ROMANOV, Yu. F. Cand Phys-Math Sci -- "~~Power engineering~~ Energy distribution of fragments of U^{235} triple fission." Len, 1960 (Len Phys-Tech Inst, Acad Sci USSR)

(KL, 1-61, 180)

PERFILOV, N.A.; ROMANOV, Yu.F.; SOLOV'YEVA, Z.I.

Fission of heavy nuclei with emission of long-range alpha particles. Usp.fiz.nauk 71 no.3:471-483 Jl '60. (MIRA 13:7)

(Nuclear fission)

DMITRIYEV, V.N.; DRAPCHINSKIY, L.V.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Comparing the probabilities of triple fission of U^{233}, U^{235} and Pu^{239}. Zhur.eksp.i teor.fiz. 38 no.3:998-999 Mr '60. (MIRA 13:7)

1. Radiyevyy institut Akademii nauk SSSR.
(Nuclear fission) (Uranium--Isotopes)
(Plutonium--Isotopes)

83760

S/056/60/039/003/005/045
B004/B060

24.6600 (1138)

AUTHORS: Dmitriyev, V. N., Drapchinskiy, L. V., Petrzhak, K. A., Romanov, Yu. F.

TITLE: Energy Distribution of Fragments of Triple Fission of U^{235}

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 3 (9), pp. 556-562

TEXT: The authors wanted to obtain more accurate data regarding the energy distribution mentioned in the title by recording the energy of pair fragments. The alpha particles on either side of the target of the fissile substance were recorded in order to exclude the effect of angular correlation of fragments and alpha particles. Fig. 1 shows the arrangement of electrodes in the triple ionization chamber. The latter was filled with argon, whose 2 atm pressure prevented the alpha particles of the natural uranium radioactivity from penetrating into the chamber. Long-range alpha particles with energies from 10 to 24 Mev were recorded in the chamber. The target of the fissile substance was applied

Energy Distribution of Fragments of Triple Fission of U^{235}

S/056/60/039/003/005/045
B004/B060

onto the common electrode of the fission chambers. The U^{235} was sprinkled onto one side of a gold-coated polyvinyl chloride acetate film in the electrostatic field. The U^{235} layer applied was 10 microgram/cm^2 thick. Fig. 2 shows the block diagram of the electronics the operation of which is described. The experiments were made on the physical reactor belonging to the AS USSR. 8000 triple fission events and 6000 double fission events were recorded. Fig. 3 shows the spectra relating to the fragments of triple and double fission taking account of the ionization caused by long-range alpha particles. The peak of light fragments is shifted in the direction of low energies by (9.0±0.5) Mev in the case of triple fission, while the peak of heavy fragments is shifted by (6.0±0.5) Mev. Fig. 4 shows the fragment yield in triple and double fission as a function of the total energy of fragments. The difference between the most probable energies amounts to (15.0±0.5) Mev. The half-width of distribution of triple fission fragments is 3 Mev smaller than in the case of double fission. The distribution approaches the form of a Gaussian. The fragment yield was determined as a function of the mass ratio on the strength of experimental data (Fig. 5). Fig. 6 shows the most probable

energies and dispersions of the kinetic total energy of fragments as a function of the mass ratio. The peaks observed in the range of mass ratio 1.3 are explained by the effect of the shell structure in accordance with A. N. Protopopov and I. A. Baranov (Ref. 10). The authors arrive at the conclusion that the probability of triple and double fission is not dependent on the mass ratio. The relation $E_{db} = E_{tr} + E_{\alpha}$ (1) holds, where E_{db}, E_{tr} denote the kinetic total energy of double and triple fission fragments and E_{α} the energy of alpha particles. The following relations are written down for the most probable event: $E_{db} = 166.4$ Mev, $E_{tr} + E_{\alpha} = 151.4 + 14.8 = 166.2$ Mev. The half-width values ΔE_{db}, ΔE_{tr}, ΔE_{α} obey equation $(\Delta E_{db})^2 = (\Delta E_{tr})^2 + (\Delta E_{\alpha})^2$, and are in agreement with experimental data. An explanation is supplied for the mechanism of triple fission. The authors mention papers by N. A. Perfilov, Yu. F. Romanov, and Z. T. Solov'yeva (Ref. 1), and V. T. Mostovoy et al. (Ref. 4). They thank M. A. Bak and S. S. Kovalenko for their advice and discussions, S. A.

83760

Energy Distribution of Fragments of Triple Fission of U^{235}

S/056/60/039/003/005/045
B004/B060

Gavrilov and A. P. Shilov for their cooperation in experiments made on the physical reactor of the AS USSR. There are 6 figures and 18 references: 9 Soviet, 6 US, 1 British, 1 Canadian, and 1 French.

ASSOCIATION: Radiyevyy institut Akademii nauk SSSR (Radium Institute of the Academy of Sciences, USSR)

SUBMITTED: April 14, 1960

Card 4/4

S/053/60/071/03/03/008
B006/B063

AUTHORS: Perfilov, N. A., Romanov, Yu. F., Solov'yeva, Z. I.

TITLE: Fission of Heavy Nuclei With Emission of Long-range α-Particles 19

PERIODICAL: Uspekhi fizicheskikh nauk, 1960, Vol. 71, No. 3, pp. 471-483

TEXT: Long range particles are said to be formed in a nuclear fission such as is shown in Fig. 1, where three charged particles are emitted. The nature of the long-range component is discussed first. Then experiments are described by which Z^2/m and mZ^2 of these particles were determined leading to their identification as α-particles. The probability of such a complicated fission event, as well as the methods used to determine the relative probability of triple fissions are discussed next. Photoemulsions and U^{233} or Pu^{239} are most frequently used. The authors give a brief description of the method of the double ionization chamber (Ref. 6) and of the possibility of determining the relative probability by integrating the α-particle distribution function (Ref. 10). Then, the

Card 1/3

Fission of Heavy Nuclei With Emission of Long-range α-Particles

S/053/60/071/03/03/008
B006/B063

..., A. Petrzhak and Yu. F. Romanov (Ref. 25, Fig. 5), as well as by ... N. Mostovoy, T. A. Mostovaya, M. Sovinskiy, and Yu. S. Saltykov (Ref.26) are discussed in this connection. Fig. 6 shows a comparison between the results of Refs. 9 and 25. Some hypotheses on the mechanism of triple fission, published in Western articles, are discussed in the final part. There are 7 figures, 1 table, and 31 references: 10 Soviet, 13 American, 5 French, and 4 British.

Card 3/3

KHAZOV, Yu.L.; BAK, M.A.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Energy distribution of neutrons in the water surrounding the source.
Trudy Radiev.inst.AN SSSR 9:91-103 '59. (MIRA 14:6)
(Neutrons)

BAK, M.A.; GORSHKOV, G.V.; MATVIYENKO, V.I.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Radon neutron sources. Trudy Radiev.inst.AN SSSR 9:107-112 '59.
(MIRA 14:6)

(Neutrons) (Radon)

ROMANOV, Yu.F.

534.23 : 535.11 : 536.33 : 535.56

6455. RADIATION FROM A SPHERE IN THE PRESENCE OF SELF ABSORPTION. M.A.Bak, K.A.Petrshak and Yu.F.Romanov.

Zh. tekh. Fiz., Vol. 26, No. 2, 379-84 (1956). In Russian.

A mathematical treatment of a sphere with a uniform rate of radiation throughout and a constant coefficient of absorption (μ). It is shown that the effect of absorption depends on μR where R is the radius and a table is given for $0 \leq \mu R \leq 10$.

J.M.Hough

SOV/120-59-5-33/46

AUTHORS: Gorodyskiy, V.A., Romanov, Yu.F., Sorokina, A.V. and Yakunin, M.I.

TITLE: Electro-capillary Method for the Preparation of Thin Layers of Radioactive Substances on Organic Films

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 5, pp 128 - 130 (USSR)

ABSTRACT: The method is based on the deposition of the substance on pure and metallised organic films by spraying the solution from the end of a capillary tube under the action of an electrical field. The system is shown schematically in Figure 1, in which 1 is an aluminium ring carrying a colloidal film (1-2 $\mu g/cm^2$) covered with a thin layer of silver (about 3 $\mu g/cm^2$) and in contact with the ring. The silver layer is in electrical contact with the ring to which a negative potential is applied. The end of the capillary tube, whose diameter is 0.1 - 0.3 mm, is at about 1 - 2 cm above the film. At the top, the capillary is wider (1 mm diameter). A thin

Card1/3

Electro-capillary Method for the Preparation of Thin Layers of Radioactive Substances on Organic Films

platinum wire 5 , 0.05 mm in diameter, is let through almost to the end of the capillary tube. The experiment showed that the capillary must be very uniform and the end of the platinum wire carefully prepared. The wire is at a positive potential. In order to deposit a substance of a pure organic film, the modified installation shown in Figure 2 was used. In this figure, 1 is a glass container, 1' is a metallic electrode, 2 is the capillary, 2' is the wire, 2" is the solution to be deposited, 3 is a glass plate, 4 is a plexiglass ring and 5 is a holder. The ring with the colloidal film is on the surface of the conducting liquid in the vessel 1. Using this apparatus, films may be obtained such that the thickness differs by 20% between the centre and the outer edges. Figure 3 shows α-particle tracks obtained in an emulsion placed in contact with some typical radioactive sources obtained in the above manner.

SOV/120-59-5-33/46

Electro-capillary Method for the Preparation of Thin Layers of Radioactive Substances on Organic Films

Acknowledgments are made to K.A. Petrzhak.
There are 3 figures and 1 English reference.

ASSOCIATION: Radiyevyy institut AN SSSR (Radium Institute of the Ac.Sc., USSR)

SUBMITTED: August 6, 1958

Card 3/3

PHASE I BOOK EXPLOITATION SOV/4797

Bak, M. A., and Yu. F. Romanov

Neytron (Neutron) Moscow, Atomizdat, 1960. 80 p. Errata slip inserted. 13,000 copies printed.

Ed.: G. M. Pchelintseva; Tech. Ed.: N. A. Vlasova.

PURPOSE: This booklet is intended for the general reader interested in the atomic physics.

COVERAGE: The booklet discusses the structure of the atomic nucleus, the discovery of the neutron and its properties, and the neutron sources. It gives data on the interaction of neutrons with the substance, the fission of heavy nuclei induced by neutrons, recording of neutrons, and determination of the absolute number of neutrons emitted by neutron sources. The production of monoenergetic neutrons, and the dosimetry of neutrons and protection against radiation are also treated. The antineutron and the use of

Card 1/3

neutrons in science and technology are discussed. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress (QC721.B129)

Card 3/3

JA/dwm/ec
4-24-61

DMITRIYEV, V.N.; DRAPCHINSKIY, L.V.; ROMANOV, Yu.F.

Fluoroethylene insulators for ionization chambers and counters.
Prib.i tekh.eksp. no.4:135 Jl-Ag '60. (MIRA 13:9)

1. Radiyevyy institut AN SSSR.
(Ionization chambers)
(Electric insulators and insulation)

DMITRIYEV, V.N.; DRAPCHINSKIY, L.V.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Energy distribution of fragments from triple fission of U^{235}.
Zhur. eksp. i teor. fiz. 39 no.3:556-562 S '60. (MIRA 13:10)

1. Radiyevyy institut Akademii nauk SSSR.
(Fission products) (Uranium--Isotopes)

Romanov, Yu. F.

PHASE I BOOK EXPLOITATION SOV/3413

Akademiya nauk SSSR. Radiyevyy institut

Trudy, t. IX (Transactions of the Radium Institute, Academy of Sciences USSR, Vol. 9) Moscow, Izd-vo AN SSSR, 1959. 187 p. Errata slip inserted. 1,700 copies printed.

Ed.: N.A. Perfilov, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: G.M. Aron; Tech. Ed.: A.V. Smirnova.

PURPOSE: The volume is intended for physicists.

COVERAGE: The book represents volume 9 of the Transactions of the Radium Institute and contains the results of studies conducted at the Institute chiefly from 1955 to 1956. There are a number of articles dealing with the study of nuclear reactions occurring with particles of different energies ranging from several eV up to hundreds of MeV. Others treat different problems of the physics of neutrons. Results of studies of various neutron sources, neutron energy distribution in a moderator (water), and other problems connected with the theory of neutron interaction with matter are presented. The majority of the articles are concerned with problems of method. The authors provide a complete description of the construction of equipment and of the results of tests performed under laboratory conditions. No personalities are mentioned. References accompany individual articles.

Card 2/3

ROMANOV, Yu F

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1298
AUTHOR BAK, M.A., PETRŽAK, K.A., ROMANOV, JU.F.
TITLE The Determination of the Absolute Yield of Neutron Sources.
PERIODICAL Usp. fis. nauk, 58, fasc. 4, 667-684 (1956)
Publ. 4 / 1956 reviewed 9 / 1956

The present work discusses pertinate works published up to 1955. Most authors, on the whole, used the same method, which consisted in the slowing down of neutrons in media containing hydrogen with subsequent detection of neutrons either by means of a 1/v detector or a resonance detector. This method requires the spatial integration of the distribution of slow neutrons in the moderator and the determination of the absolute efficiency of the detector. The detection of the monochromatic neutrons of the reaction $D(d,n)He^3$ permits the determination of the number of neutrons emitted on this occasion. A method of some originality is that which is based upon the influence exercised by the source and the absorber of the neutrons upon the power of a nuclear reactor. Good results may be expected from a method of registering charged particles created on the occasion of nuclear reactions together with neutrons. Unfortunately, the results of this method are not mentioned in literature. Such reactions may be for example:
$D^2 + D^2 \rightarrow He^3 + n_o^1$, $D^2 + H^3 \rightarrow He^4 + n_o^1$, $H^1 + H^3 \rightarrow He^3 + n_o^1$, $D^2 + h\nu \rightarrow H^1 + n_o^1$.
After determination of the number of charged particles and the corresponding number of neutrons a comparison with a constantly operating source must be made. The results of all works discussed are shown in a table.

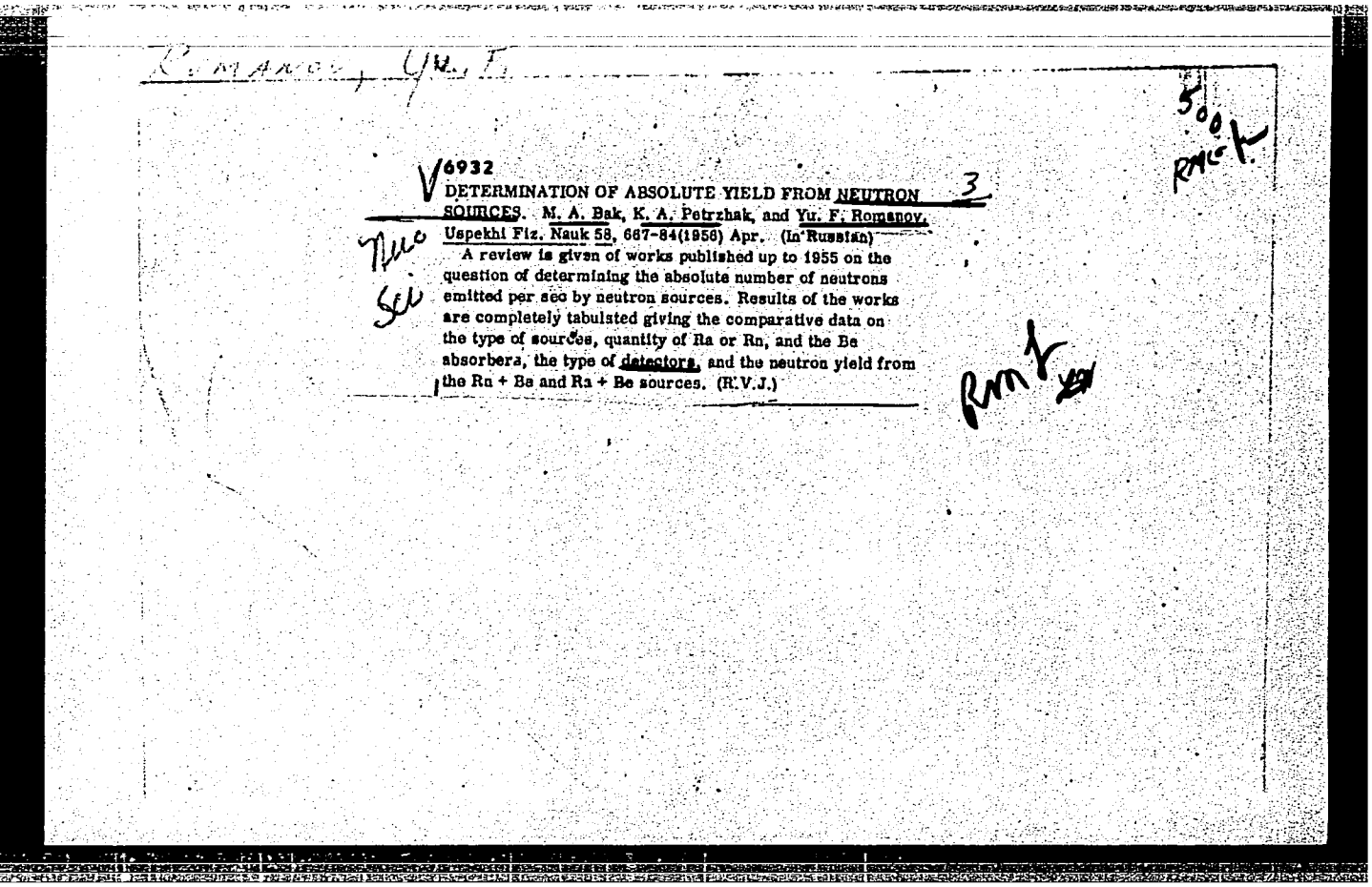
Usp. fis. nauk, 58, fasc. 4, 667-684 (1956) CARD 2 / 2 PA - 1298

In the course of the first years sources of the Rn+Be type were used, but in recent times sources of the type Ra+Be were mostly used, which means that the endeavor was made to work with sources that are sufficiently stable as to time. The yields of sources of the same type differ condierably from one another, above all because of the different production method and because of the different purity of initial products. Therefore there is as yet no criterion for the correctness of the measured number of emitted neutrons.
In recent years comparative tests which consisted in measuring one and the same source were carried out in various countries for the purpose of controlling the reliability of various methods for the qualitative determination of neutron yields. In a diagram the unit measure adopted by the Argonne-laboratory is compared with that of Alamos and Harwell and with the Italian, Swiss, Swedish, and Belgian unit measure. According to this diagram the repeated comparison of sources led to better agreement, by which the reliability of the different methods is confirmed. It stands to reason that endeavors will be made in coming years to establish agreement among the results obtained by different laboratories.

INSTITUTION:

BAK, M.A.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Radiation of a shere-shaped source in the presence of self-absorption. Zhur.tekh.fiz. 26 no.2:379-384 F '56.(MLRA 9:6)
(Radiation)



Romanov, Yu. F.

V6932
DETERMINATION OF ABSOLUTE YIELD FROM NEUTRON SOURCES. M. A. Bak, K. A. Petrzhak, and Yu. F. Romanov. Uspekhi Fiz. Nauk 58, 667-84(1956) Apr. (In Russian)

A review is given of works published up to 1955 on the question of determining the absolute number of neutrons emitted per sec by neutron sources. Results of the works are completely tabulated giving the comparative data on the type of sources, quantity of Ra or Rn, and the Be absorbers, the type of detectors, and the neutron yield from the Rn + Be and Ra + Be sources. (R.V.J.)

S/120/60/000/004/020/028
E032/E414

AUTHORS: Dmitriyev, V.N., Drapchinskiy, L.V. and Romanov, Yu.F.

TITLE: Teflon Insulators for Ionization Chambers and Counters

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No.4, p.135

TEXT: High voltage insulators are of considerable importance in ionization chamber practice. Glass or porcelain insulators which are available commercially are frequently inconvenient either because of their electrical or mechanical properties or their large dimensions. During the last three years, the present authors have used teflon insulators with dimensions not exceeding 40 x 10 mm^2. Such insulators are capable of withstanding voltages in excess of 10 kV. One of the simplest designs for such insulators is shown in Fig.1, where 1 is the insulator, 2 is a nut which keeps the insulator in position, 3 is a bush with a circular step, 4 is a soldered joint, 5 is the body of the chamber and 6 is a screw and nut arrangement. This design is vacuum-tight and can withstand pressures between a few mm Hg and 4 atm. There is 1 figure.

Card 1/2

S/120/60/000/004/020/028
E032/E414

Teflon Insulators for Ionization Chambers and Counters

ASSOCIATION: Radiyevyy institut AN SSSR
(Radium Institute AS USSR)

SUBMITTED: June 11, 1959

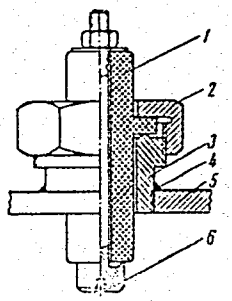


Рис. 1. Конструкция фторопластового изолятора. *1* — изолятор, *2* — гайка для крепления изолятора, *3* — втулка с кольцевым выступом, *4* — место пайки, *5* — корпус камеры, *6* — фигурный винт с гайкой

Fig.1.

Card 2/2

ROMANOV, Yu.F.; PETRZHAK, K.A.; BAK, M.A.

Cadmium ratios for Ag^{107} and Ag^{109}. Trudy Radiev.inst.AN SSSR 9:84-86 '59. (MIRA 14:6)

(Silver--Isotopes) (Cadmium)

BAK, M.A.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Analysis of a neutron field of uniform density. Trudy Radiev.inst. AN SSSR 9:87-90 '59. (MIRA 14:6)
(Neutrons)

ROMANOV, Yu.F.; PETRZHAK, K.A.; BAK, M.A.

Measurement of the diffusion length of thermal neutrons in water.
Trudy Radiev.inst.AN SSSR 9:104-106 '59. (MIRA 14:6)
(Neutrons)

ROMANOV, Yu.F.

Measurement of the number of neutrons emitted by a radium-beryllium source. Trudy Radiev.inst.AN SSSR 9:113-119 '59. (MIRA 14:6)
(Neutrons)

BAK, M.A.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Wall effect in ionization chambers. Trudy Radiev.inst.AN SSSR 9:192-206 '59. (MIRA 14:6)

(Ionization chambers)

ROMANOV, Yu.G.

Modernization of spinning machines. Tekst.prom. 20 no.9:67-71 S '60. (MIRA 13:10)

1. Konstruktor Spetsial'nogo konstruktorskogo byuro legkoy promyshlennosti Leningradskogo sovnarkhoza.
(Spinning machinery)

ABILOVA, M.Kh.; ABISHEVA, B.N.; VILENSKIY, Ye.L.; ROMANOV, Yu.I.; DAKHSHLEYGER, G.F., kand. ist. nauk, red.; SUVOROVA, R.I., red.; ROROKINA, Z.P., tekhn. red.

[Development of socialism in Kazakhstan during the reconstruction period, 1921-1925; collection of documents and materials] Sotsialisticheskoe stroitel'stvo v Kazakhstane v vosstanovitel'nyi period, 1921-1925 gg.; sbornik dokumentov i materialov. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1962. 592 p. (MIRA 15:5)

(Kazakhstan--Economic conditions)

L 13743-65 EWT(1)/EPA(w)-2/EEC(t)/EEC(b)-2 Pab-10 ASD(p)-3/ASD(a)-5/AFWL/SSD/ESD(gs)/ESD(t)

ACCESSION NR: AP4047865 S/0188/64/000/005/0079/0087

AUTHOR: Kerimov, B. K.; Romanov, Yu. I. B

TITLE: Scattering of the neutrino and antineutrino on a polarized electron. Polarization of the recoil electron 21

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 5, 1964, 79-87

TOPIC TAGS: recoil electron, neutrino scattering, antineutrino, electron polarization, perturbation theory

ABSTRACT: The present paper is a continuation of work by the authors on neutrino-electrino scattering, and employs low-order perturbation theory and a weak, mixed (V,A) interaction, in the Born approximation. The Hamiltonian for the reactions is written out as a product of lepton currents and the differential cross section is defined in terms of matrix elements derived in earlier work by the authors. Formulas for longitudinal spin and angular correlation for scattering of longitudinally polarized neutrinos on electrons are then given for the mixed (V,A) interaction. The total cross section is obtained by integrating the differential

Card 1/2

L 13743-65
ACCESSION NR: AP4047865

3

cross section. From the results it follows that in pure (V - A) weak interaction, neutrino and antineutrino scattering on an electron should occur without change of helicity, that is neutrino spin-flip is forbidden. For the (V + A) variety, spin-reversal must occur. Further calculations show that at very high energies, the recoil electrons will have the same helicity as the incident neutrinos and the reverse of the helicity of incident antineutrinos. It follows that experimental study of (anti)-neutrino scattering on polarized electrons would help in resolving the question of a direct electron-neutrino interaction and verify the different helicity-properties of the electron and muon (anti)-neutrinos. "The authors thank Prof. A. A. Sokolov and Prof. D. D. Ivanenko for interest in the work." Orig. art. has: 23 equations.

ASSOCIATION: Kafedra teoreticheskoy fiziki, Moskovskiy Universitet (Theoretical Physics Department, Moscow University)

SUBMITTED: 16Nov63 ENCL: 00 SUB CODE: NP

NO REF SOV: 006 OTHER: 010

Card 2/2

ROMANOV, Yu.I.

Effect of neutral lepton currents on neutrino (antineutrino) - electron scattering. Izv. vys. ucheb. zav.; fiz. 8 no.4: 176-178 '65. (MIRA 18:12)

1. Institut meditsinskoy radiologii AMN SSSR. Submitted June 22, 1964.

KERIMOV, B.K.; KOMAKOV, Yu.I.

Neutrino and antineutrino scattering on polarized electrons. Polarization of recoil electrons. Vest. Mosk. un. Ser.3:Fiz., astron. 19 no.5:79-87 S-O '64. (MIRA 17:12)

1. Kafedra teoreticheskoy fiziki Moskovskogo universiteta.

KERIMOV, B.K.; ROMANOV, Yu.I.

Angular and spin correlations in neutrino-lepton interactions.
Zhur. eksp. i teor. fiz. 47 no.3:1123-1129 S '64. (MIRA 17:11)

1. Institut meditsinskoy radiologii AMN SSSR. 2. Sotrudnik fizicheskogo fakul'teta Moskovskogo gosudarstvennogo universiteta (for Kerimov).

KERIMOV, B.K.; ROMANOV, Yu.I.

Neutrino and antineutrino scattering by electrons with allowance for spin correlations. Izv. AN SSSR Ser. fiz. 29 no.1:128-132 Ja '65. (MIRA 18:2)

1. Kafedra teoreticheskoy fiziki fizicheskogo fakul'teta Moskovskogo gosudarstvennogo universiteta.

L 60939-65 EWT(m)/T/EWA(m)-2

ACCESSION NR: AP5014319 UR/0367/65/001/005/0856/0859

20

AUTHORS: Kerimov, B. K.; Romanov, Yu. I. 19B

TITLE: Energy spectra on longitudinally polarized recoil electrons in the scattering of neutrinos (antineutrinos) by electrons 19

SOURCE: Yadernaya fizika, v. 1, no. 5, 1965, 856-859

TOPIC TAGS: neutrino, antineutrino, recoil electron, electron polarization, electron scattering

ABSTRACT: The energy distributions of the recoil electrons in neutrino (antineutrino)-electron scattering are obtained in first approximation of perturbation theory in the weak (V, A) interaction. Since it has been shown that a neutrino or antineutrino can produce partly or fully polarized recoil electrons, the authors indicate that an experimental determination of the energy spectra of the recoil electrons in scattering of neutrinos or antineutrinos by electrons would make it possible to check on a deduction drawn in their earlier papers (ZhETF v. 46, 1912, 1964 and v. 47, 1123, 1964) that the recoil

Card 1/2

L 60939-65

ACCESSION NR: AP5014319

electrons will have the same helicity as the incident neutrinos in the scattering of high-energy neutrinos by electrons, but in antineutrino-electron scattering the helicity will be opposite that of the incident antineutrinos. This would yield an indication of the existence of a direct neutrino-electron interaction, as predicted by the universal V - A interaction scheme. Orig. art. has: 1 figure and 10 formulas

ASSOCIATION: Institut meditsinskoy radiologii AMN SSSR (Institute of Medical Radiology, AMN SSSR)

SUBMITTED: 05Nov64 ENCL: 00 SUB CODE: NP

NR REF SOV: 002 OTHER: 002

dm

Card 2/2

ROMANOV, Yu.I.

Neutrino scattering by bound electrons. Izv. vys. ucheb. zav.; fiz. 8 no.6:24-26 '65. (MIRA 19:1)

1. Institut meditsinskoy radiologii AMN SSSR. Submitted July 11, 1964.

KERIMOV, B.K.; ROMANOV, Yu.I.

Inelastic neutrino-electron interactions. Izv. AN SSSR. Ser. fiz. 29 no.7:1172-1176 Jl '65. (MIRA 18:7)

L 32887-65 EWT(m)/EWA(m)-2 Peb JFW

ACCESSION NR: AP5004534 S/0048/65/029/001/0128/0132

AUTHOR: Kerimov, B.K.; Romanov, Yu.I.

TITLE: Scattering of neutrinos and antineutrinos by electrons with spin correlations taken into account /Report, 14th Annual Conference on Nuclear Physics held in Tbilisi 14-22 Feb 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.29, no.1, 1965, 128-132

TOPIC TAGS: neutrino, electron scattering, fermion, dirac particle, spin, polarization, mathematical physics

ABSTRACT: The scattering cross sections of neutrinos and antineutrinos by free electrons are calculated and formulas for the polarization of the recoil electrons are derived. The calculation is based on the four component Dirac neutron with mixed (V,A) interaction of the (eν)(νe) type. The cross sections are derived by appropriate substitutions into the formula previously derived by one of the authors (B.K.Kerimov,Izv.AN SSSR,Ser.fiz.25,157,1961) for the matrix element of the weak four-fermion (V,A) interaction between four longitudinally polarized fermions. The polarization of the recoil electrons is large and reaches 90 to 97% for 50 MeV in-

Card 1/2

L 32887-65

ACCESSION NR: AP5004534

2

cident neutrinos. The recoil electrons from neutrino scattering have helicity of the same sign as that of the incident neutrinos; those from antineutrino scattering have helicity of the opposite sign from that of the antineutrino. It is concluded that observations of spin correlations in νe and $\bar{\nu} e$ scattering would make it possible to resolve the question of the existence of a direct electron-neutrino interaction and to test the predictions of the four component Dirac neutrino theory with regard to the helicity of the two neutrinos and the two antineutrinos. "We express our gratitude to A.A.Sokolov for discussing the work." Orig.art.has: 19 formulas.

ASSOCIATION: Kafedra teoreticheskoy fiziki fizicheskogo fakul'teta Moskovskogo gosudarstvennogo universiteta im.M.V.Lomonosova (Chair of Theoretical Physics, Physics Department, Moscow State University)

SUBMITTED: 00/--Jan65 ENCL: 00 SUB CODE: NP,GP

NR REF SOV: 005 OTHER: 008

Card 2/2

ACCESSION NR: AP4037613 S/0056/64/046/005/1912/1914

AUTHORS: Kerimov, B. K.; Romanov, Yu. I.

TITLE: Spin correlations in neutrino and antineutrino scattering by electrons

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 5, 1964, 1912-1914

TOPIC TAGS: spin correlation, neutrino, antineutrino, cross section, polarization, fermion, particle interaction

ABSTRACT: Continuing earlier investigations (Izv. AN SSSR, seriya fiz. v. 25, 157, 1961 and Ann. der Phys. v. 7, 46, 1958), the authors calculated the cross sections for νe and $\bar{\nu} e$ scattering in the V-A variant of the weak four-fermion interaction, with allowance for the polarization of the target electron and the recoil electron. The total scattering cross sections of the processes

$$\nu + e \to \nu' + e' \text{ and } \bar{\nu} + e \to \bar{\nu}' + e'$$

Card 1/4

ACCESSION NR: AP4037613

with allowance for the longitudinal polarization of the recoil electron, are calculated. It is shown that at the high limit of the neutrino energy the recoil electrons produced by νe scattering has the same helicity as the incident neutrino, whereas the recoil electrons from νe scattering will have an helicity which is opposite that of the incident antineutrinos. When left-polarized neutrinos (or right-polarized antineutrinos) of high energy are scattered by electrons, the resultant recoil electrons will be completely left-polarized, while scattering of right-polarized neutrinos (left-polarized antineutrinos) of high energy will result in completely right-polarized recoil electrons. When the target electron is polarized in the same direction as the incident neutrino beam, the scattering cross section of the right-polarized neutrinos vanishes, whereas the scattering cross section of the left-polarized neutrinos differs from zero and assumes a maximum value. On the other hand, when an antineutrino of high energy is scattered by an electron polarized in the direction of the incident antineutrino beam, the scattering cross sec-

ACCESSION NR: AP4037613

tion of the left-polarized antineutrinos vanishes, whereas the cross section for the scattering of right-polarized antineutrinos differs from zero and has a maximum. If the target electron is polarized in a direction opposite that of the incident neutrino (antineutrino) beam, the situation is reversed. The results show that a study of the spin correlations in neutrino (antineutrino) electron scatterings would make it possible, on the one hand, to resolve the problem of the existence of direct neutrino-electron interaction and, on the other hand, to check the predictions of the theory of the four-component neutrino, relative to the helicities of the two neutrinos and two antineutrinos. "We are grateful to Professor A. A. Sokolov and D. D. Ivanenko for continuous interest in the work." Orig. art. has: 1 figure and 4 formulas.

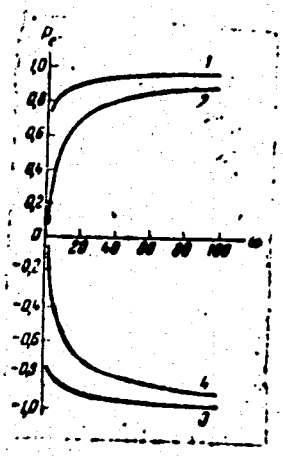
ASSOCIATION: Moskovskiy gosudarstvenny*y universitet (Moscow State University)

SUBMITTED: 15Oct63 DATE ACQ: 09Jun64 ENCL: 01
SUB CODE: NP NR REF SOV: 003 OTHER: 007

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445230004-8"

ACCESSION NR: AP4037613

ENCLOSURE: 01



Dependence of the degree of polarization on the energy of the initial neutrino and antineutrino: 1 - for right-hand polarized incident neutrinos, 2 - for left polarized antineutrinos, 3 - for left polarized neutrinos, 4 - for right polarized antineutrinos.

Card 4/4

L 11011-65 EWT(m)/T/EWA(m)-2 AS(mp)-2/ASD(a)-5/SSD/AFETR/AFWL/ESD(gs)/ESD(t)

ACCESSION NR: AP4046432 S/0056/64/047/003/1123/1129

AUTHORS: Kerimov, B. K.; Romanov, Yu. I. 19 19 (B)

TITLE: Spin and angular correlations in neutrino-lepton interactions

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 3, 1964, 1123-1129

TOPIC TAGS: neutrino, lepton, elementary particle interaction, spin correlation, angular correlation, polarization, electron scattering, muon scattering, Dirac particle

ABSTRACT: Formulas are derived for the angular distribution of recoil electrons in neutrino-lepton interactions, with allowance for their longitudinal polarization in scattering of neutrinos and antineutrinos by electrons. The study is based on earlier work by the authors (ZhETF v. 46, 1912, 1964; Izv. AN SSSR, ser. fiz., in press). It was shown in the earlier investigation that a study of the spin

Card 1/3

L 11011-65
ACCESSION NR: AP4046432

2

correlations in $\bar{\nu}e$ and νe scattering provide a check on the prediction of the theory of the four-component neutrino relative to the difference in the helicities of the electron and muon neutrinos (antineutrinos), and also resolve the question of the existence of a direct neutrino-electron interaction. In the present paper, the scattering of the neutrino and antineutrino by a free electron or muon is investigated with allowance for the spin correlation, in the first approximation of perturbation theory in the weak four-fermion V, A interaction. The neutrino is described by a four-component Dirac spinor. It is shown that an investigation of the scattering of a neutrino (antineutrino) by a polarized electron (muon) and of the longitudinal polarization of the recoil electron (muon) in such scattering would be able to distinguish between the electronic and muonic neutrinos and antineutrinos, and also ascertain the existence of a direct νe and $\nu\mu$ interaction. "We are grateful to Professor A. A. Sokolov and D. D. Ivanenko for continuous interest in the work." Orig. art. has: 1 figure and 15 formulas.

Card 2/3

L 11011-65
ACCESSION NR: AP4046432

ASSOCIATION: Institut meditsinskoy radiologii Akademii meditsinskikh nauk SSSR (Institute of Medical Radiology, Academy of Medical Sciences SSSR)

SUBMITTED: 11Apr64 ENCL: 00

SUB CODE: MP NR REF SOV: 006 OTHER: 009

Card 3/3

KERIMOV, B. K.; ROMANOV, Yu. I.

"Scattering of the Neutrino and Anti-neutrino on the Electron with the Calculation of Spin Correlations."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

MGU (Moscow State Univ)

ROMANOV, Yu.M., inzh.

Frost resistance of slag concrete and agloporite concrete. Trudy NIIZHB no.32:153-157 '63. (MIRA 17:1)

DIKOVSKIY, I.A., inzh.; ROMANOV, Yu.M., inzh.

Efficient method for making lightweight concrete with agloporites.
Bet. i zhel.-bet. no.11:521-523 N '60. (MIRA 13:11)
(Lightweight concrete)

Romanov, Yu. P.

21 (7)
AUTHORS: Dmitriyev, V. D., Drapchinskiy, L. V., SOV/20-127-3-14/71
Petrzhak, K. A., Romanov, Yu. P.

TITLE: Energy Distribution of the Fragments From a Triple Fission of Uranium Nuclei Under the Action of Neutrons

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 531 - 533 (USSR)

ABSTRACT: In the fission of the U^{235} nucleus by slow neutrons a far-reaching α-particle forms (Refs 1-4) besides two fragments with comparable mass. Allen and Jensen (Ref 2) used a double ionization chamber with target for investigating the energy distribution mentioned in the title. The chamber for recording the fission fragments had a grid, the other, used for recording the far-reaching α-particles, was separated from the target by a foil. The amplitude distribution of the fragment momenta of a triple fission was determined by means of a 30-channel amplitude analyzer. The energy distribution of the fragments originating from triple- and a double fission of U^{235} according to data from Allen and Jensen are shown by figure 1. In the present paper more exact investigations of the energy

Card 1/4

distribution of a triple fission were carried out. The influence exercised by the angular correlation was excluded by using a cylinder-symmetric grid which was fixed symmetrically to the plane of the central electrode. On the central electrode the uranium target was fastened onto a silver layer. The effective solid angle of the α-chamber amounted to 12.5% of 4π. The target was irradiated by neutrons of the reactor spectrus from the physical reactor of the AS USSR. The spectrum of the pulse amplitudes was recorded on a 30-channel pulse analyzer with electron brain. The simultaneously arriving pulses of α-particles and fragments were counted. The ionization in the fission chamber was taken into account. From the results obtained (Fig 1) the following was found: The spectra of fission into two and into three fragments are of analogous shape. With respect to fission into two fragments there is a shift of peaks toward the range of lower energies. Shifting of the peaks of the light fragments is greater than that of heavy fragments. Thus, there is such a thing as a slight approach of peaks. The ratio of peak heights is 1:1 compared to 1.48 in the double

Card 2/4

fission of U^{235}. Likewise, the half width of the peak of heavy fragments is smaller in the case of triple fission. On the other side of the central electrode in the chamber, peaks are further shifted because of the slowing-down of the fragments in the film- and silver layer upon which the U^{235} was applied. Figure 2 shows the energy distribution for the double and triple fission of U^{233}. The fundamental parameters of this distribution are analogous to that of U^{235}. The sum of kinetic energy by which the two peaks (of light and heavy fragments) are shifted with respect to double fission is 17 Mev, which about corresponds to the 15 Mev required for the departure of α-particles. There are 2 figures and 5 references, 2 of which are Soviet.

Card 3/4

ASSOCIATION: Radiyevyy Institut im. V. G. Khlopina Akademii nauk SSSR (Radium Institute imeni V. G. Khlopin of the Academy of Sciences, USSR)

PRESENTED: April 8, 1959, by A. I. Ioffe, Academician

SUBMITTED: April 2, 1959

ROMANOV, [illegible].P.; MEREM'YANIN, A.N.

Three-spindle milling head. Stan. i instr. 36 no.4:38 Ap '65.
(MIRA 18:5)

L 15656-63 BDS S/0286/63/000/002/0034/0034

ACCESSION NR: AP3000852

51

AUTHOR: Nazarov, V. A.; Tarasov, L. A.; Romanov, Yu. S.; Kirpikov, A. G.

TITLE: Pneumatic regulator for the level of pulps and aggressive media. Class G 05d; 42r, 1 sub 03. No. 152748

SOURCE: Byul. izobreteniy i tovarnykh znakov, no. 2, 1963, 34

TOPIC TAGS: penumatic membrane valve, pressure reducer, compressed air, valve

ABSTRACT: A pneumatic regulator for the level of pulps and aggressive media, containing a diaphragm valve with piezo-crystal measuring tube and a diaphragm transducer; its distinguishing feature is that in order to use compressed air for direct action on the transducer diaphragm, the diaphragm valve is made with a diaphragm air pressure reducer for the air blown through the measuring tube; this reducer is built into the diaphragm valve and is regidly fastened to the transducer membrane. Orig. art. has: 1 figure (see Enclosure 1) /Abstractor's note: complete translation./

Card 1/1

KORSHUNOV, V.I.; Prinimali uchastiye: GUPALO, Yu.P.; ROMANOV, Yu.V.

Effect of the homogeneity of aerial suspensions as dry heavy media in gravity concentration. Izv.Sib.otd.AN SSSR no.1:92-94 '62. (MIRA 15:3)

1. Institut goryuchikh iskopayemykh AN SSSR, Moskva.
(Ore dressing)

BULGARIA/Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binding Materials. Concrete. H-13

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5564.

Author : Romanov, Zhechko; Bal"kchiev, Emil Iv.
Inst :
Title : Determination of Exotherm of Cement by Thermos Method.

Orig Pub: Stroitelstvo, 1957, 4, No 5, 10-13.

Abstract: A theoretical explanation of the method of determination of the exotherm of cement recommended by GOST 4798-49 is given. A description and scheme of the installation used by the authors for the determination of the exotherm of cement are presented. It is established that the Bulgarian cements under study answer the re-

Card : 1/2

ROMANOV, ZH.

Determining the exothermic nature of cement by the thermostatic method.

p. 10 (STROITELSTVO) Vol. 4, no. 5, 1957,
Sofiia, Bulgaria

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,
March 1958

Romanov, Zh.

H-7

BULGARIA/Chemical Technology - Chemical Products and Their Application. Ceramics. Glass. Binders. Concrete.

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 2069

Author : Romanov Zh., Gudev N.

Inst :

Title : Methods of Determining Free Lime in Lime-Silicate Articles and Cements.

Orig Pub : Teknika (B"lg.), 1957, 6, No 3, 18-20

Abstract : In contradistinction from the known extraction method of Franke (Franke B., Zeit. anorgan. Chemie, 1941, 247, 180) the authors used a double amount of the mixture of acetoacetic ester (AE) and isobutyl alcohol (IA). Moreover, anhydrous ethyl ether was added to the mixture. These changes have made it possible to carry out the extraction at 57-63° without extracting hydrosilicates and hydroaluminates of Ca, which has increased considerably the accuracy of the method. The authors point out that on addition

Ca Card 1/2

ROMANOVA, A.; SURIN, V.

Export of articles produced by the Soviet medical industry. Vnesh.torg. 30 no.6:33 '60. (MIRA 13:6)
(Medical supplies) (Russia--Commerce)

ROM: NOVA A

Now it's your turn, photographers! Prom.koop. 14 no.9:22 S '60.
(MIRA 13:9)

(Photography--Wastes, Recovery of)
(Silver salts)

[redacted], A. A.: "The mechanism of action of hydrogen-sulfide (Matsesta) baths, and participation of reflexogenic zones in the regulation of circulation and respiration on the hydrogen sulfide which enters the organism of animals and man." Acad Med Sci USSR. Moscow, 1955. (Dissertation for the Degree of Candidate in Medical Sciences).

Source: Knizhnaya letopis' No. 28 1956 Moscow

ROMANOVA , A.B., sostavitel'

[Suburban timetables: Moscow - Volokolamsk, Moscow Railroad; summer 1961] Raspisanie dvizheniia prigorodnykh poezdov: Moskva - Volokolamsk, Moskovskoi zh.d.; leto 1961 g. Moskva, Transzheldorizdat, 1961, 44 p. (MIRA 14:6)
(Moscow--Railroads--Timetables)

ROMANOVA, A.D.; FAVORSKAYA, L.V.; PONOMAREV, V.D.

Use of infrared spectroscopy in studying the extraction mechanism of scandium with tributyl phosphates. Izv. AN Kazakh. SSR. Ser. tekh. i khim. nauk no.2:68-74 '63. (MIRA 17:2)

ROMANOVA, A.D.; FAVORSKAYA, L.V.; PONOMAREV, V.D.

Composition of the complexes of hydrochloric acid and scandium extracted with tributyl phosphate. Izv. AN Kazakh. SSR. Ser.tekh. i khim.nauk no.3:49-55 '64. (MIRA 17:2)

ROMANOVA, A. D.

ROMANOVA, A. D. -- "The Biochemical Characteristics of Tea and the Photosynthesis of the Tea Plant under the Conditions of Krasnodar Kray." Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazev. Moscow, 1955.
(Dissertation for the Degree of Candidate in Agricultural Sciences).

SO: Knizhnaya Letopis', No 9, 1956

T-4

USSR / Human and Animal Physiology (Normal and Pathological). Blood.

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 60128

Author : Romanova, A. F.
Inst : Astrakhan Medical Institute
Title : Peripheral Blood Morphology, Prothrombin Level and Its Changes Under the Influence of Dicoumarin Treatment of Patients with Coronary Insufficiency

Orig Pub : Tr. Astrakhansk. med. in-ta, 1956, 12, No 2, 268-275

Abstract : 50 patients with a myocardial infarct, 24 with cardiosclerosis and coronary insufficiency, 12 with hypertension and impairment of the coronary circulation and two with neurosis and stenocardia, were tested. In most of the patients with acute and subacute myocardial infarction, there was leucocytosis, increased E.S.R. and an increased level of prothrombin. Under dicoumarin treatment, the

Card 1/2

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 60128

prothrombin index dropped in most of the patients. Since prothrombin is increased in sclerosis and hypertension, accompanied by coronary insufficiency, the use of dicoumarin is recommended with proper control of the prothrombin index for the prevention of an infarct. -- M. B. Gol'dberg

NIKOLAYEV, R.P.; ZAKHAROVA, M.P.; ROMANOVA, A.F.

New preparations of vitamins A, D, and B_{12} for feeding purposes. Trudy VNIVI 6:137-144 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut. Biokhimicheskaya laboratoriya.
(VITAMINS)

NIKOLAYEV, R.P.; ZAKHAROVA, M.P.; ROMANOVA, A.F.

Dry, highly dispersed, stable preparations of fat-soluble vitamins for prophylactic and therapeutic purposes. Trudy VNIVI 6:144-147 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut. Biokhimicheskaya laboratoriya.
(VITAMINS)

NIKOLAYEV, R.P.; TARUTIN, P.P.; ROMANOVA, A.F.

Powdered stabilized vitamin A concentrate for feeding purposes. Vit. res. i ikh isp. no.6:145-155 '63. (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut i Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.

L 11599-66 (A)

ACC NR: AP6000346 SOURCE CODE: UR/0286/65/000/021/0041/0041

AUTHORS: Nikolayev, R. P.; Tarutin, P. P.; Romanova, A. F.; Brzhezina, L. K. 21 B

ORG: none

TITLE: Method for manufacturing a vitaminized animal fodder preparation. Class 30, No. 176043

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 41

TOPIC TAGS: food technology, commercial animal, vitamin, calcium compound, nicotinic acid

ABSTRACT: This Author Certificate presents a method for manufacturing a vitaminized animal fodder preparation containing vitamin A, molasses, and soybean meal. To insure complete vitaminzation of the preparation, riboflavin (B_2), nicotinic acid (PP), and calcium pantothenate are dissolved in the molasses. Next, stabilized vitamin D is emulsified in the molasses, and vitamin B_{12} and soybean meal are added to the mixture. The mixture is thoroughly mixed, crushed, and bagged.

SUB CODE: 02/ 13/ SUBM DATE: 17Aug63

HW

Card 1/1 UDC: 636.085:636.087.3:577.161.164

SAMOKHVALOV, G.I.; BUDAGYANTS, M.I.; SHAKHOVA, M.K.; SHOLINA, S.I.; KRUGLYAKOVA, K.Ye.; NIKOLAYEV, R.P.; ROMANOVA, A.F.

7-Alkyl derivatives of quercetin and their antioxidizing effectiveness. Izv. AN SSSR. Ser.khim. no.9:1617-1621 S '63. (MIRA 16:9)

1. Institut khimicheskoy fiziki AN SSSR i Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.
(Quercetin) (Antioxidants)

NIKOLAYEV, R.P.; ROMANOVA, A.F.; ZHIDKOVA, A.V.; KONOVALOV, F.V.

Preservation of vitamin C in the purified fruit of the dog rose. Trudy VNIVI 6:158-161 '59. (MIRA 13:7)

1. Biokhimicheskaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo vitaminnogo instituta i Shchelkovskiy vitaminnyy zavod.

(ASCORBIC ACID)

NIKILAYEV, R.P.; ROMANOVA, A.F.

Change in the amount of ascorbic acid and its derivatives in the fruit of the dog rose and in products prepared from it. Trudy VNIVI 6:164-172 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut. Biokhimicheskaya laboratoriya.
(ASCORBIC ACID)

NIKOLAYEV, R.P.; ROMANOVA, A.F.

Influence of substances related to vitamin P on the stability of ascorbic acid. Trudy VNIVI 6:172-176 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut. Biokhimicheskaya laboratoriya.
(VITAMINS--P) (ASCORBIC ACID)

NIKOLAYEV, R.P.; ROMANOVA, A.F.

Stabilizing action of various antioxidants on vitamin A concentrates and the preparation of vitamin A emulsions for use in animal husbandry. Trudy VNIVI 6:118-122 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut. Biokhimicheskaya laboratoriya.
(ANTIOXIDANTS) (VITAMINS--A)

ROMANOVA, A.V.

Structure of molten NaOH and KOH alkalies. Sbor. nauch. rab. Inst. metallofiz. AN URSR no.10:144-149 '59. (MIRA 13:9)
(Sodium hydroxide) (Potassium hydroxide)

LASHKO, A.S.; ROMANOVA, A.V.

Investigating short-range order in certain liquid binary systems. Sbor. nauch. rab. Inst. metallofiz. AN URSR no.10:150-159 '59. (MIRA 13:9)

(Alloys--Metallography) (Crystal lattices)

USSR/Human and Animal Physiology - Blood Hematogenesis. T-4

Abs Jour : Ref Zhur - Biol., No 10, 1958, 45886

Author : Romanova, A.F.

Inst : Astrakhan' Institute of Medicine.

Title : Hematogenesis in Pathological Thyroid Conditions.

Orig Pub : Tr. Astrakhansk. med. in-ta, 1956, 12, No 2, 292-297

Abstract : Before and after conservative and surgical treatment, hematogenesis was studied in 19 patients with thyrotoxicosis (T), in 3 patients with myxedema, and in 7 patients with enthyroidal goiters. These studies were carried out by examining peripheral blood pictures and specimen data obtained by puncturing the bone marrow (BM). It was found that in severe forms of T erythropoiesis was inhibited, and that symptoms of anemia were displayed. An accelerated ESR [erythrocyte sedimentation rate], Card 1/2

NIKOLAYEV, R.P.; ROMANOVA, A.F.; KONOVALOV, F.V.; ZHIDKOVA, A.V.

Influence of sulfurous anhydride on the preservation of ascorbic acid in dry dog rose. Trudy VNIVI 6:161-164 '59. (MIRA 13:7)

1. Biokhimicheskaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo vitaminnogo instituta i Shchelkovskiy vitaminnyy zavod.

(ASCORBIC ACID) (SULFUR DIOXIDE)

3096. DRIED STABLE PREPARATIONS OF VITAMIN A (Russian text) - Nikolaev R. P. and Romanova A. F. Biochem. Lab., Inst. of Vitaminol., Moscow - VOPR. PIT. 1957, 16/2 (53-56) Tables 2

A new method has been worked out to obtain on a malt extract basis a dried stable preparation of vit. A with high organoleptic properties. The preparation of vit. A obtained by this method is not apt to undergo oxidation or destruction by mineral agents; it can be finely pulverized without the addition of other chemical substances, and it is sufficiently stable to be kept for a long time without deterioration. The new pulverized preparation can be mixed with flour and other food products, or added to milk and other beverages to form a stable emulsion. References 3.

Krymskii - Moscow (S)

ROMANOVA, A. F., Candidate of Med Sci (diss) -- "Some changes in the blood of patients with cororary insufficiency". Kuybyshev, 1959. 15 pp (Kuybyshev State Med Inst), 220 copies (KL, No 21, 1959, 120)

NIKOLAYEV, R.P.; ROMANOVA, A.P. (Moskva)

Dry stable vitamin A preparations [with summary in English]. Vop. pit. 16 no.2:53-56 Mr-Ap '57. (MIRA 10:10)

1. Iz biokhimicheskoy laboratorii (zav. - kandidat biologicheskikh nauk R.P.Nikolayev) Vsesoyuznogo nauchno-issledovatel'skogo vitaminnogo instituta, Moskva.
(VITAMIN A, prep.
dry stable prep. (Rus))

ROMANKOVA, A.G.; NAGALYUK, Ye.A.

Favorable conditions for the formation of humus-type compounds by mold fungi. Pochvovedenie no.8:8-14 '59. (MIRA 12:11)

1. Leningradskiy ordena Lenina gosuniversitet im. A.A. Zhdanova.
(Humic acid) (Molds(Botany))

VINOKURENKOVA, A.I., dotsent; RUDAKOVA, R.S.; SVIRIDOVA, I.V.; MARKOVA, A.I.; ROMANOVA, A.G.

[Treatment of cervical erosion with needle punctures according to Vinokurenkova's method. Sov.med. 21 no.2:54-57 F '57. (MLRA 10:6)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. V.I.Zdravomyslov) Stavropol'skogo meditsinskogo instituta.
(CERVIX, UTERINE, dis.
erosion, ther., multiple puncture with needle around eroded area)

ROMANOVA, A. K.

Fluoroacetate block of respiration and interconversion of organic acids in plant tissue. S. M. Prokoshev and A. K. Romanova (A. N. Bakh Biochem. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 110, 613–16(1956).—Treatment of potato slices with FCH_2CO_2Me results in complete inhibition of respiration at 0.05*M* concn. of the ester; succinate and fumarate tend to restrict the blocking action for a period of time. The ester infiltrated into potato leaves lowers the respiration of the leaf tissue; citrate tends to reduce the inhibiting effect somewhat. The ester specifically blocks the wound-induced decline of citric acid in the potato, and accelerates the disappearance, from a cut leaf, of malic acid.

G. M. Kosolapoff

ROMANOVA - A. K.

2

Malonate block of respiration and interconversion of organic acids in plant tissue. S. M. Prokoshev and A. K. Romanova (A. N. Bakh Biochem. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 106, 508–10(1956).—A manometric study of potato slices in phosphate buffer at pH 4.5 gave the following values of respiratory quotient when the indicated org. acid ions were added: (control 0.92), pyruvate 1.47, citrate 1.32, succinate 1.18, fumarate 1.2, malate 1.12. O uptake increased only with pyruvate and succinate. Malonate inhibited respiration by 18–47% of the control value at pH 4.5, and did not do so at pH 6; the inhibition increased with increased concn. of malonate. Addn. of succinate, fumarate, or malate blocked this inhibition both in respect to O and CO_2 components. Keeping stems of cut potato leaves in solns. of the org. acid ions for 2 days resulted in a sharp increase of citric and malic acids when the solns. contained citrate or malate ions; a noted increase of citric acid also resulted from pyruvate, acetate, succinate, or fumarate ions. The same ions gave an increase of malic acid. Tartrate did not affect citric and malic acid levels. The malonate soln., however, resulted in a decline in citric and malic acids; the formation of citric acid from succinic or fumaric acids was blocked completely by the malonate ion, and their formation from malate ion was repressed.

G. M. Kosolapoff

PROKOSHEV, S.M. [deceased]; ROMANOVA, A.K.; IVANOVA, G.V.

Organic acids in potatoes and vegetable crops and some enzymes associated with their conversion. Biokhim. pl. i ovoshch. no.4: 228-246 '58. (MIRA 11:10)

1. Institut biokhimii imeni A.N. Bakha AN SSSR.
(Vegetables) (Acids, Organic) (Enzymes)

ROMANOVA, A.K.; DOMAN, N.G.

Fixation products of labeled carbon dioxide discovered in hydrogen bacteria during the process of chemosynthesis. Mikrobiologiia 29 no.6:795-801 N-D '60. (MIRA 14:1)

1. Institut biokhimii imeni A.N.Bakha AN SSSR.
(BACTERIA, HYDROGEN) (CARBON DIOXIDE)

DOMAN, N.G.; ROMANOVA, A.K.; TERENT'YEVA, Z.A.

Pathway of carbon in chemosynthesis; nature of the early product of chemosynthesis in hydrogen bacteria. Dokl.AN SSSR 138 no.6:1456-1459 Je '61. (MIRA 14:6)

1. Institut biokhimii im. A.N.Bakha AN SSSR. Predstavleno akademikom A.N.Tereninym.
(BACTERIA, HYDROGEN) (BIOSYNTHESIS) (CARBON DIOXIDE)

DOMAN, N.G.; KRASNOVSKIY, A.A.; ROMANOVA, A.K.; VOROB'YEVA, L.M.; PAKSHINA, Ye. V.; TERENT'YEVA, Z.A.

Chlorophyll synthesis and carbon dioxide fixation in etiolated barley seedlings during exposure to light. Fiziol. rast. 8 no.1:3-12 '61. (MIRA 14:3)

1. A.N. Bakh Institute of Biochemistry, U.S.S.R. Academy of Sciences, Moscow.

(Chlorophyll) (Photosynthesis)

ROMANOVA, A.K.; DOMAN, N.G.; TERENT'YEVA, Z.A.

Effect of the age of the culture and composition of the nutritive medium on the products of $C^{14}O_2$ assimilation by hydrogen bacteria. Dokl.AN SSSR 138 no.1:231-234 My-Je '61. (MIRA 14:4)

1. Institut biokhimii im. A.N.Bakha AN SSSR. Predstavleno akademikom A.I.Oparinym.

(BACTERIA, HYDROGEN)
(BACTERIOLOGY--CULTURE AND CULTURE MEDIA)
(CARBON DIOXIDE)

ROMANOVA, A.K., [illegible],N.G., (USSR)

"The Path of Carbon in Chemosynthesis."

Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961.

DOMAN, N.G.; ROMANOVA, A.K.; TERENT'YEVA, Z.A.

Transformation of some volatile organic substances absorbed by leaves from the atmosphere. Dokl.AN SSSR 138 no.3:702-705 My '61.
(MIRA 14:5)

1. Predstavleno akademikom A.L.Kursanovym.
(Plants--Assimilation)

DOMAN, N.G. AND ROMANOVA, A.K.

"On the pathway of autotrophic assimilation."

Report submitted to the Intl. Congress for Microbiology
Montreal, Canada 19-25 Aug 1962