODE: 07/ SUBM DATE: 30Nov64

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UDC: 547.419.5/6:514.721.07

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

BATOG, A.Ye.; TATARSKAYA, I.M.; BOCHAROVA, Yu.Ye.; YENAL'YEV, V.D.; ROMANISEVICH, M.K.

Synthesis of peroxide and hydroperoxide of tertiary butyl. Ukr.khim.zhur. 31 no.2:207-208 '65. (MIRA 18:4)

1. Ukrainskiy nauchno-issledovatel'skiy institut plasticheskikh mass, Donetsk.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 26370-66 EWP(j)/EWT(m)/T RM/JD

ACC NR: AP6011197 SOURCE CODE: UR/0413/66/000/006/0028/0028

INVENTOR: Batog, A. Ye.; Mashnenko, O. M.; Romantsevich, M. K.

25
B

ORG: none

TITLE: A method for producing peroxide compounds containing silicon. Class 12, No. 179770 [announced by Ukrainian Scientific Research Institute of Plastics (Ukrainskiy nauchno-issledovatel'skiy institut plastmass)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 28

TOPIC TAGS: silicon plastic, peroxide, halogenated organic compound, silane

ABSTRACT: This Author's Certificate introduces a method for producing peroxide compounds containing silicon in which the peroxide group is not directly linked to the silicon atom. Alkyl(aryl)peroxyalkanols are interacted with organic silane halides in the presence of a base in an inert solvent, e. g. hexane, at a temperature of -20 to +40°C.

SUB CODE: 07,11/ SUBM DATE: 30Nov64/ ORIG REF: 000/ OTH REF: 000

UDC: 547.419.5-39.07

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

L 44571-66 EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6015676 SOURCE CODE: UR/0413/66/000/009/0077/0077

28
B

INVENTOR: Shologon, I. M.; Moshinskiy, L. Ya.; Romantsevich, M. K.

ORG: none

TITLE: Method of obtaining organosilicon resins. Class 39, No.181297 [announced by Ukrainian Scientific Research Institute of plastics (Ukrainskiy nauchno-issledovatel'skiy institut plastmass)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 77

TOPIC TAGS: resin, organosilicon resin, organosilicon compound

ABSTRACT: An Author Certificate has been issued for a method of obtaining organosilicon resins by the condensation of silicon organic compounds with polydydric alcohols upon heating. To expand the variety of initial compounds, alkoxysilylendomethylenetetrahydrophthalic anhydride is suggested as the organosilicon compound. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 09Jul64/

Card 1/1 UDC: 678.6:661.72

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ACC NR: AP6033182 SOURCE CODE: UR/0079/66/036/010/1846/1848

AUTHOR: Shologon, I. M.; Romantsevich, M. K.

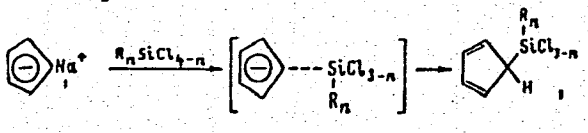
ORG: none

TITLE: Synthesis and reactions of silicon-containing derivatives of cyclopentadiene. Part 1: Cyclopentadienylchlorosilanes

SOURCE: Zhurnal obshchey khimii, v. 36, no. 10, 1966, 1846-1848

TOPIC TAGS: organosilicon compound, silane, organosodium compound, chemical synthesis, chemical reaction

ABSTRACT: In an attempt to develop an effective method for preparing cyclopentadienylchlorosilanes, the condensation of cyclopentadienylsodium with silicon tetrachloride and organochlorosilanes was investigated. It is postulated that the condensation with chlorosilanes takes place via an ionic mechanism:



where R is an organic radical or chlorine, and n = 0, 1, 2, 3. Relatively high yields (60-70%) of cyclopentadienylchlorosilanes were obtained by adding a cyclopentadienylsodium suspension in toluene to an equimolar quantity of the initial chloro-

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ACC NR: AP6033182

silane if the reaction temperature is maintained at -15 to 0°C. Some properties of the compounds obtained are shown in Table 1. Orig. art. has: 1 table.

Compound	Yield (%)	B.P (p in mm)	n_D^{20}	d_4^{20}	MR_D measured	MR_D calculated
$C_5H_5SiCl_3$	58.3	46—48° (4)	1.5100	1.3632	43.79	44.77
$C_5H_5Si(CH_3)Cl_2$	72.5	47—49 (8)	1.4920	1.1622	44.73	44.83
$C_5H_5Si(C_2H_5)Cl_2$	63.9	76—78 (10)	1.4982	1.1530	49.12	49.34
$C_5H_5Si(CH{=}CH_2)Cl_2$	37.4	63—65 (8)	1.5070	1.1710	48.56	48.99
$C_5H_5Si(C_6H_5)Cl_2$	70.2	135—136 (6)	1.5666	1.2266	64.28	64.65
$C_5H_5Si(CH_3)_2Cl$	60.2	54—56 (14)	1.4870	1.0048	45.43	45.75
$C_5H_5Si(C_2H_5)_2Cl$	62.5	78—80 (17)	1.4875	0.9986	53.83	54.31
$C_5H_5Si(CH{=}CH_2)Cl$ | CH_3	60.4	74—75 (23)	1.4970	1.0139	49.26	49.45

SUB CODE: 07/ SUBM DATE: 11Sep65/ ORIG REF: 002/ OTH REF: 005

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSOV, D.S.; IRLAKHMAN, Ya.A.

Regulations for the installation of electrical equipment in coal processing plants. Prom. energ. 18 no.3:40-42 Mr '63.

1. Trest "Kuzbassugleobogashcheniye" (for Romantsov).
2. Novosibirskoye otdeleniye Gosudarstvennogo proyektnogo instituta po proyektirovaniyu predpriyatiy elektropromyshlennosti (for Irlakhman).
(Coal preparation—Electric equipment)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

SIDOROV, M.D.; BANDARENKO, Yu.A., inzh., retsenzent; MART'YANOV, E.V., inzh., retsenzent; ROMANTSOV, E.I., inzh., retsenzent; CHERNOUSOV, N.P., inzh., retsenzent; GOFLIN, A.P., kand. tekhn. nauk, red.; VASIL'YEVA, V.P., red.izd-va; SHCHETININA, L.V., tekhn. red.

[Handbook on air and gas blowing machines]Spravochnik po vozdukhoduvnym i gazoduvnym mashinam. Moskva, Mashgiz, 1962. 257 p. (MIRA 15:12)

(Fans, Mechanical) (Air compressors) (Belts and belting)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSOV, V.V., inzh.

Design and operation of thermal protection systems of once-through type boilers. Elek. sta. 34 no.10:2-5 O '63. (MIRA 16:12)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSOVA, G.I.

Effect of molecular interaction on the ultraviolet absorption spectra of aromatic compounds. Probl.fiz.khim. no.2:107-117 '59. (MIRA 13:7)

1. Laboratoriya stroyeniya molekul Nauchno-issledovatel'skogo fiziko-khimicheskogo instituta imeni L.Ya.Karpova.
(Aromatic compounds--Spectra)
(Spectrum, Ultraviolet)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSOVA, G.I.

Spectrophotometric determination of small additions of aromatic carboxylic acids in terephthalic acid. Zhur. prikl. spekt. 2 no.3:269-272 Mr '65. (MIRA 18:6)

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PHASE I BOOK EXPLOITATION SOV/4386

Moscow. Fiziko-khimicheskiy institut

Problemy fizicheskoy khimii; trudy, vyp. 2 (Problems in Physical Chemistry; Transactions of the Institute, no. 2). Moscow, Goskhimizdat, 1959. 202 p. 1,000 copies printed.

Editorial Board: Ya. M. Varshavskiy, Doctor of Chemical Sciences; G. S. Zhdanov, Doctor of Chemical Sciences; V. A. Kargin, Academician; Ya. M. Kolotyrkin, Doctor of Chemical Sciences (Resp. Ed.); S. S. Medvedev, Academician; S. Ya. Pshenzhetskiy, Doctor of Chemical Sciences; V. M. Cherednichenko, Candidate of Chemical Sciences; V. S. Chesalova (Editorial Secretary), Candidate of Chemical Sciences; Ed.: I. A. Myasnikov; Tech. Ed.: Ye. G. Shpak.

PURPOSE: This collection of articles is intended for physical chemists.

COVERAGE: The collection is the second issue of the Transactions of the Scientific Research Institute of Physical Chemistry imeni L. Ya. Karpov. It contains 17 articles which review

Card 1/5

Temkin, M. I., N. M. Morozov, V. M. Pyzhev (Deceased), L. O. Apel'baum, L. I. Lukiyanova, and V. A. Demidkin. The Oxidation of Ammonia Over a Nonplatinum Catalyst 14

Pshezhetskiy, S. Ya., S. A. Kamenetskaya, Ye. I. Gribova, A. V. Pankratov, N. M. Morozov, I. N. Pospelova, A. Ya. Apin, V. N. Sirvatskaya, N. A. Slavinskaya, and V. M. Cherednichenko. Kinetics of Decomposition, and the Explosion of Ozone 27

Horiuchi, Juro (Japan). How to Find the Kinetic Equation of a Reversible Reaction 39

Kolotyrkin, Ya. M. The Effect of the Specific Adsorption of Anions on the Kinetics of Hydrogen Evolution and the Structure of the Metal-Solution Boundary 50

Varshavskiy, Ya. M. The Nature and Mechanism of Electrophilic Hydrogen Exchange 61

Zvonkova, Z. V. Crystallochemical Data on the Nature of the Mutual Effect of Atoms 97

Romanova, G. I. Investigation of the Effect of Intermolecular Interaction on the Ultraviolet Absorption Spectra of Aromatic Compounds 107

Shagina, Ye. I., V. S. Kutsev and B. F. Ormont. Investigation of Equilibrium in the System Zirconium-Nitrogen at High Temperatures and the Dependence of the Free Energy of ZrN_x Formation on Its Composition and Structure 118

Berger, A. Kh., M. A. Dembrovskiy, L. A. Dmitriyev, L. L. Sunkina and Yu. S. Ryabukhin. Study of the Field of Forces of Dosages From a Cylindrical Irradiator With Co^{60} as a Powerful Source of γ Radiation 132

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Paterkin, L. S. Radiation-Chemical Effects in Solid Inorganic Salts 163

Maksimov, M. P., A. V. Zimin, and R. V. Dzhagatspanyan. Radiation-Chemical Chlorination of Benzene 169

Proskurnin, M. A., Ye. V. Barelko, and L. I. Kartasheva. Course of the Process of Benzene Oxidation in an Aqueous Solution Under the Action of Radiation 177

Kiesz, J. (Czechoslovakia), Ye. V. Barelko, L. I. Kartasheva, P. N. Komarov, and M. A. Proskurnin. Decomposition Products of Phenol Formed During the Radiolysis of Benzene in an Aqueous Solution 183

Sharpatyy, V. A., and G. A. Gol'der. The Problem of the Phase Composition of the System H_2O-$NaNO_3$-NaOH at Low Temperatures 189

Orekhov, V. D., and A. A. Zansokhova. Sensitization of the Radiolytic Oxidation of Leucoform Dyes 194

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77390
SOV/79-30-1-51/78

AUTHORS: Romantsevich, M. K., Malinovskiy, M. S.

TITLE: Concerning the Reaction of 2,3-Epoxy-1-propanol With Organochlorosilanes

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 1, pp 232-234 (USSR)

ABSTRACT: The authors reported previously (Izv. AN SSSR, OKhN., 1956, p 232; ZhOKh, 1957, Vol 27, pp 1680 & 1873) the reaction of various asymmetric epoxides (ethylene oxide, propene oxide, 1-chloro-2,3-epoxypropane, methyl ether of 2,3-epoxy-1-propanol, etc.) with organochlorosilanes. Particular attention was paid to the way in which the epoxy ring opened in the above reactions. The present study deals with the reaction of 2,3-epoxy-1-propanol (glycidol) with organochlorosilanes which, according to Andrianov, et al. (Izv. AN SSSR, 1955, OKhN., 1955, p 531) proceeds as follows:

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Concerning the Reaction of 2,3-Epoxy-1-propanol With Organochlorosilanes

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$$R_nSiCl_{4-n} + (4-n)\,H_2C\underset{O}{\underset{\diagdown\diagup}{-}}CHCH_2OH \rightarrow R_nSi(OCH_2CHClCH_2OH)_{4-n} \qquad (1)$$

The authors, however, expected this reaction to proceed similarly to that of epichlorohydrin or methyl ether of glycidol, and the epoxy ring to be cleaved at the carbon atom with the lesser number of hydrogen atoms:

$$R_nSiCl_{4-n} + (4-n)\,H_2C\underset{O}{\underset{\diagdown\diagup}{-}}CHCH_2OH \rightarrow$$

$$\rightarrow R_nSi\left(OCH\begin{matrix}\diagup CH_2Cl\\ \diagdown CH_2OH\end{matrix}\right)_{4-n} \qquad (2)$$

This assumption was confirmed by the reactions of glycidols with CH_3SiCl_2, $(CH_3)_2SiCl_2$, $(CH_3)_3SiCl$, and CH_3SiHCl_2. For example, glycidol and $(CH_3)_2SiCl_2$ were added to each other by means of two dropping funnels so

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Concerning the Reaction of 2,3-Epoxy-1-propanol With Organochlorosilanes

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as to maintain at all times a slight excess of glycidol and to keep the temperature below 30° C. The mixture was then heated for 4 hr at 50-60° C, and the reaction products were distilled under vacuum. The reaction gave di-(α -chloro- γ -hydroxyisopropoxy)-dimethylsilane (yield 59.4%; bp 96-97° C at 4 mm; n_D^{20} 1.4734). Similarly, α -chloro- γ -hydroxyisopropoxytrimethylsilane (yield 82.7%; bp 82.5-83° at 13 mm; n_D^{20} 1.4342) and tri-(α -chloro- γ -hydroxyisopropoxy)methylsilane (yield 36.5%; bp 132-133° C; n_D^{20} 1.4840) were obtained from $(CH_3)SiCl$ and CH_3SiCl_3, respectively. The structure of the above was confirmed by hydrolysis and subsequent reduction; in all three instances, α-propylene glycol was obtained in high yield, and it could have been formed only from the products of reaction (2) according to the reaction:

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Concerning the Reaction of 2,3-Epoxy-1-propanol With Organochlorosilanes

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SOV/79-30-1-51/78

$$R_nSi\left(OCH\begin{matrix}CH_2Cl\\CH_2OH\end{matrix}\right)_{4-n} + (4-n)\,H_2O \rightarrow$$

$$R_nSi(OH)_{4-n} + (4-n)\,ClCH_2CHOHCH_2OH$$

$$ClCH_2CHOHCH_2OH \xrightarrow{H_2} CH_3CHOHCH_2OH$$

There are 1 table; and 4 references, 1 German, 3 Soviet.

ASSOCIATION: Lvov Zoological and Veterinary Institute (L'vovskiy zooveterinarnyy institut)

SUBMITTED: November 15, 1958

Card 4/

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

PROCESSES AND PROPERTIES INDEX

2

***Influence of the Addition of Titanium to Aluminium-Magnesium Alloys.** (I. Konovski, I. Romantsov, and A. Maksimov (*Legkie Metally* (*Light Metals*), 1936, (12), 40-43).—[In Russian.] An investigation of the tensile strength of cast aluminium alloys with magnesium (2-12%), manganese (0·1-0·6%), and titanium (0·1-0·5%) showed that an alloy with magnesium 8, titanium 0·4, and manganese 0·4% had the maximum tensile strength.—D. N. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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PROCESSES AND PROPERTIES INDEX

2

*Influence of the Addition of Titanium to Aluminium Magnesium Alloys. G. Komovski, I. Romantsov, and A. Maksimov (*Legkie Metally* (*Light Metals*), 1936, (12), 40-43). [In Russian.] An investigation of the tensile strength of cast aluminium alloys with magnesium (2-12%), manganese (0-1-0·6%), and titanium (0-1-0·5%) showed that an alloy with magnesium 8, titanium 0·4, and manganese 0·4% had the maximum tensile strength. D. N. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSOV, I. I.

PA 21T114

USSR/Physics Sep 1946
Polarization
Light - Polarization

"Photographing the Tropopause in Polarized Light," I. I. Romantsov, I. A. Khvostikov, Laboratory of Atmospheric Optics, Institute of Theoretical Geophysics, Academy of Sciences of the USSR, 3 pp

"Comptes Rendus (Doklady)" Vol LIII, No 8

A discussion is made of several investigations into the tropopause (the area between stratosphere and troposphere) which were performed by means of a powerful searchlight beam directed up 60° to the horizon and by a camera placed 7.6 km away. Four graphs are given

21T114

USSR/Physics (Contd) Sep 1946
Polarization
Light - Polarization

showing the dependence of brightness (degree of polarization) upon height in km above ground.

21T114

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSOV, I. I.

"Searchlight Sounding of the Atmosphere in Polarized Light." Sub 12 Mar 47, Inst of Theoretical Geophysics, Acad Sci USSR

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

Cat Physics - Math. Sci

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

USSR/Physics Sep/Oct 48
Atmosphere

"Study of the Troposphere Using a Searchlight Beam," I. I. Romantsov, Lab of Atm Opt, Inst Theoretical Geophys, Acad Sci USSR, 17 pp

"Iz Ak Nauk SSSR, Ser Geog i Geofiz" Vol XII, No 5

PA 53/49T93

Gives results of atmospheric observations at altitudes up to 13 km. Constructed curves showing degree of polarization as a function of the height of the dispersed layer of the atmosphere for 13 nights. Experimental data obtained determines nature of light dispersion at various altitudes. Specifically, made definite assumptions on the nature of dispersed particles suspended in an [illegible]

[redacted] 53/49T93

USSR/Physics (Contd) Sep/Oct 48

atmospheric layer for 4 - 9 km altitudes. Observed tropopause and negative polarization. Submitted by Acad L. S. Leybenzon, 10 Oct 46.

[redacted] 53/49T93

ROMANTSOV, I. I.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6

ROMANTSOV, V.V.

DEYANOV, V.A., inzhener; ROMANTSOV, V.V., inzhener

Improving the supply circuit for automatic controllers of an electromechanical system. Elek.sta.26 no.8:53-54 Ag'55. (MLRA 8:12)

(Automatic control) (Electric circuits)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310016-6"