

FILOV, A.I.

Wild relative of the cucumber. Biul.Glav.bot.sad no.52:105-106  
'64. (MIRA 17:4)

1. Vsesoyuznyy institut rasteniyevodstva, Leningrad.

FILOV, A.I.

Reduced growth of axial organs in vine crops. Biol. Glav. bot.  
sada no.57:61-66 '65. (MIRA 18:9)

1. Krymskiy sel'skokhozyaystvennyy institut, Simferopol'.

FII OV, A. P.

42477. Sistematika Ogurechnogo Rasteniya. Zapiski Tadh. S-Kh. In-Ta, T. I.,  
1948, S. 151-208.--Bibliogr: 37 Nazv.

*FILED R. P.*

AUTHOR: Ostroumov, V. I., Filov, R. A.

120-2-12/37

TITLE: Investigation of the Angular Distribution of Particles from Their Traces in a Photo-emulsion. (Ob Izuchenii Uglovogo Raspredeleniya Chastits po ikh Sledam v Fotoemul'sii.)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.2, pp. 44 - 45 (USSR).

ABSTRACT: It is sometimes necessary, in investigations of nuclear processes occurring in a layer of a photo-emulsion, to determine the angular distribution of particles with respect to a given direction; for this purpose the projection angle in the observation plane and the angle of tracks with this plane are usually measured. Under certain conditions the angular distribution may be established from the observation of the plane angular distribution (i.e. by observing the projection). The given distribution function may be presented by equation 1. Normally the function  $n(a)$  (the observed plane angular track distribution within the angle  $a$ ) cannot be analytically derived so that eventually large errors occur in its numerical evaluation. The author proposes an easier method of evaluating the solid angle distribution from the angular distribution in a plane from Figure 1. The fraction of

Card 1/4

120-2-12/37

Investigation of the Angular Distribution of Particles from Their  
Traces in a Photo-emulsion.

tracks at an angle  $\varphi$  for which the projected angle value is smaller than any given one  $a$  is given by the ratio  $2\beta/\pi$ . The angle  $\beta$  is related to  $a$  and  $\varphi$  by equation 2. If the measurement of tracks distribution are taken at  $15^\circ$  intervals we have  $n_1$  tracks within  $a = 75-90^\circ$ ,  $n_2$  tracks within  $a = 60-75^\circ$  and so on, hence the number of angles  $\varphi$  in the  $75-90^\circ$  interval will be  $N_1 = \frac{n_1}{1 - 2\beta_1/\pi}$  where  $\beta$

is determined from (2) as  $\sin\beta_1 = \text{tg}5/12\pi \cdot \overline{\text{ctg}\varphi_1}$ ,  $\overline{\text{ctg}\varphi_1}$  being the mean cotangent values in the angle interval. In the interval  $\varphi = 60-75^\circ$  the number of tracks will be  $N_2 = (n_2 - N_1 2\beta_{12}/\pi) / (1 - 2\beta_2/\pi)$ ; ( $\beta_{12} = \beta_1 - \beta_2$ ) and the following table may eventually be obtained:

$$N_1 = 1,500n_1$$

$$N_2 = 2,038n_2 - 0,548n_1$$

$$N_3 = 2,258n_3 - 1,090n_2 + 0,083n_1$$

$$N_4 = 2,184n_4 - 1,306n_3 + 0,107n_2 - 0,024n_1$$

Card 2/4

120-2-12/37

Investigation of the Angular Distribution of Particles from Their Traces in a Photo-emulsion.

$$N_5 = 1,811n_5 - 1,246n_4 + 0,091n_3 - 0,053n_2 + 0,002n_1$$

$$N_6 = N_6 - 0,811n_5 + 0,063n_4 - 0,041n_3 - 0,001n_2 - 0,002n_1$$

giving good results for small angles (approx.  $5\frac{01}{4}$  of

divergence between the observation axis and the emulsion plane). The above relationships have been checked against an isotropic distribution. Figure 2 shows that the error between the angular dependence  $N(\varphi)$  (for a unit solid angle), with  $N_1 = n_2 \dots \dots = n_6$  (broken line) does not exceed 3%. Besides the simplicity, the method has another advantage over the method of direct measurements of angle  $\varphi$ : the loss of short tracks does not influence in practice the volume distribution of track projections and the final calculated spatial distribution. One diagram and two graphs of angular distribution of uranium nuclei splitting under the bombardment of 14MeV neutrons are given. There are 2 references, 1 of which is Slavic.

SUBMITTED: July, 23, 1956.

ASSOCIATION: Leningrad Polytechnic Institute imeni M.I.Kalinin.

Card 3/4 (Leningradskiy Politekhnikheskiy Institut im. M.I. Kalinina)

120-2-12/37

Investigation of the Angular Distribution of Particles from Their  
Traces in a Photo-emulsion.

AVAILABLE: Library of Congress.

Card 4/4

, FILOV, R.A.

AUTHORS: Ostroumov, V. I., Filov, R. A. 56-6-4/47

TITLE: **Angular Correlation Between Fragments and the Charged Particles Emitted With the Fission of Uranium Nuclei** (Ob uglovoy korrelyatsii mezhdru oskolkami i zaryazhennymi chastitsami, ispuskayemyi pri delenii yader, urana)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1957, Vol. 33, Nr 6, 1335-1340 (USSR)

ABSTRACT: Nuclear emulsions of 100 and 200  $\mu$  thickness, which were saturated with an aqueous solution of  $\text{NaUO}_2(\text{C}_2\text{H}_3\text{O}_2)_3$ , were subjected to the action of a proton beam of 660 MeV. The fissioning of the uranium nucleus was connected with the forming of charged particles. A total of 3201 fissions (1156 in the thicker emulsion) were recorded. The "beam"-composition of the fission, i.e. the distribution of the light, charged particles produced by the fission, amounted to:

0 beams - 43,7 %; 1 beam - 25,3 %; 2 beams - 15,7 %;  
3 beams - 8,5 %; 4 beams - 4,2 %; 5 beams - 1,5 %  
6 beams - 0,8 %; 7 and more beams - 0,3 %. The ratio between

Card 1/2



**Angular Correlation Between Fragments and  
the Charged Particles Emitted With the Fission of  
Uranium Nuclei**

56-6-4/47

the  $\alpha$ -particles and the number of protons was determined at  $0.36 \pm 0.02$ . Besides, the angular distribution of these particles was measured both with respect to the direction of the 660 MeV proton beam and to the direction of the fission fragments. It was found that there is no angular correlation between the protons and fission fragments. The  $\alpha$ -particles and the multiply charged fission fragments have, quite generally, the tendency to fly off in the directions which have a large angle with respect to the fission fragments. There are 4 figures, 1 table, and 14 references, 10 of which are Slavic.

ASSOCIATION: Leningrad Polytechnic Institute (Leningradskiy politekhnicheskii institut)

SUBMITTED: June 29, 1957

AVAILABLE: Library of Congress

Card 2/2

FILED, R. A.

10 (6) **PHASE I BOOK REVISIONS** 001/0011

International Conference on the General Uses of Atomic Energy, 2d., Geneva, 1958 (Nuclear Physics) Summary, Reports of Soviet Scientists: Nuclear Physics Moscow, Atomizdat, 1959, 252 p. (Serials Unit Study, Vol. 1) 8,600 copies printed.

Mr. (This page) A. I. Alibekov, Academiian; V. L. Vukobrat, Academiian; and P. A. Yanov, Academiian of Physical and Mathematical Sciences; M. of this Science; M. E. Rudner and S. F. Saravich, Academiian of Physical and Mathematical Sciences; M. (This page) G. L. Maslov; Mosk. M. S. T. Maslov.

Abstracts This collection of articles is intended for scientific research workers and other persons interested in nuclear physics. The volume contains 15 papers presented by Soviet scientists at the 5th General Conference on General Uses of Atomic Energy, held in Geneva in September 1959.

Contents It is divided into two parts. Part I contains 17 papers dealing with plasma physics and controlled thermonuclear reactions, and Part II contains 26 papers on nuclear physics, including problems of particle penetration and of cosmic ray physics. The first paper by L. A. Arzhanovskii presents a review of Soviet work on controlled thermonuclear reactions. The remaining papers in Part I deal with particular problems in this field.

Papers in Part II deal in detail with various problems in nuclear physics, such as the fusion of heavy atoms and their isotopes, and with the study of cosmic radiation by means of artificial earth satellites and rockets, described in a paper by G. L. Vozner. The Russian-language edition of the proceedings of the conference is published in 16 volumes. The first 6 volumes contain all the papers presented by Soviet scientists as follows: Volume (1), Abstracts of the 5th General Conference on General Uses of Atomic Energy (Moscow, Atomizdat, 1959); Volume (2), Abstracts of the 5th General Conference on General Uses of Atomic Energy (Moscow, Atomizdat, 1959); Volume (3), Abstracts of the 5th General Conference on General Uses of Atomic Energy (Moscow, Atomizdat, 1959); Volume (4), Abstracts of the 5th General Conference on General Uses of Atomic Energy (Moscow, Atomizdat, 1959); Volume (5), Abstracts of the 5th General Conference on General Uses of Atomic Energy (Moscow, Atomizdat, 1959); Volume (6), Abstracts of the 5th General Conference on General Uses of Atomic Energy (Moscow, Atomizdat, 1959).

The other 10 volumes contain selected papers from the English edition of the proceedings of the conference by non-Soviet scientists. In the present volume correspondents between the Russian and English languages edition of the proceedings have been noted in three articles where the texts are not identical: V. I. Vukobrat, et al., "High Current Pulsed Neutrons"; M. E. Rudner, et al., "High Frequency Plasma Oscillations"; and N. V. Karavayev, "Investigations of the 'Hot Spot' Problem". The serial numbers of papers 2542 and 2548 are printed in the Russian edition. Report 2542, by Maslov, et al., is numbered 2550 in the English edition.

TABLE OF CONTENTS

Reports of Soviet Scientists: Nuclear (cont.) 001/0011  
 Volinov, V. P. The Neutronium Reaction of Californium-254 in Type I Supernovae, 460  
 and in the Absorption of the Energy of  $\beta$  Rays, 461 (Reports 2522) 460  
 Astronomical Observations of the Supernovae, 462, 463, 464, 465, 466, 467, 468, 469, 470  
 Mr. M. A. Maslovskiy, and G. L. Vozner.

Volinov, V. P., V. B. Pagan. Estimates of Absorption Cross Section of Californium-254 by Neutrons of Energy up to 0.05 MeV, and Calculation of Action of Protons in Intermediate Neutrons (Report 222) 463  
 Astronomical Observations of the Supernovae, 462, 463, 464, 465, 466, 467, 468, 469, 470  
 Astronomical Observations of the Supernovae, 462, 463, 464, 465, 466, 467, 468, 469, 470  
 Astronomical Observations of the Supernovae, 462, 463, 464, 465, 466, 467, 468, 469, 470

Volinov, V. P., V. B. Pagan, L. A. Yanov, L. I. Pribludnyy, and G. L. Maslovskiy. Abstracts of the 5th General Conference on General Uses of Atomic Energy (Moscow, Atomizdat, 1959) 464  
 Astronomical Observations of the Supernovae, 462, 463, 464, 465, 466, 467, 468, 469, 470  
 Astronomical Observations of the Supernovae, 462, 463, 464, 465, 466, 467, 468, 469, 470

Volinov, V. P., V. B. Pagan, L. A. Yanov, L. I. Pribludnyy, and G. L. Maslovskiy. Abstracts of the 5th General Conference on General Uses of Atomic Energy (Moscow, Atomizdat, 1959) 464  
 Astronomical Observations of the Supernovae, 462, 463, 464, 465, 466, 467, 468, 469, 470

AUTHORS: Ostroumov, V. I., Perfilov, N. A., SOV/56-36-2-4/63  
Filov, R. A.

TITLE: Cascade  $\alpha$ -Particles in Nuclear Fission Caused by  
Protons With Energies of 360 and 660 Mev (Kaskadnyye  
 $\alpha$ -chastitsy v yadernykh rasshcheplenyakh, proizvodimykh  
protonami s energiyey 360 i 660 MeV)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,  
Vol 36, Nr 2, pp 367-375 (USSR)

ABSTRACT: In their introduction, the authors discuss the results obtained  
by several publications dealing with this subject (Refs 1-6).  
In the present paper investigations of stars containing tracks  
of  $\alpha$ -particles with energies above 30 Mev are described.  
The investigations were carried out on photo-plates with a  
fine-grained nuclear emulsion P-9 sensitive to protons with  
30-40 Mev. The plates were subjected to the action of a 360  
and 660 Mev proton beam of the Ob'yedinennyy institut yadernykh  
issledovaniy (United Institute for Nuclear Research). Among the  
plates with stars containing  $\alpha$ -tracks ( $E_{\alpha} > 30$  Mev) only such  
were chosen for analysis in which the entire  $\alpha$ -particle track

Card 1/4

Cascade  $\alpha$ -Particles in Nuclear Fission  
Caused by Protons With Energies of 360 and 660 Mev

SOV/56-36-2-4/63

was located in the photolayer and in which the track formed an angle of  $<7^\circ$  with the emulsion plane. The star production cross sections for 360 Mev protons used were taken from the paper by Bernardini et al. (Ref 9), and those for 660 Mev protons from that by Grigor'yev and Solov'yeva (Ref 10). The plates investigated were divided into 3 groups: The first comprised all stars with tracks of a recoil nucleus; they are assumed to be the result of a disintegration of a heavy emulsion nucleus (here called T-stars). The second group comprises such as have no visible tracks of a recoil nucleus (charge carried away  $<8e$ ,  $E_\alpha < 8$  Mev or  $E_p < 4$  Mev) - disintegration of light nuclei, L-stars. Such stars are classed among the third group as cannot be classed either among the first or the second.

The following was found:

				$\sigma_T$ [mb]	$\sigma_L$ [mb]
$E_p = 360$ Mev:	668 stars,	397 (T),	68 (L),	203 (T+L)	$85 \pm 15$ $17 \pm 6$
$E_p = 660$ Mev:	600 "	363 (T),	77 (L),	160 (T+L)	$120 \pm 25$ $18 \pm 6$

Card 2/4

Cascade  $\alpha$ -Particles in Nuclear Fission  
Caused by Protons With Energies of 360 and 660 Mev

SOV/56-36-2-4/63

The attempt is now made, by employing various methods, to estimate the share  $x$  of the L-stars in the third group: 1) according to the angular distribution of the fast  $\alpha$ -particles, 2) according to the radiation distribution of the stars, 3) according to  $\alpha/p$ , the ratio between the number of double-charge particles and that of single-charge particles in L- and T-stars, and 4) from a comparison between the results obtained with 660 Mev protons with those obtained by Serebrennikov (Ref 12) with C, O, and N-disintegrations. The results of this estimation is shown by table 2. The results obtained by the investigation of the angular distribution of  $\alpha$ -particles with  $E_{\alpha} > 30$  Mev is shown by figures 1a and 1b (660 Mev protons, 360 Mev protons) for T-stars, and figure 2 shows the same for L-stars. Radiation distribution is shown by figure 3 (T) and figure 4 (L). Further, the relative probability for  $\alpha$ -emission from light and heavy emulsion nuclei is investigated, as also the emission probability of nuclear fragments. Results are shown by diagrams (Figs 5a,b (T) and Figs 6a,b (L)). The emission of cascade  $\alpha$ -particles and

Card 3/4

Cascade  $\alpha$ -Particles in Nuclear Fission  
Caused by Protons With Energies of 360 and 660 Mev

SOV/56-36-2-4/63

fragments as a result of bombardment with protons of the same energies were found to be quite similar. This seems to indicate that the  $\alpha$ -particles are produced by the same type of mechanism. The authors thank O. V. Lozhkin and Yu. I. Serebrennikov for their help and discussions. There are 6 figures, 3 tables, and 14 references, 9 of which are Soviet.

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

SUBMITTED: June 28, 1958

Card 4/4

21(7)

AUTHORS: Ostroumov, V. I., ~~Filov, R. A.~~ SOV/56-37-3-9/62

TITLE: Knocking-out of  $\alpha$ -Particles From Nuclei by Fast Nucleons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,  
Vol 37, Nr 3(9), pp 643-650 (USSR)

ABSTRACT: In the introduction the authors discuss the results of other papers on this field (Refs 1-14), among others those by Meshcheryakov et al., which deal with the knock-out of fast deuterons from light nuclei by 660 Mev protons. It was the aim of the present paper further to deal with the question as to whether  $\alpha$ -particles exist within the nucleus, which, as a whole, take part in a cascade process. For the experimental investigation fine-grained photographic emulsions of the P-9 type were used, which were irradiated with 660, 360, 200, 140, and 100 Mev protons on the synchrocyclotron of the OIYaI (United Institute of Nuclear Research). The reduction of proton energy was brought about by slowing down the particles in a copper block of suitable thickness. With respect to the selection of stars and their classification criteria, a previous paper (Ref 15) is referred to. The experimentally found cross sections of  $\alpha$ -emission ( $E_{\alpha} > 30$  Mev) of light and

Card 1/3

Knocking-out of  $\alpha$ -Particles From Nuclei by Fast Nucleons SOV/56-37-3-9/62

heavy emulsion nuclei at various energies of the bombarding protons is shown by figure 1. The plotted errors comprise both statistical errors and such as originate from geometry. Calculation of cross sections is carried out by using the data of reference 18 concerning the elastic scattering of protons and neutrons with energies of up to 70 Mev on  $\text{He}_2^4$ -nuclei. In

this connection it is assumed that the nucleons in the nucleus possess definite momenta. The kinetic energy of the  $\alpha$ -particles in the nucleus is to assume the values  $W = 0, 5, 10, \text{ and } 20$  Mev. The results obtained by calculation are given by a diagram (Fig 3). The curves  $\sigma(E)$  for the four  $W$ -values show (beginning with 30 Mev) a steep slope and fall exponentially with increasing  $E$  after exceeding the maximum. In the following, the probability  $w$  of the existence of  $\alpha$ -particles in the nucleus is discussed. If the surface layer of the nucleus contains  $N_{\text{eff}}$   $\alpha$ -particles, and if  $N$  denotes the maximum possible number of these particles in the surface layer (for Ag and Br  $N=12$ , for light nuclei equal to 3), then  $N_{\text{eff}}/N = w$  and

Card 2/3

$$\sigma_{\alpha}(E_0) = Nw\bar{n}(E_0) \int_0^{E_0} f(E)\sigma(E)dE \quad (n \text{ is the number of cascade})$$



Knocking-out of  $\alpha$ -Particles From Nuclei by Fast Nucleons SOV/56-37-3-9/62

nucleons of the energy  $E$ ,  $E_0$  the proton energy). Figure 4 shows the course of the curve  $w(W)$  for light and heavy nuclei. The two curves take a parallel course immediately beside each other and  $w$  decreases exponentially with growing  $W$ . The probability of the existence of  $\alpha$ -particles  $w$  is calculated for the nuclei Ag, Br, C, O, and N for the four  $W$ -values and 6  $E_0$ -values and compiled in table 2. The results are discussed.

The authors finally thank O. V. Lozhkin for his assistance in carrying out the experiments, Ye. I. Prokof'yeva, N. R. Novikova, and Ye. V. Fadina for evaluating the plates, and N. A. Perfilov for his interest and discussions. There are 4 figures, 2 tables, and 22 references, 7 of which are Soviet.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute)

SUBMITTED: April 11, 1959

Card 3/3

Filov, R. A.

S/056/60/039/01/16/029  
B006/B063

AUTHORS: Ostroumov, V. I., Perfilov, N. A., Filov, R. A.

TITLE: The Energy Spectrum of Cascade Alpha Particles<sup>19</sup> in  
Photoemulsion Stars Produced by High-energy Protons

JB

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki,  
1960, Vol. 39, No. 1(7), pp. 105-107

TEXT: Following two previous papers (Refs. 1 and 2) in which a theoretical method was developed and similar problems were studied, the authors describe the calculation of the energy spectrum of fast cascade alpha particles, which was carried out to determine the velocity of the alpha particle in the nucleus (since the energy distribution of the recoil particles depends on their primary momentum). The formulas used for calculation were taken from the paper of Ref. 1. The model underlying the calculation is based on the assumption of single elastic collision between cascade nucleons and intranuclear alpha particles. The calculation was made for alpha particles departing with energies of more than 30 Mev during the disintegration of heavy photoemulsion nuclei. The disintegrations are assumed to have been

Card 1/3

The Energy Spectrum of Cascade Alpha Particles  
in Photoemulsion Stars Produced by High-energy  
Protons

S/056/60/039/01/16/029  
B006/B063

released by protons of 140, 200, 360, and 660 Mev. The accompanying figure shows the experimental  $\alpha$ -spectrum for  $T = 30$  Mev ( $T$  denotes the lower limit of the kinetic energy of the  $\alpha$ -particles), which was obtained by observing stars of Ag and Br nuclei induced by 660-Mev protons (the alpha spectra taken at proton energies of 140, 200, and 360 Mev have the same shape). The diagram also contains the theoretical distribution curves; these calculations were made for different kinetic energies,  $W$ , of intranuclear alpha particles; the diagram shows the curves obtained for  $W = 0$  and  $W = 5$  Mev. The theoretical curve for  $W = 5$  Mev gives a better description of the experimental distribution than the theoretical curve for  $W = 0$  Mev. This means that an alpha particle moving in the nucleus is more probable in this model than an alpha particle at rest. As the curves calculated for  $W = 5 + 20$  Mev practically yield the same results, the authors studied the momentum distribution of alpha particles in the nucleus. It was found that the best values for  $W$  were obtained between 5 and 10 Mev. In Ref. 4  $W = 6$  was found for alpha particles in the  $C^{12}$  nucleus. There are 1 figure and 4 references: 3 Soviet and 1 French. ✓B

Card 2/3

The Energy Spectrum of Cascade Alpha Particles  
in Photoemulsion Stars Produced by High-energy  
Protons

S/056/60/039/01/16/029  
B006/B063

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

SUBMITTED: January 15, 1960

✓B

Card 3/3

PERFILOV, N.A.; SOLOV'YEVA, Z.I.; FILOV, R.A.; KHLEBNIKOV, G.I.

Spontaneous triple fission of curium-242. Dokl. AN SSSR 136  
no. 3:581-582 Ja '61. (MIRA 14:2)

1. Radiyevyy institut imeni V.G. Khlopina AN SSSR. Predstavleno  
akademikom B.P. Konstantinovym.  
(Curium--Decay)

PERFILOV, N.A.; SOLOV'YEVA, Z.I.; FILOV, R.A.

Triple fission of uranium nuclei by fast neutrons. Zhur.eksp.i teor.  
fiz. 41 no.1:11-12 J1 '61. (MIRA 14:7)

1. Radiyevyy institut AN SSSR.  
(Nuclear fission) (Uranium isotopes) (Neutrons)

L1121

S/056/62/043/004/004/061  
B102/B18624.6600  
AUTHORS:Solov'yeva, Z. I., Filov, R. A.

TITLE:

Dependence of the kinetic energy of fragments on the  $\alpha$ -particle energy during triple fission of uranium

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,  
no. 4(10), 1962, 1146. - 1148 .

TEXT: Studies of the energy distribution of  $U^{235}$  fragments formed in double and triple fission showed that, the most probable total kinetic energy of double-fission fragments, equals the energy triple-fission fragments plus the probable energy of the long-range  $\alpha$ -particle. Further studies were made to find out whether this relation holds generally.  $\pi$ -80 (P-80) nuclear emulsion plates were impregnated with uranium salt and irradiated with thermal neutrons from a reactor.  $\alpha$ -particle and total fragment energies were determined from fission ranges, and the energy distributions were established for the intervals 6-14 Mev (10.4 Mev mean value), 14-17 Mev and 17-30 Mev (21.0 Mev mean value). The most probable fragment ranges were found to be shifted by  $\sim 10$  Mev in dependence on the mean energy

Card 1/2

Dependence of the kinetic energy ...

S/056/62/043/004/004/061  
B102/B186

of the long-range  $\alpha$ -particles. This confirms that the relation stated above is valid also for energies other than the most probable. The triple fission mechanism is discussed in the context of a dumbbell-shaped nuclear model. There is 1 figure.

SUBMITTED: April 14, 1962

Card 2/2



L 10677-63

EPF(n)-2/571(m)/BDS--PFTC/ASD/FWL/SSD--Fu-4

ACCESSION NR: AP3002265

S/0089/63/014/ 006/0575/0577

60

AUTHOR: Perfilov, N. A.; Solov'yeva, Z. I.; Filov, R. A.

TITLE: Triple fission of U sup 235 by neutrons of 14 mev energy

SOURCE: Atomnaya energiya, v. 14, no. 6, 1963, 575-577

TOPIC TAGS: triple uranium fission, neutron uranium fission

ABSTRACT: The triple splitting of uranium nucleus (fission plus the formation of a high energy alpha particle) was observed in a previous work to be more probable for bombardment with thermal neutrons than with fast ones. However, these observations were made with different isotopes: thermal neutrons with U sup 235, fast neutrons with U sup 238. Therefore, neutrons of 14 Mev were used with U sup 235 in this study. Photoemulsions P-9-0 were soaked in uranium salt solutions and irradiated in the neutron beam from the reactor  $t(d,n) He$  sup 4. About 100 thousand fission events were observed, among them 65 triple ones. The energy spectrum of alpha particles and their angular distribution were observed and given in diagrams. They are approximately the same for thermal and for fast neutrons. The probability of triple splitting decreases with the increase of the isotopic mass. Orig. art. has: 3 figures.

Card 1/2/

L 13613-63 EWT(m)/BDS AFFTC/ASD  
ACCESSION NR: AP3003107

8/0056/63/044/006/1832/1836

54  
53

AUTHOR: Perfilov, N. A.; Solov'yeva, Z. I.; Filov, R. A.; Khlebnikov, G. I.

TITLE: Ternary fission of plutonium *19*

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1832-1836

TOPIC TAGS: ternary fission of plutonium, Alpha particle energy spectra,  
plutonium thermal fission, uranium complex fission

ABSTRACT: The energy spectra of long-range Alpha particles produced in the spontaneous fission of Pu sup 238 and Pu sup 240 and in thermal fission of Pu sup 239 have been studied by the nuclear emulsion method with an aim at comparing both the fission probabilities and the fission Alpha-particle energy spectra of the different isotopes. Electrolytic films of Pu sup 238 and sup 240, containing 78 plus or minus 4 and 450 plus or minus 25 microgram respectively were used in the spontaneous fission test, and Pu sup 239 film irradiated with neutrons from the reactor of FTI AN SSSR was used to obtain the alpha-particle energy spectrum from thermal-neutron fission. The photographic plates were scanned with a microscope and the resultant histograms were tested for fits to Gaussian distributions with various maxima and half-widths. The spectrum shapes are discussed and compared

Card 1/12

L 13613-63

ACCESSION NR: AP3003107

with the results for complex uranium fission. Logical reasons for representing the Alpha-particle spectra as Gaussian or near-Gaussian distributions are advanced and agreement in the case of ternary fission of Pu sup 240 is noted with recent work by R. A. Nobles (Phys. Rev. v. 126, 1508 (1962)). "In conclusion, the authors wish to thank V. M. Kulakov for experimental assistance." Orig. art. has: 2 figures, 1 formula, and 2 tables.

ASSOCIATION: none

SUBMITTED: 17Jan63

DATE ACQ: 23Jul63

ENCL: 003

SUB CODE: 00

NO REF SOV: 008

OTHER: 007

Card 2/62

PERFILOV, N.A.; SOLOV'YEVA, Z.I.; FILOV, R.A.

Spectrum and particles in the triple spontaneous fission of  
cm244. Zhur. eksp. i teor. fiz. 46 no.6:2244-2245 Ja '64.  
(MIRA 17:10)

FIL'OV, V.

Most advantageous and economical construction for electric-power stations on  
swift rivers. p. 10.

TEKHNIKA, Sofiya, Vol. 4, no. 4, Apr./May 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956,  
Uncl.

FIL'OV, Ventseslav, d-r inzh.; KHRISTOV, Khristo, inzh.

Hydraulic studies on the spillway of the Vinitsa Dam.  
Khidrotekh i melior 7 no.6:191-192 '62.

FILOV, V.A. (Leningrad)

Fate of esters of vinyl alcohol and fatty acids in the body. Gig.  
truda i prof.zab. 3 no.5:42-46 S-0 '59. (MIRA 13:2)

1. Institut gigiyeny truda i profzabolevaniy.  
(ACIDS, FATTY) (VINYL ALCOHOL)

FILOV, V.A., Cand Bio Sci -- (diss) "Data on the toxicology of certain complex ethers (On the retention and rearrangements of complex ethers of vinyl alcohol in the organism)," Leningrad, 1960, 14 pp (Leningrad Sanitary Hygiene Medical Institute) (KL, 36-60, 114)



(FILOV, V.A. (Leningrad)

Quantitative polarographic determination of some vinyl alcohol esters  
in water and in the air. Gig. truda i prof. zab. 4 no. 7:54-55  
Jl '60. (MIRA 13:8)

1. Institut gigiyeny truda i profzabolevanity.  
(VINYL ALCOHOL) (POLAROGRAPHY)

MINKINA, N.A.; FILOV, V.A.

The uses of photometry in histochemistry (instrument and method).  
Ark.pat. 22 no.3:74-78 '60. (MIRA 13:12)  
(HISTOCHEMISTRY) (PHOTOMETRY—EQUIPMENT AND SUPPLIES)

FILOV, V.A.

Fate of methylacetate after its entry into the body. Farm.1  
toks. 24 no.2:224-226 Mr-Ap '61. (MIRA 14:6)

1. Laboratoriya promyshlennoy toksikologii (zav. - prof. I.D.  
Gadaskina konsul'tant - zasluzhennyy deyatel' nauki prof. N.V.  
Lazarev) Leningradskogo nauchno-issledovatel'skogo instituta  
gigiyeny truda i profzabolevaniy.  
(ACETATES)

FILOV, V.A.; RUSIN, V.Ya. (Leningrad)

Determination of styrol and its chlorine derivatives in the  
blood. Gig. truda i prof. zab. 4 no.12:47-50 D '60. (MIRA 15:3)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gigiyeny  
truda i professional'nykh zabolevaniy.

(STYRINE)

(CHLORIDES IN THE BODY)  
(BLOOD--ANALYSIS AND CHEMISTRY)

FILOV, V.A.

Thermodynamic activity of volatile organic compounds during their action.  
Biofizika 7 no.1:73-79 '62. (MIRA 15:5)

1. Nauchno-issledovatel'skiy institut gigiyeny turda i professional'nykh  
zabolevaniy, Leningrad.  
(TOXICOLOGY)

ABRAMOVA, Zh.I., kand. med. nauk; GADASKINA, I.D., prof.; GOLUBEV, A.A., kand. med. nauk; DANISHEVSKIY, S.L., prof.; ZIL'BER, Yu.D., kand. med. nauk; LAZAREV, L.N., kand. khim. nauk; LEVINA, E.N., doktor med. nauk; LOYT, A.O.; LYUBLINA, Ye.I., doktor biol. nauk; LYKHINA, Ye.T., kand. biol. nauk; MINKINA, N.A., kand. med. nauk; RUSIN, V.Ya., kand. med. nauk; SALYAMON, L.S., kand. med. nauk; SPERANSKIY, S.V., TRAKHTENBERG, I.M., dots.; FILOV, V.A., kand. biol. nauk; TSIRK, K.G., kand. med. nauk; CHEKUNOVA, M.P., kand. med. nauk; GRIVA, Z.I., red.; LAZAREV, N.V., zasl.deyat.nauki, prof., red.; LEVIN, S.S., tekhn. red.; BASINA, M.Z., tekhn. red.

[Toxic industrial substances; handbook for chemists, engineers and physicians] Vrednye veshchestva v promyshlennosti; spravochnik dlia khimikov, inzhenerov i vrachei. Izd.4., perer.i dop. Leningrad, Goskhimizdat. Pt.2.[Inorganic and metallo-organic compounds] Neorganicheskie i elementorganicheskie soedineniia. 1963. 619 p. (MIRA 17:2)

FIIOV, V.A.

Esterase activity of the blood of animals of various species.  
Biul. eksp. biol. i med. 55 no.4:45-46 Ap '63.

(MIRA 17:10)

1. Iz toksikologicheskoy laboratorii (zav. - prof. I.D. Gadaskina)  
Instituta gigiyeny truda i professional'nykh zabolevaniy, Leningrad.  
Predstavlena deystvitel'nyy chlenom AMN SSSR S.Y. Severinym.

FILOV, Vladimir Aleksandrovich; GADASKINA, I.D., otv. red.

[Determination of poisonous chemicals in biological substrates] Opredelenie iudokhimikatov v biologicheskikh substratakh. Moskva, Nauka, 1964. 250 p. (MIRA 17:8)



FILOV, V.A.

Comparative intensity of the necrotic activity of methyl- and ethylacetates and of products of their metabolism. Farm. i toks. 27 no.4:492-493 J1-Ag '64. (MIRA 17:11)

1. Laboratoriya toksikologii (zav. - prof. I.D. Gadask'ina) Nauchno-issledovatel'skogo instituta gigiyeny truda i professional'nykh zabol'evaniy, Leningrad.

FILOV, V.A.

Kinetics of the accumulation of substances in biological systems under the conditions of their free penetration and subsequent disintegration. Dokl. AN SSSR 157 no. 4/2004-1009 Pg 161 (MIRA 27:8)

1. Institut tsitologii AN SSSR. Predstavleno akademikom A.N. Balozerskim.

L 62480-65 ENT(d)/ENP(h)/ENP(1)

ACCESSION NR: AP5018798

UR/0217/55/010/004/0602/0608 24  
577.3

AUTHOR: Filov, V. A.; Lyublina, Ye. I.

TITLE: Relationship between the toxic effects of volatile organic compounds and their physicochemical properties

SOURCE: Biofizika, v. 10, no. 4, 1965, 602-608

TOPIC TAGS: organic compound, toxicology

ABSTRACT: The authors used published data to determine the relationship between 5 indices of toxicity of volatile organic compounds and 38 of their physicochemical properties. The 5 indices included: (1) LD<sub>50</sub> - lethal dose for 5% of white mice when the substance was injected into the stomach; (2) LC<sub>50</sub> - lethal concentration for 50% of white mice poisoned by inhalation for 2 hours; (3) NC<sub>50</sub> - narcotic concentration for 50% of mice with 2 hours of poisoning; (4) C<sub>thresh</sub> - threshold concentration causing a change in the characteristics of the unconditioned flexor reflex in rabbits after 40 minutes of exposure; (5) MPC - maximum permissible concentration. The properties investigated were of three kinds: (1) those determined by

Card 1/2

L 62480-35

ACCESSION NR: AP5018798

3

the supermolecular level of organization of the substance; (II) those determined at the molecular level and including those associated with the molecular structure, with the kinetic energy of the molecules, and with the energy of molecular interaction among themselves and with other molecules); (III) those determined at the nuclear-electron level. The results were expressed in the form of correlation factors. The data are of value in partial forecasting of the toxicity of new compounds and in judging the mechanisms of action of the substances, their transport to the site of action, etc. Orig. art. has: 1 figure, 2 tables.

ASSOCIATION: Institut onkologii AMN SSSR, Moscow (Institute of Oncology, AMN SSSR); Nauchno-issledovatel'skiy institut gigiyeny truda i profzabolevaniy, Leningrad (Scientific Research Institute of Industrial Hygiene and Occupational Diseases)

SUBMITTED: 24Apr64

ENCL: 00

SUB CODE: LS, GC

NO REF SOV: 009

OTHER: 024

*dm*  
Card 2/2

FIL'OV, V.P., d-r inah.

The Kresna Hydraulic-Power Network. Tekhnika Bulg 2 no.11:26-  
31 N '53.

FIL'OV, V.P., d&r inzh.

The Studena Dam. Tekhnika Bulg 3 no.2:3-8 F '54.

FIL'OV, V.P., d-r insh.

Impressive showing of a 16-year, 1935/36 - 1950/51 hydrologic system in a 50-year, 1901/02 - 1950/51 span. Tekhnika Bulg 3 no.4:10-15 Ap '54.

FIL'OV, Ventseslav P., d-r inzh.

Hydraulic Research Laboratory of the Institute of Hydraulic  
Engineering and Development. Khidrotekh i melior 9 no.1:5-6  
'64.



FIL'OV, Ventseslav P., d-r inzh.; KHRISTOV, Khristo Khr., inzh.

Abridged formulas for hydraulic dimensioning of stilling  
basins below spillways and sluice gates. Khidrotekh i  
melior 9 no.127-8 '64.

FILOVA, B.

A conference on the ethnographic research into the life and culture of the laboring class in Czechoslovakia.

P. 336, (Slovensky Narodopis) Vol. 5, no. 3/4, 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 1957

FILOVA, Helena

Facts and theory. Biologia (Bratisl) 20 no.5: 381-385 '65.

FILOYAN, Zh.

Strengthening financial control. Fin. i kred. SSSR no.6:52-55 Jo '53.  
(MLRA 6:6)  
(Controllership)

FILOYAN, Zh.

From practice in financing capital investments. Fin.SSSR 17 no.5:  
70-73 My '56. (MLBA 9:8)

(Armenia--Construction industry--Finance)  
(Armenia--Banks and banking)

4

L 06586-67 EWT(1)

ACC NR: AP6029004

SOURCE CODE: UR/0431/66/001/002/0127/0130

AUTHOR: Asatiani, T. L.; Gazaryan, K. A.; Zimyrrov, V. N.; Ivanov, V. A.; Matevosyan, E. M.; Nazaryan, A. A.; Filozov, A. F.; Sharkhatunyan, R. O.

46  
43  
B

ORG: Institute of Physics GKAE (Institut fiziki GKAE)

TITLE: On the possibility for measuring ionization of charged particles in a streamer chamber

SOURCE: AN ArmSSR. Izvestiya, Fizika, v. 1, no. 2, 1966, 127-130

TOPIC TAGS: ionization chamber, particle track, charged particle, neon, proton beam

ABSTRACT: Data are given from experiments conducted to determine the possibility of measuring the specific ionization of charged particles in a streamer chamber. The LYaP synchrocyclotron at OIYaI was used for passing protons with energies of 660, 200, 100 and 50 Mev through a streamer chamber measuring 50x35x15 cm filled with pure neon to a pressure of 1 atm. The results show  $1.8 \pm 0.4$  luminescent centers per cm of the proton track with a root-mean-square deviation of 0.29 mm from the approximating straight line. Microphotometric analysis of the films shows that the proposed method may be used for measuring the ionization of charged particles. In conclusion the authors thank Corresponding member AN SSSR A. I. Alikhanyan and Doctor of physical and mathematical sciences A. A. Tyapkin for cooperation and interest in the work. The authors are especially grateful to Candidate of physical and mathematical sciences

Card 1/2

L 06586-67

ACC NR: AP6029004

3

A. F. Pisarev for assistance in carrying out the experiment and for useful discussions and also to V. M. Frokhorov for direct assistance with the measurements and to Yu. A. Zanevskiy for cooperation in the work. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 058ep65/ ORIG REF: 002/ OTH REF: 002

Card 2/2

VARKHOTOV, Taras Lavrovich . Prinsipialni uchastiy: ORLOV, B.V., inzh.;  
FIL'ROZE, R.M., inzh.; STANKEVICH, V.I., inzh., nauchnyy red.;  
SAFONOV, P.V., red. izd-va; BOROVNEV, N.K., tekhn. red.

[Composite-monolithic and precast honey-combed dams] Sborno-  
monolitnyye i sbornyye iacheistyye plotiny. Moskva, Gosstro-  
izdat, 1962. 342 p. (MIRA 15:10)  
(Dams) (Concrete construction)



FIL'ROZE, Ye.M.

Special aspects in classifying pine forest trees according to  
growth and development. Trudy Inst. biol. UFAN SSSR no.16:213-222  
'60. (MIRA 13:10)

(Pine)

FIL'ROZE, Ye.M.

Patterns of natural reproduction in forests of the Il'men'-  
Vishnevogorsk forest-type region. Trudy Inst. biol. UFAN SSSR  
no. 25:83-96 '61. (MIRA 15:6)  
(Chelyabinsk Province--Forest reproduction)

FIL'ROZE, Ye. M.

Processes of differentiation, growth and development of  
tree stands. Trudy Inst. biol. UFAN SSSR no. 43:243-248  
'65 (MIRA 19:1)

1. Institut biologii Ural'skogo filiala AN SSSR.

FILS, I. E.

Nikol'skii, N. P., Fils, I. E.- "Oxidation potentials of hypochlorite solutions."  
(p. 1298)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1952, Vol. 22, No. 8

FILSAK J. Kontrola vyssi sportovni kondice a lekarske vedeni treningu The control of the training for sporting events and medical supervision of physical training  
Vojenske Zdravotnicke Listy, Prague (Czechoslovakia) 1947, 16/3 (113-115)

The author reports about some observations he has done on physical training. Examination of cardio-vascular system was done by the method of Schneider, which proved to be the most suitable. In measuring the blood-pressure, the oscillographic method was the best. As to the duration of the rest period, the author's opinion is that in subjects in training with hypotonia and bradycardia, the return of normal conditions must be awaited. As to the stability of the sport results the Brustmann's test was the best. He studied its results on some soldiers and found it fairly reliable and thinks it could be of great help in electing soldiers for some special military task.

Blechova-Hradec Kralove

So: Medical Microbiology and Hygiene, Section IV, Vol. I, #1-6

FILSAK, J.

Military winter camps. Voj. sdrav. listy 20 no.1:40-42 Jan-Feb 1951.  
(CINL 20:11)

FILSAK, J.  
SELIGER, V.; FILSAK, J.

Effect of cold on men in winter camps. Voj. zdrav. listy 20  
no.5:228-230 Sept-Oct 1951. (CJML 21:1)

1. Of the Physiological Department (Head -- Prof. Vladislav  
Kruta, M.D.) of the Institute of Medicine for Physical Educa-  
tion, Prague.

FILSAK, J.; SELIGER, V.

Medical examination in winter camps in Tatra Mountains in  
1950. Voj. zdrav. listy 20 no.5:231-232 Sept-Oct 1951.  
(CIML 21:1)

1. Of the Physiological Department (Head -- Prof. Vladislav  
Kruta, M.D.) of the Institute of Medicine for Physical Educa-  
tion, Prague.



CZECHOSLOVAKIA

DVORAK, J., FILSAKOVA, B.: Institute for Aeronautical Medicine (Ustav Leteckeho Zdravotnictvi), Prague.

"Evaluation of Work Output in Breathing Judged by Changes in Chest Circumference."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, p 74

Abstract: The authors describe a recorder which they designed. The recorded curve is influenced by changes in breathing caused by variable loading, and is indicative of changes in work output. 1 Figure, no references. Submitted at the "16 Days of Physiology" at Kosice, 29 Sep 65.

FILSAKOVA  
Excerpta Medica Sec 16 Cancer Vol. 2/4 April 54

1953. FILSAKOVA E. and SVAB V. Radiol. klin. Karlovy Univ. v Praze. Kostní změny při chronických leukemiích a jejich rozpoznávání roentgenem *Changes in the bones in chronic leukaemias and their recognition by X-rays* Cas. Lék. čes. 1952, 91/113 (534-541)  
Illus. 9

Radiography of the whole skeleton was done in 15 patients with chronic lymphatic leukaemia and in 13 patients with chronic myelogenous leukaemia. In 6 other patients (3 with myelogenous, 3 with chronic lymphatic leukaemia) only the long bones were studied. There were changes in the bones of all these 34 patients which may be considered characteristic of chronic leukaemia; it is usually a combination of (1) hyperplastic periostitis and osseous sclerosis, (2) bone destruction (small or large excentric osteolytic spots) and (3) excentric osteoatrophy or osteoporosis. In 8 patients there was a lowering of the vertebral bodies (mostly thoracic) which is ascribed to pathological osteolysis or osteoatrophy of the vertebral bodies. The changes were more marked in patients with lymphatic leukaemia and were of the same type in patients with leukaemia or aleukaemic leukaemias. All these changes are usually only slight and must therefore be looked for carefully.

Fejfar - Prague

FIISAKOVA, Eva

Significance of pyeloscopy & aimed skiagraphy in urological diagnosis.  
Cesk. rentg. 12 no.4:237-242 Dec 58.

1. Ustredni rtg. oddel. obl. nemocnice v Praze 4, prednosta prof. dr.  
S. Vesin. Kolar (Radiol. klin., Praha)  
(URINARY TRACT, dis.  
diag., x-ray & pyeloscopy (Cz))

FILSAKOVA, Eva. rtg. odd. f. n. Pod Petrinem, Praha 1, Vlasska 31.)

Radiological contribution to the problem of nephroptosis. Cesk. rentg.  
13 no.1:39-45 Feb 59.

1. Rtg. oddeleni v nemocnici Pod Petrinem.  
(KIDNEY DISEASES, diag.  
x-ray, in nephroptosis (Cz))

FILSAKOVA, Eva

Venography in postphlebotic ulcer cruris. Cesk. rentg. 13 no.2:118-131  
Apr 59.

1. Rtg. odd. nemocnice V Praze 1, Rd Petrinem, prednosta prim. MUDr.  
E. Filsakova.

(ANGIOGRAPHY,  
leg. phlebography in postphlebotic ulcer (Cz))

(LEG, ulcer,  
postphlebotic, phlebography (Cz))

(PHLEBITIS, compl.  
leg ulcer, phlebography (Cz))

FIISAKOVA, E.; CHARVAT, A.; ROTREKL, V.

Our experiences with nephropepy in a wandering kidney. Rozhl.  
chir. 38 no.10:666-671 0 '59

1. Rentgenolog. odd. fakultni nemocnice v Praze 1 - Pod Petrinem,  
vedouci prim. dr. E. Filsakova Chirurgicka katedra fakulty detskeho  
lekarstvi, vedouci prof. dr. Jan. Knobloch Interni katedra fakulty  
detskeho lekarstvi, vedouci prof. dr. Vladimir Jedlicka.  
(KIDNEYS, abnorm.)

FILSAKOVA, E.

Postoperative cholangiography. Opening of the bile and pancreatic ducts into the duodenal diverticulum. Cesk.rentg.14 no.4:219-224 Ag'60.

1. Rtg odd. fakultni nemocnice pod Petrinem - Praha 1, prednosta MUDr. E. Filsakova.

(BILE DUCTS abnorm)  
(DUODENUM abnorm)  
(CHOLANGIOGRAPHY)

FILSAKOVA, E.

Radiological manifestations of pulmonary complications of the influenza epidemics in the spring of 1959. Cesk.rentg. 14 no.5: 289-296 0 '60.

1. Rtg odd. Fakultni nemocnice pod Petrinem - Praha 1, prednosta MUDr. E.Filsakova.

(INFLUENZA compl.)

(BRONCHOPNEUMONIA etiol.)



FILSAKOVA, E.

Diagnosis of chronic pancreatitis and pathological changes of the sphincter part of the choledochus by means of postoperative cholangiography. Cesk.rentg.14 no.6:380-389 D'60.

1. Rtg oddeleni Fakultni nemocnice pod Petrinem - Praha 1, prednosta MUDr. E. Filsakova.  
(CHOLANGIOGRAPHY)  
(PANCREATITIS radiogr)

PRAZAK, J.; FILSAKOVA, E.; URBAN, J.; ROTREKL, V.; KOTRLIK, J.; KUGLEROVA, N.

Broncho-pulmonary manifestations of influenza. Cas.lek.cesk. 99  
no.47:1480-1484 18 N '60.

I. I. interni klinika FDL KU, prednosta prof. dr. VI. Jedlicka,  
doktor lekárskeho ved. Rtg oddeleni OUNZ Praha 1, nemocnice Pod  
Petrimem, primarka dr. E. Filsakova.  
(INFLUENZA compl)

FILSAKOVA, Eva

The use of venography in postphlebitic syndrome and postphlebitic crural ulcers. Cesk.rentg. 15 no.2:79-84 Ap '61.

1.Rtg oddeleni Fakultni nemocnice pod Petrinem, Praha 1, prednosta prim. MUDr. E. Filsakova.

(ANGIOGRAPHY)

(PHLEBITIS compl)

(VARICOSE VEINS radiog)

*5 author*

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First Internal Clinic FDL (I. vnitřní klinika FDL);  
Director: prof. Dr. Vlad, JEDLIČKA, Dr. Sc;  
X-Ray Department of the Faculty Hospital Pod  
Petřínem (Rentgenové oddělení fak. nemocnice  
Pod Petřínem -- Pod Petřínem); Director: E.  
FILSAKOVÁ, Dr. - (for all)

Prague, Vnitřní lékařství, No IX-1, 1963, pp 64-68

"Staphylococcal Infection Accompanying Pneumonia  
During the Influenza Epidemic of 1959."

(5)

5-authors

PRAŽÁK, J; FILSAKOVÁ, E., Dr; PANOŠ, J; ROTREKL, V; URBAN, J.

Czechoslovakia

First Internal Clinic FDL (I. vnitřní klinika FDL);

Director: Prof Vlad. JEDLIČKA, Dr. Sc;

Second Internal Clinic FDL (II. vnitřní klinika FDL); Director: Dr. Richard FOIT, Dr. Sc;

X-Ray Department of the Faculty Hospital Pod

Petřínem (Rentgenové odd. fak. nemocnice Pod

Petřínem -- Pod Petřínem); Director E. FILSAKOVÁ, Dr.

- (for all)

Prague, Vnitřní lékařství, No XI-1, 1963, pp 60-62

"The Problem of Military so-called Influenzal  
Bronchopneumonia."

(5)

FILSAKOVA, E.; PRUSA, K.

Traumatic perforation of the esophagus and its sequelae. Cesk.  
rentgen. 17 no.1:19-26 Ja '63.

1. Chirurgicke oddeleni nemocnice v Praze-Motole, prednosta prof. dr.  
B. Niederle Rentgenologicke oddeleni fakultni nemocnice pod Petrinem  
v Praze 1, prednosta MUDr. E. Filsakova.  
(ESOPHAGEAL PERFORATION) (MEDIASITINIS)

FILSAKOVA, E.; MATHON, K.

Diagnostic difficulties in chronic subdural hygroma. Roentgenological and neurological observations. Cas.lek. cesk. 103 no.4:98-101 24 Ja'64.

1. Rentgenove oddeleni fakultni nemocnice pod Petrinem (vedouci: MUDr. E. Filsakova) a Neurologiske oddeleni nemocnice v Praze-Motole (vedouci: doc. dr. K.Mathon.)

\*

VYMOLA, F.; JEDLICKOVA, Z.; ROTREKL, V.; PRAZAK, J.; JEDLICKA, V.; FILSAKOVA, E.

Bacterial superinfection in an influenza epidemic. Role of staphylococci in acute pulmonary complications in chronic pulmonary heart diseases during the 1962 influenza epidemic. Cas. lek. cesk. 103 no.36:998-1003 4 S '64.

1. Ustav epidemiologie a mikrobiologie v Praze, (reditel prof. dr. K. Raska, DrSc.); Katedra mikrobiologie Ustavu pro doskolovani lekaru v Praze (vedouci prof. dr. K. Raska, DrSc.); I interni klinika nemocnice pod Petrinem fakulty detskeho lekarstvi Karlovy University v Praze (prednosta prof. dr. V. Jedlicka, DrSc) a Centralni rentgenologicke oddeleni nemocnice pod Petrinem v Praze (vedouci MUDr. E. Filsakova).



VAHALA, Z.; FILSAKOVA, E.

On the problem of wirsungiography. Cesk. radiol. 19 no.4/5:  
347-351 Ag '65.

1. Chirurgicka klinika fakulty detskeho lekarstvi Karlovy  
University v Praze, CSSR a Rentgenologicke oddeleni fakultni  
nemocnice v Praze 1, pod Petrinem, CSSR.

EPSHTEYN-LITVAK, R.V.; DMITRIYEVA-RAVIKOVICH, Ye.M.; D'YAKOVA, Ye.I.;  
KAMENSKAYA, I.N.; FIL'SHANSKAYA, F.L.

Ways for improving dysenterial vaccines and calculating their  
effectiveness. Zhur. mikrobiol., epid. i immun. 33 no.1:22-28  
Ja '62. (MIRA 15:3)

1. Iz Moskovskogo instituta epidemiologii i mikrobiologii.  
(DYSENTERY) (VACCINES)

FIL'SHIN, Gennadiy Innokent'yevich; YELEV, Viktor Konstantinovich;  
SEMINA, V.F., red.

[Economic efficiency of capital investments] Ekonomicheskaya  
effektivnost' kapitalovlozhenii. Irkutsk, Irkutskoe knizh-  
noe izd-vo, 1963. 117 p. (MIRA 17:5)

FIL'SHIN, Yu.I.; KARATAYEV, N.B.

Operation of tailing ponds at the Zyryanovsk Ore Dressing  
Plant. TSvet. met. 35 no.7:86-89 JI '62. (MIRA 15:11)  
(Zyryanovsk--Tailings (Metallurgy))

FIL'SHTEYN, L.

Business accounting of collective farm brigades and sections.  
Den. i kred. 20 no.11:54-56 N '62. (MIRA 16:1)

1. Upravlyayushchiy Kompaneyevskim otdeleniyem Gosbanka.

(Kirovograd Province—Collective farms—Finance)

~~FIL'SHTINER, R.~~

Questions and answers. Sov. torg. no.3:57-58 Mr '58. (MIRA 11:2)  
(Commodity exchanges)

SAVINOVSKIY, D.A., inzh.; FIL'SHTINSKAYA, E.P., inzh.

Water norms in thermal electric power plants. Teploenergetika  
10 no.11:88-90 N '63. (MIRA 17:1)

FIL'SHINSKAYA, L. S.

FIL'SHINSKAYA, L. S.

Case report of sympathetic ophthalmia cured by antibiotics combined with sulfidin. Vest. oft. 29:6, Nov.-Dec. 50. p. 40-1

1. Of the Eye Clinic (Director -- Prof. N. A. Plotnev), Second Moscow Medical Institute imeni I. V. Stalin.

GLML 20, 3, March 1951



FIL'SHTINSKIY, B.N.; YUKHTMAN, S.S.

Spring coiling without mandrels. Mashinostroitel' no.8:27-28 Ag '57.  
(Springs (Mechanism)) (Machine-shop practice) (MLRA 10:8)

S/123/61/000/007/007/026  
AOO4/A104

AUTHORS: Gurchenkov, V.V.. Fil'shtinskiy, B.N.

TITLE: The automation of the cold-working of disk springs

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 7, 1961, 80, abstract 7B629 (V sb. "Nekotoryye vopr. tekhnol. proiz-va turbin", [Tr. Leningr. metallich. z-da, no: 7], Moscow-Leningrad, 1960, 192 - 195)

TEXT: The authors describe an installation, operating on compressed air, for the shaping and cold-working of disk springs made of 1X18H9T (1Kh18N9T) sheet steel. A uniform cold-working is ensured by the simultaneous rotating and reciprocating motion of the head. The spring machining intensity depends on the number of revolutions, number and force of the head strokes. The utilization of the automatic cold-working installation increases the labor productivity and improves the spring quality. These installations are used (with insignificant modifications) for the gluing of wooden planks to metallic bands with the aid of steel rivets with semicircular heads. There are 5 figures. N. Il'ina

[Abstracter's note: Complete translation]

Card 1/i

KURSHIN, L.M.; FIL'SHTINSKIY, L.A.

Strength of an evenly compressed polygonal plate. *Izv.Sib. otd.AN*  
SSSR no.4:3-8 '61. (MIRA 14:6)

(Elastic plates and shells)

KURSHIN, L.M. (Novosibirsk); FIL'SHTINSKIY, L.A. (Novosibirsk)

Determining the reduced elastic modulus of an isotropic plane  
weakened by a double-periodic system of circular holes. Izv.AN  
SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.6:110-114 N-D '61.

(MIRA 14:11)

(Elastic plates and shells)

GRIGOLYUK, F.I.; KURSHIN, L.M.; FIL'SHTINSKY, L.A. (Novosibirsk):

"On a method of solving biperiodical problems of elasticity."

report presented at the 2nd All-Union Congress on Theoretical and Applied  
Mechanics, Moscow, 29 Jan - 5 Feb 64.

FIL'SHTINSKIY, L.A. (Novosibirsk)

Stresses and displacements in an elastic sheet weakened by a  
doubly periodic set of equal circular holes. Prikl. mat. 1  
mekh. 28 no.3:430-441 My-Je'64 (MIRA 17:7)

GRIGOLYUK, E.I.; FIL'SHTINSKIY, L.A.

Cross bending of an isotropic plane resting on a biperiodic system of point supports. Dokl. AN SSSR 157 no.6:1316-1318 Ag '64. (MIRA 17:9)

1. Chlen-korrespondent AN SSSR (for Grigolyuk).

L 04535-65 EWT(d)/EWT(m)/EWP(w)/ΣNA(d) EM

S/0198/65/001/001/0022/0031

ACCESSION NO: AP5006986

Author: Mal'golitskiy, E. I. (Novosibirsk); Kurshin, L. M. (Novosibirsk);  
Fil'shtinskiy, L. A. (Novosibirsk)

25  
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TITLE: On one method of solving doubly-periodic problems in the theory of elasticity

SOURCE: Prikladnaya mekhanika, vo. 1, no. 1, 1965, 22-31

TOPIC TAGS: periodic function, harmonic function, elasticity theory, potential function, complex variable, elliptic function

ABSTRACT: Fundamental relationships are obtained in the solution of the biharmonic problem in theory of elasticity where the region under consideration forms a connected system of identical circular holes (see Fig. . . on the Enclosure). Complex potentials  $\Phi(z)$  and  $\Psi(z)$  are introduced which are expressed by

elliptic functions 
$$\Phi(z) = \alpha_0 + \sum_{k=0}^{\infty} \alpha_{2k+2} \frac{\lambda^{2k+2} p^{(2k)}(z)}{(2k+1)!}, \quad \Psi(z) = \beta_0 + \sum_{k=0}^{\infty} \beta_{2k+2} \frac{\lambda^{2k+2} p^{(2k)}(z)}{(2k+1)!}$$

$$- \sum_{k=0}^{\infty} \alpha_{2k+2} \frac{\lambda^{2k+2} q^{(2k+1)}(z)}{(2k+1)!}, \quad \text{Im } \alpha_{2k} = \text{Im } \beta_{2k} = 0 \quad (k = 0, 1, \dots).$$
 The solution is shown to be

Card 1/3



L 33535-65

ACCESSION NR: AP5006986

applicable to both the homogeneous and nonhomogeneous biharmonic doubly-periodic problems. Two cases are analyzed: the case with a doubly-periodic distribution of stress and the case with doubly-periodic distribution in stress as well as displacement. To the first case corresponds the lattice bending under a self-balancing transverse stress applied to the hole boundaries. To the second, the problem of bending of lattice holes fixed or hinged at their boundaries under a bi-periodic transverse stress. For a regular triangular lattice this last case gives the closed form solution  $w(x, y) = \frac{qz^2\bar{z}^2}{64D} + \frac{2q}{D} \operatorname{Re}(A_1 z\bar{z} + A_2 \bar{z}^2(z) - A_3 \bar{z}(z))$ . Stress concentration curves are given together with curves of elasticity modulus for regular lattice structures. Orig. art. has: 35 equations and 9 figures.

ASSOCIATION: Sibirskiy nauchno-issled. institut (Siberian Institute of Scientific Research)

SUBMITTED: 21Feb64

ENCL: 01

SUB CODE: ME

NO REF SOV: 012

OTHER: 003

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ACCESSION NR: AP5006986

ENCLOSURE: 01

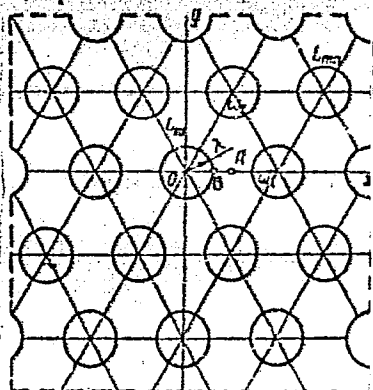


Fig. 1.

Card 3/3

L 08088-57 EWT(m)/EMP(w) IJP(c) EM SOURCE CODE: UR/0020/65/165/005/1023/1025

ACC NR: AF7001671

AUTHOR: Grigolyuk, E. I. (Corresponding member AN SSSR); Fil'shtinskiy, L. A. <sup>24</sup> <sub>13</sub>

ORG: none

TITLE: Elastic equilibrium of an isotropic plane resting on a biperiodic system of point supports under the action of an arbitrary biperiodic transverse load

SOURCE: AN SSSR. Doklady, v. 165, no. 5, 1965, 1023-1025

TOPIC TAGS: solid mechanics, physics

ABSTRACT: In an earlier article by the authors a solution to the problem of the bending of a plane resting on a biperiodic system of point supports was obtained in closed form for the case of a uniformly distributed, transverse load. In the present article the authors give a closed solution for an arbitrary, biperiodic transverse load. Expressions are derived which can be used to solve problems of the bending of a plane resting on columns of arbitrary cross section, and correlations are given which can also be used to solve certain boundary-value problems of the bending of plates. <sub>26</sub>  
Orig. art. has: 13 formulas. [JPRS: 35,534]

SUB CODE: 20 / SUBM DATE: 30Aug65 / ORIG REF: 008

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L 47559-66 EWP(k) EWT(d)/EWT(m)/EWP(w) IJP(c) EM

ACC NR: AP6032388

SOURCE CODE: UR/0198/66/002/009/0001/0007

AUTHOR: Grigolyuk, E. I. (Moscow); Fil'shtinskiy, L. A. (Moscow)

34  
30  
B

ORG: none

TITLE: Elastic equilibrium of an isotropic plane with a doubly periodic system of inserts

24

SOURCE: Prikladnaya mekhanika, v. 2, no. 9, 1966, 1-7

TOPIC TAGS: isotropic plane, orthotropic plane, doubly periodic grid, elastic equilibrium, elastic constants, biaxial tension, omniaxial tension, *ELASTIC MODULUS, ELASTICITY THEORY, TENSILE STRESS*

ABSTRACT: The problem of elastic equilibrium of an isotropic plane with a doubly periodic (periods  $W_1$  and  $W_2$ ) system of identical circular holes (see Fig. 1) into

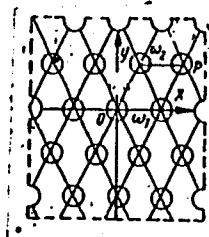


Fig. 1.

Card 1/3