

MOLODTSOV, G.V., inzh.; SMIRNOV, V.I., inzh.

Automobile tunnel through the Tyuzashu Pass. Transp. stroi. 15 no.7:
17-19 J1 '65. (MIRA 18:7)

MOLODTSOV, I. G.

VODNEV, G.G.; SHELKOV, A.K.; DIDENKO, V.Ye.; FILIPPOV, B.S.; TSAREV, M.N.;
ZASHVARA, V.G.; LITVINENKO, M.S.; MEDVEDEV, K.P.; MOLODTSOV, I.G.;
IGALOV, K.I.; RUBIN, P.G.; SAPOZHNIKOV, L.M.; TYUTYUNNIKOV, G.H.;
DMITRIYEV, M.M.; LETTES, V.A.; LERNER, B.Z.; MEDVEDEV, S.M.; REVIYAKIN,
A.A.; TAYCHER, M.M.; TSOGLIN, M.E.; DVORIN, S.S.; RAK, A.I.; OBUKHOV-
SKIY, Ya.M.; KOTKIN, A.M.; ARONOV, S.G.; VOLOSHIN, A.I.; VIROZUR, Ye.V.;
SHVARTS, S.A.; GINSBURG, Ya.Ye.; KOIYANDR, L.Ya.; BELETSKAYA, A.F.;
KUSHNEREVICH, N.R.; BRODOVICH, A.I.; NOSALEVICH, I.M.; SHTROMBERG, B.I.;
MIROSHNICHENKO, A.M.; KOPELIOVICH, V.M.; TOPORKOV, V.Ya.; AFONIN, K.B.;
GOFTMAN, M.V.; SEMENENKO, D.P.; IVANOV, Ye.B.; PEYSAKHZON, I.B.;
KULAKOV, H.K.; IZRAELIT, E.M.; KVASHA, A.S.; KAFTAN, S.I.; CHERMNYKH,
M.S.; SHAPIRO, A.I.; KHALABUZAR', G.S.; SEKT, P.Ye.; GABAY, L.I.;
SMUL'SON, A.S.

Boris Iosifovich Kustov; obituary. Koks i khim. no.2:64 '55.(MLRA 9:3)
(Kustov, Boris Iosifovich, 1910-1955)

MOLODTSOV, I.

Experience in extinguishing fires of petroleum products by stirring.
Posh.delo 3 no.8:14 Ag '57. (MIRA 10:8)

I. Nachal'nik pozharney komandy, Naro-Fominsk.
(Petroleum industry--Fires and fire prevention)

MOLODTSOV, I.G.

AUTHORS: Kozyrev, V.F., Molodtsov, I.G., Peysakhzon, I.B., 68-5-6/14
Podzolkov, M.I., Toryanik, I.Kh., and Florinskiy, N.V.

TITLE: On the paper by R.Z. Lerner "On changes of the composition of coke oven department in order to increase considerably the number of ovens in a battery". (K stat'e R.Z.Lernera "Ob izmenenii komponovki koksovogo tsekha dlya znachitel'nogo uvelicheniya chisla pechey v batareye".)

PERIODICAL: "Koks i Khimiya" (Coke and Chemistry), 1957, No.5, pp.29-31 (U.S.S.R.)

ABSTRACT: In the original paper, I.Z. Lerner proposed some changes in the composition of the coke oven department in order to increase the number of ovens in one battery to 100. Servicing of such a battery would be carried out by one set of coke oven machines. According to Lerner the proposed composition of the coke oven department: 4 batteries of 100 ovens each in comparison with the standard composition (65 ovens per battery) has the following advantages:- the number of personnel required will remain the same as for the standard battery but the labour productivity will increase by 64.2% and the capital expenditure will be 10-12% lower. The present authors consider that the advantages Lerner expects are unfounded. To prove this point the

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On the paper by R.Z. Lerner "On changes of the composition of coke oven department in order to increase considerably the number of ovens in a battery". (Cont.) 68-5-6/14

authors quote labour requirements for the often practised separation of 2 batteries with 90-110 ovens into an independent unit (Table 1) and compare them with those stated by Lerner (Table 2). A similar comparison for the labour productivity of main coke oven craftsmen for 78-110 oven units and 61-69 units is given in Table 2. Very approximate calculations indicated that the capital expenditure will remain the same. The editorial office communicates that Lerner's paper was discussed during a special session of Glavkoks with the participation of Giprokoks. In view of the division of opinion Giprokoks was requested to design a coke oven department according to Lerner's proposals and to prepare a technical-economical comparison with the usual design. The final decision on the problem will be published in this journal. There are 3 tables.

ASSOCIATION: Giprokoks. (Gos. Inst. po proyektirovaniyu predpriyatiy
koksokhimicheskoy promyshlennosti)

AVAILABLE:

Card 2/2

SOV/68-59-4-15/23

AUTHORS: Molodtsov, I.G. and Raskin, B.A.

TITLE: Capital Investments in the Coking Industry of the USSR
(Kapital'nyye vlozheniya v koksokhimicheskuyu
promyshlennost' SSSR)

PERIODICAL: Koks i Khimiya, 1959, Nr 4, pp 49-53 (USSR)

ABSTRACT: Capital investments for the coking industry during the individual periods of the Soviet rule is outlined (data given in table 1). The distribution of capital investments according to the industrial regions is given in table 2, the distribution of the number of coking works according to the size of their output in table 3 (in 1930 and 1955) and dynamics of increase in labour productivity during the period 1940-1955 in table 4. Changes in the value of the total production per ton of coal blend for 1930 and 1955 and changes in the structure of the output for the same period are given in tables 5 and 6 respectively. Changes in the specific capital investments per 1000 roubles of the value of production during 1931-1955 are shown in table 7. It is pointed out that the duration of the construction of coking works increased by about 10 months

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SOV/68-59-4-15/23

Capital Investments the Coking Industry of the USSR
considering that normal duration of the construction of
a 4 battery works should not exceed 43 months. This
results in a consistent lagging behind in constructional
work, an increase in non-operating capital investments
(table 8) and loss of production. There are 8 tables.

ASSOCIATION: Giprokoks

Card 2/2

MOLODTSOV, I.G.; TOPTYGIN, L.A.

Mechanization and automation in the by-product coke industry.
Koks i khim. no.3:51-56 '62. (MIRA 15:3)

1. Gosudarstvennyy vsesoyuznyy institut po proyektirovaniyu
predpriyatiy koksokhimicheskoy promyshlennosti.
(Coke industry--By-products) (Automatic control)

AUTHOR: Molodtsov, I. V. SOV/30-58-9-48 / 51

TITLE: Tasks of Library Cataloguing (Zadachi biblioteknoy klassifikatsii) Scientific Conference in Leningrad (Nauchnaya konferentsiya v Leningrade)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 9, pp. 122 - 123 (USSR)

ABSTRACT: The conference took place from April 24 to April 26 in the Library of the AS USSR. Research work in this field has been and will further be carried out by the Vsesoyuznaya knizhnaya palata (All-Union Library), Gosudarstvennaya biblioteka im. V.I.Lenina (State Library imeni V.I.Lenin), Gosudarstvennaya biblioteka im.M.Ye.Saltykova-Shchedrina (State Library imeni M.Ye.Saltykov-Shchedrin) and many other libraries. Scientific cooperators of the institutes and libraries of the AS USSR participated in the conference as well as cooperators of the Academies of Sciences of the Ukraine, Belorussia, Kazakhstan, Turkmenistan, Latvia, Lithuania, Azerbaydzhan. The following reports were heard:
I.V.Molodtsov spoke about the fundamentals of classification.
V.N.Voronov on the fundamentals of the methods of classification.

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Tasks of Library Cataloguing. Scientific Conference
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I.G.Liorentsevich recommended to classify separately the problems of social life.
A.I.Morozova reported on problems concerning the classification of the history of economics.
V.A.Dinaburg spoke about the systematization of chemical publications.
N.I.Kats about the basis of classification of the history of the KPSS.
T.I.Skripkina spoke about the establishment of systematic library catalogues.
V.M.Dukel'skiy about the classification of physical publications.
V.P.Barzakovskiy disapproved of the including of chemistry in physical and mathematical sciences.
A.A.Panov dealt with the prospects of mechanization and automation of the working process in libraries.
B.Yu.Eydel'man approved of the order of classification from inorganic to organic nature.
Ye.I.Shamurin, E.N.Ambartsumyan stated that the interruption of the natural order of sciences from mechanics to biology

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Tasks of Library Cataloguing. Scientific Conference
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by technics is unjustified.
I.G.Khandzhayan emphasized that at the beginning of classification not only Dialectic Materialism but also Marxism-Leninism as a whole should be placed.

Card 3/3

KSANTOPULO, Ya.F.; KOTLYARSKIY, D.I.; IGNATOV, V.A.; ALKINA, E.Kh.; inzh.;
SMIRNOV, Yu.A.; inzh.; KUBITSINA, T.I., inzh.; IGNATOVA, N.T., inzh.;
KIRSANOV, A.I., elektromekhanik; MOLODTSOV, N.A., inzh.; ROD'KO, G.V.

Discussion of two articles "Stamping apparatus for signaling, central control and block systems." and "Periods for testing relays used in signaling, central control and block systems." Avtom., telem. i svyaz' no.12:35-36 D '57. (MIRA 10:12)

1. Nachal'nik Adzhikabul'skoy distantzii signalizatsii i svyazi Azerbaydzhanskoy dorogi (for Ksantopulo). 2. Starshiy elektromekhanik Moskovskoy distantzii signalizatsii i svyazi Oktyabr'skoy dorogi (for Kotlyarskiy). 3. Ayaguzskayadistantziya signalizatsii i svyazi Turkestano-Sibirskoy dorogi (for Alkina, Smirnov, Kunitsyna, Ignatova). 4. Zaveduyushchiy postom dispetcherskoy tsentralizatsii Ayaguzskoy distantzii signalizatsii i svyazi Turkestano-Sibirskoy dorogi (for Ignatov). 5. Krasnolimanskaya distantziya signalizatsii i svyazi Donetskoy deregi (for Kirsanov). 6. Moskovskaya distantziya signalizatsii i svyazi Gor'kovskoy deregi (for Molodtsov). 7. Zamestitel' nachal'nika sluzhby signalizatsii i svyazi Orenburgskoy dorogi (for Rod'ko).

(Railroads--Signaling)

MOLODTSOV, N.A.

Extend the life expectancy of signal light lamps. Avtom. telem. i
svyaz' 4 no.2:44 F '60. (MIRA 13:6)

1. Starshiy inzhener otдела kontrol'no-izmeritel'nykh priborov
Moskovsko-Gor'kovskoy distantsii signalizatsii i avyazi Moskov-
skoy dorogi.

(Railroads--Signaling)

(Railroads--Electric equipment)

SUREN'YANTS, S.Ya. Prinimal uchastiye MOLODTSOV, N.I., inzh.; RACHEVSKAYA, M.I., red. izd-va; SHUKHER, I.M., red.; RAKITIN, I.T., tekhn. red.

[Operation of water wells] Eksploatatsia vodiannykh skvazhin. Moskva, Izd-vo M-va kommun. khoz. RSFSR, 1961. 105 p. (MIRA 14:10)
(Wells)

KROTOV, V.V.; MOLODTSOV, N.K.

Pneumatic equipment designed for loading charcoal into freight cars. *Gidroliz. i lesokhim. prom.* 8 no.2:20-21 '55.

(MIRA 8:10)

1. Syavskiy lesokhimicheskiy kombinat
(Charcoal--Transportation)

MOLODTSOV, N.K.

Modernization of rosin and turpentine production. Hidroliz.
1. Iesokhim. prom. 14 no.6:19-21 '61. (MIRA 14:9)

1. Vakhtanskiy kanifol'no-ekstraktsionnyy zavod.
(Vakhtan--Gums and resin)
(Vakhtan--Turpentine industry--Equipment and supplies)

5(3)

SOV/79-29-7-42/85

AUTHORS:

Kochetkov, N. K., Nifant'yev, E. Ye., Molodtsov, E. V.

TITLE:

Bromination of β -Ketoacetals (Bromirovaniye β -ketoatssetaley)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2330-2337 (USSR)

ABSTRACT:

Hitherto the easily accessible β -ketoacetals $\text{RCOCH}_2\text{CH}(\text{OR}')_2$ were used either as potential β -dicarbonyl compounds (Refs 1, 4), seeing they resemble the β -chlorovinylketones in their reactions or as ketones having another reactive substituent. A third possibility, i.e. that of introducing substituents into the central methylene group of the ketoacetal, has so far been disregarded, even though the resulting compounds could be utilized for synthesis in various directions (Ref 8). As first reaction of this kind the hitherto unknown bromination of the ketoacetals was undertaken. Thus, two methods were elaborated, one for the synthesis of α -bromo- β -ketoaldehydes by bromination of β -ketoaldehydes in aqueous solution in the presence of barium carbonate, and another for the preparation of ethylene acetals of α -bromo- β -ketoaldehydes by bromination of the ethylene acetals of β -ketoaldehydes in ether in the presence of barium carbonate. By condensation of α -bromo- β -ketoaldehydes

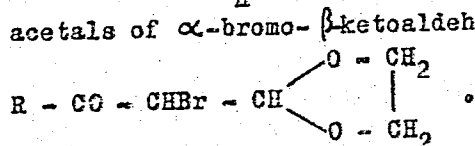
Card 1/2

Bromination of β -Ketoacetals

SOV/79-29-7-49/85

with urea, the 2-amino-5-acyloxazoles were obtained; on condensing with thiourea and thioamides of acids 2-substituted 5-acylthiazoles were formed. Thus, it was demonstrated, that the α -bromo- β -ketoaldehydes react similarly to α -bromoaldehydes in the reactions under investigation. On treating ethylene acetals of α -bromo- β -ketoaldehydes with β -naphthol in the presence of iron chloride and hydrochloric acid 2-alkyl-3-bromo-naphtho-(1,2;5',6')-pyryl salts were formed. Table 1 shows the synthesis of the α -bromo- β -ketoaldehydes:

$R-CO-CHBr-\overset{\overset{O}{\parallel}}{C}-H$ and table 2 the synthesis of the ethylene acetals of α -bromo- β -ketoaldehydes:



There are 2 tables and 15 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: June 5, 1958

Card 2/2

5.3400
5(3)
67951
SOV/20-130-1-26/69

AUTHORS: Nifant'yev, E. Ye., Molodtsov, N. V., Kudryashov, L. I.,
Kochetkov, N. K.

TITLE: Ethylene Acetals of α -Bromaroylacetaldehydes and Their
Transformations

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 1, pp 94-97 (USSR)

ABSTRACT: The authors wanted to synthesize β -ketoacetals with functional groups in the molecule. For this purpose, they investigated the exchange reaction of the bromine atom in the α -bromo- β -ketoacetals $\text{RCO-CHBr-CH(OR')}_2$ the synthesis method of which they had worked out recently (Ref 2). α -Bromo-substituted ethylene acetals of the aromatic series $\text{ArCOCHBrCH(OCH}_2)_2$ were best suited. Such compounds were produced by bromination of the ethylene acetals of aroylacetaldehydes (see Scheme). The bromination was achieved either by bromine action in ethereal solution in the presence of barium carbonate (Ref 2) or by bromosuccinimide. The products obtained and mentioned in the title are stable, crystalline substances. Their bromine atom is quite readily exchanged by interaction with salts of some mineral acids. Thus, corresponding α -substituted ethylene acetals of

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Ethylene Acetals of α -Bromobenzoylacetaldehydes and
Their Transformations

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aroylacetaldehydes (see Scheme) are formed, namely α -iodine- and α -thiocyanogen-substituted ethylene acetals. A little more difficult is the substitution of bromine by the nitro group while α -nitro- β -ketoacetal is formed. The above compounds represent a valuable initial material for the synthesis of some hardly accessible substances such as 4-benzoyl-2-oxthiazol. The interaction of brominated ketoacetals with mercaptanes proceeds smoothly. The reaction of the ethylene acetal of α -bromobenzoylacetaldehyde with sodiumbenzylmercaptide in methanol produces the ethylene acetal of α -benzylthiobenzoylacetaldehyde (see Scheme, Fig 1: I - the UV spectrum). The same bromoacetal reacts differently with sodium phenolate. No pure compound could be isolated from the resulting complex mixture by the reaction in acetone. On the other hand, the same reaction in methanol yielded a crystalline substance the analysis of which corresponded to the β -phenoxy- β -methoxy- α -oxy-hydrocinnamic aldehyde. Its UV spectrum (Fig 1: II) proves the missing benzoyl group and confirms the structure mentioned. It seems that the reaction with sodium phenolate proceeds via a transient α -oxide (similar to reactions described by T. I. Temnikova, Ref 5, see Scheme)

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Ethylene Acetals of α -Bromobenzoylacetaldehydes and
Their Transformations

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The interaction of bromoketoacetals with amines is complicated by the fact that - besides the exchange of the bromine atom - the acetal group enters the reaction. Thus, the phenyl- α, β -di-N-piperidylvinylketone develops in a high yield from the ethylene acetal of the α -bromobenzoylacetaldehyde and piperidine (UV spectrum, Fig 1: IV). Table 1 shows the constants and yields of the substances produced. There are 1 figure, 1 table, and 7 references, 5 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: June 9, 1959, by A. N. Nesmeyanov, Academician

SUBMITTED: June 6, 1959

Card 3/3

DEREVITSKAYA, V.A.; MOLODTSOV, N.V.; KOCHETKOV, N.K.

Simple synthesis of N-aminoacyl derivatives of amino sugars.
Zhur.VKHO 6 no.5:594-595 '61. (MIRA 14:10)

1. Institut khimii prirodnykh soyedineniy Akademii nauk SSSR.
(Glucosamine)

KOCHETKOV, N.K.; KUDRYASHOV, L.I.; MOLODTSOV, N.V.; KHOMUTOVA, Ye.D.

Benzoates of 2,5-dimethoxy-2,5-dehydrofurfuryl alcohols and some
of their reactions. Zhur.ob.khim. 31 no.12:3909-3916 D '61.
(MIRA 15:2)

1. Institut khimii prirodnykh soedineniy AN SSSR.
(Benzoic acid)
(Furfuryl alcohol)

KOCHETKOV, N.K.; DEREVITSKAYA, V.A.; MOLODTSOV, N.V.

Glycopeptides. Part 3: Synthesis of N-aminoacyl derivatives of
amino sugars. Zhur.ob.khim. 32 no.8:2500-2505 Ag '62.
(MIRA 15:9)

(Sugars)

MOLODTSOV, N.V.; KOCHETKOV, N.K.; DEREVITSKAYA, V.A.

Glycopeptides. Part 6: Further development of the synthesis
of N-aminoacyl derivatives of amino sugars. Izv. AN SSSR.
Ser. khim. no.12:2165-2172 D '63. (MIRA 17:1)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

DEREVITSKAYA, V. A.; MOLODTSOV, N. V.; KOCHETKOV, N. K.

Glycopeptides. Report No. 8: Synthesis of N-galacturonoyllysine.
Izv AN SSSR Ser Khim no. 4:677-680 Ap '64. (MIRA 17:5)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

Sci. Office
MOLODTSOV, S., starshiy nauchnyy sotrudnik.

Problem of the continental shelf. Mor. flot 18 no.10:28-29 0 '58.
(MIRA 11:11)

- Land*
1. Institut prava AN SSSR.
(Continental shelf) (Maritime law)

VOLODTEOV, S V

Sovremennoye Mezhdunarodno-Pravovoye Polozheniye Antarktike
(Contemporary International Law Situation of the Antarctic) Moskva,
Gosyurizdat, 1954.

16 p. Map

At Head of Title: Akademiya Nauk SSSR. Institut Prava.

So: D/3
102.5
.M7

MOLODTSOV, V.

Economics

I. V. Stalin on the objective character of the laws of nature and society, Prof. soiuzy 8, No. 2, 1953.

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

MOLODTSOV, V.; AKSILENKO, V.

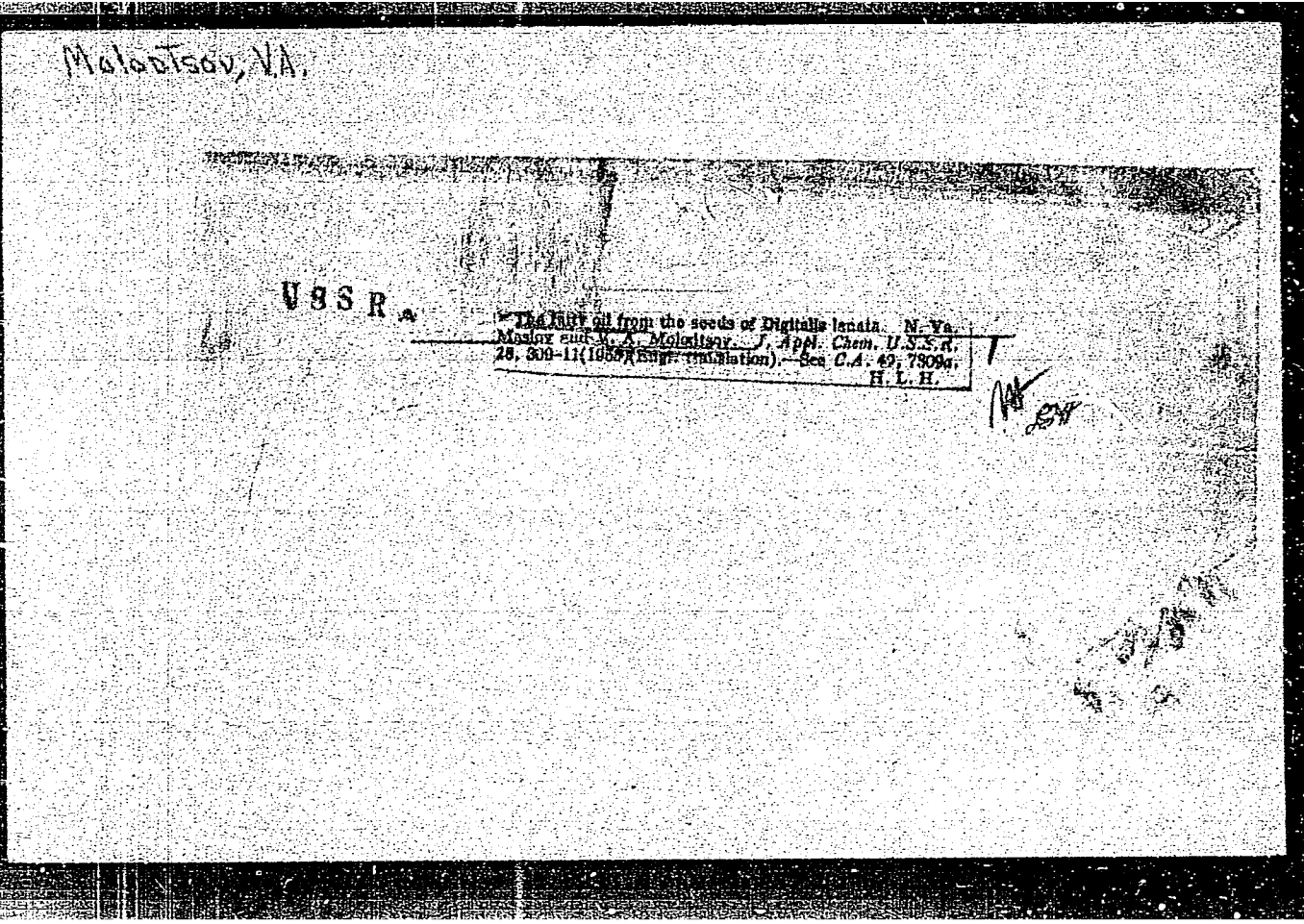
Radioisotopes in international trade. Vnesh.torg. 41 no.5:48-51
'61. (MIRA 14:4)

(Radioisotopes)

MOLCHETSOV, V.A.

We are improving industrial organization and raising economic indexes. Der.prom.4 no.7:26 31'55. (MIRA 8:10)

1. Manturovskiy fanernyy zavod
(Manturovo-Veneera and veneering)



MOLODTSOV, V. A.

AID P - 2293

Subject : USSR/Chemistry

Card 1/1 Pub. 152 - 19/21

Author : Maslov, N. Ya. and V. A. Molodtsov

Title : Fatty oil from seeds of Digitalis lanata Ehrh.

Periodical: Zhur. prikl. khim., 28, no.3, 334-336, 1955

Abstract : The chemical and physical properties of the oil are described. The composition of the oil has not been definitely established. Eleven references (8 Russian: 1885-1952).

Institution: Chair of Organic Chemistry of the Moscow Agricultural Academy of the Order of Lenin (im. K. A. Timiryazev)

Submitted : Ap 17, 1952

MOLODTSOV, V.A.

Characteristics of irrigation deposits of the Samarkand oasis [with
summary in English]. Pochvovedenie no.2:11-25 F '58. (MIRA 11:3)

L. Pochvennyy institut im. V.V. Dokuchayeva AN SSSR.
(Samarkand Province--Oases)

MOLODTSOV, V. A.

Cand Agr Sci - (diss) "Irrigation detritus of the Samarkand and Bukhar oases and their change upon soil-treatment under irrigation conditions." Moscow, 1961. 19 pp; (Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazev); 200 copies; price not given; (KL, 6-61 sup, 232)

MOLODTSOV, V.A.

Nitrate Solonchaks of the Murgab Oasis. Pochvovedenie no.6:
87-92 Je '61. (MIRA 14:6)

1. Pochvennyy institut imeni V.V.Dokuchayeva AN SSSR.
(Murgab Oasis--Solonchak soils)

MOLCHENOV, V.A.

Salt content of soils and the change in the groundwater level during the irrigation of new lands in the Golodnaya Steppe. Pochvovedenie no.1:12-19 Ja '64. (MIRA 17:3)

1. Pochvennyy institut imeni V.V. Dokuchayeva.

MOLODTSOV, V.A.

Composition and agrochemical characteristics of the Nile sediments.
Pochvovedenie no.12:54-61 0 '64. (MIRA 18:2)

1. Pochvennyy institut imeni V.V. Dokuchayeva, AN SSSR, Moskva.

86057

S/193/60/090/010/006/015
A004/A001

1.5100 2308

AUTHOR: Molodtsov, V. F.

TITLE: The 1532F and K4-65 (KU-65) Double-Column Vertical Boring and Turning Lathes

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No.10, pp.22-25

TEXT: In 1959 the large model 1532F vertical boring and turning lathe was designed and built at the Kolomenskiy zavod tyazhelogo stankostroyeniya (Kolonna Heavy Machine-Tool Plant). The lathe is designed for the turning and boring of cylindrical and conical surfaces, face machining, grooving and other lathe operations on ferrous and non-ferrous metals. The lathe possesses an increased rigidity of the main units, which makes it possible to machine on it large and heavy workpieces with great precision. The new large special purpose KU-65 double-column vertical boring and turning lathe has been developed and is manufactured by the same Plant. It has been designed for machining cylinders of powerful steam turbines and cylindrical and conical surfaces of other heavy parts. Based on the 1580M (1580L) vertical boring and turning lathe, the new KU-65 lathe has a larger portal and an additional cross beam to increase the rigidity of the

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A004/A001

The 1532T and KU-65 (KU-65) Double-Column Vertical Boring and Turning Lathes

portal. Rotation of the table and the setting and operation feeds are effected by a d-c motor, while rapid displacement of slides and cross arms is actuated by an asynchronous electromotor. All controls are fully automated. The tables of both the 1532T and KU-65 lathes have flat guides reinforced with the ЦАМ-10-5 (TsAM-10-5) antifriction alloy and are centered on the stationary base pivot by way of precision bearings. A special copying device with electrocontact pickup, controlled by electromagnetic couplings of the feed box, makes it possible to machine parts with stepped or curved surfaces with high precision and surface finish. The KU-65 machine is equipped with television for observation of the cutting process, tool wear, and surface finish. To extend the technological possibilities, the manufacturing Plant furnishes the lathes also with a milling head, a device for the turning of sloping cones, and a boring bar for deep holes. Besides, the model 1532T can be fitted with a turret head, while the model KU-65 lathe can be equipped with a milling and drilling boring carriage and a device for the recording of the angle of pitch of the table. The following technical data are given (the first figure referring to model 1532T, the second figure to model KU-65): Maximum dimensions of the workpiece being machined: diameter - 3,200, 8,000 mm; height - 2,000, 5,000 mm; maximum weight of workpiece being machined - 40, 125 tons;

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S/193/60/000/010/006/015
A704/A001

The 1532T and K4-65 (KU-65) Double-Column Vertical Boring and Turning Lathes

maximum travel of vertical slides - 1,250, 2,500 mm, of horizontal slides - 1,900, 4,400 mm; range of stepless regulation of the velocity of rotation of the table - 0.66-62.1, 0.23 - 19.3 rpm. range of stepless feed regulation - 0.05-452, 0.03-305 mm/min; travel speed of crossrail - 430, 300 mm/min; power of main electro-motor - 63, 100 kw; overall dimensions of machines (length) 5,120, 8,615 x (width) 9,345, 17,600 x (height) 7,470, 12,060 mm; weights - 85.5, 281 tons. There are 2 figures. X

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NOLODTSOV, V.F.

The 2B635 universal horizontal boring machine. Biol. tekhn.-
ekon. inform. no. 2:33-35 '61. (MIRA 14:2)
(Drilling and boring machinery)

L 45515-66 EWP(d)/EWP(k)/EWP(h)/EWP(y)/EWP(1)

ACC NR: AP6022174

SOURCE CODE: UR/0193/66/000/002/0003/0004

AUTHOR: Molodtsov, V. F.

ORGS: None

TITLE: Special boring machine of KU-180 type

SOURCE: Bulleten' tekhniko-ekonomicheskoy informatsii, no. 2, 1966, 3-4

TOPIC TAGS: machine tool, boring machine, metal boring / KU-180 boring machine

ABSTRACT: A special KU-180 boring machine manufactured by the Kolomenakiy Heavy Machine-Tool Plant is described. It is equipped with a 160-mm spindle, and is driven by two d-c motors at 4-1600-3600 rpm. The machine is shown in a photo and its dimensions and characteristics are tabulated. Its size is 5200 x 3320 x 5275 mm and its weight is 32 tons. Some of its constituent parts are mentioned or briefly described. The machine can be either of portable type or be fixed on a foundation. Orig. art. has: one photo, one table.

SUB CODE: 15/ SUBM DATE: None

Card 1/1 hs

UDC: 621.952.5

28
B

L 46127-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACC NR: AP6024046

SOURCE CODE: UR/0193/66/000/003/0007/0009

AUTHOR: Molodtsov, V. F.

47
B

ORG: None

TITLE: 1A591 vertical turret lathe

SOURCE: ¹⁴Byulleten' ¹⁶tekhniko-ekonomicheskoy informatsii, no 3, 1966, 7-9

TOPIC TAGS: metal turning, turning machine, lathe, metal machining, feed mechanism, remote control, *metal boring / 1A591 lathe*

ABSTRACT: The author describes a special turret lathe developed by the Kolonna Heavy Machine Tool Building Plant. This lathe can machine parts up to 10,000 mm in diameter and 5,000 mm high. It was designed for turning and boring cylindrical and conical surfaces, facing and slot milling. The lathe can do both rough and finish machining on such materials as cast iron, steel, nonferrous metals and their alloys. It is equipped with an electrocontact copy unit which makes it possible to machine curved surfaces. The face plate is driven by a dc motor with variable rpm (300-1500). The motor is controlled by weakening the magnetic field at constant power or from 300 to 75 rpm by varying the armature voltage with respect to permanent moment. The lathe is equipped with a two-stage gear box. An electrohydraulic unit engages one of the mechanical speed box stages which is controlled from a suspended panel. The face

Card 1/2

UDC: 621.941.28

L 46127-66

ACC NR: AP6024046

plate is centered on an individual base by two rows of precision roller bearings. A milling-drilling attachment is provided. The spindle of this attachment is turned by an asynchronous electric motor through a 16-stage speed box. The high speed and power characteristics of the lathe, continuous rotation control of the face plate, a relatively large selection of working feeds and remote control of all the mechanisms make it possible to save labor and 50,000 rubles a year by introduction of this unit. Orig. art. has: 1 figure, 1 table.

SJB CODE: 13/ SUBM DATE: None

Card 2/2 JS

ACC NR: AT6034344

SOURCE CODE: UR/0000/66/000/000/0207/0213

AUTHOR: Molodtsov, V. K. (Moscow)

ORG: none

TITLE: On the calculation of equilibrium gas flows

SOURCE: Chislennyye metody resheniya zadach matematicheskoy fiziki (Numerical methods of solving problems in mathematical physics); sbornik statey. Moscow, Izd-vo Nauka, 1966, 207-213

TOPIC TAGS: supersonic aerodynamics, supersonic flow, equilibrium flow, dissociated gas, shock wave, thermodynamic property, *GAS Flow*

ABSTRACT: A new technique for computing the thermodynamic properties of gas mixtures is described which is necessary for calculating supersonic equilibrium gas flows over bodies. It is based on differential corrections obtained from the basic equations of gas dynamics and equations of chemical equilibrium. This approach was used for calculating supersonic equilibrium gas flows past blunt bodies by the method of integral relations developed by A. A. Dorodnitsyn and O. M. Belotserkovsky. One of the advantages of this technique consists in that the obtained system of differential equations is associated with the initial approximate system of the numerical scheme for solving the gas dynamic problem and

Card 1/2

UDC: 517.91531.011

ACC NR: AT6034344

integrated together with the latter by the same method. This procedure requires less computer time than the iteration method. Supersonic flows of air over a sphere were calculated in the range of $M_\infty = 4$ to 30, $p_\infty = 0.01$ atm, $T_\infty = 300^\circ\text{K}$ as an illustrative example. A comparison of the results with those obtained by the iteration method shows satisfactory agreement. Orig. art. has: 3 figures and 12 formulas.

SUB CODE: 20/ SUBM DATE: 21Jun65/ ORIG REF: 006

Card: 2/2

MOLODTSOV, V.S., red.; IL'IN, A.Ya., red.; MAGNUS-SOMINSKIY, V.S.,
red.

[Methodological problems in contemporary science] Metodologicheskie problemy sovremennoi nauki; sbornik statei. Moskva, Izd-vo Mosk. univ., 1964. 243 p. (MIRA 17:7)

MOLODTSOV, V.Ye., general-mayor aviatsii

Strictly fulfill the demands of military regulations. Vest.
protivovo zd. obor. no.7:3-6 JI '61. (MIRA 14:8)
(Russia--Armed forces--Regulations)

AUTHOR: Molodtsov, Ye.N., Engineer SOV-111-58-9-23/30

TITLE: Improving the Operation of the GRN-4 Generator (Uluchsheniye raboty generatora tipa GRN-4)

PERIODICAL: Vestnik svyazi, 1958, Nr 9, p 28 (USSR)

ABSTRACT: The dc generator GRN-4, built by the "Elektrosila" Plant, is designed for a current of 1,150 a at 38v. For 24-hour service it can only be run at 900a, 34v ; at higher values overloading and burning out of the brushes occurs. Tests have shown that the cause of this defect lies in the brushes working in parallel on the cross-arms. A rise in temperature in a brush leads to a decrease in its resistance, which considerably increases the current flowing through it and further increases the temperature. To equalize the temperature of the brushes on each traverse, special compact brush-holders were prepared from cuprite. By spacing them close together it was possible to fix 9 brushes along the working length of the collector, instead of the 7 previously used. The current density at a rated load of 1,150a. now fell from 8.8a/sq cm to 6.88a/sq cm, thus increasing the reliability of the generator's operation in 24-hour service. Special guide plates were also fitted

Card 1/2

Improving the Operation of the GRN-4 Generator

SOV-111-58-9-23/30

to divert the airstream to the collector, brushes, etc. and so improve cooling and the temperature regime. With these improvements, the generator now works steadily under full load, there is no sparking and the brushes do not wear out before their time. There are 4 diagrams.

1. Generators (DC)--Performance
2. Generators--Equipment
3. Generators--Design

Card 2/2

AUTHOR: Molodtsov, Ye.N., Engineer SOV/111-59-1-24/35

TITLE: The Conversion of the Submodulator of the Transmitter of Type KVM-120 to a Cathode Load Circuit (Perevod podmodulyatora peredatchika tipa KVM-120 na skhemu s katodnoy nagruzkoy)

PERIODICAL: Vestnik svyazi, 1959, Nr 1, pp 24 - 26 (USSR)

ABSTRACT: Ye.N. Molodtsov, V.V. Frolov and G.M. Ryabov, of one of the radio centers of MDRSV, suggest a method of conversion of the submodulator of the KVM-120 transmitter to a cathode load circuit. The output stage of the modulation part of the KVM-120 transmitter has right-hand G-433 generator tubes. The submodulator is based on a transformer circuit (Figure 1). In order to reduce the non-linear distortions in the submodulator, left-hand 6M-51 A tubes are used. A cathode load circuit with direct connections with the terminal stage is demonstrated in Figure 2. Further circuit arrangements are presented in figures 3 and 4, while the final circuit of

Card 1/2

SOV/111-59-1-24/35

The Conversion of the Submodulator of the Transmitter of Type KVM-120 to a Cathode Load Circuit

the conversion is shown in figure 7. Operation of the converted submodulator of the KVM-120 transmitter over an extended period of time indicated that the efficiency coefficient and operation reliability and stability had been increased by the conversion of the submodulator to a cathode load circuit. There are 4 circuits, 2 graphs and 1 table.

Card 2/2

KAZAKOV, V.I., dots.; MOLODTSOVA, A.A., ordinator; SKRIZHEVSKIY, V.K.,
ordinator; CHERNOVA, S.V., ordinator

Material on a study of photoprotective and photosensitizing properties
of various drugs for external application. Vest.derm. i ven. 31 no.2:
47 Mr-Apr '57. (MIRA 12:12)

1. Iz kafedry kozhnykh i venericheskikh bolezney Stavropol'skogo
meditsinskogo instituta.
(DRUGS) (LIGHT--PHYSIOLOGICAL EFFECT)

MOLODTSOVA, A.I.

VARTAPETOV, B.A.; MOLODTSOVA, A.I.

New method of investigating motor function of the intestines.
Vop. fiziol. no.6:143-147 '53. (MLRA 8:1)

I. Fiziologicheskii otdel Ukrainskogo instituta eksperimental'noy endokrinologii

(INTESTINES, physiology,

motor funct., technic of exposure of intestine for graphic study)

KOROVINA, N.N.; MOLODTSOVA, A.N.; CHIKHACHEV, M.S.; MAKAROV, M.S.,
ted.; SAZONOV, N.M., red.

[Multiple-counter Askot-class 170 adding machine] Mnogo-
schetchikovaia summiruiushchaia mashina-avtomat Askota
klassa 170. Moskva, Statistika, 1964. 135 p.
(MIRA 18:1)

Molodtsova, L.I.
MOLODTSOVA, L.I.

Water power resources of China. Geog. v shkole 20 no.6:17-22
N-D '57. (MIRA 10:12)
(China--Hydroelectric power)

LYU KHUN-YUN [Liu Hung-yung]; MOLODTSOVA, L.I. [translator];
NIKOLAYEV, S.A. [translator]; SOKOLOV, D.S., red.;
ROMANOVICH, G.F., red.; KHOMYAKOV, A.D., tekhn. red.

[Paleogeographical atlas of China] Paleogeograficheski
atlas Kitaia. Pod red. i s predisl. D.S. Sokolova. Moskva,
Izd-vo inostr. lit-ry, 1962. 117 p. (MIRA 15:9)
(China--Paleogeography--Maps)

S/138/60/000/003/006/007
A051/A029AUTHORS: Lavrent'yeva, T.L.; Molodtsova, L.S.; Kirshentshteyn, N.I.; Trun-
bachev, V.F.TITLE: The Polarization-Optical Method for Investigating Tensions in Seal-
ing PartsPERIODICAL: Kauchuk i Rezina, 1960, ¹⁹No. 3, pp. 37 - 40.

TEXT: The distribution of stress in rubber sealing parts was studied by experiment. If the magnitude and distribution of the stress is known, new parts can be designed on a scientific basis and the existing models can be investigated. The applied polarization-optical method helps to investigate the stress distribution and magnitude depending on the size and shape of the part. References 3, 4 and 5 give details of this method. It is based on the fact that most transparent isotropic materials acquire under stress the property of double refraction, the magnitude of which is connected with the magnitude of the tension and can be measured with an optical apparatus. It is established that the difference of the velocities, and, therefore, the optical difference of the beam's path G , is proportional to the difference of the main normal tensions ($\sigma_1 - \sigma_2$). The

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S/138/60/000/003/006/007
A051/A023

The Polarization-Optical Method for Investigating Tensions in Sealing Parts

following formula was derived: $G = cd(\sigma_1 - \sigma_2)$, where c is the optical constant of the material, determined experimentally, d is the thickness of the model. The authors made a study of the state of stress under different pressures of the medium depending on the design of the sealing and landing space and on the size and strength of the bracelet springs. Models made of optically-active material, i. e., igdantine prepared on a gelatin and glycerol base, were studied. The procedure is explained in detail and diagrammatic sketches of the parts studied are submitted. Figure 4 represents a diagram of the distribution of tangent tensions in the stuffing box at a pressure of 0.5 atm of the medium. Figure 5 shows the tangent tensions distributed in the stuffing box at a medium pressure of 1.5 atm. The experimental results are only preliminary, since it was impossible to produce a force in the models, which would simulate the tension at a significant pressure of the medium (1 atm or more). However, the results show the effectiveness of using the discussed method in designing sealing units. There are 5 diagrams, 1 table and 7 references: 6 Soviet and 1 English.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry)

Card 2/2

TRUMBACHEV, V.F.; MOLODTSOVA, L.S.

Studying the stressed state of rocks around mine workings with the help
of the optical method. Vop. gor. davl. no.17:55-85 '63. (MIRA 18:9)

1. Institut gornogo dela imeni Skochinskogo.

TROMBACHEV, V.F.; MOLODTSOVA, L.S.; KATKOV, G.A.

Procedure and results of using the method of photoelastic coatings in
investigating the stressed state of rocks and various structures. Vop.
gor. davl. no.18:70-86 '63. (MIRA 18:7)

TRUMBACHEV, Vladimir Fedorovich; MOLODTSOVA, Lyudmila Semenovna;
LIBERMAN, Yu.M., kand. tekhn. nauk, otv. red.; KOSTAN'YAN,
A.Ya., red.; RYLINA, Yu.V., tekhn. red.

[Using the optical method to study the stress state of rocks
around mine workings] Primenenie opticheskogo metoda dlia is-
sledovaniia napriazhennogo sostoianiiia porod vokrug gornnykh
vyrabotok. Moskva, Izd-vo Akad.nauk SSSR, 1963. 93 p.
(MIRA 16:5)

(Rock pressure--Models) (Photoelasticity)

TRUMBACHEV, V.F., MOLODTSOVA, L.S.

Some similitude problems in the optical modeling of rock pressure.
Fiz. mekh. svois., dav. i razr. gor. porod. no.2:153-163 '63.
(MIRA 17:1)

ACC NR: AT7002110

(A)

SOURCE CODE: UR/0000/66/000/000/0254/0260

AUTHOR: Katkov, G. A.; Molodtsova, L. S.; Trumbachev, V. F.

ORG: none

TITLE: Determination of stresses and external loads on supports of underground equipment

SOURCE: Vsesoyuznaya konferentsiya po polarizatsionno-opticheskomu metodu issledovaniya napryazheniy. 5th, Leningrad, 1964. Polarizatsionno-opticheskiy metod issledovaniya napryazheniy (Polarizing-optical method of investigating stresses); trudy konferentsii. Leningrad, Izd-vo Leningr. univ., 1966, 254-260

TOPIC TAGS: photoelasticity, stress analysis, pressure transducer, structural engineering, epoxy plastic, ~~underground facility~~

ABSTRACT: Photoelastic strips (transducers) made of ED6-M epoxy were used to study the stress conditions on underground equipment supports during operations. Rectangular transducers 50 x 25 x 2 mm, 40 x 20 x 2 mm, and discs of 30 mm diameter were glued at different locations. The best glue compositions were given along with the optimum curing conditions. The ED6-M epoxy had an elastic modulus of 30,000 kg/cm², a Poisson ratio of 0.37, and a sensitivity which allowed deformations as low as 2·10⁻⁵ to be measured. Stresses were measured from the values of birefracton. An equation

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ACC NR: AT7002110

was given for the difference in principle stresses $\sigma_1 - \sigma_2$ as a function of the relative change in the light path, thickness of the transducer, optical stress coefficient of the transducer material, and the elastic constants of the structure. A portable polariscope which was used in measuring the changes in light path was shown. A photograph was given showing the locations of the transducers on different supports of underground digging equipment of the M-81 and MKP type. Axial loads and bending moments were determined at these locations. The analysis showed that the load in the lower elements of the supports varied between 3.5 and 5.5 tons. The load on the arms was 8.7 tons corresponding to a stress of 2.9 tons/m². The stress along the frame of the support varied widely, reaching as high as 16 kg/cm² near arm junctions. A schematic drawing was shown of the locations of photoelastic transducers along the mechanized supports of the MKP. The stress profile along the roof of the MKP showed that the stress exceeded 15 tons/m² at one location. This technique could be used to measure absolute or relative stresses in supports or surrounding mountain rock. Orig. art. has: 4 figures, 2 formulas.

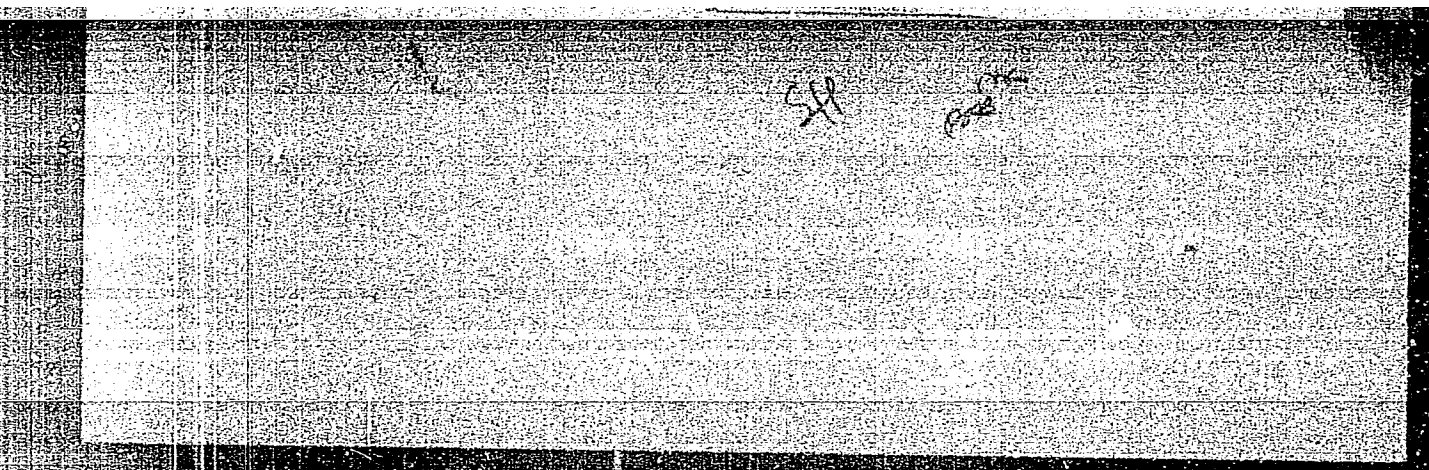
SUB CODE: 13,11/ SUBM DATE: 14Jun66/ ORIG REF: 003

Card 2/2

INVESTIGATION OF THE PARALACHSIS OF CERTAIN
SUBSTITUTED PHENOLS. G. G. GILBERT AND L. M. MONTGOMERY
Dokl. Akad. Nauk SSSR, Vol. 94, No. 9, 225-4 (1954) (Russian)
Curves were obtained for the variation of $\log k_1$ and $\log k_2$ with tem-
perature for 1000 hours, velocity, and (2) fitted curves for $\log k_1$ and
log k_2 with $\log k_1$ and $\log k_2$ for the reaction for the reaction k_1 and k_2
temperature. It is concluded that the reaction is a first-order reaction
with respect to the reactant. A similar result has been found earlier
(Abstr. 3562 (1953) for methyl ketone). At higher temperatures
the $\log k_1$ curve is found to be very close to a hyperbola and it
is suggested that the Neel law (Abstr. 3562 (1953) has no valid
conclusion.

"APPROVED FOR RELEASE: 03/13/2001

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APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135020019-9"

MOLODTSOVA, L.V.; SIROTA, N.N.

Electric conductivity and magnetic properties of magnesium-manganese
ferrites containing 43 and 45% Fe_2O_3 . Dokl. AN BSSR 3 no.8:336-337
Ag '59. (MIRA 12:11)

(Ferrites--Electric properties)

MOLODTSOVA, L.V.; SIROTA, N.N.

Pulse response of magnesium-manganese ferrite cores containing 43 per cent Fe_2O_3 . Dokl. AN BSSR 3 no. 11:440-441 N '59. (MIRA 13:4)

(Ferrites--Electric properties)

24(3, 6)

SOV/170-59-6-19/20

AUTHORS: Sirota, N.N., Molodtsova, L.V.TITLE: Investigation of Magnesium-Manganese Ferrites Containing 40% Fe_2O_3

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 6, pp 116-120 (USSR)

ABSTRACT: In view of considerable technical importance of magnesium-manganese ferrites and insufficient studies of their properties, the authors undertook this attempt to investigate the changes in their magnetic characteristics due to changes in the MgO/MnO ratio under constant Fe_2O_3 content. Magnesium oxide, commercial iron oxide and manganese carbonate were used as initial materials whose relative concentration in various ferrites investigated is given in Table 1. Changes in specific electric resistance, coercive force, maximum and residual induction in dependence on the composition of the specimens are shown in Figure 1; changes in the values of Curie point, coefficient of the square shape of hysteresis loops, initial permeability and the area of hysteresis loops in dependence on composition are shown in Figure 2, and changes of induction in dependence on temperature in a field of 8 oersted are shown in Figure 3. Of considerable

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SOV/170-59-6-19/20

Investigation of Magnesium-Manganese Ferrites Containing 40% Fe_2O_3

interest is a peak in the curve of hysteresis loop areas at 20% concentration of MnO in Figure 2. Various shapes of hysteresis loops are shown in Figure 4. The authors thank A.I. Gur'yanova for assistance in preparing the specimens.

There are 4 graphs, 2 tables and 8 American references.

ASSOCIATION: Institut tsvetnykh metallov i zolota im. M.I. Kalinina (Institute of Non-Ferrous Metals and Gold imeni M.I. Kalinin), Moscow;
Otdel fiziki tverdogo tela i poluprovodnikov AN BSSR (Department of Physics of Solids and Semiconductors of the AS Belorussian SSR), Minsk.

Card 2/2

S/031/61/000/019/004/085
B101/B110

247000

AUTHORS: Molodtsova, L. V., Sirota, N. N.

TITLE: Study of the effect of the composition of magnesium-manganese ferrites on their properties

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1961, 31, abstract 19B228 (Sb. "Ferrity. Fiz. i fiz.-khim. svoystva", Minsk, AN BSSR, 1960, 164 - 169)

TEXT: The authors determined the Curie points and studied the magnetic properties, the hysteresis, and the resistivity of mutual solid solutions of Mg and Mn ferrites with stoichiometric composition as well as of ferrites with an insufficient content of iron oxide regarding the stoichiometric composition. [Abstracter's note: Complete translation.]

Card 1/1

MOLODTSOVA, M.A.

~~Greater care in protecting labor and applying safety techniques.~~
Gor.zhur. no.12:50-51 D '56. (MLRA 10:1)

I. Glavrudu Ministerstva chernoy metallurgii SSSR.
(Metallurgical plants--Safety measures) (Metalworkers--Diseases
and hygiene)

BOLODTSOVA, F. F., KOSOLOVA, G. N., BEZDONOVA, A. A., and LUKSKAYA, B. N.

Report of some facts of spontaneous transition of *B. pestis* into *B. pseudotuberculosis rodentium*. Vest. Microbiol., Epidemiol. & Parasitol. 15, No 2, '36.

RESHETIN, N.I., prof.; MOLODTSOVA, S.V., inzh.; MORILOV, A.A., inzh.

Investigation of a circulation system with U-shaped pipes.
Izv.vys.ucheb.zav.; energ. 2 no.6:88-92 Ja '59.
(MIRA 13:2)

I. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova. Pred-
stavlena kafedroy prouteploenergetiki.
(Boilers)

S/073/60/026/004/017/018/XX
B023/B064

AUTHORS: Muzyka, I. D. and Melodtsova, V. A.
TITLE: Partition of Elements by the Method of the Complex Forming
Chromatography
PERIODICAL: Ukrainskiy khimicheskiy zhurnal, 1960, Vol. 26, No. 4,
pp. 535-539

TEXT: With reference to the published data (Refs. 1-6), the authors study the problem of the removal of iron-, nickel-, and cobalt microimpurities from the solutions of the sulfuric acid zinc- and cadmium salts in media into which no acetate buffers had been introduced. Two types of columns were used: a coal-dimethyl glyoxime column and a column consisting of coal, zinc oxide (cadmium-) and dimethyl glyoxime. The investigations were made under dynamic conditions with the use of chromatographic columns in the form of a glass tube, 8 mm in diameter and 25 cm high, with a glass filter molten in at the bottom. The solution was filtered through the column in vacuo at a flow rate of 100 ml/cm² per hour. Table 1 and Figs. 1-4 give the results. The table shows data on the sorption of copper, iron, nickel and cobalt (in mg/g coal) in a column consisting of active
Card 1/2 ✓

Partition of Elements by the Method of the
Complex Forming Chromatography

S/073/60/026/004/017/018/XX
B023/B064

coal, in the presence of Fe, Cu, Ni, or Co in zinc sulfate solutions (20 g/l Zn). As compared to Cu, the coal shows a maximum sorption capacity, iron ranks second; nickel and cobalt are less sorbed. Fig. 1 shows the copper adsorption from the $ZnSO_4$ solution in dependence on the composition of the column: on pure coal, on a coal-dimethyl glyoxime column (C-H₂Dm) (Dm = dimethyl glyoxime), on a coal and zinc (C - ZnO) column, and on a column consisting of coal, dimethyl glyoxime, and zinc oxide (C - H₂Dm - ZnO). Thus, it becomes evident that the sorption of copper is characterized by a linear dependence. Fig. 2 shows the adsorption of trivalent iron under similar conditions. Fig. 3 shows the experimental results after separating the system $Zn^{2+} - Ni^{2+}$ in the columns under conditions similar to those for copper and iron. The removal of nickel from the $ZnSO_4$ solutions in the coal-dimethyl glyoxime column is characterized by a non-linear function. The nickel adsorption in the C-ZnO column is approximately as great as on pure coal. An addition of ZnO to the coal-dimethyl glyoxime mixture somewhat increases the capacity of the column with respect to nickel, however, only at small amounts of zinc oxide. A further increase of the ZnO content exerts no effect upon the capacity of the column with

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Partition of Elements by the Method of the
Complex Forming Chromatography

S/073/60/026/004/017/018/XX
B023/B064

respect to nickel (Fig. 3, Curve 2). Fig. 4 shows the sorption of cobalt on the coal-dimethyl glyoxime column. The capacity of the column with respect to cobalt is insufficient. The increase of the H_2Dm content in the sorbent hardly changes the capacity of the column. An introduction of ZnO into the $C-H_2Dm$ column increases its capacity only slightly with respect to cobalt. Further experiments were conducted on the basis of the experimental results to separate impurities of Ni, Cu, Fe(III), and Co in the columns of $C-H_2Dm-ZnO$ type in the presence of metal impurities in the solution. In conclusion, the authors find that for a simultaneous removal of Fe^{3+} , Cu^{2+} , and Ni^{2+} impurities from the $ZnSO_4$ and $CdSO_4$ solutions in the presence of acetate buffers, it is more convenient to apply an adsorbent which apart from coal and glyoxime also contains a metal oxide. There are 4 figures, 1 table, and 6 Soviet references.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR
(Institute of General and Inorganic Chemistry AS UkrSSR)

SUBMITTED: January 27, 1959

Card 3/3

МОЛОДИЦОВА Е. П.

Fat content of the wool and skin tissues of raw sheepskins from different crossbreeds. A. N. Meshkov and E. P. Molodtsova. *Nauch.-Issledovatel. Trudy Razv. Izh. St. vater. Inst. Mekhovol Prom.* 1953, No. 4, 18-25; *Referat. Zhur. Khim.* 1955, No. 1981. — The fat contents in the wool and skin tissue of 14 crossbreeds and merinos were studied. M. Horsch

2

BOLODTSOVA-LARINA, A. I., Cand Med Sci -- (diss) "Effect of castration on the control of the period motor activity of the small intestine of dogs." Khar'kov, 1960. 14 pp; (Ministry of Public Health Ukrainian SSR, Khar'kov State medical Inst); 230 copies; free; list of author's work at end of text; (KL, 22-60, 144)

MOLODVAI, R.

Role of lithium in silicate chemistry. p. 345. Vol. 7, no. 9,
Sept. 1955. Epitoanyag.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, No. 2, Feb. 1956

SERGEYEV, V.; SMIRNOVA, K.; MOLODYAKOVA, A.

Fluorescence method for determining meat freshness. Obshchestv.
pit. no.6:24-25. Je. '63. (MIRA 16:12)

1. Tsentral'naya sanitarno-pishhevaya laboratoriya Lenannarpita,
Leningrad.

81805

S/137/60/000/04/08/015

24.7700

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 4, p. 236,
8381

AUTHORS: Kot, M.V., Molodyan, I.P.

TITLE: Electric Conductivity of Thin Layers of the Antimony-Selenium System

PERIODICAL: Uch. zap. Kishinevsk. un-t, 1959, Vol. 39, pp. 49 - 53

TEXT: The authors studied the electric resistance R of thin layers of the Sb-Se system, obtained in the form of wedges by the Vekshinskiy evaporation method on a glass backing at a pressure of 10^{-5} mm Hg. The evaporation conditions of the components were selected in such a manner that the concentration of atoms in the center of the backing (thickness of wedges $> 0.2 \mu$) corresponded to the Sb_2Se_3 compound. The electric resistance was measured in the dark by the voltmeter-ampèremeter method using an M-21 galvanometer with a sensitivity of $2 \cdot 10^{-10}$ amp/mm. It was established that in a vacuum the films had the properties of massive polycrystalline layers. In an air atmosphere and within a

Card 1/2

81805

SI/137/60/000/04/08/015

Electric Conductivity of Thin Layers of the Antimony-Selenium System

relative low temperature range, the properties of the films are distorted by surface levels. The activation energy of thermoelectrons in the high temperature range ($\Delta E = 1.12$ ev) does not coincide with the known "red photoeffect limit" (1.17 ev) determined from the spectral characteristic of photoconductivity.

S. S.

4

Card 2/2

32614
S/137/61/000/G11/070/123
A060/A101

18.7520

AUTHORS: Radautsan, S.I., Molodyan, I.P.

TITLE: Homogenization of alloys from the section $\text{InSb-In}_2\text{Te}_3$ of the indium-antimony-tellurium ternary system

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 24, abstract 11Zh144 ("Izv. Mold. fil. AN SSSR", 1960, no. 3(59), 37-47, Moldavian summary)

TEXT: The $\text{InSb-In}_2\text{Te}_3$ section of the In-Sb-Te system was investigated. The alloys were prepared from In, Sb, and Te of high purity by smelting in evacuated quartz ampoules in a crucible furnace with heating at a rate of 150-200°C per hour up to 600°C and soaking for one hour, 100°C per hour up to 750°C and soaking 1-2 hours, cooling down to 500°C at a rate of 50°C per hour, and thereupon cooling down to room temperature at a rate of 150°C per hour. The alloys were subjected to homogenization: a long annealing, annealing under pressure, and zone normalization. The investigation was carried out by the methods of microscopic, thermal and X-ray structure analyses, and by measuring the microhardness. It was established that in the section $\text{InSb-In}_2\text{Te}_3$ no solid substitu-

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S/137/61/000/011/070/123
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Homogenization of alloys ...

tion solutions are formed. The use of long annealing and annealing under pressure did not lead to change in the structure of the alloys. Under zone normalization of the alloy $3\text{InSb}\cdot\text{In}_2\text{Te}_3$, a chemical compound with the nominal formula In_4SbTe_3 was discovered, having NaCl structure and showing semiconductor characteristics. There are 25 references. X

Z. Rogachevskaya

[Abstracter's note: Complete translation]

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32613

S/137/61/000/011/069/123

A060/A101

18.7520

AUTHORS: Radautsar, S.I., Madan, I.A., Molodyan, I.P., Ivanova, R.A.

TITLE: Formation of solid solutions in the $\text{InP-In}_2\text{Se}_3$ system

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1961, 24, abstract 11Zh143. ("Izv. Mold. fil. AN SSSR", 1960, No 3(69), 107 - 109)

TEXT: The section $\text{InP-In}_2\text{Se}_3$ of the In-P-Se system was investigated. The alloys were prepared from P, In, and Se of ~99.98% purity, by the use of vibration stirring according to the method similar with the production of InP, and were studied by the X-ray structure and microscopic analyses and hardness measurement methods. It was established that the alloys with compositions close to that of InP (including $\text{InP-In}_2\text{Se}_3$) have a crystal lattice of the ZnS type. The alloy $9\text{InP-In}_2\text{Se}_3$ has one phase, alloys from $4\text{InP-In}_2\text{Se}_3$ to $\text{InP-In}_2\text{Se}_3$ are two-phase, but both phases have the ZnS structure. The observed decrease of the lattice parameter as the In_2Se_3 content increases testifies to the formation of solid solutions in these alloys. The alloy with composition $\text{InP-3In}_2\text{Se}_3$ crystallizes into a low-symmetry structure. There are 6 references.

Z. Rogachevskaya

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8/137/62/000/011/021/045
A052/A101AUTHORS: Molodyan, I. P., Radautsan, S. I., Madan, I. A.TITLE: Some structural and thermal investigations of In_4SbTe_3 compoundPERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1962, 18 - 19,
abstract 111140 ("Izv. AN MoldSSR", no. 10 (88), 1961, 91 - 94)

TEXT: $\text{In}_x\text{SbTe}_{3-x}$ compound and some alloys of the $\text{InSb}_x\text{Te}_{1-x}$ cross section were investigated by means of high-temperature X-ray and thermal analyses. The alloys were prepared from $\geq 99.99\%$ pure In, Sb and Te, each in evacuated quartz ampoules, with the application of vibrational stirring in the process of 7 - 10-hour holding at 800°C . After that the alloys were cooled to 400°C at a rate of 15 - 20 deg./hour. X-ray analysis was made at 20, 100, 200, 250, 300, 400, 500, 550, 575 and 585°C . It is established that In_4SbTe_3 compound dissociates in the process of heating and the degree of dissociation increases with temperature and holding time. The In_4SbTe_3 compound melts incongruently at $586 \pm 5^\circ\text{C}$. There are 7 references.

[Abstracter's note: Complete translation]

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Z. Rogachevskaya ✓

Concerning solid solutions based on indium antimonide in the system
indium-antimony-tellurium. I. P. Molodyan, S. I. Radautsan
(10 minutes).

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

ACCESSION NR: AP4041368

S/0048/64/028/006/1017/1022

AUTHOR: Molodyan, I.P.; Radautsan, S.I.

TITLE: Some homogeneous phases of indium antimonide-telluride [Report, Third Conference on Semiconductor Compounds held in Kishinev 16 to 21 Sep 1963]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.6, 1964, 1017-1022

TOPIC TAGS: solid solution, semiconductor, indium antimonide, indium compound

ABSTRACT: The following systems were investigated: $(\text{InSb})_{2x}(\text{In}_2\text{Te})_{1-x}$, $(\text{InSb})_x(\text{InTe})_{1-x}$, $(\text{InSb})_{3x}(\text{In}_2\text{Te}_3)_{1-x}$, $(\text{InSb})_{7x}(\text{In}_4\text{Te}_7)_{1-x}$, and $(\text{InSb})_{5x}(\text{In}_2\text{Te}_5)_{1-x}$. The materials were produced by fusing the elements in a manner described elsewhere (S.I. Radautsan and I.P. Molodyan, Izv. Mold. filiala AN SSSR No.3 (69) 37, 1960). All these systems formed solid solutions for $1 \geq x \geq 0.85$ and none formed solid solutions for $0.80 \geq x$. The solutions all had the ZnS structure with a lattice constant somewhat less than that of InSb. The nature of these solutions is discussed, and it is suggested that similar large regions of solubility may occur in other AIII-BV-CVI systems. The $(\text{InSb})_x(\text{InTe})_{1-x}$ system was investigated in more detail than the others, and the limit of solubility was found to occur for x between 0.85 and 0.83. The ex-

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istence of the compound In_4SbTe_3 was established; for $x = 0.25$ the system formed a single phase with the NaCl structure, although two phases were present for $x = 0.23$ and $x = 0.27$. The conductivity, Hall constant, and thermal emf of a number of materials of the $(\text{InSb})_x(\text{InTe})_{1-x}$ system were measured at temperatures from 80 to 650°K. The conductivities and Hall constants of the solid solutions were nearly independent of temperature, and the thermal emf's increased slowly with increasing temperature. The conduction electron concentration increased sharply from $7 \times 10^{16} \text{ cm}^{-3}$ for $x = 1$ (InSb) to $9 \times 10^{18} \text{ cm}^{-3}$ for $x = 0.999$ and remained nearly constant at that value as x was reduced to 0.80 (there was no marked change in the electrical properties at the appearance of the second phase). The electron mobility decreased somewhat less sharply from approximately $48\,000 \text{ cm}^2/\text{V sec}$ for $x = 1$ to $1500 \text{ cm}^2/\text{V sec}$ for $x = 0.97$ and also remained nearly constant as x was further decreased. All the alloys of the $(\text{InSb})_x(\text{InTe})_{1-x}$ system with $1 \geq x \geq 0.27$ were found to exhibit n-type conduction, and those with $0.25 \geq x$, p-type. Thus, a transition from p- to n-type conduction can be achieved in these alloys by altering the composition. The authors express their sincere gratitude to Prof. N. A. Goryunova and Prof. D. N. Nasedov for their great interest in the work and their valuable advice proffered during discussions of it, and also to M. M. Markus and L. M. Manovts of the Institute of Physics and Mathematics of the Academy of Sciences of the Moldavian SSR for their

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ACCESSION NR: AP4041368

participation in the experimental work." Orig.art.has: 4 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: SS, IC

NR REF SOV: 011

OTHER: 005

Card 3/3

CLASSIFICATION: DTIC(R)/NSA(C)/NSF(B) RAZN(C) RIR/JD/RLC
ACCESSION NO: A7404557

S/0000/64 000/000/0134/0142

AUTHOR: Lyalikov, Yu. S.; Kobenskaya, L. S.; Molodtsov, L. P.; ~~Antonov, B. I.~~
(Candidate of Physical-Mathematical Sciences)

TITLE: Microchemical phase analysis of some semiconductor alloys of the system
In-Sb-Te.

SOURCE: Zh. fizich. i matematich. issledovaniya po poluprovod-
nikam, novyye poluprovodnikovyye materialy (Semiconductor research; new semi-
conductor materials), Kishinev, Gos. izd-vo kartya Moldovnyaske, 1964, 134-142

TOPIC: phase analysis; microchemical phase analysis; semiconductor alloy;
In-Sb-Te alloy; potentiometric titration; x-ray structural analysis; micro-
analysis; microstructure

ABSTRACT: Microanalysis of the phase composition of In-Sb-Te alloys was carried
out by potentiometric titration methods; antimony, tellurium, and indium were de-
termined using methods previously described. Microsamples of the different
phases of this system were obtained with a drilling attachment to a microanalyzer
apparatus, drilling depth 0.1 mm in diameter. The phase samples obtained in this
manner were not contaminated by other phases provided the drilling was not deeper
than the phase diameter of 0.2 mm. A comparison of the single phase alloy In3SbTe2

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with the primary compound in site, showed that the error of the top was 2% (abs.). Polar calculation by chemical analysis confirmed the three-phase alloy in Sn_3 . In the only the gray and light gray phases could be analyzed microchemically. Results indicated that the gray phase contained Al, revealed the solid solution of Al_3Sn , while the light gray phase and Al_3Sn phase. It was shown that Al_3Sn did not contain Fe and Sn . Points obtained after core leveling of the alloy were also analyzed. The beginning, middle and end of the phase microanalysis, lattice type and lattice constant. Microanalysis showed that the ratio of the elements in the beginning of the alloy was close to that in the primary compound in Sn_3 . Analysis of the middle and final section corresponding to Al_3Sn and also in Sn_3 . These data agree with micro and x-ray structural analysis. Original has 5 figures and 3 tables.

element determination analysis confirmed the was then investigated be analyzed microchemically. Three elements and revealed only in phase revealed only in contain its original ling of the alloy end and of the Ingot lattice constant. Micro the beginning of the Analysis of the middle the final section corresponding to Al_3Sn and Sn_3 . These data agree with figures and 3 tables.

ASSOCIATION: Institute of Materials, USSR (Inst. Mathematics, Ak. No. USSR)

Institute of Physics and

SUBMITTED: (Dec 63) ENCL: 00
2/4 NO REL SOV: 008 OTHER: 000

SUB CODE: 00

ACCESSION NO: AT4044563 3/000/04/000/000/0143/0152

AUTHOR: Molodtsov, I.P., Radutsan, B.L. (Candidate of physico-mathematical sciences)

TITLE: Solid solutions based on InSb in the system In-Sb-Te

SOURCE: AN MOJSEV, Institut fiziki i matematiki, Institutovaniya po poluprovodnikam, new semiconductor materials, Kishinev, Gos. Izd-vo Kariera Moldovenyaska, 1984, 143-152

TOPIC TAGS: Indium antimonide, Indium telluride, Indium semiconductor, Indium solid solution, Indium Alloy, antimony alloy, tellurium alloy

ABSTRACT: In continuation of earlier work on the (InSb)_x(In₂Te)_{1-x} and (InSb)_x(InTe)_{1-x} sections of the In-Sb-Te system, the authors studied the possible existence of broad regions of homogeneity near InSb. The present paper reports the results of physicochemical, mechanical, and electrical studies on 14 alloys along the (InSb)_x(InTe)_{1-x} section with x varying from 0 to 1.0. Studies of the lattice structure, debyegram and microhardness showed homogeneous solid solutions in the range from x = 1 to x = 0.85 (ZnS type lattice, microhardness increasing from 117 to 230), as well as at x = 0.5 (NaCl type lattice, microhardness of 124); pure InSb also had a ZnS type lattice, while pure InTe had a NaCl type

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1. 366-45

ACCESSION NR: AT4044558

The Hall effect and thermoelectromotive forces were found to decrease sharply with the electrical conductivity increased sharply, on the addition of small amounts of In₂Te₃ to the solid solutions up to the solubility limit. There was little effect of temperature on any of these three variables. Preliminary data on the solid solutions along the sections (InSb)_{1-x}(In₂Te₃)_x confirmed the existence of broad areas of homogeneity. Orig.

to decrease sharply on the addition of small amounts of In₂Te₃ to the solid solutions up to the solubility limit. Preliminary data on the solid solutions along the sections (InSb)_{1-x}(In₂Te₃)_x confirmed the existence of broad areas of homogeneity. Orig.

ASSOCIATION: Institutul de Fizica si Matematica, AN Mol. SSR (Institute of Physics and Mathematics, AN Mol. SSR)

SUBMITTED: 10 Dec 63 ENCL: 00 SUB CODE: MM, 80

NO REF SOV: 000 OTHER: 000

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L 9035-66 EWP(m)/ETC/EWG(m)/T/EWA(c)/EWP(b)/EWP(w)/EWP(t) IJF(c) RDW/JD
ACCESSION NR: AR5012173 UR/0031/65/000/005/B079/B079

SOURCE: Ref. zh. Khimiya, Abs. 5B544

52
B

AUTHOR: Molodtsov, I. B.

TITLE: Electrical properties of $(\text{InSb})_x-(\text{InTe})_{1-x}$ section alloys

CITED SOURCE: Tr. 3-y konferentsii molodykh uchenykh Moldavii. Yestestv.-tekh. n. Vyp. 1. Kishinev, Kartya Moldovenyaske, 1964, 33

TOPIC TAGS: Indium, ternary alloy, indium alloy, antimonide, telluride, temperature dependence, alloy, ELECTRIC PROPERTY, METAL PHASE SYSTEM

TRANSLATION: The temperature dependence of electroconductivity, the differential thermoelectromotive force, and Hall coefficient at from 20 to 350° were determined for the section $(\text{InSb})_x-(\text{InTe})_{1-x}$ in the ternary system In-Sb-Te with changes in the compound ratio. The alloys were first studied radiographically and metallographically. In the $0.85 < x < 1.0$ region solutions with a structure of zinc blend were formed. The alloy with $x = 0.25$ is single-phased and corresponds to the In_4SbTe_3 compound with rock salt structure. The $0.25 < x < 0.85$ region is two phased. In

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the $0 < x < 0.25$ region two phases were found: $\text{In}_x\text{Sb}_{1-x}\text{Te}_2$ and InTe . Alloys with $x > 0.25$ are electroconductive and the ones with $x < 0.25$ have a p-type electroconductivity. R. Pakhomov.

SUB CODE: 11, 20

ENCL. 00

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