

GORBUNOV, M.A.; KOSEMIN, N.I.

Ultrasound absorption in the transition region liquid -
polycrystalline benzene. Prim. ul'traakust. k issl. veshch.
no.13:241-250 '61. (MIRA 16:6)

(Benzene--Acoustic properties)
(Absorption of sound)

45438

S/058/63/000/001/110/120
A062/A101

27.4000

AUTHORS: Gorbunov, M. A., Derkovskiy, M. M., Koshkin, N. I.

TITLE: Experimental study of acoustical properties of human blood in view of cancer diagnosis.

PERIODICAL: Referativnyy zhurnal, Fizika, no. 1, 1963, 71, abstract 1Zh422
(In collection: "Primeneniye ul'trazvuk. k issled. veshchestva". no. 16, Moscow, 1962, 191 - 197)

TEXT: Systematic studies of blood have allowed to establish a relation between a number of its physico-chemical properties and certain pathological states of the organism. In the reported work an attempt is made to determine the change of the acoustical properties of blood (velocity v and coefficient of absorption) in cancer diseases. There was studied a newly prepared serum, obtained by centrifugation of blood at a temperature of 4°C during 20 min. at 200 revolutions/min. The volume of the studied substance was 10 cm^3 . The measurements were carried out by a phase-pulse method, the measurement accuracy of v was 0.3%, the frequency - 5.45 Mc/s. There was studied blood of the group A(II)

Card 1/2

Experimental study of...

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of a donor and of a patient having stomach cancer with no revealed metastases. With a view to get a precise definition of the character of the disease, blood serums were additionally studied after X-ray irradiation by a dose of 50,000 roentgen. It was found that in all cases in the 20 - 82°C temperature range v increases linearly with the temperature increase, the rate of increase falling after 42°C, which is related to the change of the albuminous blood structures. In the donor's blood serum v is larger than in the blood serum of the sick. At 28°C the velocity difference $\Delta v_1 = 10$ m/sec. for a non-irradiated serum, and $\Delta v_2 = 14$ m/sec. for an irradiated serum. At 70°C $\Delta v_1 = 20$ m/sec and $\Delta v_2 = 18$ m/sec. The donor's blood serum has a temperature coefficient greater by 0.4 m/sec. degree for the non-irradiated serum and by 0.2 m/sec. degree for the irradiated one. The temperature of thickening T_1 of the donor's blood serum is higher than that of the patient T_2 . For a non-irradiated serum $T_1 = 82^\circ\text{C}$, $T_2 = 72^\circ\text{C}$; for an irradiated serum $T_1 = 72^\circ\text{C}$, $T_2 = 68^\circ\text{C}$. A conclusion is made on the possibility of diagnosing various diseases, particularly cancer diseases, by the method of ultrasonic studies of albuminous systems. There are 11 references.

[Abstracter's note; Complete translation]

I. Kanevskiy

Card 2/2

S/081/63/000/002/004/088
B100/B186

AUTHORS: Sheloput, D. V., Koshkin, N. I.

TITLE: Frequency dependence of ultrasonic absorption around the melting point of benzene

PERIODICAL: Referativnyi zhurnal. Khimiya, no. 2, 1963, 48, abstract 2B287 (In collection: Primeneniye ul'trakust. k'issled. veshchestva, no. 15, M., 1961, 61-68)

TEXT: The ultrasonic (US) absorption in the liquid-polycrystal transition range was measured at 0.9-3.85 Mc/s with a relative error of ~5%. The US velocity of waves around the benzene melting point was determined by a relative method. The values used were d , the acoustic path length; v_2 , the US velocity in the liquid phase; and $\Delta\tau$, the change in the US transition time. v_1 , the US velocity in the polycrystal was calculated by the formula $v_1 = d / (d/v_2 + \Delta\tau)$. The US absorption peak was found to have shifted 0.5° , in the crystalline region. The frequency dependence for
Card 1/2

Frequency dependence of ...

#/081/63/000/002/004/688
B180/B186

the US absorption coefficient in polycrystalline benzene is given. On the basis of preliminary calculation it is concluded that hysteresis and resonance absorption are the major factors between frequencies 1 and 6 Mc/s and that a third factor, scattering, is introduced at higher frequencies. [Abstracter's note: Complete translation.]

Card 2/2

GORBUNOV, M.A.; KOSHKIN, N.I.; NOZDREV, V.F.; SHELOPUT, D.V.

Use of ultra-acoustic methods in studying organic substances
in the liquid - polycrystal transition region. Ukr. fiz. zhur.
7 no.8:898-905 S '62. (MIRA 16:1)

1. Moskovskiy oblastnoy pedagogicheskiy institut im. N.K.Krupskoy.
(Absorption of sound) (Organic matter)

KOSHKIN, N.I.; SHELOPUT, D.V.

Acoustic and dielectric losses in the melting region of benzene.
Prim.ul'traakust.k issl.veshch. no.16:91-95 '62.

(MIRA 16:4)

(Benzene--Acoustic properties) (Dielectric loss)

KOSHKIN, N.I.; SHELOPUT, D.V.

Ultrasound absorption in the melting region of polycrystalline
paraffin. *Prim.ul'traakust.k issl.veshch. no.16:97-99 '62.*

(MIRA 16:4)

(Paraffins—Acoustic properties) (Ultrasonic waves)

GORBUNOV, M.A.; DERKOVSKIY, M.M.; KOSHKIN, N.I.

Experimental study of the acoustic properties of human blood
for the purpose of diagnosing cancer. Prim.ul'traakust.k issl.
veshch. no.16:191-196 '62. (MIRA 16:4)
(BLOOD--ACOUSTIC PROPERTIES) (CANCER--DIAGNOSIS)

SHELOPUT, D.V.; KOSHKIN, N.I.

Frequency dependence of ultrasound absorption in the melting
region of benzene. Prim. ul'traakust. k issl. veshch. no.15:
61-68 '61. (MIRA 16:8)

(Benzene—Acoustic properties)

ACCESSION NR: AR4032185

S/0058/64/000/002/H055/H055

SOURCE: Ref. zh. Fiz., Abs. 2Zh342

AUTHORS: Nevskiy, Yu. Ye.; Koshkin, N. I.

TITLE: Effect of nonlinear waveform distortion on the accuracy with which absorption of ultrasonic waves of infinitesimal amplitude is measured

CITED SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. M., vy*p. 17, 1963, 185-193

TOPIC TAGS: ultrasound absorption measurement, nonlinear distortion, absorption coefficient, first harmonic coefficient, benzene, toluol, distilled water, absorption measurement accuracy, radiator voltage effect

TRANSLATION: It is noted that Zarembo and Krasil'nikov (RZhFiz,

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ACCESSION NR: AR4032185

1960, No. 11, 31050) analyzed the influence of nonlinear distortion on the accuracy of absorption measurement only for methods based on the determination of intensity. In the present paper are analyzed the errors occurring in measurements of the absorption coefficient of the first harmonic. For this purpose, a pulsed method with a tuned receiver is used to measure at different frequencies (6.0--10.6 Mc/sec) the dependence of this coefficient on the radiator voltage amplitude (up to ~200 V); such measurements were made in distilled water, ethyl alcohol, toluol, and benzene. The experimental results are in good agreement with the calculations of Keck and Beyer (RZh-Fiz, 1960, No. 12, 33880); these calculations are used to determine the maximum amplitude at which absorption can be measured. L. Zarembo.

DATE ACQ: 31Mar64

SUB CODE: PH

ENCL: 00

Card 2/2

L 59410-65 KEG(b)-2/KPF(c)/BWP(j)/BWP(k)/BWP(l)/BWP(m)/T Pc-l/Pr-l/PA-l
ACCESSION NR: AR5015984 I.P(c) GG/RM UR/0058/65/000/005/EO46/EO46

SOURCE: Ref. zh. Fizika, Aka. 58347

39
R

AUTHOR: Koshkin, N. I.

TITLE: Investigation of the melting region of molecular crystals

CITED SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 18. M., 1963, 19-32

TOPIC TAGS: molecular crystal, melting region, ultrasound absorption, ultrasound velocity, benzene, paraffin, cyclohexane

TRANSLATION: A camera is described for the measurement of absorption and the velocity of ultrasound in the temperature interval from -100 to +100C, with accuracy 8-10%. The temperature and frequency dependences of the absorption and the influence of the grain dimension on the absorption in benzene, paraffin, and cyclohexane are investigated. The factors determining the absorption of ultrasound in molecular crystals is discussed. Ye. Spektor.

SUB CODE: GP, NP

ENCL: 00

Card 1/14

L 59402-65 REC(b)-2/ETP(r)/EPI(1)/EPI(2)/EPI(3)/EPI(k)/T Pc-4/Pi-4/Pr-4
ACCESSION NR: AR5015935 IJP(c) OO/RU UR/0058/65/000/005/E046/E046

SOURCE: Ref. zh. Fiziki, Abs. 4348

40
B

AUTHORS: Koshkin, N. I.; Gorbunov, M. A.

TITLE: Properties of molecular crystals in the melting region

CITED SOURCE: Sb. Primeneniye ultrazvuk. k issled. veshchestva. Vyp. 18. M., 1963, 33-43

TOPIC TAGS: molecular crystal, melting region, temperature dependence, frequency dependence, ultrasound absorption, benzene, paraffin, cyclohexane, dislocation

TRANSLATION: Results are presented of measurement of the temperature and frequency dependences of absorption of ultrasound in benzene, paraffin, and cyclohexane. The dependence of the absorption on the structure, which is different for metals and for molecular crystals, is discussed. The acoustic properties are attributed to the presence of dislocations. Ya. Spector.

SUB CODE: SS, NP / ENCL: 00

CC
Card 1/1

KOSHKIN, Nikolay Ivanovich; SHIRKEVICH, Mikhail Grigor'yevich;
RYDNIK, V.I., red.

[Handbook on elementary physics] Spravochnik po elementar-
noi fizike. Moskva, Nauka, 1965. 246 p. (MIRA 18:8)

L 32991-66 EMI(m)/EWF(1)/T JJP(c) RM

ACC NR: ARG016271

SOURCE CODE: UR/0058/65/000/011/H63/H63

AUTHOR: Kochkin, N. I.; Gorbunov, M. A.; Dmitriyeva, N. A. 57TITLE: Investigation of acoustic properties of polymers by a pulse method 8

SOURCE: Ref. zh. Fizika, Abs. 11Zh435

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20, M., 1964, 47-53

TOPIC TAGS: ultrasound absorption, acoustic speed, epoxy plastic, rubber, butyl rubber, acoustic measurement, thermostat, *ACOUSTIC PROPERTY*

ABSTRACT: The speed and absorption of ultrasound were measured at frequencies 500 kcs - 10 Mcs in the following polymer materials: polybutylmethacrylate, compounds based on epoxy resin or the product of copolymerization of butylmethacrylate with dimethylacrylate-triethylene glycol, and acrylonitrile in the temperature range -60 - +60C. A block diagram of the pulse apparatus is given. The speed measurement was based on the relative displacement of the first half-wave on the oscilloscope screen for two samples made of the same material but having different lengths. In determining the absorption the amplitudes of the first half-wave were compared after passage through samples of different lengths of the given material. The method of multiple reflections was also used. A schematic diagram of the measuring chamber is presented. The entire system was immersed in a Dewar vessel filled with a liquid which did not react with the investigated polymer. To obtain low temperatures, refrigerating apparatus was used in

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L 32991-66

ACC NR: AR6016271

conjunction with an ultrathermostat of the "Vobzer" type (accuracy 0.05C). Curves showing the dependence of α and of the ultrasound velocity on the temperature at 830 and 980 kcs and at 2 Mcs were obtained. The temperature at which the temperature coefficients of the velocity change, exhibit no reciprocal proportionality to the temperature within the limits of experimental accuracy (1%) in the interval 800 kcs - 2 Mcs. The ultrasound speed in rubber decreases rapidly in the interval -40 - 10C, while the absorption in the region -30 - 20C passes through a maximum (transition from the highly-elastic into the glass-like state). At higher frequencies, the absorption maximum shifts toward lower temperatures. I. Nikolayeva. [Translation of abstract]

SUB CODE: 20

Card 2/2 *pla*

L 36103-66 EWT(m)/T/EWP(t)/ETI IJP(o) JD/GD

ACC NR: AT6013178

(A)

SOURCE CODE: UR/0000/61/000/000/0021/0031

AUTHORS: Koshkin, N. I.; Obraztsov, V. I.; Yakovlev, V. F.

39
BH

ORG: none

TITLE: Continuous ultrasonic method for cleansing microwire 6

SOURCE: Moscow. Oblastnoy pedagogicheskiy institut. Primeneniye ul'traakustiki k issledovaniyu veshchestva, no. 14, 1961, 21-31

TOPIC TAGS: fine wire, fine wire technology, insulated wire, ultrasonic cleaning, *ultrasonic application, microwire*

ABSTRACT: A continuous ultrasonic method for cleansing microwires is presented. The method was developed by the Laboratory of Molecular Acoustics MOPI imeni N. K. Krupskaya (Laboratoriya molekulyarnoy akustiki MOPI) at the request of the Moscow Transmission Cables Industry. A schematic of the experimental installation is presented. The best results were obtained with a frequency of 700--1000 kilocycles and a power expenditure of 2--4 w/cm². The experimental results are tabulated (see Table 1). The use of common organic solvents as the working liquid was quite satisfactory and in some cases, when the level of natural oils on the surface of the wires was relatively low, ordinary tap water could be used as the working liquid.

Card 1/2

L 36103-66

ACC NR: AT6013178

| No. of reel | Average number of point defects in the insulation of a 15-m specimen | |
|-------------|--|-----------------|
| | without ultrasound | with ultrasound |
| 1 | 5,000 | 1,300 |
| 2 | 1,129 | 0,726 |
| 3 | 12,210 | 0,230 |
| 4 | 25,000 | 0,500 |
| 5 | 2,120 | 0,000 |
| 6 | 1,470 | 0,600 |
| 7 | 3,703 | 0,367 |
| 8 | 0,433 | 0,133 |

* Each reel had 800--1000 m wire

Table 1. Results of determination of point defects of enameled constantan wire of 0.15 mm diameter.

Orig. art. has: 2 tables and 5 figures.

SUB CODE: 14, 13, 20/SUBM DATE: 22Apr61
Card 2/2

L 32992-66 EWT(1)/EWT(m)/EWP(j)/T/EWP(k) IJP(c) WW/RM

ACC NR: AR6016272

SOURCE CODE: UR/0058/65/000/011/H063/H063

AUTHOR: Sheloput, D. V.; Koshkin, N. I. 52
DTITLE: Influence of polycrystalline structure on acoustic absorption in the region of mounting of molecular polycrystals

SOURCE: Ref. zh. Fizika, Abs. 11Zh436

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20. M., 1964, 55-59

TOPIC TAGS: ultrasound absorption, melting point, organic crystal, grain structure, single crystal growing, relaxation process, resonance absorption, POLYCRYSTAL, BENZENE

ABSTRACT: An experimental investigation was made of the absorption of ultrasound near the melting point of different polycrystalline structures of benzene and paraffin. Data were obtained on the frequency dependence of α/f in polycrystalline benzene for average grain dimensions $\bar{D} = 0.02, 0.03, 0.04, \text{ and } 0.07$ mm at $+4^\circ\text{C}$. It is established that the dimension of the average diameter of the grain determines the position of the maximum of α/f , its width, and its absolute value. A study was made of the influence of the intergrain boundaries on the absorption in the region of melting of benzene single crystals. The process of growing of single crystals of benzene in a refrigerator and its processing by fusion is described in detail. The size of the grain has different effects on the absorption in benzene and in paraffin: with increasing grain, the maximum of α/f shifts toward the higher frequencies in benzene,

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L 32992-66

ACC NR: AR6016272

and toward the low frequencies in paraffin. The maximum absorption in paraffin is the same for 0.01 and 0.02 mm grains; in benzene it decreases with increasing grain dimensions. The relaxation phenomena connected with the viscous behavior of the grain boundaries were observed experimentally in polycrystalline metals at high temperatures in a wide range of frequencies (from several cps to tens of kcs). Experimental data are presented on the absorption of ultrasound in polycrystalline paraffin near the melting point and the curve calculated from the ordinary relaxation theory. The plot shows results of measurements of two different polycrystalline structures ($D = 0.01$ and 0.02 mm) at 50 and 52C. The results agree satisfactorily. A similar comparison of the relaxation curve and of the experimental data for benzene discloses a discrepancy due to the resonant mechanism of absorption in the region of melting of polycrystalline benzene. Allowance for the resonance phenomena permits a better explanation of the experimental curve. I. Nikolayeva. [Translation of abstract]

SUB CODE: 20

Card 2/2 *plw*

L 36068-66 EWT(1) WW

ACC NR: AR6017171

SOURCE CODE: UR/0058/65/000/012/A010/A010

AUTHOR: Koshkin, N. I.; Dobromyslov, N. A.

TITLE: Measurement of ultrasonic-wave velocity and absorption
(laboratory study) 45
B

SOURCE: Ref. zh. Fizika, Abs. 12A96 9M

REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 107-111

TOPIC TAGS: ultrasonic wave velocity, ultrasonic wave absorption,
ultrasonic wave propagation, ACOUSTIC EQUIPMENT ↗

ABSTRACT: The device consists of a square-wave generator whose output is fed into an emitter to produce mechanical vibration of intrinsic frequency in the plate. The ultrasonic waves, having passed through the test medium are received by another plate and converted into electric pulses, which are then amplified and fed into an oscillograph. Individual components of the apparatus are described, and design equations are given in the original article. B.V. [Translation of abstract] [KP]

SUB CODE: 20/

SUBM DATE: none

Card 1/1 vmb

L 42966-66 EWT(m)/EWP(j)/T IJP(c) WW/JWD/EM
ACC NR: AR6024996 SOURCE CODE: JR/0081/66/000/007/S010/S010

AUTHOR: Koshkin, N. I.; Gorbunov, M. A.; Dmitriyeva, N. A. 53

TITLE: Study of the acoustic properties of polymers by the pulse method B

SOURCE: Ref. zh. Khimiya, Part II, Abs. 7365

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20. M., 1964, 47-53

TOPIC TAGS: ultrasound absorption, ultrasonic velocity, rubber, acoustic property

ABSTRACT: The pulse method was used to study the velocity V and absorption α of ultrasound in polymeric materials: polybutyl methacrylate, compounds prepared from ED-516 epoxy resin, compounds based on the product of copolymerization of butyl methacrylate with triethylene glycol dimethacrylate, and resins based on BK, SKN, and NK in the range of -60 to $+60^\circ$. A block diagram of the device employed is given. The temperature dependences of α and V at frequencies of 830, 980, and 2 Mc were obtained. It was found that the velocity of the ultrasound in the rubbers decreases markedly in the range of -40 to $+10^\circ$, and the absorption in the range of -30 to 20° passes through a maximum (transition from a high-elastic to a vitreous state). At higher frequencies, the absorption maximum shifts toward lower temperatures. N. Nikolayeva. [Translation of abstract]

SUB CODE: 11,20

Card 1/1 20

L 45531-66 EWP(j)/EWP(k)/EWT(l)/EWT(m)/T RM SOURCE CODE: UR/0058/65/006/010/H074/H074

ACC NR: AR6013715

38
B

AUTHOR: Koshkin, N. I.; Zalivchiy, V. N.

TITLE: Analysis of the absorption of ultrasonic waves in the binary systems ethyl acetate -- acetic acid η

SOURCE: Ref. zh. Fizika, Abs. 10Zh499

REF. SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20. M., 1964, 127-134

TOPIC TAGS: ultrasound absorption, absorption coefficient, acetate, acetic acid, solution property

ABSTRACT: On the basis of an analysis of the data previously obtained by the authors on the coefficient of absorption of ethyl acetate in binary systems ethyl acetate -- acetic acid, an interpolation equation is obtained relating the coefficient of absorption of a mixture of arbitrary concentration with the coefficient of absorption of the liquids making up the mixture. On the basis of an analysis of the equation, a conclusion is drawn, confirmed by experiment, that the absorption coefficients of low

Card 1/2

L 45531-66

ACC NR: AR6013715

concentration mixtures divided by the square of the frequency, are independent of the frequency in all temperature intervals, provided this holds true for the liquid having the larger concentration in the mixture. Ye. Sheludyakov. [Translation of abstract]

SUB CODE: 20

na
Card 2/2

L 04082-57 EWP(j)/EWT(l)/EWT(m)/T IJF(c) GG/RM/WW

ACC NR: AR6023311

SOURCE CODE: UR/0058/66/000/003/H072/H072

AUTHOR: Koshkin, N. I.; Sheloput, D. V. 2/TITLE: Acoustic properties of molecular crystals near melting

SOURCE: Ref zh. Fizika, Abs. 3Zh505

REF SOURCE: Tr. 1-y Mezhevuz. nauchn. konferentsii po primeneniyu molekul. akust. k
issled. veshchestva i v nar. kh-ve. Tashkent, 1964, 67-75TOPIC TAGS: molecular crystal, acoustic property, melting, ultrasound absorption,
absorption coefficient, temperature dependence, frequency characteristic, crystal
dislocation phenomenon

ABSTRACT: The authors investigated the temperature and frequency dependences of the coefficient of absorption of ultrasound and the dependence of absorption on the linear dimensions of the grains of polycrystalline structures in the melting region. The temperature dependence was investigated in benzene, paraxylol, benzyl alcohol, naphthalene, cyclohexane, carbon tetrachloride, and paraffin. It turns out that the coefficient of absorption at the maximum is 2 - 3 orders of magnitude higher than in the liquid phase near the melting point. The shift of the maximum from the melting point changes from substance to substance. The frequency dependence of the absorption was investigated only in benzene and in paraffin. Analyzing the results of their measurements, the authors arrive at the conclusion that the absorption of ultrasound in molecular crystals is due essentially to hysteresis losses (the frequency-independent component of the absorption) and to resonance losses (in benzene) or to

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L. 04062-67

ACC NR: ARG023311

relaxation (in paraffin). From the point of view of dislocation theory, the hysteresis loss arises when the dislocation segments break away from their anchor points, and the resonant losses occur under induced oscillations of the dislocations. V. Gordeyev.
[Translation of abstract]

SUB CODE: 20

kh

Card 2/2

KOSHKIN, N.N., uchitel'

Using the practical experience of students in studying chemistry.
Khim. v shkole 17 no.2:37-40 Mr-Apr '62. (MIRA 15:3)

1. Shkola rabochoy molodezhi No.1, g. Kamenka, Penzenskaya oblast!
(Chemistry—Study and teaching)

KOSHKIN, N. N.

PA 4/49 T36

USSR/Engineering
Thermostats
Thermostat Controls

Feb 48

"Thermostat for Obtaining Low Temperatures," N. N.
Koshkin, Leningrad Inst of Refrigeration Ind, 1 p

"Zavod Lab" Vol XIV, No 2

Describes thermostat with aid of sectional diagram.
It is merely a large cylindrical vessel containing a
brass coil connected to a Dewar Vacuum flask of
liquid air. Evaporation is controlled by valve on
outlet side of coil. Includes temperature-time
curve.

4/49T36

PROCESSES AND PROPERTIES INDEX

18

CA

Liquid carbon dioxide production. N. Koskin. *Kholodil. Tekh.* 20, No. 3, 69-70(1948).--The principle depends on compression, not of gaseous CO₂ but of its soln. in aq. K₂CO₃. The stack gas is scrubbed in a tower with K₂CO₃ soln. which is compressed by a pump to deliver into a generator in which 50-60 atm. pressure is maintained at 270-80°, from which CO₂ passes to the liquefier proper. Recycle of part of the soln. through a heat exchanger before the generator serves to improve efficiency still further. Energy consumption is 10,000-11,000 calories per kg. of liquid CO₂ passing into the liquefying unit. The efficiency curves are given and the entire installation operates on 0.7-0.8 kg. of coal per 1 kg. CO₂ produced. G. M. Kosolapoff

ASB-11A METALLURGICAL LITERATURE CLASSIFICATION

| | | | |
|-------|---------|---------|---------|
| GROUP | SECTION | SECTION | SECTION |
| 11 | 1 | 1 | 1 |
| 12 | 1 | 1 | 1 |
| 13 | 1 | 1 | 1 |
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| 100 | 1 | 1 | 1 |

KOSHKIN, N. N.

Kholodil'naiia mashina dlia termicheskoi obrabotki metallov. (Vestn. Mash.
1951, no. 3, p. 71)

(Refrigerating machine for heat treatment of metals.)

DLC: TN4.V4

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

KOSHKIN, N. N.

DEVELOPMENT OF HEAT EXCHANGERS FOR UTILIZING HEAT FROM HYDRO-GENERATORS
Kosshkin, N. N., Koslov, E. S. and Rosenfeld, L. I. (1954, etc.)
(USSR, 1954), June 1953, vol. 24, 38-40.

ROZENFEL'D, I., professor, doktor tekhnicheskikh nauk; KOSHKIN, N., dotsent,
kandidat tekhnicheskikh nauk.

Use of an air refrigerating machine for the hardening of metals. Khol.
tekh. 30 no.2:15-19 Ap-Je '53. (MLRA 6:7)

1. Leningradskiy institut kholodil'noy i molochnoy promyshlennosti.
(Metals--Heat treatment)

KOSHKIN, N.N.

ROZENFELD, I.H., doktor tekhn. nauk, prof.; KURYLEV, Ye.S., kand. tekhn. nauk, dots.; KOSHKIN, N.N., kand. tekhn. nauk, dots.

Methods of solving the principle problems in the design of heat pump systems for the heat supply of hydroelectric power stations.
Trudy IZIKHP 5:4-14 '54. (MIRA 11:3)
(Hydroelectric power stations) (Heat pumps)

ROZENFEL'D, L.M.; KOSHKIN, N.N.

Dynamic heat insulation. Zhur.tekh.fiz. 24 no.1:96-102 Ja '54.

(MLRA 7:2)

(Refrigeration and refrigerating machinery) (Insulation (Heat))

KOSHKIN, N.N., kandidat tekhnicheskikh nauk, dotsent.

Using dynamic insulation in food storage chambers. Trudy LTIKHP 10:
82-84 '56. (MLBA 10:6)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlen-
nosti.

(Cold storage--Insulation)

KOSHKIN, N.N., kandidat tekhnicheskikh nauk, dotsent.

Effective use of double insulation for low-temperature installations.
Trudy LTIKHP 11:26-33 '56. (MLRA 10:6)

1. Kafedra kholodil'nykh mashin.
(Refrigeration and refrigerating machinery) (Insulation (Heat))

KOSHKIN, N.N.

Studying porous heat-insulating materials used in dynamic insulation systems [with summary in English]. Inzh.-fiz.zhur. no.1:54-60 Ja '59. (MIRA 12:1)

1. Tekhnologicheskii institut kholodil'noy promyshlennosti, Leningrad.

(Insulation (Heat))

GOLOVKIN, N., prof.; KOSHKIN, N.; BATURINA, L.

Cooling of meat in air supersaturated with moisture. Mias.prom.
SSSR 31 no.3:52-53 '60. (MIRA 13:9)

1. Leningradskiy tekhnologicheskii institut kholodil'noy
promyshlennosti (for Koshkin). 2. Vsesoyuznyy nauchno-
issledovatel'skiy institut nyasnoy promyshlennosti (for Baturina).
(Meat, Frozen)

KOSHKIN, N.N., kand.tekhn.nauk

Cold storage chamber with dynamic insulation. khol.tekh. 39
no.2:13-17 Mr-Ap '62. (MIRA 15:4)

1. Leningradskiy filial Nauchno-issledovatel'skogo instituta
khimicheskogo mashinostroyeniya.
(Cold storage--Insulation)

KOSHKIN, N.P., kandidat fiziko-matematicheskikh nauk. (Reviewer)

"Inaudible sounds." B.B.Kudriavtsev. Reviewed by N.P.Koshkin.
Znan.sila no.4:27 Ap '54. (MLRA 7:5)
(Ultrasonic waves) (Kudriavtsev, B.B.)

1ST AND 2ND COPIES PROCESSING AND PROPERTIES INDEX 3RD AND 4TH COPIES

10

The action of sodiomalonic ester on diphenylthiourea and carbon diphenylimide. V. K. Tshcherenko and N. V. Kosobko. *J. Am. Chem. (U. S. S. R.)* 6, 1021-6(1934).— T. and K. were unable to prep. diphenylthioarbituric acid (I) from CS(NHPh)₂ (II) and sodiomalonic ester (III) either by the procedure of Michael (*J. prakt. Chem.* 35, 456(1887)) or of Fischer and Diltz (*Ann.* 235, 350(1904)). II and III in PhH gave not I but PhN:C(NHPh)CH(COEt)₂ (IV), m. 166-7° (from alc.). IV contained one active H (Chugaev-Zerevitinov). Heating IV 5-8 hrs. with concd. NaOH gave 2 moles PhNH₂. With dil. alc. NaOH, followed by acidification with HCl, IV gave PhN:C(MeNHPh) (V) m. 131-2°. The 1st stage in the formation of IV probably is the elimination of H₂S from II to give PhN:C:NPh (VI). VI then adds III and the addn. product ketonizes with opening of the ring formed during addn. VI, prepd. according to the method of Velt (*Ber. F.* 10(1874)), gave 75% of IV with III. Dry finely powd. II (11 g.) was added to III (from 8 g. CH₃(COEt)₂ and 1.15 g. Na) in 25 cc. dry PhH. The resulting mixt. was heated to boiling on a water bath for 7 hrs. Addn. of 4 cc. concd. HCl, distn. of the PhH with steam, wgn. and washing of the ppt. followed by recrystn. from EtOH gave 8 g. IV. Boiling 5 g. IV in 300 cc. mtcd. (cold) alc. NaOH for 2 hrs., acidification with HCl, distn. of the alc. and addn. of NaOH gave a ppt. which on recrystn. from 50% alc. gave 1.5 g. V.

Lewis W. Butz

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

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MATERIALS DEPT COPIES (11/19/57)

PRELIMINARY AND PROVISIONAL

7

CA

Determination of fufural by means of diphenylthio-barbituric acid. V. B. Tishchenko and N. V. Koshkin. *J. Applied Chem. (U. S. S. R.)* 7, 1307-1310 (1944).

Diphenylthio-barbituric acid was prepd. by adding to a dry mixt. of 34 g. diphenylthiourea and 8 g. malonic acid in a round-bottom, wide-neck flask 100 cc. of pure and freshly distd. (over Na) $CHCl_3$ and 20 g. $AcCl$ and heating the mixt. for 8 hrs. with a reflux condenser. The diphenylthio-barbituric acid was then placed in a vacuum desiccator for the evapn. of $CHCl_3$ and the $AcCl$ was removed by washing with warm 40% $EtOH$. The unchanged diphenylthiourea was removed by dissolving the acid in a 4% soln. of $AcONH_4$, filtering and reprecip. the acid by acidifying with HCl . The yield of acid after recrystn. from C_6H_6 was 80-85% of the theory. The acid crystal. in yellow needles and was sol. in hot H_2O , $MeOH$, $EtOH$, C_6H_6 , $HCOOH$, $AcOH$, Et_2O , $MeCOOEt$, $CHCl_3$, C_6H_6N and weak alkali solns. It is reprecip. with acids from alk. solns., m. 242° (decompn.). Fufural was condensed with diphenylthio-barbituric acid in the presence of dil. HCl , H_2SO_4 , $AcOH$ or $HCOOH$ to $C_{12}H_{10}O_4N_2S_2$. This method is recommended for the detn. of fufural, pentoses and pentosans. Twenty-six references.

A. A. Bochtinsk

METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS PROCESSED AND PROPERTIES INDEX 3RD AND 4TH ORDERS

ca 21

Comparative investigation of the Yagman and Tuarkuir-Chagul' coals. N. V. Noshin and V. P. Tokarev. *Khim. Tverdogo Topliva*, 7, 516-20(1938).—Both coals are brown because they contain humic acids extractable with boiling aq. alkali only under pressure (25 atm.). The Yagman coal contains more H (4.43-4.39%) and bitumen (4.63%) and gives an alkali ext. contg. more hydroxyl groups (7.90-8.39%) than the Tuarkuir coal. The results indicate that these coals were formed from different materials under different conditions, i. e., the Yagman coal was formed as the result of reduction, and the Tuarkuir by dehydration. Analytical data are tabulated. A. A. Podgorny

CC-Coord. ELEMENTS COMPOSITE VARIABILITY INDEX

ALU-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

1ST AND 7TH ORDERS PROCESSES AND PROPERTIES INDEX 1ST AND 4TH ORDERS

ca 21

Chemical characteristics of the Kizelov coals. N. V. Koshkin and S. I. Strugachev. *Khim. Tverdogo Topliva* 7, 617-21(1936).—The dull, semi-dull and semi-glossy coals of the Kizelov deposit (Gubakhrin region) belong to

the class of hard coal; none of the samples reacts with 1% strong alkali even on prolonged boiling. Their hygroscopic moisture content is 0.40-1.85, that of S 2.21-4.85, and that of ash 7.71-31.75%. The elementary compn. of the coals is: C 81.56-84.70, H 5.16-5.95, N 0.76-1.22, and O + S 8.78-12.11% on the mass of the org. substance, and their sp. gr. is 1.32-1.67. The bitumen sol. in a mixt. of alc. and benzene is 1.00-3.00%. Dry distn. yields: tar 9.9-19.7, water (total) 1.6-4.9, semicoke 70.3-83.9 and gas and losses 3.8-7.5% in lab. samples. All varieties of coal give well-caked coke, which points to a large content of sapropelites. Two references.

A. A. Podgorny

COMMON ELEMENTS

MATERIAL INDEX

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS 1ST AND 4TH ORDERS

COMMON ELEMENTS

MATERIAL INDEX

CA

7

A comparison of the methods for the determination of fufural with phloroglucinol and diphenylbarbituric acid. N. V. Koshkin and V. P. Tokarev. *J. Applied Chem.* (U.S.S.R.) 9, 171-6 (in French 176) (1936). Diphenylbarbituric acid (II) reacts readily and quant. with fufural (II) to give $C_{14}H_{10}O_4N_2H_2O$, which is insol. at room temp. in H_2O and dil. mineral acids. Parallel detns. of II with I and with phloroglucinol showed the superiority of I. In the detn. of II in natural products, more accurate results are achieved by distg. the II with steam than by simply heating. The reagent consists of 5 g. I (recrystd. from alc.) in 1 l. of 5% K_2CO_3 . Gentle warming may be used in dissolving the I; the soln. is filtered to remove any ppt. and can be kept 2-3 months. For analysis 75-100 cc. is taken of a soln. contg. 0.2-0.5 g. freshly distd. II in 500 cc. of 12% HCl and this is made up to 400 cc. with 12% HCl. Small portions of the reagent are added to this, with stirring, to 4 to 5 times the theoretical amt. After standing overnight, the ppt. is filtered, washed successively with 50-100 cc. H_2O , 150 cc. boiling 2.5% aq. $AcONa$ and 150 cc. H_2O , and dried 3-4 hrs. at 120-5°.

Lewis W. Butz

ASAC 514 METACATALOG LITERATURE CLASSIFICATION

AUTHOR: Koshkin, N. V. 75-13-3-9/27

TITLE: The Use of Thiosemicarbazides in Analysis (Primeneniye tiosemikarbazidov v analize) Communication I. Quantitative Determination of Monovalent and Bivalent Mercury by Means of 1-Phenylthiosemicarbazide (Soobshcheniye I. Kolichestvennoye opredeleniye odnovalentnoy i dvukhvalentnoy rtuti pri pomoshchi 1-feniltiosemikarbazida)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol. 13, Nr 3, pp. 308-311 (USSR)

ABSTRACT: For the quantitative titrimetric determination of mercury the author used 1-phenylthiosemicarbazide as a reagent. The equilibrium of the respective reaction: $\text{Hg}(\text{NO}_3)_2 + 2\text{C}_6\text{H}_5\text{NHNHCSNH}_2 \rightarrow 2\text{NO}_3^- + [\text{Hg}(\text{C}_6\text{H}_5\text{NHNHCSNH}_2)_2]^{2+}$ is practically completely displaced to the right due to the very low dissociation of the complex $[\text{Hg}(\text{C}_6\text{H}_5\text{NHNHCSNH}_2)_2]^{2+}$. Bivalent and monovalent mercury can be determined by means of 1-phenylthiosemicarbazide; an 0.1% solution of copper nitrate serves as indicator. To a large extent diluted solutions of 1-phenylthiosemicarbazide react with copper salts under formation of the intensi-

Card 1/4

The Use of Thiosemicarbazides in Analysis. Communication I. 75-13-3-9/27
 Quantitative Determination of Monovalent and Divalent Mercury by Means of
 1-Phenylthiosemicarbazide

vely blue colored soluble complex $[\text{Cu}(\text{C}_6\text{H}_5\text{NHNHCSNH}_2)_2]^{2+}$

In concentrated solutions a precipitate may be deposited. The blue copper complex is by ions of bivalent mercury converted to the more stable mercury complex $[\text{Hg}(\text{C}_6\text{H}_5\text{NHNHCSNH}_2)_2]^{2+}$

which according to the concentration of the solution has a light yellow to yellow color. The determination is performed in a manner that some drops of copper nitrate solution are added to a certain amount of an acetic acid solution of 1-phenylthiosemicarbazide, and then this titrated. The turn is very marked from blue to yellow. In the determination of monovalent mercury it has to be taken into account that the equilibrium $[\text{Hg}_2]^{2+} \rightleftharpoons \text{Hg}^{2+} + \text{Hg}$ always exists. 1-phenylthiosemicarbazide reacts with the Hg^{2+} -ions under formation of the above-mentioned stable complex and thereby displaces the equilibrium to the right. Metallic mercury is precipitated. In order to avoid that this precipitate disturbs the determination of the end point, the acetic acid solution of the reagent is diluted with the 75-100 fold amount of water. 1 equivalent

Card 2/4

The Use of Thiosemicarbazides in Analysis. Communication I. 75-13-3-9/27
Quantitative Determination of Monovalent and Bivalent Mercury by Means of
1-Phenylthiosemicarbazide

of the reagent thus corresponds to 2 equivalents of monovalent mercury. This method permits the determination of small amounts of monovalent and bivalent mercury in diluted solutions. Mercury must be present in nitrate form, as chloride and bromide ions render the determination difficult. Silver and tin (IV) ions are also disturbing; the major part of the other anions and cations does not disturb the determination of mercury. The analysis can be performed in an acid solution within a wide range of pH. The authors also worked out a method for the quantitative determination of 1-phenylthiosemicarbazide and other thiosemicarbazides by titration with a solution of mercury nitrate. Copper nitrate serves as indicator. In the determination of mercury as well as in the determination of the thiosemicarbazides it is important to titrate with the mercury solution and not with the solution of the thiosemicarbazide. The synthesis of 1-phenylthiosemicarbazide from ammonium thiocyanate and phenylhydrazinehydrochloride as well as the performance of the mercury determination are described in detail.

Card 3/4

The Use of Thiosemicarbazides in Analysis. Communication I. 75-13-3-9/27
Quantitative Determination of Monovalent and Bivalent Mercury by Means of
1-Phenylthiosemicarbazide

There are 2 tables and 6 references, which are Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskii institut pishchevoy promy-
shlennosti (Leningrad Technological Institute of Food Industry)

SUBMITTED: April 25, 1957

1. Mercury--Determination

Card 4/4

AUTHOR: Koshkin, N. V. 79-28-3-30/61

TITLE: The Synthesis of Di-Substituted Amidines From Di-Substituted Thiourea and Magnesiummethyl iodide (Polucheniye dizameshchennykh amidinov iz dizameshchennykh tiomochevin i magniyyodmetila)

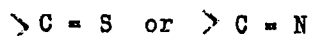
PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 695-698 (USSR)

ABSTRACT: For the synthesis of amidines several methods were suggested of which those were regarded as fundamental for some time which are based on the reaction of ammonia with iminohalides or with esters of orthocarboxylic acids. Recently, the syntheses of the amidines from nitriles, cyanides and ammonium salts have been elaborated (ref. 1). Di-substituted amidines of the aromatic series are produced by the reaction of magnesium organic compounds with carbodiphenylimides, from anilides of fatty acids and aniline, or from a mixture of fatty acid and aniline (ref. 2). In this work the methods of the syntheses of amidines from N,N'-di-substituted thiourea and magnesiummethyl iodide were

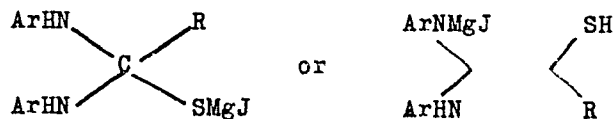
Card 1/4

The Synthesis of Di-Substituted Amidines From Di-Substituted Thiourea and Magnesiummethyl iodide 79-28-3-30/61

described; they are based on the linking of the magnesium organic compound at the double bond of the group



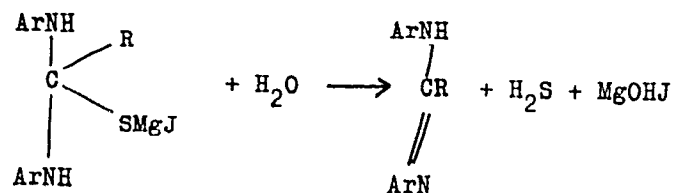
under the formation of the intermediate product



Independently of the fact whether the thiourea enters into reaction with the magnesium organic compound in normal or in isoform, the formation of the amidines takes place in dilution of the intermediate product with water that is to say:

Card 2/4

The Synthesis of Di-Substituted Amidines From Di-Substituted Thiourea and Magnesiummethylodide 79-28-3-30/61



Thus the following compounds were synthesized: N,N'-diphenylacetamide N,N'-di-p-tolyl-, N,N'-Di-m-tolylacetamide, N,N' Di-o-anisidineacetamide and N,N'-allylphenylacetamide. Thanks to the presence of an amidine group in the isothiourea they are capable of forming amidines with malonic acid ester by subsequent hydrolysis. There are 1 table, and 2 references.

Card 3/4

The Synthesis of Di-Substituted Amidines From Di-Substituted Thiourea and Magnesiummethyl iodide 79-28-3-30/61

ASSOCIATION: Leningradskiy tekhnologicheskii institut pishchevoy
promyshlennosti
(Technological Institute for Food Industry, Leningrad)

SUBMITTED: June 8, 1957

Card 4/4

5(2)

SOV/156-59-1-22/54

AUTHOR: Koshkin, N. V.

TITLE: A Titrimetric Determination of Copper, Cadmium and Mercury
(Titrimetricheskoye opredeleniye med', kadmiya i rtuti)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya
tekhnologiya, 1959, Nr 1, pp 92-96 (USSR)

ABSTRACT: Whereas the thiosemicarbazides and their application for
analysis have been investigated many times, hydrazodithio-
carbamide has been given little attention so far. The pre-
paration of hydrazodithiocarbamide from monohydrazine sul-
phate and rhodane ammonium is described as well as its re-
action with copper, cadmium and mercury ions. In an hydro-
chloric solution white precipitates are formed and in a neu-
tral solution cadmium remains dissolved, copper forms a
black precipitate, and mercury a yellow one. Hydrazodithio-
carbamide reduces iodine as far as to hydrogen iodide. High-
ly dilute solutions (4 mg/100 ml) must be used because a dis-
turbig yellowish turbidity occurs in more concentrated solu-
tions. As hydrazodithiocarbamide can easily be obtained
in chemical purity it can be used to determine the titer of
iodine solutions. Analytical prescriptions and analysis data

Card 1/2

A Titrimetric Determination of Copper, Cadmium and Mercury SOV/156-59-1-22/54

follow (Tables 1-4). There are 4 tables and 6 references,
1 of which is Soviet.

ASSOCIATION: Kafeđra neorganicheskoj i analiticheskoj khimii Leningradskogo
tehnologicheskogo instituta pishchevoj promyshlennosti
(Chair of Inorganic and Analytical Chemistry of Leningrad
Technological Institute of the Foodstuffs Industry)

SUBMITTED: July 7, 1958

Card 2/2

KOSHKIN, N.V.

Determination of tin by means of copper aryl- and diarylthiosemi-
carbazonates. *Izv.vys.ucheb.zav.; khim.i khim tekhn.* 3 no.1:
56-58 '60. (MIRA 13:6)

1. Kafedra obshchey i analiticheskoy khimii Leningradskogo
tehnologicheskogo instituta pishchevoy promyshlennosti.
(Tin--Analysis)
(Copper compounds)
(Semicarbazide)

KOSHKIN, N.V.

Use of thiosemicarbazides in analysis. Report No. 2: Qualitative and quantitative determination of copper by means of aryl- and diarylthiosemicarbazides. Trudy kom. anal. khim. 11:211-216 '60.
(MIRA 13:10)

1. Leningradskiy tekhnologicheskii institut pishchevoy promyshlennosti.

(Copper--Analysis) (Semicarbazide)

KOSHKIN, N.Y.

Use of thiosemicarbazides in analysis; Report No.3: Titrimetric determination of thiosemicarbazides with mercuric nitrate. Zhur. anal.khim. 15 no.2:147-150 Mr-Apr '60. (MIRA 13:7)

1. Leningradskiy tekhnologicheskii institut pishchevoy promyshlennosti.
(Semicarbazide) (Mercury nitrate)

KOSHKIN, N.V.

Use of thiosemicarbazides in analysis. Part 5: Use of copper
l-phenylthiosemicarbazidinate as an indicator in the mercurimetric
determination of iodides and silver. Izv.vys.ucheb.zav.;khim.i
khim.tekh. 5 no.2:198-201 '62. (MIRA 15:8)

1. Leningradskiy tekhnologicheskiy institut pishchevoy
promyshlennosti, kafedra analiticheskoy khimii.
(Semicarbazide) (Silver--Analysis) (Iodides)

KOSHKIN, N.V.; SHREYMER, N.M.

Use of thiosemicarbazides in analysis. Report No.6: Qualitative and quantitative determination of cobalt by means of l-phenylthiosemicarbazide. Zhur.anal.khim. 18 no.6:757-760 Je '63. (MIRA 16:9)

1. Leningradskiy tekhnologicheskii institut kholodil'noy promyshlennosti.

(Cobalt--Analysis) (Semicarbazide)

KOSHKIN, N.V.

Use of thiosemicarbazides in analysis. Report No.8: Mercurimetric determination of thiosemicarbazones. Zhur. anal.khim. 18 no.12: 1492-1496 D '63. (MIRA 17:4)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti.

KOSHKIN, N.V.; AGREST, F.B.

Use of thiosemicarbazides in analysis. Part 7: Photometric determination of copper in aluminum and its alloys. Izv.vys. ucheb.zav.; khim.i khim.tekh. 7 no.6:910-913 '64.

(MIRA 18:5)

1. Leningradskiy tekhnologicheskoy institut kholodil'noy promyshlennosti i khimicheskaya laboratoriya zavoda "Elektrik", kafedra obshchey i analiticheskoy khimii.

KOSHKIN, N.V.

Use of diphenyl hydrazone oxalate disimide in analytical chemistry. Zhur.anal.khim. 20 no.5:534-539 '65.

(MIRA 18:12)

1. Leningradskiy tekhnologicheskoy institut kholodil'noy promyshlennosti. Submitted October 8, 1963.

KOSHKIN, P.I.; BUTENKO, P.S.

Experience in the use of the retreating mining method under conditions of a heaving floor. Ugol' 36 no.8:44 Ag '61.

(MIRA 14:9)

1. Nachal'nik shakhty No.5/6 im. Dimitrova tresta Krasnoarmeyskugol' kombinata Stalinugol' (for Koshkin). 2. Zamestitel' glavnogo inzh. shakhty No.5/6 im. Dimitrova tresta Krasnoarmeyskugol' (for Butenko).

(Donets Basin--Coal mines and mining)

NO. 4000/11
GRIGORENKO, G.F.; starshiy leytenant meditsinskoy sluzhby; KOSHKIN, P.M.,
starshiy leytenant meditsinskoy sluzhby

Application of combined aerosol therapy in respiratory tract
diseases. Voen.-med.zhur. no.8:83-84 Ag '57. (MIRA 10:12)

(AEROSOLS, therapeutic use,
resp.tract dis., various drug mixtures (Rus))

(RESPIRATORY TRACT, diseases,
ther., aerosol admin. of various mixtures of drugs (Rus))

KOSHKIN, P.P., krayeved; SHUVALOV, Ye.L., dotsent; KOLOSITSYN, V.,
red.; PAL'MINA, N., tekhn. red.

Kamyshlov. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 134 p.
(Mira 15:8)

(Kamyshlov)

KOSHKIN, S.

Vvedenie sevooborotov na oroshaemykh uchastkakh. [Introduction of crop rotation on irrigated lands]. Kursk, knizhnoe izd-vo, 1953. 88 p

SO: Monthly List of Russian Accessions, Vol 6 No 8 November 1953

DARSKAYA, N.F.; GROKHOVSKAYA, I.M.; KOSHKIN, S.M.; KULAKOVA, Z.G.;
SLONOV, M.N.

Geographical distribution of some species of fleas originally
described as being from North Korea. Trudy Nauch.-issl. protivochum.
inst. Kav. i Zakav. no.5:176-183 '61.

(MIRA 17:1)

1. Nauchno-issledovatel'skiy protivochumnyy institut Kavkaza
i Zakavkaz'ya, Institut epidemiologii i mikrobiologii AMN
SSSR, Protivochumnoye otdeleniye porta Vanino i Institut
meditsinskoy parazitologii i tropicheskoy meditsiny.

KOSHKIN, V.

Equipment for mounting of heavy spare wheels. Avt. transp. 36
no.12:54 D '58. (MIRA 11:12)
(Motortrucks--Wheels)

KOSHKIN, V.

Abroad. Avt. transp. 41 no.8:59-60 Ag '63. (MIRA 16:11)

KOSHKIN, V.. brigadir kompleksnoy brigady kommunisticheskogo truda

Every brigade can become progressive. Sel'.stroi. 18 no.11:6
N '63. (MIRA 17:3)

1. Trest Ul'yanovsksel'stroy.

KOSHKIN, V.

Synthetic materials for floor coverings. Na stroi.Ros. no.4:23-25
Ap '61. (MIRA 14:6)

1. Rukovoditel' otдела primeneniya polimerov v stroitel'stve
Vsesoyuznogo nauchno-issledovatel'skogo instituta novykh
stroitel'nykh materialov Akademii stroitel'stva i arkhitektury
SSSR.

(Floor coverings)

KOSHKIN, V.

New device for replacing gaskets. Zhil.-kom. khoz. 13 no.5:
28 My '63. (MIRA 16f8)

1. Glavnyy inzh. tresta "Volgogradgorgaz."
(Gaskets)

AYRAPETOV, D., arkhitektor; KOSHKIN, V., kand. tekhn. nauk; OSIPOV, G.
kand. tekhn. nauk

Synthetic rolled floor coverings. Zhil. stroi. no. 521-3 '64
(MIRA 17:7)

KOSHKIN, V. A.

18(0) PHASE I BOOK EXPLANATION SOV/1726

Академиѣ наук СССР. Институт металлургии
Sovremennyye Problemy Metallurgii (Modern Problems in Metallurgy)
Moscow, Izd-vo AN SSSR, 1955. 640 p. 5,000 copies printed.
Koop. Ed.: A.M. Samarin, Corresponding Member, USSR Academy of
Sciences; Eds. of Publishing House, V.S. Kiselevnikov, and
A.M. Derzov; Tech. Ed.: I.V. Polyakova.

PURPOSE: This book is intended for scientific and technical persons in the field of metallurgy.

COVERAGE: This is a collection of articles on certain aspects of Soviet metallurgy. The book is dedicated to Academician Ivan Pavlovich Koshkin on the occasion of his 75th birthday. The book is divided into seven parts. The first part consists of two articles presenting the account of the biography and professional activity of the Soviet metallurgist. It includes an article by John Chipman, Nicholas Orem, and Elliott (A.I.F., USA) describing their meeting with Koshkin in Moscow and also his visit to the United States. The second part consists of three articles and deals with raw materials and fuels for the Soviet metallurgical industry. The third part represents the major portion of the book. It consists of 25 articles dealing with the various aspects of the metallurgy of pig iron and steel. The fourth part consists of two articles treating the metallurgy of nonferrous metals. The fifth part consists of three articles dealing with the forming of metals. The sixth part consists of eight articles dealing with general problems in the field of metallurgy. The last part deals with general problems in the field of metallurgy. References are given after each article. No personalizations are mentioned.

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GENERAL PROBLEMS IN METALLURGY

Koshkin, V.A. [Candidate of Technical Sciences, Giprozmet (State Institute for the Design and Planning of Metallurgical Plants)]. General Plans of Metallurgical Plants
AVAILABLE: Library of Congress
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6-19-59

GRDINA, Yu.V.; KOSHKIN, V.A.; GORDIN, O.V.; SAKHAROVA, N.A.

Inoculation of rail steel. Izv. vys. ucheb. zav.; chern. met.
6 no.10:129-133 '63. (MIRA 16:12)

1. Sibirskiy metallurgicheskiy institut.

S/133/61/000/005/005/009
A054/A133

AUTHORS: Plekhanov, P.S.; Koshkin, V.A.; Kritinin, I.A.; - Engineers

TITLE: The practice of rolling high-manganese rails

PERIODICAL: Stal', no. 5, 1961, 423 - 425

TEXT: Tests were carried out at the Kuznetskiy metallurgicheskiy kombinat (Kuznetsk Metallurgical Combine) to produce high-manganese rail steel of the following composition (%): C 0.93; Mn 12.02; Si 0.09; P 0.09; S 0.021; Cr 0.05; Ni 0.13; Cu 0.14. The test ingots, 1.3 and 6 tons in weight, were left to cool in the molds for 4 days and, in order to increase the ductility of the cast steel they were subjected to the following homogenization process: 1) Loading the cold ingots into a furnace at a temperature of 300°C, 4 h 30 min holding; 2) heating from 300 to 700°C in 7 h 40 min, with an average temperature increase of 52°C/h; 3) heating from 700 to 1,050°C in 5 h 50 min, with a temperature increase of 60°C/h; 4) holding at 1,050 - 1,080°C for 48 h and cooling in air in the neighborhood of the furnace. No carbide phase was found after homogenization in the steel structure. Heating the 1.3-ton ingots in a continuous furnace was carried out in the following stages: 1) In the continuous zone (5 h 25 min) at a

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The practice of rolling high-manganese rails

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temperature of 530°C near the charge door; 2) heating zone (4 h 45 min) at a temperature of 1,200 - 1,235°C in the upper part and 1,160 - 1,200 - 1,165°C in the lower part (the metal temperature: 1,135 - 1,100°C); 3) soaking zone (2 h 30 min) at a temperature of 1,220 - 1,230°C in the upper part (the metal temperature: 1,100 - 1,150°C), the ingots are turned 3 times through 90°. The 6-ton ingots were heated from 100 to 800°C in 9 h with an average temperature increase of 66°C/h and from 800 to 1,030°C in 7 h 20 min at the rate of 33°C/h. It was found upon rolling these ingots that the reduction in the first passes had to be 30 - 40 mm, in the following passes 50 - 60 mm. The rails made of high-manganese steel proved satisfactory in the drop test [according to [OCT (GOST) 6944-54]. The radius of bending was twice as great as for carbon-steel rails, while after rolling the following values were obtained: σ_s : 30 - 32 kg/mm²; σ_B : 70 - 73 kg/mm²; δ : 20 - 22%; ψ : 19 - 20%. The metal structure of the specimens (water or air cooled) consisted of austenite polyhedra without a carbide phase; the rails, therefore, can be used without any additional hardening in water. The following scientific workers participated in the tests: M.M. Bazhenov, I.L. Vaynshteyn, P.G. Popov, N.I. Zakharenko, I.V. Manchevskiy (all from the Kuznetsk Metallurgical Combine); Yu.V. Grdina, A.P. Govorkov, N.A. Nesterov, V.I. Grigorkin [all from the Sibirskiy metallurgicheskii institut (Siberian Metallurgical Insti-

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The practice of rolling high-manganese rails

S/133/61/000/005/005/009
A054/A133

tute)]. There are 2 tables.

ASSOCIATION: Kuznetskiy metallurgicheskiy kombinat [Kuznetsk Metallurgical (Integrated) Plant]

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GOVOROV, A.A.; KOSHKIN, V.A.; GORDIN, O.V.; TUZOVSKIY, A.I.; SAKHAROVA, N.A.;
LYMAR', A.I.

Effect of the temperature of the end of rolling on the mechanical
properties of rail steel. Izv. vys. ucheb. zav.; chern. met.
6 no.8:137-140 '63. (MIRA 16:11)

1. Sibirskiy metallurgicheskiy institut i Kuznetskiy
metallurgicheskiy kombinat.

MIKHAYLETS, Nikolay Semenovich; GORELKINA, Aleksandra Yevseyevna;
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DARUSHIN, Ratmir Ivanovich; SAKHAROVA, Nina Alekseyevna;
LYMAR', Adol'f Ivanovich; LOSKUTOVA, Lyudviga Vladimirovna;
RUDNEVA, Raisa Semenovna

[Manufacture of rails at the Kuznetsk Metallurgical Combine]
Proizvodstvo rel'sov na Kuznetskom metallurgicheskom kombinat.
Moskva, Izd-vo "Metallurgiya," 1964. 222p. (MIRA 17:6)

AFANAS'YEV, S.G.; DUKHANIN, A.S.; KVI'TKO, M.P.; SHUMOV, M.M.;
DARUSHIN, R.I.; KOSHKIN, V.A.; ZAKHARENKO, N.I.;
KRITININ, I.A.

Railroad rails made of oxygen-blown converter steel. Stal' 24
no.1:72-73 Ja '64. (MIRA 17:2)

KOSHKIN, V. G. (Engineer)

"The Industrialization of Interior Plastering Work in Residential Buildings (An Investigation of the Methods of Carrying Out the Work)." Cand Tech Sci, Sci-Res Inst of Construction Engineering, Acad Sci USSR, 17 Dec 54. (VM, 8 Dec 54)

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KOSHKIN, V., kandidat tekhnicheskikh nauk.

Finishing work and materials in Belgium. Stroitel' 2 no.6:18-19
Je '56. (MIRA 10:1)
(Belgium--Building)

Koshkin, V. G.

KOSHKIN, V.G., kand. tekhn nauk.

Factory finishing of large-sized lightweight concrete wall blocks and
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(Finishes and finishing) (Concrete blocks)

KOSHKIN, V., kand.tekhn.nauk

Using a special varnish in finishing parquet and board floors.

Na stroi. Mosk. 1 no.6:21 Je '58.

(MIRA 11:9)

(Floors) (Varnish and varnishing)

KOSHKIN, V., kand. tekhn.nauk

Jointless mastic floors. Stroitel' no.6:33 Je '58. (MIRA 11:7)
(Floors) (Plastics)

KRESTOV, M.A.; DOBRYAKOVA, L.I.; KOSHKIN, Y.G.; YEVDOKIMOV, A.A.;
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O.E., kand.tekhn.nauk, nauchnyy red.; SKVORTSOVA, I.P., red.
izd-va; TEMKINA, Ye.L., tekhn.red.

[Finishing large panels and blocks using colored concretes]
Otdelka krupnykh panelei i blokov s primeneniem tsvetnykh beto-
nov. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.
materialam, 1959. 87 p. (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroi-
tel'nykh materialov. 2. Institut novykh stroitel'nykh materialov
(for Krestov, Dobryakova, Koshkin, Yevdokimov, Ivanova, Khmelevskiy).
3. Institut betona i zhelezobetona (for Kostochkina).
(Building blocks)

KOSHKIN, V., kand. tekhn. nauk

Floor coverings using plastics. Na stroi. Mosk. 2 no.4:10-12
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KOSHKIN, V.G., kand.tekhn.nauk

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KOSHKIN, V.G.

Polymer materials used for finishing in the building industry.
Plast.massy no.9:15-16 '60. (MIRA 13:11)
(Polymers) (Construction industry)

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[Synthetic floor coverings] Sinteticheskie materialy dlia pok-
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stroitel'nykh materialov. 2. Laboratoriya otdelochnykh plast-
mass Vsesoyuznogo nauchno-issledovatel'skogo instituta novykh
stroitel'nykh materialov Akademii stroitel'stva i arkhitektury
SSSR (for Koshkin, Galaktionov, Larkina, Yantikova, Kazakova).
(Floor coverings)

NASONOV, V.N.; KOSHKIN, V.G., kand.tekhn.nauk; GUBENKO, A.B., doktor
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(Garbar, M.I.)

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Polymerized building and finishing materials. Sbor. trud.
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(Building materials)
(Interior decoration)

FADEYEVA, V.S., kand.tekhn.nauk; KOŠHKIN, V.G., kand.tekhn.nauk;
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Method of determining the colorfastness of materials for
unstained floors. Sbor. trud. VNIINSM no.2:162-173 '60.
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BUDNIKOV, P.P.; ALEKPEROV, M.S.; BAKLANOV, G.M.; BOLDYREV, A.S.;
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Conference on increasing the durability of corrugated roofing
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A.I., arkh., retsenzent; GURVICH, E.A., red.izd-va; BRUSINA,
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[Catalog of finishing materials and products] Katalog otdeloch-
nykh materialov i izdelii. Moskva, Gosstroizdat. Pt.1.[Plastics;
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(Plastics) (Building--Details)