

KAGANOV, S.Yu.; MIZERNITSKAYA, O.N.; MAKAROV, I.V.

Review of S.G. Zviagintseva's "Bronchial asthma in children." *Pediatrics* 37 no.10:90-91 0 '59. (MIRA 13:2)

(ASTHMA)

(ZVLAGINTSEVA, S.G.)

MIZERNITSKAYA, O.N.

Clinical characteristics of bronchial asthma in infants. Vop.okh.
mat.1 det. 7 no.7:34-40 J1 '62. (MIRA 15:11)

1. Iz klinicheskogo otdela (rukovoditel' - dotsent N.P.Savvatim-
skaya) Gosudarstvennogo nauchno-issledovatel'skogo pediatricheskogo
instituta (dir. - doktor med.nauk A.P.Chernikova) Ministerstva
zdravookhraneniya RSFSR.
(ASTHMA) (INFANTS--DISEASES)

MIZERNITSKAYA, O.N.

Eighth All-Union Congress of Pediatricists. Med.sestra 22
no.2:60-62 P '63. (MIRA 16:5)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo pediatricheskogo
instituta Ministerstva zdravookhraneniya RSFSR, Moskva.
(PEDIATRICS--CONGRESSES)

ALIZENITSKAYA, O. N.

Satamestniye observatsii na 1 children of an early age suffering
from bronchial asthma. V p. dokl. mat. i det. 8 no. 2: 88 P. 163.
(MIRA 10:1)

1. Iz kliniki rannego vozrasta Nauchno-issledovatel'skogo
pediatricheskogo instituta Ministerstva zdoravookhraneniya
RSFSR.

(NO SUBJECT HEADINGS)

MIZERNITSKIY, Aleksandr Il'ich, kapitan dal'nego plavaniya, dots.
YUSHCHENKO, A.P. doktor voyenno-morskikh nauk.
retsensent, SERKOV, M.V. kand. tekhn. nauk, dots.
retsensent, YEREMAYEV, I.G. dots. retsensent, UDAPOV, V.I.
kapitan dal'nego plavaniya kand. tekhn. nauk, dots, retsen-
zent, SERKOV, G.S. red. izd-va, USAN'VA, N.P. tekhn. red.
[Navigation] Navigatsiya Moskva. Izd-vo "Morskoi transport,"
1963. 126 p. (MIRA 16 9)
[Navigation]

AUTHORS: Mizernitskiy, L. A. and Tyuryakov, A. F., Mining Engineers SOV-127-5-10-11 3

TITLE: Open-pit Works in Mines of the Lead and Zinc Industry (Otkrytyye raboty na rudnikakh svintsovo-tsinkovoy promyshlennosti)

PERIODICAL: Gornyy zhurnal, 1968, Nr 10, pp 13-18 (USSR)

ABSTRACT: The open-pit extraction of lead-zinc ores was developed between 1953 - 1957. At present the following mines are exploited by open-pit working: the Kurgashinskoy and Ulyan-Tupkanskoy mines of the Tashkent Sovmarkhoz; the Buurinskoy, Kanskiy, and Gumserskiy mines of the Kirghiz Sovmarkhoz; the Andreyevskiy and Lyryanovskiy mines of the East-Kazakhstan Sovmarkhoz; the Kargaylinskoy, Kayraktinskoy, Gul'shankinoy, and Kaskagyr-Andzhalskiy Mines of the Karaganda sovmarkhoz and the Tary-Ekanskiy mine of the Tadzhik Sovmarkhoz. A total of 12.5% of the entire lead-zinc ore production was done by this method. The increase in the production of these mines contributed to the sharp decrease in the cost of production and preparatory stripping work. All these mines are situated in different surroundings, (some of them high up in the mountains), various types of drilling rigs, excavators and dump trucks are used.

Card 1,2

SOV-127-58-10 4/29

Open-pit Works in Mines of the Lead and Zinc Industry

In general, dump trucks are used for the transportation of the extracted ore and stripping rocks in all the mines, except the Kurgashinkanskiy mine where rail transport is also used. Frequent break-downs of trucks, shortage of stand by trucks, small load capacity and shortage of spare parts very often reduce mine output. There are 5 tables.

1. Mining industry--BKKK 2. Lead ore--Production.
3. Zinc ore--Production 4. Ore--Handling

Card 2/2

SOV/127-59-2-1071

18(5)
AUTHOR:

Mizernitskiy, L.A., Mining Engineer

TITLE:

On the Development of the Iron-Ore Industry in the Ukraine During the Years 1959-1965 (O razvitii zalezorudnoy promyshlennosti Ukrainy v 1959-1965 gg)

PERIODICAL:

Gornyy zhurnal, 1959, Nr 2, pp 47-54 (USSR)

ABSTRACT:

Ukraine produced 56% of the entire iron-ore volume of USSR in 1958. The same republic is third in the world in iron-ore production in 1957. The republic itself uses only 72% of its yearly production. Yet there is a disproportion between the needs of heavy iron-ore mines and plants, although the latter are working 3 shifts a day. The yearly level-sink of the main shafts at Krivoy Rog is 20 to 25 m. Pyrite cinders are being exploited as secondary iron-ore resources, but the supply will be exhausted in 7 years. Lean iron-ores (brown, worked-out ores, etc) are also being utilized as sources of iron. The subtitles of this article are as follows: 1. Raw-mate-

Card 1/7

SOV/127-59-2-1071

On the Development of the Iron-Ore Industry in the Ukraine During the Years 1959-1965

rial basis. 2) Investment constructions. 3) Ore mining. 4) Improving the quality of the dressed ore. 5) General reconstruction of the mines at Krivoy Rog. 6) Iron-ore dressing. The ore fields at Krivoy Rog which are now being examined (minimum commercial-iron content 46%) contain approximately 1.8 billion tons of ore. They will be exhausted in about 30 years. Another area of rich ore deposits (about 62% iron) which is being speedily examined lies at Belozersk. Zaporozhskaya oblast. Part of the Dnepr. Its estimated volume is 200 million tons; underground mining will be used. The main source of iron in the Ukraine will be ferrous magnetite mined in open pits (0.2 to 0.8 cu m of rock per 1 ton of ore). The mining technology has been developed by the Yuzhnyy gorno-obogatitel'nyy kombinat (Southern Mining-and-Ore-Dressing Combine). The fields lie near Krivoy Rog and Kremenchug. Their

Card 2/7

MIZERNITSKIY, L.A.

Seminar on the theme "Improving the excavating operations and the transportation in strict mines of mining and ore dressing enterprises of the Ukraine." Met. i gornorud. prom. no. 4-90 (MIRA 18:10) P. 165.

L 29812-66 EWT(d)/EWP(1)
ACC NR: AP6020875

SOURCE CODE: UR/0383/66/000/001/0090/0091

AUTHOR: Mizernitskiy, L. A.; Negrobov, V. P.

ORG: none

TITLE: All-Union conference on problems in raising labor productivity and reducing net cost of production in mining enterprises

SOURCE: Metallurgicheskaya i gornorudnaya promyshlennost', no. 1, 1966, 90-91

TOPIC TAGS: industrial enterprise, industrial production, quality control, labor policy

ABSTRACT: An All-Union conference on increasing labor productivity and reducing production costs in mining enterprises was held 15-17 September 1965 in Krivoy Rog. The conference was attended by 312 persons from various organizations. The monthly productivity per worker in 1964 was 89.3 tons for commercial ore and 186 tons for raw ore, an increase of 16.3 and 52.5% respectively over 1958. Recommendations are made for further increasing labor productivity and improving the quality of commercial ores. The titles of some of the reports are mentioned but no authors are given. [JPRS]

SUB CODE: 05, 13 / SUBM DATE: none

UDC: 648.511.6:622.341.003.12

MIZERNYAK, G. N.

✓ 1716. Orin, A. S., Kravlev, M. G., and Mizernyak, G. N.
Methods of gas-exchange investigation in two-stroke engines (in
Russian), Internal Combustion Engines, Moscow, Mashiz, 1955,
31-39; Ref. Zh. Mekh. no. 11, 1956, Rev. 7392.

Methods and equipment are described for determining the scav-
enging and filling efficiency of the cylinder of a two-stroke in-
ternal-combustion engine by means of gas-sample analysis and
indicator diagrams, as used by the "Internal Combustion Engines"
chair of the Moscow Higher Technical College.

M. A. Peshkin
Courtesy Referativnyi Zhurnal, USSR
Translation, courtesy Ministry of Supply, England

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BAYRACHENKO, I.V.; MIZERNYUK, A.T.; VSEKHSVYATSKAYA, Yu.S.; SHKURDODA, V.F.

Radar observations of meteoric activity in January-March 1958.
Bul. Kom. po komet i meteor. AN SSSR no.3:15-18 '58 (MIRA 13:3)

1. Kiyevskiy gosudarstvennyy institut.
(Meteors)

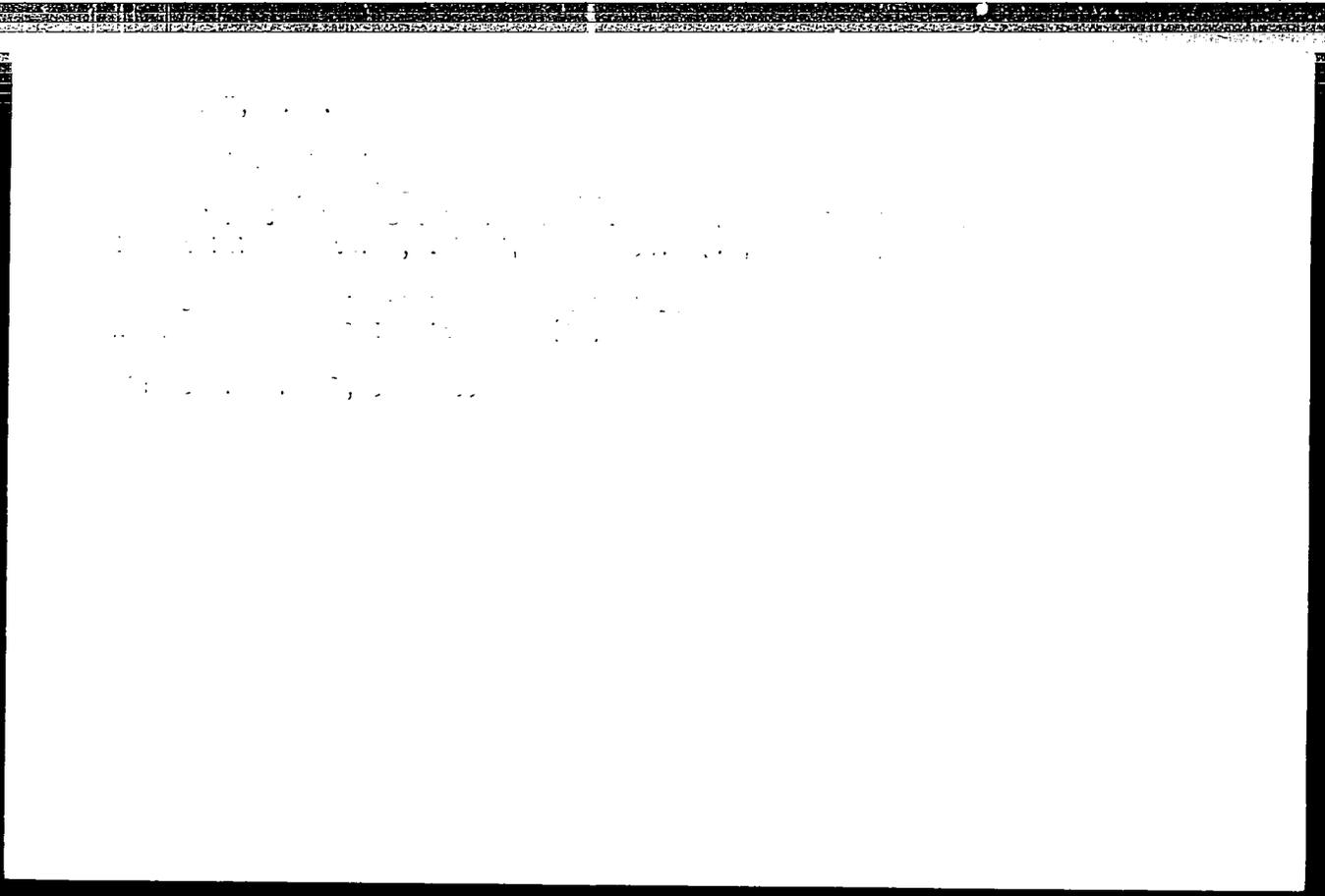
BAYRACHENKO, I.V.; VSEKHSVYATSKAYA, I.S.; MIZERNYUK, A.T.; SHKURDODA, V.F.

Some results of radar observations of meteor activity. *Mezhdunar.
geofiz. god [Kiev] no.2:75-78 '60.* (MIRA 14:1)

1. Kiyev State University.

(Meteors)

(Radar in astronomy)



BORISHANSKIY, M.S., kandidat tekhnicheskikh nauk; GVOZDEV, A.A., professor, doktor tekhnicheskikh nauk; MIZERNYUK, B.N., inzhener; NIKITIN, N.V., inzhener; SHERMAN, L.N., arkhitektor

Precast reinforced concrete beams developed by the State Planning Institute of Industrial Construction and the Central Scientific Research Institute of Industrial Construction. Rats. i izobr. predl. v stroit. no.81:20-22 '54. (MIRA 8:6)
(Girders) (Precast concrete construction)

AUTHOR: Shishkin, R.G., Engineer SOV/97-4-2/11
Mizernyuk, B.N., Candidate of Mechanical Sciences.
Bal'nov, M.I., Engineer.

TITLE: Production and Application of Prestressed Reinforced Concrete Arched Frames with Batch Reinforcement. (Opyt izgotovleniya i primeneniya predvaritel'no napryazhennykh zhelezobetonnykh arcochnykh ferm s suchkovoy armatyroy).

PERIODICAL: Beton i Zhelezobeton, 1958 Nr.4., pp. 125-131 (USSR).

ABSTRACT: The manufacture of prestressed concrete frames with batch reinforcement could be carried out in the yards of building organizations. The experience gained in the Kuznetskiyazhstroy trust show that the manufacture of complete frames spanning 27-30m could be accomplished if a railway siding were available. The advantages of these frames constructed as one unit are the economy in steel and saving of assembly time. A 70% saving of steel is achieved by the use of batch reinforcement as compared with steel frames. The channels in the constructions accommodating batch reinforcement should be formed without tubular steel insets using rubber tubes. The injecting of channels should be carried out through the

SOV/97-4-2/11

Production and Application of Prestressed Reinforced Concrete
Arched Frames with Batch Reinforcement.

opening at the ends where the anchor is fixed. Constant control should be kept on the proportion of water and cement in the grout. The quality of the high tensile steel should also be checked in the laboratories for breaking point and the hardness, which is usually carried out by the Rockwell apparatus. The Institute of Promstroyproyekt designed a few variants of prestressed reinforced concrete arched frames for a 27m span. Samples of these frames were manufactured in Kuznetskvaznostroy trust and were tested in the presence of the Stalinsk Branch of the VNIIPS. According to the results of these tests a frame was chosen and improved upon by the Promstroyproyekt (TCh III-57/MSPMKhP). This design was accepted by the Institute Giproaluminiumy for construction of the electrolysis department of the Stalinsk aluminium factory. Figure 1 gives constructional details of the frame. Steel Mark 25G2S was used. Figure 2 shows anchoring details for pretensioning of the reinforcement. Data for high tensile steel of various marks is given in Table 1. A visiting party of specialists from Gosstroy

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SOV/97-4-2/11

Production and Application of Prestressed Reinforced Concrete
Arched Frames with Batch Reinforcement.

helped the Kuznetskyazhstroy trust to solve various technical problems in connection with casting arched frames. Figure 3 shows a photograph of the casting yard. Table 2 enumerates tools, implements and heavy gear used in such a yard. Figure 4 illustrates frame with tubular insets for the formation of channels and Figure 5 the frame where the channels are being formed by means of rubber tubing. The cement used for the concrete mix for these frames is Mark 400, which is re-ground on vibro grinders M-200. The consolidation of the concrete is carried out by an immersion type of rod vibrator Mark I-21, I-50 and I-80. The tensioning of the reinforcement is carried out by hydraulic jacks constructed by the Glavstroymekhanizatsiya with a tensioning capacity of 30 tons, operated by hand pumps. SM-258. Figure 6 illustrates the end of the frame with anchor reinforcement and Figure 7 the lifting of the frame by crane on a special attachment. Figure 8 illustrates the transportation of the frames by railway and Figure 9 the frame during testing. Table 3 gives cost estimate of various manufacturing operations of the frame for a 27m span. There are 9 figures and 3 tables. 1. Reinforced concrete--Applications 2. Reinforced concrete--Production 3. Structures--Design.

Card 3/3

BERDICHEVSKIY, G.I., kand.tekhn.nauk; DMITRIYEV, S.A., kand.tekhn.nauk;
 MIKHAYLOV, K.V., kand.tekhn.nauk; GVOZDEV, A.A., prof., doktor
 tekhn.nauk; MIKHAYLOV, V.V., prof., doktor tekhn.nauk; BULGAKOV,
 V.S., kand.tekhn.nauk; VASIL'YEV, A.P., kand.tekhn.nauk; YEVGEN'YEV,
 I.Ye., kand.tekhn.nauk; MULIN, N.M., kand.tekhn.nauk; SVETOV, A.A.,
 kand.tekhn.nauk; FRENKEL', I.M., kand.tekhn.nauk; BELOBROV, I.K.,
 inzh.; MATKOV, N.G., inzh.; MITNIK, G.S., inzh.; SKLYAR, B.L., inzh.;
 SHILOV, Ye.V., hzh.; MASENKO, I.D., inzh.; NIZHNICHENKO, I.P., inzh.;
 FILIPPOVA, G.P., inzh.; MIZERNYUK, B.N., kand.tekhn.nauk; SHEYNFEL'D,
 N.M., kand.tekhn.nauk; BALAT'YEV P.K., kand.tekhn.nauk; BARBARASH,
 I.P., kand.tekhn.nauk; MITGARTS, L.B., kand.tekhn.nauk; SHIFRIN, M.A.,
 kand.tekhn.nauk; PETROVA, V.V., red.izd-va; TEMKINA, Ye.L., tekhn.red.

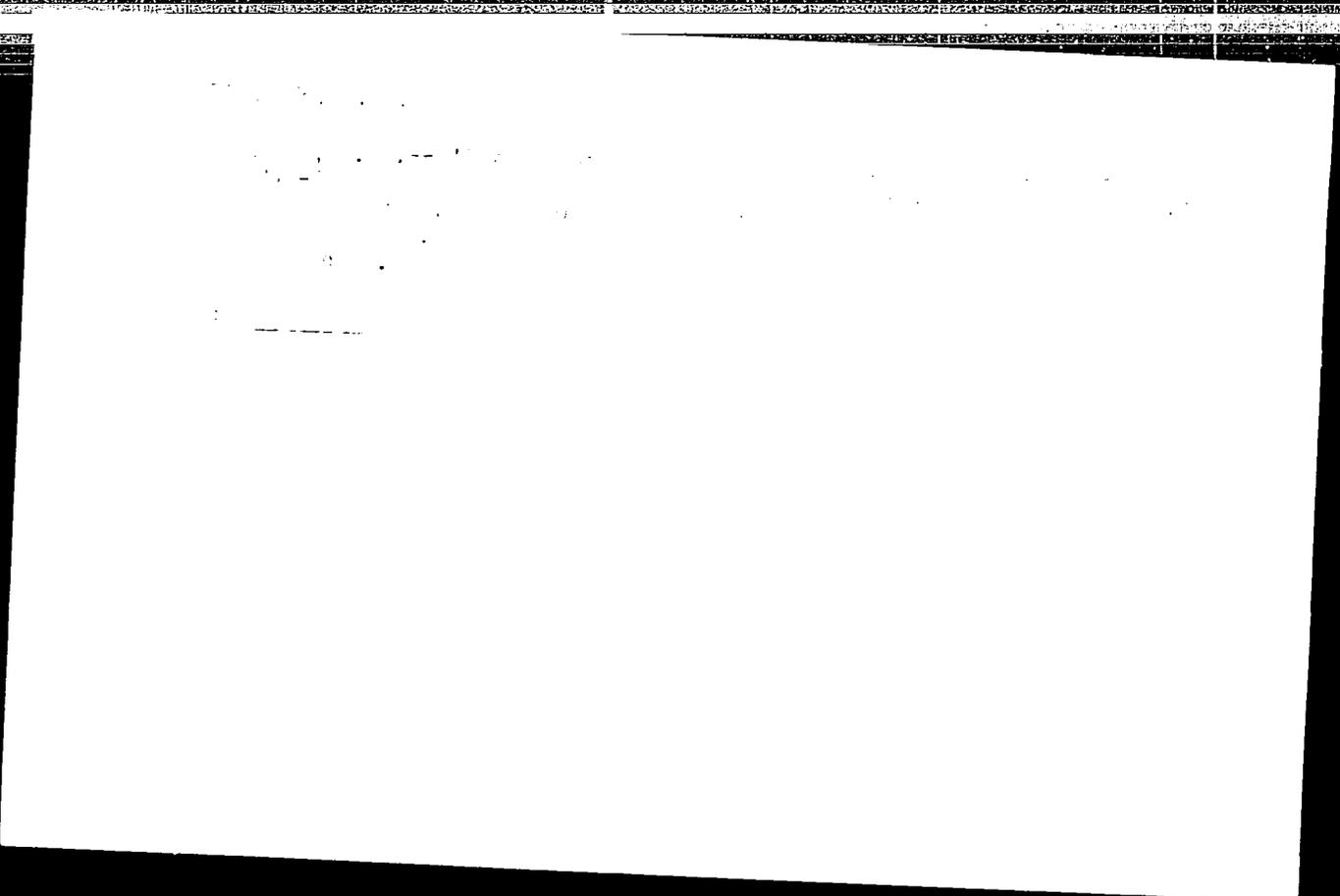
[Temporary instruction on the technology of making prestressed re-
 inforced concrete construction elements] Vremennaya instruktsiya po
 tekhnologii izgotovleniya predvaritel'no napriazhennykh zhelezobe-
 tonnykh konstrukttsii. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i
 stroit.materialam, 1959. 255 p. (MIRA 12:12)

(Continued on next card)

BERDICHEVSKIY, G.I.---(continued) Card 2.

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR (for Gvozdev, V.V.Mikhaylov, Berdichevskiy, Bulgakov, Vasil'yev, Dmitriyev, Yevgen'yev, K.V.Mikhaylov, Mulin, Svetov, Frenkel', Belobrov, Matkov, Mitnik, Sklyar, Shilov). 3. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhpomosuchi Akademii stroitel'stva i arkhitektury SSSR (for Masenko, Mizhnichenko, Filippova, Mizernyuk, Sheynfel'd). 4. Nauchno-issledovatel'skiy institut Glavmospromstroymaterialov (for Balat'yev, Barbarash). 5. Nauchno-issledovatel'skiy institut po stroitel'stvu Ministroya RSPSR (for Mitgarts, Shifrin). 6. Deystvitel'nyye chleny Akademii stroitel'stva i arkhitektury SSSR (for Gvozdev, V.V.Mikhaylov).

(Prestressed concrete)



MIZERNYUK, G.N., kandidat tekhnicheskikh nauk.

Investigation of the indicator mechanisms of the IaAz-204 high-speed engine. [Trudy] MVTU no.25:83-96 '54. (MLR 7:10)
(Indicators for gas and oil engines)

ПЛАН КНИЖНОЙ КОЛЛЕКЦИИ 807/А188

Алексеев, Валентин Петрович, Николай Иванович Егстыгов, Михаил Георгиевич Круглов, Алексей Николаевич Крылов, Олег Борисович Леонид, and Георгий Николаевич Митерный

Dvigateli vnutrennego sgoraniya: Organizatsionny kurs (Internal combustion engines, Descriptive Course) Moscow, Mashgiz, 1960. 63. p. 15,000 copies printed.

Кн. (Title page). A. S. Orlin, Professor; M. (Inside book) L. I. Iegstygov, Managing Ed. for Literature on Agricultural Machinery, Agricultural Machinery Building; I. M. Babman, Engineer, Nish. Eds. B. I. Rodal' and T. F. Shukolova.

REMARKS: This textbook is intended for students at machine-building schools of higher education, and for persons engaged in the production and operation of internal-combustion engines.

COVERAGE: The book describes the construction and operation of all the main types of reciprocating internal-combustion engines, and of individual systems and mechanisms used in them.

Internal Combustion Engines, (Cont.) 807/А188

The book corresponds to the program of the course on "Internal-Combustion Engines" at the Moscow Higher Technical Institute (Lent 2 in "Mechanics of Internal-Combustion Engines" and VI; B. I. Kostygov, the introduction; F. Alekseyev writes chapters I, II, III and IV; M. O. Kruglov, section 2 of chapter I, and section 37 of chapter I, and chapters II, III and IV (except sections 40 and 42); sections 40 and 42 of chapter I, and chapters V, VI, VII, VIII, and sections 43 and 44 of chapters III and IV; A. S. Krylov, section 1 of chapter I, and chapter II; O. B. Leonid, section 37 of chapter I (except section 37) and II. The authors thank Professor D. S. Vyrubov for his assistance.

TABLE OF CONTENTS

Foreword	3
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Ch. I. Fuel for Internal-Combustion Engines	3
1. Basic information on fuel	9
2. Fuel combustion in internal-combustion engines	9
Card 2/6	16

ORLIN, A.S., prof.; VYRUBOV, D.N.; ALEKSEYEV, V.P.; KALISH, G.G.; KRUGLOV, N.I.; KRUGLOV, M.G.; KRUTOV, V.I.; MIZERNYUK, G.N.; ROGANOV, S.G.; STEPANOV, Yu.A., prof., retsenezent; YEGORKINA, L.I., red. izd-va; SHUKLOVA, T.F., tekhn. red.

[Internal combustion engines] Dvigateli vnutrennego sgoraniya. Pod red. A.S. Orlina. Moskva, Mashgiz. Vol.3. [Systems, regulation, automatic control] Sistemy. Regulirovanie. Avtomatizatsiya. 1962. 307 p. (MIRA 16:1)
(Gas and oil engines) (Automatic control)

MIZERNYUK, I.

Decayed wooden walls of granaries replaced by stone. Muk.-elev.
prom. 22 no.1:28-29 Ja '56. (MLRA 9:5)

1. Polonskaya realizatsionnaya baza Zagotzerno.
(Granaries)

1953, 1954.

Mammoth.

1. Mammoth

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

USSR/Soil Science. Physical and Chemical Properties of Soils. 5-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24690.

Author : Mizerov, A.V.; Gentner, V.V.

Inst :

Title : On the Chemical Composition of Soils of the Southern Littoral According to Spectral-Analysis Data.

Orig Pub: Vopr. sel'sk, i lesn. kh-va Dal'n. Vostoka, vyp. 1, 1956, 29-33.

Abstract: Sod-podzol soils do not contain As and Zr, but do contain a greater quantity of V, Cu, Cr, Ni and a somewhat lesser quantity of Ti in comparison with mountain-forest brown soils. Sod-podzol and sod-gley soils, which comprise the main type of tillable land suitable for tillage in the region described, are noted for an insufficiency of Cu, Zn, Co, and

Card : 1/2

MIZEROV, A. V.

D.I. Mendeleev and agriculture. Soob. Prim. otd. VKHO no. 3:
27-40 '57. (MIRA 13:6)

1. Dal'nevostochnyy filial im. V.L. Komarova Akademii nauk SSSR.

(Mendeleev, Dmitrii Ivanovich, 1834-1907)
(Agriculture)

MIZEROV, A.V.

Shortcomings of a useful manual ("Encyclopedic agricultural dictionary
and reference manual". Reviewed by A.V. Mizerov. Zemledelie 7 no.11:
95 N '59 (Agriculture--Dictionaries) (MIRA 13:3)

MIZEROV, A.V.

Steppes in the Maritime Territory. Trudy Sakh. Kompl. nauch.-issl.
inst. AN SSSR no. 9:35-5j '60. (MIRA 14:4)
(Maritime Territory—Steppes)

PERMINOV, A.Ye.; ROMANOV, A.A.; MIZEROV, A.V.; TSYBA, M.M.;
ZHELUDKOV, A.S.; NEKRASOV, V.V.; PRASOLOV, M.I.;
BARTENEV, S.N.; BELYAYEVA, T.P.; ZHERDEV, P.A.;
KOYVUNEN, T.M.; SMORODOV, P.V., redaktor; POD'YEL'SKAYA,
K.M., tekhn. red.

[Manual for a Karelian field crop grower] Spravochnik
karel'skogo polevoda. Petrozavodsk, Karel'skoe knizhnoe
izd-vo, 1962. 435 p. (MIRA 17:3)

MIZEROV, A.V.

Some nonuniformities of the soil cover in Karelia. Trudy Kar.
fil.AN SSSR no.34:124-140 '62. (MIRA 16:1)
(Karelia:--Forest soils)

MIZEROV, A.V. [deceased]

Classification of cultivated soils as exemplified in Karelia.
Pochvovedenie no.3:32-46 Mr '65.

(MIRA 18:6.

1. Institut biologii Petrozavodskogo gosudarstvennogo universiteta.

MIZEROV, A.V., kand. sel'khoz. nauk, otv. red.[deceased]

[Fertility of soils in Karelia] Plodorodie pochv Karelii.
Moskva, Nauka, 1965. 182 p. (MIRA 18:5)

1. Akademiya nauk S.S.S.R. Kareli'skiy filial.

SECRET

Review and Report on the [illegible]

[The main body of the document contains several paragraphs of text that are extremely faint and largely illegible due to the quality of the scan. The text appears to be a report or document, but the specific content cannot be discerned.]

RIKOROV, S. V.

Some Principal Moments in the Cenozoic History of the Tomsk Obl' Region
(Priob'ye)

Trudy Tomskogo un-ta, 194. 195, 19-16

The author clarifies the main moments in the formation of the Tertiary and Quaternary deposits, extensively developed within the limits of the southeastern borders of the West Siberian Lowland. In the Tertiary period two principal stages of sedimentary accumulations are noticed: the Oligocene and Miocene-Pliocene. In the Quaternary period the physico-geographical conditions and the character of the tectonical movements changed. (RZhGeol. No 6, 1955)

SC: Sum-N 187. 12 Jan 56

MIZEROV, B.V.

Principal features of the relief between the Ob' and Yenisey to the northeast of the Vasyugan River. Trudy Gor.-geol. inst. Zap.-Sib. fil. AN SSSR no.15:109-116 '56. (MIRA 11:1)

(Ob' Valley--Geology, Structural)
(Yenisey Valley--Geology, Structural)

MIZEROV, B.V.

Cross-section of quaternary deposits along the Sobol'ya River, a
left bank tributary of the Taz. Trudy Gor.-geol. inst. Zap.-Sib.
fil. AN SSSR no.15:145-154 '56. (MIRA 11:1)
(Sobol'ya Valley--Geology, Stratigraphic--Quaternary)

112.110-110
MIZEROV, B.V.

Materials on the lithology and stratigraphy of Tertiary deposits
in the region of the village of Rezhenska, near the city of Tomsk.
Trudy Gor.-geol. inst. Zap.-Sib. fil. AN SSSR no.15:165-174 '56.
(Tomsk Province--Geology, Stratigraphic--Tertiary) (MIRA 11:1)

MIZEROV, B.V.

Repeated glaciation of the northeastern part of the West Siberian
Plain. Trudy Gor.-geol. inst. Zap.-Sib. fil. AN SSSR no.15:175-
189 '56. (MIRA 11:1)
(Siberia, Western--Geology, Stratigraphic) (Glaciers)

SUKHORUKOVA, S.S.; MIFEROV, B.V.

Lithofacies characteristics of the Middle Quaternary sediments
of the Viskova and Pragina ravines (ymport on of the Valley).
Trudy Inst. geol. i geofiz. Sib. otd. AN SSSR no.44:196-196, 1964.
MIRA, 1964.

MIZEROV, B.V.; STREKHOVA, A.I.

Basic characteristics of paleogeography in the Khatanga valley
of the Ob' valley in the Quaternary. Trudy Inst. geol. i geofiz.
Sib. otd. AN SSSR no.44:196-216 1964.

M. I. 1964

MITER V, R.V.

Strategic position of ...
Main Study Inst ...
...

Mr. [Name], [Address], [City], [State], [Zip]

Strategic [Organization] [Address] [City], [State], [Zip]

MIZEROVA, A.

MOBES, Ant., MUDr; ~~MIZEROVA, A., MUDr~~

Indications and administration of antibiotics in pediatrics. Cesk.
pediat. 10 no.1:3-10 Feb 55.

1. Z detske klin. V Olomouci.
(ANTIBIOTICS, ther. use
in pediatrics, indic. & admin.)
(PEDIATRICS
ther. use of antibiotics, indic. & admin.)

MIZEROVA, A., MUDr

~~_____~~
Sinobronchitis, Cesk.pediat. 10 no.4:277-281 May 55.

1. Z detske kliniky PU v Olomouci (MUDr Ant. Mores).
(BRONCHITIS, in infant and child,
chronic, pathol.)

MIZEROVA, A., MUDr.; FARGASOVA, I., MUDr.

Hemolytic disease of newborn with Rh incompatibility. II. Clinical aspects. Cesk. pediat 12 no.7:564-568 5 July 57.

1. Detska klinika PU v Olomouci, prednosta doc. MUDr. ant. Mores.
(ERYTHROBLASTOSIS, FETAL
clin. manifest. (Cz))

MIZEROVA, A. (Olomouc, detska klinika)

Unsuccessful use of autonomic drugs in children. Cesk. pediat. 13 no.2:
121-123 Mar 58.

1. Detska klinika PU v Olomouci, prednosta doc. MUDr Ant. Mores.
(AUTONOMIC DRUGS, ther. use
in child., failure (Cz))

MIZEROVA, A. K.

Control of Pests and Diseases in Orchards, Sverdlovsk Oblast State Publishing House, Sverdlovsk, 1966, 30 pp. 423 1693

Sira-Sla-90-53, 15 Dec. 1963

MIZEROVA, A.M., entomolog

Soft scale *Pulvinaria betula* in the Urals. Zashch.rast. ot vred. i
bol. 3 no.6:41-42 N-D ' 58. (MIRA 11:12)

(Ural Mountain region--Scale insects)

1. MIKEROVA, T. F. - MATVEYA, F. A. - KALARIYOV, V. I.
2. USSR (600)
4. Balayskiy Deposits - Kaolin
7. Report on the prospecting work at the Kraval'skiy section of the Balayskiy kaolin deposits in 1940. (based on materials of B. N. Valukhov). Abstract) Izv.Glav.upr.geol.fon. no.2, 1947

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

MIZEROVSKAYA, A.

In the Far North. Okhr.truda i sots.strakh. 5 no.11:14-15 N '62.
(MIRA 15:12)

1. Glavnyy vrach sanatoriya "Murmashi", pos.Murmashi, Murmanskoy
oblasti.
(Kola Peninsula—Health resorts, Watering places, etc.)

L 06342-67 EWP(j)/EWT(m) IJP(c) RM
ACC NR: AP6030323 (A, N)

SOURCE CODE: UR/0153/66/009/003/0476/0479

AUTHOR: Bykov, A. N.; Kostereva, A. N.; Mizerovskiy, L. N.

ORG: Department of Chemical Fibers and Plastics, Ivanovo Chemical Engineering Institute (Kafedra khimicheskikh volokon i plastmass, Ivanovskiy khimiko-tekhnologicheskii institut)

TITLE: Study of the thermal stability of colored polycaprolactams

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 9, no. 3, 1966, 476-479

TOPIC TAGS: polycaprolactam, polyamide, dye chemical, polymer degradation, thermal degradation, polymer heat resistance, THERMAL STABILITY

ABSTRACT: The paper deals with the thermal-oxidative degradation at 150°C of colored polycaprolactams obtained by polymerizing caprolactam in the presence of the dyes 1'-aminoanthraquinone, 1,5-diaminoanthraquinone and 3-amino-6,7-phthaloylcarbazole, introduced in the amount of 1% of the weight of the caprolactam. A Kapron resin stabilized with acetic acid and a colorless resin without stabilizer were also subjected to the heat treatment. The stabilized and unstabilized colorless and colored polycaprolactams showed different resistances to high temperature and atmospheric oxygen. The highest thermal stability was exhibited by colored polycaprolactams in which the dye enters into the polyamide chain. Polyamides dyed in the bulk showed a higher thermal stability than colorless Kapron, but they were less stable than colored poly-

UDC: 678.675.01:019.32

Card 1/2

L 06342-67

ACC NR: AP6030323

caprolactams. As indicated by spectrophotometric curves, thermal treatment of colored polycaprolactams for 6 hr at 160°C does not cause the dye to separate chemically from the polycaprolactam chain. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 11/ SUEM DATE: 28Sep64/ ORIG REF: 008

Card 2/2 1455

MIZEROVSKIY, V.V.

Furacilin in the prevention of postoperative suppuration. Sov. med. 21 no.1:110-112 Ja '57. (MLRA 10:6)

1. Iz khirurgicheskogo otdeleniya Ilanskoj rayonnoj bol'nitsy Krasnoyarskogo kraja.

(SURGERY, OPERATIVE, compl.

postop. suppuration, prev. by procaine-nitrofurazone infiltration anesth.)

(ANESTHESIA, LOCAL

infiltration, procain-nitrofurazone, for prev. of postop. suppuration)

(PROCAINE, ther. use

prev. of postop. suppuration by procaine-nitrofurazone infiltration anesth.)

(PURAN DERIVATIVES, ther. use

procaine-nitrofurazone infiltration anesth. for prev. of postop. suppuration)

MIZEROVSKIY, V.V.

Purpura abdominalis complicated by intestinal invagination. Sov.med. 21 no.4:125 Ap '57. (MLRA 10:7)

1. Glavnyy vrach Ilanskoj rayonnoj bol'nitsy Krasnoyarskogo kraja. (INTESTINES--INTUSSUSCEPTION) (PURPURA (PATHOLOGY))

MIZEROVSKY, J.

Small atlas of locomotives; the 476. 1 locomotive. p. 336.

ZELEZNICAR. (Ministerstvo dopravy) Praha, Czechoslovakia. Vol. 2, no. 6, 1959

Monthly list of East European Accession (EEAI), LC Vol. 9, no. 2. Feb. 1960

Uncl.

MIZEROVSKY, Jiri, inz.

Steam generator P5 60. Zel dop. techn 11 no.10:312 '63.

MIZERSKI, Zygmunt

Effect of sleep therapy on the circulatory system. Ann.Univ.
Lublin; sec. D 7 no.11-21:279-286 1952.

1. Z I Kliniki Chorob Wewnętrznych Akademii Medycznej w Lublinie.
Kierownik: prof. dr med. Aleksander Goldschmied.

(SLEEP, effects,
on cardiovasc. system)
(CARDIOVASCULAR SYSTEM, physiology,
eff. of sleep ther.)

MI ZERUKHA, S., inzh.

For a greater output of toys. Mest.prom.i khud.promys. 3
no.4:33 Ap '62. (MIRA 15:5)

1. Proyektno-konstruktorskoye byuro Gosplana USSR, g. Kiyev.
(Toy industry)

GOLOD, V. N., MI 3.002.1, 1965.

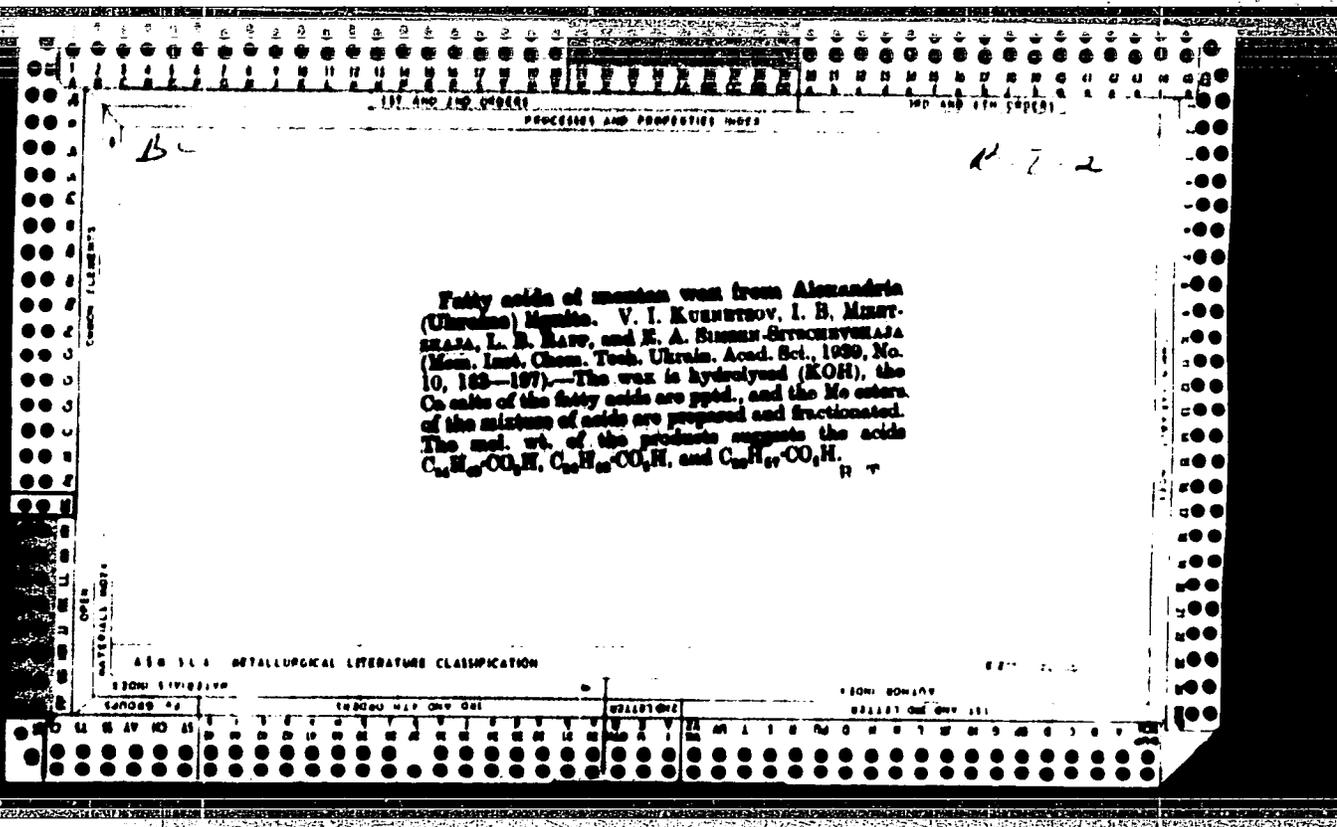
New design of the lowering part of an aircraft part. 1965.
Mashinostroitel' no. 5:6-7 My '65.

MIZETSKAYA, I. RB.

27

CA

Fatty acids of lignite was obtained from brown coal of the Alexandrian region, Ukrainian S. S. R. by I. Kuznetsov, B. Mizetska, L. B. Kapp and E. A. Simchen-Stichys'ka. *Mem. Inst. Chem. Tech., Acad. Sci. Ukrain. S. S. R. No. 10, 183-05* (in Russian, 198, in English, 196-7) (1938) - Detarred and refined lignite was which had been extd. from Alexandrian brown coal was subjected to the following series of treatments in order to isolate the fatty acids: (1) sapon., (2) conversion of K salts into Ca salts, (3) sepn. of the unsaponifiable soles. of these acids, (4) sepn. of the free acids, (5) prepn. of Me esters (alcs.), (6) fractional distn. of these Me esters, (7) sapon. of the sep. ester fractions, (8) sepn. of the free fatty acids for detg. their compn. B. Z. Kamich



PROCESSING AND PROPERTIES INDEX

7

24

Physico-chemical analysis of systems significant in analytical chemistry. Solubility in systems $PbSO_4$, MSO , H_2O . I. V. Fomanev and I. B. Miroshchaga. *Zhur. Anal. Khim.* 1, 6 (1940). cf. C 4 41, 312a. By potentiometric tests, the soly product of $PbSO_4$ in pure water was found to be 2×10^{-8} . In solns. of Li_2SO_4 , Na_2SO_4 , and K_2SO_4 the soly was increased, resp. to 1.15×10^{-8} , 7.4×10^{-8} , and 3.65×10^{-8} . From these values the ion activity was calcd. M. Hosh.

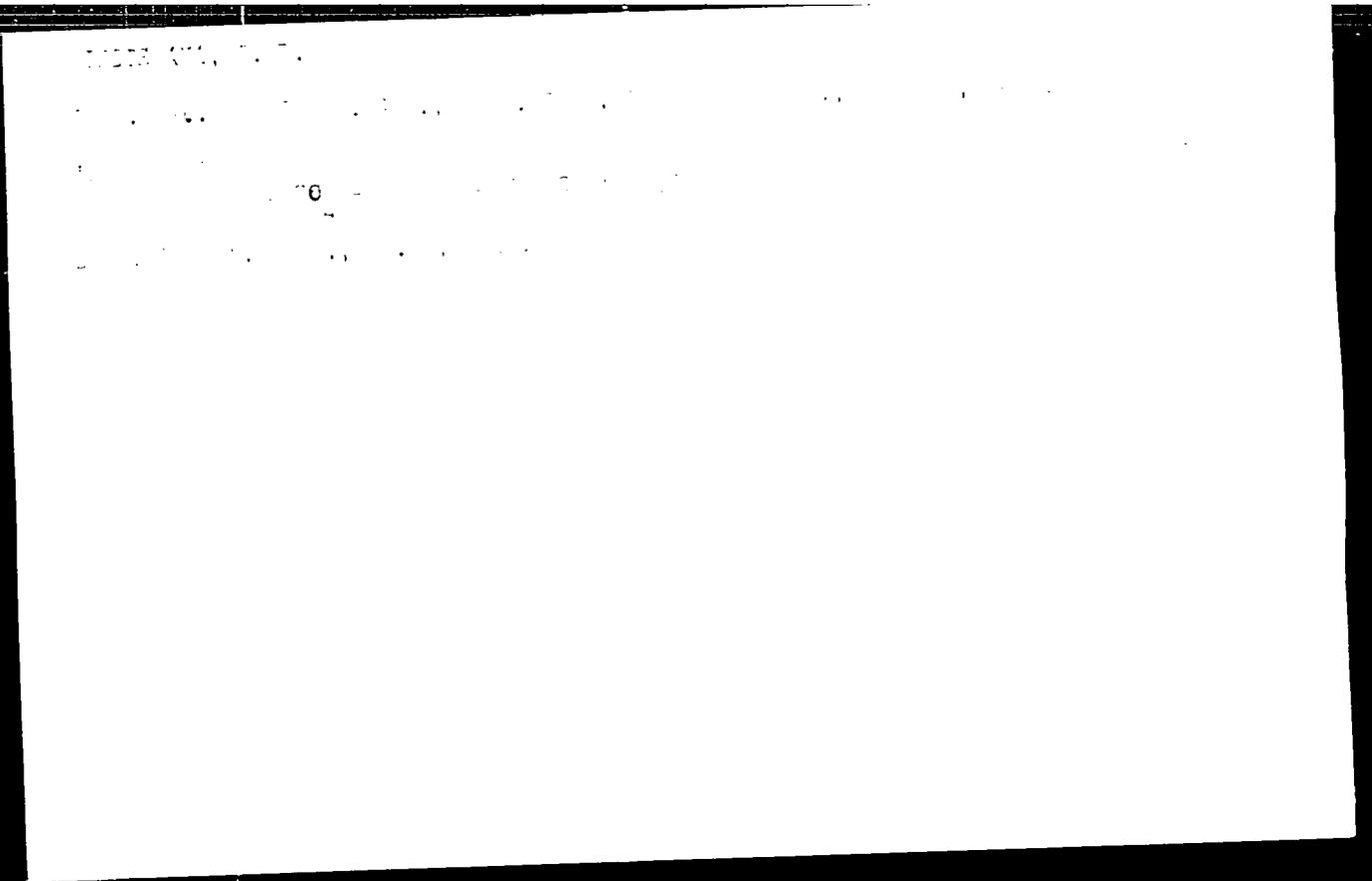
ASB 51.4 METALLURGICAL LITERATURE CLASSIFICATION

2

CONDENSATION AND PROPERTIES OF LEAD

Physical-chemical analysis of systems important in analytical chemistry. Solubility of lead sulfate in aqueous solutions of nitrate. I. V. Tsvetkov and I. B. Mironov. *Zhur. Akad. Khim. S. S. S. R.* 1964, 11(10), 1167-1170. The soly. of $PbSO_4$ at 25° in aq. soln. of the nitrate of Li, Na, K, Cs, and Al in concn. of 0.0001-1.0 M was studied. It was found, polarographic ally except in systems containing $Al(NO_3)_3$ in which it was not determined. The effect of foreign ions on the soly. does not depend solely on the valency of the ions; their chem. properties should be taken into account. Consequently the Debye-Hückel formula must be modified to take into account the chem. interaction of the ions. The soly. of $PbSO_4$ and its soly. product in M soln. of the electrolytes increased from K to Li, i.e., in the direction of decreasing ionic radii or increasing hydrophilic properties, and also with increasing volume (Cs and Al). The same order is observed in colloid chem. (lyotropic series) and in crystal phenomena. Within the range of concn. studied the soly. of $PbSO_4$ is $\sqrt{A \cdot M} \times 10^{-4}/M^{-0.4}$, where A is the neg. log of the activity prod. M. Hersh

METALLURGICAL LITERATURE CLASSIFICATION



LIST AND INDEX CATEGORIES PROCESSES AND PROPERTIES INDEX

6

Physicochemical analysis of systems which are important in analytical chemistry VII Determination of lead as K_2SO_4 , $PbSO_4$. I. A. Tananay and I. B. Mizet-skaya. *Zhurnal Khim. 12, 529-530 (1946)*. of *CT 40, 77(18)*. Add the cold soln. contg. Pb to an excess of K_2SO_4 soln. Add water to 100-25 ml with const. stirring, let stand for 2-3 hrs., filter through a dried and weighed No. 3 Schott filter, transfer the ppt. to the filter by means of 0.025-0.04 M K_2SO_4 , wash with the same soln., dry at 140°, and weigh. Wash the ppt. from the filter first with satd. thiosulfate, then with hot water, HNO_3 , and water. The results were satisfactory. Neither Cu nor HNO_3 interfered with the detn. Four references. W. R. Heun

AS 6-31A METALLURGICAL LITERATURE CLASSIFICATION

AS 6-31A METALLURGICAL LITERATURE CLASSIFICATION

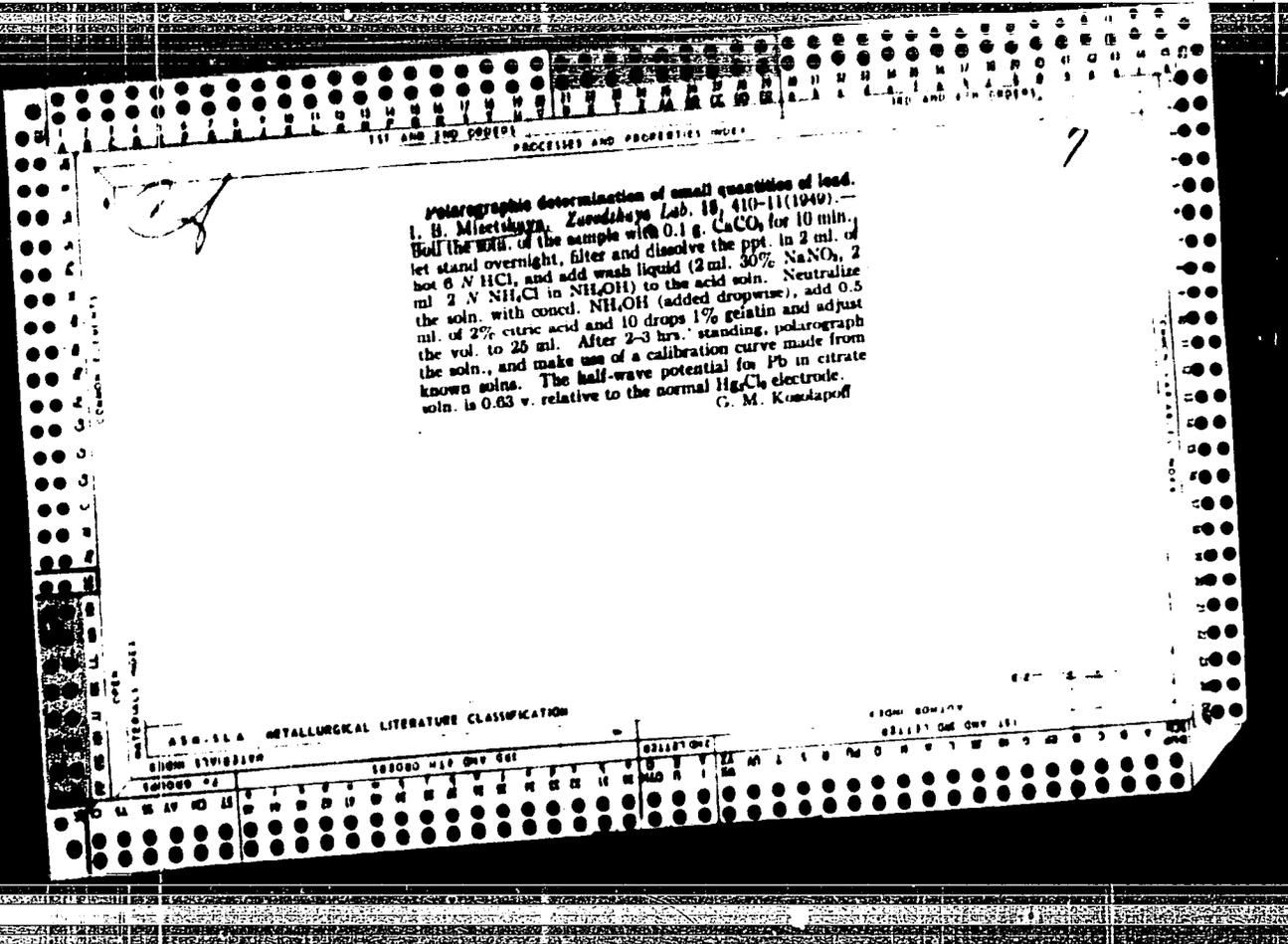
AS 6-31A METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

11

"Very Rapid Method for the Polarographic Determination of Small Quantities of Copper in Aluminium Alloys." I. B. Mischenko (Zhur. Priklad. Khim., 1946, 19, (4), 610-613).—[In Russian]. The method permits the determination of small quantities (0.1 and 0.01%) of Cu in Al alloys with an accuracy of 10%. A 0.5 g. sample is dissolved in HCl (1:1) to which conc. HNO₃ is added drop by drop while heating. The solution and residue are made up to 25 ml. To 10 ml. are added 5 ml. of 30% Na citrate, 5 ml. of ammoniacal ground solution (ammoniacal solution of NH₄Cl), 30 drops of ammonia (d = 0.91), 20 drops of 1% solution of gelatine, and 5-10 drops of ammonia and the volume is made up to 25 ml. The solution is filtered, a mercury anode put in, 1-2 fragments of crystalline Na₂SO₄ added, and the solution polarographed. —N. A.

METALLURGICAL LITERATURE CLASSIFICATION



USSR/Chemistry - Quaternary Systems Nov/Dec 51
Lithium Compounds

"Physicochemical Analysis of Systems Which Are Important in Analytical Chemistry. XXI. Investigation of Solubility (25°) in Quaternary Systems $PbSO_4$ - Li_2SO_4 - KNO_3 ($Mg(NO_3)_2$, $Al(NO_3)_3$ - H_2O ," I. V. Tananayev, I. B. Mizetskaya, Inst of Gen and Inorg Chem imeni N. S. Kurnakov, Acad Sci USSR

"Zhur Analit Khim" Vol VI, No 6, pp 337-343

Investigated soly of $PbSO_4$ in quaternary systems $PbSO_4$ - Li_2SO_4 - $MeNO_3$ - H_2O (Me = Na, 1/2 Mg,

LC 195T28

USSR/Chemistry - Quaternary Systems Nov/Dec 51
(Contd)

1/3Al). Soly of $PbSO_4$ in these quaternary systems under conditions eliminating chem reaction was sum of opposing effects: capacity of nitrates to dissolve greater amts of $PbSO_4$ and of Li_2SO_4 to salt out $PbSO_4$. Soly product in system increased 10,000 times. Pptn behavior, ill-defined by any formula of Debye and Hueckel, is fully explained by triaxial soly diagram, which can be used successfully in practical analytical chemistry.

LC

195T28

MIZETSKAYA, I. B.

PA 195T28

BR

*Physical Properties
Molecular Structure
& Solution*

Physico-chemical analysis of systems important in analytical chemistry. XX. Solubility of precipitates in complex (real) analytical systems. I. V. Tananaev, I. B. Mizetskaya, and A. D. Vinogradova // *Anal. Chem. USSR* 1952, 7, 14-20. Solubility in the system $PbSO_4$, $Pb(NO_3)_2$, Li_2SO_4 , H_2O at 25 has been studied. The Debye-Huckel formula is inapplicable for calculating solubility of $PbSO_4$ in this system because of chemical interaction giving complex salts of the type $PbSO_4$. General questions on the solubility of ppt under real conditions are discussed on the basis of various examples. The behaviour is referred to a number of types illustrated diagrammatically. G. S. SMITH

MIZETSKAYA, I. B.

Determination of tungsten and molybdenum in phosphate containing mixtures. Part 1. *Khim. redk. elem.* no.2:115-123 '55. (MLRA 9:4)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR.

(Tungsten) (Molybdenum)

MAIA, I. B.

"The determination of tungsten and molybdenum in mixtures containing phosphates. Communication 1." Khimiya Redkikh Elementov, No. 2, p 115, 1955.

It was experimentally established that the best method for determining tungsten is by an acid hydrolysis and for molybdenum - gravimetric determination in the form of $PbMoO_4$ or reduction with subsequent titration of Mo^V with permanganate. Various other analytical methods are discussed.

"The determination of tungsten in mixtures containing tungsten, molybdenum, phosphorus, silicon, calcium and other admixtures", Khimiya Redkikh Elementov, No. 2, p 124, 1955.

On the basis of the experimental evidence two methods of determining tungsten are proposed: pyramidon and by difference between the determined sum of $PbMoO_4$, $PbWO_4$ and molybdenum.

SO:D-413171

AUTHORS:

Maia, I. B., D. S. ... SO:D-413171

TITLE:

A Method of Production of Monocrystals of CdS , $CdSe$, and Mixed Monocrystals of $CdS-CdSe$ (Method of Evaporation of CdS , $CdSe$ and Mixed Monocrystals of $CdS-CdSe$)

PERIODICAL:

Journal of Applied Chemistry, Moscow, V. 28, No. 10, 1955, 1717-1720 (USSR)

ABSTRACT:

The method was described for the production of CdS and $CdSe$ and mixed monocrystals of $CdS-CdSe$ and pyramidal. Materials selenium, sulfur and cadmium were used as initial materials. The principle of the method is that vapors of cadmium, selenium and sulfur in argon atmosphere, which is in a bulb filled with argon, are directed into the field of reaction at a temperature of $1000^{\circ}C$, where sulfides and selenides of cadmium are formed. It was found that optimal conditions are given for CdS -epitaxial growth. The field of reaction was a temperature of $1000^{\circ}C-1070^{\circ}C$. The temperature for mixed crystals of cadmium sulfide in the case of evaporation is $600^{\circ}C$, and $100-300^{\circ}C$ for the evaporation of $CdS-CdSe$. Optimal conditions are given for the production of $CdS-CdSe$ mixed crystals of $1000-1070^{\circ}C$ used as initial materials.

a Method of Preparation of Microcrystals of CIS, CISE, and CIS-
of CIS-CIS.

is given in figure 1. When is used in the preparation of microcrystals of CIS and CISE, as well as of microcrystals of CIS-CIS. It was found that the grain size of microcrystals depends on the flow velocity of air during the crystallization process. The best results were obtained when air velocity was 1000 cm per minute. With regard to the optical properties, the microcrystals of CIS and CISE, as well as those of CIS-CIS, are photo-sensitive. The microcrystals of CIS are black, and those of CISE black. The mixed microcrystals of CIS-CIS show a color from pink to red. The variation of color is observed with CIS-CISE. The microcrystals of CIS-CISE are black when the quantity of CISE is small and pink when it is large. The variation of color is observed with CIS-CISE. The microcrystals of CIS-CISE are black when the quantity of CISE is small and pink when it is large. These are shown in figures 1 and 2.

ASSOCIATION: Institute of Applied Chemistry, USSR (P. L. Kapitza Institute of Applied Chemistry, Academy of Sciences, USSR).

SUBMITTED: July 11, 1967

CONFIDENTIAL

PLATE I BOOK EXPLANATION 307/486

Soveshchaniye po poluprovodnikovym materialam Moscow, 1967
 Topograf metallurgii i fiziki poluprovodnikov; trudy 3-ego serebrennitskogo
 (Problems in Metallurgy and Physics of Semiconductors, Transactions of
 the Third Conference) Moscow, Izdatvo AN SSSR, 1974. 129 p. Strata also
 inserted. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR, Institut metallurgii i
 A. A. Baykov, Resp. Ed.; P. P. Zolotarev, Doctor of Chemical Sciences;
 Ed. of Publishing House: P. P. Zolotarev.

PURPOSE: This collection is intended for technical and scientific personnel
 concerned with the investigation and production of semiconductor materials.
 It may also be used by students in schools of metallurgy.

CONTENTS: The collection contains reports submitted at the Third Conference
 on Semiconductor Materials, held at the Institute of Metallurgy, Lenin
 A. A. Baykov, AN SSSR, Moscow, in May 1967. The reports deal with problems
 of obtaining and investigating germanium, silicon, and semiconductor com-
 pounds. The collection was first edited by D. A. Petrov, Doctor of
 Technical Sciences. Reference secondary part of the reports.

Colonyozov, V. I. On the Problem of the Role of Some Factors in the
 Growth Process of Single Crystals from a Melt 21

Tolpygo, I. B. Investigation of Hole Zones of Diamond-Type Crystals
 on the Basis of the Multielectron Theory 49

Silgefi, Academician (Academy of Sciences, Hungarian People's Republic);
 Concerning the Problem of Semiconductor Point-Contacts 40

Majewski, J. (Institute of Basic Technical Problems, Polish Academy of
 Sciences); Properties of P-n Junctions in Germanium Single Crystals,
 Withdrawn from the Melt by Pulling 43

Senozubki, I. (Institute of Physics, Polish Academy of Sciences);
 Effect of the Introduction of Impurity Current Carriers on Light Re-
 flection from Germanium 49

Bury, A. A., V. Ye. Kosanov, and Ye. S. Miskayev; Diffusion and Solu-
 bility of Iron and Silver in Germanium 52

Vitrikh, A. L., and V. A. Frenkel; Investigation of Nucleating of
 Semiconductors with Salt 57

Vesilovskaya, L. B., and Ye. G. Mikhaylov; Investigation of Degradation
 and Solubility of Some Impurities in Germanium during Crystallization 54

Froust, (Institute of Technical Physics, Czechoslovak Academy of
 Sciences); Problem of Obtaining Pure Silicon 54

Petrov, D. A., Ye. P. Shabanov, I. V. Korobovskaya,
 P. Ye. Zhukhvalina, and V. P. Eroshina; Nucleating of Silicon Single
 Crystals 59

Belonging to the Institute of Applied Physics, Chinese People's
 Republic; Importance of Using Pure Water for washing Materials Used
 in Semiconductor Engineering 78

Abdullayev, G. B., M. I. Alifirov, A. A. Bushmalov, and S. M. Alifirov;
 Effect of Halide Impurities on the Physical Properties of Germanium 80

Abdullayev, G. B., G. A. Akhmedov, A. A. Kuliyev, and I. A. Alifirov;
 On the Diffusion of Certain Metals in Polycrystalline Selenium 89

Dudko, I. D., and E. B. Abramov; Problems of Alloying Semicon-
 ductor Alloys 94

Mastakova, B. M., I. Vitrikhovich, and V. P. Porosenko; Effect of
 Various Conditions of Single Crystals of CdS and ZnS on Their Physical
 Properties 107

Profumano, A. P., and I. A. Fedorova; Effect of Temperature and Certain
 Impurities on the Dark Resistance and Photoconductivity of Single
 Crystals 112

Kulmina, I. (Institute of Technical Physics, Czechoslovak Academy of
 Sciences); Semiconductor Compounds with an Excess of One of the Com-
 ponents 117

Jancov, V. G.; Effect of Surface Condition on the Electrical Properties
 of Type II-VI Compounds 120

Pleskov, V. A., M. A. Erman, V. E. Gerasimov, A. I. Gifilov, Ye. A.
 and Ye. V. Malleva; Production and Investigation of New Semicon-
 ductor Materials 127

AVAILABILITY: Library of Congress

37/487/08
 1/30/74
 Card 3/3

VITRIKHOVSKIY, N. I.; MIZETSKAYA, I. B.

Production of mixed single crystals of CdS.CdSe from the vapor
 phase and some of their characteristics. Fiz. tver. tela 1 no.3:
 397-402 Mr '59.
 (MIRA 12:5)

- Institut fiziki AN USSR, Kiyev.
 (Photoelectricity) (Cadmium sulfide crystals)
 (Cadmium selenide crystals)

VITRIKHOVSKIY, N.I.; MIZETSKAYA, I.B.

Production of mixed single crystals of CdS·CdTe and some of
their characteristics. Fiz. tver. tela 1 no.6:996-999 Je '59.
(MIRA 12:10)

1. Institut fiziki AN USSR, g.Kiyev.
(Cadmium sulfide crystals) (Cadmium telluride crystals)

9.4160 (3201, 1105, 1137)
26.2421

S/181/60/002/010/036/051
B019/B056

AUTHORS: Vitrikhovskiy, N. I. and Mizetskaya, I. B.

TITLE: The Compounded ZnS.CdS ¹Single Crystals ² and Some of Their Characteristics

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 10, pp. 2579 -- 2584

TEXT: The authors investigated the production possibilities of compounded ZnS.CdS single crystals with different compositions and studied some of their physical properties. First, the experimental arrangement and the investigation of the chemical compositions are discussed. The spectral distribution of the photocurrent was determined. Fig. 3 graphically shows the results obtained for six different compositions. The resistivity of all samples was within the range $10^{10} - 10^{13}$ ohm.cm. Fig. 3 graphically shows the dependence of the forbidden band width on the composition. The authors finally state that for the purpose of breeding compounded ZnS.CdS single crystals, the selection of optimum synthesis conditions, which, on the one hand warrant uniform crystal structure of

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D274/D303

7.4/60
26.2421

26598

Vytryshovs'kyy, M.I. and Mizets'ka, I.B.

AUTHORS:

TITLE:

Spectral characteristics of mixed ZnS·CdS single crystals

PERIODICAL:

Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 5, 1960, 415-416

TEXT: The obtaining of mixed ZnS·CdS single crystals is described, as well as their physical characteristics. In literature there are no methods for the growth of single crystals of such a composition. For obtaining the single crystals, the authors used a method of synthesis from the vapor phase. Mixed single crystals of different component-ratio and average size 15 x 2 x 0.04 mm were obtained. After the crystallization process, the crystals were divided into separate groups and their chemical composition, crystalline structure and spectral characteristics were studied. The crystals can be divided, according to their shape, into three groups. The chem-

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Spectral characteristics... 26598

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X

ical composition was determined by polarographic method. X-ray investigations of the crystals showed that they have a hexagonal lattice and that they constitute a continuous array of solid substantial solutions. The spectral distribution of the photocurrent was studied on the crystals. The specific dark resistance was measured in the range of 10^{10} to 10^{13} Ohm/cm. The ratio between photocurrent and dark current was, at the spectral-distribution maximum, $10 - 10^2$, and for some specimens 10^3 . A figure is given with the photocurrent as a function of wavelength λ for pure ZnS and CdS (which were obtained by the same method), as well as for mixed ZnS·CdS single crystals. It is evident from the figure that the selective photocurrent-maximum of the mixed crystals shifts gradually, with increasing ZnS percentage, into the short-wave region of the spectrum. For all the investigated specimens, a sharp maximum of the photocurrent is observed at the long-wave edge of eigenabsorption. The sharp drop of the photocurrent for $\lambda > \lambda_m$ can be explained by lower absorption coefficient and absence of impurities; λ_m is the wavelength corresponding to the

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26598

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D274/D303

spectral characteristics...

maximum). For $\lambda < \lambda_m$, the drop in photocurrent is much less pronounced. Such a behavior of the photocurrent in the short-wave region is quite unusual and deserves a detailed study. The width of the forbidden zone, calculated with respect to the position of the maximum, changes monotonically with the composition of the crystals. The obtained new single-crystals lead to a gradual shifting of the photocurrent-maximum over a wide range of wavelength, from 3400 - 5100 Å. There are 1 figure and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Henderson, Proc. Roy. Soc., 173 A, 323, 1959.

X

Card 3/3

30538

S/564/61/003/000/009/029
D207, D304

24,2600 (1043, 1147, 1114)

AUTHORS: Vitrikhovskiy, N. I., and Mizetskaya, I. B.

TITLE: Growing mixed monocrystals of CdS·CdSe and CdS·CdTe type by crystallization from the vapor phase, and some of their properties

SOURCE: Akademiya nauk SSSR. Institut kristallografii. Host kristallov, v. 3, 1961, 345-350

TEXT: The authors deal with the techniques of preparing ternary semi-conducting monocrystals CdS·CdSe, CdS·CdTe, and CdSe·CdTe, as well as "hybrids" with a common anion and different cations, such as ZnS·CdS. The listed crystals make it possible to obtain a gradual shift of photo-conductivity maximum from 3300 Å (pure ZnS) to 8400 Å (CdTe). The range from 3300 to 5100 Å is covered by ZnS·CdS, from 5100 to 7200 Å by CdS·CdSe, and from 7200 to 8400 Å by CdS·CdTe. The chemical compositions

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S/564/61/003 000.009-029
D207 D304

Growing mixed monocrystals...

of prepared CdS·CdSe powder and monocrystals differed from the compositions of initial mixtures of CdS and Se; this was due to incomplete substitution of sulphur by selenium in the powder and to different vapor pressures and rates of thermal dissociation of CdS and CdSe in monocrystals. CdS·CdSe powder and monocrystals had a hexagonal wurtzite structure, and monocrystals were substitutional solid solutions miscible in any ratio of the components. Measurements of photoconductive response spectra of CdS·CdSe monocrystals with a 3MP (ZMR) monochromator showed that with the increase of CdSe the photocurrent maximum shifted towards longer wavelengths and the photocurrent magnitude fell less rapidly with wavelength. The photocurrent-maximum shift was directly proportional to the wavelength, while the electron energy gap was inversely proportional to the wavelength. The photocurrent maximum was the same for each batch of CdS·CdSe monocrystals. The resistivity of monocrystals of various compositions ranged from 10^8 to 10^{10} ohm·cm, compared with 10^{10} ohm·cm for polycrystalline films. The photosensitivity of monocrystals ranged from 0.0003 to 0.008 amp/lumen·volt,

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S/564/61/003/000,009.029
D207/D304

Growing mixed monocrystals...

with up to 0.2 amp/lumen. volt in the best samples; this was much higher than the almost negligible photosensitivity of polycrystalline films. As regards the CdS-CdTe system, actual compositions of monocrystals were not the same as the compositions of initial CdS + Te mixtures. Monocrystals were deposited on a quartz screen at 740 - 830°C in the form of thin needles, plates, and six-sided pyramids of reddish orange color; the largest monocrystals reached 2.0 x 0.6 x 0.02 cm in size. CdS-CdTe monocrystals had hexagonal wurtzite structure with $a = 4.13$ and $c = 6.79$ Å. The maximum amount of Te which could be introduced into the CdS lattice was about 2%. With an increase of CdTe in CdS-CdTe monocrystals, the photocurrent maximum shifted towards longer wavelengths. The integral photosensitivity of CdS-CdTe monocrystals was of the same order as that of pure CdS. The resistivity of CdS-CdTe varied from 10^7 to 10^{10} ohm·cm. The photocurrent maxima of ZnS-CdS monocrystals occurred within the interval 5100 - 3400 Å; the maximum shifted towards shorter wavelengths with increase of ZnS content. The resistivity of these monocrystals was of the order of 10^{14} ohm·cm, which is similar to

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30538

S/564/61 003 000, 009 0-9
D207 D304

Growing mixed monocrystals...

the value for pure ZnS monocrystals. As regards the CdSe-CdTe system, the authors were able to prepare crystals in which the photocurrent maximum ranged from 7200 Å (pure CdSe) to 8400 Å (pure CdTe). This range of wavelengths may be used to produce photoresistors. Further work on these crystals is proceeding. Acknowledgments are made to V. E. Lashkarev, Member of AS UkrSSR, for his advice and to L. I. Datsenko, Abstractor's note: Referred to elsewhere in text as Datsenko, for X-ray structure determinations. There are 5 figures, 2 tables and 2 Soviet bloc references.

X

Card 4/4

23129
S/181/61/003/001/001/1
B125/B202

34,7100 (1153, 1142, 1160)

AUTHORS: Vitrikhovskiy, N. I. and Mizetskaya, I. B.

TITLE: Effect of growing conditions on some physical properties of
the mixed single crystals CdS·CdSe

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1581-1586

TEXT: The authors attempted to produce large CdS·CdSe single crystals and to compare some of their properties with those of thin single crystals of approximately the same composition. The single crystals (CdS·CdSe) were grown by the sublimation method described earlier (N. I. Vitrikhovskiy, I. B. Mizetskaya. FTT, I. 397, 1959). With different growing conditions (temperature, pressure of saturated vapor, rate of flow of the rare gas, and other factors) crystals of different shapes were obtained: plates, prisms, twins, and needles. At present large crystals of binary compounds are grown by crystallization from a solution as well as by sublimation. The powdery product which was obtained by a previous mixing of the original components CdS and CdSe and by a two-hour heating of the mixture at 900°C in argon atmosphere was sublimated. From the photographs of the ground sections, it

Card 1/5

23129
S/181/61/003/005/03/01
B125/B202

Effect of growing conditions ...

may be seen that the cross section of the single crystals increases as the growing temperature increases. The length of the single crystals is proportional to the duration of crystallization. At $\sim 1230^{\circ}\text{C}$ the crystals have the shape of intergrown blocks. According to their crystallization temperature all CdS·CdSe single crystals grown by the authors may be divided into three main types: I): thin crystals are formed between 760 and 1000°C, medium dimensions $5 \cdot 15 \cdot 0.02 \text{ mm}^3$; II): large crystals are formed at $\sim 1150^{\circ}\text{C}$, medium dimensions $6 \cdot 12 \cdot 6 \text{ mm}^3$; III): large single crystals, bred at $\sim 1000^{\circ}\text{C}$, medium dimensions $3 \cdot 10 \cdot 4 \text{ mm}^3$. The majority of the optically transparent crystals was observed among the crystals of types I and III. All three types belong to the hexagonal Wurtzite type. Photoconductivity: the spectral distribution of photoconductivity was measured in single crystals of all three types. The compositions of the initial mixtures and of their corresponding single crystals are given in a Table.

Card 2/5

Effect of growing conditions ...

23129
S/181/61/003/005/03/01
B125/B202

Thick and thin specimens differ with respect to the spectral behavior: the photocurrent in the region $\lambda < \lambda_m$ of the strong absorption of light and also with respect to the position of maximum photocurrent on the scale of the wavelengths. In large single crystals the maximum photocurrent is more distinct than in thin specimens. The relaxation time of the photocurrent was determined from the duration $\tau_{10\%}$ of the initial 10% decrease of the photocurrent after the darkening of the specimen. In type I $\tau_{10\%}$ was 10^{-2} to $5 \cdot 10^{-3}$ sec after illumination with approximately 10^{13} quanta/cm²·sec. It was considerably higher than in the types II and III ($< 10^{-3}$ sec). Temperature and duration of breeding obviously have a strong influence on the deviations from the stoichiometric composition, the recombination processes in the single crystals, and their surfaces. Discussion of the results: single crystals are grown from the vapor phase. Single crystals of type I may form at the beginning of the process within very short time intervals. One part of these crystals is evaporated already before the end of the process, the other is subject to heat treatment during the whole period. A third part of the crystals grown toward the end of the process does not withstand a long-lasting heat treatment. For this reason also

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Effect of growing conditions ...

S/181/61/003/005/034/042
 23129
 B125/B202

ASSOCIATION: Institut poluprovodnikov AN USSR Kiyev (Institute of Semi-conductors of the Academy of Sciences UkrSSR, Kiyev)

SUBMITTED: December 9, 1960 ...

Ⓐ Состав исходных смесей и кристаллов смешанного типа CdS · CdSe

Ⓐ Состав исходных смесей, %		Ⓑ Состав кристаллов типа I, %		Ⓒ Состав кристаллов типа II, %		Ⓓ Состав кристаллов типа III, %	
CdS	CdSe	CdS	CdSe	CdS	CdSe	CdS	CdSe
100	—	100	—	100	—	100	—
75	25	78	22	76	24	75	25
50	50	67	33	57	43	53	47
25	75	54	46	32	68	26	74
—	100	—	100	—	100	—	100

Legend to the Table: (1) Composition of the initial mixture and the crystals of the mixed type CdS · CdSe; (2) composition of the initial mixtures, %; (3) composition of the crystals of type I, %; (4) composition of the crystals of type II, %; (5) composition of the crystals of type III, %.

Card 5/5

44109

07105/02/007/010/012/020
0234/0308

AUTHORS: BARKIN, S. M. and MITSYUK, I. S.

TITLE: Introduction of microamixtures into SiS monocrystals during their growth, and some characteristics of alloyed specimens

PERIODICAL: SSSRINSKIY FIZICHESKIY ZHURNAL, v. 7, no. 10, 1963, 1125-1127

ABST: Crystals were obtained, by the sublimation method, in the presence of vapors of admixture substances. Character and intensity of the influence of admixtures is represented by the series Au, Ag, Cd, Cu, HCl, Ge. Crystal growth is stimulated by the admixtures on the right of SiS and Cu, Ag, Au by those on the left. Saturation of SiS vapor is especially unfavorable. Spectral characteristics show a displacement of maximum photocurrent towards shorter wavelengths in CuS + Au and CuS + Ge. Monocrystals with an admixture of Au lose their photosensitivity almost completely after 1 - 2 months. The authors thank V. N. Korsin. There are 2 tables and 2 figures.

Card 1/2

DESCRIPTION OF INFORMATION: ...
ASSOCIATION: Institute for the Study of the
of Semiconductors, Moscow, U.S.S.R.
SUBMITTED: ...
June 19, 1964

Card 2/2

Anomalous Azbel-Kaner resonance effect in lead telluride.
A. Kobayasi (20 minutes).

Chemico-analytical methods of determination of micro-impurities in doped monocrystals of the type $A^{II}B^{VI}$. I. B. Mizetskaya, L. M. Kalashnik, O. P. Kulik, I. G. Chernyy.

Doping of cubic monocrystals of CdS in the process of their growth and some physical characteristics of the resulting samples.
N. I. Vitrikhovskiy, I. B. Mizetskaya.

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

L 6809-45 EWT(1)/EWT(m)/EWP(q)/EWP(b) IJP(c)/AS(mp)-2/ASD(a)-5/AFWL/
RAEM(1)/BSD/ESD(gs)/ESD(t)/RAEM(t) JD
ACCESSION NR: AP4044644

8/0048/64/028/008/1316/1317

57

AUTHOR: Vitrikhovskiy, N.I.; Mizetskaya, I.B.

TITLE: Doping of large cadmium sulfide crystals in the process of growth and some physical properties of the resultant specimens Report, Third All-Union Conference on Semiconductor Compounds held in Kishinev 16-21 Sept 1963

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v.28, no.8, 1964, 1316-1317

TOPIC TAGS: cadmium sulfide, single crystal, doping, semiconductor conductivity, light absorption

ABSTRACT: Single crystals of CdS doped with Cu, Ag, Au or In were grown by sublimation from powdered CdS in a manner described elsewhere by the authors (Fiz.tverdogo tela 3,3581,1961), and their electric conductivities and light absorption were measured. The initial powdered CdS contained 2% Cu, Ag or Au, or 0.012% In. The impurity content of the final crystal depended strongly on the conditions of growth. Copper and silver were incorporated in the lattice more readily than gold. Indium, even in small quantities, produced an observable change in the shape of the crystal. This is illustrated by photographs: The presence of Cu or Ag at low concentrations (up to

1/2

L 6809-65

ACCESSION NR: AP4044644

$10^{-4}\%$) increased the conductivity but left the ratio of light to dark conductivity unaltered. At higher concentrations these impurities reduced the light to dark conductivity ratio. At large concentrations (about 1.5%), Cu greatly increased the conductivity and changed it from n- to p-type, while Ag did not have this effect. Gold had very little effect on the resistivity, but it could be introduced only in small concentrations. The presence of a small quantity of In increased the dark conductivity from 10^{-9} to up to 10 mho/cm. The transparency of the crystals was measured over the photon energy range from 0.08 to 1.7 eV. Indium effected a considerable increase in free carrier absorption, starting at 0.62 eV. At low concentrations, Cu and Ag decreased the transparency uniformly. At higher concentrations, Cu decreased the transparency nonuniformly starting at 0.62 eV, but Ag did not. Orig.art.has: 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: 88,EM

NR REF 80V: 001

OTHER:006

3/2

L 33527-65 WWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG S/0032/65/031/002/0150/0151
ACCESSION NR: AP5005471 27
B

AUTHORS: Kulik, O. P.; Mizetskaya, I. B.

TITLE: Determination of indium in alloyed crystals of cadmium sulfide
27 27 27

SOURCE: Zavodskaya laboratoriya, v. 31, no. 2, 1965, 150-151

TOPIC TAGS: indium, crystal, cadmium sulfide, quinoline/ FEK N 57 No 2 light filter

ABSTRACT: Reactions with orthoxyquinoline, 5, 7 dibromo-8-oxyquinoline, and stilbazine were studied colorimetrically in the determination of indium. The presence of cadmium did not impair the sensitivity of the determinations. For orthoxyquinoline the sensitivity reaches 0.3 micrograms/ml of chloroform extraction; 0.2 micrograms/ml for 5,7 dibromo-8-oxyquinoline extends it to 0.2 micrograms/ml. Indium reacts both with orthoxyquinoline and with 5,7 dibromo-8-oxyquinoline in weakly acid solutions, forming yellow indium oxyquinolinate and yellowish green dibromo-8-oxyquinolinate. Both of these compounds are soluble in chloroform. The optical density of indium oxyquinolinate was measured by the FEK-N-57 with a No. 2 light filter. The optimal range of pH was found to be 3.2

Card 1/2

L 33527-65

ACCESSION NR: AP5005471

to 4.2 and 3.5 to 4.0 respectively. The article includes both analytical procedures.

ASSOCIATION: none

SUBMITTED: 00

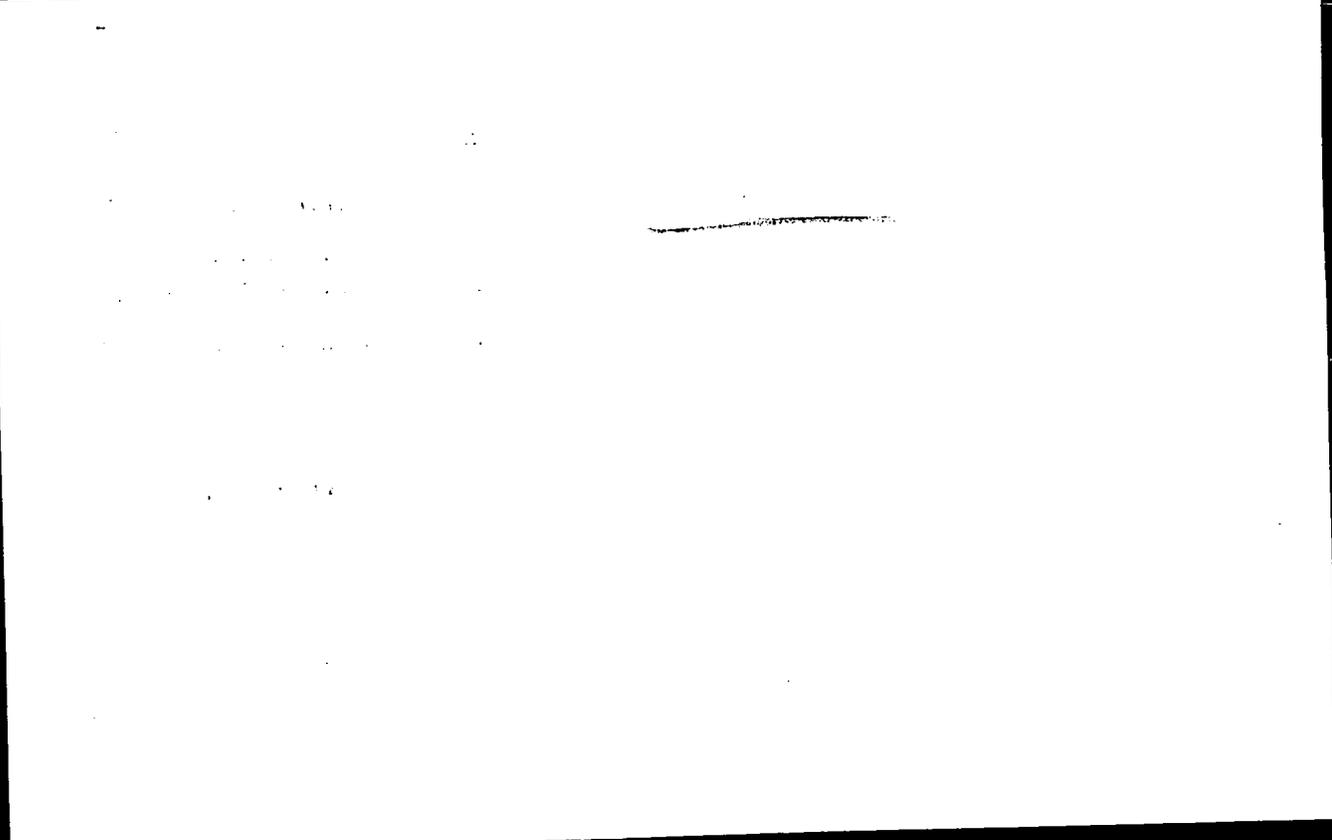
ENCL: 00

SUB CODE: SS

NO REF SOV: 001

OTHER: 000

Card 2/2



KOLOBANOV, S.K., kand. tekhn. nauk; KRASNITSKIY, M.S., kand. tekhn. nauk;
MIZETSKIY, B.G., inzh.; UGINCHUS, A.A., doktor tekhn. nauk, red.;
SURYGINA, E., red.; NARINSKAYA, A., tekhn. red.

[Hydraulics of structures and pipes] Gidravlika sooruzhenii i truboprovo-
dov; sbornik statei. Pod red. A.A.Uginchusa. Kiev, Gos. izd-vo lit-ry
po stroit. i arkhit. USSR, 1961. 122 p. (MIRA 14:6)

1. Akademiya stroitel'stva i arkhitektury USSR. Institut vodosnabzhe-
niya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy
gidrogeologii.

(Hydraulics)

L 23446-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b) MJW/JD

ACCESSION NR: AT4049946

S/2723/64/000/003/0107/0118

AUTHOR: Kuslitskiy, A.B.; Babey, Yu. I.; Sorebriyskiy, E.I.; Mizetakiy, V.L.;
Borisov, A. Ya.; Karpenko, G.V. (Corresponding member AN UkrSSR)TITLE: Effect of the hardening temperature on the fatigue strength of ShKh15 steel from
electroslag and vacuum refiningSOURCE: AN UkrSSR. Fiziko-mekhanicheskiy institut. Vliyaniye rabochikh sred na
avoysta materialov, no. 3, 1964, 107-118TOPIC TAGS: steel fatigue strength, hardening temperature, electroslag steel, vacuum
smelted steel, steel purity/ Shkh 15 steelABSTRACT: This study was prompted by the lack of data concerning the physical and
mechanical properties of electroslag steel (see, e.g., B. Ye. Paton, B.I. Medovar,
Yu. V. Latash, Stal', no. 11, 1962) and by the inconclusive results concerning such
properties of vacuum smelted steels (see, e.g., H.B. Nudelman, J. Sheehan, A study
of the effect of melting practice on the fatigue behavior of high-strength steel. Armour
Res. Foundat., Chicago, 1961). The maximum cyclic hardness of ShKh15 steel was
tested after a. electroslag smelting followed by vacuum smelting (very pure ShKh15 -

Card 1/2

6

L 23446-65

ACCESSION NR: AT4049945

free from nonmetallic admixtures); b. the same as (a) but less pure (ShKh15S); c. electroslag smelting only (ShKh15Sh); d. ordinary smelting in an open electric oven (ShKh15); e. double vacuum arc smelting of pure steel (ShKh15Ch); and f. the same as (e) with an ordinary smelt (ShKh15D). (The optimum hardening temperature for the ShKh15S and ShKh15D steel was 850C while all the other steels showed maximum cyclic hardness after hardening at 840C (all samples were annealed at 150C during a 2-hour period). The cyclic hardness of the air-hardened ShKh15 steel from different types of smelts depended on the presence of nonmetallic admixtures as well as on its density. An increase in purity and in density led to a 25-30% increase in fatigue strength. "The degree of contamination of the steel with non-metallic impurities was evaluated by Engineer N.I. Zakhodskaya; Engineer B.F. Ryabov took part in developing and setting up the system of automatic furnace temperature control." Orig. art. has: 3 figures and 5 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 020

OTHER: 004

Card 2/2

L 23067-65 EWT(m)/FWP(w)/EWA(d)/T/FWP(t)/EWP(b) MJW/JD/WB

S/2723/64/000/003/0130/0134

ACCESSION NR: AT4049948

AUTHOR: Kuslitskiy, A.B.; Babey, Yu. I.; Serebriyskiy, E.I.; Mizetskiy, V.L.; Borisov, A. Ya.

TITLE: Corrosion resistance and fatigue strength of annealed ShKh15 steel from electroslag and vacuum smelts

26
B+1

SOURCE: AN UkrSSR. Fiziko-mekhanicheskiy institut. Vliyaniye rabochikh sred na svoystva materialov, no. 3, 1964, 130-134

TOPIC TAGS: steel corrosion, steel fatigue strength, steel annealing, saline corrosion, electroslag melting, vacuum melting, steel impurity/steel ShKh15

ABSTRACT: While the physical and mechanical properties of annealed ShKh15 steel are known to a considerable extent, the resistance to fatigue had not yet been sufficiently investigated. Since the work described earlier by the same authors (AN UkrSSR. Fiziko-mekhanicheskiy institut. Vliyaniye rabochikh sred na svoystva materialov, No. 3, 1964, 107-118) indicated that the differences in smelting technology result in variations in the admixture content of the samples, they now investigated the effects of these nonmetallic admixtures on the static hardness characteristics, fatigue strength, and corrosion resistance of various annealed steels. The results show that: 1. ShKh15 steels from

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L 23067-65

ACCESSION NR: AT4049948

ordinary, electroslag and vacuum smelts in the annealed state have approximately equal static hardness and fatigue strength in air; 2. in a corrosive medium, double vacuum-smelted steel and pure samples from single electroslag smelts with a subsequent vacuum smelting show the best fatigue properties (see Fig. 1 of the Enclosure). Orig. art. has; 2 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: 007

ENCL: 01

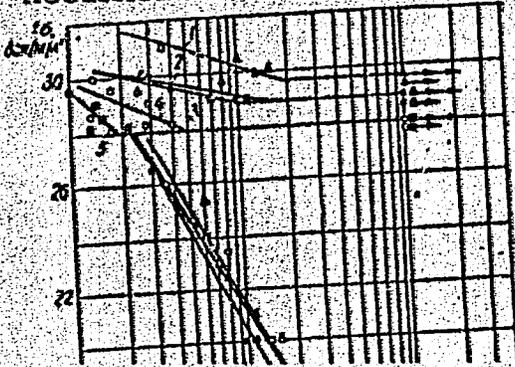
OTHER: 000

SUB CODE: MM

Card 2/3

L 23067-65

ACCESSION NR: AT4049948



ENCLOSURE: 01

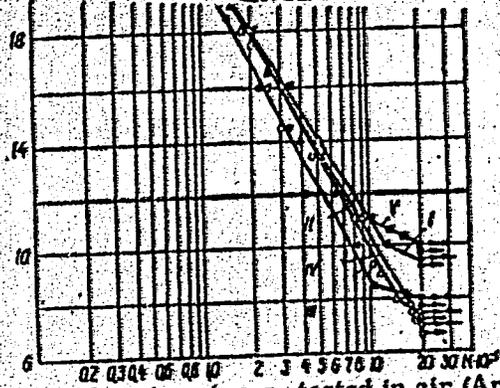


Fig. 1. Fatigue curves of annealed ShKh15 steel of various types, tested in air (Arabic numerals) and in 3% aqueous saline (Roman numerals): 1, I - ShKh15 steel prepared by a single electroslag smelting followed by a single vacuum smelting and containing less non-metallic impurities than in 2/II; 2, II - ShKh15S steel, prepared as in 1, I but containing more non-metallic impurities; 3, III - ShKh15Sh steel prepared by a single electroslag smelting; 4, IV - ShKh15 steel prepared in the usual way; 5, V - ShKh15Ch steel, prepared by double vacuum melting from an especially pure furnace charge.

Card 3/3

L 21923-66 EWA(h)/EWT(m)/T/EWA(d)/EWP(w)/EWP(t) IJP(e) 11-13
ACC NR: AP6014622 SOURCE CODE: UR/0133/65/000/002/0151/0153

AUTHOR: Kuslitskiy, A. B.; Babey, Yu. I.; Karpenko, G. V.; Serebriyskiy, E. I.;
Mizetskii, V. L.; Borisov, A. Ya. 53
59

ORG: nons

TITLE: Influence of nonmetallic inclusions and metal density on the fatigue strength
of electroslag and vacuum remelted ShKh15 steel 15

SOURCE: Stal, No. 2, 1965, 151-153

TOPIC TAGS: nonmetallic inclusion, bearing steel, steel, electroslag melting,
vacuum melting, density, steel microstructure, fatigue strength, annealing/ShKh15
bearing steel

ABSTRACT: Very strict requirements have been set forth as to the purity of ShKh15
ballbearing steel for manufacturing precision instrument bearings. These requirements
can only be satisfied by special technology, e. g., by means of vacuum-arc and
electroslag remelting (VAR and ESR). The degree of purity as to nonmetallic inclusions
is not the same for different methods of remelting. The metal also differs in density.
The authors of this paper investigated the relationship of both nonmetallic inclusions
and density to fatigue strength of ShKh15 steel which was processed by six different
methods: I and II-ESR+VAR (steel ShKh15P and ShKh15S); III-ESR (steel ShKh15Sh);
IV--conventional melting in an open arc furnace (ShKh15); V--double VAR of a steel
smelted from pure charge materials; and VI--double VAR of ordinary billets. As to

UDC: 669.15

Card 1/2

L 21925-00

ACC NR: AP6014622

3

chemical composition, the steel of all the melting methods conformed to GOST 801-60. Nonmetallic inclusions content was measured according to the scale of ChMTU 236-60. Density was measured by hydrostatic weighing of 20 samples from each of three melts (after quenching and low tempering). The samples were fatigue tested by the rotating beam method using an NU machine at 50 cps. Samples for fatigue testing were turned from 18-20 mm annealed rods which were then heated to 840-850 C, oil quenched, and tempered at 150°C for 2 hours. The method used for evaluating contamination of the steels did not make it possible to establish a definite relationship between the content of individual forms of nonmetallic inclusions melted by the different methods and their fatigue limit, but, in general, the fatigue strength was lower for those steels which had a higher inclusion content. Of all the methods used it was found that electroslag remelting yields a denser microstructure and, consequently, a higher fatigue strength. Therefore, density of ballbearing steel should be considered as one of the most important factors of its quality and be rigidly controlled in the production of highly reliable bearings. Orig. art. has: 3 figures and 1 table. [JPRS]

SUB CODE: 11, 13, 20 / SUBM DATE: none / ORIG REF: 010 / OTH REF: 006

Card 2/2 art

MIZGAL, Witold

reject

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Pharmaceuticals, Cosmetics, and Perfumes

3
Determination of salicylic acid in the presence of H
NH₄Cl in pharmaceutical preparations. Witold Mizgal
and Janina Michniewska Zaklad Chem. Farm. Akad. Me
Lublin). *Farm. Polska* 9, 159-61(1953).—A sample
0.5-1 g. was heated in 30 ml. H₂O and titrated with 0.
NaOH in the presence of phenolphthalein. Upon cool
and the addn. of 10 ml. 20% KI soln., the sample
shaken and titrated with 0.1N HCl with methyl red as
indicator. Each ml. N NaOH is equiv. to 0.1381
salicylic acid, and 1 ml. 0.1302N HCl is equiv. to 0.126
HgNH₄Cl. The standard error is about 0.3%.
L. J. Plotrows

MIZGALSKI, Romuald (Warszawa)

Large American machinery for earthworking. Przegi
budowl i bud mieszk 36 no. 4:198-201 Ap '64.

MIZGILSKI, W.

Determination of concentrations of drugs containing trivalent nitrogen.
Acta Poloniae pharm. 9 no. 4:279-280 1952. (GLML 24:1)

1. Of the Institute of Pharmaceutical Chemistry (Head--Prof. Fr. Adamanis,
M.D.) of Poznan Medical Academy.

MIZGALSKI, W.

BILLEWICZ-STANKIEWICZ, J.; MIZGALSKI, W.; GORNY, D.

Certain pharmacological properties of diethyl-p-nitrophenylphosphoric ester. Acta physiol. polon. 5 no.4:650-651 1954.

(PHOSPHATE,
diethyl p-nitrophenyl phosphate, pharmacol.)

BILLEWICZ-STANKIEWICZ, Jaroslaw; MIZGALSKI, Witold; GORNY, Dionizy

Certain pharmacological properties of diethyl-p-nitrophenyl-phosphoric ester. Ann. Univ. Lublin; sec. D 9:249-290 1954.

1. Z Zakladu Patologii Ogolnej Akademii Medycznej w Lublinie. Kierownik: doc. dr. med. J. Pillewicz-Stankiewicz. i z Zakladu Chemii Farmaceutycznej Akademii Medycznej w Lublinie. Kierownik: doc. dr. W. Mizgalski.

(PHOSPHATES,

diethyl-p-nitrophenylphosphate, pharmacol.)

MIZGALSKI, Witold, dr

Determination of sodium salt of benzoic acid, of paraaminobenzoic acid, of salicylic acid and of paraaminosalicylic acid. Farm. polska 10 no.9:223-225 Sept 54.

1. Z Zakladu Chemii Farmaceutycznej Akademii Medycznej w Poznaniu.
Kierownik: prof. dr Fr. Adamanis.

- (BENZOATES,
sodium benzoate, determ.)
- (PARA-AMINOBENZOIC ACID,
sodium salt, determ.)
- (PARAAMINOSALICYLIC ACID
sodium salt, determ.)
- (SALICYLIC ACID,
sodium salt, determ.)

~~WITOLD~~ MIZGALSKI, W

POLAND / Chemical Technology, Chemical Products and Their Application. Part 3. - Medicaments, Vitamins, Antibiotics.

H-16

Abs Jour : Ref. Zhur. Khimiya, No 5, 1958, 12246.

Author : Witold Mizgalski, Lech Przyborowski.

Inst : Not given.

Title : Detection and Determination of Ephedrine and Its Derivatives.

Orig Pub : Farmacja polska, 1955, 11, No 11, 267 - 269.

Abstract : A volumetric method of ephedrine (I), pseudo-, nor- and methylephedrine determination was developed. These substances produce complex compounds with Cu soluble in CH₃-OH. About 0.2 g of I hydrochloride is dissolved in 20 mlit of CH₃OH, a mixture of 10 mlit of 5%-ual CuSO₄ solution and 10 mlit of 20%-ual NaOH is added, all is shaken 1 to 2 mi-