

Problems of Physical Metallurgy 983

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Problems of Physical Metallurgy 983

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AVAILABLE: Library of Congress

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RYSINA  
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446510005-5  
CIA-RDP86-00513R001446510005-5"

MAKSIMOVA, O.P., kand.tekhn.nauk; PONYATOVSKIY, Ye.G.; RYSINA, N.S.; ORLOV, L.G.

Changes in the kinetics of martensite transformation depending on the position of the martensite transition point and alloy composition.  
Probl. metalloved. 1 fiz.met. no.5:25-40 '58. (MIRA 11:4)  
(Phase rule and equilibrium) (Martensite)

USSR/Engineering - Modulus of displacement

Card 1/1 : Pub. 22 - 12/41

Authors : Rysina, N. S., and Finkel'shteyn

Title : Effect of alloying admixtures on the temperature dependence of the iron displacement modulus

Periodical : Dok. AN SSSR 98/2, 215-217, Sep 11, 1954

Abstract : Experimental study of the temperature effect of alloying admixtures on the hardness of alloyed metals is described. The experiments were conducted with iron alloys in a vacuum furnace with the help of a torsional balance and electronic temperature regulator. Three references (1953-1954). Table; graph.

Institution : Institute of Metallurgy and of Physics of Metals of the Central Scientific Research Institute of Ferrous Metallurgy

Presented by : Academician G. V. Kurdyumov, May 4, 1954

44060

S/742/62/000/000/002/021  
1015/1215

27/220

AUTHORS: Rysina, T.N. and Yerokhin, R.A.

TITLE: Distribution and excretion of plutonium at remote periods after administration to dogs

SOURCE: Plutoni-239; raspredeleniye, biologicheskoye deystviye, uskoreniye vyvedeniya. Ed. by A.V. Lebedinskiy and Yu.I. Moskaev. Moscow, Medgiz, 1962, 12-18

TEXT: The metabolism of plutonium in larger animals and in man has been insufficiently studied. Experiments were carried out on 15 adult dogs weighing 18-28 kg, with 4 i.v. injections of plutonium nitrate (pH 2.0) at monthly intervals. The total dose was 0.2  $\mu$ ci/kg b.w. Seven dogs were also subjected to a daily gamma-irradiation of 10r during 5 months. The distribution of plutonium was studied within

Card 1/2

hh064

S/742/62/000/000/006/021  
I015/I215

27.1220

AUTHORS: Rysina, T.N., Tseveleva, I.A.

TITLE: The transmission of plutonium to the offspring

SOURCE: Plutoniy-239; raspredeleniye, biologicheskoye deystviye, uskoreniye vyvedeniya. Ed. by A.V. Lebedinskiy and Yu.I. Moskalev. Moscow, Medgiz, 1962, 41-44

TEXT: The problem of the transmission of plutonium from the maternal organism to the offspring during pregnancy as well as during lactation has been insufficiently studied. Experiments were carried out on 17 puppies of varying ages, which were born at different times after the administration of plutonium to the dogs. Plutonium nitrate was administered i.v. four times at intervals of one month. The total dose of Pu was 0.2  $\mu\text{Ci/kg}$  b.w. The liver and the bones were examined for

Card 1/2

RYSINA, T.N.

Distribution and excretion of plutonium from dogs. Med. rad. 5  
no.11:49-53 N '60. (MIRA 13:12)  
(~~PLUTONIUM~~-METABOLISM)

27.1220

28230  
S/581/61/000/000/001/020  
D299/D304

AUTHOR: Rysina, T.N.

TITLE: Some changes in nucleoproteids, nucleic acids and their metabolites caused by ionizing radiation

SOURCE: Lebedinskiy, A.V. and Moskalev, Yu.I., eds. Biologicheskoye deystviye radiatsii i voprosy raspredeleniya radioaktivnykh izotopov; sbornik rabot. Moscow, Gosatomizdat, 1961, 9-16

TEXT: To determine the possible role of the direct destruction of molecules under ionizing radiation, solutions of nucleic acids, pyrimidine and purine bases were irradiated. The effects of the irradiation were assessed from the change in the absorption of ultra-violet light ( $\lambda = 220-300 \mu c$ ). A drop in such absorption was noted with radiation doses starting from 5,000-10,000 r; this drop varied directly with the dose. The author then set out to study the quantitative changes in nucleoproteids, nucleic acids, nucleotides,

Card 1/3



Some changes in nucleoproteids...

28230  
S/581/61/000/000/001/020  
D299/D304

tion with the urine could be used as a diagnostic test in cases of acute exposure to radiation. There are 3 figures and 23 references: 8 Soviet-bloc and 15 non-Soviet-bloc. The 4 most recent references to English-language publications read as follows: C.W. Bishop, J.N. Davidson, Brit. J. Radiol., 30, 367 (1957); L.J. Cole, M.E. Ellis, Rad. Research, 7, 508 (1957); D.W. King, S.R. Paulson, Amer. J. Pathol., 35, 369 (1959); J. Patrizek and oth. Nature, 182, No. 4637, 721 (1958).

X

28242  
S/581/61/000/000/013/020  
D299/D304

### The distribution and excretion...

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animal's weight. Plutonium distribution was studied 3, 6 and 11 months, and 3, 3.5 and 4 years after its introduction. Both exponential and power models were used for the mathematical description of the behavior of plutonium in the body, tissues and excreta, but the exponential method was found to conform best with the experimental findings. Mathematical calculation of the expressions was accomplished by the method of least squares. The distribution of plutonium in the body is shown in tabular and graphic form, broken down into skeleton, liver, spleen, muscles, lungs, kidneys and other organs, at the various stages of investigation. The distribution was as follows: skeleton 40%, liver 30%, muscles 2.4%, spleen 2.3%, lungs 0.45%, kidneys 0.36%. In all organs radioactivity decreased with time. In the spleen it dropped to 0.49% by the 600th day and in the kidneys to 0.12% by the 1000th day. Subsequently the plutonium content in these organs remained constant. The data from the excretion of plutonium is broken down into 2 periods: 1) 2nd-23rd day, 2) from the 23rd day onwards. For the first 3 weeks plutonium excretion with the stools was higher than excretion with the urine.

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35137

S/058/62/000/002/025/053  
AC61/A101

27.1220  
AUTHOR: Rysina, T. N.

TITLE: Changes produced by ionizing radiation in nucleoproteins, nucleic acids, and in their exchange products

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1962, 19, abstract 2D151  
(V sb. "Biol. deystviye radiatsii i vopr. raspredeleniya radioakt. izotopov". Moscow, Gosatomizdat, 1961, 9 - 17)

TEXT: Nucleic acid solutions in concentrations between 0.003 and 0.033, and solutions of purine and pyrimidine bases in concentrations between  $5 \cdot 10^{-5}$  and  $10^{-2}$  moles were irradiated with  $\text{Co}^{60}$  gamma rays. Doses of 5,000 r and over reduce absorption in the ultraviolet, which is indicative of molecular destruction. The effect of dilution is noted. The dynamics of the content of DNA and of its decomposition products in rabbit tissues after a 1,000-r  $\text{Co}^{60}$  gamma irradiation was investigated. In some tissues the amount of albumin-bound DNA became less, while that of free DNA grew and passed through a maximum after 4 hrs, and then dropped back to the initial level toward the end of the first 24 hrs after irradiation. Products of oxidizing deamination, of adenine and, especially, uridylic acid

Card 1/2

RYSINA, T.N.

Excretion of xanthine and hypoxanthine with the urine in  
irradiated rabbits. Radiobiologia 1 no.4:522-526 '61.  
(MIRA 17:2)

30352

27.1220

S/205/61/001/004/011/032  
D298/D303

AUTHOR: I'vsina, T. N.

TITLE: The excretion of xanthine and hypoxanthine with the  
urine in rabbits after irradiation

PERIODICAL: Radiobiologiya, v. 1, no. 4, 1961, 523-526

TEXT: In previous research (Ref. 10: Biokhimiya, 24, 556, 1959), the author noted the accumulation of inosine and hypoxanthine, the products of oxidizing deamination of purines, in the tissues of rabbits in the first few days after their irradiation in a dose of 1 kr. This led the author to suppose that an increase in the excretion of oxypurines also took place; the present work was an attempt to study the effects of various doses of external gamma-radiation on the excretion of purine with the urine in rabbits. The rabbits were exposed<sup>to</sup> single irradiation at an intensity of 10 r/min. in doses of 50, 100, 300 and 1,000 r. The purine content of the urine was studied daily for 2 days before irradiation and for 3 days afterwards. Hypoxanthine (an average amount of 0.6 mg)

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30352

S/205/61/001/004/011/032  
D298/D303

The excretion of...

and xanthine (average of 0.7 mg) was found in the urine of normal rabbits. Irradiation of the rabbits led to an increase in the excretion of these substances with the urine. The effect depended on the radiation dose in a range of 50 to 300 r. The maximum level of oxypurine excretion was reached on the first day after irradiation at 50 - 300 r and on the second day after irradiation in a dose of 1,000 r. The increase in the excretion of xanthine and hypoxanthine at early states after irradiation was obviously a consequence of the disintegration of nucleic acids and further oxidation of the purine nucleotides which formed, with their minimum use for the synthesis of high-polymer compounds. These results are compared with the findings of Western and Soviet researchers. The heightened xanthine and hypoxanthine level in the urine on the second day was probably due to intensive lesions and late restoration of nucleic acid synthesis, especially the synthesis of deoxyribonucleic acid, under the effect of lethal and sublethal doses of radiation. R. Ye. Libenzon helped with scientific direction of the research, while N. M. Nikulina and R. N. Zakharova helped in the experiments. There are 1 table and 19

Card 2/3

4

30352  
S/205/61/001/004/011/032  
D298/D303

The excretion of...

references: 10 Soviet-bloc and 9 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: J. Pařizek, M. Arient, Z. Dienstbier, J. Skoda, Nature, 182, 721, 1958; K. K. Tsuboi, T. D. Price, Arch. Biochem. and Biophys., 81, 223, 1959; O. F. Nygaard, R. L. Potter, Rad. Research, 12, 120, 1960; O. F. Nygaard, R. L. Potter, Rad. Research, 10, 462, 1959.

Card 3/3

4

RYSINA, T.N.; LIBINZON, R.Ye.

Bound and soluble desoxypolymucleotides in the tissues of irradiated  
rabbits. Biokhimiia 25 no.5:825-830 S-O '60. (MIRA 74,r1)  
(DESOXYRIBONUCLEIC ACID)  
(GAMMA RAYS—PHYSIOLOGICAL EFFECT)



"Change of Absorption Spectra of Solutions of Nucleic Acids and Pyrimidine  
and Purine Bases Under the Influence of Gamma Radiation" p. 193

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

**RYSINA, T.N., LIBINZON, R.Ye.**

Effect of gamma rays on the absorption spectra of pyrimidine and purine  
bases and nucleic acids [with summary in English]. Biofizika 3 no.4:  
487-493 '58 (MIRA 11:8)

(GAMMA RAYS)  
(NUCLEIC ACIDS--SPECTRA)  
(ABSORPTION SPECTRA)

EXCERPTA MEDICA Sec 16 Vol 7/2 Cancer Feb 59

561. *Effect of gamma rays on the absorption spectra of pyrimidine and purine bases and nucleic acids (Russian text)* RYSINA T. N. and LIMINSON R. E. *Biofizika* 1958, 3/4 (487-493)  
Graphs 27

The effect of 1,000-200,000 r. doses of  $Co^{60}$   $\gamma$ -rays on absorption spectra, in the UV, was studied in diluted nucleic acid solutions (0.003-0.03%) and in diluted solutions of the biologically most important purines and pyrimidines ( $5 \cdot 10^{-4}$ - $10^{-2}$  M). Irradiation lowered the UV absorption in these solutions, especially in the weakest concentration ( $10^{-4}$  and  $5 \cdot 10^{-5}$  M). This effect of reduction of the optical density of the solution was enhanced with increase of the  $\gamma$ -ray dose. It was also observed that the radio-sensitivity of the molecules decreases when complementary groups unite with the basic pyrimidine or purine nuclei.

RYSINA, T.N.

Amount of free nucleotides, nucleosides and purine and pyrimidine  
bases in certain tissues of healthy and irradiated rabbits.

Biokhimiia 24 no.3:556-562 My-Je '59. (MIRA 12:9)

(PURINES, metab.

eff. of gamma rays (Rus))

(PYRIMIDINES, metab.

same)

(NUCLEOTIDES AND NUCLEOSIDES, metab.

same)

(GAMMA RAYS, eff.

on free nucleotides, nucleosides & purine &  
pyrimidine bases (Rus))

KUROCHKIN, A., inzh.; RYSINA, Ye., inzh.; NOZHNIITSKIY, Y., inzh.

Increasing the durability of walls of the reinforced concrete  
frame of elevators. Muk.-elev.prom. 28 no.9:19-22 S '62.

(MIRA 15:10)

1. Gosudarstvennyy proyektnyy institut po proyektirovaniyu  
predpriyatiy i sooruzheniy zernovoy i mukomol'noy promyshlennosti.  
(Grain elevators)

BULPASOVA, H.; GROF, St.; HORACKOVA, E.; KUHN, E.; RYSINEK, K.; VITEK, V.  
VOJTECHOVSKY, M.

Psychopathology and biochemistry of experimental psychoses produced  
by anticholinergic hallucinogens. Cesk.psychiat. 56 no.1:14-23 P '60.  
(HALLUCINOGENS toxicol.)  
(PSYCHOSES TOXIC exper.)

COUNTRY : Czechoslovakia H-5  
CATEGORY :  
ABST. JOUR. : RZKhim., No. 5 1960, No. 18305  
AUTHOR : Zvejska, M., Sykora, M., and Ryska, A.  
INST. : Not given  
TITLE : Study on the Treatment of Sewage in a Socialist City  
CRIG. PUB. : Vodni Hospod, No 7, 293-297 (1959)  
ABSTRACT : The authors have studied the operation of the biochemical sewage treatment plant (trickling filters, methane tank) in Ostrava-Stalingrad which processes only municipal sewage. Data are given on the fluctuation in the discharge, chemical composition (dry residue, BOD, total oxygen demand, pH, alkalinity, total N, Cl<sup>-</sup>), and bacterial pollution of the sewage in the course of a typical day. The operation of the treatment plant is described.  
M. Lapshin

CARD: 1/1

223

RYSKA, A.; HEMOUTH, B.

"Correct Delimitation of Agricultural and Forest Soils", P. 597,  
(ZA SOCIALISTICKE ZEDELSTVI, Vol. 4, No. 6, June 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (SEAL), IC, Vol. 3, No. 12,  
Dec. 1954, Uncl.



RYSKA, A.; KLIR, J.

"Mechanization and More Productive Methods of Labor in Forestry", P. 744,  
(ZA SOCIALISTICKE ZEMEDELSTVI, Vol. 4, No. 7/8, July/Aug.  
1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,  
Dec. 1954, Uncl.

Ryška, Al.

✓ 5.3-305

551.588.6:63

Némec, Fr. and Ryška, Al., *Klimatický a hydrologický význam lesa pro zemědělství*  
[Climatological and hydrological importance of forests in agriculture.] *Za Socialistické*

*Zemědělství*, Prague, 7(11):1243-1249, Nov. 1952. 2 tables. DLC--The contribution of forests to water conservation and consequently to better crops is discussed in general terms. Examples of water infiltration and runoff under different types of forest cover are given in tabular form. In the Russian prairies the climatic benefit of forests is appraised at four times the value of the timber they produce. *Subject Headings: 1. Forest influences 2. Agriculture.*

*guthrie*  
2

-G.T.

RYSKA, Frant'šek

Increasing the operational efficiency of extraction turbines.  
Energetika Cz 13 no.4:202-203 Ap '63.

1. Kralovopolska strojirna, Brno.

RYSKA, Frantisek

Pneumatic conveying of fly ash. Energetika Cz 14 no.10:508  
O '64.

Mechanical separator of fuels. Ibid.:508-509

1. Kralovopolska strojirna National Enterprise, Brno.

RYSKA, Jiri, inz.

New ways of capital investment in fuel production. Uhlí 4  
no.12:405-406 D '62.

1. Vedoucí spravy investicni vystavby, odvetvi paliv, Mini-  
sterstvo paliv a energetiky.

SOBOTKA, Alois, inz., So.C.; RYSKA, Lubor, inz.

Gamma radiation field for agricultural and forestry radiation genetic research and for breeding purposes. Vest vyzk zemedel 9 no.12:573 '62.

1. Vyzkumny ustav lesniho hospodarstvi a myslivosti, Zbraslav - Strnady.

M. A.

12.

New and More Accurate Method of Measurement of the Casting Temperatures of Metals. Blenek Ryska (Hutnické Listy, 1949, 4, 273-276; C. Abs., 1950, 44, 1866).--A new temp.-measuring device, utilizing the effect of infra-red radiation of waves longer than 7600 Å. on a special electronic valve which is very sensitive to these wave-lengths, is described. The device has a detecting element and a box housing the controls and the indicating instrument. Optical and acoustical means are provided to signal the instant of reaching the set temp. The thermal and mechanical time lag is entirely eliminated by this method of measurement. For temp. of about 1500°C the accuracy obtainable is within 1%, and accuracies of  $\pm 2^\circ\text{C}$ . and less can be obtained if special measures are taken to increase the accuracy. The scale gives direct readings in  $^\circ\text{C}$ . The measuring device described is very versatile and is suitable for accurate and instantaneous temp. measurements during the casting of metals and to follow precipitation phenomena, critical points, and the Curie point of ferromagnetic metals and alloys.





F

4376. NEW METHOD OF THERMAL CONTROL OF COOKING PROCESS TO IMPROVE OUTPUT OF COKE OVENS. Ryska, Z. COMMENT ON ABOVE. Kavele, K. and Samuel, V. (Paliva, 1950, vol. 30, (5-6), 116-118 and (8-9), 248-249). A scheme is proposed for recording the temperature of coke, as it is pushed out of the oven, by electronic detection of infra red rays. (L)

AS - SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION	CLASSIFICATION	ALPHABETIC
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
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76	77	78
79	80	81
82	83	84
85	86	87
88	89	90
91	92	93
94	95	96
97	98	99
100	101	102

Technicka mereni. [Vyd. 1.] Praha, Statni pedagogicke nakl., 1953. 1. y. (unpaged)  
(Ucebni texty vysokych skol) [Technical measurements. Chiefly diagrs.]

SO: Monthly List of East European Accessions, Vol.3, No.2, Library of Cong., Feb. 1954, Uncl.

RYSKA, Z.

"Use of infrared rays in modern technology." Elektrotechnik, Praha, Vol. 9, No. 2,  
Feb. 1954, p. 49.

SO: Eastern European Accessions List, Vol. 3, No. 11, Nov. 1954, L.C.

RYSKA, Z.

J. Stivin and others' Vysokofrekvenčni obrev v prmyslu (High-Frequency Heating in Industry); a review. p. 439.  
(Elektrotechnický Obzor, Vol. 45, no. 8, August 1956. Czechoslovakia)

SO: Monthly List of East European Accessions. (EEAL) LC. Vol. 6, No. 6,  
June 1957. Uncl.

CZECHOSLOVAKIA / Chemical Technology. Chemical Pro- H-13  
ducts and Their Application--Ceramics.  
Glass. Binding Materials. Concrete

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8973

Author : Ryska, Z.

Inst : Not given

Title : The Use of Ceramics as Heating Elements in  
Electrical Resistance Furnaces

Orig Pub: Elektrotechnik, 1958, 13, No 6, 297-308

Abstract: No abstract

Card 1/1

RYSKA, Z.

"Electric phenomena in the melting channel of a low-frequency induction furnace with an iron core."

Elektrotechnický Obzor. Praha, Czechoslovakia. Vol. 48, no. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

S/137/61/000/008/004/037  
A060/A101

AUTHOR: Ryska Zdeněk

TITLE: Smelting furnace with inductive resistor

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 8, 1961, 13, abstract 8B74  
(Indukčně odporová tavicí pec. Czechoslovak patent no. 95131, 15.  
05. 60)

TEXT: The smelting furnace with an inductive resistor is distinguished from core- and coreless induction furnaces by a high efficiency ( $> 80\%$ ), and is constructed in such a way that its heater element in the shape of a round induction coil is submerged in the molten metal. The surface of the heater element is protected from contact with the metal by a refractory layer, which at the same time serves as protection from mechanical damage.

S. Glebov

[Abstracter's note: Complete translation]

Card 1/1

RYSKA, Zd.

Infrared pulse vacuum drying. El tech obzor 51 no.7:362 JI  
'62.



L 17495-63

EWP(q)/BDS AFFTC/ASD Pad JD/HW

ACCESSION NR: AP3001738

Z/0017/63/052/005/0247/0249

AUTHOR: Ryska, Zdenek (Dr. of Engineering)

TITLE: Increased service life of resistance heating materials made of Cr-Ni alloys

SOURCE: Elektrotechnicky obzor, v. 52, 1963, 247-249

TOPIC TAGS: Resistance-heating material, W, Ti, Be, alkaline earth, diffusion, Cr alloy, Ni alloy

ABSTRACT: The conditions of increasing the service life of resistance-heating materials made of Cr-Ni alloys were determined. Processing these materials in vacuum furnaces and adding alkali earths and high-melting metals (W, Ti, Be) in trace amounts increased the service life (life expectancy) by 25 to 50%. The experimental results are presented in Tables 1 and 2 of Enclosures 4 and 5.

The service-life tests were carried out (a) at constant temperature (1050C and 1200C), (b) constant voltage, and (c) constant current. The results obtained under (a) were expressed by equation 1 of Enclosure 1, and were in best agreement with practical demands.

When the kinetic energy of W, Ti and Be molecules increases according to the Fick diffusion laws, their diffusion into Ni is described by equation 3 of

Card 1/8 3

L 17495-63

ACCESSION NR: AP3001738

Enclosure 2. Since, in first approximation, the mass transfer is proportional to the average free path and average velocity of the molecules, the amount of matter which passes per second through a uniform section of the medium can be determined from equation 4 of Enclosure 3.

The degree to which the service life of resistance-heating materials is affected by their contact media was also studied. At increased temperatures, S or C causes a deterioration of the service life. Alloys of high Ni content perform well in a nitrogen atmosphere with little or no oxygen. A temperature of 1150C was attained in a vacuum furnace for Ni-Cr 80:20, but at higher temperatures the Cr will be scalded and hence the vacuum decreased. All traces of halogens should be removed since they lower the heat resistance even at normal temperatures.

Cr-Ni alloys can be used with refractories rich in aluminum oxide. Above 1000C, ceramics containing more than 42 to 44% aluminum oxide are used with advantage. Mica, asbestos and silica destroy the heat resistance even at 700C. Orig. art. has: 4 figures, 4 equations, and 2 tables. 16

ASSOCIATION: none

Cord 2/83

L 17495-63

ACCESSION NR: AP3001738

SUBMITTED: 11Sep63

DATE ACQ: 12Jun63

ENCL: 05

SUB CODE: ML

NO REF SOV: 000

OTHER: 010

0

Card 3/83

ACCESSION NR: AP4015866

Z/0017/64/053/001/0022/0025

AUTHOR: Ryska, Zdenek (Docent of engineering, doctor)

TITLE: High refractory metals suitable for electrothermal technology

SOURCE: Elektrotechnicky obzor, v. 53, no. 1, 1964, 22-25

TOPIC TAGS: heat-resisting metals, protective coatings, Ta brazing, electrical conductivity, Pt coating, metal-protecting coatings, zirconium dioxide insulator, MoSi, Si sub 2 O sub 3 tungsten

ABSTRACT: Present-day techniques need both metals and ceramic materials for high temperature service. Materials for service above 1500C are classified as extremely resistant. Resistance of metals to oxidation, and reduction of the effect of the partial pressures of vapors is discussed. Protection by means of a metallic or ceramic material adhering to the given metal, protective atmosphere, and coating by MoSi or Si<sub>2</sub>O<sub>3</sub> are discussed. Mo protected by this last-mentioned material resists oxidation at 1000C for over 1000 hours, at 1800C for over 500 hours, and at 2000C for over 100 hours. Protective layers

Card 1/2

ACCESSION NR: AP4015866

of Pt are not suitable above 1650C. Properties of tungsten metal are discussed along with the effect of impurities in the metal. Uses of W and of its ferro-alloys as well as suitable applications of Mo and Ta metal are described. The advantage of brazing Ta to Cu is evaluated. Zr dioxide insulators are recommended for suspension of Ta heating belts. Reference is made to Czech publication Technicky Pruvodce V. Elektricke Teplo, SNTL, Prague 1958, where a formula is given for calculating electrical resistance of W, Mo and Ta at temperatures above 2000C. Orig. art. has: 5 figures, 1 table.

ASSOCIATION: none

SUBMITTED: 17Jul63

DATE ACQ: 03Feb64

ENCL: 00

SUB CODE: ML, MA

NO REF SOV: 000

OTHER: 010

ACCESSION NR: AP4038932

Z/0017/64/053/005/0265/0267

AUTHOR: Ryska, Zdenek (Docent, Doctor in engineering)

TITLE: Highly refractory ceramic materials used in electrothermics

SOURCE: Elektrotechnicky obzor, v. 53, no. 5, 1964, 265-267

TOPIC TAGS: aluminum oxide, magnesium oxide, silicon dioxide, thorium dioxide, zirconium dioxide, beryllium oxide, metal oxide, ceramics, ceramic material, heat-resistant ceramic material, refractory ceramic material, electrothermics, electrical heat production

ABSTRACT: The present article is a continuation of a previous study (Elektrotechnicky Obzor, no. 5 (1963) page 247) and pertains to highly refractory ceramic materials which are used in electrothermics and which have been recently finding an ever-increasing application in rocket and atomic engineering. The primary indices of these materials, which are used in equipment operating at high vacuums such as that in oil diffusion pumps, i.e.  $1 \times 10^{-9}$  mm Hg,  $10^{-12}$  mm Hg in mass spectrometers, and  $10^{-14}$  mm Hg in measuring equipment with photomultipliers. The new areas of application of these materials permit a wider use of electric heat sources with a high temperature gradient (e.g. electric arc, plasma, electronic heating). The

Card 1/2

ACCESSION NR: AP4038932

characteristics of the most important metal oxides ( $Al_2O_3$ ,  $MgO$ ,  $SiO_2$ ,  $TiO_2$ ,  $ZrO_2$ ,  $BeO$ ) are given with respect to vapor tension, especially at high vacuum. These oxides are of especial importance in the production of high-quality materials and their heat treatment such as bright annealing without protective atmosphere, etc. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 24Sep62

DATE ACQ: 03Jun64

ENCL: 00

SUB CODE: MT, ES

NO REF SOV: 000

OTHER: 003

Card 2/2

RYSKA, Zd., doc. inz. dr.

The 5th International Congress of Electroheat. El tech obzor 53  
no.9: Suppl: Zpravy 53 no.9:Z33-Z34 S '64



BYMA, St. Soc. inz. dr.

On some reports at the 5th International Congress on Electroheat,  
1963. El tech obzor 53 no.9:507-508 5 '64.

RYSKA, Zd.

Line frequency induction channel melting furnaces. El tech obzor  
53 no. 11:624-625 N '64.

L 33207-60

INT (V)

SOURCE CODE: CZ/0017/65/054/012/0586/0590

ACC NR: AP6023826

AUTHOR: Ryska, Zdenek (Docent in Engineering; Doctor)

ORG: CVUT, Prague

TITLE: Development of vacuum electric melting furnaces

SOURCE: Elektrotechnicky obzor, v. 54, no. 12, 1965, 586-590

TOPIC TAGS: vacuum furnace, melting furnace, heat resistant material, metallurgic furnace

ABSTRACT: Vacuum technique and the technique of melting at high temperature now permit elevating the quality specifications of products with simultaneous weight reduction, or obtaining especially heat-resistant, compact and ductile metals. Electron vacuum melting furnaces with beams of accelerated electrons represent the only convenient production equipment. This paper gives the characteristics of those furnaces. Orig. art. has: 5 figures. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 11 / SUBM DATE: 28Jul65 / ORIG REF: 006 / SOV REF: 001  
OTH REF: 005

Card 1/1 *plw*

UDC: 621.365.9  
*0915* *1555*

*37*  
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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5"

RYSKAL', A. (Kryubinak)

Heroes with a medical bag. Voen. znani. 40 no.10:37 0 '64.  
(MIRA 17:12)

RYSKAL', A.; KROKHIN, I.; MARTYNOV, S.

Letters to the editor. Voen. znan. 39 no.6:20 Je '63.  
(MIRA 16:8)

1. Zamestitel' predsedatelya oblastnogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu, Aktyubinsk (for Ryskal'). 2. Predsedatel' komiteta pervichnoy organizatsii Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu domoupravleniya No.4, Chernigov (for Krokhin). 3. Predsedatel' komiteta pervichnoy organizatsii Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu, Leningrad (for Martynov).  
(Military education)

FIGULEVSKIY, G.V.; RYSKAL'CHUK, A.T.

Raman spectra of compounds found in essential oils. Trudy Bot.  
inst. Ser. 5 no. 5: 149-257 '55. (MLRA 9:5)  
(Essences and essential oils) (Raman effect)

RYSKAL'CHUK, A. I.

"A Study of the Turpentine Pinus Silvestris by the Raman Spectra," Zhur. Obshch.

Khim., 15, Nos. 7-8, 1945.

Mbr., Lab. Bioproduction, Leningrad State Order Lenin Univ. im. Budnov, 1944-.

RYSKAL'CHUK, A. I.

"Raman Effect Investigation on Turpentine from Pinus Silvestris,"

Dok. An, 44, No.9, 1944.



GOLODNIKOV, Gennadiy Vladimirovich; NIZOVKINA, Tat'yan Vsevolodovna;  
RYSKAL'CHUK, Apollinariya Terent'yevna; DOIGOV, B.N., prof., red.;  
SHCHEMELEVA, Ye.V., red.; VODOLAGINA, S.D., tekhn.red.

[Practical work in organic synthesis] Praktikum po organicheskomu  
sintezu. Pod red. B.N.Dolgova. [Leningrad] Izd-vo Leningr.univ.,  
1957. 187 p. (MIRA 11:3)  
(Chemistry, Organic--Synthesis)

RYSKAL'CHUK, A. T.

FIGULEVSKIY, G. V. and RYSKAL'CHUK, A. T.  
(Leningrad State Univ.)

CA: 40-5644/9

J. Gen. Chem. (USSR) 15, 678-83 (1945) - English summary  
Raman-effect investigation of turpentine from *Pinus sylvestris*.

RECORDED

RYSKAL'CHUK, A. T.

FIGULEVSKIY, G. V. and RYSKAL'CHUK, A. T.  
(Leningrad State University)

CA: 39-5178/5

Doklady Akad. Nauk SSSR 44, 400-2 (1944): Compt. rend. acad. sci. URSS  
44, 372-4 (1944) - in English  
Raman-effect investigation of turpentine from Pinus sylvestris.

RESTRICTED

RYSKINA, S. I.

CA: 42-5342/f

RYSKINA, S. I.

(State Optical Inst., Leningrad)

J. Phys. Chem. (USSR) 22, 21-5 (1948)

Computation of frequencies and interpretation of vibrational spectra  
of polyatomic molecules. Dimethyl ether, mercaptan.

~~RESTRICTED~~

PROCESSES AND PROPERTIES INDEX

Mixed alcoholates of magnesium and their molecular compounds. IV. The action of certain ketones on butylmagnesium iodide in ether solution. V. M. Tolstopyatov and A. T. Ryskal'chuk: *J. Gen. Chem.* (U. S. S. R.) 9, 1148-50 (1930); cf. *C. A.* 29, 4748. — The reaction of BuOMgI (I) with *p*-MeC<sub>6</sub>H<sub>4</sub>COPh (II), fluorenone (III) and dibenzalacetone (IV) in ether was carried out by the method previously described. Of the 3 ketones only II gave a mol. compd. with MgI. III and IV reacted in the same manner as aldehydes and benzil to give mol. compds. with I. I (0.1 mole) with II (0.15 mole) gave 24% yield of III. MgI. III and IV with I under the same conditions gave III, orange-brown (80% yield) and IV, yellow-brown (88% yield), resp. The latter, decompd. with dil. H<sub>2</sub>SO<sub>4</sub>, gave BuOH and 96.5% IV.  
John Livak

10

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX										ALLOY INDEX																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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CA

3

**Raman-effect investigation of turpentine from *Pinus sylvestris*.** G. V. Pigulevskii and A. T. Ryskal'chik  
 (Leningrad State Univ.). *J. Gen. Chem. (U.S.S.R.)* 15:  
 078-81(1943) (English summary). See C.A. 19, 6178.  
 G. M. Kosolapoff

**ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION**

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99	0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
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**RYSKAL'CHUK, A. T.**

APPROVED FOR RELEASE: Tuesday, September 26, 2001 CIA-RDP86-00510R000400050005-3

Raman spectra of compounds occurring in essential oils.  
G. V. Figuevskii and A. T. Ryskal'chuk. *Trudy Botan.  
Inst. im. V. L. Komarova, Akad. Nauk S.S.S.R.* 5, No. 5,  
149-257(1955).—A review with 126 references.  
R. Dowbenko

2





A-3

**Hydrolysis of salts of hydrazo-compounds.**  
R. F. Cramer, A. T. NYSANATSCHE, and M. A. AMMERMAN (J. Org. Chem. Russ., 1961, 3, 686-700).—Treatment of hydrazobenzene hydrochloride, prepared in 20% solution with H<sub>2</sub>O gives 30% of benzidine, 60% of diphenyls, and semidine, and 10% of hydrazobenzene (with some aniline); keeping the solution for 24 hr. before hydrolysis increases the benzidine and diphenyls fractions at the expense of the hydrazobenzene. Rapid saturation of ethereal hydrazobenzene with HCl, followed by hydrolysis, gives 40% of benzidine, 14% of diphenyls, and 46% of hydrazobenzene, no semidine

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

1960-1969

TRICHO MIT CHV OR

EXTRACT

FROM SOURCE

E-2

EXTRACT ONE ONLY

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	JJ	JK	JL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KK	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LL	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TT	TU	TV	TW	TX	TY	TZ	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL	UM	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL	VM	VN	VO	VP	VQ	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	XO	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY	XZ	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	YU	YV	YW	YX	YZ	ZA	ZB	ZC	ZD	ZE	ZF	ZG	ZH	ZI	ZJ	ZK	ZL	ZM	ZN	ZO	ZP	ZQ	ZR	ZS	ZT	ZU	ZV	ZW	ZX	ZY	ZZ
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being formed. Solid hydrazones with HCl below  
 -20° forms an unusual green dihydrochloride, yielding  
 21% of benzidine, 89% of diphenylamine and dinitro-  
 and 23% of hydrazobenzene on hydrolysis. The green  
 salt is known as  $\text{C}_6\text{H}_4\text{N}_2\text{H}_2\text{Cl}_2$  and  $\text{C}_6\text{H}_4\text{N}_2\text{H}_2\text{Cl}_2\cdot\text{HCl}$ .  
 and it is shown that this is hydrolyzed to  $\text{NH}_2\text{PhCl}$   
 and  $\text{NH}_2\text{Ph}$  and this contains no free benzidine  
 The formation of benzidine is shown to be due to  
 1 mol. of  $\text{C}_6\text{H}_4\text{N}_2\text{H}_2\text{Cl}_2$  to the 1 mol. of benzidine  
 formed and that (A. 1917) 1 mol. benzidine  
 contains 1 mol. of the green salt with an  $\text{NH}_2$   
 group. Hydrolysis of the green salt with an  $\text{NH}_2$   
 group gives  $\text{NH}_2\text{PhCl}$  and benzidine. The formation of  
 intermediate products is shown. The yield of benzidine  
 is 21% and 89% benzidine forms a green  
 dihydrochloride  $\text{C}_6\text{H}_4\text{N}_2\text{H}_2\text{Cl}_2$  and  
 diphenylamine  $\text{C}_6\text{H}_5\text{NH}_2$  and hydrolysis  
 contains 21% benzidine, 89% diphenylamine.  
 Hydrolysis forms a benzidine and diphenylamine  
 and hydrolysis to the appropriate benzidine and  
 p-hydroxybenzidine form unstable violet dihydro-  
 chlorides. These dihydrochlorides are also obtained  
 from a and p-aminobenzene (m. p. 120° and 130°),  
 but these readily lose HCl re-forming the base.  
 G. A. E. Kov.

FIGULEVSKIY, G.V.; RYSKAL'CHUK, A.T.

Raman spectra of terpenes and their derivatives. Trudy Bot.  
inst. Ser. 5 no.8:210-239 '61. (MIRA 14:7)  
(Terpenes) (Raman effect)

PIGULEVSKIY, G.V.; RYSKAL'CHUK, A.T.

Infrared spectra of compounds contained in essential oils.  
Trudy Bot. inst. Ser. 5 no.8:240-325 '61. (MIRA 14:7)  
(Essences and essential oils)  
(Spectrum, Infrared)

PHASE I BOOK EXPLOITATION

614

*RYSKAL'CHUK*  
Golodnikov, Gennadiy Vladimirovich, Nizovkina, Tat'yana Vsevolodovna  
and Ryskal'chuk, Apollinariya Terent'yevna

Praktikum po organicheskomu sintezu (Practical Work in Organic Synthesis) Leningrad, izd-vo Leningrad. univ-ta, 1957. 187 p.  
6,080 copies printed.

Sponsoring Agency: Leningrad. Universitet.

Ed. (title page): Dolgov, B.N., Professor; Ed. (inside book):  
Shchemeleva, Ye.V.; Tech. Ed.: Vodolagina, S.D.

PURPOSE: This manual is intended for the use of chemistry students taking a laboratory course in organic synthesis.

COVERAGE: This manual is presented as a guide to practical laboratory work in organic synthesis. It is divided into three parts. The first part is devoted to general methods and procedures of laboratory work in this field. Particular attention is given to

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## Practical Work in Organic Synthesis

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fractional distillation, fractionating columns, steam distillation, reduced-pressure distillation, recrystallization, and the determination of melting points. Instructions are given for keeping records, safeguarding against accidents, what to do in case of fire, first aid in case of burns, glass cuts; etc. The second part describes the synthesis of organic compounds. The syntheses are divided according to types of reaction. For each type of reaction a few examples are given distinguished one from the other according to methods of separation and treatment of organic compounds produced. The third part of the manual includes supplementary syntheses which are given to laboratory students as finals. Every synthesis described in the manual has been checked and proved many times over during many years by the faculty of organic chemistry at the Leningrad State University. There are no personalities and no references.

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CHUKIN, T.S.; ASKEYEV, D.Zh.; RYSKELDIYEV, A., otv. red.; ISABEKOVA, A.,  
red.izd- 'a; ANOKHINA, M.G., tekhn. red.

[Dictionary of Russian-Kirghiz automobile and tractor terms; draft]  
Slovar' russko-kirgizskikh avtotraktornykh terminov; proekt. Frunze,  
Akad.nauk Kirgizskoi SSR, 1961. 147 p. (MIRA 14:12)  
(Technology--Dictionaries) (Russian language--Dictionaries--Kirghiz)

LOSEV, V.B.;RYSKALOVA, M.F.

Production of methyl (phenylaminomethyl)-diethoxysilane.  
Plast.massy no.3:24-25 '64. (MIRA 17:3)

ACCESSION NR: AP4018163

S/0191/64/000/003/0024/0025

AUTHOR: Losev, V. B. ; Ry\*skalova, M. F.

TITLE: Production of methyl-(phenylaminomethyl)-diethoxysilane

SOURCE: Plasticheskiye massy\*, no. 3, 1964, 24-25

TOPIC TAGS: methyl-(phenylaminomethyl)-diethoxysilane, production, process, arylaminoalkyldiethoxysilane, amination, diethoxysilane

ABSTRACT: The incorporation of polar groups in organosilicon polymers overcomes some of their low mechanical and adhesive properties. Methyl-(phenylaminomethyl)-diethoxysilane is such a compound. This technical grade material can be produced in increased yields (76%) by reacting aniline with the mixture of products obtained by esterifying methylchloromethyldichlorosilane (without separating the methylchloromethyldiethoxysilane), filtering to remove the aniline salt, and subsequently vacuum distilling the low boiling fraction from the filtrate of the reaction mass. Orig. art. has: 1 equation.

Card 1/2

ACCESSION NR: AP4018163

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: CH

NO REF SOV: 004

OTHER: 000

RYSEANOV, T.

Studying the concentration of nickel at the point of fatigue  
fracture in IX18H9T steel. Izv. AN Kir. SSR. Ser. est. 1  
tekh. nauk 5 no.6:125-128 '63. (MIRA 17:5)



BRYNZA, A.P.; KORMSHCHIKOVA, N.A.; RYNSKAYA, Ye.S.

Sorption properties of metal powders. Porosh. met. 5 no.7:  
1-7 J1 '65. (MIRA 18:8)

1. Dnepropetrovskiy gosudarstvennyy universitet.

RYSKIN, A.; CHDRNENKO, G.

Forest nightingale. Znan.-sila 38 no.2:35 P '63. (MIRA 16:3)  
(Solov'ev, Aleksandr Pavlovich, 1904-)

RYSKIN, A. A.; KAMENEV, V. T.

Cold rolling of steel low-module pinions in mass production.  
Avt. prom. 28 no.9:43-44 S '62. (MIRA 15:10)

1. Chelyabinskiy politekhnicheskiy institut i Ural'skiy avtozavod.

(Gear shaping machines)

S/123/59/000/006/010/025  
A005/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1959, No. 6, p. 91,  
# 20750

AUTHOR: Ryskin, A. A.

TITLE: Introduction of Copy Turning

PERIODICAL: Tekhnol. avtomobilstroyeniya, 1958, No. 1, pp. 16-24

TEXT: The author reports on the work carried out in the automobile works UralZIS (UralZIS) to convert multiple-tool semiautomats of the 3PC-(ZRS-)116 type to the mechanical copy turning method in which the contour of the treated part is reproduced by one and the same tool. The calculation of the angles and curves is presented for the feed cutter and the copying cams to obtain the necessary conlination of their displacement speeds for turning parts with intricate profiles. The design of the cutting tool for copy turning is described, and the method of calculation and choice of the cutting conditions is presented. The cost of the equipment and the modernization of the semiautomat of the ZRS-116 type is approximately 10 times less than the cost of the hydraulic copying carriage of the

Introduction of Copy Turning

S/123/59/000/006/010/025  
A005/A001

KCT-1 (KST-1) type which is applied to the universal turning lathes. In consequence of the introduction of copy turning, the following results were obtained at the lathes modernized for these purposes: 25,000 machine-hours were saved; the quantity of tool items was reduced to 20%, and the cost of the spent tools was diminished three times, the savings of electric power amounted to 19,000 kwh. There are 7 figures.

R. V. A.

Translator's note: This is the full translation of the original Russian abstract. ✓

RYSKIN, A.I.; TKACHUK, A.M.; TOLSTOY, N.A.

Optical properties of complex compounds of bivalent platinum.  
Izv. AN SSSR. Ser.fiz. 29 no.3:512-515 Mr '65.

(MIRA 18:4)

RYSKIN, A.I.; TKACHUK, A.M.; TOLSTOY, N.A.

Properties of ethanolamine compounds of divalent platinum.  
Opt. i spektr. 18 no.3:422-431 Mr '65.

(MIRA 18:5)

S/0051/64/016/002/0274/0278

ACCESSION NR: AP4030929

AUTHOR: Ry'skin, A.I.; Khal'ko, G.I.; Maksakov, B.I.; Dubenskiy, K.K.

TITLE: Absorption spectra of the divalent Mn ion in ZnS single crystals

SOURCE: Optika i spektroskopiya, v.16, no.2, 1964, 274-278

TOPIC TAGS: manganese ion absorption, manganese in zinc sulfide, manganese activated zinc sulfide, manganese 2+, zinc sulfide

ABSTRACT: The absorption spectrum of  $Mn^{2+}$  in different hosts has been studied by several investigators, but mostly with the material in the polycrystalline state. In view of advances in techniques for growing large ZnS crystals and development of crystal field theory, it was deemed worthwhile to undertake the present investigation of the absorption bands of  $Mn^{2+}$  in ZnS single crystals. It is possible that manganese also enters the sulfide lattice in trivalent form, but this is questionable and so far unproved. The Mn activated ZnS crystals were grown from melts under pressure (argon at 150 atm), using crucibles from 10 to 30 mm in diameter. The crucible displacement rate was 8 mm/hour. The initial material was luminescence pure ZnS heated for 6-7 hours in a stream of purified argon. One of the investigated

1/2

Card



ACCESSION NR: APL020929

crystals was prepared with  $ZnCl_2$  flux and contained 2.4 atomic percent Mn (introduced in the form of  $MnSO_4$ ); another crystal was grown with  $MnCl_2$  flux and contained 3.8 atomic percent Mn. The intrinsic (non-Mn) absorption of the former extended further into the long wavelength region, probably due to the presence of excess zinc. The spectra of the crystals were recorded at room temperature by means of an SF-4 spectrophotometer and at liquid nitrogen ( $77^{\circ}K$ ) temperature and liquid helium ( $4.2^{\circ}K$ ) by means of a quartz optics Q-12 spectrograph. The low temperature spectra were recorded in polarized light. Traces of the absorption spectra at the three temperatures and of the structure of the  $21\ 645\ cm^{-1}$  band at  $4.2^{\circ}K$  for E parallel and perpendicular to the c axis are reproduced. The structure of the spectra of the two above mentioned crystals is rather similar. Five bands are identified, i.e., associated with transitions between the  $Mn^{2+}$  levels in a field of cubic symmetry. The structure of the absorption bands is discussed briefly. Orig.art.has: 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 20Mar63

DATE ACQ: 02Apr64

ENCL: 00

SUB CODE: PH

NR REF SOV: 003

OTHER: 016

Card 2/2

RYSKIN, A.I.; TOLSTOY, N.A.; KHIL'KO, G.I.

Flashlike rise of luminescence. Part 4. Opt. i spektr. 15 no.5:  
659-666 N '63. (MIRA 16:12)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5"

RYSKIN, A.I.; KHIL'KO, G.I.; MAKSAKOV, B.I.; DUBENSKIY, K.K.

Absorption spectrum of  $Mn^{2+}$  ions in ZnS single crystals. Opt. i  
spektr. 16 no.2:274-278 P '64. (MIRA 17:4)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5"

ZAKHARCHENYA, B.P.; MAKAROV, V.P.; VARFOLOMEYEV, A.V.; RYSKIN, A.Ya.

Zee-man effect in the main emission line in  $\text{CaF}_2 - \text{Tu}^{2+}$  crystals.  
Opt. i spektr. 16 no.3:455-460 Mr '64. (MIRA 17:4)

L-13972-65 FSF(h)/EWT(1)/EWA(h) Pn-l/Pac-l/Peb SSD/AEDG(b)/AFMD(t)/AFWL/  
BSD/ASD(a)-5/AFETR/RAEM(a)/ESD(c)/RAEM(c)/RAEM(i)/ESD(dp)/ESD(gs)/ESD(t)

ACCESSION NR: AP4048759 S/0051/64/017/005/0799/0799

AUTHOR: Maly\*shev, G. M.; Ry\*skin, A. I.

TITLE: The possible application of fiber optics in the construction of an apparatus with a Fabry-Perot interferometer and an electro-optical converter

SOURCE: Optika i spektroskopiya, v. 17, no. 5, 1964, 799

TOPIC TAGS: fiber optics, spectroscopy, fiber optical scanning, spectral line measurement

ABSTRACT: A more effective study of line broadening will be made possible by an apparatus currently under construction which will utilize light reflected from the entire interference pattern rather than portions thereof. This apparatus will comprise a light filter, a Fabry-Perot interferometer, an image converter, and an electro-optical converter. The image converter will transform a two-dimensional annular distribution of intensities in the interference pattern into a one-dimensional distribution. The converter can be made of a bundle of

L 13972-65

ACCESSION NR: AP4048759

optical fibers and should be placed between the interferometer and electro-optical converter. Its toroidal end faces the interferometer to receive the incident interference pattern. The fibers should be arranged in a series of bundles in order that each ring forms a band along which the adjacent resolvable wavelengths lie. The resultant pattern will form a rectangle whose axes designate time and wavelength. The resolving power of the proposed apparatus is high and its world significance far reaching. The measure of its effectiveness, which can be derived from expressions for the radii of interference rings and the parameters of the converter, is similar to one designed earlier (G. M. Maly\*shev and others, ZhTF, 33, 191, 1963).

ASSOCIATION: none

SUBMITTED: 09Mar64

ENCL: 00

SUB CODE: OP, EC

NO REF SOV: 004

OTHER: 001

ATD PRESS: 3133

Card 2/2

TOLSTOY, N.A.; KHIL'KO, G.I.; RYSKIN, A.I.; TRUSOV, A.A.

Relation between luminescent and photoelectric phenomena  
in ZnS-Mn. Fiz. tver. tela 4 no.11:3177-3184 N '62.  
(MIRA 15:12)

1. Gosudarstvennyy opticheskiy institut imeni  
S.I. Vavilova, Leningrad.  
(Luminescent substances)  
(Photoelectricity)

L 19481-63

EWT(1)/EWP(q)/EWT(m)/EWP(B)/BDS AFFTC/ASD/IJP(C)/SSD JD

ACCESSION NR: AT3002230

S/2941/63/001/000/0257/0260

AUTHORS: Ryskin, A. I. ; Tolstoy, N. A.

76 B

TITLE: Excitation energy transfer mechanism in ZnS-Mn phosphors

SOURCE: Optika i spektroskopiya; sbornik statey. v. 1: Lyuminescentsiya.  
Moscow, Izd-vo AN SSSR, 1963, 257-260

TOPIC TAGS: excitation, interaction, dipole transition, orange band, absorption

ABSTRACT: The energy transfer process of  $Mn^{2+}$  ions in ZnS-Mn has been studied. The assumption is made that at low temperatures this excitation energy occurs in blue centers (spots) lying on the periphery of interaction with the  $Mn^{2+}$  ions. The radius of this interaction,  $R_k$ , is designated as the ratio of orange band intensity (produced by  $Mn^{2+}$  ions) to the integrated light intensity. Values of  $R_k$  are tabulated for various annealed phosphor specimens. It is shown that dipole-dipole energy transitions between blue centers exists only in a region of  $2\text{\AA}$ . Apart from dipole-dipole energy transitions, probability of interchange transitions depends on the extent of blue centers; large magnitudes of the latter being compensated for by small magnitude, overlapping, integrated spectra of radiation and absorption. A calculation is made of the distance  $R$  between blue centers and

Card 1/2



L 19481-63

ACCESSION NR: AT3002230

blue center concentration in ZnS. It is found that contacting blue centers ( $R \approx 2.1 \text{ \AA}$ ) start at a concentration level  $C = 0.3\%$ . The authors contend that a large concentration of blue centers is necessary to allow interchange interactions to occur. Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 20Jun62

DATE ACQ: 19May63

ENCL: 00

SUB CODE: PH

NO REF SOV: 007

OTHER: 008

Card 2/2

68899

S/051/60/008/02/028/036

E201/E391

24.7700  
AUTHORS:

Tolstoy, N.A. and Ryskin, A.I.

TITLE:

Superlinearity in the Luminescence and Photo-conductivity Phenomena and the Rose-Bube Theory

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 2, pp 272 - 274 (USSR)

ABSTRACT: Experimental evidence indicating simultaneous superlinear dependence of luminescence and photo-conductivity on the excitation intensity  $E$  (Ref 1) makes it desirable to attempt a unified treatment of these phenomena. Since explanation of the superlinearity in photo-conductivity is easier, we shall consider it first. The change in photo-conductivity  $\Delta\sigma_{\infty}$  is given by:

$$\Delta\sigma_{\infty} \sim E\beta\tau u \quad (1)$$

where  $\beta$  is the quantum yield of electrons to the conduction band,  $\tau$  is the carrier lifetime in the conduction band and  $u$  is the electron mobility. To explain the phenomenon of superlinearity it is necessary to assume that at least one of the three quantities

Card1/3

68899

S/051/60/008/02/028/036

E201/E591

Superlinearity in the Luminescence and Photo-conductivity Phenomena  
and the Rose-Bube Theory

$\beta$ ,  $\tau$  or  $u$  rises with increase of  $E$ . Rose (Ref 5) and Bube (Ref 6) suggested that  $\tau$  rises with  $E$ . From Rose and Bube's theory it follows that the initial rate of fall of the photo-conductivity should be strictly proportional to the excitation intensity  $E$ , i.e:

$$\Delta \sigma'(0) \sim E \quad (2)$$

To check Eq (2) the present authors carried out experiments on superlinear photo-resistors based on CdS. The authors used the electrical differentiation method described by Tolstoy (Ref 8). Light was modulated by interrupting focused light beams with bullets from small-bore rifles. The differentiated signal was recorded photographically by means of a pulse oscillograph (detailed description of the experiments will be given in a later communication). It was found that Eq (2) is not obeyed at all, that the dependence of  $\Delta \sigma'(0)$  on  $E$  is superlinear and that  $\tau(E)$  decreases slowly with rise of  $E$ . These results show that the main assumptions of the Rose-Bube theory are

Card2/3

4

Problems of Physical Metallurgy 983

Il'ina, V.A.; Kritskaya, V.K., Candidate of Physical and Mathematical Sciences; Kurdyumov, G.V., Academician; Osip'yan, Yu.A.; and Stelletskaya, T.I. A Study of the Relationship Between Bonding Forces and the State of the Crystals in Metals and Solid Solutions 462

Kornev, Yu.V., Candidate of Physical and Mathematical Sciences. Some Data on the Importance of Thermodynamic Magnitudes in Determining Interaction Between Atoms in Solid Solutions 485

Kornev, Yu.V., Candidate of Physical and Mathematical Sciences; and Vintaykin, Ye.Z. Determination of the Heat of Sublimation of Silver by Two Methods 494

Kaminskiy, E.Z., Candidate of Physical and Mathematical Sciences; Rozenberg, V.M., Candidate of Technical Sciences; and Travina, N.T., Candidate of Physical and Mathematical Sciences. Effect of Alloying Elements on the Recrystallization Kinetics of Nickel, Nickel-Chrome Alloys, and Nickel-Chrome-Cobalt Alloys 503

Nosova, G.I.; and Rozenberg, V.M., Candidate of Technical Sciences. An Investigation of the Effect of Structural Changes, Associated with Recrystallization, on Creep 514

Card 7/8

Problems of Physical Metallurgy 983

Gorelik, S.S., Candidate of Technical Sciences; Rozenberg, V.M., Candidate of Technical Sciences; and Rokhlin, L.L. Effect of Certain Soluble and Insoluble Impurities on the Recrystallization of Nickel	522
Maksimova, O.P., Candidate of Technical Sciences, and Zakharov, A.I. The Mechanism of Repair of Radiation Annealing Damage	528
Fastov, N.S., Candidate of Physical and Mathematical Sciences. Thermodynamics of Irreversible Processes in the Elastic Deformation of Bodies	550
Fastov, N.S., Candidate of Physical and Mathematical Sciences. Thermodynamic Relationships for Irreversible Processes	577
Fastov, N.S., Candidate of Physical and Mathematical Sciences. Some Data on the Theory of the Behavior of Macroscopic Pores in a Solid Body	595
Fastov, N.S., Candidate of Physical and Mathematical Sciences. Effect of Surface Energy on the Field of Elastic Stresses in the Region of Macrostructural Defects in Solid Bodies	600

AVAILABLE: Library of Congress

Card 8/8

GO/sfm  
1-23-59

RYSINA  
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446510005-5  
CIA-RDP86-00513R001446510005-5"

MAKSIMOVA, O.P., kand.tekhn.nauk; PONYATOVSKIY, Ye.G.; RYSINA, N.S.; ORLOV, L.G.

Changes in the kinetics of martensite transformation depending on the position of the martensite transition point and alloy composition.  
Probl. metalloved. 1 fiz.met. no.5:25-40 '58. (MIRA 11:4)  
(Phase rule and equilibrium) (Martensite)

USSR/Engineering - Modulus of displacement

Card 1/1 ; Pub. 22 - 12/41

Authors : Rysina, N. S., and Finkel'shteyn

Title : Effect of alloying admixtures on the temperature dependence of the iron displacement modulus

Periodical : Dok. AN SSSR 98/2, 215-217, Sep 11, 1954

Abstract : Experimental study of the temperature effect of alloying admixtures on the hardness of alloyed metals is described. The experiments were conducted with iron alloys in a vacuum furnace with the help of a torsional balance and electronic temperature regulator. Three references (1953-1954). Table; graph.

Institution : Institute of Metallurgy and of Physics of Metals of the Central Scientific Research Institute of Ferrous Metallurgy

Presented by : Academician G. V. Kurdyumov, May 4, 1954

44060

S/742/62/000/000/002/021  
1015/1215

27/220

**AUTHORS:** Rysina, T.N. and Yerokhin, R.A.

**TITLE:** Distribution and excretion of plutonium at remote periods after administration to dogs

**SOURCE:** Plutoni-239; raspredeleniye, biologicheskoye deystviye, uskoreniye vyvedeniya. Ed. by A.V. Lebedinskiy and Yu.I. Moskaev. Moscow, Medgiz, 1962, 12-18

**TEXT:** The metabolism of plutonium in larger animals and in man has been insufficiently studied. Experiments were carried out on 15 adult dogs weighing 18-28 kg, with 4 i.v. injections of plutonium nitrate (pH 2.0) at monthly intervals. The total dose was 0.2  $\mu$ ci/kg b.w. Seven dogs were also subjected to a daily gamma-irradiation of 10r during 5 months. The distribution of plutonium was studied within

Card 1/2



hh064

S/742/62/000/000/006/021  
1015/1215

27.1220

AUTHORS: Rysina, T.N., Tseveleva, I.A.  
TITLE: The transmission of plutonium to the offspring  
SOURCE: Plutony-239; raspredeleniye, biologicheskoye  
deystviye, uskoreniye vyvedeniya. Ed. by A.V.  
Lebedinskiy and Yu.I. Moskalev. Moscow, Medgiz,  
1962, 41-44

TEXT: The problem of the transmission of plutonium from the  
maternal organism to the offspring during pregnancy as well as during  
lactation has been insufficiently studied. Experiments were carried  
out on 17 puppies of varying ages, which were born at different times  
after the administration of plutonium to the dogs. Plutonium nitrate  
was administered i.v. four times at intervals of one month. The total  
dose of Pu was 0.2  $\mu$ Ci/kg b.w. The liver and the bones were examined for

Card 1/2

RYSINA, T.N.

Distribution and excretion of plutonium from dogs. Med. rad. 5  
no.11:49-53 N '60. (MIRA 13:12)  
(~~PLUTONIUM~~-METABOLISM)

27.1220

28230  
S/581/61/000/000/001/020  
D299/D304

AUTHOR: Rysina, T.N.

TITLE: Some changes in nucleoproteids, nucleic acids and their metabolites caused by ionizing radiation

SOURCE: Lebedinskiy, A.V. and Moskalev, Yu.I., eds. Biologicheskoye deystviye radiatsii i voprosy raspredeleniya radioaktivnykh izotopov; sbornik rabot. Moscow, Gosatomizdat, 1961, 9-16

TEXT: To determine the possible role of the direct destruction of molecules under ionizing radiation, solutions of nucleic acids, pyrimidine and purine bases were irradiated. The effects of the irradiation were assessed from the change in the absorption of ultra-violet light ( $\lambda = 220-300 \mu c$ ). A drop in such absorption was noted with radiation doses starting from 5,000-10,000 r; this drop varied directly with the dose. The author then set out to study the quantitative changes in nucleoproteids, nucleic acids, nucleotides,

Card 1/3

Some changes in nucleoproteids...

28230  
S/581/61/000/000/001/020  
D299/D304

tion with the urine could be used as a diagnostic test in cases of acute exposure to radiation. There are 3 figures and 23 references: 8 Soviet-bloc and 15 non-Soviet-bloc. The 4 most recent references to English-language publications read as follows: C.W. Bishop, J.N. Davidson, Brit. J. Radiol., 30, 367 (1957); L.J. Cole, M.E. Ellis, Rad. Research, 7, 508 (1957); D.W. King, S.R. Paulson, Amer. J. Pathol., 35, 369 (1959); J. Patrizek and oth. Nature, 182, No. 4637, 721 (1958).

X

28242  
S/581/61/000/000/013/020  
D299/D304

### The distribution and excretion...

animal's weight. Plutonium distribution was studied 3, 6 and 11 months, and 3, 3.5 and 4 years after its introduction. Both exponential and power models were used for the mathematical description of the behavior of plutonium in the body, tissues and excreta, but the exponential method was found to conform best with the experimental findings. Mathematical calculation of the expressions was accomplished by the method of least squares. The distribution of plutonium in the body is shown in tabular and graphic form, broken down into skeleton, liver, spleen, muscles, lungs, kidneys and other organs, at the various stages of investigation. The distribution was as follows: skeleton 40%, liver 30%, muscles 2.4%, spleen 2.3%, lungs 0.45%, kidneys 0.36%. In all organs radioactivity decreased with time. In the spleen it dropped to 0.49% by the 600th day and in the kidneys to 0.12% by the 1000th day. Subsequently the plutonium content in these organs remained constant. The data from the excretion of plutonium is broken down into 2 periods: 1) 2nd-23rd day, 2) from the 23rd day onwards. For the first 3 weeks plutonium excretion with the stools was higher than excretion with the urine.

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S/058/62/000/002/025/053  
AC61/A101

27.1220  
AUTHOR: Rysina, T. N.

TITLE: Changes produced by ionizing radiation in nucleoproteins, nucleic acids, and in their exchange products

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1962, 19, abstract 2D151  
(V sb. "Biol. deystviye radiatsii i vopr. raspredeleniya radioakt. izotopov". Moscow, Gosatomizdat, 1961, 9 - 17)

TEXT: Nucleic acid solutions in concentrations between 0.003 and 0.033, and solutions of purine and pyrimidine bases in concentrations between  $5 \cdot 10^{-5}$  and  $10^{-2}$  moles were irradiated with  $\text{Co}^{60}$  gamma rays. Doses of 5,000 r and over reduce absorption in the ultraviolet, which is indicative of molecular destruction. The effect of dilution is noted. The dynamics of the content of DNA and of its decomposition products in rabbit tissues after a 1,000-r  $\text{Co}^{60}$  gamma irradiation was investigated. In some tissues the amount of albumin-bound DNA became less, while that of free DNA grew and passed through a maximum after 4 hrs, and then dropped back to the initial level toward the end of the first 24 hrs after irradiation. Products of oxidizing deamination, of adenine and, especially, uridylic acid

Card 1/2

RYSINA, T.N.

Excretion of xanthine and hypoxanthine with the urine in  
irradiated rabbits. Radiobiologia 1 no.4:522-526 '61.  
(MIRA 17:2)

30352

27.1220

S/205/61/001/004/011/032  
D298/D303

AUTHOR: I'vsina, T. N.

TITLE: The excretion of xanthine and hypoxanthine with the  
urine in rabbits after irradiation

PERIODICAL: Radiobiologiya, v. 1, no. 4, 1961, 523-526

TEXT: In previous research (Ref. 10: Biokhimiya, 24, 556, 1959), the author noted the accumulation of inosine and hypoxanthine, the products of oxidizing deamination of purines, in the tissues of rabbits in the first few days after their irradiation in a dose of 1 kr. This led the author to suppose that an increase in the excretion of oxypurines also took place; the present work was an attempt to study the effects of various doses of external gamma-radiation on the excretion of purine with the urine in rabbits. The rabbits were exposed<sup>to</sup> single irradiation at an intensity of 10 r/min. in doses of 50, 100, 300 and 1,000 r. The purine content of the urine was studied daily for 2 days before irradiation and for 3 days afterwards. Hypoxanthine (an average amount of 0.6 mg)

Card 1/3

4



30352

S/205/61/001/004/011/032  
D298/D303

The excretion of...

and xanthine (average of 0.7 mg) was found in the urine of normal rabbits. Irradiation of the rabbits led to an increase in the excretion of these substances with the urine. The effect depended on the radiation dose in a range of 50 to 300 r. The maximum level of oxypurine excretion was reached on the first day after irradiation at 50 - 300 r and on the second day after irradiation in a dose of 1,000 r. The increase in the excretion of xanthine and hypoxanthine at early states after irradiation was obviously a consequence of the disintegration of nucleic acids and further oxidation of the purine nucleotides which formed, with their minimum use for the synthesis of high-polymer compounds. These results are compared with the findings of Western and Soviet researchers. The heightened xanthine and hypoxanthine level in the urine on the second day was probably due to intensive lesions and late restoration of nucleic acid synthesis, especially the synthesis of deoxyribonucleic acid, under the effect of lethal and sublethal doses of radiation. R. Ye. Libenzon helped with scientific direction of the research, while N. M. Nikulina and R. N. Zakharova helped in the experiments. There are 1 table and 19

Card 2/3

4

30352  
S/205/61/001/004/011/032  
D298/D303

The excretion of...

references: 10 Soviet-bloc and 9 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: J. Pařizek, M. Arient, Z. Dienstbier, J. Skoda, Nature, 182, 721, 1958; K. K. Tsuboi, T. D. Price, Arch. Biochem. and Biophys., 81, 223, 1959; O. F. Nygaard, R. L. Potter, Rad. Research, 12, 120, 1960; O. F. Nygaard, R. L. Potter, Rad. Research, 10, 462, 1959.

Card 3/3

4

**RYSINA, T.N.; LIBINZON, R.Ye.**

**Bound and soluble desoxypolymucleotides in the tissues of irradiated  
rabbits. Biokhimiia 25 no.5:825-830 S-O '60. (MIRA 74,r1)  
(DESOXYRIBONUCLEIC ACID)  
(GAMMA RAYS—PHYSIOLOGICAL EFFECT)**

"Change of Absorption Spectra of Solutions of Nucleic Acids and Pyrimidine  
and Purine Bases Under the Influence of Gamma Radiation" p. 193

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

**RYSINA, T.N., LIBINZON, R.Ye.**

Effect of gamma rays on the absorption spectra of pyrimidine and purine  
bases and nucleic acids [with summary in English]. Biofizika 3 no.4:  
487-493 '58 (MIRA 11:8)

(GAMMA RAYS)  
(NUCLEIC ACIDS--SPECTRA)  
(ABSORPTION SPECTRA)

EXCERPTA MEDICA Sec 16 Vol 7/2 Cancer Feb 59

561. *Effect of gamma rays on the absorption spectra of pyrimidine and purine bases and nucleic acids (Russian text)* RYSINA T. N. and LIMINSON R. E. *Biofizika* 1958, 3/4 (487-493)  
Graphs 27

The effect of 1,000-200,000 r. doses of  $Co^{60}$   $\gamma$ -rays on absorption spectra, in the UV, was studied in diluted nucleic acid solutions (0.003-0.03%) and in diluted solutions of the biologically most important purines and pyrimidines ( $5 \cdot 10^{-4}$ - $10^{-2}$  M). Irradiation lowered the UV absorption in these solutions, especially in the weakest concentration ( $10^{-4}$  and  $5 \cdot 10^{-5}$  M). This effect of reduction of the optical density of the solution was enhanced with increase of the  $\gamma$ -ray dose. It was also observed that the radio-sensitivity of the molecules decreases when complementary groups unite with the basic pyrimidine or purine nuclei.

RYSINA, T.N.

Amount of free nucleotides, nucleosides and purine and pyrimidine  
bases in certain tissues of healthy and irradiated rabbits.

Biokhimiia 24 no.3:556-562 My-Je '59. (MIRA 12:9)

(PURINES, metab.

eff. of gamma rays (Rus))

(PYRIMIDINES, metab.

same)

(NUCLEOTIDES AND NUCLEOSIDES, metab.

same)

(GAMMA RAYS, eff.

on free nucleotides, nucleosides & purine &  
pyrimidine bases (Rus))

KUROCHKIN, A., inzh.; RYSINA, Ye., inzh.; NOZHNIITSKIY, Y., inzh.

Increasing the durability of walls of the reinforced concrete  
frame of elevators. Muk.-elev.prom. 28 no.9:19-22 S '62.

(MIRA 15:10)

1. Gosudarstvennyy proyektnyy institut po proyektirovaniyu  
predpriyatiy i sooruzheniy zernovoy i mukomol'noy promyshlennosti.  
(Grain elevators)



BULPASOVA, H.; GROF, St.; HORACKOVA, E.; KUHN, E.; RYSINEK, K.; VITEK, V.  
VOJTECHOVSKY, M.

Psychopathology and biochemistry of experimental psychoses produced  
by anticholinergic hallucinogens. Cesk.psychiat. 56 no.1:14-23 P '60.  
(HALLUCINOGENS toxicol.)  
(PSYCHOSES TOXIC exper.)

COUNTRY : Czechoslovakia H-5  
CATEGORY :  
ABST. JOUR. : RZKhim., No. 5 1960, No. 18309  
AUTHOR : Zvejska, M., Sykora, M., and Ryska, A.  
INST. : Not given  
TITLE : Study on the Treatment of Sewage in a Socialist City  
CRIG. PUB. : Vodni Hospod, No 7, 293-297 (1959)  
ABSTRACT : The authors have studied the operation of the biochemical sewage treatment plant (trickling filters, methane tank) in Ostrava-Stalingrad which processes only municipal sewage. Data are given on the fluctuation in the discharge, chemical composition (dry residue, BOD, total oxygen demand, pH, alkalinity, total N, Cl<sup>-</sup>), and bacterial pollution of the sewage in the course of a typical day. The operation of the treatment plant is described.  
M. Lapshin

CARD: 1/1

223

RYSKA, A.; HEMOUTH, B.

"Correct Delimitation of Agricultural and Forest Soils", P. 597,  
(ZA SOCIALISTICKE ZEDELSTVI, Vol. 4, No. 6, June 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (SEAL), IC, Vol. 3, No. 12,  
Dec. 1954, Uncl.

RYSKA, A.; KLIR, J.

"Mechanization and More Productive Methods of Labor in Forestry", P. 744,  
(ZA SOCIALISTICKE ZEMEDELSTVI, Vol. 4, No. 7/8, July/Aug.  
1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,  
Dec. 1954, Uncl.

Ryška, Al.

✓ 5.3-305

551.588.6:63

Némec, Fr. and Ryška, Al., *Klimatický a hydrologický význam lesa pro zemědělství*  
[Climatological and hydrological importance of forests in agriculture.] *Za Socialistické*

*Zemědělství*, Prague, 7(11):1243-1249, Nov. 1952. 2 tables. DLC--The contribution of forests to water conservation and consequently to better crops is discussed in general terms. Examples of water infiltration and runoff under different types of forest cover are given in tabular form. In the Russian prairies the climatic benefit of forests is appraised at four times the value of the timber they produce. *Subject Headings: 1. Forest influences 2. Agriculture.*

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2

-G.T.

RYSKA, Frant'šek

Increasing the operational efficiency of extraction turbines.  
Energetika Cz 13 no.4:202-203 Ap '63.

1. Kralovopolska strojirna, Brno.

RYSKA, Frantisek

Pneumatic conveying of fly ash. Energetika Cz 14 no.10:508  
O '64.

Mechanical separator of fuels. Ibid.:508-509

1. Kralovopolska strojirna National Enterprise, Brno.

RYSKA, Jiri, inz.

New ways of capital investment in fuel production. Uhlí 4  
no.12:405-406 D '62.

1. Vedoucí spravy investicni vystavby, odvetvi paliv, Mini-  
sterstvo paliv a energetiky.



SOBOTKA, Alois, inz., So.C.; RYSKA, Lubor, inz.

Gamma radiation field for agricultural and forestry radiation genetic research and for breeding purposes. Vest vyzk zemedel 9 no.12:573 '62.

1. Vyzkumny ustav lesniho hospodarstvi a myslivosti, Zbraslav - Strnady.

M. A.

12.

New and More Accurate Method of Measurement of the Casting Temperatures of Metals. Blenek Ryska (Hutnické Listy, 1949, 4, 273-276; C. Abs., 1950, 44, 1866).--A new temp.-measuring device, utilizing the effect of infra-red radiation of waves longer than 7600 Å. on a special electronic valve which is very sensitive to these wave-lengths, is described. The device has a detecting element and a box housing the controls and the indicating instrument. Optical and acoustical means are provided to signal the instant of reaching the set temp. The thermal and mechanical time lag is entirely eliminated by this method of measurement. For temp. of about 1500°C the accuracy obtainable is within 1%, and accuracies of  $\pm 2^\circ\text{C}$ . and less can be obtained if special measures are taken to increase the accuracy. The scale gives direct readings in  $^\circ\text{C}$ . The measuring device described is very versatile and is suitable for accurate and instantaneous temp. measurements during the casting of metals and to follow precipitation phenomena, critical points, and the Curie point of ferromagnetic metals and alloys.

B

**New Method for Control of the Caking Process Resulting in Increased Output.** (In Czech.) Zdenek Byaska. *Hutnické Listy*, v. 5, Mar. 1950, p. 94-97.  
Describes process using detection of infrared radiation as a temperature indicating technique, and applied to obtain more uniform temperatures, hence higher output of coke-per ton of coal charged. (3.7% increase is claimed.)

ASD-31A METALLURGICAL LITERATURE CLASSIFICATION

CLASSIFICATION	INDEX	SEARCHED	SERIALIZED	FILED
1	2	3	4	5
6	7	8	9	10
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96	97	98	99	100

F

4376. NEW METHOD OF THERMAL CONTROL OF COOKING PROCESS TO IMPROVE OUTPUT OF COKE OVENS. Ryska, Z. COMMENT ON ABOVE. Kavele, K. and Samuel, V. (Paliva, 1950, vol. 30, (5-6), 116-118 and (8-9), 248-249). A scheme is proposed for recording the temperature of coke, as it is pushed out of the oven, by electronic detection of infra red rays. (L)

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION	CLASSIFICATION	ALPHABETIC
1	2	3
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58	59	60
61	62	63
64	65	66
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73	74	75
76	77	78
79	80	81
82	83	84
85	86	87
88	89	90
91	92	93
94	95	96
97	98	99
100	101	102

Technicka mereni. [Vyd. 1.] Praha, Statni pedagogicke nakl., 1953. 1. y. (unpaged)  
(Ucebni texty vysokych skol) [Technical measurements. Chiefly diagrs.]

SO: Monthly List of East European Accessions, Vol.3, No.2, Library of Cong., Feb. 1954, Uncl.

RYSKA, Z.

"Use of infrared rays in modern technology." Elektrotechnik, Praha, Vol. 9, No. 2,  
Feb. 1954, p. 49.

SO: Eastern European Accessions List, Vol. 3, No. 11, Nov. 1954, L.C.

RYSKA, Z.

J. Stivin and others' Vysokofrekvenčni obrev v prmyslu (High-Frequency Heating in Industry); a review. p. 439.  
(Elektrotechnický Obzor, Vol. 45, no. 8, August 1956. Czechoslovakia)

SO: Monthly List of East European Accessions. (EEAL) LC. Vol. 6, No. 6,  
June 1957. Uncl.

CZECHOSLOVAKIA / Chemical Technology. Chemical Pro- H-13  
ducts and Their Application--Ceramics.  
Glass. Binding Materials. Concrete

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8973

Author : Ryska, Z.

Inst : Not given

Title : The Use of Ceramics as Heating Elements in  
Electrical Resistance Furnaces

Orig Pub: Elektrotechnik, 1958, 13, No 6, 297-308

Abstract: No abstract

Card 1/1



RYSKA, Z.

"Electric phenomena in the melting channel of a low-frequency induction furnace with an iron core."

Elektrotechnický Obzor. Praha, Czechoslovakia. Vol. 48, no. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

S/137/61/000/008/004/037  
A060/A101

AUTHOR: Ryska Zdeněk

TITLE: Smelting furnace with inductive resistor

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 8, 1961, 13, abstract 8B74  
(Indukčně odporová tavicí pec. Czechoslovak patent no. 95131, 15.  
05. 60)

TEXT: The smelting furnace with an inductive resistor is distinguished from core- and coreless induction furnaces by a high efficiency ( $> 80\%$ ), and is constructed in such a way that its heater element in the shape of a round induction coil is submerged in the molten metal. The surface of the heater element is protected from contact with the metal by a refractory layer, which at the same time serves as protection from mechanical damage.

S. Glebov

[Abstracter's note: Complete translation]

Card 1/1

RYSKA, Zd.

Infrared pulse vacuum drying. El tech obzor 51 no.7:362 JI  
'62.

L 17495-63

EWP(q)/BDS AFFTC/ASD Pad JD/HW

ACCESSION NR: AP3001738

Z/0017/63/052/005/0247/0249

AUTHOR: Ryska, Zdenek (Dr. of Engineering)

TITLE: Increased service life of resistance heating materials made of Cr-Ni alloys

SOURCE: Elektrotechnicky obzor, v. 52, 1963, 247-249

TOPIC TAGS: Resistance-heating material, W, Ti, Be, alkaline earth, diffusion, Cr alloy, Ni alloy

ABSTRACT: The conditions of increasing the service life of resistance-heating materials made of Cr-Ni alloys were determined. Processing these materials in vacuum furnaces and adding alkali earths and high-melting metals (W, Ti, Be) in trace amounts increased the service life (life expectancy) by 25 to 50%. The experimental results are presented in Tables 1 and 2 of Enclosures 4 and 5.

The service-life tests were carried out (a) at constant temperature (1050C and 1200C), (b) constant voltage, and (c) constant current. The results obtained under (a) were expressed by equation 1 of Enclosure 1, and were in best agreement with practical demands.

When the kinetic energy of W, Ti and Be molecules increases according to the Fick diffusion laws, their diffusion into Ni is described by equation 3 of

Card 1/8 3

L 17495-63

ACCESSION NR: AP3001738

Enclosure 2. Since, in first approximation, the mass transfer is proportional to the average free path and average velocity of the molecules, the amount of matter which passes per second through a uniform section of the medium can be determined from equation 4 of Enclosure 3.

The degree to which the service life of resistance-heating materials is affected by their contact media was also studied. At increased temperatures, S or C causes a deterioration of the service life. Alloys of high Ni content perform well in a nitrogen atmosphere with little or no oxygen. A temperature of 1150C was attained in a vacuum furnace for Ni-Cr 80:20, but at higher temperatures the Cr will be scalded and hence the vacuum decreased. All traces of halogens should be removed since they lower the heat resistance even at normal temperatures.

Cr-Ni alloys can be used with refractories rich in aluminum oxide. Above 1000C, ceramics containing more than 42 to 44% aluminum oxide are used with advantage. Mica, asbestos and silica destroy the heat resistance even at 700C. Orig. art. has: 4 figures, 4 equations, and 2 tables. 16

ASSOCIATION: none

Cord 2/83

L 17495-63  
ACCESSION NR: AP3001738

SUBMITTED: 11Sep63

DATE ACQ: 12Jun63

ENCL: 05

SUB CODE: ML

NO REF SOV: 000

OTHER: 010

0

Card 3/83

ACCESSION NR: AP4015866

Z/0017/64/053/001/0022/0025

AUTHOR: Ryska, Zdenek (Docent of engineering, doctor)

TITLE: High refractory metals suitable for electrothermal technology

SOURCE: Elektrotechnicky obzor, v. 53, no. 1, 1964, 22-25

TOPIC TAGS: heat-resisting metals, protective coatings, Ta brazing, electrical conductivity, Pt coating, metal-protecting coatings, zirconium dioxide insulator, MoSi, Si sub 2 O sub 3 tungsten

ABSTRACT: Present-day techniques need both metals and ceramic materials for high temperature service. Materials for service above 1500C are classified as extremely resistant. Resistance of metals to oxidation, and reduction of the effect of the partial pressures of vapors is discussed. Protection by means of a metallic or ceramic material adhering to the given metal, protective atmosphere, and coating by MoSi or Si<sub>2</sub>O<sub>3</sub> are discussed. Mo protected by this last-mentioned material resists oxidation at 1000C for over 1000 hours, at 1800C for over 500 hours, and at 2000C for over 100 hours. Protective layers

Card 1/2

ACCESSION NR: AP4015866

of Pt are not suitable above 1650C. Properties of tungsten metal are discussed along with the effect of impurities in the metal. Uses of W and of its ferro-alloys as well as suitable applications of Mo and Ta metal are described. The advantage of brazing Ta to Cu is evaluated. Zr dioxide insulators are recommended for suspension of Ta heating belts. Reference is made to Czech publication Technicky Pruvodce V. Elektricke Teplo, SNTL, Prague 1958, where a formula is given for calculating electrical resistance of W, Mo and Ta at temperatures above 2000C. Orig. art. has: 5 figures, 1 table.

ASSOCIATION: none

SUBMITTED: 17Jul63

DATE ACQ: 03Feb64

ENCL: 00

SUB CODE: ML, MA

NO REF SOV: 000

OTHER: 010



ACCESSION NR: AP4038932

Z/0017/64/053/005/0265/0267

AUTHOR: Ryska, Zdenek (Docent, Doctor in engineering)

TITLE: Highly refractory ceramic materials used in electrothermics

SOURCE: Elektrotechnicky obzor, v. 53, no. 5, 1964, 265-267

TOPIC TAGS: aluminum oxide, magnesium oxide, silicon dioxide, thorium dioxide, zirconium dioxide, beryllium oxide, metal oxide, ceramics, ceramic material, heat-resistant ceramic material, refractory ceramic material, electrothermics, electrical heat production

ABSTRACT: The present article is a continuation of a previous study (Elektrotechnicky Obzor, no. 5 (1963) page 247) and pertains to highly refractory ceramic materials which are used in electrothermics and which have been recently finding an ever-increasing application in rocket and atomic engineering. The primary indices of these materials, which are used in equipment operating at high vacuums such as that in oil diffusion pumps, i.e.  $1 \times 10^{-9}$  mm Hg,  $10^{-12}$  mm Hg in mass spectrometers, and  $10^{-14}$  mm Hg in measuring equipment with photomultipliers. The new areas of application of these materials permit a wider use of electric heat sources with a high temperature gradient (e.g. electric arc, plasma, electronic heating). The

Card 1/2

ACCESSION NR: AP4038932

characteristics of the most important metal oxides ( $Al_2O_3$ ,  $MgO$ ,  $SiO_2$ ,  $TiO_2$ ,  $ZrO_2$ ,  $BeO$ ) are given with respect to vapor tension, especially at high vacuum. These oxides are of especial importance in the production of high-quality materials and their heat treatment such as bright annealing without protective atmosphere, etc. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 24Sep62

DATE ACQ: 03Jun64

ENCL: 00

SUB CODE: MT, ES

NO REF SOV: 000

OTHER: 003

RYSKA, Zd., doc. inz. dr.

The 5th International Congress of Electroheat. El tech obzor 53  
no.9: Suppl: Zpravy 53 no.9:Z33-Z34 S '64

BYMA, St. Soc. inz. dr.

On some reports at the 5th International Congress on Electroheat,  
1963. El tech obzor 53 no.9:507-508 5 '64.

RYSKA, Zd.

Line frequency induction channel melting furnaces. El tech obzor  
53 no. 11:624-625 N '64.

L 33207-00

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ACC NR: AP6023826

SOURCE CODE: CZ/0017/65/054/012/0586/0590

AUTHOR: Ryska, Zdenek (Docent in Engineering; Doctor)

ORG: CVUT, Prague

TITLE: Development of vacuum electric melting furnaces

SOURCE: Elektrotechnicky obzor, v. 54, no. 12, 1965, 586-590

TOPIC TAGS: vacuum furnace, melting furnace, heat resistant material, metallurgic furnace

ABSTRACT: Vacuum technique and the technique of melting at high temperature now permit elevating the quality specifications of products with simultaneous weight reduction, or obtaining especially heat-resistant, compact and ductile metals. Electron vacuum melting furnaces with beams of accelerated electrons represent the only convenient production equipment. This paper gives the characteristics of those furnaces. Orig. art. has: 5 figures. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 11 / SUBM DATE: 28Jul65 / ORIG REF: 006 / SOV REF: 001  
OTH REF: 005

Card 1/1 *plw*

UDC: 621.365.9

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"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5"

RYSKAL', A. (Kryubinsk)

Heroes with a medical bag. Voen. znani. 40 no.10:37 0 '64.  
(MIRA 17:12)

**RYSKAL', A.; KROKHIN, I.; MARTYNOV, S.**

Letters to the editor. Voen. znan. 39 no.6:20 Je '63.  
(MIRA 16:8)

1. Zamestitel' predsedatelya oblastnogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu, Aktyubinsk (for Ryskal'). 2. Predsedatel' komiteta pervichnoy organizatsii Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu domoupravleniya No.4, Chernigov (for Krokhin). 3. Predsedatel' komiteta pervichnoy organizatsii Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu, Leningrad (for Martynov).  
(Military education)



FIGULEVSKIY, G.V.; RYSKAL'CHUK, A.T.

Raman spectra of compounds found in essential oils. Trudy Bot.  
inst. Ser. 5 no. 5: 149-257 '55. (MLRA 9:5)  
(Essences and essential oils) (Raman effect)

RYSKAL'CHUK, A. I.

"A Study of the Turpentine Pinus Silvestris by the Raman Spectra," Zhur. Obshch.

Khim., 15, Nos. 7-8, 1945.

Mbr., Lab. Bioproduction, Leningrad State Order Lenin Univ. im. Budnov, 1944-.

RYSKAL'CHUK, A. I.

"Raman Effect Investigation on Turpentine from Pinus Silvestris,"

Dok. An, 44, No.9, 1944.

GOLODNIKOV, Gennadiy Vladimirovich; NIZOVKINA, Tat'yan Vsevolodovna;  
RYSKAL'CHUK, Apollinariya Terent'yevna; DOIGOV, B.N., prof., red.;  
SHCHEMELEVA, Ye.V., red.; VODOLAGINA, S.D., tekhn.red.

[Practical work in organic synthesis] Praktikum po organicheskomu  
sintezu. Pod red. B.N.Dolgova. [Leningrad] Izd-vo Leningr.univ.,  
1957. 187 p. (MIRA 11:3)  
(Chemistry, Organic--Synthesis)

RYSKAL'CHUK, A. T.

FIGULEVSKIY, G. V. and RYSKAL'CHUK, A. T.  
(Leningrad State Univ.)

CA: 40-5644/9

J. Gen. Chem. (USSR) 15, 678-83 (1945) - English summary  
Raman-effect investigation of turpentine from *Pinus sylvestris*.

RECORDED

RYSKAL'CHUK, A. T.

FIGULEVSKIY, G. V. and RYSKAL'CHUK, A. T.  
(Leningrad State University)

CA: 39-5178/5

Doklady Akad. Nauk SSSR 44, 400-2 (1944): Compt. rend. acad. sci. URSS  
44, 372-4 (1944) - in English  
Raman-effect investigation of turpentine from Pinus sylvestris.

RESTRICTED

RYSKINA, S. I.

CA: 42-5342/f

RYSKINA, S. I.

(State Optical Inst., Leningrad)

J. Phys. Chem. (USSR) 22, 21-5 (1948)

Computation of frequencies and interpretation of vibrational spectra  
of polyatomic molecules. Dimethyl ether, mercaptan.

~~RESTRICTED~~

PROCESSES AND PROPERTIES INDEX

Mixed alcoholates of magnesium and their molecular compounds. IV. The action of certain ketones on butylmagnesium iodide in ether solution. V. M. Tolstopyatov and A. T. Ryskal'chuk: *J. Gen. Chem.* (U. S. S. R.) 9, 1148-50 (1930); cf. *C. A.* 20, 4748. The reaction of BuOMgI (I) with *p*-MeC<sub>6</sub>H<sub>4</sub>COPh (II), fluorenone (III) and dibenzalacetone (IV) in ether was carried out by the method previously described. Of the 3 ketones only II gave a mol. compd. with MgI<sub>2</sub>. III and IV reacted in the same manner as aldehydes and benzil to give mol. compds. with I. I (0.1 mole) with II (0.15 mole) gave 24% yield of III. MgI<sub>2</sub>. III and IV with I under the same conditions gave III, orange-brown (80% yield) and IV, yellow-brown (88% yield), resp. The latter, decompd. with dil. H<sub>2</sub>SO<sub>4</sub>, gave BuOH and 96.5% IV.  
John Livak

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS  
GROUPS  
PERIODS  
MATERIALS INDEX

CROSS-REFERENCED

GROUPS	PERIODS	MATERIALS INDEX	ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION	CROSS-REFERENCED
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Raman-effect investigation of turpentine from *Pinus sylvestris*. G. V. Pigulevskii and A. T. Ryskal'chik (Leningrad State Univ.). *J. Gen. Chem.* (U.S.S.R.) 15: 078-81(1943) (English summary). See C.A. 19, 6178. G. M. Kosolapoff

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND CATEGORIES	3RD AND 4TH CATEGORIES	5TH CATEGORIES	6TH CATEGORIES
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**RYSKAL'CHUK, A. T.**

APPROVED FOR RELEASE: Tuesday, September 26, 2001 CIA-RDP86-00510R000400050005-3

Raman spectra of compounds occurring in essential oils.  
G. V. Figuevskii and A. T. Ryskal'chuk. *Trudy Bol'sh.  
Inst. im. V. L. Komarova, Akad. Nauk S.S.S.R.* 5, No. 5,  
149-257(1955).—A review with 126 references.  
R. Dowbenko

2



A-3

**Hydrolysis of salts of hydrazo-compounds.**  
R. F. Cramer, A. T. NYKATENCUS, and M. A. AMMONSON. *J. Org. Chem. Russ.*, 1961, 3, 686-700.—Treatment of hydrazobenzene hydrochloride, prepared in 20% solution with H<sub>2</sub>O gives 30% of benzidine, 60% of diphenyls, and semidine, and 10% of hydrazobenzene (with some aniline); keeping the solution for 24 hr. before hydrolysis increases the benzidine and diphenyls fractions at the expense of the hydrazobenzene. Rapid saturation of ethereal hydrazobenzene with HCl, followed by hydrolysis, gives 40% of benzidine, 14% of diphenyls, and 46% of hydrazobenzene, no semidine

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

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being formed. Solid hydrazones with HCl below  
 -20° forms an unusual green dihydrochloride, yielding  
 21% of benzidine, 89% of diphenylamine and dinitro-  
 and 23% of hydrazobenzene on hydrolysis. The green  
 salt is known as  $\text{C}_6\text{H}_4\text{N}_2\text{H}_2\text{Cl}_2$  and  $\text{C}_6\text{H}_4\text{N}_2\text{H}_2\text{Cl}_2\cdot\text{HCl}$ .  
 and it is shown that this is hydrolyzed to  $\text{NH}_2\text{PhCl}$   
 and  $\text{NH}_2\text{Ph}$  and this contains no free benzidine  
 The formation of benzidine is shown to be due to  
 1 mol. of  $\text{C}_6\text{H}_4\text{N}_2\text{H}_2\text{Cl}_2$  to the 1 mol. of benzidine  
 formed and that (A. 1917) 1 mol. benzidine  
 contains 1 mol. of the green salt with an  $\text{NH}_2$   
 group. Hydrolysis of the green salt with an  $\text{NH}_2$   
 group gives  $\text{NH}_2\text{PhCl}$  and benzidine. The formation of  
 intermediate products is shown. The yield of benzidine  
 is 21% and 89% benzidine forms a green  
 dihydrochloride  $\text{C}_6\text{H}_4\text{N}_2\text{H}_2\text{Cl}_2$  and  
 diphenylamine  $\text{C}_6\text{H}_5\text{NHPh}$  and hydrolysis  
 contains 1 mol. benzidine and diphenylamine.  
 Hydrolysis forms a benzidine and diphenylamine  
 and hydrolysis to the appropriate benzidine and  
 p-hydroxybenzidine form unstable violet dihydro-  
 chlorides. These dihydrochlorides are also obtained  
 from a and p-aminobenzene (m. p. 120° and 130°),  
 but these readily lose HCl re-forming the base.  
 G. A. E. Kov.

FIGULEVSKIY, G.V.; RYSKAL'CHUK, A.T.

Raman spectra of terpenes and their derivatives. Trudy Bot.  
inst. Ser. 5 no.8:210-239 '61. (MIRA 14:7)  
(Terpenes) (Raman effect)

PIGULEVSKIY, G.V.; RYSKAL'CHUK, A.T.

Infrared spectra of compounds contained in essential oils.  
Trudy Bot. inst. Ser. 5 no.8:240-325 '61. (MIRA 14:7)  
(Essences and essential oils)  
(Spectrum, Infrared)

PHASE I BOOK EXPLOITATION

614

*RYSKAL'CHUK*  
Golodnikov, Gennadiy Vladimirovich, Nizovkina, Tat'yana Vsevolodovna  
and Ryskal'chuk, Apollinariya Terent'yevna

Praktikum po organicheskomu sintezu (Practical Work in Organic Synthesis) Leningrad, izd-vo Leningrad. univ-ta, 1957. 187 p.  
6,080 copies printed.

Sponsoring Agency: Leningrad. Universitet.

Ed. (title page): Dolgov, B.N., Professor; Ed. (inside book):  
Shchemeleva, Ye.V.; Tech. Ed.: Vodolagina, S.D.

PURPOSE: This manual is intended for the use of chemistry students taking a laboratory course in organic synthesis.

COVERAGE: This manual is presented as a guide to practical laboratory work in organic synthesis. It is divided into three parts. The first part is devoted to general methods and procedures of laboratory work in this field. Particular attention is given to

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## Practical Work in Organic Synthesis

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fractional distillation, fractionating columns, steam distillation, reduced-pressure distillation, recrystallization, and the determination of melting points. Instructions are given for keeping records, safeguarding against accidents, what to do in case of fire, first aid in case of burns, glass cuts; etc. The second part describes the synthesis of organic compounds. The syntheses are divided according to types of reaction. For each type of reaction a few examples are given distinguished one from the other according to methods of separation and treatment of organic compounds produced. The third part of the manual includes supplementary syntheses which are given to laboratory students as finals. Every synthesis described in the manual has been checked and proved many times over during many years by the faculty of organic chemistry at the Leningrad State University. There are no personalities and no references.

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CHUKIN, T.S.; ASKEYEV, D.Zh.; RYSKELDIYEV, A., otv. red.; ISABEKOVA, A.,  
red.izd- 'a; ANOKHINA, M.G., tekhn. red.

[Dictionary of Russian-Kirghiz automobile and tractor terms; draft]  
Slovar' russko-kirgizskikh avtotraktornykh terminov; proekt. Frunze,  
Akad.nauk Kirgizskoi SSR, 1961. 147 p. (MIRA 14:12)  
(Technology--Dictionaries) (Russian language--Dictionaries--Kirghiz)

LOSEV, V.B.;RYSKALOVA, M.F.

Production of methyl (phenylaminomethyl)-diethoxysilane.  
Plast.massy no.3:24-25 '64. (MIRA 17:3)



ACCESSION NR: AP4018163

S/0191/64/000/003/0024/0025

AUTHOR: Losev, V. B. ; Ry\*skalova, M. F.

TITLE: Production of methyl-(phenylaminomethyl)-diethoxysilane

SOURCE: Plasticheskiye massy\*, no. 3, 1964, 24-25

TOPIC TAGS: methyl-(phenylaminomethyl)-diethoxysilane, production, process, arylaminoalkyldiethoxysilane, amination, diethoxysilane

ABSTRACT: The incorporation of polar groups in organosilicon polymers overcomes some of their low mechanical and adhesive properties. Methyl-(phenylaminomethyl)-diethoxysilane is such a compound. This technical grade material can be produced in increased yields (76%) by reacting aniline with the mixture of products obtained by esterifying methylchloromethyldichlorosilane (without separating the methylchloromethyldiethoxysilane), filtering to remove the aniline salt, and subsequently vacuum distilling the low boiling fraction from the filtrate of the reaction mass. Orig. art. has: 1 equation.

Card 1/2

ACCESSION NR: AP4018163

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: CH

NO REF SOV: 004

OTHER: 000

RYSEANOV, T.

Studying the concentration of nickel at the point of fatigue  
fracture in IX18H9T steel. Izv. AN Kir. SSR. Ser. est. 1  
tekh. nauk 5 no.6:125-128 '63. (MIRA 17:5)

BRYNZA, A.P.; KORMSHCHIKOVA, N.A.; RYNSKAYA, Ye.S.

Sorption properties of metal powders. Porosh. met. 5 no.7:  
1-7 J1 '65. (MIRA 18:8)

1. Dnepropetrovskiy gosudarstvennyy universitet.

RYSKIN, A.; CHDRNENKO, G.

Forest nightingale. Znan.-sila 38 no.2:35 P '63. (MIRA 16:3)  
(Solov'ev, Aleksandr Pavlovich, 1904-)

RYSKIN, A. A.; KAMENEV, V. T.

Cold rolling of steel low-module pinions in mass production.  
Avt. prom. 28 no.9:43-44 S '62. (MIRA 15:10)

1. Chelyabinskiy politekhnicheskiy institut i Ural'skiy avtozavod.

(Gear shaping machines)

S/123/59/000/006/010/025  
A005/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1959, No. 6, p. 91,  
# 20750

AUTHOR: Ryskin, A. A.

TITLE: Introduction of Copy Turning

PERIODICAL: Tekhnol. avtomobilstroyeniya, 1958, No. 1, pp. 16-24

TEXT: The author reports on the work carried out in the automobile works UralZIS (UralZIS) to convert multiple-tool semiautomats of the 3PC-(ZRS-)116 type to the mechanical copy turning method in which the contour of the treated part is reproduced by one and the same tool. The calculation of the angles and curves is presented for the feed cutter and the copying cams to obtain the necessary conlination of their displacement speeds for turning parts with intricate profiles. The design of the cutting tool for copy turning is described, and the method of calculation and choice of the cutting conditions is presented. The cost of the equipment and the modernization of the semiautomat of the ZRS-116 type is approximately 10 times less than the cost of the hydraulic copying carriage of the

Card 1/2

Introduction of Copy Turning

S/123/59/000/006/010/025  
A005/A001

KCT-1 (KST-1) type which is applied to the universal turning lathes. In consequence of the introduction of copy turning, the following results were obtained at the lathes modernized for these purposes: 25,000 machine-hours were saved; the quantity of tool items was reduced to 20%, and the cost of the spent tools was diminished three times, the savings of electric power amounted to 19,000 kwh. There are 7 figures.

R. V. A.

Translator's note: This is the full translation of the original Russian abstract. ✓



RYSKIN, A.I.; TKACHUK, A.M.; TOLSTOY, N.A.

Optical properties of complex compounds of bivalent platinum.  
Izv. AN SSSR. Ser.fiz. 29 no.3:512-515 Mr '65.

(MIRA 18:4)

RYSKIN, A.I.; TKACHUK, A.M.; TOLSTOY, N.A.

Properties of ethanamine compounds of divalent platinum.  
Opt. i spektr. 18 no.3:422-431 Mr '65.

(MIRA 18:5)

ACCESSION NR: AP4030929

S/0051/64/016/002/0274/0278

AUTHOR: Ry'skin, A.I.; Khal'ko, G.I.; Maksakov, B.I.; Dubenskiy, K.K.

TITLE: Absorption spectra of the divalent Mn ion in ZnS single crystals

SOURCE: Optika i spektroskopiya, v.16, no.2, 1964, 274-278

TOPIC TAGS: manganese ion absorption, manganese in zinc sulfide, manganese activated zinc sulfide, manganese 2+, zinc sulfide

ABSTRACT: The absorption spectrum of  $Mn^{2+}$  in different hosts has been studied by several investigators, but mostly with the material in the polycrystalline state. In view of advances in techniques for growing large ZnS crystals and development of crystal field theory, it was deemed worthwhile to undertake the present investigation of the absorption bands of  $Mn^{2+}$  in ZnS single crystals. It is possible that manganese also enters the sulfide lattice in trivalent form, but this is questionable and so far unproved. The Mn activated ZnS crystals were grown from melts under pressure (argon at 150 atm), using crucibles from 10 to 30 mm in diameter. The crucible displacement rate was 8 mm/hour. The initial material was luminescence pure ZnS heated for 6-7 hours in a stream of purified argon. One of the investigated

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Card

ACCESSION NR: APL020929

crystals was prepared with  $ZnCl_2$  flux and contained 2.4 atomic percent Mn (introduced in the form of  $MnSO_4$ ); another crystal was grown with  $MnCl_2$  flux and contained 3.8 atomic percent Mn. The intrinsic (non-Mn) absorption of the former extended further into the long wavelength region, probably due to the presence of excess zinc. The spectra of the crystals were recorded at room temperature by means of an SF-4 spectrophotometer and at liquid nitrogen ( $77^\circ K$ ) temperature and liquid helium ( $4.2^\circ K$ ) by means of a quartz optics Q-12 spectrograph. The low temperature spectra were recorded in polarized light. Traces of the absorption spectra at the three temperatures and of the structure of the  $21\ 645\ cm^{-1}$  band at  $4.2^\circ K$  for E parallel and perpendicular to the c axis are reproduced. The structure of the spectra of the two above mentioned crystals is rather similar. Five bands are identified, i.e., associated with transitions between the  $Mn^{2+}$  levels in a field of cubic symmetry. The structure of the absorption bands is discussed briefly. Orig.art.has: 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 20Mar63

DATE ACQ: 02Apr64

ENCL: 00

SUB CODE: PH

NR REF SOV: 003

OTHER: 016

Card 2/2

RYSKIN, A.I.; TOLSTOY, N.A.; KHIL'KO, G.I.

Flashlike rise of luminescence. Part 4. Opt. i spektr. 15 no.5:  
659-666 N '63. (MIRA 16:12)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5"

RYSKIN, A.I.; KHIL'KO, G.I.; MAKSAKOV, B.I.; DUBENSKIY, K.K.

Absorption spectrum of  $Mn^{2+}$  ions in ZnS single crystals. Opt. i  
spektr. 16 no.2:274-278 P '64. (MIRA 17:4)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510005-5"

ZAKHARCHENYA, B.P.; MAKAROV, V.P.; VARFOLOMEYEV, A.V.; RYSKIN, A.Ya.

Zee-man effect in the main emission line in  $\text{CaF}_2 - \text{Tu}^{2+}$  crystals.  
Opt. i spektr. 16 no.3:455-460 Mr '64. (MIRA 17:4)

L-13972-65 FSF(h)/EWT(1)/EWA(h) Pn-l/Pac-l/Peb SSD/AEDG(b)/AFMD(t)/AFWL/  
BSD/ASD(a)-5/AFETR/RAEM(a)/ESD(c)/RAEM(c)/RAEM(i)/ESD(dp)/ESD(gs)/ESD(t)

ACCESSION NR: AP4048759 S/0051/64/017/005/0799/0799

AUTHOR: Maly\*shev, G. M.; Ry\*skin, A. I.

TITLE: The possible application of fiber optics in the construction of an apparatus with a Fabry-Perot interferometer and an electro-optical converter

SOURCE: Optika i spektroskopiya, v. 17, no. 5, 1964, 799

TOPIC TAGS: fiber optics, spectroscopy, fiber optical scanning, spectral line measurement

ABSTRACT: A more effective study of line broadening will be made possible by an apparatus currently under construction which will utilize light reflected from the entire interference pattern rather than portions thereof. This apparatus will comprise a light filter, a Fabry-Perot interferometer, an image converter, and an electro-optical converter. The image converter will transform a two-dimensional annular distribution of intensities in the interference pattern into a one-dimensional distribution. The converter can be made of a bundle of



L 13972-65

ACCESSION NR: AP4048759

optical fibers and should be placed between the interferometer and electro-optical converter. Its toroidal end faces the interferometer to receive the incident interference pattern. The fibers should be arranged in a series of bundles in order that each ring forms a band along which the adjacent resolvable wavelengths lie. The resultant pattern will form a rectangle whose axes designate time and wavelength. The resolving power of the proposed apparatus is high and its world significance far reaching. The measure of its effectiveness, which can be derived from expressions for the radii of interference rings and the parameters of the converter, is similar to one designed earlier (G. M. Maly\*shev and others, ZhTF, 33, 191, 1963).

ASSOCIATION: none

SUBMITTED: 09Mar64

ENCL: 00

SUB CODE: OP, EC

NO REF SOV: 004

OTHER: 001

ATD PRESS: 3133

Card 2/2

TOLSTOY, N.A.; KHIL'KO, G.I.; RYSKIN, A.I.; TRUSOV, A.A.

Relation between luminescent and photoelectric phenomena  
in ZnS-Mn. Fiz. tver. tela 4 no.11:3177-3184 N '62.  
(MIRA 15:12)

1. Gosudarstvennyy opticheskiy institut imeni  
S.I. Vavilova, Leningrad.  
(Luminescent substances)  
(Photoelectricity)

L 19481-63

EWT(1)/EWP(q)/EWT(m)/EWP(B)/BDS AFFTC/ASD/IJP(C)/SSD JD

ACCESSION NR: AT3002230

S/2941/63/001/000/0257/0260

AUTHORS: Ryskin, A. I. ; Tolstoy, N. A. 76 B

TITLE: Excitation energy transfer mechanism in ZnS-Mn phosphors

SOURCE: Optika i spektroskopiya; sbornik statey. v. 1: Lyuminesentsiya.  
Moscow, Izd-vo AN SSSR, 1963, 257-260

TOPIC TAGS: excitation, interaction, dipole transition, orange band, absorption

ABSTRACT: The energy transfer process of  $Mn^{2+}$  ions in ZnS-Mn has been studied. The assumption is made that at low temperatures this excitation energy occurs in blue centers (spots) lying on the periphery of interaction with the  $Mn^{2+}$  ions. The radius of this interaction,  $R_k$ , is designated as the ratio of orange band intensity (produced by  $Mn^{2+}$  ions) to the integrated light intensity. Values of  $R_k$  are tabulated for various annealed phosphor specimens. It is shown that dipole-dipole energy transitions between blue centers exists only in a region of  $2\text{\AA}$ . Apart from dipole-dipole energy transitions, probability of interchange transitions depends on the extent of blue centers; large magnitudes of the latter being compensated for by small magnitude, overlapping, integrated spectra of radiation and absorption. A calculation is made of the distance  $R$  between blue centers and

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L 19481-63

ACCESSION NR: AT3002230

blue center concentration in ZnS. It is found that contacting blue centers ( $R \approx 2.1 \text{ \AA}$ ) start at a concentration level  $C = 0.3\%$ . The authors contend that a large concentration of blue centers is necessary to allow interchange interactions to occur. Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 20Jun62

DATE ACQ: 19May63

ENCL: 00

SUB CODE: PH

NO REF SOV: 007

OTHER: 008

Card 2/2

68899

S/051/60/008/02/028/036

E201/E391

24.7700  
AUTHORS:

Tolstoy, N.A. and Ryskin, A.I.

TITLE:

Superlinearity in the Luminescence and Photo-conductivity Phenomena and the Rose-Bube Theory

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 2, pp 272 - 274 (USSR)

ABSTRACT: Experimental evidence indicating simultaneous superlinear dependence of luminescence and photo-conductivity on the excitation intensity  $E$  (Ref 1) makes it desirable to attempt a unified treatment of these phenomena. Since explanation of the superlinearity in photo-conductivity is easier, we shall consider it first. The change in photo-conductivity  $\Delta\sigma_{\infty}$  is given by:

$$\Delta\sigma_{\infty} \sim E\beta\tau u \quad (1)$$

where  $\beta$  is the quantum yield of electrons to the conduction band,  $\tau$  is the carrier lifetime in the conduction band and  $u$  is the electron mobility. To explain the phenomenon of superlinearity it is necessary to assume that at least one of the three quantities

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68899

S/051/60/008/02/028/036

E201/E591

Superlinearity in the Luminescence and Photo-conductivity Phenomena  
and the Rose-Bube Theory

$\beta$ ,  $\tau$  or  $u$  rises with increase of  $E$ . Rose (Ref 5) and Bube (Ref 6) suggested that  $\tau$  rises with  $E$ . From Rose and Bube's theory it follows that the initial rate of fall of the photo-conductivity should be strictly proportional to the excitation intensity  $E$ , i.e:

$$\Delta \sigma'(0) \sim E \quad (2)$$

To check Eq (2) the present authors carried out experiments on superlinear photo-resistors based on CdS. The authors used the electrical differentiation method described by Tolstoy (Ref 8). Light was modulated by interrupting focused light beams with bullets from small-bore rifles. The differentiated signal was recorded photographically by means of a pulse oscillograph (detailed description of the experiments will be given in a later communication). It was found that Eq (2) is not obeyed at all, that the dependence of  $\Delta \sigma'(0)$  on  $E$  is superlinear and that  $\tau(E)$  decreases slowly with rise of  $E$ . These results show that the main assumptions of the Rose-Bube theory are

Card2/3

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