LEVKOVICH, Ye. M. and SARMAROVA, Ye. S.

"The Results of and Prospects for the Study of the Problems of Tick-Borne Encephalitis," an article presented at the Interoblast' Scientific-Practical Conference of Medical Workers of the Urals, Siberia, and the Far East, Krasnoyarsk, 8-12 Dec 55.

Sum. No. 1047, 31 Aug 56

LEVKOVICH, Ye. N. Prof.

"The Problem of Sanitary-Antiepidemic Service in the Fight Against Tick Encephalitis, 1956-1960" a paper read at the All-Union Conference for Combating Parasitic Diseases held in Moscow, 10-11 Apr 1956.

Sum 1239

LEVKOVICH, YE. N.

The serologic [illegible] summer [illegible] cephalitis [illegible] The preparation of the inactivated antigen from chicken embryo culture and the expediting of the diagnostic complement fixation reaction. E. N. Levkovich, Li-Den-Suan, and G. G. Chumachenko (D. I. Ivanovskii Inst. Virusol., Acad. Med. Sci. U.S.S.R., Moscow). *Voprosy Virusologii* 1, No. 1, 19-23(1956).—Prepn. of the antigen: Chicken embryos 8–9 days old were inoculated in the yolk sack with 0.1 ml. encephalitis virus of [illegible]. After [illegible]

water bath, centrifuged, the supernatant carefully pipetted off, and merthiolate added to final 1×10^{-4} concn. The prepd. antigen [illegible]

LEVKOVICH, Ye.N.; RZHAKHOVA, O.Ye.

Serological diagnosis of tick-borne spring-summer and Japanese encephalitis. Report no.2: Preparation of inactivated and dehydrated antigens from brain tissue fo chick embryes infected with tick-borne encephalitis virus. Vop.virus. 1 no.3:26-29 My-Je '56. (MLRA 10:1)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva
(ENCEPHALITIS, JAPANESE B, diagnosis,
serol., prep. of inactivated & dehydrated antigens from brain tissue of chick infected chick embryo (Rus))
(ENCEPHALITIS, EPIDEMIC, diagnosis,
same)
(ANTIGENS,
encephalitis antigens, prep. from brain tissue of chick embryos infected with tick-borne virus for serodiag. of Japanese & vernal encephalitis (Rus))

2425. LEVKOVICH E. N. Inst. of Virol., D.I.Ivanowski, Acad. of Med. Sci., USSR, Moscow. *Experiments concerning the effectiveness of inoculation against encephalitis japonica (Russian text) VOP. VIRUS 1956, 4 (39-44) Tables 2

Eight series of vaccine from the brain of white mice infected with different strains of the virus of encephalitis japonica were prepared, concentration of virus suspension being the same in all of the series, corresponding to their content of 5% brain tissue. Experiments on the immunological characteristics of the vaccine were carried out on white mice 2 weeks old. It was stated that the formalin vaccine, precipitated with aluminium hydroxide (I.R. - index of resistance - 105) was the most effective and ether vaccine (I.R. - 16) the last effective. The addition of 0.25% phenol to the formalin vaccine did not decrease its antigenic properties (I.R. - 44). The immunity of vaccinated mice was proportionate to the amount of antigen introduced. Further experiments, carried out on volunteers (immunization with vaccine containing 5% of infected brain tissue of mice, 0.1% formalin and 0.25% phenol) showed an increase in virus-neutralizing antibodies in the majority of those vaccinated after a repeated injection of vaccine. The highest concentration of antibodies was observed in the blood of subjects vaccinated for the third time within two months of the initial one. References 13. Kaulen - Moscow

EXCERPTA MEDICA Sec. 6 Vol. 11/11 Nov. 57

LEVKOVITCH E. N.

6682. LEVKOVITCH E.N. and SARMANOVA E.S. *The news in the problem of the epidemiology, prophylaxis and diagnosis of the tick spring-summer encephalitis (Russian text) SOVETSK. MED. 1956, 11 (23-29)

The problem of tick encephalitis occupies an important place in numerous areas of the Soviet Union, particularly due to the increased incidence of the disease. In 1935, 336 new population centres were added to the list of mass outbreaks. A high incidence of spontaneous virus infection of the tick Ixodes persulcatus (up to 40%) was found in certain areas, where about 87% of the population became infected. In certain regions a neuroinfection which is related to spring-summer encephalitis has been observed. This is the so-called two-wave meningo-encephalitis or milk-fever. The agent is a neurotropic virus carried by the tick Ixodes ricinus and I. persulcatus, however, in certain cases the infection is milk-borne originating from goats. A vaccine has been prepared from chick embryos which shows specific antigenicity and immunogenic properties against tick encephalitis.

Anigstein - Galveston, Tex. (XX,6,8,17)

Levkovich, E. N.

USSR / Virology. Viruses of Men and Animals. E-3

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21694

Author : Levkovich, E.N.
Inst :
Title : Problems, Epidemiology and Prophylaxis of Poliomyelitis.

Orig Pub: Sov. meditsina, 1956, 20 No 3, 13-19

Abstract: The contemporary concepts of poliomyelitis epidemiology are briefly stated. The problem of epidemic seasons is mentioned, of virus localization in the human organism, of the paths of transmission and the dependence of general and adult morbidity of the density of the population and means of communication. The characteristic properties of poliomyelitis virus are stated, and the significance of different serologic types. The essential principles of phrophylaxis and, particularly, the problem of preparing a killed formalinized vaccine, are stated. The importance of a correct and speedy laboratory poliomyelitis diagnosis utilizing tissue cultures is emphasized.

Card : 1/1

-1- Inst. Virology im D. I. Ivanovskiy AMS USSR

LEVKOVICH, Ye.N.,; IVANOVA, L.M.

Problems and tasks of the sanitary and epidemiological service departments in the prevention of tick-borne spring-summer encephalitis. Med. paraz. 25 no.1:28-32 Ja-M '56 (MLRA 9:6)

1. Iz Instituta virusologii AMN SSSR (dir. instituta P.N. Kosyakov) i Glavnogo sanitarno-epidemiologicheskogo upravleniya Ministerstva zdravookhraneniya RSFSR.

(ENCEPHALITIS, EPIDEMIC, prev. and control
Russian tick-borne spring-summer, prev.)

LEVKOVICH, YE. N.

CARRIERS

"Separating Virus out of Spontaneously Infected Gamasidae Ticks", by Ye. N. Levkovich and A.A. Tagil'tsev, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, 1956, [XXV], 3, pp 229-233 from Meditsinskiy Referativnyy Zhurnal, Section 4, No 1, 1957.

Gamasidae may, to some extent, be responsible for the transmission of spring-summer encephalitis; this family of mites in a natural focus of infection, can be a reservoir of the disease. In Kemerovskaya Oblast', the natural infectiousness of Lalaptidae u. Heamogamasidae, gathered from the nests of rodents and shrews during the non-epidemic season (July-August, 1954), was demonstrated. It is concluded that the virus of mite-born encephalitis had been preserved alive in these mites for no less than 1 month.

Card 1/1 - 8 -

LEVKOVICH, Ye.N.

LEVKOVICH, Ye.N.; GOL'DFEL'D, A.Ya.; RZHAKHOVA, O.Ye.

Effect of short-wave ultraviolet rays on the viability and antigenic properties of viruses of Russian tick-borne and Japanese encephalitis [with summary in English]. Biul.eksp.biol. i med. 77-81 Jl '57. (MIRA 10:12)

1. Iz laboratorii entsefalitov (zav. - prof. Ye.N.Levkovich) Instituta virusologii imeni D.I.Ivanovskogo (dir. - prof. P.N.Kosyakov) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR prof. N.I. Zhukovym-Verezhnikovym.

(ENCEPHALITIS, JAPANESE B, virus,
eff. of short wave & ultraviolet rays on viability & antigenic properties (Rus))
(ENCEPHALITIS, EPIDEMIC, virus,
Russian tick-borne, eff. of short wave & ultraviolet rays on vaibility & antigenic properties (Rus))
(ULTRAVIOLET RAYS, effects,
on Japanese & Russian tick-borne encephalitis birus viability & antigenic properties (Rus))

LEVKOVICH, Ye.N.

Present status of the problem of epidemic encephalitis. Vop.virus. 2 no.3:131-139 My-Je '57. (MIRA 10:10)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva.
(ENCEPHALITIS, EPIDEMIC,
review (Rus))

USSR/Virology. Viruses of Transmissive Infections.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 62142.

Author : Zasukhina, G.D., Levkovich, E.N.
Inst :
Title : Cytopathogenic Effect of Tick - Borne Encephalitis Virus in Tissue Culture of Human Fibroblasts.

Orig Pub: Vopr. virusologii, 1957, No 4, 234-238.

Abstract: In cultures of mouse skin tissue of the human embryo the strains "Sofyin" and "Fateyev" were studied. Both strains multiplied actively in cultures of these tissues, having a maximum virus yield in 4-8 days after infection of the cultures. The cytopathogenic effect was registered from the 1st to the 9th passage

Card : 1/2

LEVKOVICH, E.N.

E-2

USSR / Virology. Human and Animal Viruses

Abs Jour: Ref Zhur - Biol., No 6, 1958, 23969

Author : Levkovich, E. N., Sukhova, M. N.
Inst : Not given
Title : Duration of Preservation and Secretion of Polyomyelitis Viruses in Synantropic Flies in Relation to the Problem of Means of Control and Prophylaxis of the Disease.

Orig Pub: Med. parazitol. i parazitarn. bolezni, 1957, 26, No 3, 343-347

Abstract: Synantropic flies of individual coprobiotic species (altogether 1738) were infected by Lansing strain 113 and by patients' feces. It was shown that the virus survived up to 10 days in the flies' intestines. In milk and on cucumbers infected by flies, the virus was also found for a period of 10 days.

Ca Card 1/2

INST. VIROLOGY im D. I. IVANOVSKIY AMS USSR

USSR/Virology. Viruses of Transmissive Infections.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 62141.

Author : Levkovich, V.N., Goldfeld, A. Ya., Rzhakova, O E.
Inst :
Title : The Effect of Ultrashort Waves on the Contagiousness and Antigenic Properties of the Spring-Summer Tick and Japanese Encephalitic Viruses.

Orig Pub: Byul. eksperim. biol. i meditsiny, 1957, 44, No 7, 77-81.

Abstract: Exposure of a 1-10% brain suspension of mice, containing the virus of the spring-summer tick (strain Sofyin) or Japanese encephalitis, to ultrashort UV-rays (259 A) completely inactivated the viruses in 5-15 min. A 10% brain suspension of chick embryos infected with the

Card : 1/2

LEVKOVICH, Ye.N., POGODINA, V.V.

Infection through the alimentary tract with tick-borne encephalitis [with summary in English]. Vop.virus 3 no.3:145-150 My-Je '58 (MIRA 11:7)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR, Moskva.
(ENCEPHALITIS, etiology & pathogenesis
tick-borne infect. caused by ingestion of raw goat milk (Rus))
(MILK, microbiology
raw goat milk causing transm. of tick-borne encephalitis (Rus))

LEVKOVICH, YE. N., GORCHAKOVSKAYA, N. N.

"New developments in the method of extermination of tick encephalitis carriers, and its utilization in the antiepidemic practice."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

LEVKOVICH, YE. N.

"Characteristics of postvaccinal and postinfection immunity in tick and Japanese encephalitis in connection with the problem of specific prophylaxis."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

LEVKOVITCH, E. N.

"The virological bases of the epidemic prognosis of tick-borne encephalitis." Page 76

Desyatoye soveshchaiye po parazitologicheskim problemam i prirodnoochagovym boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.

Inst. of Virology,AS USSR, Moscow

KARPOVICH, L.G.; LEVKOVICH, Ye.N.

Differentiation of viruses of tick-borne encephalitis and louping ill in tissue culture. Vop.virus. 4 no.5:566-571 S-O '59. (MIRA 13:2)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR, Moskva.
(ENCEPHALITIS, EPIDEMIC, virology)
(TISSUE CULTURE)

LEVKOVICH, Ye.N.; POGODINA, V.V.

Problem of alimentary tick-borne encephalitis and measures for preventing it. Vest. AMN SSSR 14 no.10:7-13 '59.
(MIRA 13:6)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR.
(ENCEPHALITIS) (MILK--BACTERIOLOGY)

LEVKOVICH, Ye.N.

Some aspects of study and objectives of the seven-year-plan in the problem of tick-borne encephalitis. Med.paras. i paras.bol. 28 no.3:304-310 My-Je '59. (MIRA 12:9)

1. Is Instituta virusologii imeni D.I.Ivanovskogo AMN SSSR (dir. - prof.P.N.Kosyakov).
(ENCEPHALITIS, EPIDEMIC, prev. & control, tick-borne, in Russia (Rus))

LEVKOVICH, YE. N., KARPOVICH, L. G., Moscow:

"Study On Biological Properties Of Viruses Of The Tick-Borne Encephalitis Complex In Tissue Cultures."

report submitted for the Symposium on the Biology of Viruses of Tick Borne Encephalitis Complex, Smolenice Czechoslovakia, 11-14 Oct 60.

"Experimental and epidemiological bases of the special profylaxis of tick-borne encephalitis (Introductory lecture.)"

The Ivanovskiy Institute of Virology, Moscow, U.S.S.R.

LEVKOVICH, YE. N. (USSR)

report presented at The International Epidemiological Symposium, Prague 22-26 1960.

"On the study of the circulation of the virus of tick-borne encephalitis of the basis of serological investigations."

(Voyenno-Meditsinskiy Zhurnal, No 6, 1960)

LEVKOVICH, Ye.N.; ZASUCHINA, G.D.

Evaluation of the effectivity of a new preparation - the tissue culture vaccin e against tick-borne encephalitis. J.hyg.epidem. Praha 4 no.3:296-298 '60.

1. Ivanovsky Institute of Virology, Academy of Medical Science of the USSR, Moscow.
(ENCEPHALITIS, EPIDEMIC immunol.)

LEVKOVICH, Ye.N.; KARPOVICH, L.G.

Comparative study of the viruses of the tick-borne encephalitis group in HeLa cell cultures. Vop. virus. 5 no. 1:30-39 Ja-F '60. (MIRA 14:4)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR, Moskva.
(ENCEPHALITIS)

FAN TSZE-MIN [Fang Chieh-ming]; LEVKOVICH, Ye.N.; FOKINA, K.V.

Cultivation of Japanese and West Nile encephalitis viruses in tissue cultures of angiosarcoma, Detroit-6, HEP-2, and monkey kidney cells. Vop. virus. 5 no. 1:39-44 Ja-F '60.
(MIRA 14:4)

(ENCEPHALITIS)

AVAKYAN, A.A.; LEVKOVICH, Ye.N.; BUSNYUK, M.M.

Morphology of nerve cells injured by viruses of tick-borne encephalitis and related diseases. Vop. virus. 5 no. 2:208-216 My-S '60. (MIRA 14:4)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR i Institut po izucheniyu poliomiyelita AMN SSSR, Moskva.
(ENCEPHALITIS) (EPIDEMIC HEMORRHAGIC FEVER)
(NERVOUS SYSTEM—DISEASES)

LEVKOVICH, Ye.N.; ZASUKHINA, G.D.; CHUMAKOV, M.P.; LASHKEVICH, V.A.; GAGARINA, A.V.

Tissue culture vaccine for tick-borne encephalitis. Vop. virus. 5 no. 2:233-236 My-S '60. (MIRA 14:4)

1. Institut virusologii AMN SSSR imeni D.I. Ivanovskogo i Institut po izucheniyu poliomiyelita AMN SSSR, Moskva.
(ENCEPHALITIS)

LEVKOVICH, Ye.N., prof.; ZASUKHINA, G.D., kand.med.nauk

Tissue culture vaccines aginst tick-borne encephalitis. Vest. AMN SSSR 15 no.1:53-57 '60. (MIRA 13:6)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR.
(ENCEPHALITIS EPIDEMIC immunol.)
(VACCINES)

LEVKOVICH, Ye. N.

A survey of the dynamics of the virus of tick-borne encephalitis on the basis of serological investigations. J. hyg. epidem., Praha 5 no.1:80-84 '61.

1. Ivanovsky Institute of Virology, Academy of Medical Sciences USSR, Moscow.

(ENCEPHALITIS EPIDEMIC immunol)

LEVKOVICH, Ye.N.; IZOTOV, V.K.

Hemagglutination with the virus of tick-borne encephalitis. Vop. virus 6 no.4:428-431 Jl-Ag '61. (MIRA 14:11)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva.
(ENCEPHALITIS) (BLOOD--AGGLUTINATION)

LEVKOVICH, Ye.; KARPOV, S.

Symposium on the Biology of Viruses of the Tick-borne Encephalitis Group. Vop. virus. 6 no.6:756-760 N-D '61. (MIRA 15:2)
(ENCEPHALITIS) (TICKS AS CARRIERS OF DISEASE)
(VIROLOGY--CONGRESSES)

LEVKOVICH, Ye.N.; ZASUKHINA, G.D.

Preparation of a tissue-culture vaccine against Japanses encephalitis. Zhur. mikrobiol. epid. i immun. 32 no.5:38-42 My '61. (MIRA 14:6)

1. Iz Instituta virusol...i imeni Ivanovskogo AMN SSSR.
(ENCEPHALITIS)

LEVKOVICH, Ye.N.; POGODINA, V.V.

Vaccination of goats as a method of preventing alimentary infection with tick-borne encephalitis. Report No.1: Study of the conditions and effectiveness of experimental vaccination of goats. Vop. virus. 7 no.2:193-199 Mr-Ap '62. (MIRA 15:5)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva.
(VACCINATION) (ENCEPHALITIS) (GOATS)

PETRISHCHEVA, P.A.; LEVKOVICH, Ye.N.; BOLDYREV, S.T.; ZASUKHIN, D.N., red.; CHULKOV, I.F., tekhn. red.

[Japanese encephalitis] IAponskii entsefalit. Moskva, Medgiz, 1963. 178 p. (MIRA 16:12)

1. Chlen-korrespondent AMN SSSR (for Petrishcheva).
(ENCEPHALITIS)

LEVKOVICH, Ya.N.; ZASUKHINA, G.D.

Further experimental study of tissue culture vaccine against tick-borne encephalitis. Vop. virus. 8 no.1:56-60 Ja-F'63. (MIRA 16:6)

1. Institut po izucheniyu poliomiyelita i virusnykh entsefalitov AMN SSSR, Moskva.
(ENCEPHALITIS VIRUSES) (TISSUE CULTURE) (VACCINES)

LEVKOVICH, Ye. N.

"The mutagenic effect of physical and chemical factors on arboviruses."

report presented at 4th Intl Cong, Hungarian Soc of Microbiologists, Budapest, 30 Sep-3 Oct 64.

Inst of poliomyelitis, AMS USSR, Moscow.

LEVKOVICH, Ye.N. (Moskva)

Joint Seventh Scientific Session of the Institute of Poliomyelitis and Virus Encephalitis of the Academy of Medical Sciences of the U.S.S.R. and the White Russian Institute of Epidemiology, Microbiology and Hygiene, dedicated to the study of tick encephalitis and other arbor virus infections. Vest. AMN SSSR 19 no.1:89-90 '64. (MIRA 17:7)

LOGINOVA-PARINA, N.V.; LEVKOVICH, Ye.N.

Comparative studies on plaque formation by viruses from the tick-borne encephalitis group. Vop. virus 9 no.4:404-408 Jl-Ag '64. (MIRA 18:7)

1. Institut poliomiyelita i virusnykh entsefalitov AMN SSSR, Moskva.

VOROB'YEVA, M.S.; LEVKOVICH, Ye.N.

Sensitivity of cold-blooded animals to the virus of tick-borne encephalitis. Zool. zhur. 43 no.7:1084-1087 '64. (MIRA 17:12)

1. Institute of Plyomyelitis and Viral Encephalites, Academy of Medical Sciences of the U.S.S.R., Moscow.

L 27195-66 EWT(1)/T JK

ACC NR: AP6004864 (N) SOURCE CODE: UR/0402/65/000/005/0551/0557

AUTHOR: Shalunova, N. V.; Karpovich, L. G.; Levkovich, Ye. N.

ORG: Institute of Polyomyelitis and Virus Encephalitis, AMN SSSR, Moscow (Institut poliomielita i virusnykh entsefalitov AMN SSSR)

TITLE: Study of interference of the Japanese encephalitis virus with some cytopathogenic viruses in tissue cultures

SOURCE: Voprosy virusologii, no. 5, 1965, 551-557

TOPIC TAGS: virus disease, ~~tissue physiology~~, experiment animal, virus, ~~interference~~, immunity, encephalitis, histology

ABSTRACT: This is a study on the interference of strains P-1 and K-2 of this virus (JEV) with polio virus type I (LSc = 2ab) grown in cultures of skin-embryonal human tissue, and with the viruses of Newcastle disease (ND) and Western equine encephalitis (WEE), both grown in several passages of chicken embryo cell cultures. To determine interference the cultures with a developing monolayer (800,000 cells per ml) were infected with a diluted brain suspension of JEV. Immediately after infection and 24, 48, 72, 96 and 120 hours later the cultures were added with the cytopathogenic indicator viruses (Polio, ND and WEE).

UDC: 576.858.25.095.38

Card 1/2

L 27195-66

ACC NR: AP6004864 O

Interference was determined after 2-3 days and was judged positive in the absence of cytopathic activity and on the basis of plaque formation of the indicators in the test cultures and their presence in controls. Interference of varying degree was seen after 72 hours for all three viruses. It was found that JEV can be reproducibly titrated and identified according to interference in tissue cultures upon introducing the blocking viruses after 96 hours. Highest sensitivity was found in cultures of chicken embryo cells and WEE, for under these conditions the interference activity titers (1/10 of activity in controls) were close to those of the virus obtained in tests with mice. This interference was seen only with live virus. From tissue cultures infected with the JEV interferon was isolated, which alone also produced interference, resulting in reduction of plaque formation by $\frac{1}{2}$. It was not highly specific and acted most efficiently on WEE virus. Its effect remained unchanged following heating at 60 C but was severely depressed by a dilute trypsin solution. Orig. art. has: 6 tables.

SUB CODE: 06/ SUBM DATE: 06Aug64/ ORIG REF: 003/ OTH REF: 008

Card 2/2 CC

27099-66 EWT(1)/T JK

ACC NR: AP6004867 (N) SOURCE CODE: UR/0402/65/000/005/0577/0583

AUTHOR: Ado, A. D.; Titova, S. M.; Levkovich, Ye. N.

ORG: Scientific Research Allergologic Laboratory, AMN SSSR, Moscow (Nauchno-issledovatel'skaya allergologicheskaya laboratoriya AMN SSSR)

TITLE: Study of the allergenic properties of intermediate antigens of brain vaccine against tick-borne encephalitis

SOURCE: Voprosy virusologii, no. 5, 1965, 577-583

TOPIC TAGS: virus disease, animal disease, experiment animal, antigen, allergic disease, encephalitis, virus, brain, histology, vaccine

ABSTRACT: The allergenic properties of antigens forming at various stages of virus propagation in the brain tissue of experimentally infected white mice were studied in 97 guinea pigs by the method of anaphylaxis and desensitization, applying a 5% fluid brain vaccine against spring-summer tick-borne encephalitis prepared 2 days and 4 days after infection. For sensitization, 0.3 ml were given subcutaneously and the anaphylactic injection was given intravenously after 28-33 days. Desensitization was given every 2 hours until complete arrest of the reaction. The desensitizers were suspensions of normal brain, 2 or 4

Card 1/2 UDC: 615.372 : 576.858.257-011

L 27099-66

ACC NR: AP6004867

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days' vaccine, and culture-derived formalin inactivated vaccine against the above disease. Sensitization of the guinea pigs with a suspension of healthy mouse brain tissue caused only weak anaphylactic reaction upon subsequent introduction of the same suspension. Sensitization with vaccine from brain of mice without clinical signs of the disease caused strong anaphylactic reaction; so did vaccine from sick mice. The anaphylactic reaction in guinea pigs sensitized with the 2-day vaccine could be inhibited by prior two-fold desensitization with either normal brain suspension or vaccine, in contrast to 4-day vaccine where such desensitization did not inhibit anaphylactic reaction, due apparently to the large amount of intermediate antigens present in the 4-day vaccine. It may be concluded that intermediate antigens start appearing on the second day after infection and that they increase during virus multiplication in the mouse brain. "The 5% fluid brain vaccine against tick-borne spring-summer encephalitis was prepared by E. N. Levkovich". Orig. art. has: 3 tables.

SUB CODE: 06/ SUBM DATE: 17Feb64/ ORIG REF: 001

Card 2/2

ACC NR: AP6034883 (N) SOURCE CODE: UR/0402/66/000/005/0539/0545

AUTHOR: Sergeyeva, G. I.; Levkovich, Ye. N.

ORG: Institute of Poliomyelitis and Virus Encephalitis, AMN SSSR, Moscow (Institut poliomiyelita i virusnykh entsefalitov AMN SSSR); Vladivostok Institute of Epidemiology and Microbiology (Vladivostokskiy institut epidemiologii i mikrobiologii)

TITLE: Multiplication characteristics in tumor cells *in vitro* and *in vivo* of various tick-borne encephalitis viruses with different degrees of neurovirulence

SOURCE: Voprosy virusologii, no. 5, 1966, 539-545

TOPIC TAGS: biologic reproduction, nervous system, virus disease, encephalitis, neoplasm, CARCINOMA

ABSTRACT: The interaction between three strains of tick-borne encephalitis virus (a highly virulent Oriental strain, the less virulent TR-21 strain, and an attenuated variant of TR-21) with Ehrlich ascites and Crocker cancer cells from mice was studied *in vitro* and *in vivo*. No parallelism was noted between the interaction of viruses and cancer cells *in vivo* and *in vitro*. In primary cultures of both types of cancer cells, encephalitis viruses retained their infectiousness and pro-

Card 1/2 UDC: 576.858.25.06.093.35:616-006

ACC NR: AP6034383

duced significant changes in the cancer cells. In the culture of Crocker sarcoma cells, the cells lost some of their ability to grow on the surface and to cause the formation of tumors when live animals were inoculated. In the culture of Ehrlich ascites carcinoma cells, a decrease in metabolic activity was observed after the interaction of cancer cells with the viruses. The interaction between the various viral strains and cancer cells after subcutaneous and intraperitoneal inoculation caused active multiplication of the virus and affected the proliferative capacity of the infected cells. The Oriental strain of encephalitis virus multiplied most rapidly, and was able to penetrate brain tissue after inoculation into an ascites carcinoma. Under identical conditions, the less neurovirulent TR-21 strain did not spread beyond the tumor into which it was injected. Orig. art. has: 1 figure and 1 table. [W. A. 50]

SUB CODE: 06/ SUBM DATE: 06Feb66/ ORIG REF: 004/ OTH REF: 006

Card 2/2

LEVKOVICH, Yu.I. (Leningrad, Bronnitskaya ul., d.7, kv.6)

Photographic attachment for a rectoscope. Vop.onk. 4 no.2: 221-223 '58. (MIRA 12:8)

1. Iz fotograficheskoy laboratorii (zav. - inzh.Yu.I.Levkovich) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof.A.I.Serebrov).
(PROCTOSCOPY, appar. & inst.
camera attachment for octoscope (Rus))

BERMAN, N.A.; LEVKOVICH, Yu.I.

Photocystoscopy in bladder tumors. Vop. onk. 9 no.12:18-22 '63.
(MIRA 17:12)

1. Iz nauchno-poliklinicheskogo otdela (zav. - starshiy nauchnyy sotrudnik K.A. Pavlov) i laboratorii nauchnoy fotografii (zav. - Yu.I. Levkovich) Instituta onkologii AMN SSSR (direktor - deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov). Adres avtorov: Leningrad, 2-ya Berezovaya alleya, d.3, Institut onkologii AMN SSSR.

MUSHKOVSKAYA, Yu.I.; LEVKOVICH, Yu.I.

Experience in working with the optic photobronchoscope. Vop. onk. 7 no.5:115-119 '61. (MIRA 15:1)

1. Iz nauchno-poliklinicheskogo otdela (zav. - starshiy nauchnyy sotrudnik kand.med.nauk K.A. Pavlov), laboratorii nauchnoy fotografii (zav. - inzh. Yu.I. Levkovich) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov).
(BRONCHOSCOPE)

SOKOLOVA, N.M.; KASATKINA, N.M.; SHCHUKAREVA, N.K.; LEVKOVICH, Yu.I.

Laboratory diagnosis of candidiasis in patients with malignant tumors. Vop. onk. 9 no.8:49-54 '63 (MIRA 17:4)

1. Iz kliniki-diagnosticheskoy laboratorii (zav. - dotsent I.F. Grekh) Instituta onkologii AMN SSSR (direktor- deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov. Adres avtorov: Leningrad, P-129, 2-ya Berezovaya alleya, 3, Institut onkologii AMN SSSR.

LEVKOVICH-SOKOLOVA, A.P.

Morphological changes in a bullonecrotic form of aminazine toxicodermatitis. Zhur.nevr.i psikh. 60 no.5:595-601 '60. (MIRA 13:9)

1. Otdel patomorfologii tsentral'noy nervnoy sistemy (nauchnyy konsul'tant - prof. A.P. Avtsyn) Instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR (dir. - prof. V.M. Banshchikov), Moskva.
(CHLORPROMAZINE) (SKIN--DISEASES)

LEVKOVICH-SOKOLOVA, A.P., kand.med.nauk; KAZAKOVA, P.B., kand.med.nauk; IL'INA, L.I., kand.med.nauk

Morphological changes in the brain in cases of combined alcoholism and atherosclerosis. Trudy Gos. nauchno-issl. inst. psikh. 22:447-476 '60. (MIRA 15:1)

1. Laboratoriya patomorfologii tsentral'noy nervnoy sistemy (zav. - laboratoriyey - kand.med.nauk A.P.Levkovich-Sokolova, nauchnyy konsul'tant - prof. A.P. Avtsyn) i klinika sosudistykh psikhozov (zav. klinikoy - prof. V.M.Banshchikov) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR.

(CEREBRAL ARTERIOSCLEROSIS) (ALCOHOLISM)

LEVKOVSKAYA, N.Yu. [Levkovs'ka, N.IU.]

Genesis of cassiterite from the placers in northern Volyn'.
Geol. zhur. 25 no.3:102-106 '65. (MIRA 18:11)

1. Institut geologicheskikh nauk AN UkrSSR.

REYNIN, I.V.; LAZUKOV, G.I.; LEVKOVSKAYA, G.M.

Result of studying Quaternary sediments in the north of the West Siberian oil- and gas-bearing province. Trudy VNIGRI no.225:102-120 '63. (MIRA 17:3)

LEVKOVSKAYA, N. Yu.

SOV/21-59-6-20/27

(Gurvich, S. I.)

AUTHORS: Hurvych, S. I., Levkivs'ka, N. Yu. (N.Yu. Levkovskaya) and Khatuntseva, A.Ya.

TITLE: On a Mineralogical Find of Tungsten Minerals in Volyn'

PERIODICAL: Dopovidi Akademii Nauk Ukrains'koi RSR, 1959, Nr 6, pp 659 - 661 (USSR)

ABSTRACT: The authors report on a find of tungsten minerals made in the North-Western section of the Ukrainian crystalline shield in 1956. The wolframite encountered for the first time was in foliated pieces with black, nontransparent grains. Some pieces had, however, dark red and red color, ranged from nontransparent to almost transparent. In some instances, the wolframite was found in combination with the quartz, and in separate instances in combination with the arsenopyrite. The majority of grains were within 0.6 - 0.1 mm, some reached a size of 2 - 3 mm. The chemical examinations made by B. V. Myrs'ka (table 1), and the x-ray examinations made by A. O. Karpenko (table 2), confirmed the materials as being basically wolframite, combined with an almost equal number of ferberite and huebnerite molecules.

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On a Mineralogical Find of Tungsten Minerals in Volyn'

Leaving out some insignificant impurities, the two chemical examinations have established the following crystallochemical formulas:

1) $(Fe_{0,41}\ Mn_{0,59})\ WO_4$; 2) $(Fe_{0,46}\ Mn_{0,54})\ WO_4$.

The x-ray examination was done with the use of Fe radiation in a Debay chamber of 57.3 mm in diameter, with a Mn filter, at an exposure of 12.5 hours. Isolated sheelite grains have also been found. Under the microscope they appeared to be of more or less isotermic forms, of even optical weight, were found to be positive and possessing a rather low index of double refraction, yet an index of single refraction exceeding 1.78. There are 2 tables and 1 photo.

ASSOCIATION: Institut geologicheskikh nauk AN UkrSSR (Institute of Geological Sciences of the AS UkrSSR)

PRESENTED: By N. P. Semenenko, Member, AS UkrSSR

SUBMITTED: July 8, 1958

LEVKOVSKIY, A., inzh.

Repair of shock absorbers. Avt. transp. 38 no. 5:29 My '60.
(MIRA 14:2)
(Automobiles—Shock absorbers)

LEVKOVSKIY, A. I.

"The State sector and the problem of priority in the selection of projects in the programs of the industrialization of the developing countries"

report to be submitted for the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas - Geneva, Switzerland, 4-20 Feb 63.

LEVKOVSKIY, A I

LPP
.R92963

NATSIONAL'NO-OSVOBODITEL'NAYA BOR'BA NARODOV MALAYI ZA SVOYU SVOBODU I NEZAVISIMOST'. MOSKVA, IZD-VO ZNANIYE, 1952. 31 P. (VSESOYUZNOYE OBSHCHESTVO PO RASPROSTRANENIYU POLITICHESKIKH I NAUCHNYKH ZNANIY. 1952, SERIYA 1, NO. 96)

LEVKOVSKIY, A.I.

[English finance capital in India and the Indian monopolies. Mo-
skva, Gospolitizdat, 1954. 543 p. (MLRA 7:12D)

LEVKOVSKIY, A.I.

AUTHOR: Levkovskiy, A.I., Engineer, 118-58-4-5/23

TITLE: A Dump Car With a Sliding Hood (Dumpkar so sdvigayushchimsya kuzovom)

PERIODICAL: Mekhanizatsiya Trudoyëmkikh i Tyazhëlykh Rabot, 1958, Nr 4, pp 13-14 (USSR)

ABSTRACT: The author describes a new dump car designed by him and constructed at the TsEMM Kanskugol' trest (The TSEMM of the Kanskugol' Trust) to replace existing dump cars. The dump car consists of a hood, bottom platform, unloading mechanism and the carriages. The hood has three transverse and two lengthwise edges welded into one stable spatial structure. The unloading mechanism has the following basic parts: 36 kw electric motor, the main reducer, two auxiliary reducers, and three lifting screws. The capacity of the hood is from 33 to 35 cubic meters. Unloading takes 70 seconds and may be performed by one man. There are 2 photographs.

AVAILABLE: Library of Congress

Card 1/1 1. Mines-Equipment 2. Dump cars-Design 3. Dump cars-Applications

Levkovskiy, A. I.

AUTHOR: Levkovskiy, A.I., Mining Engineer 127-58-5-13/30

TITLE: A Dump Car With a Laterally-Moving-Walls Body for Unloading (Dumpkar, razgruzhayushchiysya sdvizheniyem kuzova po dnishchu)

PERIODICAL: Gornyy Zhurnal, 1958, Nr 5, pp 46-48 (USSR)

ABSTRACT: Dump cars applied at present in open pits have essential drawbacks: high dead weight and dependence of the unloading time upon climatic conditions and the physical properties of the load. The author of the present article has designed a new type of dump car which unloads not by tilting, but by shifting the walls of the vehicle over the bottom, as is hown in Figure 1 and 2. Its main parts are: 1) the walls; 2) the bed; 3) the unloading mechanism, and 4) the undercarraige. The technical characteristics of the new type are as follows: weight - 22 to 23 tons; the weight of load - 60 tons; the capacity of body - 33 to 35 cu m; height - 2,860 mm; width - 3,600 mm; lengths (between the axes of automatic couplings) - 9,480 mm; unloading time - 70 sec which can be reduced to 20 or 30 sec by applying more powerful electric motors and a lower gear ratio. The unloading mechanism shifts

Card 1/2

127-58-5-13/30

A Dump Car With a Laterally-Moving-Walls Body for Unloading

the walls of the dump car over its bed at a rate of 0.03 m/sec. The walls, shifting over the bed, form a slit up to 3,000 mm wide, through which the load is pushed out. Such an experimental car was manufactured in the central electro-mechanical shops of the trust "Kanskugol'". It was tested in the Irsha-Borodino open pit in 1957. Tests were carried out under all temperatures. The unloading performance was satisfactory, and took less time than that of conventional dump cars. The frozen rock is scraped from the bottom of the car by the back wall of the body. There are 3 photos, 2 figures and 1 table.

ASSOCIATION: Irsha-Borodinskiy ugol'nyy razrez Nr 1 (Irsha-Borodino Open Coal Pit Nr 1)

AVAILABLE: Library of Congress

Card 2/2 1. Mines-Machinery 2. Ores-Excavation

D'YAKOV, A.M., otv.red.; LEVKOVSKIY, A.I., otv.red.; MEL'MAN, S.M., otv.red.; MARUNOVA, I.B., red.izd-va; KRASNAYA, A.K., tekhn.red.

[Economy of modern India] Ekonomika sovremennoi Indii. Moskva. Izd-vo vostochnoi lit-ry, 1960. 429 p. (MIRA 13:8)

1. Akademiya nauk SSSR. Institut vostokovedeniya.
(India--Economic conditions)

BRAGINA, Ye.; UL'RIKH, O.; LEVKOVSKIY, A.I., otv. red.; MOISEYEV, P.P., otv. red.; FEDYUSHOVA, V.N., red. izd-va; YAZLOVSKAYA, E.Sh., tekhn. red.

[State capitalism in the industry of the East] Gosudarstvennyi kapitalizm v promyshlennosti stran Vostoka. Moskva, Izd-vo vostochnoi lit-ry, 1961. 92 p. (MIRA 14:9)
(Asia—Government ownership) (Asia—Economic conditions)

PAVLOVSKIY, V.; LEVKOVSKIY, A.I., kand. ekonom. nauk, red.; GARSIA,L., red.; DARONYAN, M., mladshiy red.; MOSKVINA, R., tekhn. red.

[Economy of modern Thailand] Ekonomika sovremennogo Tailanda. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1961. 182 p.
(MIRA 15:2)

(Thailand--Economic conditions)

YERSHOV, Yuriy Alekseyevich; LEVKOVSKIY, A.I., otv. red.; IVANOV, D.S., red.izd-va; MARUNOVA, I.B., red.izd-va; TSVETKOVA, S.V., tekhn. red.

[Oil and the struggle of India for economic independence] Neft' i bor'ba Indii za ekonomicheskuiu nezavisimost'. Moskva, Izd-vo vostochnoi lit-ry, 1961. 229 p. (MIRA 14:12)
(India—Petroleum industry)

MOTYLEV, Vol'f Yevnovich, prof.; Prinimali uchastiye: LEVKOVSKIY, A.I., kand. ekon. nauk; PAVLOV, V.I., kand. istor. nauk; MOTYLEV, V.V., kand. ekon. nauk, dotsent; KONYAYEV, A.I., kand. ekon. nauk, dotsent; CHEKHUTOVA, V., red.; STREPETOVA, M., mladshiy red.; MOSKVINA, R., tekhn. red.

[Economic history of foreign countries; epoch of premonopolistic capitalism] Ekonomicheskaia istoriia zarubezhnykh stran; epokha domonopolisticheskogo kapitalizma; kurs lektsii. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1961. 399 p. (MIRA 14:9)
(Economic history)

LEVKOVSKIY, Aleksey Ivanovich; D'YAKOV, A.M., otv.red.; TUZMUKHAMEDOV, R.A., red.; FRIDMAN, L.Sh., red.; YAZLOVSKAYA, E.Sh., tekhn. red.

[Characteristics of the development of capitalism in India] Osobennosti razvitiia kapitalizma v Indii. Moskva, Izd-vo vostochnoi lit-ry, 1963. 587 p. (MIRA 16:6)
(India--Economic conditions)

LEVKOVSKIY, Aleksey Ivanovich; D'YAKOV, A.M., otv. red.; TUZMUKHAMEDOV, R.A., red.; FRIDMAN, L.Sh., red.; YAZLOVSKAYA, E.Sh., tekhn. red.

[Chacteristics of the development of capitalism in India] Osobennosti razvitiia kapitalizma v Indii. Moskva, Izd-vo vostochnoi lit-ry, 1963. 588 p. (MIRA 16:4)
(India--Capitalism)

LEVKOVSKIY, N., mladshiy nauchnyy sotrudnik

Beauty, comfort, safety. Za bezop.dvizh. 4 no.1:14-15 Ja '62.
(MIRA 16:7)

1. Nauchno-issledovatel'skiy institut avtomobil'nogo transporta.
(Motor vehicles)

LEVKOVSKIY, N.; KUZNETSOV, Ye.; AKHPOLOV, I.

Maintenance and repair of refrigerated motortrucks. Avt. transp. 43 no.12:22-24 D '65. (MIRA 18:12)

KUZNETS, M.M., prof. [deceased]; BOGDANOVICH, S.N., dotsent; LEVKOVSKIY, N.M., kand. med. nauk; SEMENOVA, V.N.; GLUKHEN'KIY, B.T.; FUKI, M.M.; OSADCHIY, Ye.D.; BARABASH, M.Ye.; VIL'CHINSKIY, S.P.; VITER, I.S.; VOROBETS, I.F.; GRABOVSKAYA, R.A.; RAKHMATULLINA, M.G.; SALOVA, G.V.

Treatment of lupus eruthematosus with phthivazid. Vrach. delo no.4: 373-378 Ap '59. (MIRA 12:7)

1. Kiyevskiy meditsinskiy institut.
(LUPUS)(ISONICOTINIC ACID)

LEVKOVSKIY, N.M., kand.med.nauk

Digestive disturbances in patients with lupus erythematosus. Vrach. delo. no.6:639 Je '59. (MIRA 12:12)

1. Klinika kozhnykh i venericheskikh bolezney (zav. - kafedroy - prof. Kuznets, M.M. [deceased]) Kiyevskogo meditsinskogo instituta.
(LUPUS) (DIGESTIVE ORGANS)

KOMLEV, G.A.; LEVKOVSKIY, O.V.; SHIROKOV, A.V.

Reduction of liquid oxidized copper by natural gas. TSvet. met. 37 no.9:13-14 S '64. (MIRA 18:7)

KOMLEV, G.A.; LEVKOVSKIY, O.V.; TURTSOV, O.A.; SHIROKOV, A.V.

Use of reducers in the deoxidation of molten copper by the products of incomplete combustion of natural gas. Izv. AN Uz. SSR. Ser. tekh. nauk 9 no.2:94-97 '65. (MIRA 18:8)

1. Sredazniprotsvetmet.

L 12025-66 EWT(1) IJP(c) WW/GG

ACC NR: AP5028000 SOURCE CODE: UR/0386/65/002/007/0344/0346

AUTHOR: Bugay, A. A.; Levkovskiy, P. T.; Maksimenko, V. M.; Pashkovskiy, M. V.; Roytsin, A. B.

ORG: Institute of Semiconductors Academy of Sciences, Ukrainian SSR (Institut poluprovodnikov Akademii nauk Ukrainskoy SSR)

TITLE: Splitting of EPR lines of Cr^{3+} in $ZnWO_4$ by an external electric field

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. (Prilozhenlye), v. 2, no. 7, 1965, 344-346

TOPIC TAGS: zinc compound, EPR spectrum, line splitting

ABSTRACT: The authors have observed the splitting of two Cr^{3+} EPR lines corresponding to transitions between the sublevels of the Kramers doublets occurring when an external static electric field E is applied to a $ZnWO_4$ crystal, in which are two nonequivalent positions of the Zn^{2+} ion replaced by the Cr^{3+} ion. These positions differ in inversion with respect to the position occupied by the zinc ion, so that the shift of the EPR line should manifest itself in the form of its splitting. The dependence of the line splitting on the orientation of an external static magnetic field H was also investigated. The experiments were made with an EPR spectrometer operating at 9380 Mc and at room temperature. The angular dependence of the line splitting, corresponding to the transition between the sublevels of the lower Kramers doublet (Fig. 1), is presented for the case when the field E is directed along the crystallographic

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L 12025-66

ACC NR: AP5028000

12

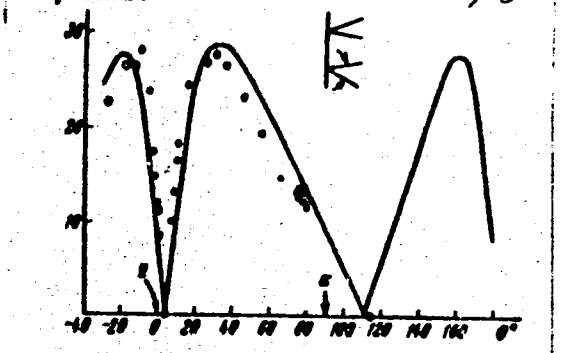

Fig. 1. Angular dependence of the EPR line splitting at E = 225 kv/cm. Continuous curve - theoretical; points - experimental values obtained with sample no. 1; circles - with sample no. 2.

axis b (y axis), and the field H changes its orientation in the (xz) plane. The experimental points shown on the plot correspond to the directly measured splitting. The results agree with calculations based on the use of a spin Hamiltonian in the form $W = W_0 + W_E$ where W_0 is the usual spin Hamiltonian, including the operator of the Zeeman energy and the energy of the crystalline field and W_E is the operator of the energy of interaction with the external electric field E. Authors thank M. F. Deygen and V. B. Shteynshleyger for continuous interest in the work, and also L. I. Datsenko and N. F. Kogdenko for help with the measurements. Orig. art. has: 1 formula and 1 figure.

SUB CODE: 20/ SUBM DATE: 06Aug65/ ORIG REF: 002/ OTH REF: 002

Card 2/2

L 40995-66 EWT(l) IJP(c) WW/GG

ACC NR: AP6020205 SOURCE CODE: UR/0056/66/050/006/1510/1518

AUTHORS: Bugay, A. A.; Levkovskiy, P. T.; Maksimenko, V. M.; Pashkovskiy, M. V.; Roytsin, A. B.

ORG: Institute of Semiconductors, Academy of Sciences, Ukrainian SSR (Institut poluprovodnikov Akademii nauk Ukrainskoy SSR)

TITLE: Splitting of EPR lines of Cr^{3+} in $ZnWO_4$ by an external electric field

SOURCE: Zh eksper i teor fiz, v. 50, no. 6, 1966, 1510-1518

TOPIC TAGS: electric field, line splitting, Hamiltonian spin, ~~EPR~~ electron paramagnetic resonance

ABSTRACT: Splitting of EPR lines of Cr^{3+} in $ZnWO_4$ by an external electric field has been detected. An investigation has been made of the angular dependence of splitting (dependence of splitting value on orientation of external magnetic and electric fields with respect to crystallorgraphic axes). A Hamiltonian spin is set up describing the interaction between the system and the external electric field. Corrections to the transition frequencies have been found. The theoretical results satisfactorily describe the experimental angular dependences of the splitting. The corresponding Hamiltonian spin constants have

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L 40995-66

ACC NR: AP6020205

been determined. A correlation effect between the angular splitting dependence and angular dependence of the EPR half-width line has been detected for the first time in the absence of an external electric field. A qualitative interpretation of the phenomenon has been described. The authors thank M. F. Deygen and V. B. Steynshleyger for their constant interest in thus work, V. A. Atsarkin for discussion of individual problems, and L. I. Datsenko for assistance in measurements. Orig. art. has: 6 figures, 9 formulas, and 2 tables. [Based on authors' abstract] [NT]

SUB CODE: 20/ SUBM DATE: 24Jan66/ ORIG REF: 007/ OTH REF: 008

Card 2/2 11b

LEVKOVSKIY, S.S.

From the history of studies of streamflow of the Ukraine.
Trudy UkrNIGMI No.50:86-92 '65. (MIRA 18:11)

LEVKOVSKIY, S.S.

Study of calculation parameters of the annual flow of rivers of the Ukraine. Trudy UkrNIGMI no.51:21-31 '65.
(MIRA 18:9)

LEVKOVSKIY, S.S.

Fluctuations in the water content of rivers of the Ukrainian S.S.R. Geofiz. i astron. no.8:163-166 '65.
(MIRA 19:1)

1. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut.

LEVKOVSKIY, V. N.

USSR

Chromatographic separation of dinitrophenylhydrazones on acetylated papers. M. E. Nelman, V. N. Levkovskiĭ, and A. F. Lukovnikov. *Doklady Akad. Nauk S.S.S.R.* 81, 841–4(1951); cf. J. V. Kostiĭ and K. Slavík, *C.A.* 44, 8817c.—In order to adapt the methods of paper chromatography to nonpolar, hydrophobic substances the chem. treatment proposed by Kostiĭ (loc. cit.) is used. This method consists of replacing the polar OH groups of cellulose by Ac groups, thereby increasing the hydrophobic character of paper. The optimum conditions for acetylation are discussed. The paper, thus treated, is used for the sepn. of the dinitrophenyl hydrazones of formaldehyde, acetaldehyde, propionaldehyde, butyraldehyde, and acrolein. Good sepn. was attained. I. Royter Leach

LEVKOVSKIY, V.N.

C-5

USSR/Nuclear Physics

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11214

Author : Levkovskiy, V.N.

Inst : Institute of Chemical Physics, Academy of Sciences, USSR

Title : Relative Cross Sections of n-p Reactions on Nuclei With Several Stable Isotopes.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 31, No 2, 360

Abstract : The relative cross sections of the (n,p) reactions on isotopes of Zr, Cd, Ti, and Sr, and Ca were measured by analysis of the curves of nuclear decay vs. reaction products. From the data obtained and from the analysis of the data by Pauli and Clarke (Referat Zhur Fizika, 1955, 8684) on the cross sections of the (n,p) reactions on isotopes of Mg, Si, S, Zn, and Ge, the author draws the following conclusion: (1) The cross sections of the (n,p)

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Abs Jour : Ref Zhur - Fizika, No 5, 1957, 11214

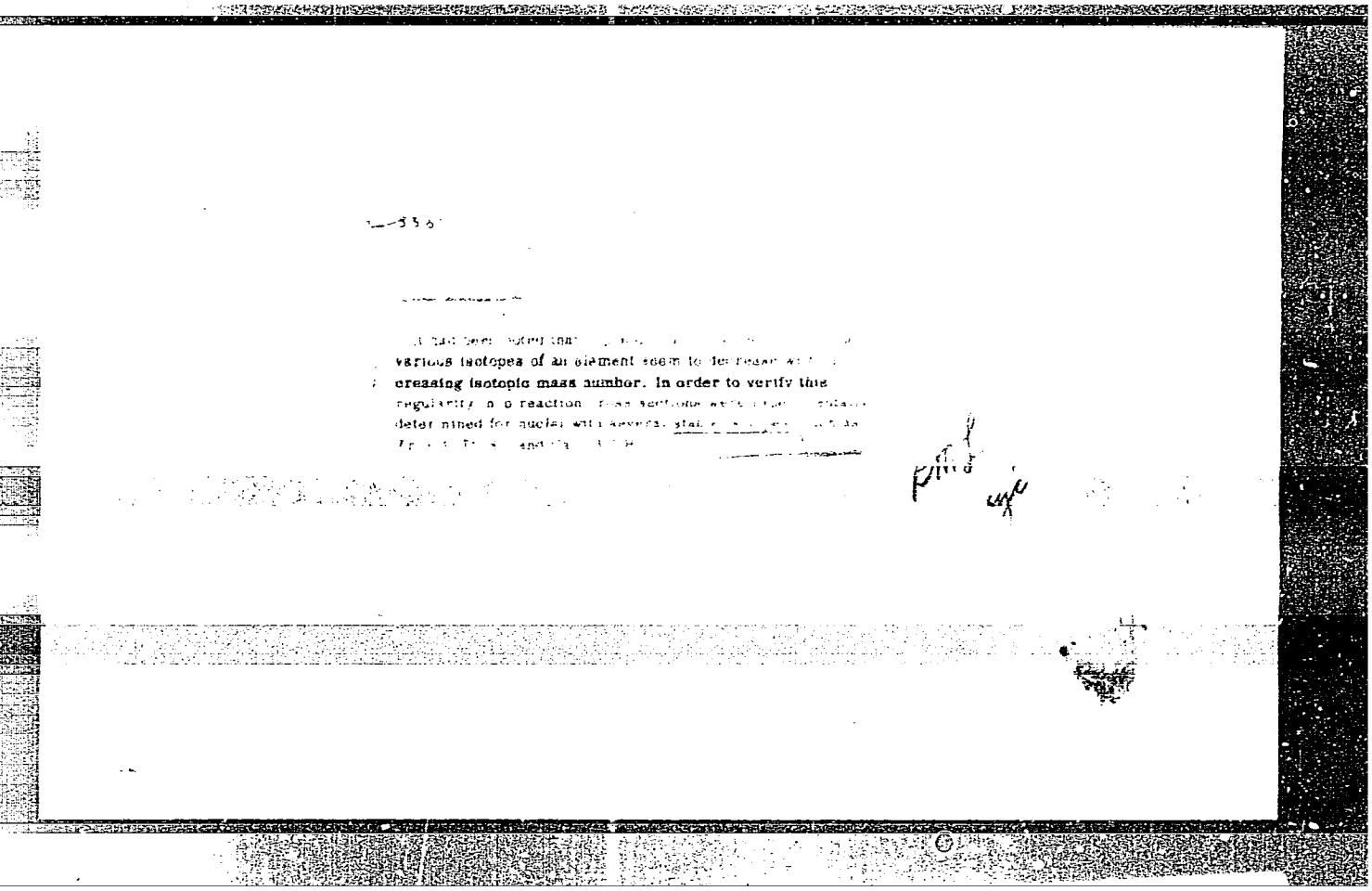
reactions on nuclei with several isotopes are reduced substantially with increasing weight of the isotopes. This reduction is greater for the lighter nuclei. (2) In light nuclei, an increase in the atomic weight by two units reduces the cross section to one quarter (Ca, Si, S, Zn) or to 1/16 (Mg, Ti), while in heavier ones the reduction is to one half (Sr, Zi, Cd, Ge). (3) The results obtained apparently contradict the statistical theory and possibly are evidence of the retention of the shell structure even at high excitation energies.

LEVKOVSKIY, V. N.

"Relative Cross Sections at 14 Mev Neutron Energy for (n,p) and (n,α) Reactions on Elements Possessing Several Stable Isotopes,"

(Inst. of Chemical Physics)

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 1957.



various isotopes of an element seem to decrease with
creasing isotopic mass number. In order to verify this
regularity a reaction
deter mined for nuclei with

56-6-36/47

AUTHOR: Levkovskiy, V. N.

TITLE: The Relative Cross Sections of(n, p) and (n,α) Reactions in Elements With Some Stable Isotopes (Otnositel'nyye secheniya n, p - i n,α reaktsiy na elementakh s neskol'kimi stabil'nymi izotopami)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1957, Vol. 33, Nr 6, pp. 1520 - 1521 (USSR)

ABSTRACT: 1.) The following cross sections for the respective (n, p) reactions were measured. (E_n = 14 MeV).

σCa^{42} : σCa^{44} = 1 : (0,24 ± 0,02)

σTi^{48} : σTi^{49} = 1 : (0,55 ± 0,15)

σZn^{64} : σZn^{66} : σZn^{67} = 1 : (0,36 ± 0,02) : (0,23 ± 0,03)

σGa^{69} : σGa^{71} = 1 : (0,50 ± 0,05)

σGe^{70} : σGe^{72} : σGe^{73} : σGe^{74} = 1 : (0,39±0,02) : (0,24±0,02) : (0,13 ± 0,03)

σSr^{86} : σSr^{88} = 1 : (0,46 ± 0,04)

σZr^{90} : σZr^{91} : σZr^{92} : σZr^{94} = 1 : (0,74±0,05) : (0,46±0,04) : (0,20± ± 0,02)

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The Relative Cross Sections of (n, p) and (n, α) Reactions in Elements With Some Stable Isotopes

$\sigma Cd^{106} : \sigma Cd^{111} : \sigma Cd^{112} : \sigma Cd^{113} = (5 \pm 1) : 1 : (0,71 \pm 0,03) : (0,52 \pm 0,2)$

$\sigma Ce^{140} : \sigma Ce^{142} = 1 : (0,60 \pm 0,15)$

From these and other known published data it follows that the cross section of the (n, p) reaction in elements with several stable isotopes decreases considerably with increasing mass number. Herefrom the general conclusion may be drawn that the probability of the liberation of a proton from an excited nucleus is connected with the proton concentration in the nucleus.

2.) For (n, α) -reactions the following measurements were carried out:

$\sigma Cl^{35} : \sigma Cl^{37} = 1 : (0,27 \pm 0,15)$

$\sigma Ge^{72} : \sigma Ge^{74} = 1 : (0,47 \pm 0,04)$

$\sigma Rb^{85} : \sigma Rb^{87} = 1 : (0,39 \pm 0,02)$

$\sigma Zr^{94} : \sigma Zr^{96} = 1 : (0,50 \pm 0,05)$

$\sigma Cd^{112} : \sigma Cd^{114} = 1 : (0,50 \pm 0,03)$

3.) Together with the determination of these cross sections also the following further data were determined:

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The Relative Cross Sections of (n, p) and (n,α) Reactions in Elements With Some Stable Isotopes

56-6-36/47

Ge (n, p) Zn^{71m}
Ge (n,α) Zn^{71m} : $T_{1/2}$ = 3,92 ± 0,05 h

Ge (n, p) Ga^{74} : $T_{1/2}$ = 8,0 ± 0,5 m
Rb^{87} (n,α) Br^{84} : $T_{1/2}$ = 25,5 ± 0,5 m
Zr (n,α) Sr^{93} : $T_{1/2}$ = 7,0 ± 0,5 m; β = 3,0 ± 0,3 MeV

There are 7 references, 1 of which is Slavic.

ASSOCIATION: Institute of Chemical Physics AN USSR
(Institut khimicheskoy fiziki Akademii nauk SSSR)

SUBMITTED: July 31, 1957

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LEVKOVSKIY, V.N.

AUTHOR: DZANTIYEV B.G., LEVKOVSKIY V.N., MALIYEVSKIY A.D., PA - 3136

TITLE: The (n,α) -Reactions of 14 -MeV Neutrons With Cadmium.
(Reaktsii (n,α) 14 MeV neytronov s kadmiyem -Russian)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 3, pp 537-540 (U.S.S.R.)
Received 6/1957 Reviewed 7/1957

ABSTRACT: The present paper investigates the (n,α) -reactions on cadmium, in which palladium isotopes are created. Parallel hereto the cross section of the production of Pd^{109} from silver was determined by means of a (n,p)-reaction. Because of the many stable cadmium isotopes the products created on the occasion of the reactions could be identified only by means of the radiochemical method.
Realization of the reactions Cd(n,α)Pd and identification of the products of the reactions: Metallic cadmium or its salts were irradiated with ~4 MeV (d,d) -neutrons, 14 MeV (t,d) -neutrons and fission neutrons. The radioactive palladium was precipitated from the targets by a precipitation of dimethyl glyoxime in an acid medium. The activity of the thus obtained radiochemical pure samples was measured by means of a GEIGER counter, or these samples were dissolved. From this solution, silver (AgCl) was segregated within fixed time intervals for the purpose of identifying the palladium isotope on the basis of the daughter products. On the occasion of irradiation with 4 MeV neutrons no radioactivity was observed in the palladium fraction. In the case of irradiation with fission neutrons an activity of the palladium with T = 14 hours was observed. In the case of irradiation with

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The (n,α) Reactions of 14 MeV Neutrons With Cadmium. PA - 3136

14 MeV neutrons radioactive components with halfvalue periods (22+ 1) minutes, (5,5+ 0,2) hours and (14,0+ 0,5) hours were found to exist in the palladium fraction 3. The ratio of the initial activities of these components amounts to $(26,4 \pm 0,8):(0,41 + 0,04):1,0$. A table shows the results of the graphical analysis of the decay curves of the cadmium samples which were separated by the different cadmium targets. These results are then discussed in detail.

Measuring of the cross sections of the reactions $Cd^{113}(n,\alpha)Pd^{109}$, $Cd^{114}(n,\alpha)Pd^{111}$, $Cd^{114}(n,\alpha)Pd^{111*}$ and $Ag^{109}(n,p)Pd^{109}$ as well as of the reactions with 14 MeV neutrons. All necessary activities were measured by means of a GEIGER counter at equal geometrical conditions. The cross sections thus computed and the standard deviations are shown together in a table.

(4 ill. and 5 tables)

ASSOCIATION Chemical-Physical Institute of the Academy of Science of the U.S.S.R.
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Levkovskiy, V. N.

20-4-14/61

AUTHOR: DZANTIYEV, B.G., LEVKOVSKIY, V.N., MALIYEVSKIY, A.D., SERDOBOV, M.V.

TITLE: The Isomer Pd^{111}.

(Izomer Pd^{111*}. Russian).

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 773 - 776 (U.S.S.R.)

ABSTRACT: First of all the authors give some information on relevant preliminary papers. It is the aim of the paper under review to demonstrate unambiguously that the 5.5-hours palladium activity belongs to a certain isotope or isomer of the palladium. For this purpose, experiments were carried out with regard to the radiochemical separation of isomers in the mixture of the radioactive isotopes of palladium which are produced at the reactions $Cd(n,\alpha)$ and $Pd(n,\gamma)$. The method of the chemical separation of the nuclear isomers is based on the Szilard-Chalmers phenomenon. When working on the methods for the separation of the palladium isomers, the authors of the paper under review tried reagents: dimethyl glyoxime, acetoxime, salicylic aldoxime and α-nitroso-β-naphthol. The best results were obtained with salicylic aldoxime. Salicylic aldoxime is suited for the separation of the nuclear isomers of palladium.

The Separation of the Isomers Pd^{111*} and Pd^{111} Produced at the Reaction $Cd^{114}(n,\alpha)$ Pd^{111}.

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The Isomer Pd^{111*}.

During a period of 4 hours, 400 g of cadmium nitrate were exposed to radiation of a current of neutrons of 14 MeV ($\sim 10^7$ neutrons/cm^2/sec.). The experimental arrangements are discussed. In the mixture of the radioactive palladium isotopes produced at the reactions $Cd(n,\alpha)$ Pd there is contained the isomer Pd^{111*} which is genetically connected with Pd^{111} (T=22 min.).

The Identification of the Pd^{111*} (T=5.5 hours) in the Mixture of the Radioactive Palladium Isotopes which were produced at the reactions $Pd(n,\gamma)$: The corresponding experiment, described in the paper under review proved the production of Pd^{111*} with T=5.5 hours after the reaction $Pd(n,\gamma)$ and also its genetic composition as Pd^{111} (T=22 min) and Ag^{111} (T=7.5 days). For the coefficient of the internal conversion the value $\alpha = a/b \geq 0.185$ was obtained. Taking into consideration the given decay scheme $Pd^{111*} \rightarrow Pd^{111}$ we have $\alpha \geq 0.185 : 0.75 = 0.25$.

The determination of the relative yield of the Pd^{111} and of the Pd^{111*} at the reaction (n,γ): done by a study of the relevant kinetics of the accumulation of the radioactive silver in the samples of the palladium exposed to radiation (4 reproductions, 3 charts).

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The Cross Section of the Reactions Cd(n,p)Ag at the Neutron Energy of 14 MEV.

measurements for the β-radiations of the Ag^{106}, Ag^{111}, Ag^{112} and Ag^{113}. These data were obtained by measuring the activity of the silver precipitated from the cadmium target. This chart furthermore contains the data of the absorption measurements for the radiation of the Pd^{109} which was used in the computation of the reaction cross sections. The following conclusion can be drawn from this chart: The values, as measured by the author of the paper under review, of the maximum energies of the radiations with the half-value periods 24 minutes, 3.2 hours, 5.3 hours and 7.3 days are in good agreement with the values given in the relevant literature for the β-radiations of the Ag^{106}, Ag^{112}, Ag^{113} and Ag^{111}. Another chart compares the initial activities of Ag^{106}, Ag^{111}, Ag^{112} and Ag^{113} as obtained in two investigations that were conducted independently from each other. The third chart compares the activities of Ag^{111} and Pd^{109} as obtained in three parallel exposures to radiation. The cross sections of the reactions are computed from the data of these charts, and they are compiled in a further chart. (2 reproductions, 4 charts)

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LEVKOVSKIY, V. N.

AUTHOR: Levkovskiy, V. N. 89-1-12/29

TITLE: The Reactions Ga (n,p), Ge (n,p) and Ge (n,α) with 14 MeV Neutrons (Reaktsii (n,p) na gallii i germanii i (n,α) na germanii pri energii neytronov 14 MeV)

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 1, pp. 79 - 8o (USSR)

ABSTRACT: The targets were irradiated for from 1 to 3o minutes, and the isotopes formed were radiochemically separated.
The following results were obtained:

1. $Ga^{69}(n,p)\ Zn^{69}$; $Ge^{72}(n,\alpha)\ Zn^{69}$ $T_{\frac{1}{2}} = 52,5$ m — confirmed
2. $Ga^{69}(n,p)\ Zn^{69m}$; $Ge^{72}(n,\alpha)\ Zn^{69m}$ $T_{\frac{1}{2}} = 13,9$ h — confirmed
3. $Ga^{71}(n,p)\ Zn^{71}$; $Ge^{74}(n,\alpha)\ Zn^{71}$ $T_{\frac{1}{2}} = 2,3$ m — confirmed
4. $Ga^{71}(n,p)\ Zn^{71m}$; $Ge^{74}(n,\alpha)\ Zn^{71m}$ new nucleus: $T_{1/2} = 3,92 \pm o,o5$ h, $E_\beta = 1,5$ MeV
5. $\sigma(Ge^{72}(n,\alpha)) : \sigma(Ge^{74}(n,\alpha)) = 1 : (o,47 \pm o,o2)$
   $\sigma(Ga^{69}(n,p)) : \sigma(Ga^{71}(n,p)) = 1 : (o,5o \pm o,o5)$

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AUTHOR LEVKOVSKIY V.N.

TITLE The Cross Section of the Reactions Cd(n,p)Ag at the Neutron Energy of 14 MEV. (Secheniye reaktsiy Cd(n,p)Ag pri energii neytronov 14 MEV.- Russian) 20-5-24/67

PERIODICAL Doklady Akademii Nauk SSSR 1957, Vol 113, pp 1032-1034, Nr 5 (USSR)

ABSTRACT The cross sections of the reactionsCd(n,p) Ag were computed by comparing the β-yield of these reactions with the yield of the reaction $Cd^{112}(n,\alpha)Pd^{109}$. According to an earlier measurement, the cross section of the reaction $Cd^{112}(n,\alpha)\ Pd^{109}$ amounts to $(1.35 \pm 0.27).10^{-27}$ cm^2. For a period of 0.5 to 1 hour, samples of cadmium nitrate were exposed to radiation by electrons, dissolved, and from the solution wit the carrier the palladium was precipitated with dimethyl glyoxime, The activity of the precipitation was measured with the aid of a cylindrical Geiger counter.
A diagram shows a typical damping curve of the activity of the silver precipitation, and another diagram contains the results of the graphical analysis of this curve. The half-value periods obtained in the paper under review (24 minutes; 3.2 hours; 5.3 hours; 7.5 days) are in good agreement with the half-value periods of Ag^{106}, Ag^{112}, Ag^{113} and Ag^{111} as listed in the available literature on this subject. Another chart contains the data of the absorption

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L 16882-63 EPF(n)-2/EWT(m)/BDS AFFTC/ASD/SSD Pu-4

ACCESSION NR: AP3005284 S/0056/63/045/002/0305/0311

AUTHOR: Levkovskiy, V. N.

TITLE: Empirical relations for the (n, p) cross sections for 14-15 MeV neutrons

SOURCE: Zhur. eksper. i teoret. fiz., v. 45, no. 2, 1963, 305-311

TOPIC TAGS: (n, p) reaction, cross section, thermal effect

ABSTRACT: An analysis of experimental data obtained by the author by the activation method and by others on the cross sections of the (n, p) reaction at neutron energies 14--15 MeV has shown that in the range 12 < A < 150 the cross sections are described well by a simple relation which contains only one empirical coefficient which is the same for even-even, even-odd, and odd-odd nuclei and does not vary in the regions of magic Z and N. This formula can be simply related with thermal effects by using a semi-empirical relation given

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by Gardner (Nucl. Phys. v. 29, 373, 1962). The resultant relation, however, must not be regarded as a confirmation of the statistical theory of nuclear reactions, in view of the crude approximations on which it is based. Orig. art. has: 5 formulas and 5 tables.

ASSOCIATION: Institut yadernoy fiziki Akademii nauk Kazakhskoy SSR (Institute of Nuclear Physics, Academy of Sciences Kazakh SSR)

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LEVKOVSKIY, V.N.

Empirical behavior of (n, p) reaction cross sections involving 14-15 Mev. neutrons. Zhur. eksp. i teor. fiz. 45 no.2:305-311 Ag '63. (MIRA 16:9)

1. Institut yadernoy fiziki AN Kazakhskoy SSR.
(Nuclear reactions)

LEVKOVSKIY, V.N.

AUTHOR DZANTIYEV B.G., LEVKOVSKIY V.N., MALIYEVSKIY A.D., PA - 3136

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