

ZAREBSKI, J.

"Health Service at the International Glider Contest." P. 503. (SERZYDLATA  
POLSKA, Vol. 10, No. 32, Aug. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,  
No. 1, Jan. 1955 Uncl.

ZAREBSKI, J.

Flying saucers....landed! p. 6. (SKRZYDLATA POLSKA, Warszawa, Vol. 11, No. 6, Feb. 1955)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, June 1955, Uncl.

ZAREBSKI, J.

Instructors on vacation; a short story, p. 4. (SKRZYDLATA POLSKA, Warszawa,  
Vol. 11, no. 3, Jan, 1955.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, Jan. 1955,  
Uncl.

ZAREBSKI, J.

Tasks are difficult but we carry them out. p. 3. (SKRZYDLATA POLSKA, Warszawa, Vol. 11, No. 10, Mar. 1955)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, June 1955, Uncl.

ZAREBSKI, J.

"Instructors are ready to start." p. 3  
(Skrzydla I Motor, Vol 8 No 1 Jan 53 Warszawa)

SO: Monthly List of East European Accessions, Vol 2 No 9 Library of Congress Sept 53 Uncl

ZAREBSKI, J.

1st Polish Junior Gliding Championship in Zar. p. 12,

SKRZYDLATA POLSKA. (Liga Lotnicza) Warszawa, Poland. Vol. 11, No. 41, Oct. 1955.

Monthly List of East European accession (EEAI), LC. Vol. 8, No. 9 September, 1959. Incl.

ZAREBSKA, L.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Analytical Chemistry

③  
A modified fluoroglycine method for the detection of lignin. V. M. Furmanowa, L. Michalska, A. Parczewski, and L. Zarebska (Zabka Bot. Farm. Akad. Med., Warsaw). Farm. Polita 9, 169-171 (1954).--Lignin was detected in plants with fluoroglycine and 48% H<sub>2</sub>SO<sub>4</sub>; an intense, stable red coloration is obtained. 13 references. L. J. P.

9-2-54  
JJP

KOWALSKI, Henryk, inż., mech.; NIECIECKI, Kazimierz, inż., energ.;  
ZAREBSKI, Rajmund, techn., energ.

Rebuilding of a coal feeder. Energetyka przem 10 no.2:66-67 '62.

1. Elektrownia Jaworzno II.

ZAREBSKI, Witold, mgr.inz.

Calculation of induced eddy currents in enclosures. Przegl  
elektrotechn 38 no.8:334-339 Ag '62.

1. Instytut Energetyki, Warszawa.

ZAREBSKI, W.

"Standardizing 6-Kilovolt Distribution Cells." p.27  
(PRZEGLAD ELEKTROTECHNICZNY Vol. 30, no. 1, Jan. 1954 Warszawa, Poland)

SO: Monthly List of East European Accessions, LC, Vol. 3, no. 5, May 1954/Uncl.

BELDOWSKI, Tadeusz, mgr. inz.; ZAREBSKI, Witold, mgr. inz.

Screen bus bars. Energetyka Pol 15 no.8:Biuletyn:29-32 Ag '61.

1. Zaklad Elektryczny.

(Steel bars) (Screens)

ZAREBSKI, W.

The Polish osier industry. p. 199

PRZEMYSŁ DRZEWNY. Centralne Zarzady Przemyslow: Drzewnego, Meblarskiego, i  
Lesnego i Stowarzyszenie Inzynierow i Technikow. Lesnictwa i Drzewnictwa.  
Warszawa, Poland. Vol. 9, no. 6, June 1958.

Monthly List of East European Accession (EEAI), LC, Vol. 8, No. 9, September, 1959.

Uncl.

ZAREMBZ, Jerzy

Etiopathogenesis & clinical manifestations of celiac disease. Polski tygod.  
lek. 13 no.21:791-795 26 May 58.

1. (Z Kliniki Chorob Dzieci Sl. A. M. w Zabrze; kierownik: prof. dr med.  
A. Chwatibogowski; Adres: Zabrze, Klin. Chor. Dzieci A. N.

(CYSTIC FIBROSIS OF PANCREAS

celiac dis., etiol. & manifest. (Pol))

(SPRUE, in inf. & child

same)

FROL'SIK, V.V.; ZARECHANSKAYA, R.A.

Role of excitation and isolation of the higher sections of the central nervous system in the development of blood circulation disorders in spinal shock. Fiziol.zhur. [Ukr.] 1 no.6:46-53 N-D '55. (MLRA 10:1)

1. Kiivs'kiy medichniy institut, kafedra normal'noy fiziologii.  
(BLOOD--CIRCULATION, DISORDERS OF)  
(NERVOUS SYSTEM)  
(SPINAL CORD--WOUNDS AND INJURIES)

FROL'KIS, V.V., ZARECHANSKAYA, R.A. (Kiyev)

Mechanism of blood circulation disorders in spinal shock. (MIRA 11:10)  
Arkhn.pat. 18 no.4:113 '56.

1. Iz knafedry normal'noy fiziologii (zav. - deystvitel'nyy chlen-korrespondent AN USSR prof. G.V. Fol'bort) Kiyevskogo meditsinskogo instituta (dir. - dots. I.P. Alekseyenko).

(BLOOD--CIRCULATION, DISORDERS OF)  
(SHOCK)

ZARECHANSKIY, Ye.L.; CHERNYI, A.M.

Viscosity of alkali products obtained in the separation sections  
of sugar factories. Izv.vys.ucheb.zav.; pishch.tekh., no.4:88  
'62. (MIRA 15:11)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlennosti,  
kafedra teploenergetiki.  
(Alkalies) (Sugar industry--By-products)

CHERNYY, A.M.; ZARECHANSKIY, Ye.L.

Heat conductivity, temperature conductivity, and heat capacity of  
spent liquor. Izv.vys.uchob.zav.; pishch.tekh. no.5:124-125 '63.  
(MIRA 16:12)

1. Kiyevskiy tekhnologicheskoy institut pishchevoy promyshlennosti,  
kafedra avtomatiki.

SOV/96-59-7-20/26

AUTHORS: Chastukhin, V.I. and Zarechanskiy, Ya. I.,  
Candidates of Technical Sciences

TITLE: A Vibration Method of Removing Ash Deposits from Boiler  
Heating Surfaces (Vibratsionnyy metod ochistki  
poverkhnostey nagreva kotla ot zolovykh zagryazneniy)

PERIODICAL: Toploenergotika, 1959, Nr 7, pp 89-91 (USSR)

ABSTRACT: A distillery burns molasses residue under a Lamont boiler of East German manufacture. The boiler heating-surface consists of vertical coils of tube, as shown in Figure 1. Mineral salts from the molasses contaminate the tubes and the boiler manufacturer provided a mechanical rapping device which unfortunately was inadequate. A number of vibrators were tried and found to be unsuccessful, but a directional vibrator of the type illustrated in Figure 2 proved satisfactory. The construction and method of installation of this vibrator is described, and it is illustrated in Figure 3. Tests on the equipment are described; the best results were obtained with a frequency of 28 to 30 1/s and an amplitude of 0.3 to 1.5 mm. The

Card 1/2 vibrator is used for 1 1/2 or 2 minutes

SOV/96-59-7-20/26

A Vibration Method of Removing Ash Deposits from Boiler Heating-Surfaces

... every fifteen or twenty minutes, and then has a power consumption of 2 kWh per day. The equipment has operated satisfactorily for three months. There are 3 figures.

Card 2/2

ZARECHANSKIY, Ye.I.; CHERNYI, A.M.

Experimental investigation of the specific weight of waste alkalies  
from the separation shops of sugar factories. Trudy KTIPP no.25:  
122-123 '62. (MIRA 16'5)

(Alkalies)

(Sugar industry—By-products)

L 35565-65 EPR(c)/EPR(n)-2/EPR/ENR(j)/ENR(d)/ENR(l)/EPR(n)/EPR(j)/EPR(o) EPR/

ACCESSION NR: AP5003153

Pa-L/Pu-L WJ/EG/JW/

5/0286/65/001/005/0031/0031

AUTHORS: Zinchenko, A. I.; Zarechenskiy, Ye. T.; Noshchenko, K. Ye.; Kanovskiy, L. S.; Sinyavskiy, B. S.; Novlyanskiy, V. P.; Kaklyugin, B. S.; Shit'ko, V. I.; Kosytnin, Ye. Ya.; Genin, L. Sh.; Kralin, L. A.

TITLE: A graphite heat exchanger. Class 17, No. 168734

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 31

TOPIC TAGS: heat exchanger, graphite

ABSTRACT: This Author Certificate presents a graphite heat exchanger made of blocks with channels for heat-exchanging media. It is equipped on the ends with caps and fittings for introducing and removing the indicated media. To improve the thermal efficiency and to reduce weight, the caps are equipped with adapter plates and horizontal baffles for multipass parallel countercurrents of the media.

ASSOCIATION: none

SUBMITTED: 20Feb63

ENCL: 00

SUB CODE: TD

NO REF SOV: 000

OTHER: 000

Card 1/1

ZARECHIN, S., podpolkovnik

A knowledge of psychology for every officer. Komm. Vooruzh.  
Sil 4 no. 19:64-66 O '63. (MIRA 17:7)

ZARICHIN, S., podpolkovnik

Effective form of the education of propagandists. Koen.Vooruzh.  
S11 2 no.19:83-84 0 '61. (MIRA 14:9)  
(Russia--Armed forces--Political activity)  
(Communist education)

CHERTOK, L.; ZARECHKOVYY, G., brigadir-parketchik; USACHEV, I., brigadir-parketchik

Using staves of various size in parquet flooring. Na stroi. Mosk.  
1 no.4:27 Ap '58. (MIRA 11:9)

1.Starshiy proizvoditel' rabot stroitel'nogo uchastka - 92 Mosotdel-stroya No.5 (for Chertok). 2.Stroitel'nyy uchastok -92 tresta Mos-otdelstroy No.5: (for Zarechkovyy, Usachev).  
(Parquet floors)

ZARECHNAYA, S.N.

Caddis flies in Gorkiy Reservoir. Trudy Inst. biol. vodo-  
khran. no. 5:57-70'63. (MIRA 16:8)  
(GORKIY RESERVOIR--CADDIS FLIES)

ZARECHNAYA, S.N.

Development of the fauna of caddis flies in Volga reservoirs. Vop.  
ekol. 5:72-73 '62. (MIRA 16:6)

1. Institut biologii vodokhranilishch AN SSSR, Borok.  
(Volga River--Caddis flies)

ZARECHINAYA, S.N.

Egg masses of some caddis fly species in the upper Volga reservoirs.  
Trudy Inst. biol. vodokhran. no.3:150-157 '60. (MIRA 14:3)  
(Rybinsk Reservoir--Caddis flies) (Volga Reservoir--Caddis flies)  
(Insects--Eggs)

ZARECHNAYA, S.N.

Larva of the caddis fly *Limnophilus sparsus* Ramb. (Trichiptera,  
*Limnophilidae*). *Biul.Inst.biol.vodokhran.* no.11:24-27 '61.  
(MIRA 15:8)

1. Institut biologii vodokhranilishch AN SSSR.  
(CADDIS FLIES) (LARVAE—INSECTS)

ZARECHNAYA, S.H.

Caddis flies of Rybinsk Reservoir. Trudy Inst. biol. vodokhran.  
no.1:176-187 '59. (MIRA 13:2)  
(Rybinsk Reservoir--Caddis flies)

S/085/60/000/02/035/040  
D001/D003

AUTHOR: Zarechnev, A. (Stalino)

TITLE: A Twin-Engined Radio-Controlled Model Aircraft

PERIODICAL: Kryl'ya rodiny, 1960, Nr 2, pp 28-29 (USSR)

ABSTRACT: The author's model is fitted with 2 K-6 motors and has fuel tanks with a maximum capacity of 35 cm<sup>3</sup>. The receiver and transmitter of the radio-controlling unit are described in detail and illustrated by circuit diagram. The components of the receiver include 2 NCh amplification stages, an RP-4 relay, a winding of PEL 0.15 wire, a 49SAMTsG-0.25-P or GBI-SA-30 battery and a 1.5 per (v) SNMTs-2.5-P battery. The transmitter includes an SO-243 valve, PEL 0.15 and PEL 0.3 wire coiling, 2 BAS-80 batteries and a 3s-L-30 cell. There are 1 set of schematic diagrams and 1 set of circuit diagrams.

Card 1/1

ZARECHNEV, A.

Two-engine radio controlled airplane model. Kryn.rod. 21 no.2:  
28-29 F '60. (MIRA 13:6)  
(Stalino--Airplanes--Models)

LARICHEV, A.

AID P - 274

Subject : USSR/Aeronautics

Card : 1/3

Periodical : Kryl. Rod., 7, 1-24, Jy 1954

Abstract : One article from this issue has been processed on a separate card as AID P - 273. The remainder are listed only on the following Table of Contents:

|                                                                                                                                                                                       | PAGES |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 1. Aeroclub, the Center of Sport-Aviation Work                                                                                                                                        | 1     |
| 2. Semenov, M., The Reliable Support of the DOSAAF Committee (photo)                                                                                                                  | 2-3   |
| 3. Shumilov, V., The New Flight Altitude Record (account of the establishment of a new USSR national altitude record on the YaK-18 for aircraft of the second weight category, photo) | 4     |
| 4. Sheremetev, B., Designer, The Glider "Kashuk" (description and diagrams of a glider with flapping wings) processed on separate card                                                | 5-6   |

Kryl. Rod., 7, 1-24, Jy 1954 (additional card)

AID P - 274

Card : 3/3

14. Pozdneyev, Aleksandr, Ascending Current  
(fiction)

PAGES

18-22

15. Review of Boykov, B. V., Letatel'nyye  
Mashiny

22

16. Chronicle of Sport Events

23

17. Aviation Calendar (description of past  
events)

23-24

Institution : None

Submitted : No date

ZARUCHINOV, A.

Synchronizing model airplane motors. Kryn.rod. 5 no.7:13-14 J1 '54.  
(Airplanes--Models) (MLRA 7:7)

SHEPETON, I. S., ZARECHNOVA, A. F.

Boots and Shoes - Trade and Manufacture

Attaching soles with vinyl perchloride cement. Leg.prom 12 no. 4:36-37 Ap '52.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

ACC NR: AR6029498

SOURCE CODE: UR/0137/66/000/006/I006/I006

AUTHOR: Kryp'yakovich, P. I.; Frankovich, D. P.; Zarechnyuk, O. S.

TITLE: Iron-rich compounds in rare earth metal-iron systems and their crystallographic structure 27

SOURCE: Ref. zh. Metallurgiya, Abs. 6I40

REF SOURCE: Visnyk L'vivs'k. un-tu. Ser. khim., vyp, 8, 1965, 61-74

TOPIC TAGS: rare earth metal, iron containing alloy

TRANSLATION: Alloys of rare earth metals with iron, containing 75-92.3% Fe, were studied by means of x-rays. It was shown that compounds enriched by Fe had a  $\text{Th}_2\text{Zn}_{17}$  or a  $\text{Th}_2\text{Ni}_{17}$  type structure (not a  $\text{CaCu}_5$  type) which approached the composition of  $\text{R}_2\text{Fe}_{17}$  (not  $\text{RFe}_5$  in systems with Ce, Pr, Nd, Sm, Gd, Tb and Y being compounds of the  $\text{Th}_2\text{Zn}_{17}$   $\phi_2$ -phase type), while in systems with Gd, Tb, Dy, Ho, Er, Tu, Lu and Y they were of the  $\text{Th}_2\text{Ni}_{17}$  type ( $\phi_1$ -phase). The lattice periods of the  $\phi_1$ - and  $\phi_2$ -phases were determined; the  $\phi$ -phases in systems of Gd-Fe, Tb-Fe and Y-Fe contained higher amounts of Fe than did the  $\phi_2$ -phases. (From a resumé).

SUB CODE: 11,13

UDC: 669.85/86'1:548.7

Card 1/1

TSVETKOV, N.S.; ZARECHNYUK, O.S.

Coppering aluminum by contact reduction. Zhur.prikl.khim.  
33 no.3:636-644 Mr '60. (MIRA 13:6)

1. Ukrainskiy poligraficheskiy institut imeni Ivana Fedorova.  
(Copper plating) (Aluminum)

ZARECHNYUK, O.S.; LOZOVY, B.L.

Calculation of the value of wetting of solid surfaces by liquids.

Izv.vys.ucheb.zav.;khim,i khim.tekh. 3 no.4:759-760 '60.

(MIRA 13:9)

1. Ukrainskiy poligraficheskii institut imeni Iv.Fedorova, kafedra  
khimii.

(Wetting)

2-10-1954

\*The Crystal Structure of the Compounds  $\text{Co}_2\text{MnSn}$  and  $\text{Ni}_2\text{MnSn}$ . P. I. Kripyakevich, P. I. Gladyshevsky and O. S. Zarechnykh (Doklady Akad. Nauk S.S.S.R., 1954, 95, (3), 525-528). [In Russian]. Specimens of compn.  $\text{Me}_2\text{MnSn}$ , where  $\text{Me} = \text{Co}$  or  $\text{Ni}$ , were prepared from electrolytic  $\text{Co}$ ,  $\text{Ni}$ , and  $\text{Mn}$ , and from analytically pure  $\text{Sn}$ , and examined by the X-ray diffraction method. The dimensions of the elementary cells of  $\text{Me}_2\text{MnSn}$  were of the same order as those of  $\text{Cu}_2\text{MnSn}$ , and the most probable structure was that of the  $\text{B1F}_2$  type. The cell const.  $a = 5.991 \pm 0.002$  and  $0.946 \pm 0.002$  kX for  $\text{Co}_2\text{MnSn}$  and  $\text{Ni}_2\text{MnSn}$ , resp. As these types of cubic lattices are not found in  $\text{Co}$  and  $\text{Ni}$  solid soln. ( $a \sim 3.5-3.6$  kX), it was concluded that both  $\text{Co}_2\text{MnSn}$  and  $\text{Ni}_2\text{MnSn}$  are ternary compounds belonging to the class of interstitial phases. Although the atomic radius of  $\text{Co} > \text{Ni}$ , the const.  $a_{\text{Co}_2\text{MnSn}} < a_{\text{Ni}_2\text{MnSn}}$ , as in the case of  $\text{Co}_2\text{Co}$  and  $\text{CoNi}$ , and of  $\text{CoSi}_2$  and  $\text{NiSi}_2$ . (I. K. I.)

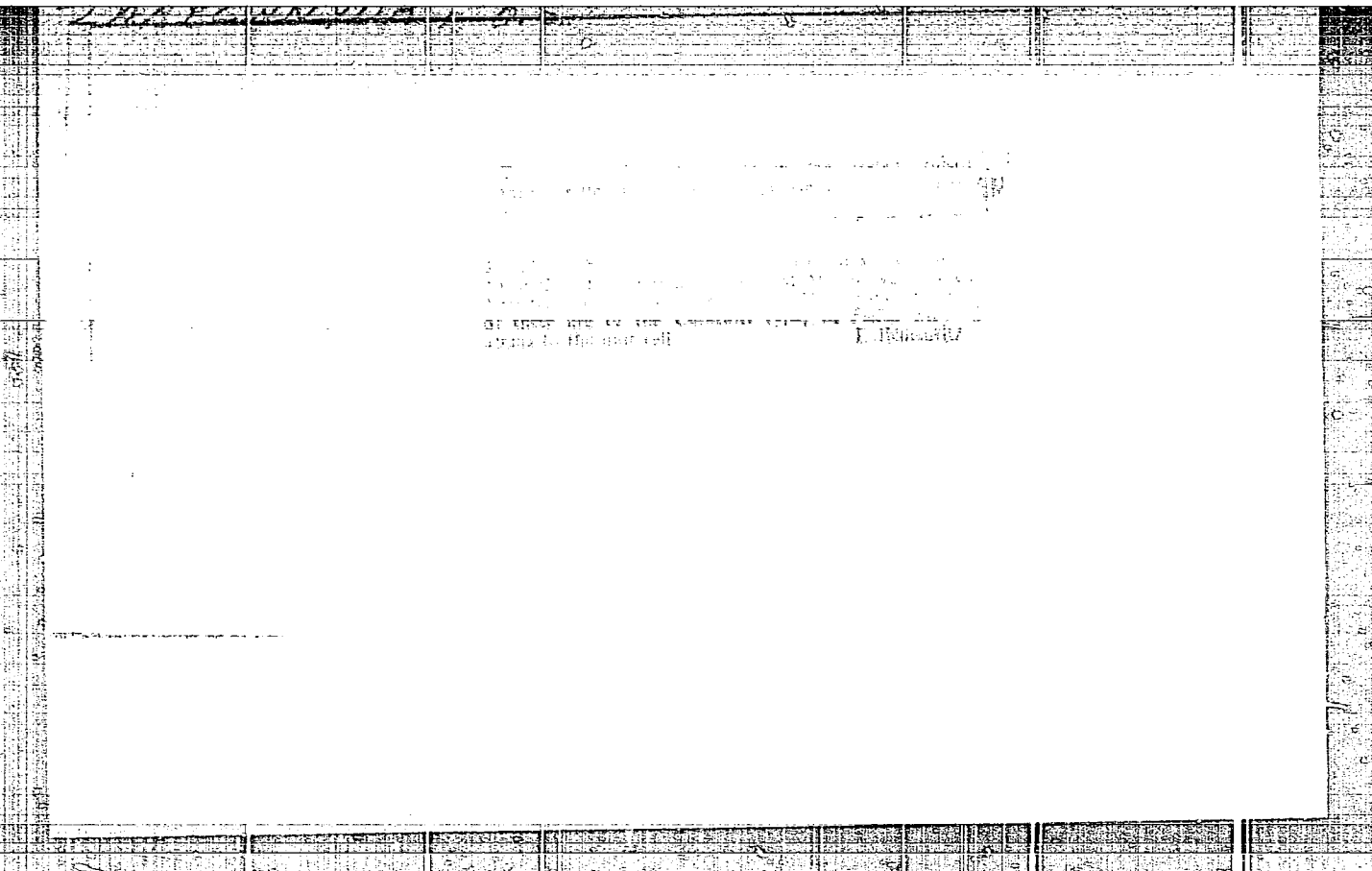
Low State U. in. L. Franko

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APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001963820005-7"



YURZHENKO, A.I.; IVANCHOV, S.S.; ZARECHNYUK, O.S.

Comparative initiating activity of peroxides of phenylcarboxylic acids in the polymerization of styrene. Dopr. nauch. rab. Inst. fiz.-org. khim. AN BSSR no. 8:63-69 '60. (MIRA 14:3)

1. L'vovskiy gosudarstvennyy universitet im. I. Franko.  
(Styrene) (Peroxides) (Polymerization)

S/081/62/000/012/061/063  
B158/B101

AUTHORS: Yurzhenko, A. I., Ivanohov, S. S., Zarechnyuk, O. S.  
TITLE: Comparative initiating activity of diacyl peroxides of the  
paraffin series during polymerization of styrene  
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1962, 661, abstract  
12R42 (Sb. nauchn. rabot. In-t fiz.-organ. khimii AN BSSR,  
no. 8, 1960, 70-75)

TEXT: A study was made of the dependence of the initiating activity (IA) of symmetric diacyl peroxides of the fatty series: peroxides of dianthyl (I), dicaprylyl (II), dipelargonyl (III), dicaprynyl (IV), dilauryl (V), dipalmityl (VI) and distearyl (VII) on the length of the hydrocarbon radical in the molecule. It is established that all the peroxides studied have identical thermal stability, but different IA, which is greater than in the case that the polymerization is initiated with benzoyl peroxide. The dependence of IA, which may be evaluated from the rate of polymerization of styrene, on the length of the organic radical chain of the peroxides studied is represented as a curve with a minimum. With

Card 1/2

Comparative initiating activity of ...

S/081/62/000/012/061/063  
B158/B101

reduction in the length of the organic radical in the peroxide molecule in series V to I, an increase in the polymerization rate is observed; then increase is observed with lengthening of the hydrocarbon radical in the series V to VII. The intrinsic viscosity of the polymers did not depend on the length of the hydrocarbon radical of the peroxide and was determined only by the concentration of the latter. [Abstracter's note: Complete translation.]

Card 2/2

5.2200, 5.2100, 18.7400

78222  
SOV/80-33-3-23/47

AUTHORS: Tsvetkov, N. S., Zarechnyuk, O. S.  
TITLE: Copperizing of Aluminum with Contact Reduction  
PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 3,  
pp 636-644 (USSR)

ABSTRACT: This study was suggested by N. V. Slavinskiy of the Ivan Fedorov Ukrainian Polygraphic Institute and is part of the work on the technological development of the production of bimetallic offset printing plates copperized with ethanol solutions of copper salts. ADIN aluminum sheets and cupric shloride were used in the experiments. The amount of copper reduced on the aluminum surface increased linearly with the water content of the solution. The thickness of the copper deposit grew with increasing  $\text{CuCl}_2$  concentration to a maximum and then decreased gradually. This maximum was most pronounced with solutions of higher water content (4.5%). The above phenomenon can be explained by the two-stage

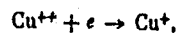
Card 1/3

Copperizing of Aluminum with Contact  
Reduction

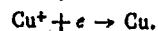
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reduction of bivalent copper which proceeds as follows:



(a)



(b)

Hence, at higher concentrations of bivalent copper ions (high  $\text{CuCl}_2$  concentration, presence of water)

the latter are reduced predominantly to univalent ions, and the amount of copper reduced to metal decreases. An increased, and then decreased, reaction rate was observed at the beginning of the process. This was due to two counteracting reactions: (1) the dissolution of the passive oxide film on the aluminum surface, and (2) the sharp decrease in the oxidizing activity of the solution due to the growing concentration of aluminum ions. After this initial period, the rate of reduction remained practically constant and was not influenced by the thickness of the copper deposit. The rate of reduction in the range of  $0-30^\circ \text{C}$  increased slowly; a sharp increase of the reaction rate occurred above  $30^\circ \text{C}$ . The uniformity and the strength of the deposit

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Copperizing of Aluminum with Contact  
Reduction

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SOV/80-33-3-23/47

depended on the finish of the aluminum surface and was highest on smooth surfaces. There are 6 figures; and 20 references, 2 U.S., 3 U.K., 1 German, 1 East German, 13 Soviet. The U.S. and U.K. references are: L. D. Goddeyne, G. Dennis, Light Metals, 56 (Feb., 1955); Modern Lithographer a. Offset Printer, 52, 28 (1956); J. Iorgencan, The American Pressman, 12, 14 (1956); The British Printer 44 (June, 1956).

ASSOCIATION: Ivan Fedorov Ukrainian Polygraphic Institute (Ukrainskiy poligraficheskiy institut imeni Ivana Fedorova.)

SUBMITTED: March 3, 1959

Card 3/3

GLADYSHEVSKIY, Ye.I.; KRIPYAKEVICH, P.I.; TESLYUK, M.Yu.; ZARECHNYUK, O.S.;  
KUZ'MA, Yu.B.

Crystalline structures of certain intermetallic compounds. *Kristallografiia* 6 no.2:267-268 Mr-Apr '61. (MIRA 14:9)

1. L'vovskiy gosudarstvennyy universitet im. I.Franko.  
(Intermetallic compounds) (Crystal lattices)

18.1210 2408, 1413, 2808, 2208.

26284  
S/078/61/006/009/003/010  
B107/B101

AUTHORS: Gladyshevskiy, Ye. I., Kolobnev, I. F., Zarechnyuk, O. S.

TITLE: Investigation of high-aluminum alloys of the system Al - Cu - Ce

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 9, 1961, 2103 - 2108

TEXT: Two isothermal sections (at 400 and at 500°C) in the high-aluminum part of the system Al - Cu - Ce were investigated. The alloys were prepared from aluminum-000 (99.98% Al), electrolytic copper (99.99% Cu) and cerium (98.6% Ce), and analyzed by V. V. Oshchapovskiy and O. M. Pasichnyk. The specimens were kept at 500°C for five days and at 400°C ( $\pm 20^\circ\text{C}$ ) for ten days, respectively, and subsequently quenched in toluene. A total of 130 alloys was investigated. On 55 specimens in the range from 0 to 5% by weight of Ce and 0 to 12% by weight of Cu, the lattice constant of the solid solution in Al ( $\omega$ -phase) was measured with an accuracy of  $\pm 0.0001$  Å (back-reflection camera with thermostat) (Figs. 1 and 2). Polished sections were prepared of all alloys, and the microhardness was determined with an instrument of the PMT-3 (PMT-3) type at 50 g load. Fig. 3 shows the isothermal section at 500°C in the aluminum corner of the system. For the isothermal section at 400°C, alloys with a higher cerium content (up to 65% by weight) and

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26281  
S/078/61/006/009/003/010  
B107/B101

Investigation of high-aluminum alloys ...

copper content (up to 60% by weight) were also investigated (Fig. 4). Three ternary compounds were studied more closely:  $T_1$  lies close to  $Al_8Cu_4Ce$ ; the narrow range of its homogeneity corresponds to 19.2% by weight of Ce, 42.5% by weight of Cu and 38.3% by weight of Al. The microhardness amounts to  $386 \pm 10 \text{ kg/mm}^2$ . The compound is in equilibrium with the  $\omega$ -phase,  $Al_2Cu$ ,  $T_2$ ,  $T_3$  and other compounds not closely investigated. The  $T_2$  compound corresponds to  $Al_4CuCe$ , its homogeneity range lies at 43.7 to 47.2% by weight of Ce, 19.0 to 23.9% by weight of Cu and 30.5 to 37.0% by weight of Al. The microhardness amounts to  $317 \pm 10 \text{ kg/mm}^2$ .  $T_2$  is in equilibrium with the  $\omega$ -phase,  $Al_4Ce$ ,  $Al_2Ce$ ,  $T_1$ ,  $T_3$  and other phases not closely investigated. The  $T_3$  compound is in equilibrium with  $T_1$  and  $T_2$ . The composition lies close to  $T_1$ : 25.6% by weight of Ce, 44.2% by weight of Cu and 30.2% by weight of Al. There are 5 figures and 4 references: 3 Soviet and 1 non-Soviet. The reference to English-language publication reads as follows: M. Hansen, K. Anderko. Constitution of binary alloys, 1958.

Card 2/6

26284

S/078/61/006/009/003/010

B107/B101

Investigation of high-aluminum alloys ...

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. Iv. Franko (L'vov State University imeni Iv. Franko)

SUBMITTED: July 26, 1960

Fig. 1: Lattice constant of the solid solution of copper and cerium in aluminum with 1% by weight of Ce.

Fig. 2: Lattice constant of the solid solution of copper and cerium in aluminum. Legend: a) For alloys with 5% by weight of Ce; 6) for alloys with 5% by weight of Cu.

Fig. 3: Isothermal section through the Al-corner of the Al - Cu - Ce system at 500°C (% by weight). Legend: 1) Monophase alloys; 2) diphasе alloys; 3) triphase alloys.

Fig. 4: Composition of the alloys produced and results of the phase analysis in the Al - Cu - Ce system at 400°C (% by weight). Legend: 1) Monophase alloys; 2) diphasе alloys; 3) triphase alloys.

Card 3/6

S/081/62/000/024/017/052  
B117/B186

AUTHORS: Yurzhenko, O. I., Zarechnyuk, O. S., Ivanchov, S. E.  
TITLE: Comparison of the initiating activity of some diacyl peroxides  
on styrene polymerization  
PERIODICAL: Reformativnyy zhurnal. Khimiya, no. 24 (II), 1962, 830,  
abstract 24P60 (Dopovidi ta povidoml. L'vivs'k. un-t. no. 9,  
part 2, 1961, 86 - 87 [Ukr.] )

TEXT: The thermal stability and initiating activity of diacyl peroxides of the phenyl carboxyl series (diacyl peroxide of benzoyl, hydrocinnamic and phenyl butyric acids) and paraffin series (diacyl peroxides of diene-anthyl, dicaprylyl, diperargonyl, dicaprynyl, dilaurin, dipalmityl, and distearyl) were studied during styrene polymerization in bulk and in emulsion. In the phenyl carbonyl series, the diacyl peroxide of benzoyl is most active and the diacyl peroxide of hydrocinnamic acid, least. The thermal stability changes in the same way as the initiating activity. Diacyl peroxides of the paraffin series are more active than those of the phenyl carbon series: Polymerization is faster and the resulting polymer has a higher molecular weight. The thermal stability of diacyl peroxides  
Card 1/2

Comparison of the initiating ...

S/081/62/000/024/017/052  
B117/B186

of the paraffin series is independent of the length of the hydrocarbon radical and is constant for the peroxides studied. [Abstracter's note: Complete translation.]

Card 2/2

ZARECHNYUK, O.S.; KRIPYAKEVICH, P.I.

Crystalline structures of ternary compounds in the system cerium -  
transition metal - aluminum. Kristallografiia 7 no.4:543-554  
Jl-Ag '62. (MIRA 15:11)

1. L'vovskiy gosudarstvennyy universitet imeni I.Franko.  
(Systems (Chemistry)) (Crystallography)

ACCESSION NR: AT4035160

S/0000/63/000/000/0067/0070

AUTHOR: Gladyshevskiy, Ye. I.; Kripyakevich, P. I.; Cherkashin, Ye. Ye.;  
Zarechnyuk, O. S.; Zalutskiy, I. I.; Yevdokimenko, V. I.

TITLE: Crystalline structure of intermetallic compounds of rare-earth elements

SOURCE: AN SSSR. Institut geokhimii i analiticheskoy khimii. Redkozemel'nyye  
elementy\* (Rare-earth elements). Moscow, Izd-vo AN SSSR, 1963, 67-70

TOPIC TAGS: rare earth, transition element, geochemistry, binary alloy, ternary  
alloy, intermetallic compound, alloy crystal structure, zinc, aluminum, germanium

ABSTRACT: The existence of compounds of the rare-earth elements with metals, their  
composition and the type of crystalline structure were investigated, with particu-  
lar attention to the similarities and differences between the various rare-earth  
elements, as well as between these elements and their neighbors in the periodic  
table. The systems of La, Ce, Pr, Nd, Dy, Er, Gd, Tb and Y with magnesium were  
investigated first. It was found that there are no complete analogies in these  
systems, but that the system Y/Mg is closer to Er/Mg than to the La/Ce system. In  
the systems of rare-earth elements with zinc, aluminum and germanium, new compounds  
were found, the structural parameters of which are given. It is interesting that  
the system Y/Al differs from the system Er/Al and is similar to the system with  
Card 1/2

S/07C/63/008/002/010/017  
E073/E335

AUTHORS: Kripyakevich, P.I., Terekhova, V.F., Zarechnyuk, O.S.  
and Eurov, I.V.

TITLE: Crystal structures of some intermetallic compounds  
of gadolinium and neodym

PERIODICAL: Kristallografiya, v. 8, no. 2, 1963, 268

TEXT: Earlier published results of the authors of X-ray  
structural investigations on the alloy gadolinium with about  
80.8 at.% (60% by weight) Fe have shown that this alloy consists  
basically of a compound with a  $\text{Th}_2\text{Zn}_{17}$  type structure (hexagonal  
syngony,  $c/a = 1.456$ ) and the formula  $\text{Gd}_2\text{Fe}_{17}$  was ascribed to  
this compound. According to data published by Novy, Vlckery  
and Kleber (Trans. Met. Soc. AIME, 221, 3, 580, 1961) the compound  
 $\text{Gd}_2\text{Fe}_{17}$  has a hexagonal structure with  $c/a = 0.983$ , i.e.  
corresponding to the type  $\text{Th}_2\text{Ni}_{17}$ . The authors of this paper  
carried out a more detailed investigation of Fe-rich alloys of the  
system Gd-Fe and found that both the above mentioned compounds  
exist: the type  $\text{Th}_2\text{Zn}_{17}$  compound ( $a = 8.55$ ,  $c = 12.40 \text{ \AA}$ ,  
 $c/a = 1.450$ ) is the main component of the alloy with 80.8 at.%  
Card 1/3

Crystal structures of ....

S/070/63/008/002/010/017  
EO73/E335

(70% by weight) Fe in the charge; the type  $\text{Th}_2\text{Ni}_{17}$  ( $a = 8.50$ ,  $c = 8.35 \text{ \AA}$ ,  $c/a = 0.984$ ) compound is the basic component of the alloy with 89.5 at.% (75.2% by weight) Fe. The ranges of homogeneity of these compounds are being studied to determine them more accurately. Contrary to the findings of Novy, Vickery and Kleber, the authors of this paper found that the compound richest in Co was  $\text{Gd}_2\text{Co}_{17}$  ( $\text{Th}_2\text{Ni}_{17}$  type structure,  $a = 8.37$ ,  $c = 8.14 \text{ \AA}$ ,  $c/a = 0.973$ ) and not  $\text{GdCo}_5$ . For compounds of Nd with Fe, which are in equilibrium with  $\alpha\text{-Fe}$ , the authors found that their structure was of the type  $\text{Th}_2\text{Zn}_{17}$  ( $a = 8.59$ ,  $c = 12.47 \text{ \AA}$ ,  $c/a = 1.451$ ). For  $\text{GdRu}_2$  Compton and Matthias (Acta crystallogr., 12, 9, 651, 1959) found that the structure was of the type  $\text{MgZn}_2$ . However, the authors of this communication found that it also had a second modification with a structure of the type  $\text{MgCu}_2$  ( $a = 7.56 \text{ \AA}$ ). In the system  $\text{GdMg}$  the existence of the following compounds was established:  $\text{GdMg}$  (type  $\text{CaCl}_2$ ,  $a = 3.79 \text{ \AA}$ );  $\text{GdMg}_2$  (type  $\text{MgCu}_2$ ,  $a = 8.55 \text{ \AA}$ );  $\text{GdMg}_3$  (type  $\text{BiF}_3$ ,  $a = 7.31 \text{ \AA}$ ).

Card 2/3

Crystal structures of ....

S/070/63/008/002/010/017  
E073/E335

ASSOCIATIONS:

L'vovskiy gosudarstvennyy universitet im.  
I. Franko (L'vov State University im.  
I. Franko)  
Institut metallurgii im. A.A. Baykova  
(Institute of Metallurgy im. A.A. Baykov)

SUBMITTED:

July 9, 1962

Card 3/3

L 18097-63

ACCESSION NR: AP3004096

EMP(q)/EWT(m)/BDS

AFFTC/ASD

JD/JG

S/0070/63/008/004/0595/0599

AUTHORS: Kripyakevich, P. I.; Gladyshevskiy, Ye. I.; Zarechnyuk, O. S.;  
Yevdokimenko, V. I.; Zalutskiy, I. I.; Frankevich, D. P.

TITLE: Some patterns in the crystal chemistry of intermetallic compounds of rare-  
earth metals

SOURCE: Kristallografiya, v. 8, no. 4, 1963, 595-599.

TOPIC TAGS: crystal chemistry, rare earth, morphotropic series, isostructural series, lattice, atomic number

ABSTRACT: The authors have used data from the literature as well as their own experimental work to study the intermetallic compounds of rare-earth metals. The aspects studied include isostructure, morphotropy, dependence of lattice constants on atomic number, and the formation of tertiary compounds. In view of inadequate data on isostructural compounds, the exact character of such series cannot be predicted, but it is thought unlikely that complete isostructural series will be found for the rare earths (i.e., series including all the rare earths). The compounds will most probably form a morphotropic series of identical compositions

Card 1/2

L 18097-63

ACCESSION NR: AP3004096

5  
or a morphotropic series of varying compositions. In most morphotropic series, beginning with some particular rare earth, a certain structural type gives way to another, as occurs at the boundary between the cerium and yttrium groups. Such series are commonly polymorphous. Successive changes in atomic number lead in some series to changes in both composition and structure. The atomic radius, which does not change consistently with increase in atomic number, is an effective characteristic in determining isostructural and morphotropic series. Compounds of certain structural types that are absent in double systems may show up in tertiary or quaternary systems. An example is the existence of compounds of  $\text{Th}_2\text{Zn}_{17}$  and  $\text{ThMn}_{12}$  in the system Ce-Mn-Al. Although they are absent in the system Ce-Mn. They exist in the related double systems Ce-Fe and Th-Mn. Orig. art. has: 1 figure and 1 table.

27  
ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. I. Franko (L'vov State University)

SUBMITTED: 14Mar63

DATE ACQ: 15Aug63

ENCL: 00

SUB CODE: FH

NO REF SOV: 014

OTHER: 007

Card 2/2

L 13504-63 EWP(g)/EWT(m)/BDS AFETC/ASD JD/JG

ACCESSION NR: AP3003478

S/0078/63/008/007/1668/1672

AUTHORS: Zarechnyuk, O. S.; Kolobnev, I. F.; Teslyuk, M. Yu. 60  
59TITLE: Analysis of melts of the ternary system Al-Mn-Ce, rich in aluminum

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 7, 1963, 1668-1672

TOPIC TAGS: Al, Mn, Ce, aluminum, cerium, manganese, ternary system, aluminum ternary system

ABSTRACT: The phase diagram and the isothermic cross section of the Al corner of the Al-Mn-Ce system were drawn from x-ray and microstructure data on 116 melts at 500F. In equilibrium with the solid solution (Al, Omega-phase) are the compounds Al sub 6Mn and Al sub 4 Ce (or solid solutions based on these) and a ternary compound T, whose area of homogeneity is in the interval 36-43 wt. % Al, 30-40 Mn and 24-28Ce. T, is also in equilibrium with Al sub 4 Ce, with the double compounds of Al and Mn and with a ternary compound T3 whose area of homogeneity is 23-35 wt. % Al, 30-42 Mn and 33-38 Ce and whose structure type approaches Th sub 2 Zn sub 17. Structure of T, approaches the type ThMn sub 12. Compounds analogous to the T sub 2 in Al-Cu-Ce system (Al sub 4 MnCe) do not exist in the Al-Mn-Ce system. The authors express thanks to Ye. I. Gledy'shevskiy and P.I. Kripyanovich for

Card 1/2

L 13504-63

ACCESSION NR: AP3003478

discussing the work. N. G. Kisil' took part in the work." Orig. art. has: 15 figures.

ASSOCIATION: L'vovskiy gosudarstvenny'y universitet Im. I. Franko (Lvov State University).

SUBMITTED: 20Aug62

DATE ACQ: 02Aug63

ENCL: 00

SUB CODE: CH, ML

NO REF SOV: 008

OTHER: 003

Card 2/2

L 12598-63 EWP(a)/EWT(m)/EDS AFFTC/ASD JD

ACCESSION NR: AP3003479

S/0078/63/008/007/1673/1677

AUTHOR: Altunina, L. N.; Glady\*shevskiy, Ye. I.; Zarechnyuk, O.S.;  
Kolobnev, I. F.

TITLE: Physico-chemical analysis of the system  $\text{Al-Si-Ce}$  in the  
region of 0-73% by weight of Ce

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 7, 1963,  
1673-1677

TOPIC TAGS: Al, Si, Ce, s-ray analysis

ABSTRACT: The joint solubility of silicon and cerium in aluminum is studied. In equilibrium with a solid solution of the aluminum-base alloy, there is besides Si and  $\text{Al}_4\text{Ce}$ , a compound X and a solid solution of aluminum in  $\text{CeSi}_2$ . The approximate composition of compound X is 35 at. % Al, 45 at. % Si, 20 at. % Ce (19 w % Al, 25 w % Ce). X-ray analysis of the solid solution  $\text{Ce}(\text{Si}, \text{Al})_2$  indicated that its structure is related to type  $\text{Alpha-ThSi}_2$ . Maximum content of aluminum in solid solution  $\text{Ce}(\text{Si}, \text{Al})_2$  is 20-22 wt%. Orig. art. has: 6 figures.

Card 1/2

*L'vov State Univ.*

L 25036-65

INT(a)/EPR/T/MP(t)/EXT(b)

Fe-J

INT(c)

JD/JG/RLK

ACCESSION NR: AT4048707

S/0000/64/000/000/0151/0152

35  
A+1

aluminum and in the components of their ternary systems

**SOURCE:** Vsesoyuznoye soveshchaniye po splavam redkikh metallov, 1963. Voprosy\* teorii i primeneniya redkozemel'nykh metallov (Problems in the theory and use of rare-earth metals); materialy\* soveshchaniya. Moscow, Izd-vo Nauka, 1964, 151-152.

**TOPIC TAGS:** quaternary system crystal structure, ternary system crystal structure, cerium alloy, manganese alloy, copper alloy, aluminum alloy

**ABSTRACT:** Investigation of this quaternary, aluminum-rich system, which had not been studied previously, was undertaken as a continuation of studies of the ternary systems Ce-Mn-Al and Ce-Cu-Al. The ternary compounds found had been reported earlier and are again listed and described. The nature of the phases existing in equilibrium with the  $\alpha$ -phase in the quaternary system was investigated in 40 melts with constant aluminum content (85.7 at. %) under X-ray. This showed the following compounds to be present: binary  $MnAl_3$ ,  $CeAl_3$ ,  $CuAl_2$ ; ternary  $CeMn_2Al_8$  and  $CeCu_4Al_8$  and 2 quaternary com-

Card 0/2

L 25036-65

ACCESSION NO: AT4048707

pounds. One of these, called  $Q_1$ , contained a rather large amount of Mn and was in equilibrium with  $CeMn_4Al_8$  and  $Q_2$ , which latter was rich in copper. No crystal structure was determined for  $Q_1$ .  $Q_2$  was given the formula  $Ce(Mn, Cu, Al)_{11}$ . This had a cubic structure with  $a = 6.40 \text{ \AA}$ . The intensity of the lines agreed with those calculated for the type  $BaFe_{11}$ . Further studies will deal with the range of homogeneity of this quaternary system.

ASSOCIATION: none

SUBMITTED: 12 Jun 64

ENCL: 00

SUB CODE: IC, SS

NO REF SOV: 003

OTHER: 005

Cord 2/2

L 16584-55 EMT(m)/EPR/ENP(t)/ENP(b) Ps-4 IJP(c)/ESD(zs)/ASD(a)-5/ASD(m)-3/  
 AS(mp)-2 JD  
 ACCESSION NR: AP5000286 S/0070/64/009/006/0835/0838

AUTHORS: Zarechnyuk, O. S.; Kripyakevich, P. I.; Gladyshevskiy, Ye. I.

TITLE: Ternary intermetallic compounds with superstructure relative to the  $BaAl_4$  type

SOURCE: Kristallografiya, v. 9, no. 6, 1964, 835-838

TOPIC TAGS: intermetallic compound, x ray structure analysis, crystal syngony, crystal lattice parameter, cerium compound

ABSTRACT: In order to determine the type of crystal structure of the compounds  $CeCu_{0.75-1.0}Al_{3.25-3.0}$ ,  $CeBe_{1.2-1.4}Al_{2.8-2.6}$  and  $Ce(Zn, Al)_4$ , the authors made an x-ray structural investigation of a single crystal compound of the Ce-Cu-Al system. The single crystal (0.2--0.3 mm) was obtained by slow cooling of a melt con-

Card 1/

L 16534-65

ACCESSION NR: AP5000286

taining 16.5 at.% Ce (99.6% pure), 16.6 at.% electrolytic copper (99.89% pure) and 66.7 at.% aluminum (99.98% pure). The structure of the compound was found to be of tetragonal syngony with lattice parameters  $a = 4.28$ ,  $c = 10.80 \text{ \AA}$ ,  $c/a = 2.52$ , which are close to those of  $\text{BaAl}_4$ . The line intensities were calculated for two atom distributions -- in the  $\text{BaAl}_4$  and in the superstructure for this type. The results have established that the Ce-Cu-Al system forms a ternary compound which is structurally related to the double compound  $\text{CeAl}_4$ , and exists in equilibrium with the latter at  $400^\circ\text{C}$ . The ternary compound differs from the binary one in the lattice periods and in an ordered arrangement of the atoms of the third component. The results show that the ternary compound belongs to a type which is superstructural with respect to the  $\text{BaAl}_4$  [space group  $I4/mmm$ - $D_{4h}^{17}$ , Ce in (2a), Cu (Be, Zn) and Al (statistically) or Ga in 4(e) with  $z \approx 0.38$  ( $z = 0.385 \pm 0.003$  in the case of the copper compound), and Al in (4d)]. The conditions for the existence of such triple compounds were checked and it was found that their formation is

Card 2/3

pounds. Orig. art. has: 1 table. content than beryllium com-

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. I. Franko  
(L'vov State University)

SUBMITTED: 13Mar64

SUB CODE: SS, MM

NR REF SOV: 006

ENCL: 00

OTHER: 000

Card 3/3

AUTHOR: Krivyakovich, P. I. (Kripyakevich, P. I.); Zarechynsk, O. S. 5

27 27 27 27  
TITLE: The quaternary compound  $\text{Ca}_{12}\text{Cu}_2\text{Al}_6$  and its crystal structure

SOURCE: AN UkrSSR. Doperidi, no. 10, 1964, 1323-1325

TOPIC TAGS: x ray investigation, lattice constant, quenching nature, line intensity

ABSTRACT: In the present work the results of x-ray investigation of the crystal-line structure of  $\text{Ca}_{12}\text{Cu}_2\text{Al}_6$  compound ( $\alpha$  phase) are given. It showed the presence of a quaternary compound of the  $\text{CaZn}_{12}$  superstructure type. This conclusion was based on the lattice type, the nature of quenching (lines hkl with odd h and l are missing) and the lattice constant value. Orig. art. has: 1 table and 1 figure.

ASSOCIATION: L'vivskiy derzhavnyy universitet (Lvov State University)

SUBMITTED: 10Jul63

ENCL: 00

SUB CODE: IC, SS

NO REF NO: 004

OTHER: 000

Card 1/1

**"APPROVED FOR RELEASE: 09/19/2001**

**CIA-RDP86-00513R001963820005-7**

**APPROVED FOR RELEASE: 09/19/2001**

**CIA-RDP86-00513R001963820005-7"**

**"APPROVED FOR RELEASE: 09/19/2001**

**CIA-RDP86-00513R001963820005-7**

**APPROVED FOR RELEASE: 09/19/2001**

**CIA-RDP86-00513R001963820005-7"**

ACC NR: AP6019836 (N) SOURCE CODE: UR/0370/66/000/001/0153/0155

AUTHOR: Zarechnyuk, O. S. (L'vov); Frankovich, D. P. (L'vov); Kripyakevich, P. I. (L'vov)  
 ORG: none

TITLE: Radiographic investigation of the part of the Al-Be-Ce system in the 0-25% Ce region

SOURCE: AN SSSR, Izvestiya. Metally, no. 1, 1966, 153-155

TOPIC TAGS: phase analysis, x ray analysis, ternary alloy, aluminum base alloy, beryllium, cerium, intermetallic compound

ABSTRACT: Specimens of 34 ternary Al-Be-Ce alloys melted in corundum crucibles (helium atmosphere) within electric resistance furnaces and quenched from 600°C were subjected to x-ray phase analysis in the region of Ce concentrations of from 0 to 25 at.%. Findings: aside from Be itself only two binary compounds,  $\text{CeAl}_4$  and  $\text{CeBe}_{13}$  exist in an equilibrium with the Al-base solid solution. In the presence of 20 at.% Ce the ternary compound of variable composition  $\text{CeBe}_{1.2-1.4}\text{Al}_{2.8-2.6}$  (D-phase) forms in the Al-Be-Ce system; this compound exists in an equilibrium with the binary compounds  $\text{CeBe}_{13}$ ,  $\text{CeAl}_4$  and  $\text{CeAl}_2$  but it does not exist in an equilibrium with the Al-base solid solution. These findings make it possible to compare the Al corner of the Al-Be-Ce system with the corresponding parts of certain other Al-X-Ce systems, namely, systems with Cu, Mn and Si. Thus, ternary intermetallic compounds exist in all these systems but, by contrast with the systems Al-Cu-Ce, Al-Mn-Ce and Al-Si-Ce, the

Card 1/2

UDC: 669.017.13

L 44309-66

ACC NR: AP6019836

ternary compound ( $\text{CeBe}_{1.2-1.4}\text{Al}_{2.8-2.6}$ ) forming in the Al-Be-Ce system does not exist in an equilibrium with the Al-base solid solution. On the other hand, the D-phase of the Al-Be-Ce system is isostructural with the  $T_2$ -phase of the Al-Cu-Ce system (Fig. 1). Orig. art. has:

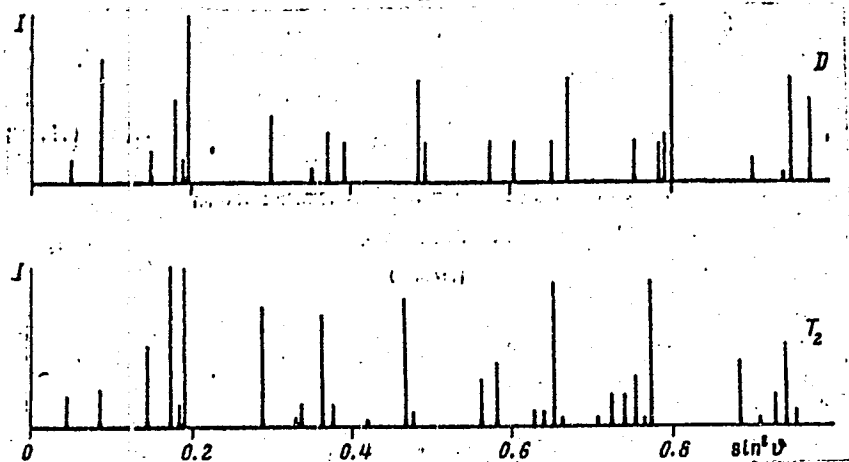


Fig. 1. Roentgenograms of the D-phase of Al-Be-Ce alloys and  $T_2$ -phase of Al-Cu-Ce alloys

2 figures.

SUB CODE: 22, 11, 13/ SUBM DATE: 13Mar65/ ORIG REF: 006/ OTH REF: 002

Card 2/2 VLR

L 41192-66 EWT(m)/EWP(t)/ETI LJP(c) JH/JD/JG

ACC NR: AP6021614

SOURCE CODE: UR/0021/66/000/006/0767/0769

AUTHOR: Zarechnyuk, O. S.ORG: L'viv State University (L'vivs'kyi derzhavnyi universytet)TITLE: Ternary compounds with a  $\text{ThMn}_{12}$  superstructure in the yttrium-transition metal-aluminum system 27

SOURCE: AN UkrRSR. Dopovid, no. 6, 1966, 767-769

TOPIC TAGS: ternary alloy, alloy phase diagram, yttrium compound, transition element, aluminum, x ray diffraction analysis

ABSTRACT: The author studies the alloys in ternary systems of the Ce-T-Al type ( $T=\text{Cr, Mn, Fe, Co, Ni, Cu}$ ). The results show that ternary compounds are formed in systems with chromium, manganese, iron and copper with the composition  $\text{CeT}_4\text{Al}_8$ . These ternary compounds have a superstructure of the  $\text{ThMn}_{12}$  ( $\psi$ -phase) type. Compounds with this type of structure are also found in La-T-Al systems ( $T=\text{Cr, Mn, Fe}$ ). The formation of  $\psi$ -phases in corresponding systems with yttrium is studied. The raw materials for preparing the alloys were yttrium (98.7% Y and 1.2% other rare earth elements), aluminum AV-000 (99.99% Al), chromium (99.999% Cr), electrolytic manganese (99.8% Mn), iron (99.999% Fe), grade K-0 cobalt (99.99% Co), nickel (99.999% Ni) and copper (99.999% Cu). All melting operations were carried out in crucibles made from  $\text{Al}_2\text{O}_3$  in an elec-

Card 1/2

ACC NR: AP6021614

tric furnace with an argon atmosphere. The alloys were tempered at 600°C and studied by x-ray analysis. The results show that ternary compounds with a  $\text{ThMn}_{12}$  type superstructure are formed with composition  $\text{YT}_4\text{Al}_8$  in Y-T-Al systems (T=Cr, Mn, Fe, Cu). These compounds are not found in yttrium or cerium systems with cobalt and nickel. Theoretical calculations based on the line intensities of the x-ray patterns for the compounds  $\text{YCr}_4\text{Al}_8$  and  $\text{YCu}_4\text{Al}_8$  show best agreement between calculations and experimental data for complete ordering of atoms in these components (space group  $I4/mmm--D_{4h}^{17}$ ; 2Y

in 2(a), 8Cu(Cr) in 8(f), 16Al in 8(i) with  $x=0.365$  and 8(j) with  $x=0.275$ ). The lattice constants are tabulated. The article was presented for publication by Academician V. M. Svechnykov. Orig. art. has: 2 tables.

SUB CODE: 11/ SUBM DATE: 16Jan66/ ORIG REF: 002

Card 2/2 /

L 29384-66 EWT(1)

ACC NR: AP6017970

SOURCE CODE: UR/0413/66/000/010/0052/0052

INVENTOR: Balashov, I. I.; Georgiyevskiy, Yu. I.; Zarechnyy, V. P.

ORG: none

TITLE: DC to AC converter. Class 21, No. 181724

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 52

TOPIC TAGS: electric energy converter, electronic circuit

ABSTRACT: A DC to AC converter (intended for measurements) in the form of a two-transistor direct coupled astable multivibrator is shown in the figure. To increase

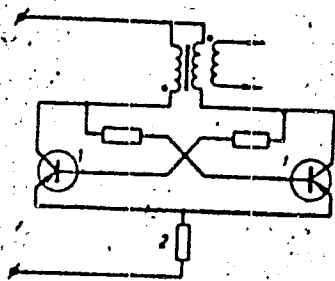


Fig. 1. DC to AC converter

1 - Transistors; 2 - temperature sensitive resistor.

Card 1/2

UDC: 621.314.572:537.312.6

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ACC NR: A26017970

its accuracy in a wide temperature range, the emitters of the two transistors are coupled to ground through a temperature sensitive resistor (for example, a copper resistor). Orig. art. has: 1 figure. [BD]

SUB CODE: 09/ SUBM DATE: 29Mar65/ ATD PRESS: 5008

Card 2/2

CO

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~~ZARECKA, Stefania~~  
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Klinika Polozniczo - Ginekologiczna Akademii Medycznej Warszawa);

Warsaw; Director: I. ROSZKOWSKI, Prof dr med

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Co-authors:

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Medicine, Warsaw; Director: I. ROSZKOWSKI, Prof. dr. med.

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(HODGKIN'S DISEASE) (GLYCOPROTEINS)  
(BLOOD SUGAR) (BLOOD PROTEINS) (URINE)  
(MUCOPROTEINS) (POLAROGRAPHY)  
(COLORIMETRY) (ELECTROPHORESIS)

POLAND

WIEDZORKEWICZ, Anna, SCHNEIBERG, Krzysztof, and ZAREMBA, Barbara; Institute of Oncology (Instytut Onkologii) in Gliwice (Director: Dr. med. Jeremi SWIECKI)

"Some Problems of Therapy of Malignant Diseases of the Lympho-Reticular System."

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