

SOV/112-57-6-12535

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 6, p 131 (USSR)

AUTHOR: Litvin, N. G.

TITLE: Experimental Strengthening of Tools by Electric Discharge
(Opyt elektroiskrovogo uprochneniya instrumenta)

PERIODICAL: Kolyma, 1956, Nr 2, pp 24-29

ABSTRACT: Electric-discharge treatment of cutting tools results in an increase in their durability 2-3 times. In addition, under the conditions at the Magadanskiy avtoremontnyy zavod (Magadan Automobile Repair Plant), experience of which is reported in the article, this method of strengthening helps to achieve a saving on long-distance-delivered cutting tools. Physical phenomena are described which occur during the discharge treatment of tools, and also relationships in the transfer of hard alloys from the electrode onto the part being strengthened. Results of experiments conducted with the UPR-ZM discharge outfit (made by "TsNILElektrom") are reported in the form of graphs and tables for various treatment conditions and various types of

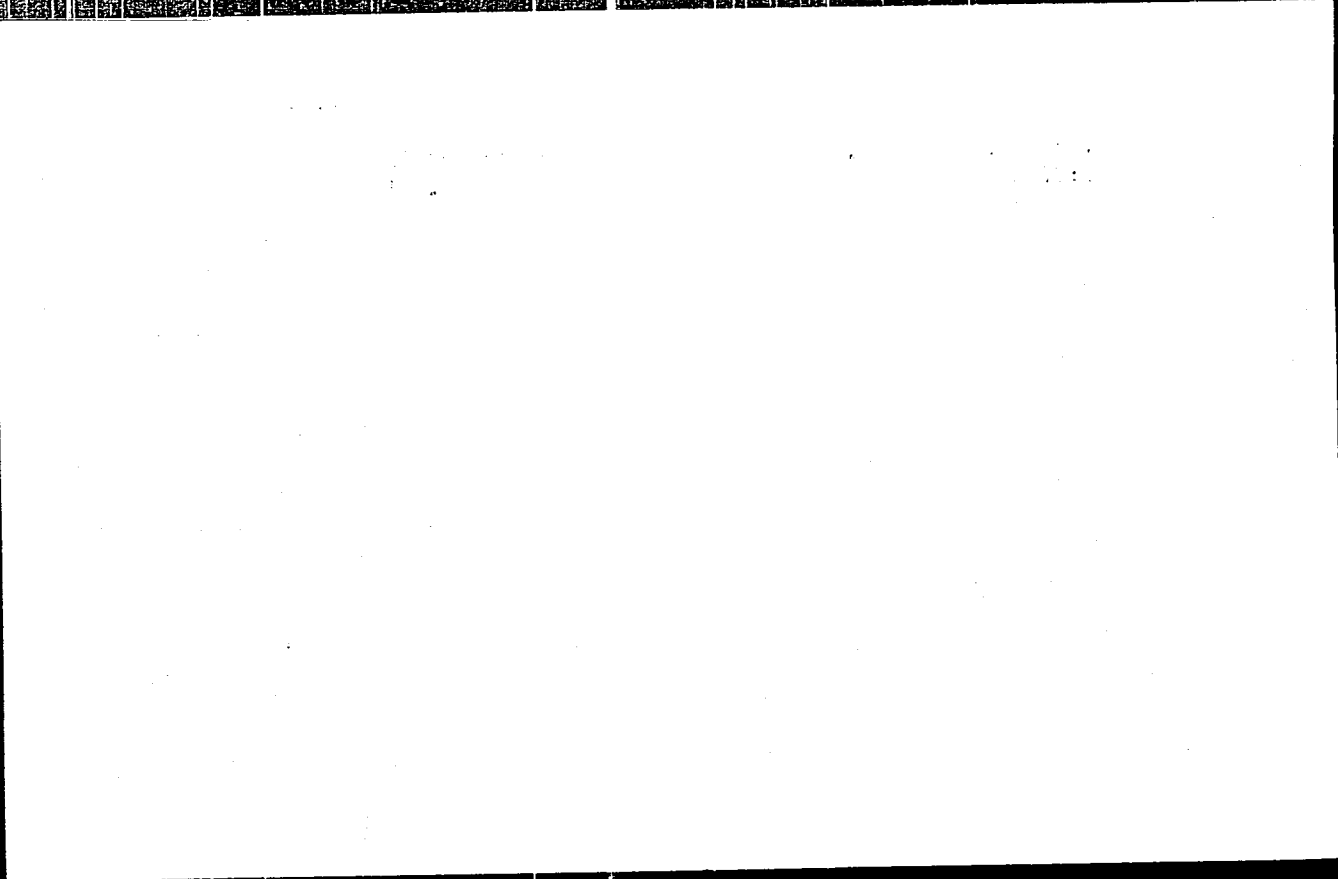
Card 1/2

Card 2/2

LITVIN, N.G.

Local deformation during torsion. Zav.lab. 22 no.1:92-93 '56.
(MLRA 9:5)

1. Magadanskiy avtoremontnyy zavod Dal'stroya.
(Metals--Testing)



2141 Litvin, O.B.

Sovremenny Ye Metoly Sinteza Kauchukov. (Po Materialam Lektsiy, Prohit. Dlya
Chlenov VNIPO Rezinschikov). L., Goskhimizdat, 1954. 108 s. so Skhem.
22 sm. (Vsesoyuz. Nauch.-Tekhn.-O-Vo Rezinovoy I Kauchukovoy Prom-Sti). 2.000
EKZ. Bespl.-
(54-56808)p

678.77

USSR/Chemistry - Synthetic rubber

FD-373

Card 1/1 Pub. 50 - 20/20

Author : Litvin, O. B.

Title : Book reviews and bibliography

Periodical : Khim. prom. No 5, 318-319, Jul-Aug 1955

Abstract : This is a review of "Synthetic Rubber" edited by G. S. Whitby, John Wiley and Sons, New York, 1954, 1044 pp. The reviewer outlines briefly the contents of the book and states that it ought to be of value to workers in the field of synthetic rubber. As shortcomings of the book he mentions inadequate treatment of the synthesis of monomers, lack of information on technological problems, and insufficient treatment of USSR work in the field of synthetic rubber.

LITVIN, O.B.; FRIDSHTEYN, I.L.

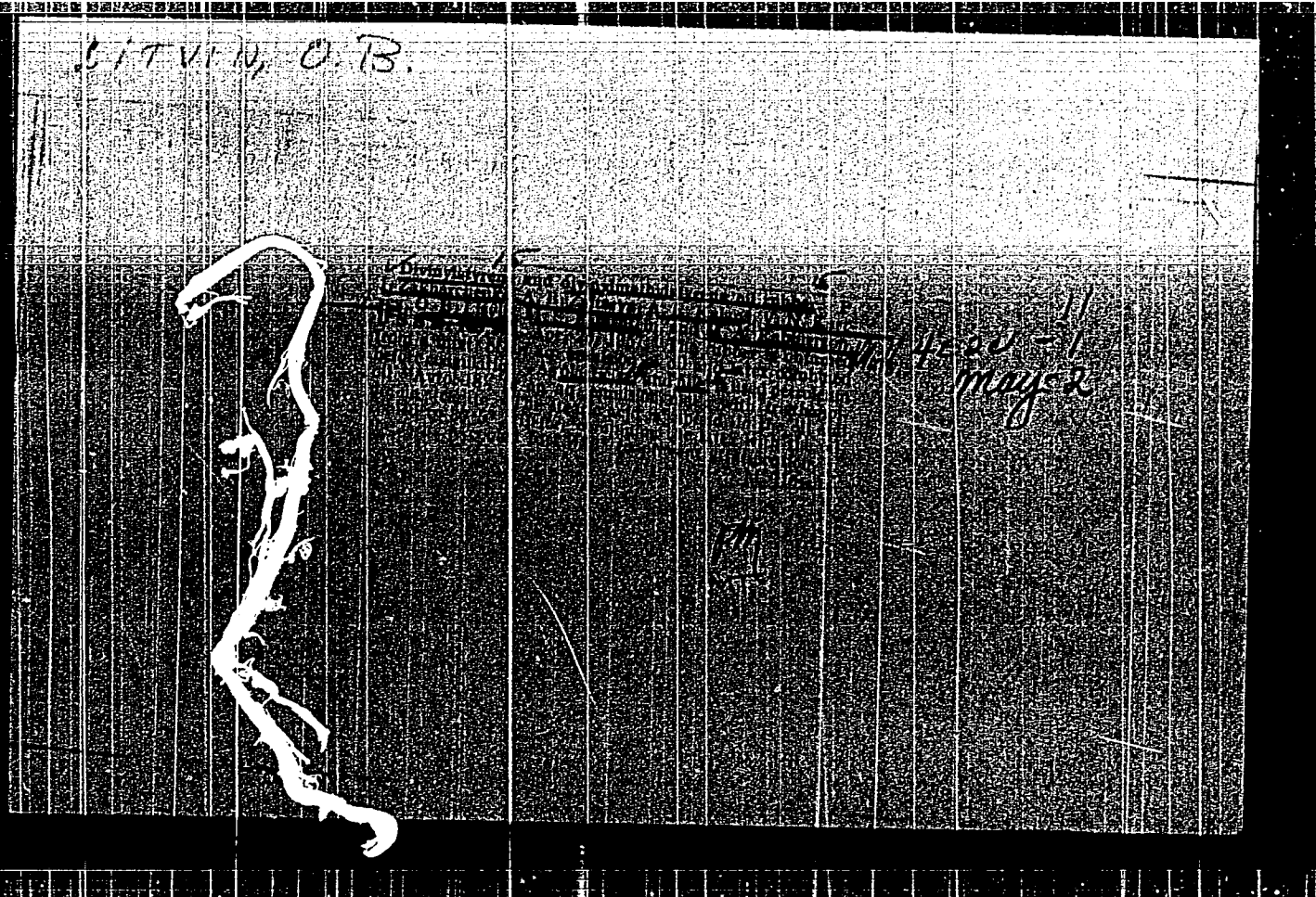
Butadiene from n-butane and n-butene. Khim.prom. no.8:486-494
D '55. (MLRA 9:5)
(Butadiene) (Butane) (Butene)

LITVIN, O.B.

LITVIN, O.B., inzhener.

Rubber made of petroleum. Nauka i zhizn' 23 no.6:21-23 Je '56.
(MLRA 9:9)

(Rubber, Synthetic)



WITVIN, O.B.

✓ 1937. Industrial methods of synthesis of isoprene
L. L. FRIED and O. B. WITVIN. Russ. Nukle
Chem. Prom., 1937, 2, No. 6, 348-350. This fully docu-
 mented survey refers to the growing importance, in
 the U.S.S.R. and elsewhere, of "synthetic natural"
 polyisoprene rubbers and to the resources of the
 U.S.S.R. petroleum industry with their advantage
 to this branch of the industry. There are 46
 references.

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PHASE I BOOK EXPLOITATION SOV/4215

Litvin, Oskar Borisovich

Sovremennoye proizvodstvo sinteticheskikh kauchukov za rubezhom (Modern Production of Synthetic Rubbers Abroad) Moscow, 1958. 85 p. (Series: Khimicheskaya promyshlennost'). Errata slip inserted. 5,000 copies printed.

Sponsoring Agencies: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta ministrov SSSR. Akademiya nauk SSSR. Vsesoyuznyy institut nauchnoy i tekhnicheskoy informatsii. No editors mentioned.

PURPOSE: This book is intended for chemists and technicians in the synthetic rubber industry and may be used to acquaint students of organic chemistry with commercial elastomeric products.

COVERAGE: The book analyzes trends in the technical development of synthetic rubber production outside the Soviet Union. The author used literature surveys compiled under his direction from 1954 through 1956 by a group of specialists of the Technical Council of the Ministry of Chemical Production and other non-Soviet materials. In particular surveys on the technology of emulsion polymerization by N. A. Fermor and A. Ye. Kalas and on special-purpose synthetic

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Modern Production of Synthetic Rubbers Abroad

rubbers by N. P. Apukhtira were used. There are 11 tables and 200 references: 7 Soviet, 1 French, 172 English, and 20 German.

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Foreword

The Assortment and Scale of Synthetic Rubber Production Abroad
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The scale of production and consumption

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Prescriptions and conditions for the copolymerization of divinyl and styrene

Copolymeric divinylstyrene rubbers of low-temperature polymerization
The technology of polymerization

High-rate polymerization
The technology of extracting rubber
Types and brands of divinylstyrene rubbers
Properties of divinylstyrene rubbers

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AVAILABLE: Library of Congress (TS1925.L53)		

Card 4/4.

JA/rn/fal
10-18-60

LITVIN, O.^β insh.

Rubber made of petroleum. IUn.tekh. 2 no.6:30 Je '58. (MIRA 11:6)
(Rubber, Synthetic)

LITVIN, Oskar Borisovich; FRIDSHTEYN, I.L., red.; SHEPAK, Ye.G.,
tekhn.red.

[Fundamentals of the technology of synthetic rubber]
Osnovy tekhnologii sinteza kauchukov. Moskva, Gos.nauchno-
tekhn.izd-vo khim.lit-ry, 1959. 544 p. (MIRA 12:10)
(Rubber, Synthetic)

LITVIN, G.B.

PLASTIC BOOK REPRODUCTION 807/8699

Chemical technology and development of plastics (Fundamentals of Synthetic Technology in Plastics Chemistry) Moscow, Gostekhizdat, 1960. 82 p. 3,800 copies printed.

Author: Baitov, Arslan Ilyich, Professor, and Dr. Akhmedov, Akhmedov, Professor, Kharkov, U.S.S.R.

Summary: This book is intended for engineers and chemists of plastics enterprises and chemical plants. The materials of the national economy, planning organizations and scientific research institutes engaged in chemical processing of plastics and other plastics are described. The book also contains information on the production of synthetic products.

Contents: The book describes important commercial methods of producing hydrocarbon polymers and gas-stored and coal-stored for the production of alcohols, aldehydes, ketones, acids, detergents, synthetic fibers and synthetic rubber. Flow sheets are included, and the basic equipment of chemical industry is described. The agricultural properties and uses of thermoplastics and synthetic products are also described. The state of the plastics industry outside the USSR and prospects for its development are covered. 30 personalities are mentioned. and prospects for its development are covered. 30 personalities are mentioned. and prospects for its development are covered. 30 personalities are mentioned.

Fundamentals of Synthesis Technology (Cont.)

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LITVIN, O.B.

Modern methods for the production of acetylene from hydrocarbons.
Khim. prom. no.2:148-153 F '63. (MIRA 16:7)

(Acetylene) (Hydrocarbons)

LITVIN, Oskar Borisovich; SKUBA, I.A., red.

[Fundamentals of the technology of rubber synthesis] Osnovy
tekhnologii sinteza kauchukov. Izd.2., perer. i dop. Mo-
skva, Izd-vo "Khimia," 1964. 648 p. (iIRA 17:7)

LITVIN, O. L.

✓ The lithium-iron micas in pegmatites of Volhynia. O. L. Litvin. *Naukovi Zapiski, Kiev. Derzhav. Univ. im. T. G. Shevchenka* 15, No. 2, Zbirnik Geol. Fak. No. 6, 119-28(1950) (Russian summary).--Micas in a complete series from biotite, through protolithionite, zinawaldite, cryophyllite, to lepidolite occur. Sixteen analyses, with calcns. of formulas, on each sample are given. In a pegmatite body, the Li content of the mica increases toward the center, indicating enrichment of the fluid in Li. D. I. Milton

pld

LITVIN, O.P., inzh.

Improvement of the operation of water rim vacuum pumps.
Energetik 12 no.5:20-21 My '64. (MIRA 17:6)

LITVIN, O.P., inzh.

Designs of mixing condensers. Khim. i neft. mashinostr. no.9:7-8
S '65. (MIRA 18:10)

LITVIN, P.A.

Geology of the folded basement of the upper Tobol region (north-
western part of the Turgay trough). Zap.IGI 37 no.2:153-177
'60. (MIRA 15:7)

(Turgay gates—Geology)

LITVIN, P. I.

The use of mixlers for crystallizing second strike masscuite with artificial cooling by the method of I. I. Dokhtlenko. P. I. Litvin and G. A. Veshcherevich. *Nash Zapiski Tsvetnoy Metallurgii*, No. 32, 47-58 (1933).

The use of mixlers for second-strike masscuites with artificial cooling decreases the losses of sugar in the final molasses by 0.1% (on the wt. of beets) because of lower temp. of crystn. in motion (35-38° as compared with 45-40°); the time of crystn. decreases to 16-20 hrs. A better yield of sugar is secured. The rate of cooling is 2.5-3.0° per hr. A masscuite of 95-100° Be is dumped into the mixer at 75-78° and water at 15-18° is pumped into the cooling coils. The mixer is 6 m. long and 2 m. in diam., and the cooling surface is 12 sq. m. with an effective capacity of 105 hectoliters. V. B. Baikov.

ASB-55-A METALLURGICAL LITERATURE CLASSIFICATION

TRUB, I. G., and others. *Trub, I. G., and others. 1965. In: ...*

Principal characteristics of the operation of a vacuum-type
generator jet column. *Teploenergetika* 12 no. 6: 14-18. Feb '65.
(MIRA 18:9)

1. *... metalurgicheskii ...*

1. LITVIN, P. I.
2. USSR (600)
4. Viticulture
7. We are reclaiming the Don steppes. Vin. SSSR 13, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified.

LITVIN, P.L.; SOSNOV, K.A.; SHELKOVNIKOV, N.I.; GARTSMAN, P.Ye.

"Purification of waste water from enterprises of ferrous metallurgy" by A.F. Shabalina. Reviewed by P.L. Litvin and others. Stal' 21 no.12:1145 D '61. (MIRA 14:12)

1. Leningradskiy Gosudarstvennyy soyuznyy institut po proyektirovaniyu metallurgicheskikh zavodov.
(Metallurgical plants--Water supply)
(Water--Purification)
(Shabalina, A.F.)

LITVIN - R. A.

ayw

The utilization of phosphobacteria on growing corn on peat soils. R. A. Litvin (Vet. inst., Kiev). *Zhivotnovodstvo* 1956, No. 3, 67-8. — Corn was grown on a test plot having peat soil with a large amt. of P contg. org. compds. The plot was planted in 4 different ways: the corn seed was not treated with phosphobacteria and the soil unfertilized, the seed was treated with a liquid prepn. contg. phosphobacteria and the soil unfertilized, the seed was not treated and the soil fertilized with superphosphate, and the seed was treated with a liquid prepn. of phosphobacteria and the soil fertilized with superphosphate. In a larger adjacent plot seeds were treated only with liquid and dry preps. of phosphobacteria. Observations were made on the heights of the plants at various stages of growth. Chem. analyses were made on the soil and the results tabulated as to the amts. of nitrates and phosphoric acid in the soil in the 4 different sections of the exptl. plot. The yields of the whole-corn plant in the milk phase were tabulated and results showed that seeds treated with phosphobacteria and soil not fertilized, seeds untreated and soil fertilized, and seeds treated with phosphobacteria and soil fertilized were 1.4, 1.1, and 1.5 times greater, resp., than these plants in which the untreated seed was planted in unfertilized soil. Martin Derderian

Litvin, R.A.

✓ The influence of phosphobacterin on yield of corn under
conditions of Polesye, Ukraine, R. A. Litvin. *Zemle-*
delic 4, No. 3, 96-7(1976).--Addns. of phosphobacterin
alone has increased the yield of corn by 41%. When sup-
plemented with 47 kg./ha. of P the increase was 54%. P
alone increased the yield by 11%. J. S. Felle

LITVIN, R. A., Cand Biol Sci -- (diss) "Influence of phospho-
bacterine on the fertility of peat-bog soils and the chemical comp-
osition of corn plants." Khar'kov, 1960. 16 pp; (Ministry of Higher
and Secondary Specialist Education Ukrainian SSR, Khar'kov Order of
Labor Red Banner State Univ im A. M. Gor'kiy); 150 copies; price
not given; (KL, 32-60, 146)

DOLUDA, M.Ye.; LITVIN, S.V.

Effect of cement on reservoir properties of Carboniferous rocks
in the Shebelinka area. Geol.nefti i gaza 6 no.8:47-49 Ag
'62. (MIRA 15:9)

1. Ukrainskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta prirodnykh gazov.
(Shebelinka region--Oil sands)

LITVIN, S.V.

Position of the zone of deep epigenesis in the southeastern
part of the Dnieper-Donets Lowland. Lit. i pol. iskop. no.3:
137-141 '63. (MIRA 17:1)

1. Ukrainskiy zaachnyy politekhnicheskyy institut, Khar'kov.

LITVIN, S.V.

Minor elements in Upper Carboniferous sediments of the Donets
Basin and the Dnieper-Donets Lowland. Dokl. AN SSSR 152 no.6:
1453-1456 0 '63. (MIRA 16:11)

1. Ukrainskiy zaachnyy politekhnicheskiiy institut. Predstavleno
akademikom N.M. Strakhovym.

АННОТ. С.В. 20.001, М.П.

Минералогическая характеристика карбоновых сланцев в
зоне перехода от Днепровского бассейна к Донецкому
бассейну. Изв. Укр. геол. зап. № 54112-113 С-С 1962 (МРА 17111)

И. Власовский науч.-исследовательский институт природного газа,
Киев.

LITVIN, S.V.

Change in the reservoir properties of Upper Carboniferous rocks in the Dnieper-Donets Lowland as a results of sedimentation and epigenetic processes. Naftogaz. geol. i geofiz. no.3:28-31 '65. (MIRA 18:7)

1. Ukrainskiy filial Vsesoyuznogo nauchno-issledovatel'skego instituta prirodnogo gaza.

LITVIN, V.

Hydroponics. Nauka i zhizn' 22 no.12:52 D '55. (MLRA 9:2)
(Fertilization of plants)

LITVIN, V.

25-9-37/40

AUTHOR: None Given

TITLE: On the Pages of Periodicals - "Nauka i peredovoy opyt v sel'skom khozyaystve" (Po stranitsam zhurnalov - "Nauka i peredovoy opyt v sel'skom khozyaystve")

PERIODICAL: Nauka i Zhizn', 1957, # 9, p 62 (USSR)

ABSTRACT: The periodical "Nauka i peredovoy opyt v sel'skom khozyaystve" # 7, 1957, contains an article by V. Litvin dealing with the problem of corn growing in the US. The author gives an account of a discussion held among the most prominent American scientists who stated their opinion on the prospects of corn cultivation.

AVAILABLE: Library of Congress

Card 1/1

LITVIN, V.A., inzhener.

Mine pressure control in the mines of the Kizel Basin. Trudy
(MLRA 8:3)
VNIMI no.29:3-39 '54.
(Kizel Basin--Mine accidents)

ZITSER, I.S., kand. tekhn. nauk; LITVIN, V.A., inzh.; PANYUSHKIN, P.P., inzh.
Using wear-resistant slag casting. Gor.zhur. no. 3:5¹-52 Mr 165.
(MIPA 18:5)
1. Nauchno-issledovatel'skiy gornorudnyy institut, Krivoy Rog.

KAZANTSEV, V.V.; LADOKHIN, S.V.; LITVIN, V.A.; PANYUSHKIN, P.P.; UL'YANOV, V.I.

Service of a refractory lining in rotary kilns for the preparation
of silicate melts for stone casting. Ogneupory 30 no.12:24-28
'65. (MIRA 18:12)

1. Institut problema lit'ya AN UkrSSR.

L 22755-66 EWT(m)/EWP(t) IJP(c) JD
ACC NR: AP6009435 SOURCE CODE: UR/0075/66/021/003/0302/0308

AUTHOR: Babko, A. K.; Litvinenko, V. A.

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet)

TITLE: Determination of microamounts of titanium using the catalytic reaction of thiosulfate oxidation by hydrogen peroxide

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 3, 1966, 302-308

TOPIC TAGS: titanium, iron, thiosulfate, hydrogen peroxide, oxidation, ethanol, bromide, molybdenum, chloride, tungsten, vanadium, alkaline earth oxide

ABSTRACT: A method has been developed for using hydrogen peroxide to determine microamounts of titanium by its catalytic action on thiosulfate oxidation. The method has two variants: a) a phototurbidimetric determination of sulfate formed during the reaction in a solution containing 30% ethanol; b) a photometric rhodizonate method for determining sulfate in a solution with 70% ethanol. The method permits the determination of 0.5 to 5 µg of titanium in 10 ml with an accuracy of ± 5% (variant a) and of 0.05 to 0.5 µg of titanium in 10 ml within ± 7 -- 10% (variant b). Iron, molybdenum, tungsten, vanadium and some

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UDC: 543.70

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ACC NR: AP6009435

other elements interfere with the method. Large amounts of alkaline and alkaline earth metals, Al, Cr, Mn, Ni, Co, Zn, bromide, iodide, chloride nitrate, CO_3^{2-} , AsO_4^{2-} , and SiO_3^{2-} do not interfere. The method was applied to the determination of small amounts of titanium in a concentrated solution of sodium chloride containing large amounts of Ca, Mg, Ni, Co, Zn, Mn, and Al salts. Orig. art. has: 7 figures and 2 tables. [Based on author's abstract] [NT]

SUB CODE: 07, 11/ SUBM DATE: 16Mar65/ ORIG REF: 006/

Card

2/2 ULR

CARD 1 / 2

PA - 1288

SUBJECT
AUTHOR
TITLE

USSR / PHYSICS

NEMILOV, JU.A., LITVIN, V.F.

The Application of the Magnetic Analysis of the Products of Reactions of the Type (d,p) to the Study of the Quantum Characteristics of the Levels of the Nuclei Produced in the Course of these Reactions.

PERIODICAL

Žurn.eksp.i teor.fiz, 30, fasc.4, 686-689 (1956)
Publ. 4 / 1956 reviewed 9 / 1956

By comparing the relative intensities of the protons emitted under a certain angle on the occasion of the use of primary particles with different energies, the symmetry properties and the possible spins of the levels of the nucleus Al^{28} which is formed on the occasion of the reaction $Al^{27}(d,p)Al^{28}$ are investigated. Experimental conditions were similar to those of L.M. CHROMČENKO, Dokl. Akad. Nauk, 24, 1037 (1954). The energies and the intensities of the protons were determined by counting the traces under the microscope. The protons were observed under the angle $109^{\circ}30'$ in the laboratory system at deuteron energies of from 1 to 5,6 MeV. The proton distribution obtained at a deuteron energy of 1,71 MeV is shown in a diagram. Altogether, 31 groups of protons were found; several previously found levels were not dissolved here, but a new level was found to exist at the excitation energy 8,24 MeV of the Al^{28} nucleus. The ratios of the intensities of the states of the Al^{28} nucleus with the excitation energies 0,974; 1,015; 1,367; 1,625; 5,128 and 5,435 MeV (corresponding to the groups P_1, P_2, P_3, P_4 and P_5) to the intensity of the transition to the ground

LITVIN, V.F.

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Excitation function for the reaction $Si^{28}(d, n)Si^{29}$. Yu. A. Semilov and V. F. Litvin. *Zhur. Eksp. i Teoret. Fiz.* 31, 11-20 (1956). The spectra of the protons emitted at an angle of $\theta = 109^\circ$ to the direction of the primary particles were obtained for 18 values of the deuteron energy in the range 1.75-4.75 ra.e.v. From these values the differential excitation function was detd. J. Rovner Leach

*rmk
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LITVIN, V.F.

EXCITATION FUNCTION FOR THE $B^{10}(d, p)B^{10}$ REAC-
 TION. In. A. Nemilov and V. F. Litvin. Soviet Phys.
 JETP 4, 606 (1957) (Engl. transl.).
 The yields of various groups of protons from the
 $B^{10}(d, p)B^{10}$ reaction were investigated, as functions of
 the fixed detector angle and the primary deuteron energy.
 Spectra of protons were obtained at an angle $\theta = 100^\circ$ with
 the direction of motion of the primary particles for 15
 values of deuteron energy ranging from 1.75 to 4.75 Mev.
 (M.H.R.)

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SOV-120-53-3-5/33

AUTHOR: ~~Litvin, V. P.~~

TITLE: An Electrostatic Analyser for Studying Angular Distributions of Charged Products of Nuclear Reactions (Elektrostaticheskiy analizator dlya izucheniya uglovykh raspredeleniy zaryazhennykh produktov yadernykh reaktsiy)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 3, pp 32-34 (USSR)

ABSTRACT: A new type of an electrostatic analyser is proposed. Second order focussing is achieved for a wide interval of energies ($\Delta E/E \sim 200\%$). The analyser is essentially a parallel plate condenser with a constant potential difference across the plates. The centre of one of the plates acts as the target for the bombarding beam. As a result of nuclear reactions charged products are emitted towards the second plate and against the electrostatic field. The electrostatic field then forces the products back into the original plate. A "transparent" (thin film) annulus is located in the target plate so that some of the charged reaction products may get through it when they return to the first plate. On passing through the annulus the charged products tend to focus on a straight line which is at an angle to the first plate. The radius and the width of the annulus must of course be suitably

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SOV-120-53-3-5/33

An Electrostatic Analyser for Studying Angular Distributions of Charged Products of Nuclear Reactions

chosen. It is shown that the energy of the focussed particles is proportional to the distance from a fixed point on the straight line. The analyser has an acceptance angle of 0.33 steradian and a resolution of 1000. This acceptance angle is much higher than that in the instruments of Mileikowsky (Ref.3) and Buechner (Ref.1). Yu. A. Nemilov is thanked for his interest in the present work. There are 4 figures, 1 table and 4 references, of which 2 are English, 1 is Swedish, and 1 is Soviet.

ASSOCIATION: Radiyevy institut AN SSSR (Radium Institute of the Academy of Sciences USSR)

SUBMITTED: July 12, 1957.

1. Analyzers--Design
2. Analyzers---Performance
3. Nuclear reactions---Analysis

Card 2/2

LITVIN, V.F.

Magnetic multispectrometer for the study of the directional distribution of the charged products of nuclear reactions. Trudy Radiev.inst.
AN SSSR 9:141-149 '59. (MIRA 14:6)
(Spectrometer)

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S/120/60/000/02/007/052
E032/E414

24,6810

AUTHORS: Nemilov, Yu.A. and Litvin, V.F.

TITLE: Multispectrograph - A New Magnetic Analyser for Charged Products of Nuclear Reactions 7

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, Nr 2, pp 32-34 (USSR)

ABSTRACT: A detailed analysis was carried out by the present authors of the focusing properties of the boundary of a uniform magnetic field when the source of particles is located in the field. This analysis led to the development of the multispectrograph which is illustrated in Fig 1. In this figure 1 is the target, 2 is the boundary of the pole pieces, 3 are slits, 4 are nuclear emulsions and 5 the trajectories of charged reaction products. Sections of linear boundaries of the uniform magnetic field which pass (by extension) through the target were thus chosen as the focusing elements. The reaction products leaving the target pass through slits 3 (Fig 1) located at the mid-points of the linear sections of the field boundary and are focused on the focal surface which is shown by the

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E032/E414

Multispectrograph - A New Magnetic Analyser for Charged Products of Nuclear Reactions

arcs 4 in Fig 1. A high vacuum is maintained over the path of the charged particles. The instrument can be used to obtain simultaneously nine energy spectra of reaction products at nine values of the exit angle θ of the reaction products, measured from the direction of the bombarding beam and in the angular range between 0 and 90°. Each such spectrum includes particles differing in energy by a factor of 10. The solid angle subtended by each channel is 5×10^{-5} sterad. The resolving power achieved experimentally was 1.2%. The magnetic field was produced by permanent magnets which, in addition to the high stability of the field, ensured small dimensions and weight. The total weight of the multispectrograph was about 600 kg. There are 2 figures and 4 references, 3 of which are English and 1 Soviet.

ASSOCIATION: Radiyevy institut AN SSSR (Radium Institute, AS USSR)

SUBMITTED: May 15, 1959

Card 2/2

88421

S/056/60/039/006/005/063
B006/B056

24.6600
AUTHORS:

Alekseyev, N. V., Zherebtsova, K. I., Litvin, V. F.,
Nemilov, Yu. A.

TITLE:

Investigation of the Stripping Reactions on C^{12} , O^{16} and Si^{28}

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 6 (12), pp. 1508 - 1510

TEXT: A report is given on (d,p) reactions on Si^{28} , O^{16} and C^{12} -nuclei; the 6.25 Mev deuteron beam (from a cyclotron) used was monochromatic with an accuracy of ~1%. The energy spectrum of the reaction products was recorded by means of a novel magnetic analyzer, a so-called multispectrograph (described in Refs. 5, 6). Films ~1.5 mg/cm² thick were used, viz: Polyethylene film (carbon target), quartz film (O- and Si-target), and Si (in natural isotopic composition) per ~0.2μ silver. Fig. 1 shows the energy spectrum obtained, Fig. 2 the proton angular distribution of various Si^{29} -energy groups, and the Table gives the values of the angular momenta I_n obtained by comparison with the theory (transferred into the final

Card 4/6

88421

Investigation of the Stripping Reactions on
 C^{12} , O^{16} and Si^{28}

S/056/60/039/006/005/063
B006/B056

nucleus by the neutron), spin and parity, as well as the reduced probabilities Λ_n for the "adhesion" of a neutron. From a comparison with the theory it follows, e. g., that the excited 5.946-Mev level of the Si^{29} -nucleus has negative parity and a spin of $3/2$ or $1/2$, etc. (cf. Table). There are 2 figures, 1 table, and 9 references: 5 Soviet, 1 British, 2 US, and 1 Canadian. ✓

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

SUBMITTED: June 15, 1960

Card 2/6

33156

S/120/61/000/006/027/041
E073/E435

24.6740
AUTHORS:

Litvin, V.F., Lakomkin, Yu.A.

TITLE: Double focusing in a wide energy range

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1961, 125

TEXT: The double focusing of particles of a given energy using a homogeneous magnetic field of the sector type can be generalized to apply to the case of the spectrograph. To do this the exit boundary of the homogeneous magnetic field must be given the special form defined by Eq.(1) (Ref.1: V.F.Kitvin, PTE, no.3, 1961, 33). This article presents an approximate solution of this equation using a graphical method and keeping to the notation used in Ref.1. If a family of exit boundaries are drawn for a given ϵ_1 ($\epsilon_1 = 1$, and only those parts of the boundaries to the actual focusing are examined) the position of the boundaries changes according to their distance from the point of entrance of the trajectory into the magnetic field. At the centre of the family there is a particular boundary at which the curve changes sign. The greatest part of the optimum boundary can be considered to be a straight line. The working region at the "optimum" boundary
Card 1/3

X

33156

S/120/61/000/006/027/041

E073/E435

Double focusing in a wide

extends from the smallest energy (corresponding to the actual focusing) up to the maximum energy, corresponding to the actual focusing at the distance permitted by the construction of the instrument. The largest deviation of the "optimum" boundary from the straight takes place at the maximum energy of the working range. To improve the quality of focusing in the upper energy range, it is desirable to shim the exit boundary by the addition of iron to the side of the pole piece. A diagram shows a family of exit boundaries providing double focusing in a wide energy range for $\epsilon_1 = 50^\circ$. Similar families were also obtained for a number of values of ϵ_1 in the range $30^\circ \leq \epsilon_1 \leq 60^\circ$. In Fig. 2, the parameters λ and λ are determined directly by approximating the "optimum" boundary as a function of ϵ_1 . The results of the calculation are correct for extremely small interpolar gaps. For gaps of significant size, the basic inaccuracy in the use of Fig. 2 (for the determination of the position of the "optimum" boundary) shows the imperfection of the initial formula of W.G. Cross (Ref. 2: Rev. Scient. Instrum., 1951, 22, 717) used to obtain the equation in Ref. 1. This problem, taking into account the extension to the

Card 2/3 X

33156

Double focusing in a wide ...

S/120/61/000/006/027/041
E073/E435

marginal region of the magnetic field, has been explored further in Ref.3 (Yu. Kholmovski, Atomnaya energi, no.9, 1960, 301). Acknowledgments are expressed to Yu.A.Nemilov for his interest in the work. There are 2 figures and 3 references: 2 Soviet-bloc and 1 non-Woviet-bloc. The reference to an English language publication, Ref.2, is quoted in the text.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet
(Leningrad State University)

SUBMITTED: April 1, 1961

Card 3/3

X

LITVIN, V.F.

Double focussing over a wide energy range by means of homogeneous
sectoral magnetic fields. Pribl i tekhn. eksp. 6 no.2:33-34
Mr-Ap '61. (MIRA 14:9)

1. Radiyevyy institut AN SSSR.
(Magneto-optics)

LITVIN, V.F.; LAKOMKIN, Yu.A.

Double focusing in a wide energy range. Prib. i tekh.eksp.
6 no.6:125 N-D '61. (MIRA 14:11)

1. Leningradskiy gosudarstvennyy universitet.
(Mass spectrometry)

S/056/61/041/006/012/054
B113/B104

AUTHORS: Zherebtsova, K. I., Litvin, V. F., Liu Chao-yuen, Nemilov, Yu. A.

TITLE: Levels of the Si^{30} nucleus from the reaction $Si^{29}(d,p)Si^{30}$

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 6(12), 1961, 1761-1762

TEXT: New data on the levels of the Si^{30} nucleus were obtained when measuring the energy and angular distributions of protons in the reaction $Si^{29}(d,p)Si^{30}$ with a multispectrograph. The bombarding deuterons had an energy of 6.58 Mev. The $0.5 \text{ mg}\cdot\text{cm}^{-2}$ thick target consisted of 34.9% Si^{28} , 63.7% Si^{29} , and 1.4% Si^{30} . A number of levels of the Si^{30} nucleus found by Browne and Radzimirski (Ref. 5: Nucl. Phys., 19, 164, 1960) were confirmed. Because of the complexity of the energy spectrum, it was only possible to obtain angular distributions for two Si^{30} levels (excitation energies 8.149 and 8.571 Mev). The following results are obtained by comparing the experimental and theoretical data (Ref. 5):

Card 1/3

Levels of the Si³⁰ nucleus ...

S/056/61/041/006/012/054
B113/B104

Final nucleus	Excitation energy, Mev	l_n	possible values of the nuclear spin I, π	configuration according to shell model
Si ²⁹	4.93	1	$3/2^-$	$2P_{3/2}$
Si ³⁰	8.149	1	$0^-, 1^-, 2^-$	$(2S_{1/2})^1 (2P_{3/2})^1$
Si ³⁰	8.571	1 or 0		or $(2S_{1/2})^1 (2P_{1/2})^1$

On account of the considerable admixture of Si²⁸ nuclei in the target, it was possible to compare the "adhesion" probability of the neutron in the p-state of the Si²⁹ and Si³⁰ nuclei since the corresponding proton groups were obtained in the same experiment. There are 2 figures, 1 table, and 5 references: 3 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: C. P. Browne, J. T. Radziminaki Nucl. Phys., 19, 164, 1960; A. B. Bhatia, Kun Huang, R. Huby, H. C. Newns. Card 2/3

Levels of the Si³⁰ nucleus ...

S/056/61/041/006/012/054
B113/B104

Phil. Mag., 42, 485, 1952.

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

SUBMITTED: June 30, 1961

✓

Card 3/3

S/120/62/000/002/006/047
E039/E420

AUTHOR: Litvin, V.F.

TITLE: A possible use for a wide-band spectrograph with
double focusing

PERIODICAL: Pribory i tekhnika eksperimenta, no.2, 1962, 33-34

TEXT: The increase in energy of beams of charged particles used for studying nuclear reactions has led to the appearance of a series of competitive reactions with the emission of different charged particles: p, d, H^3 , He^3 etc. The detailed study of nuclear structure by means of nuclear reactions is necessarily connected with the emission of an energy spectrum of particles of a given type in the presence of significant quantities of other particles. The simplest apparatus for studying these particles is a combined energy and mass spectrograph. Such an apparatus has been described previously by the author (Ibid, no.2, 1961, 33) and makes use of a sector magnet which provides double focusing over a wide energy range. In order to resolve protons, deuterons, H^3 and He^3 , the electrostatic field is provided by two plane parallel plates with their length much greater than their separation. It is possible to show that when the particles pass
Card 1/2

S/120/62/000/002/006/047
E039/E420

A possible use for a wide-band ...

through the electric field after passing through the magnetic field, the energy calibration of spectrograph does not depend on the value of the electrostatic field. It is suggested that such a double focusing spectrograph with a wide energy range should produce nearly straight lines for equal e/m values on its focal surface.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet
(Leningrad State University)

SUBMITTED: June 21, 1961

Card 2/2

S/089/62/013/001/004/012
B102/B104AUTHORS: Blinov, V. A., Konstantinov, I. O., Litvin, V. F.,
Nemilov, Yu. A.

TITLE: A polygonal magnetic multispectrograph-analyzer

PERIODICAL: Atomnaya energiya, v. 13, no. 1, 1962, 59-60

TEXT: Details are given of a particle distribution analyzer similar to those already described by S. Hinds and R. Middleton (Proc. Intern. Conf. Nucl. Structure, Kingston, Canada, 1960). It is designed as a multi-spectrograph with a Van-de-Graaff accelerator; the gap field, produced by permanent magnets can be varied within a range of $7 \cdot 10^3$ oe. The gap width is 1 cm. Nine sections with diaphragms correspond to nine angle intervals between 5 and 95° , each diaphragm serving to separate a solid angle of $\approx 3 \cdot 10^{-4}$ steradian into its "own" spectrograph. The charged particles coming from the target, which is placed in the uniform part of the magnetic field, pass through the corresponding diaphragm and are focused onto the nuclear emulsion plates arranged along the focal curve. By contrast with the analyzers described by Hinds-Middleton it is possible with this

Card 1/2

A polygonal magnetic...

S/089/62/013/001/004/012
B102/B104

analyzer to raise the upper limit of particle energy by several times on account of the aperture ratio, without having to change the magnetic field strength in the gap. As an example, the energy spectrum of 2.55-Mev protons elastically scattered through 90° by a gold target (ninth section of the analyzer) is given. The energy resolution was 300. There are 2 figures. ✓

SUBMITTED: January 26, 1962

Card 2/2

24,6600

S/056/62/043/001/002/056
B154/B108

AUTHORS: Zherebtsova, K. I., Litvin, V. F., Nemilov, Yu. A.

TITLE: Investigation of stripping and elastic scattering of
deuterons from the C^{12} nucleus

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,
no. 1(7), 1962, 8-10

TEXT: The article bases on previous publications (S. Butler. Yadernyye reaktsii sryva, IIL, 1960. W. Tobocman. Phys. Rev., 115, 98, 1959. D. Robson. Nucl. Phys., 22, 1, 1961). Simultaneous measurements were made of the angular distributions of deuterons elastically scattered from C^{12} and protons produced by the reaction $C^{12}(d,p)C^{13}$ (C^{13} in the ground state and first excited state with an energy of 3.09 Mev). The deuteron beam (6.60 Mev) was extracted from a cyclotron (V. F. Litvin. Tr. RIAN, 9, 141, 1959. Yu. A. Nemilov, V. F. Litvin. PTE, 2, 32, 1960) and shot upon a ~ 2 mg/cm² thick pure carbon target. The angular distributions were measured in a multi-channel magnetic analyzer. Theory and experiment

JB

Card 1/2

GUSEVA, M.I.; ZHEREBTSOVA, K.I.; LITVIN, V.F.; NEMILOV, Yu.A.

Si^{31} nucleus excitation levels. Vest. LNU 18 no.10:130 '63.
(MIRA 16:8)

(Silicon isotopes) (Protons)

ZHEREETSOVA, K.I.; LITVIN, V.F.; NEMILOV, Yu.A.; GHZHAN TSZYAN' [
[Chang Chien]

Measurements of the absolute differential cross sections of
proton groups from the reaction $Al^{27}(d, p)Al^{28}$. Vest. LGU
18 no.22:63-67 '63. (MIRA 17:1)

BOCHIN, V.P.; ZHEREBTSOVA, K.I.; ZOLOTAREV, V.S.; KOMAROV, V.A.;
KRASNOV, L.V.; LITVIN, V.F.; NEMILOV, Yu.A.; PISKORZH, Sh.

Study of (d, p) stripping reactions and (d, d) elastic
scattering on nuclei of mean atomic weight. Part 1. Vest.
LGU 18 no.22:68-77 '63. (MIRA 17:1)

BOCHIN, V.P.; ZHEREBTSOVA, K.I.; ZOLOTAREV, V.S.; KOMAROV, V.A.;
KRASNOV, L.V.; LITVIN, V.F.; NEMILOV, Yu.A.;
NOVATSKIY, B.G.

Study of (d, p) stripping reactions and (d, d) elastic
scattering on nuclei of mean atomic weight. Part 2. Vest.
LGU 18 no.22:73-84 '63. (MIRA 17:1)

S/056/63/044/002/005/065
B102/B186

AUTHORS: Guseva, M. I., Zherebtsova, K. I., Litvin, V. F., Nemilov,
Yu. A., Orlova, T. V.

TITLE: The nature of the 3.79-Mev excited level of the Si^{30} nucleus

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 2, 1963, 421-423

TEXT: The energy spectra and angular distributions of the protons from $\text{Si}^{29}(\text{d,p})\text{Si}^{30}$ reactions were investigated with a multi-angle magnetic analyzer. The target, a film consisting of silver plus silicon with $200 \mu\text{g}/\text{cm}^2$ Si and 70% Si^{29} , was bombarded by 6.59-Mev deuterons. The protons emitted in the nuclear reaction were analyzed with respect to energy in the range 5-15 Mev, and with respect to emission direction in the interval $10-90^\circ$. Besides the energy peaks corresponding to the Si^{30} ground state, and the states with 2.24 and (8.09 + 8.149) Mev, the 3.79-Mev level of the Si^{30} nucleus was investigated and its proton angular

Card 1/2

The nature of the 3.79-Mev ...

S/056/63/044/002/005/065
B102/3186

distribution was obtained for the first time. Its characteristics were:
 $l_n = 0, J = 0^+, C^2\theta^2[J] = 1.7 \pm 0.6$, the reduced width (cf. Rev. Mod.
Phys. 32, 567, 1960). This level could be considered as a two-quasi-
particle level. The respective characteristics of the ground and the
(8.09 + 8.149) Mev states are: $0, 0^+, 1, \text{ and } 1, (0^-, 1^-, 2^-), 5.0 \pm 1.5$.
There are 2 figures and 1 table.

SUBMITTED: July 27, 1962

Card 2/2

BOGACHEV, V. P.; ZHEREBTSOVA, K. I.; KRASNOV, L. V.; KOMAROV, V. A.; LITVIN, V. F.;
NEMINOV, Yu. A.

"Investigations of the Reactions of Type (d,p) on Isotopes of Zn, Ni,
and Fe⁵⁸."

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

Radiyevyy Institut (Radium Inst)

LITVIN, V.F.; ZHFREBTSOVA, K.I.

Graduation of a multiangular magnetic analyzer-multiapetrograph.
Prib. i tekh. eksp. 8 no.6:33-36 N-5 '63. (PIIA 1736)

1. Leningradskiy gosudarstvennyy universitet.

L 11059-65 EWT(m) DIAAP/SSD/AFWL/ESD(t)
ACCESSION NR: AP4046398

S/0056/64/047/003/0855/0859

AUTHORS: Bochin, V. P.; Zherebtsova, K. I.; Komarov, V. A.;
Krasnov, L. V.; Litvin, V. F.; Nemilov, Yu. A.

TITLE: Elastic scattering of ¹⁹deuterons by separated nickel and zinc isotopes 6

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 3, 1964, 855-859

TOPIC TAGS: nickel, zinc, isotope, elastic scattering, deuteron scattering, isotopic effect

ABSTRACT: The angular distributions of the elastically scattered deuterons were measured with a 90° magnetic analyzer. The deuteron energy was 6.5 MeV, close to the optimal value for studying the influence of the surface structure on the angular distribution of elastically scattered deuterons. The experimental method was de-

Card 1/3

L 11059-65

ACCESSION NR: AP4046398

scribed elsewhere (Nemilov and Litvin, PTE, No. 2, 32, 1960). The targets were thin self-supporting foils ($\sim 2 \text{ mg/cm}^2$) of separated isotopes of nickel and zinc, prepared in accordance with a previously described procedure (Bochin et al., Report on (D, p) Reactions at the Paris Congress on Nuclear Physics, 1964). A distinct isotopic effect was observed in the elastic scattering of the deuterons, resulting in a systematic increase in the deviation of the cross section from the Rutherford cross section as pairs of neutrons are added to an even-even nucleus. Computer calculations of the elastic d-d scattering, using the optical model with the Woods-Saxon potential, have shown that the observed isotopic effect can be attributed to a difference in the diffuseness of the nuclear boundaries in the different isotopes. Comparison of theory and experiment yielded the nuclear boundary diffuseness parameter for all the stable isotopes of nickel and zinc. Orig. art. has: 2 figures, 2 formulas, and 1 table.

Card 2/3

1. 11059-65

ACCESSION NR: AP4046398

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: 04Apr64

ENCL: 00

SUB CODE: NP

INT REF SOV: 008

OTHER: 009

Card 3/3

BOCHIN, V.P.; ZIEREBTSOVA, K.I.; KOMAROV, V.A.; KRASNOV, L.V.; LITVIN, V.F.;
NEMILOV, Yu.A.

Study of (d,p) stripping reactions on nuclei of medium atomic weight.
Part 3. Vest. LGU 20 no.10:34-51 '65. (MIRA 18;7)

SHLAPI, A. P., SHAPIRO, V. G.

Suny District - Oak

Growth of oak seedlings in spot-seeded plantations at the Suny Experiment Station.
Les i step' 5, No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

USSR/Soil Science. Mineral Fertilizers.

J-3

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24741.

Author : Litvin, V. G.

Inst :

Title : Ammonium Chloride as a Source of Nitrogen for
Agricultural Crops (According to Materials of the
21st Annual General Congress of the Society of
Soil Science of India).

Orig Pub: Udobreniye i urozhay, 1956, No 10, 60-62.

Abstract: At the congress of the society of soil scientists
of India (January 1956, Desan, Sinkha and other
scientists corroborated by the experiments of
many years the equal and sometimes even higher
effectiveness of ammonium chloride in comparison
with ammonium sulphate. The studies of the Indian

Card : 1/2

USSR/Soil Science. Mineral Fertilizers.

J-3

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24741.

Agricultural Institute in New Delhi with various
soils also confirmed the fact that ammonium chloride
is preferable to ammonium sulphate.

Card : 2/2

Subject : USSR/Electricity AID P - 4127

Card 1/1 Pub. 27 - 14/33

Author : Litvin, V. I., Eng., Khar'kov

Title : Analytical method of checking meggers of the M-1101 type.

Periodical : Elektrichestvo, 12, 62, D 1955

Abstract : The author submits an analytical method of checking 500 megohm, 500 v and 1000 megohm, 1000 v meggers of the M-1101 type used to determine insulation resistance of electric articles and installations in factory conditions. One table, 2 connection diagrams.

Institution : Khar'kov Electric-Machine-Building Plant im. Stalin.

Submitted : Ap 4, 1955

USSR / Forestry. Forest Cultures

K-5

Abstr Jour: Ref Zhur-Biol., No 10, 1958, 43973

Author : Gorelkin, L. I., Ozerov, V. I., Litvin, V. G.

Inst : Sumsk State Agricultural Experimental Station

Title : Creation of Field-Protecting Forest Strips by a Cluster Method

Orig Pub: Byul. nauchno-tekhn. inform. Sumsk. gos. s.-kh. opytn. st., 1957, vyp. 3, 42-50

Abstract: This is the report of the results of the experiment "The Study of the Cluster System of Sowing the Field-Protecting Forest Strips by the Method of the Academician T. D. Lysenko" started in 1949 by the Sumsk Agricultural Experimental Station. It is pointed out that the cluster sowing of the

Card 1/2

AUTHORS: ~~Litvin, V. I., Korostelev, N. V.,~~
~~engineers~~

ISSN 0013-788X/79

TITLE: Application of the Self-Balancing Bridge for Measuring
the Humidity of Air (Ispol'zovaniye avtobalansirovannogo
mosta dlya izmereniya vlazhnosti vozdukh)

PERIODICAL: Priborostroyeniye, 1958, nr 9, pp. 51-51 (USSR)

ABSTRACT: In the KhSM works laboratory a recording psychrometer was
used with a self-balancing bridge of the type **AUM**. The
mechanical part of the instrument was not changed as com-
pared with former types, whereas the bridge circuit was
altered. Technical data of the built-in resistances are
given. Owing to the circuit used, the temperature difference
caused by the resistances of the **dry-bulb and wet-bulb thermo-**
meters can be simultaneously measured and recorded. The dif-
ference is plotted on a graph paper with an accuracy of
0.05%. The instrument makes it possible to measure and re-
cord in moisture inside 2 chambers where test specimens
can be placed.
There is 1 figure.

Page 1 1

LITVIN, V.I. (Sevastopol')

Programming arrangement. Fiz.v shkole 22 no.6:59-60 N-D '62.
(MIRA 16:2)

(Automatic control)

LITVIN, V.M.

REMEZ, G.A.,

LITVIN, V.M.,

KUKIN, N.P.,

CHAPLINSKIY, A.B.

"Radio" (Radiodelo), edited by G.A. Remez. Voennoye Izdatel'stvo, 327 pp., 1947.

LITVIN, V. M.

Litvin, V. M., New data on the bottom relief of the Norwegian and Greenland Seas, Nauchno-tekhn. byul. Polyarn. n.-i. in-ta morsk. rybn. kh-va i okeanogr. (Scientific-Technical bulletin of the Polar Scientific Research Institute of the marine fish economy and oceanography), no 2-3, 1957, p 17-21; (RZhGeogr 9/58-22112)

LITVIN, V. M.
Litvin, V. M., On measuring the depths with the NEL-4 echo-sounder,
Nauchno-tekhn. byul. Polarn. n.-1. in-ta morsk. rybn. kh-va i okeanogr. (Scientific
and Technical Bulletin of the Polar Scientific Research Institute of Marine Fishing
Economy and Oceanography), No 1(5), 1958, p 55-57; (RZhGeog 2/59-3932)

LITVIN, V.M., kand. geograf. nauk

Eyewitness relates. Priroda 54 no.3:108-109 Mr '65.
(MIRA 18:4)

1. Polyarnyy nauchno-issledovatel'skiy i proyektnyy institut
morskogo rybnogo khozyaystva i okeanografii, Murmansk.

LETVIN, V. M.

Antimony chloride is a source of nitrogen for agricultural crops. V. M. Litvin. *Udobrenie i Urazhal* 1, No. 10, 60-2 (1956). Data are presented that NH_4Cl is just as good a source of N for some crops, such as rice, sugar cane, and others, as $(NH_4)_2SO_4$.

J. S. Joffe

LITVIN, V.M.

Using methane on farms. Nauka i zhizn' 23 no.6:55-56 Jo '56.
(MLRA 9:9)

(Methane) (Fertilizers and manures)

LITVIN, V.M.

Using viruses in controlling agricultural pests. Priroda 45 no.12:
115 D '56. (MLRA 10:2)

1. TSentral'naya nauchnaya sel'skokhozyaystvennaya biblioteka
(Moskva).
(Agricultural pests) (Viruses)

LITVIN, V.M. 25-4-22/34

SUBJECT: AFRICA/ARGENTINA Storing of Grain

AUTHOR: Litvin, V.M.

TITLE: Subterranean Silos (Zernokhranilishcha pod Zemlyy)

PERIODICAL: Nauka i Zhizn', April 1957, # 4, p 46 (USSR)

ABSTRACT: In Africa the British have constructed a subterranean silo for experimental purposes. Similar tests were conducted in Argentina, where wheat and corn were kept in an underground steel construction with very good results for a period of seven years. Such silos are hermetically sealed. The air is removed and a certain amount of carbon dioxide is let in to destroy all vermin. Besides, it is easy to keep temperature and humidity on a suitable level.

ASSOCIATION:

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress.

Card 1/1

LITVIN, V.M.

SUBJECT: USSR/Agriculture 25-5-21/35

AUTHOR: Litvin, V.M.

TITLE: Slowly Acting Fertilizer (Udobreniye "zamedlennogo deystviya")

PERIODICAL: Nauka i Zhizn' - May 1957, No 5, p 49 (USSR)

ABSTRACT: An American fertilizer producer has launched a new, slowly acting nitrogen fertilizer. It has the following peculiarities: the nitrogen that is available to the plants is disengaged very slowly and therefore, lasts a long time. The gradual decomposition of the fertilizer makes it possible to utilize the nitrogen almost completely. It is recommended for cultivation of bushes, trees, and grass, as it is not subject to washing out and remains active during the whole growing period of the plants.

ASSOCIATION:

PRESENTED BY:

SUBMITTED:

AVAILABLE:

Card 1/1

LITVIN, V.M.

25-6-30/46

SUBJECT: USSR/Artificial Rain

AUTHOR: Litvin, V.M.

TITLE: Rain to Order (Dozhd' po zakazu)

PERIODICAL: Nauka i Zhizn' - June 1957, #6, p 52 (USSR)

ABSTRACT: In some foreign countries it is already possible to cause clouds drop the moisture they contain in cases when no rain can be expected. Clouds are composed of minute water particles which easily move about in the air. The simplest method of producing rain is to accelerate the cooling process of these particles thus they will form rain drops. This is done by spraying clouds with a cooling substance from aircraft, as for example granules of dry ice (solidified carbon dioxide). The rain thus produced in Australia proved quite satisfactory, only the expenses were too high. Experiments with a cheaper chemical, silver iodide, are being conducted in the USA right now but results are not available as yet.

Card 1/2

23-6-30/46

TITLE: Rain to Order (Dozhd' po zakazu)

ASSOCIATION:

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