YELISEYEV, A. A.

"The First Russian Electrical Engineer--V. V. Petrov", Elektrichestvo, No. 8, 1948.

Cand. Physico-Mathematical Sci. Mbr., Comm. on Hist. Acad. Sci., -c1948-.

YELISEYEV, A. A. PA 152T16

USSR/Engineering - Laboratory, Organization
Industrial Planning

Oct 49

"Several Problems in Planning Plant Laboratories," A. A. Yeliseyev, A. N. Chervyakov, Cen Sci Res Inst of Ferrous Metal, 3 3/4 pp

"Zavod Lab" Vol XV, No 10

Outlines general measures for use in overcoming deficiencies in plant laboratory planning. An appeal for standardization in organization is one of the main themes. Also suggests the Tech Control Sec be consulted in matters of production control.

152T16

YELISEYEV, A.A.; MURZINM, A.M.; SAMARIN, A.M., chlen-korrespondent Akademii nauk SSSR.

An outstanding Russian physicist of the 18th century. Two hundredth anniversary of the death of G.W.Richmann. Izv.AN SSSR Otd.tekh.nauk no.8:1166-1174 Ag '53. (MLRA 6:8)

1. Akademiya nauk SSSR (for Samarin).
(Richmann, Georg Wilhelm, 1711-1753)

YELISEYEV, A.A.

LOMONOSOV, M.V.; VAVILOV, S.I., akademik, redaktor; KRAVETS, T.P., redaktor; VINOGRADOV, V.V., adademik, redaktor; TOPCHIYEV, A.V., akademik, redaktor; BARKHUDAROV, S.G., redaktor; ANDREYEV, A.I., redaktor; BLOK, G.P., redaktor; YELISEYEV, A.A., redaktor; KNYAZEV, G.A., redaktor; CHENAKAL, V.L.; ~~PEVZNER, R.S.;~~ tekhnicheskiy redaktor

[Complete collected works] Polnoe sobranie sochinenii. Moskva, Izdvo Akademii nauk SSSR. Vol.4.[Works on physics, astronomy, and instrument construction, 1744-1765] Trudy po fizike, astronomii i priborostroeniiu 1744-1765 gg. 1955. 830 p. (MLRA 8:6)

1. Chlen-korrespondent Akademii nauk SSSR (for Kravets, Barkhudarov). (Physics) (Astronomy) (Instruments)

YELISEYEV, A.A.

AID P - 3465

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 32/32

Authors : Goloushkin, V. N., and A. A. Yeliseyev, Kands. of Phys. Math. Sci., Leningrad

Title : Book review: Pavel Nikolayevich Yablochkov. Trudy. Dokumenty. Materialy. Works. Documents. Materials. Compiler Prof. L. D. Bel'kind. Chief Editor Corr. Memb. Ac. Sc. USSR, M. A. Shatelen, 463 pp. Academy of Sciences, USSR.

Periodical : Elektrichestvo, 10, 87-88, O 1955

Abstract : The authors discuss the contents of the book, and give a highly favorable appraisal.

Institution : None

Submitted : No date

RICHMANN, Georg Wilhelm; YELISEYEV, A.A., redaktor; ZUBOV, V.P., redaktor; MURZIN, A.M., redaktor; GRIGOR'IAN, A.T., redaktor; KLYAUS, Ye.M., redaktor izdatel'stva; SOMOROV, B.A., tekhnicheskiy redaktor

[Works on physics] Trudy po fizike. Moskva, Izd-vo Akademii nauk SSSR, 1956. 710 p. (MLRA 9:10)
(Physics)

GOLOUSHKIN, V.N., kandidat fiziko-matematicheskikh nauk (Leningrad);
YELISEYEV, A.A., kandidat fiziko-matematicheskikh nauk (Leningrad).

The book "History of technology" by L.D. Bel'kind, I.IA. Konfederatov, IA.A. Shneiberg. Reviewed by V.N. Goloushkin, A.A. Eliseev. Elektrichestvo no.5:95-96 My '57. (MLRA 10:6)
(Electric power) (Bel'kind, L.D.) (Konfederatov, I.IA.)
(Shneiberg, IA.A.)

YELISEYEV, A.A.

PA - 3119

AUTHOR: Cand.of phys. math. sciences V.N. GOLOUSHKIN and A.A.YELISEYEV (Leningrad).

TITLE: "The History of Technical Science" L.D. Bel'kind, I.Ya. Konfederatov, Ya. A. Shneyberg. (L.D. Bel'kind, I.Ya. Konfederatov, Ya.A. Shneyberg. Istoriya tekhniki. Russian).

PERIODICAL: Elektrichestvo, 1957, Nr 5, pp 95 - 96 (U.S.S.R.)

Received: 6 / 1957 Reviewed: 7 / 1957

ABSTRACT: A textbook for universities. Chapter 1 - 3, a survey of the development of technical science from primitive to feudal times. Chapter 4, the beginning of heat energetics. Chapter 5, a short summary of the development of the science of electricity and magnetism from the early beginnings to the end of the eighteenth century. Chapter 6, the causes, characteristics and consequences of the Industrial Revolution in the last third of the eighteenth century. Chapter 7, the development of thermoenergetics after the beginning of the Industrial Revolution to the 1870's. Chapter 8 - 10, the discovery of the electric current and the development of electro-technical science up to the 1870's. Chapter 11, the development of machine construction, metallurgy, transportation system, and chemical technology in the first half of the nineteenth century. Chapter 12, the development of electrotechnics in the 1870's and '80's. Chapter 13, the development of the most

Card 1/2

PA - 3119

"The History of Technical Science", L.D. Bel'kind, I.Ya.Konfederatov, Ya. A. Shneyberg.

important branches of the technical sciences in the second half of the nineteenth century. Chapter 14, the history of the origins of internal combustion machnines, gas and water turbines. Chapter 15, the history of three phase current. Chapter 16, the origin of the sciences of radio and electronics. Chapter 17, the beginning of electrification.

The second part of the textbook, which handles the twentieth century, is still in preparation.

ASSOCIATION:Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress

Card 2/2

YELISEYEV, A.A.; GOLOUSHKIN, V.N.; KAMENETSKIY, M.O., kand.tekhn.nauk, nauchnyy red.; VOROB'YEV, G.S., red.izd-va; GURDZHIYEVA, A.M., tekhn.red.

[Development of electric engineering in the U.S.S.R.] Razvitie elektrotekhniki v SSSR. Leningrad, Ob-vo po rasprostraneniiu polit. i nauchn.znanii RSFSR, Leningr.otd-nie, 1959. 45 p. (MIRA 13:4)

(Electric engineering)

YELISEYEV, Aleksey Aleksandrovich; SHNEYBERG, Ya.A., red.; SOBOLEVA, . . ., Ye.M., tekhn.red.

[Origin of the science of electricity in Russia; studies of M.V.Lomonosov and G.V.Rikhman] Vozniknovenie nauki ob elektrichestve v Rossii; issledovaniia M.V.Lomonosova i G.V.Rikhmana. Moskva, Gos.energ.izd-vo, 1960. 270 p. (MIRA 14:1)
(Electricity)

S/078/60/005/009/036/040/XX
B017/B058

AUTHORS: Kirakosyan, A. K., Yeliseyev, A. A.

TITLE: The Interaction of Cadmium Sulfate With Ammonia in the Aqueous Medium

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 9, pp. 2095 - 2101

TEXT: The properties of basic cadmium sulfates, especially those containing ammonia, were studied by thermal- and X-ray phase analysis. The composition of the basic cadmium sulfates studied is given in Table 1 and the thermograms of these compounds are graphically illustrated in Fig. 1. Two types of basic cadmium sulfates were isolated: $CdSO_4 \cdot n\,Cd(OH)_2 \cdot x\,H_2O$ and $CdSO_4 \cdot n\,Cd(OH)_2 \cdot s\,NH_3 \cdot x\,H_2O$. With a change of the basicity, water- and ammonia content in the composition of these compounds, a change of their thermal stability and the parameters of the crystal lattices also occurs. The basic cadmium sulfates change their color from white to brown through thermal treatment at temperatures above 150°C. The thermal decomposition

Card 1/2

of ammonia-containing basic cadmium sulfates differs from that of ammonia-free basic cadmium sulfates. The ammonia-containing basic cadmium sulfates lose the entire water at 400° to 450°C. The X-ray phase analyses proved that all basic cadmium sulfates consist of one phase. The roentgenograms of the basic cadmium sulfates are shown in Fig. 2 and those of the ammonia-containing basic cadmium sulfates in Fig. 3. The results of the X-ray phase analysis confirm the results of thermal studies. There are 3 figures, 1 table, and 6 references: 5 Soviet and 1 Swiss.

SUBMITTED: June 4, 1959

S/020/60/135/003/022/039
B019/B077

AUTHORS: Gliki, N. V., Yeliseyev, A. A., and Marchenko, N. M.

TITLE: The Forming of Ice Single Crystals by Freezing an Undercooled Water Drop

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 3, pp. 591-594

TEXT: The authors investigated the freezing of undercooled water drops containing different chemical compounds in suspension. They used polarized light and payed special attention to the morphology of the ice crystals. The drops were attached to a glass fiber and put into an undercooled chamber. It was found that there are two types of solidification. At considerable undercooling, the air dissolved in the drop cannot escape fast enough, and the crystal formed is non-transparent. A transparent crystal is formed at weaker undercooling. Many tests showed an increase of the probability for the growth of a single crystal at a certain temperature with decreasing dimensions of the drop. An increase of the solidification temperature of drops with certain sizes had the same effect. The optical

The Forming of Ice Single Crystals by Freezing an Undercooled Water Drop

S/020/60/135/003/022/039
B019/B077

axis of the crystals is usually not oriented. The optical axis shows a tendency to a horizontal position in larger drops (>1 mm). During the growth of ice single crystals, a change of the drop shape was noticed, and the geometrical axis of the single crystal always coincided with the optical axis. The ellipsoid form of the single crystals was very stable during vaporization. Conditions are discussed where these forms of the single crystal can be strengthened or weakened. The influence of humidity on the crystal growth is also studied. Further tests about the morphology and the growth conditions are announced. A. V. Shubnikov is mentioned. There are 2 figures and 4 references: 2 Soviet, 1 British, and 1 US.

ASSOCIATION: Institut kristallografii Akademii nauk SSSR (Institute of Crystallography, Academy of Sciences, USSR)

PRESENTED: April 20, 1960, by A. V. Shubnikov, Academician

SUBMITTED: April 11, 1960

Card 2/2

YELISEYEV, Aleksey Aleksandrovich; SHNEYBERG, Yakov Abramovich; FILIPPOV, S.M., red.; SEVRYUKOV, P.A., tekhn. red.

[V.V.Petrov; on the 200th anniversary of his birth]V.V.Petrov; k 200-letiiu so dnia rozhdeniia. Kursk, Kurskoe knizhnoe izd-vo, 1961. 78 p. (MIRA 15:8)
(Petrov, Vasilii Vladimirovich, 1761-1834)

YELISEYEV, Aleksey Aleksandrovich; LITLNETSKIY, Izot Borisovich; GRIGOROVA, V.A., red.; PLAKSHE, L.Yu., tekh. red.

[M.V.Lomonosov as the first Russian physicist] M.V.Lomonosov pervyi russkii fizik. Moskva, Gos.izd-vo fiziko-matem. lit-ry, 1961. 289 p. (MIRA 15:2)
(Lomonosov, Mikhail Vasil'yevich, 1711-1765)
(Physics)

S/576/61/000/000/020/020
E021/E120

AUTHORS: Kuznetsov, V.G., Yeliseyev, A.A., Shpak, Z.S., Palkina, K.K., Sokolova, M.A., and Dmitriyev, A.V.

TITLE: Study of the phase diagram and the electrical conductivity of the phases of the Ni-S, Ni-Se and Co-S systems

SOURCE: Soveshchaniye po poluprovodnikovym materialam, 4th. Voprosy metallurgii i fiziki poluprovodnikov; poluprovodnikovyye soyedineniya i tverdyye splavy. Trudy soveshchaniya. Moscow, Izd.-vo AN SSSR, 1961. Akademiya nauk SSSR. Institut metallurgii imeni A.A. Baykova. Fiziko-tekhnicheskiy institut. 159-173.

TEXT: Information on the phase diagram and electrical conductivity of the phases of the systems Ni-S, Ni-Se and Co-S is important for the technology of extraction of nickel, cobalt, selenium and sulphur from their ores and also for the search for new semiconducting materials. The present investigation was therefore carried out. Detailed X-ray analysis, differential thermal analysis and measurements of density were carried out.

Card 1/4

Study of the phase diagram and the ...

Electrical conductivity in the range 20 to 440 °C was measured, and in general showed a steady fall as the temperature increased. The results showed that in solid solutions based on β-NiSe or β-CoS with a defect nickel arsenide structure and a content of selenium or sulphur greater than 51.6 atomic %, a superlattice is formed. This is explained by ordering of defects in the lattice in Ni or Co positions. The following structures were found to exist: $Ni_4S_{3\pm x}$ - hexagonal with parameters at 650° of a = 5.43 ± 0.01kX, c = 12.02 ± 0.01kX and c/a 2.213; Ni_9S_8 - hexagonal with a = 12.10 ± 0.1kX, c = 11.28 ± 0.01kX, c/a = 0.932 in a lattice of six Ni_9S_8 groups; Ni_6Se_5 - hexagonal with a = 3.77 ± 0.01kX, c = 15.86 ± 0.02kX, c/a = 4.202; $Ni_{21}Se_{20}$ - hexagonal with a = 7.95 ± 0.01kX, c = 9.76 ± 0.01kX, c/a = 1.227; β Ni_3Se_{20} - tetragonal with parameters at 650 °C of a = 7.60 ± 0.01kX, c = 6.22 ± 0.01kX, c/a = 0.818.

It was shown that NiS_2 has semiconducting properties. The phases β NiS, β NiSe and β CoS with a nickel-arsenide structure and β CoS, β NiSe with a nickel-arsenide superlattice, and also

Study of the phase diagram and the ... S/576/61/000/000/020/020
E021/E120

α NiS with a millerite-type structure, behave below 300 °C as semi-metals, but β' CoS with 55.22 at.% S and β' NiSe with 52.3 at.% Se have a tendency to semiconducting type of conductivity. The phases α Ni_3S_2, α Ni_3Se_2, Co_9S_8, $NiSe_2$ and mixtures of α Ni_3S_2 with Ni, α Ni_3Se_2 with Ni and Ni_6Se_5, Co_9S_8 with Co, have metallic conductivity. The c/a ratio is close to the ideal nickel-arsenide structure in the case of β NiS (c/a = 1.555) but the tendency to semiconducting properties is greater for β' CoS (c/a = 1.534) and β' NiSe (c/a = 1.463). This is a deviation from the prediction by W.B. Pearson (Ref.20: Canadian J. of Physics, 1957, v.35, 8, 886) that phases with nickel-arsenide structure would have semiconducting type of electrical conductivity. Detailed information is given on the limits of homogeneity and phase structure of Ni-S, Ni-Se and Co-S systems and also the inter-atomic distances in sulphides and selenides of nickel and cobalt selenide.

There are 2 figures, 2 tables and 32 references: 7 Soviet-bloc and 25 non-Soviet-bloc.

Card 3/4

Study of the phase diagram and the ... S/576/61/000/000/020/020
E021/E120

The four most recent English language references read as follows:

Ref. 7: T. Rosenqvist, J. Iron Steel Inst., 1954, v.176, 37.
Ref.16: M. Hansen. Constitution of Binary Alloys, 1958, 2nd publication.
Ref.20: W.B. Pearson, Canadian J. of Physics, 1957, v.35, 8, 886.
Ref.23: M.A. Peacock, Amer. Mineralog., 1947, v.32, 484.

Card 4/4

KUZNETSOV, V.G.; YELISEYEV, A.A.

X-ray examination for determining the boundaries of homogeneity and the nature of the β-NiS phase. Zhur.strukt.khim. 2 no.5: 578-584 S-O '61. (MIRA 14:11)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR.
(Nickel alloys) (Crystal lattices)

GLIKI, N.V.; YELISEYEV, A.A.; MARCHENKO, N.M.

Growth of spherical ice crystals. Kristallografiia 7 no.4:609-612 Jl-Ag '62. (MIRA 15:11)

1. Institut kristallografii AN SSSR.
(Ice crystals)

GLIKI, N.V.; YELISEYEV, A.A.

Effect of saturation and temperature on the kinteics of the development of initial forms of growth in an ice sphere. Kristallografiia 7 no.5:802-804 S-O '62. (MIRA 15:12)

1. Institut kristallografii AN SSSR.
(Ice crystals—Growth)

GLIKI, N.V.; YELISEYEV, A.A.; MARCHENKO, N.M.

Transformation of cloud drops into ice crystals. Dokl. AN SSSR 143 no.5:1087-1089 Ap '62. (MIRA 15:4)

1. Institut kristallografii AN SSSR. Predstavleno akademikom A.V.Shubnikovym.

(Ice crystals)

LEBEDEV, Petr Nikolayevich, akademik; KRAVTS, T.P., red.(1866-1912);
KAPTSOV, N.A., prof., red.; YELISEYEV, A.A., dots., red.;
BERKGAUT, V.G., red. izd-va; [illegible], tekhn. red.

[Collected works] Sobranie sochinenii. Moskva, Izd-vo AN SSSR, 1963. 434 p. (MIRA 16:9)

1. Chlen-korrespondent AN SSSR (for Kravts).
(Lebedev, Petr Nikolaevich, 1866-1912) (Physics)

Study of some semiconducting compounds and phases based on boron.
E. S. Medvedeva, A. A. Reshchikova, A. A. Yeliseyev, A. A. Babitsyna, G. D. Mitkina, Ya. Kh. Grinberg, Ye. V. Shorina.

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

Semiconducting compounds of lanthanides with selenium and tellurium.
Ye. I. Yarembash, A. A. Yelisseyeva, Ye. S. Vigileva, V. I. Kalitin.

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

KIRAKOSYAN, A.K.; YELISEYEV, A.A.

Basic zinc sulfates. Zhur.neorg.khim. 8 no.1:119-129 Ja '63.
(MIRA 16:5)

(Zinc sulfates)

L 11266-63 EWQ(q)/EWT(m)/BDS--AFFTC/ASD--JD

ACCESSION NR: AP3001230 S/0078/63/008/006/1542/1543 56

AUTHOR: Yarembash, Ye. I.; Vigileva, Ye. S.; Yeliseyev, A. A.; Antonova, L. I.

TITLE: Lanthanum tellurides

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 6, 1963, 1542-1543

TOPIC TAGS: lanthanum telluride, lanthanum reaction product, lanthanum—tellurium phase system, specific resistivity, thermal emf

ABSTRACT: Conditions for the formation of lanthanum tellurides have been studied, together with the phase composition of the products formed from the reaction of La and Te. The tellurides were synthesized by heating a mixture of finely powdered La and Te in the presence of a very small amount of iodine and also by the reaction of LaH_3 with Te vapor. Several phases, among them LaTe, La_2Te_3, and $LaTe_2$, were identified. X-ray analysis indicated the possible formation of two additional phases whose properties and compositions are not known. Compound LaTe crystallizes as an NaCl-type lattice with $a = 6.407 \pm 0.005$ kX, a value commensurate with data

Card 1/2

L 11266-63
ACCESSION NR: AP3001230

0

in the literature. The specific resistivity and thermal emf of compacted samples at room temperature were found to be $p = 1.5 \cdot 10^{5}$ ohm·cm and $\alpha = -40$ to -50 μv/deg for LaTe, $p = 4 \cdot 10^{2}$ ohm·cm and $\alpha = -20$ to -30 μv/deg for La_2Te_3, and for $p = 2.4 \cdot 10^{-1}$ ohm·cm and $\alpha = +15$ to $+20$ μv/deg for $LaTe_2$. The presence of a negative temperature coefficient of resistivity was established in all cases studied, and all compounds—with the exception of $LaTe_2$—were of n-type conductivity. Orig. art. has: 1 table.

ASSOCIATION: none

SUBMITTED: 21Jan63 DATE ACQ: 01Jul163 ENCL: 00

SUB CODE: CH NO REF SOV: 000 OTHER: 005

nh/Keb
Card 2/2

L 11263-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD S/0078/63/008/007/1654/1660
ACCESSION NR: AP3003476

AUTHOR: Slavnova, G. K.; Yeliseyev, A. A. 54

TITLE: X-ray analysis of indium-selenium alloys

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 7, 1963, 1654-1660

TOPIC TAGS: indium, selenium, indium-selenium system, x-ray diffraction analysis, powder method, phase diagram, In_2Se, InSe, α-In_2Se_3, β-In_2Se_3, In_6Se_7, phase boundary

ABSTRACT: An earlier investigation of the indium-selenium system (G. K. Sladkova et al. Zh. neorgan. khimii, 8, 153 (1963)) has been continued with the use of the x-ray diffraction powder method. The present study was undertaken to determine the phase composition and phase boundaries of the system and to supplement the phase diagram, shown in Fig. 1 of the Enclosure. On the basis of x-ray analysis and intensity and $\sin^2$ data, it was concluded that in the Se—In_2Se_3 region only the Se, α-In_2Se_3, and β-In_2Se_3 phases are present and that the interaction of Se with In_2Se_3 is eutectic in character. The latter conclusion is in agreement with thermal-analysis data previously reported. A new compound designated the X-phase-In_3Se_6 — was found to lie in the 54 to 55 at% Se range. X-ray analysis revealed

Card 1/2

L 11263-63

ACCESSION NR: AP3003476

the presence of InSe, In_2Se, and In in the InSe—In_2Se region. The presence of In indicates that these alloys are in a nonequilibrium state. In the In_2Se—In region, where segregation occurs, In_2Se was obtained by mechanical separation from the In-rich eutectic. The results of the x-ray analysis suggest the absence both of marked solubility of In and Se in the compounds existing in the system and of solid-solution regions between the compounds. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 12Dec62 DATE ACQ: 02Aug63 ENCL: 01

SUB CODE: CH NO REF SOV: 007 OTHER: 010

Card 2/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962530003-2"

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962530003-2"

AUTHOR Yeliseyev, A. A.; Kuznetsov, V. G.; Yarembash, Ye. I.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962530003-2"

ACCESSION NR: [illegible]

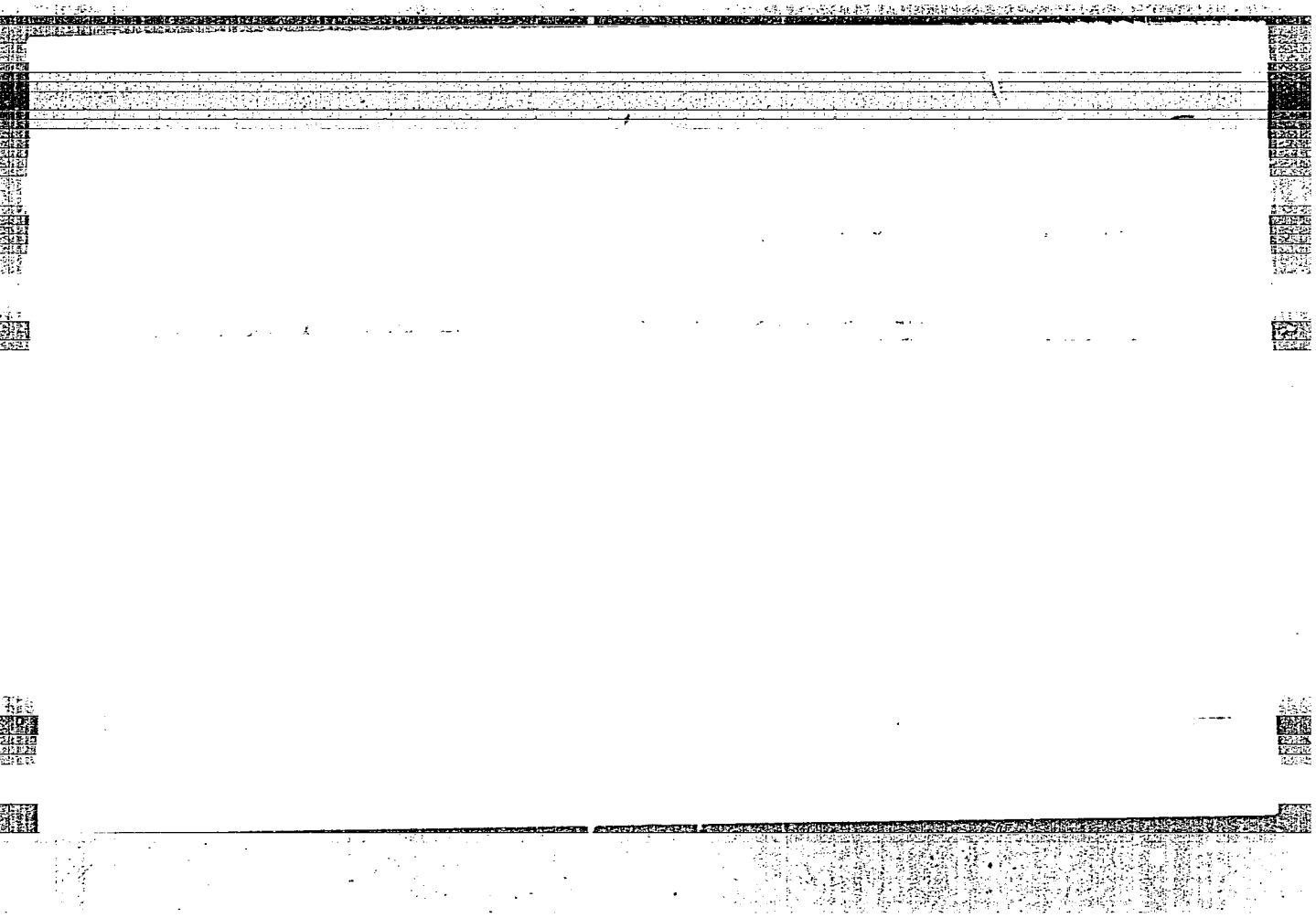
TITLE: X-ray investigation of lanthanum ditelluride

SOURCE: Zhurnal strukturnoy khimii, v. 5, no. 4, 1964, 641-642

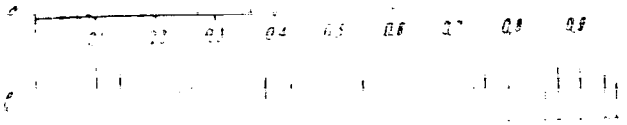
TOPIC TAGS: rare earth chalcogenide, lanthanum ditelluride, single crystal, x ray diffraction pattern

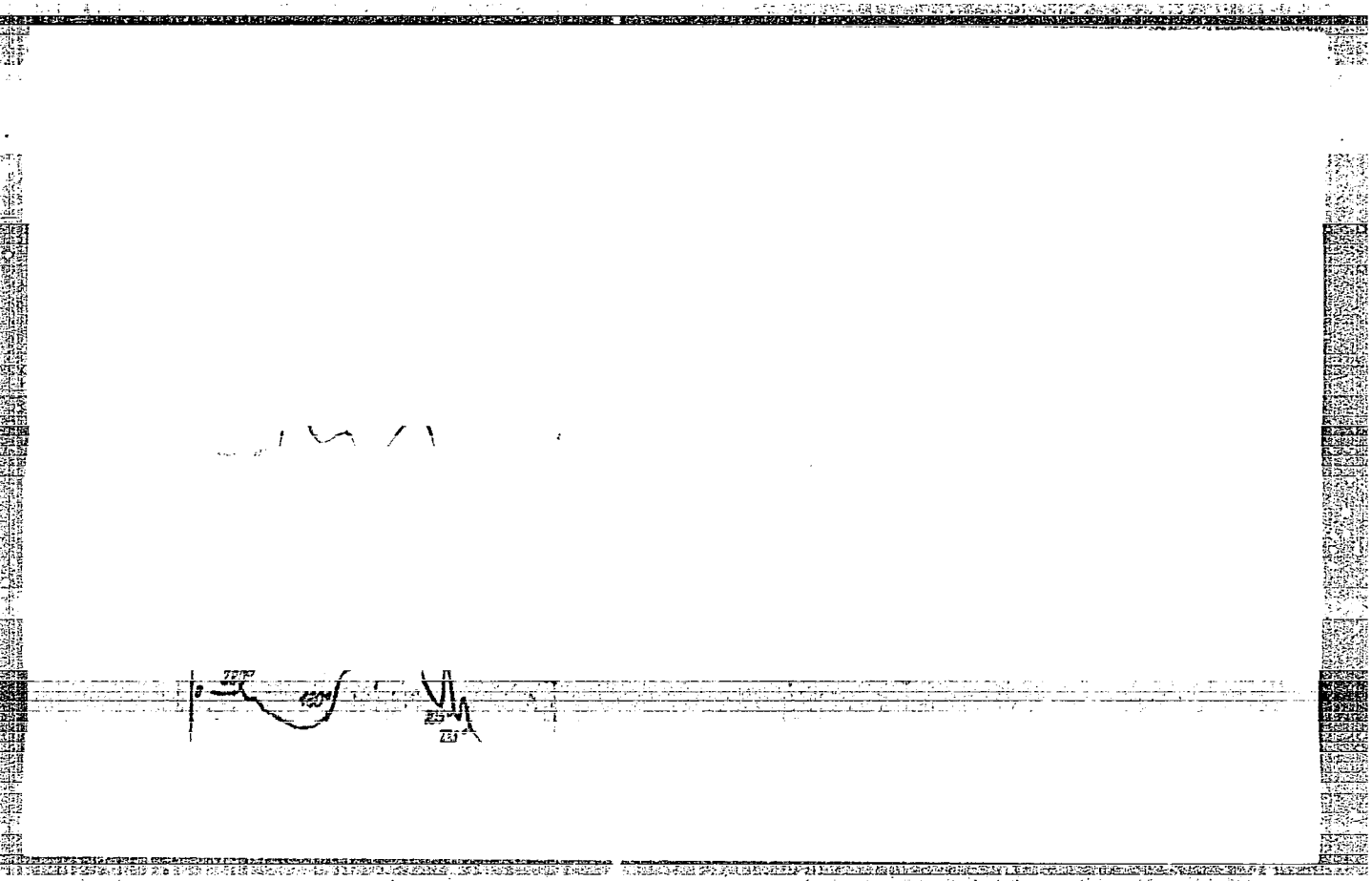
TITLE: Lanthanum tellurides

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 4, 1964, 876-882



APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962530003-2"





ACCESSION NR: AP4036962 S/0078/64/009/005/1032/1037

AUTHOR: Yeliseyev, A. A.; Yarembash, Ye. I.; Vigileva, Ye. S.; Antonova, L. I.; Zachatskaya, A. V.

TITLE: The polymorphism of lanthanum

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 5, 1964, 1032-1037

TOPIC TAGS: lanthanum, polymorphism structure, x ray analysis, microstructure, differential thermal analysis, alpha lanthanum, beta lanthanum, lattice contraction, thermogram, enantiotropic transformation, melting temperature, gamma lanthanum, coefficient of expansion

ABSTRACT: The structure of lanthanum was investigated in samples (containing 0.7 and 0.2% impurities) by x-ray, microstructural and differential-thermal analyses. Under ordinary conditions lanthanum consists of the alpha- and beta-modifications with the alpha-form predominating. Lattice parameters of these modifications are:

α-La a = 3.755 ± 0.005Å c = 12.024Å

β-La a = 5.291 ± 0.005Å

Differential thermal analysis curves of La (and of La with quartz to determine the

Card 1/4

ACCESSION NR: AP4036962

effects of impurities) were constructed (fig. 1.). The transition from alpha to beta lanthanum occurs at about 260C (with the top limit at 400C; above that only traces of alpha are retained); the transition from beta to gamma is at 850C, and melting is at 900C. The endo- and exothermic effects at 400, 560 and 745C were not explained. The anomalous contraction at 325C is associated with a sharp decrease in the beta-lattice spacing. An insignificant decrease in the parameter of the alph-lanthanum lattice along the c axis was observed at 200-330C. The coefficient of linear expansion of beta-lanthanum at 300-330C is approximately -400×10^{-6} degrees^{-1}. At temperatures above 550C lines appear on the La x-ray which do not correspond to either of the known modifications or their oxides. The number of these lines increases with increase in temperature. This is in accord with the presence of the "sliding" effect at 550-710C on the La thermogram. After cooling, the molten metal recovers its original structure. At 850C beta-lanthanum is enantiotropically transformed to gamma-lanthanum. Orig. art. has: 4 figures and 4 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova, Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of

Card 2/4

ACCESSION NR: AP4036962

Sciences, SSSR)

SUBMITTED: 07Jun63 DATE ACQ: 05Jun64 ENCL: 01

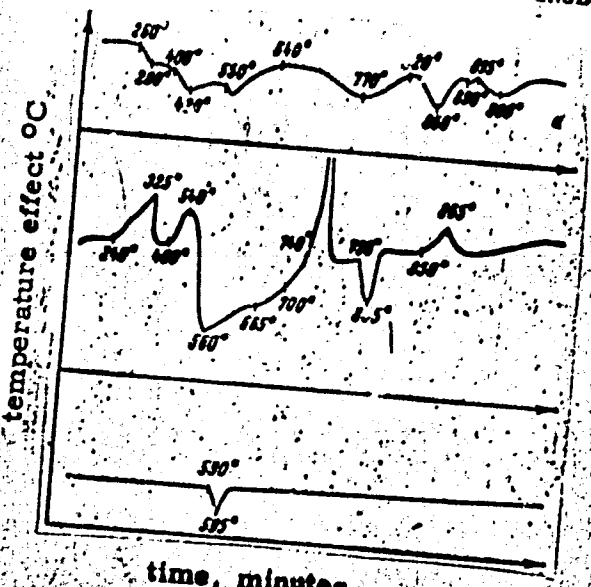
SUB CODE: IC,OP. NO REF SOV: 002 OTHER: 017

Card 3/4

ACCESSION NR: AP4036962

ENCLOSURE: 01

Fig. 1. DTA (heating) curves: a--lanthanum; b--mixture of lanthanum with (3.5 wt.%) quartz; c--quartz.



Card 4/4

ACCESSION NR: AP4036966 S/0078/64/009/005/1158/1162

AUTHOR: Yeliseyev, A. A.; Babitsy*na, A. A.; Medvedeva, Z. S.

TITLE: X-ray diffraction analysis of the boron-arsenic system

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 5, 1964, 1158-1162

TOPIC TAGS: boron arsenic system, boron arsenide synthesis, boron arsenic phase diagram, boron arsenide property, boron, arsenic, boron arsenide

ABSTRACT: Boron arsenide powders, containing 2.5, 5, 10, 20, 38, 45, 50, 53.5, 55, 60, 75, 90, and 97.5 at% As, were synthetized from powdered amorphous 99.7083% pure boron and crystalline 99.9986% pure arsenic. The obtained boron arsenide powders were annealed at 600C for 950 hr and slowly cooled to room temperature, or annealed at 800 or 1000C for 250 hr and quenched in ice-cold water. The x-ray diffraction patterns showed the existence of only

Card 1/3

ACCESSION NR: AP4036966

two chemical compounds in the system: boron arsenide of the BAs composition and a lower boron arsenide whose composition, 85.9 at% B and 14.1 at% As, and density, $\rho = 3.53 \pm 0.03$ g/cm^3, are very close to those of B_6As compound ($\rho = 3.58$ g/cm^3). The lines of B_6As fit equally well in to an orthorhombic lattice with parameters $a_0 = 9.6896$ kX, $b_0 = 4.3342$ kX, and $c_0 = 3.0628$ kX, or a rhombohedral lattice with parameters $a_0 = 6.125$ kX and $c_0 = 11.8679$ kX. The solubility of B and As was found to be negligible in both compounds. The coefficient of linear expansion of BAs in the 20—500C range was found to be $7 \cdot 10^{-6}$/deg C. Orig. art. has: 1 figure and 6 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of Sciences SSSR)

SUBMITTED: 18Jul63 DATE ACQ: 05Jun64 ENCL: 01

SUB CODE: MM NO REF SOV: 006 OTHER: 005

Card 2/3

ACCESSION NR: AP4036966

ENCLOSURE: 01

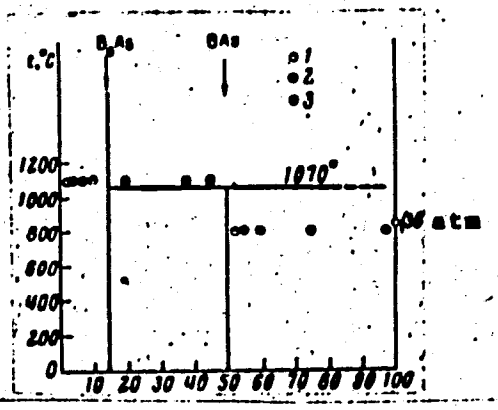


Fig. 1. Phase diagram of the B-As system

1 — B_6As; 2 — B_6As + As; 3 — BAs + As.

Card 3/3

ACCESSION NR: AP4036969 S/0078/64/009/005/1174/1181

AUTHOR: Luzhnaya, N. P.; Slavnova, G. K.; Medvedeva, Z. S.; Yeliseyev, A. A.

TITLE: The In-As-Se system

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 5, 1964, 1174-1181

TOPIC TAGS: indium arsenic selenium system, InAs As_2Se_3 system, thermal analysis, x ray analysis, microstructural analysis, $InAs_3Se_3$, thermogram, solid solution, InAs, phase diagram, liquidus surface diagram

ABSTRACT: The nature of the reactions of the components of the ternary system In-As-Se along the InAs-As_2Se_3 section was studied by thermal, x-ray and microstructural analyses. The previously unknown ternary compound $InAs_3Se$, melting congruently at 800C (fig. 1) was found. Thermograms for InAs, InAs + 10, 50, and 70 mol% As_2Se_3 and As_2Se_3 are given. Microstructural photographs and x-ray data for these compositions are shown. There was indicated the existence of a relatively small area of solid solutions based on InAs which contained up to about 10 mol% As_2Se_3. An orienting diagram of the liquidus surface of the ternary system In-As-Se was constructed from the authors' and literature data (fig. 2).

Card 1/4

ACCESSION NR: AP4036969

Orig. art. has: 10 figures and 3 tables.

ASSOCIATION: None

SUBMITTED: 03Mar63	DATE ACQ: 05Jun64	ENCL: 02
SUB CODE: MM	NO REF SOV: 009	OTHER: 004

Card 2/4

ACCESSION NR: AP4036969 , ENCLOSURE: 01

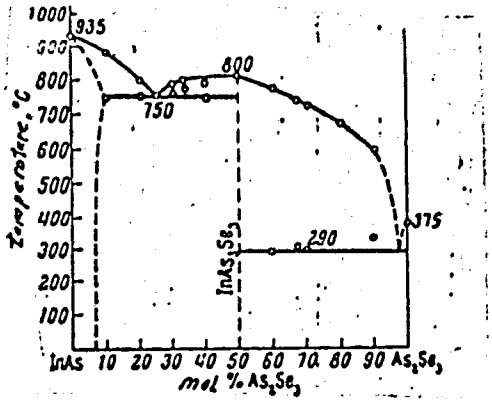


Fig. 1. Phase diagram of the InAs-As_2Se_3 section (according to heating curves, annealed alloys)

Card 3/4

ACCESSION NR: AP4036969

ENCLOSURE: 02

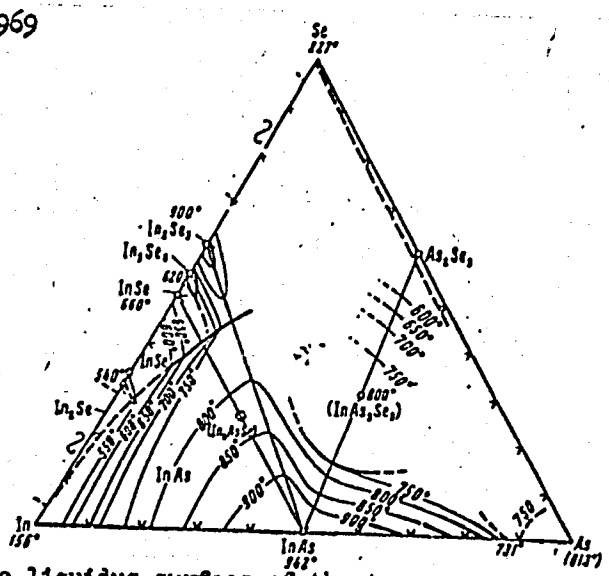


Fig. 2. Diagram of the liquidus surface of the ternary system In-As-Se.

Card 4/4

[illegible]/AFML/RAEM(a)/ESD(ge)/ESD(t) JD/

[illegible] Migilova, Ye. S.; Yelisseyev, A. A.;

[illegible]

[illegible]

trical property; [illegible] properties [illegible] selenides and tellurides of the

L 13556-65

ACCESSION NR: AP4044642

and tellurides for a subsequent study of their electrical properties. Chalcogenides of the cerium-group elements in their highest valency state were supposed to have a varying composition due to the nature of chemical bond between ionized rare-earth atoms and the chalcogenide atom. This supposition was confirmed in the study of the phase diagram of the lanthanum-tellurium and praseodymium-selenium systems. Phase composition was studied by the chemical and differential-thermal analyses of polycrystalline samples synthesized from elements in evacuated or argon-filled quartz vessels. The following compounds were detected: MeX, Me_3X_4, Me_5X_7, Me_2X_3, Me_4X_7, Me_2X_5, MeX_2, and MeX_3. Electrical and infrared absorption measurements on Me_2X_3 polycrystalline samples indicated that the electrical conductivity in most of the tellurides is n-type and in the 10^0-10^{-3} ohm^{-1} cm^{-1} range (at 300°K), while it is usually lower in the corresponding Me_2Se_3; 2) the thermo-emf in Me_2Te_3 is in the 30—40 μv/degree range, and the width of the forbidden energy gap is 1.2—1.4 ev at 20C. Single crystals of $LaTe_2$ and Nd_2Se_3 were grown from polycrystalline Me_2X_3 by a chemical transport reaction with iodine. Crystallographic and electrical data are given for polycrystalline and single crystal $LaTe_2$. Orig. art. has: 3 figures and 3 tables.

Card 2/3

L 13556-65
ACCESSION NR: AP4044642

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova AN SSSR (Institute of General and Inorganic Chemistry, AN SSSR)

SUBMITTED: 00 ATD PRESS: 3131 ENCL: 00

SUB CODE: IC, EM NO REF GOV: 006 OTHER: 001

Card 3/3

ACCESSION NR: AP5007608

AUTHOR: Yaremchash, Ye. I.; Yelisseyev, A. [illegible]; Zinchenko, K. A.

TITLE: Neodymium tellurides

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 1, 1965, 60-67

[illegible] rare earth metal, crystal, crystal [illegible]

ABSTRACT: [illegible] neodymium tellurides were synthesized from [illegible]

the phase composition of the products of synthesis and to obtain [illegible] polymorphism of the tellurides of rare earth elements. [illegible] was not explored and the total

ACCESSION NR: AP[illegible]

The method of synthesis of [illegible] rare earth chlorides [illegible] ing mixtures of Nd and Te [illegible] ampuls, as previously described (A. A. Yelisseyev, Ye. I. Yarembash, V. G. Kuznetsov, Ye. S. Vigileva, A. A. Reshchikova, and L. I. Antonova, Zh. neorgan. khimii, 9, 876, 1964). The exothermic reaction started at about 360° C, as determined by DTA. The reaction products were heat treated at a temperature in the 600—1200° C range, depending on the composition of the mixtures.

[illegible] phase analysis of the heat-treated products indicated formation of at least seven compounds, including the already known [illegible] Nd_2Te_3, $NdTe_2$, and $NdTe_3$. New compounds were identified as [illegible] constant of a [illegible] higher temperature (1100° C) revealed the existence of a new crystal[illegible]

Card 2/5

L 33100-65
ACCESSION NR: AP5007608

form of Nd_2Te_5, which was identified by a different x-ray pattern. The Nd_4Te_7 formula is subject to verification because of the analogy of structure with $NdTe_2$, as shown by the similarity of both x-ray patterns.

DTA and x-ray phase analysis of a series of synthetic products containing an excess of tellurium, in respect to $NdTe_2$, made it possible to establish a tentative phase diagram of the tellurium-rich portion of the Nd-Te system, i.e., the $NdTe_2$--Te composition region. The phase diagram showed two reversible nonvariant transformations: $NdTe_3$ into Nd_2Te_5 at 850° C and Nd_2Te_5 into $NdTe_2$ at 910° C. Ditelluride ($NdTe_2$) is more thermally stable than Nd_2Te_5 or $NdTe_3$, since it melts incongruently

Single crystals of $NdTe_2$ of prismatic or pyramidal and acicular

iodine. The source was maintained at 800° C and the cooler end of the tube at 700° C. The crystals grew to various sizes up to 15 mm in length and were stable in air. Crystallographic data of the pyramidal crystals were obtained by x-ray structural analysis.

The polymorphism of neodymium tellurides and formation of variable composition phases were explained in terms of acceptor capacity [illegible] and f-orbitals [illegible] of the light rare earth elements [illegible]

[illegible] and MeTe was supposed to increase in the sequence from lanthanum to neodymium within the subgroup of light rare earth elements.

earth element compounds with nonmetallic elements, especially the ...

terials. The fact that preparation of $NdTe_2$ single crystals was attempted ...

... Science, 3859)

SUBMITTED: ...

Card 5/5

43788-65 EWT(m)/EWG(m)/EWP(t)/EWP(b) UR/0363/65/001/002/0167/0[illegible]

ACCESSION NR: [illegible]

TITLE: Synthesis of lanthanum [illegible]

[illegible] materials, v. 1, no. 2, 1965,

Card 1/2

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of

Card 2/?

EWP(t)/EWP(b)/EWA(c) IJP(c) RDW/JD/JG

SOURCE: AN SSR, Zavodskaya laboratoriya

TOPIC TAGS: selenide, lanthanum compound, single crystal, semiconductor material

ABSTRACT: A series of lanthanum selenides containing from 50 to 70 atomic % of Se was prepared by means of heating mixtures of lanthanum and selenium at 1000 to 1100°C in vacuum. The following selenide phases were detected: LaSe, La_3Se_4, La_2Se_3, La_4Se_7, and $LaSe_2$. Chemical composition and lattice parameters for all of these phases were determined. The differential-thermal analysis of all these lan-

Card 1/2

L 5h990-65

ACCESSION NR: AP5011926

of Se, exhibited a lattice structure resembling that of Th_3P_4. "The authors express their thanks to prof. N. P. Luzhnaya for her help and advice during the study, and to A. V. Dimitriyev and A. Kh. Muranovich for measuring the thermal emf." Orig. art. has: 3 tables and 3 formulas.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of Sciences, USSR)

SUBMITTED: 01Dec64 ENCL: 00 SUB CODE: GC, MT

Card 2/2

L 58698-65 EWT(l)/EWT(m)/EPF(n)-2/T/EWP(t)/ETC(b)-2/EWP(b)/EWA(c) Pi-4/
Pu-4 LJP(c) ED/JG/GG

ACCESSION NR: AP5016583 UR/0363/65/001/005/0692/0697
546.654'241:543.19

AUTHOR: Yeliseyev, A. A.; Ignatov, V. G.

TITLE: Crystal structure of $LaTe_2$

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no 5, 1965, 692-697

TOPIC TAGS: lanthanum telluride, telluride crystal structure, xray diffraction

ABSTRACT: The article reports on an x-ray structural analysis of $LaTe_2$ single crystals. The symmetry and dimensions of the unit

L 58698-65

ACCESSION NR: AP5016572

$Te_I - La - Te_{II} - Te_{II} - La - Te_I$. "The authors are sincerely grateful to Ye. I. Yarembash and Ye. S. Vigolov for providing the $LaTe_2$ crystals for the study." Orig. art. has: 6 figures and 2 tables

Card 2/2

YELISEYEV, A.A.; YAREMBASH, Ye.I.; KUZNETSOV, V.G.; ANTONOVA, L.T.; STOYANTSEVA, Z.P.

X-ray diffraction examination of lanthanum tellurides. Izv. AN SSSR. Neorg.mat. 1 no.7:1027-1033 Jl '65. (MIRA 18:9)

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

L 24465-65 EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5004594 S/0020/65/160/002/0337/0338

[illegible] eva, Z. S.; Yelisseyev, A. A.; Zhukov, E. G.

TITLE: Preparation of boron-phosphide single crystals from the vapor phase

SOURCE: AN SSSR. Doklady, v. 160, no. 2, 1965, 337-338

TOPIC TAGS: single crystal growth, boron phosphide, vapor phase growth, chemical transport reaction, semiconductor boron phosphide

ABSTRACT: Single crystals of pure (99.998%) boron phosphide have been prepared by a chemical transport reaction in the vapor phase to avoid the difficulties encountered in preparing perfect single crystals by sublimation. The reaction was conducted in vacuum with an element [unspecified] of the sixth group of the periodic system, which forms a volatile compound with boron. The effects of the tem- [illegible] vapor pressure volume, and of the temperature

L 24405-65

ACCESSION NR: AP5004594

higher ΔT, the number of nucleation sites increased sharply. Preferentially tabular [illegible] at [illegible] temperatures [illegible] complex habit at lower temperatures were observed. [illegible]

[illegible]

Orig. art. has: [illegible] figures.

[illegible]

L 06581-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6029811 SOURCE CODE: UR/0363/66/002/008/1367/1370

AUTHOR: Yeliseyev, A. A.; Yarembash, Ye. I. 41 8

ORG: Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences SSSR (Institut obschey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: Study of single crystals of the rare earth polyselenide elements in the cerium subgroup of the general formula MSe_{2-x}

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 8, 1966, 1367-1370

TOPIC TAGS: single crystal, rare earth element, selenide, selenium compound, cerium, x ray spectroscopy

ABSTRACT: The structure of single crystals of MSe_{2-x} polyselenides, where M- is La, Ce, Pr, Nd, and Sm, was investigated by x-ray technique. The dimensions of the single crystals varied from few hundredths of a millimeter to 1.5 mm. The x-ray diagrams were taken using RKOP and KFOR-4 cameras with Cu- and Mo-irradiation sources. All single crystals studied were found to belong to the tetragonal syngony, D_{4h} class, and two groups: with $c/a \approx 2$ (for compounds of general formula MSe_{2-x} at $x < 0.2$) and $c/a \approx 1$ (for compounds with general formula M_4Se_7 or M_7Se_{12}-Me_{2-x} at $x > 0.3$). The Me_{2-x}

UDC: 546.65'231:548.55

Card 1/2

L 06581-67

ACC NR: AP6029811

with $P4/nmm$ symmetry and two formula units in an elementary cell was found to be isostructural with MTe_2-type compounds of the rare earth metals of the cerium subgroup. Orig. art. has: 1 figure, 2 tables.

SUB CODE: 20/ SUBM DATE: 01Nov65/ ORIG REF: 007/ OTH REF: 006

Card 2/2

L 06483-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG
ACC NR: AP6028295 SOURCE CODE: UR/0363/66/002/006/0984/0990

AUTHOR: Yarembash, Ye. I.; Yeliseyev, A. A.; Kalitin, V. I.; Antonova, L. I.

ORG: Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences, SSSR (Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: X-ray diffraction analysis of praseodymium selenides

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 6, 1966, 984-990

TOPIC TAGS: praseodymium compound, selenide, X ray diffraction study

ABSTRACT: The object of the work was to study the phase composition, crystal structure, and regions of homogeneity of the products obtained from a direct reaction between praseodymium and selenium. X-ray diffraction analysis of the praseodymium selenides obtained showed the existence of the following individual phases: PrSe, Pr_5Se_6, $Pr_{3-x}Se_4$, $Pr_4Se_{7\pm x}$, $PrSe_{1.9-x}$ and $Pr_3Se_{7\pm x}$. The phases Pr_5Se_6, $Pr_4Se_{7\pm x}$ and $Pr_3Se_{7\pm x}$ in the Pr-Se system were identified for the first time. PrSe (50 at. % Se) has a face-centered cubic NaCl-type lattice, a = 5.941 Å. Pr_5Se_6 (54.5 at. % Se) crystallizes in a low-symmetrical, probably monoclinic system. $Pr_{3-x}Se_4$ (where $0 = x = 0.33$) has a body-centered cubic lattice with a Th_3P_4-type structure; its region of homogeneity extends from 57.2 to 60.0 at. % Se; a = 8.881 Å for Pr_3Se_4 and a = 8.895 Å for Pr_2Se_3. X-ray structural analyses of Pr_4Se_7 and $PrSe_{1.9}$ single crystals were carried out for the first time, and their unit cell parameters and space groups were deter-

Card 1/2 UDC: 546.656'231:539.261

L 06463-67
ACC NR: AP6028295

mined. The (Cu_2Sb)-type structure is possible for $PrSe_{1.9}$. $Pr_4Se_{7\pm x}$ (0 = x = 0.2) has a tetragonal lattice and a = 8.44 ± 0.05 Å, c = 8.49 ± 0.05 Å, c/a = 1.006; Z = 2; space group P4 / mbm; the structure is apparently close to that of $PrSe_{1.9-x}$. The region of homogeneity extends from 63.0 to 64.2 at. % Se. $PrSe_{1.9-x}$ crystallizes in the tetragonal system with a = 4.17 ± 0.005 Å, c = 8.40 ± 0.005 Å; c/a = 2.014; Z = 2; space group P4 / nmm; region of homogeneity from 65.5 to 64.3 at. % Se. $Pr_3Se_{7\pm x}$ (0 = x = 0.5) has a tetragonal lattice with an unknown structure; region of homogeneity from 69.2 to 71.5 at. % Se. Praseodymium triselenide $PrSe_3$ was not observed.
Authors thank Dr. of Chemical Sciences Prof. N. P. Luzhnaya and Dr. of Chemical Sciences V. G. Kuznetsov for their steady interest and assistance. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 07/ SUBM DATE: 22Nov65/ ORIG REF: 013/ OTH REF: 009

Card 2/2 nkc

ACC NR: AP6032946 SOURCE CODE: UR/0363/66/002/010/1747/1756

AUTHOR: Zinchenko, K. A.; Luzhnaya, N. P.; Yarembash, Ye. I.; Yeliseyev, A. A.

ORG: Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences, SSSR (Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: Phase diagram and phase properties of the Nd-Te system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 10, 1966, 1747-1756

TOPIC TAGS: neodymium compound, telluride, semiconductor single crystal, polycrystal, single crystal structure, ~~neodymium telluride semiconductor~~, phase diagram, phase composition, metal physical property, electric resistance, crystal lattice defect

ABSTRACT: The phase composition and physical properties of Nd—Te alloys have been studied over the entire range of compositions. The stated purpose of the study was to refine the previously established phase diagram of the Nd—Te System [Ye. I. Yarembash, A. A. Yeliseyev, K. A. Zinchenko, Zh. neorgan. materialy, v. 1, no. 1, 1965, 60 and N. Kh. Abrikosov, V. Sh. Zargaryan. Zh. neorgan. materialy, v. 1, no. 9, 1965, 1462] and to determine the phase-composition dependence of electrophysical properties of the polycrystalline alloys and of certain single crystals. The complete phase diagram of the Nd—Te System, which was plotted on the basis of new experimental data, was basically similar to that previously established by the authors. The existence of seven individual phases, isostructural with the corresponding La phases,

Card 1/2 UDC: 541.123.2

ACC NR: AP6032946

was confirmed. New crystallochemical x-ray data were determined for Nd_4Te_7 and $NdTe_3$ phases. A polymorphic transition was detected by x-ray in the Nd_2Te_3 samples in contrast with the M_2Te_3 compounds of the ceria group elements which precede Nd in the Periodic Table. Melting points of certian phases differ significantly with the earlier Soviet data. Electrical resistivity of the phases in the Nd—Te System continuously increased with an increase in the Te content of the samples. Semiconductor property and n-type conductivity were confirmed in all neodymium tellurides. Carrier concentration varied from 10^{21} cm^{-3} for NdTe to 10^{18} cm^{-3} for $NdTe_3$. A defective lattice in Nd_2Te_3 and Nd_4Te_7 was confirmed by the resistivity, thermal conductivity, and most of all, by the coefficient of thermal emf data. Single crystals of Nd_3Te_4, Nd_4Te_7, $NdTe_2$, and $NdTe_3$ were grown to obtain purified samples for determining semiconductor characteristics. Orig. art. has: 4 figures and 5 tables.

SUB CODE: 11,20/ SUBM DATE: 09Dec65/ ORIG REF: 007/ OTH REF: 005/

Card 2/2

ACC NR: AP5022248 SOURCE CODE: UR/0363/65/001/007/1027/1038

AUTHOR: Yeliseyev, A. A.; Yarembash, Ye. I.; Kuznetsov, V. G.; Antonova, L. I.; Stoyantsova, Z. P.

ORG: Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences SSSR (Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: X ray phase analysis of lathanum tellurides

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1027-1038

TOPIC TAGS: rare earth element, lathanum compound, telluride, phase diagram, crystal chemistry, crystal lattice parameter

ABSTRACT: Crystallochemical properties of lanthanum tellurides have been studied by x-ray phase analysis and differential thermal analysis of the polycrystalline samples which were synthesized by a technique previously described by the authors [Zh. neorgan khimii, 9, 876, (1964)]. The complete phase diagram of the La-Te System was established for the first time on the basis of the new data. Homogeneity limits of the six identified phases were determined. One of the six phases, La_2Te_3, was detected for the first time. The phase previously identified as La_4Te_7 was found to be $LaTe_{1.7\pm X}$. Crystallographic characteristics of all phases were given. The exidtence of the $MTe_{1.7\pm X}$ and M_2Te_5 phases, where M is a rare earth element from Ce to Sm, was presumed on the grounds of crystallochemical analogy

UDC: 546.654'241:548.19

Card 1/2

ACC NR: AP5022218

between the rare-earth tellurides of other types. Orig. art. has: 8 tables and 5 figures.

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 011

Card 2/2

ACC NR: AP7001419 (A,N) SOURCE CODE: UR/0413/66/000/021/0133/0133

INVENTOR: Yeliseyev, A. A.

ORG: none

TITLE: A device for measuring the radial heat influx in the atmosphere. Class 42, No. 188074

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 133

TOPIC TAGS: atmosphere, heat absorption, radiative heating, radiation measurement, sodium compound, chlorine compound, atmospheric radiation

ABSTRACT: This Author Certificate presents a device for measuring the radial heat influx in the atmosphere. The device contains a radiation receiver and an apparatus for measuring the temperature difference between the sensitive element and the ambient air. To allow for the selective nature of the atmospheric absorption of long wave radiations, the sensitive element is made of a material, such as rock salt, which absorbs practically no radiation with a wavelength below 12 mk but which completely absorbs radiation with a wavelength in the range of 12--40 mk.

SUB CODE: 04/ SUBM DATE: 24Aug64

Card 1/1 UDC: 551.508.25

ACC NR: AP7002408 SOURCE CODE: UR/0363/66/002/012/2241/2245

AUTHOR: Yeliseyev, A. A.; Kuznetsov, V. G.; Yarembash, Ye. I.; Vigileva, Ye. S.; Antonova, L. I.; Zinchenko, K. A.

ORG: Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences, SSSR (Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: New phase in the system of tellurides of the rare earth metals of ceria subgroup

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 12, 1966, 2241-2245

TOPIC TAGS: compound semiconductor, rare earth metal, telluride, single crystal growing, ~~[illegible]~~ crystal structure, crystal electric conductivity

ABSTRACT: The existence of the M_4Te_{7+x} phase within the homogeneity limits between 61 and 64 at% Te was confirmed by chemical, x-ray spectrochemical, and x-ray phase analysis of poly- and single-crystalline M_4Te_7, where M = La, Pr, or Nd. Previously, the M_4Te_{7+x} phase was detected by different Soviet authors but was absent in the La-Te and La-Nd phase diagrams which were published in the 1965 Western studies. The M_4Te_7 single crystals, 1 x 1 x 1 mm maximum size, were grown from polycrystalline M_2Te_3 by the chemical transport reaction with iodine at a 950—800C temperature gradient. Simultaneously, the MTe_2 single crystals were formed. The shape of the

Card 1/2 UDC: 546.65'241-54-162.2

ACC NR: AP7002408

La_4Te_7 and $LaTe_2$ single crystals was identical, while that of the Nd_4Te_7 and $NdTe_2$ was different. Lattice symmetry type and constants, space symmetry group, number of molecules in the unit cell, and x-ray density were determined and tabulated for La_4Te_7, Pr_4Te_7, and Nd_4Te_7. Lattice constants of Ce_4Te_7 were extrapolated from their plots versus ionic radii of the M^{3+} ions. La_4Te_7 was found to crystallize in a tetragonal not rhombic system, which was previously assigned to La_4Te_7 by the authors. The lattice constants of La_4Te_7 were found to be as follows: $a = b = 9.011 \pm 0.005$ Å, $c = 9.172 \pm 0.005$ Å. The most likely space symmetry group of La_4Te_7 was the centric P4/mbm group. Other $M_4Te_{7\pm x}$ tellurides of the ceria subgroup crystallize in the same system and have the same space symmetry group as La_4Te_7. Structural similarity and differences were noted between M_4Te_7 and MTe_2. Electrical conductivity and thermal emf of the M_4Te_7 phase was of the semiconductor type. The existence of the M_4Te_7 (or M_7Te_{12}) phase was presumed for Ce and Sm because of the crystallochemical analogy between tellurides of the ceria subgroup. Orig. art. has: 3 tables and 2 figures.

SUB CODE: 07/ SUBM DATE: 24Feb66/ ORIG REF: 008/ OTH REF: 004/

Card 2/2

YELISEYEV, A.A.

Early experimental studies on electrostatics in Russia.
Ist. i metod. est. nauk no.3:206-213 '65.
(MIRA 18:12)

YELISEYEV, A.I.

Simplifying the calculation of the liqueur and vodka production. (MIRA 13:6)
Spirt.prom. 26 no.2:35 '60.
(Liquor industry)

YELISEYEV, A.I.

Simplifying the permit system at alcohol, and liqueur and vodka plants. Spirt. prom. 25 no.7:30-31 '59. (MIRA 13:2)
(Liquor industry)

PROKHOROV, Stepan Ivanovich, doktor ekonom.nauk; YELISEYEV, A.I., red.; BRULIKOVSKAYA, R.G., tekhn.red.

[Machinery industry] Mashinostroenie. Gor'kii, Gor'kovskoe knizhnoe izd-vo, 1959. 38 p. (MIRA 13:3)
(Machinery industry)

DONTSOV, A.Ya.; YELISEYEV, A.I.

Consolidated norms for maneuvering operations. Zhel. dor. transp. 47 no.1:71-73 Ja '65. (MIRA 18:3)

1. Nachal'nik otdela tekhnicheskogo normirovaniya truda Upravleniya truda, zarabotnoy platy i tekhnik. bezopasnosti Ministerstva putey soobshcheniya (for Dontsov). 2. Starshiy inzh. otdela tekhnicheskogo normirovaniya truda Upravleniya truda, zarabotnoy platy i tekhniki bezopasnosti Ministerstva putey soobshcheniya (for Yeliseyev).

AUTHOR: Yeliseyev, A. I. SOV/20-121-2-39/53

TITLE: The Carboniferous Stratigraphy of the Southern Part of the Chernyshev Ridge (Stratigrafiya karbona yuzhnoy chasti gryady Chernysheva)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 2, pp. 339 - 342 (USSR)

ABSTRACT: The carboniferous sediments of the above mentioned ridge are little investigated and are described only roughly (Refs 1-4). The author investigated these deposits in detail and tried their detailed classification (this work was supervised by A. A. Chernov, Komi-Branch, AS USSR; D. M. Rauzer-Chernousova and Ye. A. Reytlinger were consultants; the fauna was determined by Z. P. Mikhaylova /foraminifers/ together with the two last mentioned scientists, as well as by O. A. Lipina and A. V. Durkina; the brachiopodes were determined by N. V. Kalashnikov , partly by V. N. Krestovnikov, Ye. A. Ivanova and T. G. Sarycheva; the corals by T. A. Dobrolyubova; the bryozoans by I. P. Morozova). The elaborated stratigraphic scheme differs somehow from the standardized scheme with respect to the direction of the Devonian-Carboniferous boundary.

Card 1/3

SOV/20-121-2-39/53

The Carboniferous Stratigraphy of the Southern Part of the Chernyshev Ridge

The Namurian stage is not separated. All three carboniferous sections: the Lower Carboniferous (550 - 1100 m), Middle Carboniferous (150 - 220 m) and Upper Carboniferous (110 - 20 mm) are marked. They are, as a whole, represented by carbonate facies, the character of which in the meridional direction remains maintained over great distances, which changes, however, in the longitudinal direction. Based on this fact the author divided all cross sections into 2 main types: a.-The western (syninskiy) and b.- the eastern (vangyrskiy). In the Lower Carboniferous the Tournaisian stage is subdivided into 2 substages, the second of which is again subdivided into 2 horizons. Three substages belong to the Visean, the first of which has 2, the second and the third have 3 horizons. In the Middle Carboniferous 2 stages, 3 substages and 7 horizons are separated. The Upper Carboniferous is divided into 2 stages. There are 1 figure and 10 references, 10 of which are Soviet.

ASSOCIATION: Kom' filial Akademii nauk SSSR (Komi Branch, AS USSR)

Card 2/3

SOV/20-121-2-39/53

The Carboniferous Stratigraphy of the Southern Part of the Chernyshev Ridge

PRESENTED: March 29, 1958, by N. S. Shatskiy, Member, Academy of Sciences, USSR

SUBMITTED: March 2, 1958

Card 3/3

3 (5)
AUTHOR: Yeliseyev, A. I.

SOV/20-126-2-35/64

TITLE: On the Problem of the Origin of Limestone Breccias of the Carboniferous of the Chernyshev Ridge (K voprosu o proiskhozhdenii izvestnyakovykh brekchiy karbona gryady Chernysheva)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 2, pp 351-354 (USSR)

ABSTRACT: In the carboniferous sediments of the western slope of the Urals there emerge interesting formations: limestone breccias. They also appear in the Pechora Urals and in other regions (Ref 1, 1925). A clear theory regarding the age and origin of these breccias has, however, been hitherto lacking. There were 3 hypotheses offered: a. the subaqueous landslide hypothesis (Refs 2, 3), b. the tectonic (Ref 4), and c. the Karst hypothesis (V. A. Yevstrakhin). Neither the cement nor the slivers of these breccias allow them to be distinguished at first glance from the rocks in which they are contained. From the cited description of the breccias in question, it is obvious that neither hypothesis a. nor c. can explain their character. The analysis of the facts shows quite clearly, that

Card 1/2

On the Problem of the Origin of Limestone Breccias of the Carboniferous of the Chernyshev Ridge

SOV/20-126-2-35/64

the carboniferous breccias of the Chernyshev Ridge are sedimentary in origin. According to publications the carboniferous breccias are also in other regions of the Pechora Urals sedimentary in origin. Certainly, the concrete process of sedimentation of the breccias may have been somehow different of that described here. The breccias of every single district must be studied as they yield important data on the geological history of the waters. These breccias are confined to tectonically restless areas of the sea bottom and to waters with considerable oscillatory movement. There are 8 references, 7 of which are Soviet.

ASSOCIATION: Komi filial Akademii nauk SSSR (Komi Branch of the Academy of Sciences, USSR)

PRESENTED: January 30, 1959, by N. M. Strakhov, Academician

SUBMITTED: November 28, 1958

Card 2/2

GOLOVASTIKOV, Aleksandr Mikhaylovich; YELISEYEV, A.I., red.; ZAKHAROV, K.A., tekhn.red.

[Oka Valley (Vyksa-Kulebaki) industrial region; study of the economic geography] Priokskii (Vyksunsko-Kulebakskii) industrial'nyi raion; ekonomiko-geograficheskii ocherk. Gor'kii, Gor'kovskoe knizhnoe izd-vo, 1960. 145 p. (MIRA 14:1)
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Siliceous formations in Carboniferous carbonate rocks in the Chernyshev Ridge. Dokl. AN SSSR 134 no.3:670-673 S '60. (MIRA 13:9)

1. Institut geologii Komi filiala Akademii nauk SSSR. Predstavleno akad. N.M. Strakhovym.
(Chernyshev Ridge--Silica)

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Boundary of the Lower and Middle Carboniferous in the Chernyshev Ridge. Trudy Inst.geol.Komi fil. AN SSSR no.3:51-54 '62.
(MIRA 16:9)

(Chernyshev Ridge--Geology, Stratigraphic)

YELISEYEV, A.I.; MIKHAYLOVA, Z.P.

Recent data on the upper Carboniferous of the Chernyshev Ridge. Dokl.AN SSSR 145 no.3:631-634 Jl '62. (MIRA 15:7)

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(Chernyshev Ridge—Geology, Stratigraphic)

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Dissertation defended in Geological Institute for the academic degree of Candidate of Geologo-Mineralogical Sciences:

"Stratigraphy and Lithology of Coal-Bearing Deposits of the Chernyshev Ridge."

Vestnik Akad Nauk No. 4, 1963, pp. 119-145

YELISEYEV, Aleksandr Ivanovich; CHERNOV, A.A., doktor geol.-min. nauk, prof.[deceased], otv. red.; KIRIKOVA, G.L., red. izd-va; ZENDEL', M.Ye., tekhn. red.

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21947 YELISEYEV, A. P. Sheynaya chast' pogranichnogo simpaticheskogo stvola--pars cervicalis trunci sympathici--Krupnogo rogatogo skota. Trudy Pushkinsk. s.-kh. in-ta, t. XLV, 1949, s. 195-207,-Bibliogr: 5 NAZV.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949.

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G. N. Pavlov. Osnovy anatomii i fiziologii sel'skokhozyaystvennykh zhivotnykh (Principles of Anatome and Physiology of Farm Animals). Moscow-Leningrad. Sel'khozgiz. 1950. 56 pages with illustrations. Also in the Latvian language.

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