

REVICH, Vsevolod Aleksandrovich; RUSAKOVA, G.Ya., red.

[In defiance of the elements; three true stories about geophysics] Naperekor stikhiyam; tri byli o geofizikakh. Leningrad, GIMIZ, 1963. 69 p. (MIRA 17:9)

MODZOLEVSKIY, Igor' Vladimirovich, inzh.; BARSEGOV, A.A.; KARPOV, I.V.;
KARTSEV, I.T.; KRYLOV, N.M.; NIKOLAYEV, I.V.; REVICH, V.I.;
SHEVYAKOV, V.A.; SHOKHIN, O.A.; CHUSOV, A.I.; GUBAREVA, N.T.,
red.; BOBROVA, Ye.N., tekhn.red.

[General course in railroad engineering] Obshchii kurs zheleznykh
dorog. Izd.3., perer. Pod obshchei red. I.V.Modzolevskogo.
Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshchenia,
1960. 290 p. (MIRA 13:12)

(Railroad engineering)

12-10-1954
MODZOLEVSKIY, Igor' Vladimirovich; BARSEGOV, A.A.; KARPOV, I.V.; KARTSEV,
I.T.; KRYLOV, N.M.; NIKOLAYEV, I.V.; REYICH, V.I.; SHEVYAKOV, V.A.;
SHOKHIN, O.A.; CHUSOV, A.I.; GORODNICHEV, N.G., redaktor; CHERNYSHEV,
V.I., redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[General course on railroads] Obshchii kurs zheleznykh dorog. Izd.
2-e, perer. Moskva, Gos. transportnoe shel-dor. izd-vo, 1954. 316 p.
(Railroads) (MLRA 8:3)

MALTYZOV, V., rabochiy; MONAKHOV, A., rabochiy; POLYAKOV, I., rabochiy;
LITVINOV, I., pensioner; POLEVOY, N., pensioner; REVICHCHIN, P.,
pensioner; ROZHKOVA, I.

Readers' letters. Gor.khoz. Mosk. 34 no.12:31 D '60.
(MIRA 13:12)

I. Nachal'nik Otdela domovogo khozyaystva Moszhilupravleniya.
(Moscow--Playgrounds)

1971, 1972

Special work in structural systems with applications to the
evaluation of the bridge over the Danube. Study was carried
out in 1971-1972.

1. Institute of Research on Transport and its mechanical effects, Bucharest.

SZANTO, L.; REVICZKY, A1.

Antithyroid treatment combined with the administration of
thyroid hormones. Orv. hetil. 105 no.26:1226-1228 28 Je'64

1. Orszagos Rheuma es Furdougyi Intezet, II. Belosztaly
(Foorvos: Szanto, Laszlo, dr.).

DEAK, Maria; L.REVICZKY, Alice

Study of the daily periodic rhythm of the thyroid function
in rats with I 131. Kiserl. orvostud. 16 no.1:40-49 Ja'64.

1. Országos Reuma és Furdougyi Intezet Balneologiai Kutató
Intezete.

*

SZANTO, Laszlo, dr.; KATONA, Maria, dr.; GORGENYI, Frigyes, dr.; REVICZKY,
Alice, dr.

Treatment of myxedema with an anti-serotonin compound. Orv. hetil.
105 no.7:301-303 16 F '64.

1. Orszagos Rheuma- es Furdougyi Intezet, II. Belosztaly.

SZANTO, L.; REVICZKY, Alice L.; GRYNÆUS, T.

Thyroid function during treatment with the ergot derivative lysergic acid butanolamide. Acta med. acad. sci. hung. 19 no.2:169-183 '63.

1. Second Department of Medicine and Balneological Research Institute, State Institute of Rheumatology and Balneology, Budapest.

(ERGOT ALKALOIDS) (THYROID DISEASES)
(THYROID FUNCTION TESTS)

FORGACS, Peter; VEKERDI, Laszlo, L.; REVICZKY, Alice; FEUER, György;
SZANTO, Laszlo

Studies on pituitary effects on thyroid incorporation of I¹³¹.
Kiserletes Orvostudomány 11 no.6:586-591 D '59.

1. Országos Onkológiai Intézet Onkopathológiai Kutató Intézete és
Országos Reuma- és Fürdőgyógyászati Intézet Balneológiai Kutató Intézete.
(THYROID GLAND metab.)
(HYPOPHYSECTOMY eff.)
(IODINE metab.)

SZANTO LASZLO, L.; REVICZKY, Alice; GYULAI, Erno; GORGENYI, Frigyes

Chronological formulation of the effect of thyroid antagonists.
(Studies on the therapeutic mechanism of I-131). Kiserl. orvostud.
14 no.2:165-173 Ap '62.

1. Orszagos Reuma es Furdougyi Intezet, Budapest.

(IODINE radioactive)
(THYROID ANTAGONISTS pharmacol)

Authors: J. B. LASKY, Alice; G. NAFU, T.

Effect of a mono-aminooxidase inhibitor (rialamide) on thyroid activity. Acta physiol. Acad. sci. Hung. 25 no.3:221-231 '61

I. Second Department of Medicine and National Institute of Rheumatism and Medical Hydrology, Budapest.

L 37935-66 EWT(m)/EWP(j) RM

ACC NR: AP6028495

SOURCE CODE: HU/0018/65/017/006/0634/0647

AUTHOR: Reviczky, Alice L.--Revitski, A. L.; Szanto, Laszlo--Santo, L.; Grynaeus, Tamas--Grineus, T.; Magony, Ilona--Magon', I.

ORG: National Institute of Rheumatology and Balneology, Budapest (Orszagos Reuma es Furdougyi Intezet)

TITLE: Deiodination of I sup 131 - labelled amino acids

SOURCE: Kiserletes orvostudomány, v. 17, no. 6, 1965, 634-647

TOPIC TAGS: amino acid, tyrosine, hormone, iodine, isotope separation, chromatography

ABSTRACT: In the case of butanol extraction and chromatographic separation from KI¹³¹ or I¹³¹-labelled tyrosine, or compounds with a thyronine skeleton, the particular phase of the procedure at which a loss of iodine appears as well as the degree of this loss have been determined. The investigations were carried out in aqueous solutions and on materials mixed with serum for comparison. The problems and questions of composition of the thyroid hormones and precursors as well as of BII have been mentioned briefly. Finally, the reliability of the isotope method described and the problem of its usefulness have been discussed. The authors thank Laboratory Assistants Laszlo Cecilia and Doctor Baranyai Jozsefne for technical help. Orig. art. has: 4 figures and 3 tables. [JPRS: 34,161]

SUB CODE: 06, 07 / SUBM DATE: 13Feb65 / ORIG REF: 002 / OTH REF: 015

Card 1/1 *mcp*

L 37937-66

ACC NR: AP6028496

SOURCE CODE: HU/0018/65/017/006/0648/0655

AUTHOR: Reviczky, Alice L.--Revitski, A. L.; Szanto, Laszlo--Santo, L.;
Grynaeus, Tamas--Grineus, T.; Magony, Ilona--Magon', I. 29
2

ORG: National Institute of Rheumatology and Balneology, Budapest (Orszagos Reuma
es Furdogyi Intezet)

TITLE: Deiodination of components of the blood serum labelled endogeneously with
I sup 131 22

SOURCE: Kiserletes orvostudomány, v. 17, no. 6, 1965, 648-655

TOPIC TAGS: rat, iodine, blood serum, isotope, tracer study

ABSTRACT: In the course of the experiments, the analysis of the blood serum of rats treated with labelling-amounts of I¹³¹ are described. It is concluded that there is a great difference between the amount of iodine-hormone fractions and the total amount of serum organic iodine. It is discussed in detail and it has also been proven by means of a mathematical method that the results obtained with the active method can not be considered as analogous to those obtained with the inactive method. The results obtained with active methods correspond to the true conditions only approximately, partly because of their biological half-life and partly because of various degrees of iodine losses occurring in the course of the determination and explained by the instability of the iodine derivatives. The authors thank Laboratory Assistants Laszlo Cecilia and Doctor Baranyai Jozsefné for technical help. Orig. art. has: 3 figures and 1 table. [JPRS: 34,161]

SUB CODE: 06, 07 / SUBM DATE: 13 Feb 66 / ORIG REF: 005 / OTH REF: 014
Card 1/1 *MLP*

HUNGARY

REVICZKY, L., Alice, SZANTO, Laszlo, GRYNAEUS, Tamas, MAGONY, Ilona; National Institute of Rheumatology and Balneology (Orszagos Reuma es Furdougyi Intezet).

"Effect of Trypsin and Pancreatin Digestion on the Iodide-Containing Proteins and Amino Acids of the Thyroid."

Budapest, Kiserletes Orvostudomany, Vol XVIII, No 5, Oct 66, pages 502-506.

Abstract: [Authors' Hungarian summary] The effect of trypsin and pancreatin on the I^{131} -labelled thyroid-proteins of rats was studied. In an identical medium, completely different results were obtained. The splitting ability of pancreatin proved to be greater and this excess appeared in the thyroxine and triiodothyronine fractions. The eventual importance of the quantitative ratio of thyroid hormones which are bound in two different ways is discussed. 4 Hungarian, 12 Western references. [Manuscript received 23 Oct 65.]

1/1

- 8 -

REVICZKY, Alice; SZANTO, L.; GRYNÆUS, T.; MAGONY, Ilona

Quantitative determination of the thyroid-hormone fractions:
their connection with the blood level of organic iodine. Acta
physiol. Acad. sci. Hung. 25 no.3:255-264 '64

1. National Institute of Rheumatism and Medical Hydrology,
Budapest.

REVICZKY, E.

LUDANY, G.; VAJDA, J.; REVICZKY, E.; SZTAPKAY, C.

Asphyxia, sympathico-adrenal & vago, insular system & phagocytosis
of leucocytes. Acta neuroveget. Wien. 2 no.3-4:263-9 July 51.
(CML 22:3)

1. Of the Experimental Laboratory (Head---Prof.G.Ludany,M.D.)
of the Second Surgical Clinic (Director---Prof.E.Hedri,M.D.) of
Budapest University.

REVICZY, E. 1951

(Exp. Lab., 11 Surgical Clin. U. of Budapest)

"Asphyxia, the Sympathico-Adrenal and Vago-Insular System and Leucocyte Phagocytosis."

Acta Neuroveg. (Wien) 1951, 2/3-4(263-269)

Abst: Exc. Med. 11, Vol. 5, No. 8, p. 953

REVICZY, F.

The utilization of refuse dumps at the coal basin of Tatabanya. Bany
lap 93 no. 9:583 S 60.

REVICZKY, Ferenc, okleveles bányamérnök; Szent, György, okleveles gépészmérnök

Introducing a new method of alarm by using aromatic compounds in the collieries of the Tatabánya Coal Mining Trust. Bány lap 97 no.7: 450-455. JI '64.

1. Tatabánya Coal Mining Trust, Tatabánya.

REVICZKY, Ferenc

Roadway supports by rock torsion are successfully applied in the mines of the Tatabanya Coal Mining Trust. Bany lap 93 no. 9: 596 S '60.

Mechanization experiments in the chamber winnings of the Tatabanya Coal Mining Trust. Ibid.:596.

1. "Banyaszati Lapok" szerkeszto bizottsagi tagja.

REVICZKY, Ferenc

Utilization of gangues in the Tatabanya coal basin. Bany
lap 93 no. 9:583 S '60.

1. "Banyaszati Lapok" szerkeszto bizottsagi tagja.

PISKUNOV, V.B.; REVIN, A.A.

Practice of specialized bakeries in making tarts, pastry and
cakes. Khleb.i kond.prom. 1 no.6:34-36 Je '57. (MLRA 10:8)

1.Kombinat mучnisto-konditerskikh izdeliy Moskovskogo gorodskogo
tresta khlebopecheniya.
(Cake) (Pastry)

BOSHKATOV, Ya.I., red.; BOYAR, O.G., red.; VLASOV, L.F., red.; LIFSHITS, M.O., red.; MASHKILLEYSON, L.N., red.; MILOVIDOV, B.M. [deceased], red.; MOLCHANOVA, O.P., red.; POL'SHANSKIY, V.S., red.; POPKOV, V.I., red.; REVIN, A.I., *otv. red.*; TIMOFEYeva, Z.N., red.; LAZAREV, S.M., *tekh. red.*; LEBEDEVA, L.A., *tekh. red.*

[Concise encyclopedia of home economics] *Kratkaia entsiklopediia domashnego khoziaistva. Izd.2. Moskva, Gos. nauchn. izd-vo "Sovetskaia entsiklopediia." Vol.1. A-M. 1962. 895 p. Vol.2. N-IA. 1962. 903-1758 p.*

(MIRA 15:6)

(Home economics--Dictionaries)

ADVI, A. I.

Dissertation: "Investigation of the Effect of the Structure and Form of a Fishing Net on Its Strength in a Current of Water." Cand Tech Sci, Moscow Technical Inst of the Fish Industry and Economy imeni A. I. Mikoyan.

SO: SUR 284, 26 Nov 1954

REVIN, A.S., kand.tekhn.nauk

Investigating the effect of the structure and shape of the trawl on
its resistance in a water stream. Trudy VNIRO 41:66-82 '59.
(MIRA 13:8)

(Trawls and trawling)

DANILEVSKIY, N.N.; REVIN, A.S.

Distribution of mackerel off the west African coast. Trudy
Azocherniro no.20:48-57 '62. (MIRA 16:4)

(Atlantic Ocean—Mackerel)

DANILEVSKIY, N.N.; REVIN, A.S.; SAF'YANOVA, T.Ye.

Distribution of some commercial crustaceans off the west
African coast. Trudy Ascherniro no.20:57-62 '62.
(MIRA 16:4)

(Atlantic Ocean—Crustacea)

REVIN, B.; SUDACHENKO, V.

Resources for increasing the yields of grain crops in the Kuban.
Zemledelie 4 no.6:58-63 Je '56. (MLRA 9:8)
(Kuban--Grain)

COUNTRY : USSR
CATEGORY : Cultivated Plants. Industrial, Oleiferous, Sugar. M
ARS. JOUR. : RZhBiol., No. 25 1958. No. 104775
AUTHOR : Revin, B. T., Zelezinskiy, Ye. N.
INST. :
TITLE : Hemp in Kuban'

ORIG. PUB. : Len i koropiya, 1958, No. 1. 15-18

ABSTRACT : Kuban' is the principal supplier of the seeds of southern hemp for other oblast's and Republics of this country. Here, 15 rayons, chiefly in the northern and southern parts of Krasnodarskiy Kray, are engaged in hemp growing. Agricultural technique measures assuring production of high yields of the stems but chiefly of the seeds of hemp are described. -- V. Z. Tselik

CARD: 1/1

REVIN, B.T.

USSR/Cultivated Plants - General Problems

M-1

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1420

Author : B.T. Revin

Inst : Not Given

Title : Agriculture in France

Orig Pub : Zemledeliye, 1957, No 6, 82-87

Abstract : No abstract

Card : 1/1

REVIN, B.T., agronom.

Problems in providing collective farms with professional advice
on agriculture. Zemledelie 6 no.7:82-84 J1 '58. (MIRA 11:6)
(Krasnodar Territory--Collective farms)

REVIN, B.T.

Agriculture in France. Zemledelie 5 no.6:82-87 Je '57.

(MLBA 10:8)

(France--Agriculture)

REVIN, D.P., inzh. (g.Khar'kov); STEFANOV, N.Ya., kand.tekhn.nauk (g.Khar'kov);
KRIMMUS, G.Kh., kand.ekonom.nauk (g.Khar'kov).

Study of the traffic flow is the basis for an improvement in the
planning of passenger transportation. Zhel.dor.transp. 43
no.4:44-47 Ap '61. (MIRA 14:3)

1. Nachal'nik passazhirskey sluzhby Yuzhnoy dorogi (for Revin).
(Railroads--Passenger traffic)

REVIN, D.P. (Khar'kov)

Service of transient passengers on the Southern Railroad. Zhel. dor.
transp. 47 no. 7:35-38 J1 '65. (MIRA 18:7)

1. Nachal'nik passashirskoy sluzhby Yuzhnoy dorogi.

Revin, I. A.

Call Nr: TN 705.R8

AUTHOR: Ministerstvo tyazhelogo mashinostroyeniya SSSR.
Tekhnicheskiy otdel

TITLE: Metallurgical Equipment (Metallurgicheskoye oborudovaniye)

PUB. DATA: Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo
mashinostroitel'noy literatury, Moscow, 1947, Part III,
299 pages, 4,000 copies

ORIG. AGENCY: Ministerstvo tyazhelogo mashinostroyeniya SSSR

EDITOR: Fustanovich, V.A.; Scientific Editor: Tselikov, A.I.;
Compilers of Part III: Revin, I.A., Chayka, V.Kh.

PURPOSE: The purpose of this publication is to acquaint a wide
circle of engineers, technicians, planners, etc., connected
with metallurgical plants, of machine designers and pro-
duction engineers, as well as the students of higher and
other technical schools, with the design and types of

Card 1/5

3

Call Nr: TN 705.R8

Metallurgical Equipment (Cont.)

metallurgical equipment produced under the authority of the Ministry of Heavy Machinery Construction.

COVERAGE:

This book has a dual function, being both a catalog and a reference book. It lists, according to a generalized and systematic scheme, the basic assortment of equipment produced by plants of the Ministry, as well as the engineering data on 347 types of machinery and automatic equipment of standard size, and found satisfactory in operation as based on the production records for the years preceding World War II of the Soviet plants which are listed below. The present volume is Part III of a three-part publication, whose separate sections deal with the following equipment: I, Crushing and Grinding, Sintering, Blast-Furnace and Steelmaking Equipment; II, Cranes for Metallurgical Plants and For Special Purposes; Mechanical Equipment for Coking Plants; III, Rolling-Mill and Auxiliary Rolling-Mill Equipment.

Card 2/5

3

Call Nr: TN 705.R8

Metallurgical Equipment (Cont.)

The book contains the following information on each listed item: A general layout giving the principal dimensions; a brief description; the principal technical performance data; the basic weight data and, for the sake of orientation, the basic data on the electric motors. No personalities are mentioned in the Preface. The facilities which are mentioned follow: Metallurgical equipment plants: Uralmashzavod im. Ordzhonikidze; the Novo-Kramatorskiy Plant im. Stalin (in Kramatorsk); the Staro-Kramatorskiy Plant im. Ordzhonikidze; the Novo-Kramatorskiy Plant im. Stalin (in the town of Elektrosal'); the Irkutsk Machine Construction Plant im. Kuybyshev. There are no references.

Card 3/5

3

Novos v konstruktivnykh rabotakh liniy velichalobnykh stanov.
(Vostk. Mash., 1949, no. 1, p. 24-25)

Refers to Ural machine-building plant.
(Innovations in designing operating lines of rail and structural
steel mills.)

SLC: TWL:vh

SO: Manufacturing and Mechanical Engineering in the Soviet Union,
Library of Congress, 1953.

1953, p. 4.

Blonchnaya mashina Uralmashzavoda.
(Vostn. Mash., 1953, no.6, p.32)

The bending machine of the Ural machine-building plant.

MC: TML, JH

SO: Manufacturing and Mechanical Engineering in the Soviet Union,
Library of Congress, 1953.

REVIN, I. A.

Novye konstruktsii rol'gangov. (Vestn. Mash., 1951, no. 2, p. 18-21)

New designs of rollgang conveyers.

DLC: TNL.VL

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

REVIN, I. A.

Shagalushchii ekskavator ESH-14/65. (Novye mashiny) (Vestn. Mash., 1951 no. 5,
p. 34-38)

The ESH - 14/65 walking excavator. (New machines)

DLD: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union,
Library of Congress, 1953.

REVIN, I.A.

10
2

The New Type "1000" Rolling Mill. I. A. Revlin. (En-
gineering News (Moscow), 1951, 21, 40-45; *Engr. & Construc-
Techn.*, 1952, 2, May; 158-163). This is a detailed descrip-
tion, illustrated by diagrams and a photograph, of a Russian
cogging mill with a capacity of 1.5 million tons per year
driven by a 6000-7000 h.p. motor. Ingots weighing from
2 1/2 to 6 tons are rolled down to blooms with cross sections
ranging from 160 x 160 to 360 x 360 mm. and to plate 75 to
300 mm. thick and 600 to 900 mm. wide. — *E. J. E.*

8-10-54
JH

1. I. A. REVIN, Eng.

2. USSR (600)

4. Blast Furnaces

7. PE-2-0.3 blast furnace notch gun. Vest. mash. 32 no. 12. 1952.

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

REVIN, I. A., STALIN PRIZE WINNER

USSR/Engineering - Machinery

Jul 53

"Continuous Automatic Finishing Line of Rail-Structural Mill 800," Engr. I. A. Revin, Stalin Prize Winner

Vest Mashinostroy, No 7, pp 25-29

Describes, with specs, following newly-designed rail-structural-mill machinery manufactured for Novotagil'sk Steel Plant: cable transfer and its carriages, ratchet transfer, lifts, milling machines, and boring machines.

269T43

TSYPKIN, B.V., inzhener; AL'SHITS, I.Ya., kandidat tekhnicheskikh nauk;
TOMASHOV, A.D., inzhener; REVIN, I.A., inzhener, retsensent;
GOLOVIN, Ye.S., kandidat tekhnicheskikh nauk, redaktor.

[Bearing units for rolling machinery] Podshipnikovye usly prokatnogo
oborudovaniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i sud-
stroit. lit-ry. 1954. 290 p. (MLRA 7:7)
(Rolling-mill machinery) (Bearings (Machinery))

AUTHOR: Revin, I.A., Engineer.

122-4-4/29

TITLE: The heavy gauge sheet rolling mill "2 800". (Tolstolist-ovoy stan "2 800").

PERIODICAL: "Vestnik Mashinostroeniya" (Engineering Journal) 1957, V.37 No.4, pp. 28 - 33 (U.S.S.R.)

ABSTRACT: The plate mill "2800" installed and put into service in 1955 at the "Ural'mashzavod" plant was designed for the hot rolling of plate between 4 and 50 mm thickness, between 1 000 and 2 500 mm width and between 2 500 and 18 000 mm length from slabs of 100 to 250 mm thickness, 700 to 1 500 mm width and 1 500 - 5 500 lengths and a weight up to 7 1/2 tons. A brief description is given of the soaking pit section, the coarse and finish rolling sections, the hot finishing section, and the cold finishing section. The coarse rolling line consists of a reversing rolling stand with vertical rolls of 1 000 mm dia. and a reversing two high working stand with horizontal rolls of 1 150 x 2 800 m dia. The finishing line consists of a universal four high stand with horizontal rolls, namely the working rolls of 800 mm dia. and the supporting rolls of 1 400 mm dia. The hot finishing section consists of two hot levellers, cooling rollers and further, blowers for cooling down to below 250 °C. The cold finishing section has one

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The heavy gauge sheet rolling mill "2800". (Cont.)
122-4-4/29
production line for all plates, with uncut edges. The second
and third production lines handle the thin and thick plates
respectively and carry out the cutting of the side edges, the
cutting to length inspection, weighing and delivery to the
finished goods store. The passage of a slab through the mill,
its rolling and finishing, is described in detail.

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There are 3 figures, including 2 photographs.

AVAILABLE:

REVIN, I.A., inzhener.

New ball mills. Vest. mash. 37 no.7:43-44 J1 '57.
(Milling machinery)

(MIRA 10r8)

REVIN, I.A., inzh.; PUSHCHINSKAYA, A.A., inzh., red.; PADGUFAROVA,
S.I., red.; IL'YUSHENKOVA, T.P., tekhn. red.

[Adjusting equipment; survey] Ad'iustazhnoe oborudovanie;
:obor. Moskva, TSintimash, 1960. 90 p. (MIRA 15:7)
(Rolling (Metalwork))--Equipment and supplies)

KEVIN, Ya., Eng.

Railroads - Rails

First Soviet rail and structural steel mill "800". Vest. mash. 33, No. 2, 1953.

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

REVIN, Ye., I., Cand. Tech. Sci. (diss) "Investigation of Dynamic Loadings in Main Wire of Turning and Cutting Machines," Moscow, 1961, 16 pp. (Moscow Lathe-instrum. Inst.) 200 copies (KL Supp 12-61, 273).

30708

54300

1273 2209

S/O20/61/141/002/022/027
B101/B110

AUTHORS: Revina, A. A., and Bakh, N. A.

TITLE: Electron paramagnetic resonance study of the interaction of molecular oxygen with a stable free radical in solution

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 2, 1961, 409-412

TEXT: It was the object of the authors to pursue the primary reaction of O₂ with radicals. *o,o'*-diphenyl- β -picryl hydrazyl (I) in benzene

solution was used as free radical. This compound was synthesized by A. Ye. Arbuzov and F. G. Valitova by their method (ZhOKh, 27, 2354 (1957)).

The investigation was carried out with an 3MP-2 (EPR-2) spectrometer of IKhF, with 0.08 cm³ of I being used. The known five epr lines with a

width of ~50 oe (number of paramagnetic centers $4 \cdot 10^{16}$) were obtained in vacuo. At p_{O2} = 150 mm Hg, the spectrum widened to 60 oe, and the

number of paramagnetic centers dropped to $3.4 \cdot 10^{16}$. At p_{O2} = 760 mm Hg,

Card 1/4

30708

Electron paramagnetic resonance...

S/020/61/141/002/022/027
B101/B110

the hyperfine structure vanished. The spectrum now only formed a wave of 72 oe width, and the number of paramagnetic centers was $3.0 \cdot 10^{16}$. After evacuation the initial five-line spectrum reappeared. The effect of the duration of contact between I and O_2 was examined in an ampoule containing O_2 and I in a ratio of ~ 8 . After 90 days no free radicals could be observed any longer in the presence of O_2 . After evacuation, however, they reappeared. Samples without O_2 did not show a variation of their content of free radicals during this time. The rate of disappearance of free radicals furthermore depended on the addition of O_2 . Fig. 3 shows the results obtained for $V_{gas}/V_{liqu} \sim 8; \sim 50; \text{ and } \sim 100$. The variation of the epr spectrum of I in the presence of O_2 is ascribed to the superposition of two effects: 1) mere physical interaction caused by the paramagnetic properties of O_2 molecules. This leads to a widening of the lines, but does not affect the unpaired electrons in the system. 2) Chemical interaction which, due to the formation of a peroxide

Card 2/B

Electron paramagnetic resonance...

S/020,61/141/002/022/027
E107/B110

compound, leads to the disappearance of I radicals. It decomposes, however, on evacuation. With a longer contact time between I and O₂, final oxidation products of I are formed. Fig. 3 shows that the reaction slows down when there is little O₂ excess. The formation of the primary peroxide compound is a fast reaction while the subsequent conversion of this compound into final oxidation products proceeds slowly. The O₂ consumption was found to be greater than what would have corresponded to the consumption of I. This is explained by the fact that the solvent contributes to the oxidation process. This contribution can also be proved by the occurrence of phenol groups, the amount of which exceeded the amount of phenol groups contained in I. The authors thank Professor L. A. Blyumenfel'd for advice and discussion. There are 3 figures and 11 references: 5 Soviet and 6 non-Soviet. The four most recent references to English-language publications read as follows: T. Matsugashita, K. Shinohara, J. Chem. Phys., 32, 954 (1960); B. R. Loy, J. Polymer Sci., 44, 341 (1960); J. Deduchi, J. Chem. Phys., 32, 1584 (1960); T. H. Brown, D. H. Anderson, H. S. Gutowsky, J. Chem. Phys., 33, 720 (1960).

Card 3/6

19706

S/020/67/44/002/022/027
B101/B110

Electron paramagnetic resonance...

ASSOCIATION: Institut elektrokhemii Akademii nauk SSSR (Institute of Electrochemistry of the Academy of Sciences USSR)

PRESENTED: June 15, 1961, by A. N. Frumkin, Academician

SUBMITTED: May 15, 1961

Fig. 3. Variation of the disappearance rate of I radicals as a function of the total O₂ content in the sample.

Legend: (1) ratio $V_{gas}/V_{liq} \sim 8$; (2) ratio ~ 100 ; (3) ratio ~ 50 Continuous lines: Content of free radicals after evacuation. Broken lines: Content of free radicals in the presence of O₂. (a) days; (b) number of radicals.

Card 4/4

REVINA, A.A.; BAKH, N.A.

Early stages of the radiation-induced oxidation of palmitic acid and its derivatives studied by the electron paramagnetic resonance method. Kin. i kat. 5 no.5:769-775 S-O '64. (MIRA 17:12)

1. Institut elektrokhemii AN SSSR.

REVINA, A.A.

... radiation is relatively long. Therefore only low microwave power must be applied for the investigation of these radicals by ESR-spectroscopy. In this case the sensitivity of the spectrometer is not limited by the frequency-fluctuations of the klystron, if special arrangements are employed, but by the noise level of the pre-amplifier.

By use of low noise pre-amplifiers (e.g. masers) it is then possible to increase the sensitivity of the spectrometer. The conditions for this are calculated.

An X-band ruby maser developed for this application will be discussed. By optimizing the free parameters a stable gain of 32 db and a voltage-gain bandwidth product of 22 Mc was obtained at a crystal temperature of 90 K.

Max Planck Institute for Biophysik, Frankfurt am Main, Germany

Investigation of Early Stages of Radiation-Induced Oxidation by Electron Spin Resonance

A. Revina and N. Bach

A study of the ESR spectra of α, α' diphenyl β -picryl-hydraryl dissolved in benzene has shown that it forms a non-radical product of the peroxide type with O_2 . This product decomposes reversibly with regeneration of free radicals on removal of the O_2 . If O_2 is not removed, it eventually transforms into the final oxidation products of the free radical.

A similar ESR investigation of the radicals appearing on γ -irradiation of potassium palmitate and other organic substances shows that they also form non-radical peroxidic compounds with O_2 , and that these also decompose reversibly on removal of oxygen. In somewhat different conditions typical peroxy-radicals appear. It is deduced that the formation of such labile non-radical compounds of the substrate radicals with molecular O_2 is an early reaction stage in many oxidation processes.

Institute of Electrochemistry, Academy of Sciences of the USSR, Moscow

Dose-Response Relationships in the Yield of Radiation-Induced Free Radicals in Amino Acid

report presented at the 2nd Intl. Congress of Radiation Research,
Barronate/Yorkshire, Gt. Brit. 5-11 Aug 1962

S/020/62/145/002/014/018
B145/B101

AUTHORS: Revina, A. A., Aripdshanov, Sh. A., and Bakh, N. A.

TITLE: Investigation into the formation of free radicals during the irradiation of palmitic acid and its derivatives with the epr method

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 2, 1962, 363-365

TEXT: The authors studied the effect of the carboxyl group on primary processes in the radiolysis of carboxylic acids. Potassium salt and triglyceride were used besides free palmitic acid. Irradiation was conducted at -196°C (γ -radiation of Co^{60} , $\sim 5 \cdot 10^{16}$ ev/g.sec). The epr spectra were measured in vacuo and in the air. Solid α, α' -diphenyl- β -picryl hydrazyl was used as standard material. The spectra (width: 200 cm^{-1}) of samples irradiated with different doses showed differences in their relative band intensities. This proves the existence of different radicals and different rules in the kinetics of their accumulation. The 28-30 cm^{-1} doublet characteristic of carboxylic acids occurs in the



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15 2130
AUTHORS: Brekhovskikh, S. M., Vereshchinskiy, I. V., Grishina, A. D., Zelentsova, S. A., Revina, A. A. and Tykachinskiy, I. D.

TITLE: Electron paramagnetic resonance in irradiated glasses of various compositions

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 660-667

TEXT: The purpose of the work was to prepare a glass for making test tubes and ampoules used in EPR studies of irradiated substances; such glass must not give an appreciable EPR signal after being subjected to an ionizing radiation. The basic glass composition was $3\text{SiO}_2 \cdot 0.5\text{Al}_2\text{O}_3 \cdot 0.75\text{CaO} \cdot 0.2\text{MgO}$, which was varied by additions of Na_2O , K_2O , Li_2O , BaO , CeO_2 , or Fe_2O_3 , by altering the proportions of CaO or MgO , and by replacing 20 wt.% SiO_2 with the same
Card 1/3

Electron paramagnetic resonance ... S/844/62/000/000/114/129
D207/D307

amount of B_2O_3 . Samples were prepared from quartz sand and from materials of 'pure' and 'analytically pure' grades, in corundum crucibles heated to 1450 - 1570°C. The glasses were irradiated with 800 keV electrons at the rate of 10^{21} ev.cm⁻².hour⁻¹ at room temperature, or with 80 keV x rays (10^{17} ev.cm⁻³.sec⁻¹) at 77 - 320°K. The spectra were recorded with an apparatus based on JHP-2 (EPR-2) of the Institut khimicheskoy fiziki (Institute of Chemical Physics). It was found that in some cases there was no correlation between coloring and generation of paramagnetic centers by electrons and x rays. The addition of Fe_2O_3 or CeO_2 reduced the EPR signal intensity of the irradiated glasses, while the other additives either raised the original signal intensity (Al_2O_3 or alkali oxides together with B_2O_3) or produced an additional peak (B_2O_3 alone or BaO). Annealing of irradiated glasses reduced the concentration of paramagnetic centers produced by second irradiation. Using this information a glass of unstated composition, named 'A', was prepared, which gave no noticeable EPR signal after irradiation and was,

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Electron paramagnetic resonance ...

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therefore, suitable for making test tubes used in radiation chemistry. The work on EPR and x ray irradiation was carried out in the Laboratoriya radiatsionnoy khimii (Radiation-Chemistry Laboratory), directed by Doctor of Chemical Sciences N. A. Bakh, who took a direct part in the discussion of the results. There are 8 figures and 2 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut stekla (All-Union Scientific Research Institute for Glass); Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry, AS USSR); Institut elektrokhemii AN SSSR (Institute of Electrochemistry, AS USSR)

Card 3/3

REVINA, A.A.; PODSOBLYAYEV, A.P.

Radiolysis of piperidine studied by means of electron paramagnetic resonance. Dokl. AN SSSR 152 no.3:668-670 3 '63. (MIRA 16:12)

1. Institut elektrokhimii AN SSSR. Predstavleno akademikom A.N. Frumkinym.

REVINA, A. A.; BAKH, N. A.

Free radical reactions in the interaction of oxygen with irradiated potassium palmitate. Dokl. AN SSSR 155 no. 2:410-413 Mar '64.
(MIRA 17:5)

1. Institut elektrokhemii AN SSSR. Predstavleno akademikom A. N. Frumkinym.

L 54737-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EWP(j)/EWA(h)/EWA(l) Pc-4/Pr-4/PeB/
 ACCESSION NR: AP5017884 Pu-4 GG/RM UR/0195/64/005/005/0769/0775

AUTHOR: Revina, A. A.; Bakh, N. A.

TITLE: Investigation of the early stages of radiation oxidation of palmitic acid and its derivatives by the electron paramagnetic resonance method

SOURCE: Kinetika i kataliz, v. 5, no. 5, 1964, 769-775

TOPIC TAGS: radiation chemistry, carboxylic acid, oxidation, irradiation, chemical kinetics, electron paramagnetic resonance

ABSTRACT: Free radicals in palmitic acid $C_{15}H_{31}COOH$, potassium palmitate $C_{15}H_{31}COOK$, and tripalmitin $(C_{15}H_{31}CO)_3O_3C_3H_5$ (differing in the bond in the carboxyl group with the same structure of the hydrocarbon chain), irradiated at 77°K under vacuum, were investigated by the electron paramagnetic resonance method. The radicals were found to differ in structure (indicating that the attack during radiolysis occurs chiefly in the carboxyl group itself or close to it, and the character of the bonds in it influences the primary processes), in yields (18, 12, and nine radicals per 100 eV for the

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L 54737-65 "APPROVED FOR RELEASE: 06/20/2000" CIA-RDP86-00513R001444720008-1

ACCESSION NR: AP5017884

acid, ester, and salt, respectively), and in the kinetics of accumulation and destruction. A subsequent increase in the temperature leads not only to destruction of the radicals but also to transformations of them, involving migration of a free valence to the carboxyl group. The presence of oxygen at 77°K influences the yield of radicals in potassium palmitate and tripalmitin; however, peroxide radicals are formed in all three compounds only at higher temperatures. An early stage of interaction of oxygen with radicals, yielding very labile, nonradical primary addition products of oxygen, disappearing reversibly upon transitory contact, was detected in potassium palmitate.

Orig. art. has: 8 figures, 2 formulas, 1 graph.

ASSOCIATION: Institut elektrokhemii AN SSSR (Institute of Electrochemistry, AN SSSR)

SUBMITTED: 06Sep62

ENCL: 00

SUB CODE: OC, OC

NR REF SOV: 007

OTHER: 006

JPRS

Card 2/2

REVINA, A.A.; KARASEV, A.L.

Peroxide radical formation in irradiated palmitic acid and
potassium palmitate. Zhur. strukt. khim. 6 no. 4:556-562 J1-Ag
'65 (MIRA 19:1)

1. Institut elektrokhemii AN SSSR. Submitted March 25, 1964.

REVINA, A.A.; ARIPDZHANOV, Sh.A.; BAKH, N.A.; Primali uchastiye:
YAKOVLEV, Yu.B.; MITINA, N.I.

Electron paramagnetic resonance study of the formation of free
radicals in the irradiation of palmitic acid and its derivatives.
Dokl.AN SSSR 145 no.2:363-365 JI '62. (MIRA 15:7)

1. Institut elektrokhemii AN SSSR. Predstavleno akademikom
A.N.Frunkinym.
(Palmitic acid) (Radiation) (Radicals (Chemistry))

BAKH, N. A., MEDVEDOVSKIY, V. I., REVIHA, A. A. and BITYUKOV, V. D.

"Radiation-chemical Transformations in Nitrate Solutions" p.45

Trudy Transactions of the First Conference on Radioaction Chemistry, Moscow,
Izd-vo AN SSSR, 1958. 330pp.
Conference -25-30 March 1957, Moscow

REVINA, A.A.; BAKH, N.A.

Interaction of molecular oxygen with a stable free radical in solution studied by the method of electron paramagnetic resonance.
Dokl. AN SSSR 141 no.2:409-412 N '61. (MIRA 14:11)

1. Institut elektrokhemii AN SSSR. Predstavleno akademikom A.N. Frumkinym.

(Oxygen) (Radicals (Chemistry))

LAVRUKHINA, A.K.; REVINA, L.D.; MALYSHEV, V.V.; SATAROVA, L.M.

Reactions of the spallation of Fe nuclei by 150 Mev. protons.
Zhur.eksp.i teor.fiz. 44 no.5:1429-1436 My '63. (MIRA 16:6)
(Nuclear reactions) (Nuclear fission)

VONOGRAOV, A.P., akademik; LAVRUKHINA, A.K.; REVINA, L.D.

Nuclear reactions in iron meteorites. Meteoritika no.24:
22-28 '64. (MIRA 17:5)

LAVIOKHINA, A.K.; REVINA, L.D.; MALYSHEV, V.V.; SATAROVA, L.M.;
SU KHIN-GUY [Su Hung-kuei]; KALICHEVA, I.S.; FIRSOVA, L.D.

Further study of the products of iron spallation by
660 MeV protons. Radiokhimiya 5 no. 6:721-732 '63.
(MIRA 17:7)

21 (8)

AUTHORS:

Lavrukina, A. K., Revina, L. D.,
Rakovskiy, E. Ye.

SOV/20-125-3-18/63

TITLE:

The Functions of the Excitation of Fragments of the Fission
of Lanthanum (Funktsii vzbuzhdeniya oskolkov deleniya
lantana)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 3,
pp 532-534 (USSR)

ABSTRACT:

In the present paper the authors try to investigate the
excitation functions of the fission fragments
 P^{32} , Ni^{66} , and Se^{73} of lanthanum in the energy range
140 - 660 Mev of the bombarding protons. The investigations
were carried out by means of the synchrocyclotron of the
Ob'yedinennyy institut yadernykh issledovaniy (United
Institute of Nuclear Research). Powders of lanthanum oxide
(covered by an aluminum foil) were irradiated for 0.5 - 1
hour. After the irradiation, the lanthanum oxide was
dissolved in concentrated hydrochloric acid, and the
radioactive isotopes of nickel, selenium, and phosphorus were
removed on isotope carriers. The removal of Se, Ni, and P is

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The Functions of the Excitation of Fragments of the Fission of Lanthanum SOV/20-125-3-18/63

discussed in detail. The results of these experiments are shown in two diagrams which show the excitation functions of the fragments Se^{73} , Ni^{66} , and P^{32} of the fission of lanthanum in the energy range 140 - 560 Mev of the incident protons. These results are the average values of 2 - 4 parallel experiments. For Se^{73} at $E_p = 140$ Mev and for P^{32} at $E_p = 220$ Mev only a very low activity (~ 5 pulses/min) was observed, which permits the determination of the production thresholds of these nuclei ($E_{thresh} \sim 100$ Mev for Se^{73} and $E_{thresh} \sim 200$ Mev for P^{32}). The nuclei investigated by the authors are interesting since 2 of them have a neutron excess (P^{32} and Ni^{66}) and the nucleus Se^{73} has a neutron deficit. The characteristic sharp ascent of the curves $\sigma = f(E_p)$ for P^{32} and Se^{73} beyond the threshold of their production (if the energy of the protons increases)

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The Functions of the Excitation of Fragments of
the Fission of Lanthanum

SOV/20-125-3-18/63

is indicative of a significant increase of the probability of the asymmetric fission of lanthanum nuclei in the investigated energy range. The excitation function of Ni^{66} has a somewhat different character. The cross section of the production of Ni^{66} varies by 10 times if E_p rises from 140 to 660 Mev. The

probability of the symmetric fission of lanthanum nuclei in a lower degree depends on the energy of the incident protons. This fact explains also the constancy of the cross section of the fission of silver in the interval $E_p \sim 300 - 660$ Mev.

The method of the thick-layer photo-plates applied in the present paper does not permit the recording of the products of a strongly asymmetric fission. A further investigation of the excitation functions of the fission of the nuclei of the middle part of the periodical system is very important for the explanation of the fission mechanism. The authors thank L. P. Moskaleva and M. I. Elkhina for their help in the carrying out of the present investigation. There are 2 figures and 14 references, 5 of which are Soviet.

Page 3/4

The Functions of the Excitation of Fragments of the
Emission of Lanthanum SOV/20-123-3-16/58

ASSIGNMENT: Institut geokhimii i analiticheskoy khimii im. V. I.
Vernadskogo Akademii nauk SSSR (Institute of Geochemistry
and Analytical Chemistry imeni V. I. Vernadskiy of the
Academy of Sciences USSR)

PRESENTED: December 10, 1958, by A. P. Vinogradov, Academician

SUBMITTED: December 5, 1958

Card 4/1

29394
S/007/61/000/011/001/003
B107/B147

3.2440 (1041 only)
3.1900 (1057, 1166)

AUTHORS: Vinogradov, A. P., Lavrukhina, A. K., Revina, L. D.

TITLE: Nuclear reactions in iron meteorites

PERIODICAL: Geokhimiya, no. 11, 1961, 955 - 966

TEXT: The authors report on a radiochemical analysis of the fission products of iron bombarded with 660-Mev protons. They attempted to clarify the cosmogenic formation of various isotopes in iron meteorites. The synchrocyclotron of the Laboratoriya yadernykh problem Ob"yedinennogo instituta yadernykh issledovaniy (Laboratory for Nuclear Problems of the Joint Institute of Nuclear Research) was used to bombard 100 to 500 mg of iron powder with about 10^{12} protons/sec·cm² for 0.5 to 2 hr. The resulting isotopes were identified according to half-life, kind and energy of radiation. A simplified magnetic beta spectrometer and a gamma scintillation spectrometer were used for this purpose. A total of 38 isotopes with atomic numbers 4 - 27 and half-lives from 8 min to 3 years were found. The production cross sections and yields of stable and undetected radioisotopes were calculated by interpolation (Fig. 2). On the strength of

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Nuclear reactions in iron meteorites

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S/007/61/003/011/001/003
B107/B147

these data, the number of cosmogenic nuclei was calculated, which are formed by fission of Fe^{56} in the center of a meteorite of 10 cm diameter within $4.5 \cdot 10^9$ years (Table 4). Results: Within the period mentioned, about 10^{-7} g of cosmogenic isotopes per gram of meteorite is formed, among them the stable isotopes Ar^{36} , Ar^{38} , K^{40} , Sc^{45} , and V^{50} . The concentration calculated for these isotopes agrees with the observed concentration and is about 10^{-9} g/g of meteorite. This explains the anomalies observed in the isotopic composition of potassium and argon. Shifts toward the ratios in terrestrial rocks are to be expected also for the isotopes of vanadium, titanium, and other elements. The equilibrium values for the activity of long-lived cosmogenic nuclei in iron meteorites were calculated. A comparison with values measured in various meteorites shows deviations by a factor of ≤ 5 . The mean production cross section for nuclei with an atomic weight of about 20 and about 40 was found to be 1.2 and 0.5 Bev. The authors thank V. V. Malyshev, L. M. Saratova, and Su Hung-kuei for help in the experimental work. L. K. Levskiy and V. Kuznetsov are mentioned. There are 4 figures, 7 tables, and 30 refer-

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S/007/61/000/011/001/003
B107/B147

Nuclear reactions in iron meteorites

ences: 6 Soviet, and 24 non-Soviet. The three most recent references to English-language publications read as follows: P. Eberhardt, J. Geiss. Radioactive and stable isotopes in meteorites. Physikalisches Institut, University of Berne, Switzerland, September, 1960; M. Honda, J. R. Arnold. Geochim. Cosmochim. Acta, 23, 219, 1961; M. Honda, J. P. Shedlovsky, J. R. Arnold. Geochim. Cosmochim. Acta 22, 133, 1961.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy AS USSR, Moscow)

SUBMITTED: July 25, 1961

Fig. 2. Distribution of fission products of iron by 660-Mev protons for each element as a function of the mass number A. Legend: (y) production cross section σ in mb; (o) experimental values; (●) interpolated values. Table 4. Content of stable isotopes in fission products of iron. Legend: (1) isotope; (2) production cross section σ_i in mb; (3) cumulative production cross section $\sigma_{\Sigma A_i}$ of nucleus A_i with account of the contribu-
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I. 10198-63

EPF(c)/EPF(n)-2/EWT(m)/BDS--AFFTC/ASD/SSD--

Fr-4/Pu-4

ACCESSION NR: AP3000029

S/0056/63/044/005/1429/1436

AUTHOR: Lavrukina, A. K.; Revina, L. D.; Malyshev, V. V.; Satarova, L. M.

TITLE: Spallation of Fe Nuclei induced by 150-MeV protons

SOURCE: Zhurnal eksper. i teoret. fiziki, v. 44, no. 5, 1963, 1429-1436

TOPIC TAGS: Nuclear reactions, iron, low-energy protons, spallation, isotope distribution

ABSTRACT: Continuing their earlier work on the spallation of iron isotopes ¹⁹by 660-MeV protons (Geokhimiya, no. 11, 955, 1961 and Radiokhimiya, in press), the authors studied nuclear reactions at lower energies, aimed at clarifying volume effects in the distribution of cosmogenic nuclides in meteorites. To this end, the main features of spallation of iron nuclei by 150-MeV protons were studied. An empirical equation is found for the production cross sections of the spallation products. The majority of the product nuclei were found to be near the bottom of the stability valley. The weighted numbers of the emitted neutrons and protons are 2.9 and 2.7, respectively. The cross section for the

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ACCESSION NR: AP3000029

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inelastic cross section of 150-MeV protons with iron nuclei is 568 plus or minus 162 mb. The considerable difference between the distributions of the products at 150 and 660 MeV proton energies is probably due to the formation, absorption, and scattering of pions, which increases the probability of transferring large excitation energy to a nucleus at 660 MeV proton energy. Comparison of the total cross section for the inelastic interaction of the iron nuclei with the protons at the two energies with optical-model calculations yields an estimate for the radius of the Fe-56 nucleus, namely $(1.21) \cdot 10^{\text{sup } -13}$ cm. 'The authors express their gratitude to I. S. Kalicheva, L. D. Firsova, and T. I. Kholodkovskaya who took part in this work.'

ASSOCIATION: none

SUBMITTED: 06Oct62

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: PH

NR REF SOV: 005

OTHER: 016

bm/Ch

Card 2/2

RE-VINA, L. D.

report to be submitted for the IUPAC 21st Conference and 13th Intl. Congress of Pure and Applied Chemistry, Montreal, Canada, 2-11 August 1961

- OGONISKIY, A. V., Academy of Sciences USSR, Kiev - "The catalytic investigation of the electrochemical kinetics in fused salts" (Section A.3,c,2 - Session I, 11 Aug 61, afternoon)
- QUREVICH, L. V., Academy of Sciences USSR, Moscow - "The calculation of thermodynamic functions of gases in a wide temperature range" (Section A.3,c,(1), Session II - 8 Aug 61, afternoon)
- RAKSHIN, V. A., Chemical Institute Lenin L. Ya. Karlov, Moscow - "Vitrification of polymers and crystallin polymers" (Section 2.4 - 7 Aug 61, afternoon)
- REZEV, A. V., Moscow State University Lenin M. V. Lomonosov - "The influence of surface heterogeneity and adsorbate-adsorbate interaction on the adsorption properties of solid surfaces" (Joint Session, Sections A.2 and 3.1 - 8 Aug 61, morning)
- REZEV, V. B., Institute of Chemical Physics, Academy of Sciences USSR, Moscow - "The HO₂ radical" (Section A.1, Session I - 11 Aug 61, morning) (Also, Section A.1, Chairman, Session I - 8 Aug 61, morning)
- RIZOV, V. I., Institute of Geochemistry and Analytical Chemistry Lenin V. I. Vernadsky, Academy of Sciences USSR - "A novelty in the use of organic coprecipitants for concentration of small amounts of the elements" (To be presented in Russian) (Section C.2 - 11 Aug 61, morning)
- ROZENTAL, A. K., ANSChim, M. V. I. Vernadsky, Academy of Sciences USSR - "New data on radiochemical investigations of the processes of fission and fragmentation induced by high energy protons" (Section A.4 - 8 Aug 61, afternoon)
- ROZENTAL, V. I., Academy of Sciences USSR, Moscow - "Determination of rate constants of elementary processes from flame velocities as a function of temperature, pressure, and molecular transfer coefficients" (Section A.3,b,(2) - 7 Aug 61, afternoon)
- RUBIN, S. (Probably MURDYAN, S.), and GREGOROV, Y. I., Moscow State University Lenin M. V. Lomonosov - "Study of the thermodynamic properties of the system Iron-Lithium" (Section A.3,c,(3), Session II(4) - 11 Aug 61, morning)
- RUBINOV, G. M., KULZHEV, A. M., MURZIN, G. P., and SHKIN, Ya., Moscow State University Lenin M. V. Lomonosov - "Solid phase reactions in solid-phase reactions" (Joint Session, Section Physics Academy of Sciences USSR, Moscow - 8 Aug 61, morning)
- RUZOV, H. B., Institute of Chemical Physics, Academy of Sciences USSR, Moscow - "Certain chemical reactions at reduced temperatures and related problems of energy transfer" (To be presented in Russian) (Plenary Lecture - Security, 12 Aug 61)
- RYKOVA, S. A., Academy of Sciences USSR, Kiev - "The active agents and the interaction-complexes in the heterolytic reactions of halogenation of the organic compounds" (Section A.1, Session II - 11 Aug 61, morning)
- RYKOVA, M. V., Electrochemistry Institute, Sverdlovsk - "The equilibrium between the titanium subgroup metals and the salt melts" (Section 2.3 - 11 Aug 61, afternoon)
- TAL'ROZ, V. L., Institute of Chemical Physics, Academy of Sciences USSR - "Reactions of ions and molecules in the gas phase" (Section A.1, Session I - 9 Aug 61, afternoon)
- TARSHIN, Aleksandr B., Leningrad State University Lenin A. A. Zhdanov - (Section A.1, Chairman, Session I - 8 Aug 61, afternoon Session) (Also on program for Section A.1, Session I - 9 Aug 61, afternoon)
- TROSHIN, Aleksandr B., YILKO, P. I., KRIVONOV, S. G. and PODKOVA, N. V., Leningrad State University Lenin A. A. Zhdanov - "Mass-spectrometry and luminescence of radicals in the periodic oxidation and photooxidation of molecules by vacuum ultra-violet radiation" (Section A.1, Session I - 9 Aug 61 - afternoon)
- TROSHIN, B. M., Scientific Research Physico-Chemical Institute Lenin L. Ya. Karlov - "The effect of the action of molecules on electron impact and the early stages of radiation-chemical processes" (Section A.1, Session I - 9 Aug 61, afternoon)
- VALENTIN, Evgenii Ye., and KROLEY, V. V., Institute of Geochemistry and Analytical Chemistry Lenin V. I. Vernadsky, Moscow - "The plasma 5 Aug 61, morning)
- VINOGRADOV, A. P., LEMUNGINA, A. K., and KROLEY, V. V., Institute of Geochemistry and Analytical Chemistry Lenin V. I. Vernadsky, Academy of Sciences USSR - "The study of nuclear reactions in iron isotopes under the action of high energy protons" (Section A.4 - 8 Aug 61, afternoon)
- YAROVLEV, M. V., and ALBUKHIN, I. V., Academy of Sciences USSR - "The determination of trace impurities in semiconductor materials for semiconductor techniques by radio-activation analysis" (To be presented in Russian) (Section C.1 - 8 Aug 61, afternoon)
- YAROVLEV, Boris V., Institute of Physical-Chemistry, Minsk - "The effect of donor and acceptor admixtures on the decomposition rate of solids" (Section A.2 - 8 Aug 61, afternoon)

ACC NR: AP7011818

SOURCE CODE: UR/0079/66/036/012/2096/2098

AUTHOR: Lavrenova, G. I.; Revina, L. P.; Poddubnaya, N. A.

ORG: none

TITLE: Chemical structure of the antibiotic albomycin. XV. Nature of the pyrimidine base of the inactive fraction A-1

SOURCE: Zhurnal obshchey khimii, v. 36, no. 12, 1966, 2096-2098

TOPIC TAGS: antibiotic, albomycin, hydrolysis

SUB CODE: 07

ABSTRACT: It was shown in earlier work that clinically applied albomycin consists of five fractions. Of the three principal fractions (A-1, A-2, and A-3), only one (A-2) is physiologically active. The chemical constitution of A-1 and A-3 is of interest, because they are products of the conversion of A-2. The study of A-1 and A-3 may yield data on the structure of the antibiotic and on the reasons for its inactivation. In the hydrolysis of A-1 with 72% HClO₄, 1-methylcytosine formed, just as from A-2 under the action of this reagent. Hydrolysis of A-1 with Ba(OH)₂ resulted in splitting of the pyrimidine ring, whereas N⁶-methylcytosine formed from A-2 under the same conditions. The UV spectra of A-1 in an aqueous solution and in solutions in 0.01 N HCl and 0.01 N NaOH were determined. Orig. art. has: 2 tables.

Card 1/1 [JPRS: 40,351]

UDC: 615.779.931 0404
2022

ACC NR: AP7011819

SOURCE CODE: UR/0079/66/036/012/2098/2101

AUTHOR: Lavrenova, G. I.; Revina, L. P.; Poddubnaya, N. A.

ORG: none

TITLE: Chemical structure of the antibiotic albomycin. XVI. Methylation of the pyrimidine fragment of the inactive fraction A-1

SOURCE: Zhurnal obshchey khimii, v. 36, no. 12, 1966, 2098-2101

TOPIC TAGS: antibiotic, albomycin, methylation, amino acid

SUB CODE: 07

ABSTRACT: In the methylation with diazomethane of the A-1 fraction of albomycin, substitution of hydrogen in the amino group of 1-methylcytosine took place and 1,N⁶-dimethylcytosine formed. The latter was identified by comparison of its properties with those of synthetic 1,N⁶-dimethylcytosine. On the basis of the data obtained, it was concluded that the pyrimidine base is bound to the amino acid moiety of A-1 over N³. Orig. art. has: 2 tables. [JPRS: 40,351]

Card 1/1

UDC: 615.779.931

0935-

0405

AVARSIN, Ya.D.; KOROLEV, A.Ya.; MINDLIN, Ya.I.; DROGALEVA, I.V.; PRIGOREVA, A.I.; priniimali uchastiye: MARENKOVA, V.P., tekhnik; REVINA, M.A., tekhnik; MARTYMKINA, L.F., inzh.

Effect of chemical treatment of a glass fiber surface on the properties of fiber glass reinforced plastics. Plast.massy no.7:31-35 '60.

(MIRA 13;10)

(Glass reinforced plastics)

SAURCEL, T.Ye.; LEVINA, W.I.

Biology and fisheries of the large saurcel. Trudy Azcherniro
no.18:74-100 '60. (IM 14:10)
(Arch Ser---Saurcel)

REVINA, N. I.

Cand Biol Sci - (diss) "Multiplication of "giant" /krupnaya/
stavrida /small commercial salt-water fish/ in the Black Sea
and the biology of immature fish." Odessa, 1961. 16 pp;
(Ministry of Higher and Secondary Specialist Education Ukrain-
ian SSR, Odessa State Univ imeni I. I. Mechnikov); 200 copies;
price not given; (KL, 6-61 sup, 209)

YARENKO, Yu.S.; KOLOMOYTSYEV, L.R.; REVIN, H.S.

Sanitation of the carriers of pathogenic Staphylococci in the
obstetric and gynecological clinic of Donetsk. Mikrobiol. zhur.
27 no.4:49-51 '65. (MIRA 18:8)

I. Donetskii meditsinskiy institut.

REVINA, S.K.

Interrelation of calcium and chlorine and the degree of the
saturation of waters with calcium carbonate in the Kuban region
of the Sea of Azov. Trudy GOIN no.72:67-80 '64.

(MIRA 18:1)

REVINOV, V.N.

137-58-5-9589

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 108 (USSR)

AUTHOR: Revinov, V.N.

TITLE: Forming Deep-frozen Sheet Stock (Listovaya shtampovka s primeneniem glubokogo okhlazhdeniya zagotovki)

PERIODICAL: V sb.: Progressivn. metody shtampovki i kovki. Khar'kov, Oblizdat, 1957, pp 184-191

ABSTRACT: A description is offered of a method of forming (F) based on the use of the tendency of metal to harden at low temperatures. When the stock is cooled to 160-170°C below freezing, the reduction ratio of Nr 10 and Nr 20 steel rises to 2.6-2.7 while for Yal and YalT steel it increases to 2.7-2.9. As compared with ordinary F, deep-freeze F produces an absolute taper of not more than 10-15% of the initial thickness, and the taper is observed to be spread uniformly along the part. Moreover, dies of standard design are employed, except for the punch, which has a cavity for the coolant. Liquid N and liquid air may be used as coolants.

Card 1/1

1. Brakes (Metalworking)--Operation 2. Metals--Processing V. F.
3. Metals--Temperature effects

137-58-6-12232

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 151 (USSR)

AUTHOR Revinov, V.N.

TITLE Deep Freeze Used in Forming by Drawing (Primeneniye glubogo okhlazhdeniya v protsesse shtampovki-vytyazhki)

PERIODICAL Tr. Khar'kovsk. aviats. in-ta 1957, Nr 17, pp 191-197

ABSTRACT: This is a communication on an investigation of a process of forming (F) employing deep freeze of the tool in order to achieve a drawing ratio of $K > 2.0$. The experiments were run with a hydraulic laboratory press (5 t) in an ordinary die with a hollow punch, internally cooled by liquid O_2 . The punch diameter was 26 mm; round 50-65 mm blanks of Nrs 10, 20, Yal and YalT steel 1 and 1.2 mm thick were used. The temperature drop in the blank was determined by means of four thermocouples mounted in the die. The design of the die and the methodology of the experiment are presented. It is established that the process of deep drawing with local cooling of the blank to temperatures of the order of -150 to $-180^{\circ}C$ makes it possible to attain drawing ratios of $K = 2.5$ or more at a single working stroke of the die. F of St with cooling of the blank by

Card 1/2

137-58-6-12232

Deep Freeze Used in Forming by Drawing

liquid air is more advantageous than F with heating and multiple drawing. The design of the die is simpler, and the great amount of time required for preheating the die before F is eliminated. The temperature drop is smaller and crystal growth in the blank is completely ruled out. Of practical interest is the redistribution of the wall thickness of the formed object, since in F with reduction of thickness of grades 10, 20, YalT and Yal steel, the reduction in the thickness of cup walls in the vicinity of the bending projection on the die is only one half as great with deep freeze F as in ordinary F, while controlled distribution of the cooling liquid may be used to obtain the required distribution of wall thickness of the part. This fine control is not possible with the present F methods. F of nonferrous alloys based on Al, Cu, etc., is deemed to be undesirable, as they undergo only insignificant changes in mechanical properties at low temperature.

G.F.

- 1. Metals--Processing
- 2. Metals--Temperature factors
- 3. Tools--Temperature factors
- 4. Tools--Performance
- 5. Oxygen (Liquid)--Applications

Card 2/2

PHASE I ECON EXPLOITATION SOV/3791

Sovesheniye po obrabotke shapochnykh splavov, Moscow, 1957.
 Obrabotka shapochnykh splavov; [Sbornik dokladov...] (Treatment of Heat-Resistant Alloys; Collection of Papers Read at the Conference), Moscow, Izd-vo AN SSSR, 1960. 231 p. 3,500 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR, Institut mashinovedeniya, Katedra po tekhnologii mashinostroyeniya; Akademiya nauk SSSR, Institut metallurgii. A.A. Baykova, Nauchnyy sovet po problemam shapochnykh splavov.

Resp. Ed.: V.I. Dikushin, Academician; Ed. of Publishing House: V.A. Kotoy; Tech. Ed.: V.V. Bruzgul.

PURPOSE: This book is intended for metallurgists.

COVERAGE: The book consists of thirty papers read at the Conference on the Treatment of Heat-Resistant Alloys held in Moscow by the Committee on Machine-Building Technology, Institute of the Science of Machines Academy of Sciences USSR, in 1957. The papers deal with four principal areas or alloy materials: casting, forming, machining, and welding. The alloys (together with refractory carbides, borides, nitrides, and oxides) are discussed in the manufacture of turbine blades, heat engines, boiler reactors, containers for high-temperature acidities, castings, molds, and metal-cutting tools. No personalities are mentioned. Some of the articles are accompanied by references, mainly Soviet.

Aksenov, P.V. Cast Motor Blades for Gas Turbines 25

Korovin, E.I., I.G. Skuzavay, S.B. Pavliner, and Ye.I. Razuvaev. Mechanical Conditions in the Pressworking of Refractory Alloys of Molybdenum and Chromium Base 33

Enduravitskiy, I.B., and B.I. Aleksandrov. Effect of Work Hardening on the Fatigue Strength of Heat-Resistant Steels at High Temperatures 41

Levin, V.M. Deep Drawing of Products From Heat-Resistant Sheet Metals With the Application of Deep Freezing 53

Klymenov, V.Ya., and T.N. Sazonova. Plastic Workability and Mechanical Properties of Titanium Alloys as Determined by the Conditions of Hot Working 59

Davtyan, Yu.P. Special Features of the Stamping of Heat-Resistant and Titanium-Alloy Sheet 67

Petrov, I.B. Upsetting of Heat-Resistant Steel Standard Parts (Aircraft Fasteners: Bolts, Rivets, Etc.) 75

Eleshin, M.Ye. Precision Drop Forging of Steel (Turbocompressor) Blades 79

Syris, Ye.M. Process of Manufacturing Turbine-Blade Blanks From Heat-Resistant Alloys With Minimum Machining Allowances Along the Blade 87

Nikol'skiy, L.A. Special Features of the Drop Forging of Titanium Alloys 98

Nikolayev, G.A. Welding of Turbine Parts Made of Heat-Resistant Alloys 109

Medvedev, B.I. Automatic Electric-Arc and Electroslag Welding of Heat-Resistant Alloys 113

S/123/62/000/019/010/010
A006/A101

AUTHOR: Revinov, V. N.

TITLE: Sheet press-forming of ЯИТ (YaIT) and ЯИ (YaI) steels using deep cooling

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 19, 1962, 16, abstract 19V70 ("Tr. Khar'kovsk. aviats. in-ta", 1960, no. 20, 153 - 173)

TEXT: Information is given on results of investigating press-forming of YaI and YaIT steels with cooling of the maximum stress zone down to $-160 - 170^{\circ}\text{C}$; while an above-zero temperature is maintained on the blank flange, an extrusion coefficient as high as 2.8 - 2.9 can be attained. Comparison tests at room temperature and boiling temperature of liquid O_2 have shown that in deep cooling the YaIT steel is strengthened 2 - 2.1 times and YaI steel by a factor of 2.3 with unchanged σ . To cool the walls of the press-formed part, the punch has a cavity into which the cooling agent is supplied. A drain tube evacuates the vapors of the cooling agent from the punch cavity. The punch parts, having low temperature

Card 1/2

Sheet press-forming of...

S/123/62/000/019/010/010

A006/A101

during operation, are heat-insulated by means of glass fabric, asbestos and textolite. Parts contacting the cooling agent are anti-corrosion coated. The operational parts of the punch are of conventional geometry. Due to a large mass and satisfactory heat exchange with the surrounding air, the temperature of the die and the pneumatic clamp remains positive. This makes it possible to employ conventional greases. The following cooling agents are used: liquid O_2 (boiling temperature - $183^\circ C$) or liquid N_2 (boiling temperature - $195^\circ C$). Results are presented of an analytical determination of the extrusion coefficient and the effect of friction upon the process. There are 20 figures and 9 references

S. Shirman ✓

[Abstracter's note: Complete translation]

Card 2/2

REVINOV, V. N.

AID Nr. 989-9 13 June

DEEP DRAWING WITH LOCALIZED CRYOGENIC COOLING (USSR)

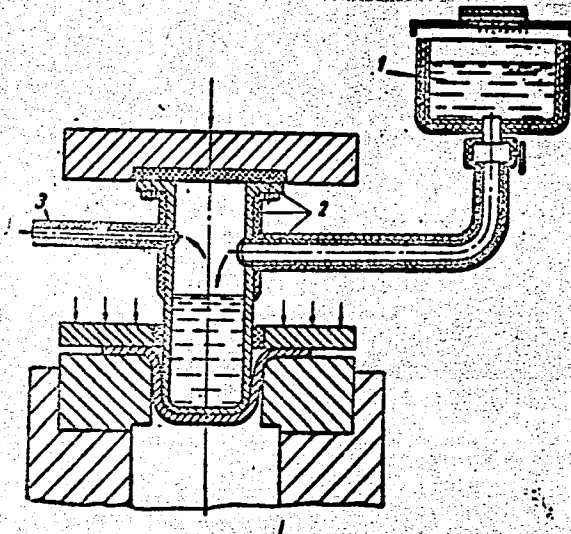
Revinov, V. N. Kuznechno-shtampovochnoye proizvodstvo, no. 4, Apr 1963, 23-25.
S/182/63/000/004/003/004

The deep-drawing process for stainless and heat-resistant steels can be made more efficient by strengthening the most heavily loaded zones of the blank by means of cooling to cryogenic temperatures (-160 to -175°C). Such cooling results in higher draw ratios in a single operation with less thinning of the cup wall. The die unit incorporates a tank (1) for coolant, a pipeline for feeding the coolant into the hollow punch, and drain (3), all insulated with glass wool and glass fabric (2). Because of the increased unit pressure exerted by the metal on the die surfaces when the draw ratio exceeds 2.0, the surface finish required is class 9 for the die surfaces and class 10 for the die radius [roughness height (rms) 0.2 to 0.4 μ and 0.1 to 0.2 μ, respectively]. The die and the punch are made from Y8, Y8A, [AISI W1], or other

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AID Nr. 989-9 13 June

DEEP DRAWING WITH LOCALIZED CRYOGENIC COOLING [Cont'd] s/182/63/000/904/003/004



Card 2/3

AID Nr. 989-9 13 June

DEEP-DRAWING WITH LOCALIZED CRYOGENIC COOLING [Cont'd] S/182/63/000/004/003/004

tool steels heat treated to Rockwell C hardness 54 to 56 for the die and 50 to 52 for the punch. Both the die and the punch are chromized for better corrosion resistance. Deep drawing is done on hydraulic presses with ram speeds of 0.1 to 0.25 m/min. Liquid nitrogen is recommended as coolant. [SS]

Card 3/3

L 15697-65
RJW/JD/HW

EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(b)

Pf-4

ASD-3/AFETC/ASD(m)-3

ACCESSION NR: AP4047694

S/0304/64/000/005/0042/0044

AUTHOR: Revinov, V. N. (Candidate of technical sciences)

TITLE: Wall thickness decrease during deep-drawing with cooling

SOURCE: Mashinostroyeniye, no. 5, 1964, 42-44

B

TOPIC TAGS: drawing, metal forming, metal stamping/ 1Kh18N9T steel

ABSTRACT: Friction stamping and hot stamping of stainless and heat resistant steels is not possible, but it has been found that cooling during stamping or deep-drawing permits extension coefficients of 2.8-3 during a single stamping operation without adverse wall-thickness decrease. An appropriate distribution of plastic properties on the flange and wall of the part is obtained by using liquid oxygen or nitrogen to deep-cool parts of the blank, thus changing the plastic properties by factors of 2-3. It was also found that the stamping speed must decrease with increasing extension coefficient and increasing wall thickness and should not exceed 0.15-0.25 m/min for $K = 2.8-2.9$ and for a metal thickness of 1.2-1.5 mm. A cup of 1.2 mm sheet steel 1Kh18N9T was deep-drawn (with cooling) over a wide range of extension coefficients ($K = 1.6-2.95$) at a speed of 0.2 m/min. The wall-thickness decrease at different points in the wall and for different extension coefficients is shown in Fig. 1 on the Enclosure. The maximum wall thickness is seen to

L 15697-65

ACCESSION NR: AP4047694

decrease for $K = 2.95$ by about 18%. For $K = 1.6-1.8$ (the normal range in industrial practice) the decrease is only 2.5-4%. This performance compares very favorably with a decrease of 18-21% for $K = 1.6-1.8$ during deep-drawing without cooling. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

Card 2/3