

CHUGUNOV, Yu.D.

Mammals of the Gobi Altai. Report No. 1: Gerbils, hamsters,
field mice. Zool. zhur. 41 no. 11: 1719-1730 N '62. (MIRA 16:1)

1. Biological-Pedological Faculty, State University of Moscow.
(Gobi-Altai District—Gerbils)
(Gobi-Altai District—Hamsters)
(Gobi-Altai District—Field mice)

CHUGUNOV, Yu.D.; FLINT, V.Ye.; MAL'TSEV, M.I.; KATKOV, V.M.; SIDOROV, N.F.

Experiment in mapping the habitat of the greater gerbil within
the foci of cutaneous leishmaniasis in southern Turkmenistan.
Vop.kraev.paraz.Turk.SSR 3:157-160 '62. (MIRA 16:4)

1. Institut epidemiologii i mikrobiologii imeni N.F.Gamaleya,
Moskva i Okruzhnoy gospiatal' pogranychnykh voysk Turkmenskogo
okruga.

(TURKMENISTAN--GERBILS AS CARRIERS OF DISEASE)
(TURKMENISTAN--DELHI BOIL)

FLINT, V.Ye.; CHUGUNOV, Yu.D.

Materials on the distribution of some birds of Turkmenia.

Ornitologia no.5:175-176 '62.

(Turkmenistan--Birds)

(MIRA 16:2)

CHUGUNOV, Yu.D.

First All-Union Conference on Mammals. Zool.zhur. 41 no.10;
1598-1600 0 '62. (MIRA 15:12)

(Mammals)

CHUGUNOV, Yu.D.

Materials on the mammals of the Gobi Altai (jerboas and Lagomorpha). Biul. MOIP. Otd. biol. 67 no.6:27-28 N-D'62
(MIRA 17:7)

FLINT, V.Ye.; CHUGUNOV, Yu.D.; SMIRIN, V.M.; FORMOZOV, A.N., prof., red.;
~~MITIN, R.S., red.~~

[Mammals of the U.S.S.R.] Mlekopitaiushchie SSSR. Moskva,
Mysl', 1965. 437 p.
(MIRA 18:7)

10d-6. Determination of Magnesium Powder. (In Russian.) V. I. Chugunova and A. P. Ivanova, Zavodskaya Laboratoriya (Factory Laboratory), v. 13, Oct. 1947, p. 1163-1164.

Direct method based on solution MgO by 5% CrO₂ which does not react with metallic Mg.

immediate source clipping

MIROSHNICHENKO, A.M., SHTROMBERG, B.I., GARBAR, A.K., MOISEYEVA, Kh. M.,
STRUYEV, M.I., SAVKOVA, V.P., CHUGUNOVA, A. Ye.

Technological properties of lower carboniferous coals in the
Western Donets Basin. Koks i khim. no.3:3-8 '60. (MIRA 13:6)

1. Treat "Ukruglegeologiya" (for Struyev, Savkova, Chugunova).
2. Ukrainskiy uglekhimicheskiy institut (for Miroshnichenko,
Shtromberg, Garbar, Moiseyeva).
(Donets Basin--Coal)

TESMENITSKIY, D.I., inzh.; CHUGUNOVA, G.I., inzh.

Stationary ASK-1-63 acetylene generator. Svar. proizv. no.3:
38-39 Mr '65. (MIRA 18:5)

1. VNIIAVTOGENMASH.

CHUGUNOVA, L.V., assistant

Use of armine in obstetrics. Kaz.med.zhur. 40 no.3:53-58
My-Je '59. (MIRA 12:11)

1. Iz kafedry akusherstva i ginekologii No.1 (zav. - prof.N.Ye.
Sidorov) Kazanskogo instituta usovershenstvovaniya vrachey
imeni V.I.Lenina i kafedry farmakologii (zav. - dotsent M.A.Aluf)
Kazanskogo meditsinskogo instituta.
(PHOSPHINIC ACID) (OBSTETRICS)

CHUGUNOVA, L.V., assistant

Cholinesterase activity of the blood serum in the stimulation of labor with amin. Kaz.med.zhur. 40 no.6:78-79 N-D '59.

(MIRA 13:5)
1. Iz kafedry akusherstva i ginekologii No.1 (zav. - prof. N.Ye. Sidorov) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey imeni V.I. Lenina i kafedry farmakologii (zav. - dotsent M.A. Alaf) Kazanskogo meditsinskogo instituta.
(CHOLINESTERASE) (PHOSPHINIC ACID) (L 3:2 (OBSTETRICS))

CHUGUNOVA, L. V., Cand. Medic. Sci. (diss) "Armine ['armin']
and Its Effect on Contraction of Uterus Experimentally and in
the Clinic." Kazan', 1961, 15 pp. (Kazan' Med. Inst.) 230
copies (KL Supp 12-61, 290).

90. ANTIBACTERIAL ACTION OF ORGANOPHOSPHORUS COMPOUNDS. S. M. Vyaseleva et al. 532

91. TREATMENT OF ANIMAL TRICHOPHYTOSIS WITH DIMETHYL α -ACETOXY-B,P,P-TRICHLOROETHYL-
PHOSPHATE (PREPARATION 507). E. Sh. Mingushewa et al. 533

92. MECHANISM AND EXPERIMENTAL THERAPY OF BRONCHOPNEUMONIA CAUSED BY ORGANOPHOSPHORUS COM-
POUNDS. L. G. Mayskaniy and I. V. Semenov 545

93. EFFECT OF ARMIN ON CONTRACTILE UTERINE ACTIVITY. L. V. Churugova 555

94. EFFECT OF ALKYL ESTERS OF DIETHYL- AND DIPROPYLPHOSPHINIC ACIDS ON UTERINE CON-
TRACTION (PREPARATIONS 131 AND 183). N. A. Korchagina

PLANT PROTECTION SECTION

95. CHOLINERGIC SYSTEMS OF INSECTS AND MECHANISM OF ACTION OF THE INSECTICIDAL ACTIVITY
OF ORGANOPHOSPHORUS COMPOUNDS. A. K. Voskresenskaya et al. 561

96. BIOLOGICAL ACTION OF ORGANOPHOSPHORUS COMPOUNDS. A. M. Alekseev and T. E. Izotova 569

97. COMPARATIVE TOXICOLOGICAL PROPERTIES OF TETRAETHYL DITHIOPYROPHOSPHATE AND DIMETHYL
DIETHYL DITHIOPYROPHOSPHATE. I. D. Niklesova et al. 578

98. EFFECT OF PREPLANTING TREATMENT OF CORN WITH ORGANOPHOSPHORUS COMPOUNDS ON THE
GROWTH AND DEVELOPMENT OF THE PLANTS. T. E. Izotova et al. 583

99. ACTION OF ORGANOPHOSPHORUS COMPOUNDS ON SOIL MICROFLORA. S. M. Samosova et al. 588

100. DITHIOPHOS [DITHIOPHOS] - A VERY EFFECTIVE CONTROL AGENT FOR SUBTROPICAL PESTS.
P. I. Mitrofanov 593

101. ORGANOPHOSPHORUS AEROSOLS FOR CONTROL OF AGRICULTURAL PESTS. A. I. Sidorov and
P. I. Mitrofanov 597

102. STUDY AND APPLICATION OF ORGANOPHOSPHORUS COMPOUNDS FOR CONTROL OF EURYGASTER.
D. M. Paikin and N. M. Gansper 601

103. ORGANOPHOSPHORUS INSECTICIDES WITH INTRAPIANT ACTION AS A METHOD OF PROTECTING GRAIN
SPROUTS FROM PESTS. P. V. Sazonov et al. 610

104. TESTS RESULTS ON M-31 PREPARATION IN CONTROL OF SUCKING PESTS OF FRUIT AND DECORATIVE
PLANTS. M. P. Shabanova and L. P. Efimova 614

105. DETERMINATION OF SMALL AMOUNTS OF ORGANOPHOSPHORUS INSECTICIDES IN AIR AND FOOD
PRODUCTS. M. A. Trutaenko 619

106. SORPTION OF ORGANOPHOSPHORUS INSECTICIDE VAPORS BY ACTIVATED CARBON. Yu. I. Kundiyov
and M. E. Poddinvaeva 625

Khimiya i Primeneniye Fosfororganicheskikh Soedineniy (Chemistry and Application of Organophosphorus Compounds) A. Ye. Arbuzov, Ed. publ. by Kazan' Affil, Acad. Sci. USSR, Moscow, 1962 632pp.

Collection of complete papers presented at the 1959 Kazan Conference on Chemistry of Organophosphorus Compounds.

SARAYEVA, M.V.; GITER, N.M.; PODVERBNAYA, M.S.; CHUGUNOVA, M.I.

Reduce the great variety of grades in canned food.

Kons. i ov. prom. 16 no.6:34 Je '61.

(MIRA 14:8)

1. Kamyshinskiy konservnyy zavod.
(Food, Canned)

CHUGUNOVA, M. N. and BELYAYEV, G. M.

"Physiological Differences in *Mytilus edulis* L. of the Barents and the Baltic Seas," Dokl. AN SSSR, 85, No.1, 1952

C HUGUNOVA, M.S.

CHUGUNOVA, M.S. (Omsk, ul. Kuybysheva, d.44)

Isolated traumatic all bladder rupture caused by injury. Vest.khir.
79 no.8:119-120 Ag '57. (MIRA 10:10)

1. Iz gospi'tal'noy khirurgicheskoy kliniki (ispolnyayushchiy
obyazannosti zav. - dotsent V.V.Shklyayev) Omskogo meditsinskogo
instituta im. M.I.Kalinina.
(GALL BLADDER, rupture
in inj. of abdom. i child)

L 01827-66

EWT(1)/EWT(m)/EPT(n)-2/EWU(m)/EPA(w)-2/T/EWP(t)/EWP(b) IJP(c)

AF/JD

ACCESSION NR: AP5020129

UR/0109/65/010/008/1500/1506

537.525.2+537.533.c

AUTHOR: Yelinson, M. I.; Zhdan, A. G.; Kudintseva, G. A.; Chugunova, M. Ye.

TITLE: Thermionic and field emissions from stannic oxide

SOURCE: Radiotekhnika i elektronika, v. 10, no. 8, 1965, 1500-1506

TOPIC TAGS: thermionic emission, field emission, stannic oxide

ABSTRACT: Thin (0.1-0.3 μ) polycrystalline SnO₂ films deposited on an optically-polished quartz were subjected to constant and pulsed (100 pps) voltages. A very intense hot-electron emission was observed at low voltages, which demonstrates the possibility of a strong "overheating" of the electron gas in thin SnO₂ films. The curve of film voltage vs emission current was typical of previously studied emission systems; viz., the emission current first increased rapidly and then tended to saturate. The current-voltage characteristic of the film is linear within a wide range of voltages; the curve of emission plotted against the film voltage had its maximum at a low voltage. A controllable high-current-density stable field emission from a SnO₂ film having a thin break was observed at low voltages. "The authors wish to thank V. B. Sandomirskiy and Sh. M. Kogan for a useful discussion of the

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L 01827-66

ACCESSION NR: AP5020129

results and also T. K. Likhacheva and V. Ye. Filippov for their help in the experimental work." Orig. art. has: 7 figures. [03]

ASSOCIATION: none

SUBMITTED: 13May64

ENCL: 00

SUB CODE: EC

NO REF SOV: 00

OTHER: 001

ATD PRESS: 4086

Card 2/2

L 07360-67 EWT(m)/EWP(t)/ETI IJP(c) JD/GD

ACC NR: AT6033657

SOURCE CODE: UR/0000/66/000/000/0384/0389

AUTHOR: Zhdan, A. G.; Abbyasov, Z.; Yelinson, M. I.; Chugunova, M. Ye.

ORG: none

TITLE: Studies of thin-film field-effect transistors based on GaS

SOURCE: Voprosy plnochnoy elektroniki (Problems in thin film electronics); sbornik statey. Moscow, Izd-vo Sovetskoye radio, 1966, 384-389

TOPIC TAGS: field effect transistor, thin film circuit, volt ampere characteristic

ABSTRACT: Operating characteristics of thin film FET's were measured, with particular interest in the effect of temperature extremes on transient response. Samples were vacuum-deposited, and consisted of CdS-Al sources and drains, with SiO(CaF₂)Al gates. Film thickness was from 2 to 5 mm; gate widths were either 9 or 18 μ. Response to square wave pulses varied widely, depending on both pulse length and differences in the crystalline structure among samples. Fig. 1 shows the different responses to 100-sec pulses obtained from three samples. The action of "fast" and "slow" trapping is described as governing the observed rise and decay effects. Temperature tests,

Card 1/3

UDC: 621.382.323.24:530.216.2

L 07360-67

ACC NR: A76033657

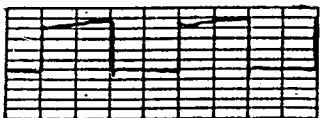
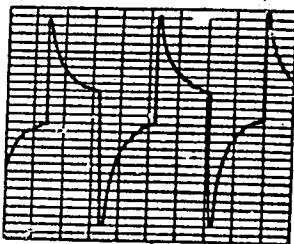


Fig. 1. CdS FET response to 100-sec pulses



Card 2/3

L-07360-67

ACC NR: ~~A~~6033657

done at 10^{-2} mm Hg from 20C to 130C, showed general improvement in characteristics with increased temperature, including an increase in gain. This indicates that at higher temperatures the deeper lying traps play a predominant part. Volt-ampere characteristics as functions of temperature are also given. Orig. art. has: 5 figures.

SUB CODE: 09/ SUBM DATE: 27Jun66/ ORIG REF: 001/ ATD PRESS: 5101

Card 3/3 afs

ACC NR: AP6027249

SOURCE CODE: UR/0109/66/011/008/1536/1537

AUTHOR: Zhdan, A. G.; Sheftal', R. N.; Chugunova, M. Ye.; Yelinson, M. I.

ORG: none

TITLE: Properties of cadmium-sulfide films produced by vacuum-spraying onto directive backings

SOURCE: Radiotekhnika i elektronika, v. 11, no. 8, 1966, 1536-1537

TOPIC TAGS: microelectronic thin film, cadmium sulfide

ABSTRACT: C. A. Escoffery did not obtain high-quality single-crystal CdS films apparently because of nonoptimal experimental conditions (Solid State Electronics, 1963, 7, 1, 31). The present article reports the successful preparation and testing of CdS films sprayed onto muscovite, flogopite, NaCl, KCl, and α -Al₂O₃; R. Zuleeg's method of spraying was used (Solid State Electronics, 1963, 7, 1, 31).

Card 1/2

UDC: 539.216.22:546.48'22

ACC NR: AP6027249

Exact data re the spraying process yielding high-quality single-crystal CdS films is reported. Test results: resistivity of muscovite-deposited CdS film was 10^7 ohms·cm; Hall mobility, $110 \text{ cm}^2/\text{v sec}$; at low spraying temperatures, $0.05 \text{ ohm}\cdot\text{cm}$ and $10 \text{ cm}^2/\text{v sec}$, respectively. Glass-deposited films showed 10^4 ohms·cm and $1 \text{ cm}^2/\text{v sec}$, respectively. Other data is reported. Orig. art. has: 5 figures.

SUB CODE: 09 / SUBM DATE: 07Apr66 / ORIG REF: 002 / OTH REF: 007

Card 2/2

CHEKUNOVA, E.V.

Group conference of efficiency workers and inventors of plants of the
medical instruments industry. Med.prom. no.4:46 O-D '55. (MLRA 9:12)
(MEDICAL INSTRUMENTS AND APPARATUS)

CHUGUNOVA, N.I.; PETROVA, Ye.G.

Adaptive characteristics of the spawning of the Black Sea anchovy (maturation and fertility). Vop. ikht. no. 1:68-72 '53. (MLRA 7:6)
(Black Sea--Anchovies) (Anchovies--Black Sea)

CHUGUNOVA, N.I.

Reconstructing the history of an individual fish's life on the basis of its scales. Zool.zhur.34 no.5:1099-1118 S-O '55.

1.Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.
(Scales (Fishes))

CHUGUNOVA, N.I.

LOVETSKAYA, A.A.; OVSYANNIKOV, V.P.; CHUGUNOVA, N.I.

Working out a method for identifying different fishes on echograms.
Vop.ikht. no.7:139-148 '56. (MIRA 10:3)

1. Is rabot Vsesoyuznogo nauchno-issledovatel'skogo instituta
rybolovstva i okeanografii i Azerbaydzhanakgo otdeleniya Kaspiyskogo
filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta rybolovstva
i okeanografii.

(Sonar in fishing)

BABUSHKIN, N.Ya., kand.biol.nauk; CHUGUNOVA, N.I., kand.biol.nauk

Distribution of shad in the southern and central Caspian and
methods of locating them. Trudy VNIRO 36:132-166 '58.

(MIRA 12:4)

(Caspian Sea--Shad)

~~CHUGUNOVA, Nina Ivanovna~~, starshiy nauchnyy sotrudnik; PAVLOVSKIY, Ye.N.,
akademik, otv.red.; MOISEYEV, P.A., prof., doktor biolog.nauk,
otv.red.; MAKAROV, B.M., red.isd-va; YEGOROVA, N., tekhn.red.

[Handbook for studying the age and growth of fishes; methodological
manual of ichthyology] Rukovodstvo po izucheniiu vozrasta i rosta
ryb; metodicheskoe posobie po ikhtiologii. Moskva, Izd-vo Akad.
nauk SSSR, 1959. 163 p. (MIRA 12:9)

1. Laboratoriya ikhtiologii Instituta morfologii zhivotnykh imeni
A.N.Severtsova Akademii nauk SSSR (for Chugunova). 2. Predsedatel'
Ikhtiologicheskoy komissii AN SSSR (for Pavlovskiy).
(Fishes) (Growth)

FORTUNATOVA, K.R.; CHUGUNOVA, N.I.

Preservability of fish tags depending on the behavior and
life conditions of fishes. Vop. ikht. no.15:91-105 '60.
(MIRA 13:9)

1. Laboratoriya ikhtiologii Instituta morfologii zhivotnykh
im. A.N. Severtsova Akademii nauk SSSR.
(Fish tagging)

PAVLOVSKIY, Ye.N., akademik, glav. red.; NIKOL'SKIY, G.V., zam. glav. red.; MARTI, Yu.Yu., red.; CHUGUNOVA, N.I., red.; SABLINA, T.B., red. izd-va; ASTAF'YEVA, G.A., tekhn. red.; DOROKHINA, I.N., tekhn. red.

[Studies on the biological foundations of fishery management; problems in the theory of the dynamics of the abundance of fishes] Ocherki po biologicheskim osnovam rybnogo khoziaistva; voprosy teorii dinamiki chislennosti ryb. Moskva, Izd-vo Akad. nauk SSSR, 1961. 238 p. (MIRA 15:1)

1. Akademiya nauk SSSR. Ikhtiologicheskaya komissiya. 2. Chlen-korrespondent AN SSSR (for Nikol'skiy).
(Fisheries)

CHUGUNOVA, N.I.

Growth characteristics of fishes and their significance for the
population dynamics. Trudy sov. Ikht. kom. no.13:94-107 '61.
(MIRA 14:8)

1. Laboratoriya ikhtiologii Instituta morfologii zhivotnykh
AN SSSR.

(Growth) (Fish populations)

CHUGUNOVA, N.I.; ASSMAN, A.V.; MAKAROVA, N.P.

Growth and fatness dynamics in fishes as adaptive processes (based
on experimental studies of carp in the Volga Delta). Trudy Inst.
morf. zhiv. no.39:96-181 '61. (MIRA 14:11)
(Volga Delta--Carp) (Adaptation (Biology))

CHUGUNOVA, N.I.

Adaptive significance of structural changes in fish scales taking place in the formation of annual and additional rings and spawning marks. Dokl. AN SSSR 141 no.6:1505-1507 D '61. (MIRA 14:12)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR.
Predstavleno akademikom Ye.N. Pavlovskim.
(Scales (Fishes))

MILANOVSKIY, Yu.Ye.; CHUGUNOVA, N.I.; IOGANZEN, B.G.

Brief news and information. Vop. ikht. 3 no.3:573-581 '63.

(MIRA 16:10)

(Caspian Sea--Sturgeons) (Azov, Sea of--Sturgeons)
(Fisheries)

CHUGUNOV, N.L. [deceased]; CHUGUNOVA, N.I.

Comparative commercial and biological characteristics of
sturgeons of the Sea of Azov. Trudy VNIRO 52:87-182 '64.

(MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo
rybnogo khozyaystva i okeanografii.

SHCHERBAKOV, I.P., CHUGUNOVA, R.V.

Classification of burnt-over areas in southwestern and central
Yakutia. Izv.Sib.otd.AN SSSR no.1:127-136 '60.

(MIRA13:7)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.
(Yakutia—Forests and forestry)

SHCHERBAKOV, I.P.; CHUGUNOVA, R.V.

Forests of southwestern districts of the Lena Valley in Yakutia
and measures for furthering forest regeneration in felling and
burnt-over areas. Trudy Inst. biol. IAFAN SSSR no.7:5-161 '61.
(MIRA 14:5)

(Yakutia—Forests and forestry)

CHUGUNOVA, R.V.

Classification of forest fires. Nauch. soob. IAFAN SSSR no.3:
67-70 '60. (MIRA 16:3)
(Yakutia--Forest fires--Classification)

NALBAT, A.S.; CHUGUNOVA, T.I.

Peculiarities of dermatopolymyositis in children. Sov. med. 24 no.4:
143-147 Ap '60. (MIRA 13:8)

1. Iz kafedry patolgicheskoy anatomii (zav. - prof. G.L. Derman),
kafedry pediatrii pediatricheskogo fakul'teta (zav. - prof. V.A.
Belousov) Khar'kovskogo meditsinskogo instituta (dir. - dotsent I.F.
Kanonenko) na baze Otilastnoy klinicheskoy bol'nitsy (glavnyy vrach
M.G. Madiyevskiy).

(SKIN--DISEASES)

(MUSCLES--DISEASES)

CHUGUNOVA, T. T.

4553. CHUGUNOVA, T. T.-obobshcheniye opyta raboty navatorov asbestotsementnoy promyshlennosti. m., promstroyizdat, 1954. 52 s. s ill. 22 sm. (M-vo prom-sti stroit. materialov SSSR. tekhn. sovet i tekhn. upr. tsentr. byuro tekhn. informatsii. inform. soobshcheniya). 1.000 ekz. bespl.-avt. ukazany na oborote tit. 1.-[55-432]

666.858st

80: Knizhnaya Letopis', Vol. 1, 1956

CHUGUNOVA, V. I.

Handwritten initials or mark.

Determination of magnesium oxide in powdered magnesium. V. I. Chugunova and A. P. Ivanova. *Zhurnal Khim. Fiz.* 18, 1163-4 (1947).— Stir 1-5 g. of sample for 1-2 min. with 20 ml. of a 8% soln. of CrO_3 . Filter rapidly and wash the residue with water and 1% NH_4OH until colorless. Treat the filtrate with 3 ml. HNO_3 and 3 ml. H_2SO_4 , 1 ml. 1% $AgNO_3$, and 20 ml. 20% $(NH_4)_2S_2O_8$, boil to destroy excess persulfate, treat hot with 15% NH_4Cl (15 ml.) and 15 ml. 10% NaH_2PO_4 , followed by concd. NH_4OH , until the $AgCl$ ppt. dissolves, and the ppt. of $MgNH_4PO_4 \cdot 6H_2O$ forms. Add 10-15 ml. of NH_4OH in excess and let the mixt. stand 3-4 hrs. Filter and wash the ppt. with 2.5% NH_4OH until white. Finish the treatment of the $MgNH_4PO_4 \cdot 6H_2O$ as usual.

G. M. Kosolapoff

7

AND S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

USHAKOVA, K.N.; POPOVA, A.V.; DANYUKOVA, A.V.; RADCHENKO, L.N.;
Prinimali uchastiye: SERGEYEVA, T.F., inzh.; CHUGUNOVA, V.V.,
inzh.

Preparation of acetate silk from a water-acetone solution of
acetylcellulose. Khim.volok. no.1:71-72 '63. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstven-
nogo volokna (for Ushakova, Popova, Sergeyeva). 2. Serpukhovskiy
zavod (for Danyukova). 3. Nauchno-issledovatel'skaya labora-
toriya pryadil'no-tkatskoy fabriki im. Dzerzhinskogo (for
Radchenko).

(Rayon)

(Cellulose acetates)

CHUGUNOVA, Ye.T.

Efficient use of the wastes of potassium combines to obtain
common salt. Sbor nauch. trud. UkrNIISol' no.7:109-111 '64
(MIRA 18:1)

KULEV, L.P. [deceased]; CHUGUNOVA, Zh.V.

Synthesis of β -diphenyl-(2-carboxy)-acrylic acid and its derivatives.
Izv. Sib. otd. AN SSSR no. 11:141-143 '62. (MIRA 17:9)

1. Tomskiy politekhnicheskii institut.

CHUGUNOVA, Z. YE.

CHUGUNOVA, Z. YE.- "Investigations on the Principal Problems of Landscaping the City of Yakutsk." Min of Higher Education USSR, Moscow Forestry-Engineering Inst, Moscow 1955 (Dissertations for Degree of **Candidate of Agricultural Sciences**)

SO: Knizhnaya Letopis' No. 26, Jun 1955, Moscow

Chugunova, Z.E.

USSR/Cultivated Plants - Ornamental.

L-9

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69459

Author : Chugunova, Z.E.

Inst :

Title : Floriculture in Yakutsk.

Orig Pub : Sad i ogorod, 1956, No 7, 72-74

Abstract : By experiments conducted during 3 vegetative periods it was established that under Yakutsk conditions it is possible to cultivate most decorative annuals, and also dahlias, gladioli, biennial mallows and pansies. However, in view of a short frost-free season (124 days) most flowering plants are preliminary cultivated in hothouses or nurseries and only then transferred to soils outside. Experiments were conducted by cultivating flowering plants by sowing seed directly into the soil. It is also planned to introduce local wildgrowing perennials into cultivation: daur

Card 1/2

CHUGUNOVA, Z.Ye.

USSR/Forestry - Forest Cultures.

K-4

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91561

Author : Chugunova, Z.Ye.

Inst : Yakutsk Affiliate of the AS USSR

Title : The Cultivation of Planting Material for Tree Growing in
the City of Yakutsk.

Orig Pub : Dokl. na 8-4 nauchn. sessii. (Yakutskiy Ak. AN SSSR).
Botan. pochvoved. zool., zoot-ekhnika. Yakutsk, 1957
(1958), 34-50.

Abstract : No abstract.

Card 1/1

- 41 -

CHUGURYAN, R.

Electric conditions of carbide furnaces. Prom. Arm. 4
no. 5:38-42 My '61.

(MIRA 14:8)

1. Institut elektrotehniki AN Armyanskoy SSR.
(Electric furnaces)

CHUGURYAN, R.A.

Electric conductivity of liquid calcium carbide. Izv. AN Arm.
SSR. Ser.tekh.nauk 11 no.5:74-77 '58. (MIRA 11:11)

1. Laboratoriya elektrotehniki AN ArmSSR.
(Calcium carbide--Electric properties)

CHUGURYAN, R.A.

Electric processes in the shell of the carbide furnace. Izv. AN
Arm. SSR. Ser. tekhn. nauk 14 no.3:27-34 '61. (MIRA 14:8)

1. Institut elektrotehniki AN Armyanskoy SSR.
(Electric furnaces) (Carbides)

CHUGURYAN, B.

Electric conductivity of the batch of calcium carbide. Prom.
Arm. 5 no.2:32-36 F '62. (MIRA 15:2)

1. Institut energetiki AN Armyanskoy SSR.
(Calcium carbide--Electric properties)

~~GEUGURYAN, R.A.~~

Concerning some problems of balancing of three-phase carbide furnaces
[in Armenian with summary in Russian.] Izv. AN Arm.SSR.Ser.tekh.nauk
13 no.6:39-46 '60. (MIRA 14:3)

(Electric furnaces,

AL'TSHULER, L.I.; VINTS, B.D.; MAL'TSEVA, K.A.; ~~CHUGURYAN, Z.S.;~~
SHLYAKHTINA, A.P.

World magnetic maps of 1955. Trudy NIIZM no.11:229-236 '55.
(MLRA 9:8)

(Magnetism, Terrestrial--Maps)

CHUGURYAN, Z. S

37-11-17/18
AUTHOR: Al'tshuler, L.I., Vints, B.D., Mal'tseva, K.A.,
Chuguryan, Z.S., Shlyakhtina, A.P.
TITLE: Magnetic Surveys Outside the USSR (Magnitnyye s'yemki
za predelami SSSR)
PERIODICAL: Trudy Nauchno-issledovatel'skogo instituta zemnogo
magnetizma, 1957, Nr 11(21) pp. 190-228 (USSR)
ABSTRACT: A greatly needed catalog of magnetic values for the
whole world resulted in an accumulation of 75,000 cards
(each for a separate observation) of magnetic data,
mostly declinations only. Europe leads with 289 sources
of observations, the U.S.A. has 150, Asia 49, Africa 102,
Australia 102, Oceania 26, and there are 72 miscellane-
ous sources. There are 690 references in the
bibliography.
AVAILABLE: Library of Congress
Card 1/1

CHUGURYAN, Z. S.

37-11-18/18

AUTHOR: Al'tshuler, L.I., Vints, B.D., Mal'tseva, K.A.,
Chuguryan, Z.S. and Shlyakhtina, A.P.

TITLE: World Magnetic Maps for the 1955 Era (Mirovyeye
magnitnyye karty epokhi 1955 goda)

PERIODICAL: Trudy Nauchno-issledovatel'skogo instituta zemnogo
magnetizma, 1957, Nr 11(21), pp. 229-236 (USSR)

ABSTRACT: World magnetic maps computed from extensive data show
the characteristic existence of six world anomalies of
the vertical component Z, two of which are in Asia and
the rest in North America, the Pacific, and Iceland. Six
world magnetic charts and maps are included in a supple-
ment. There are 11 references, 5 of which are USSR, 5
English, and 1 German.

AVAILABLE: Library of Congress

Card 1/1

L 10690-65 EWT(1)/FCC/EEC(6) Po-4/Pi-4 ASD(a)-5/RSD/PAEN(c)/RSD(L) GN

ACCESSION NR: AP4043256

S/0203/64/004/004/0773/0780

Author: I. Mal'ceva, R. A. ...
... ..
... ..

TITLE: World magnetic charts of the epoch 1960

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 4, 1964, 773-780

TOPIC TAGS: geomagnetism, geomagnetic field, magnetic survey, world magnetic chart

ABSTRACT: World magnetic charts of the epoch 1960, which are more complete and more reliable than those of epoch 1955, are presented with explanatory text. Observations of the schooner "Zarya" have improved the accuracy of the charts of the ocean areas. Antarctic observations have yielded new information on the distribution of magnetic elements in the vicinity of the south geographic pole, the south magnetic pole, and the pole of relative inaccessibility. The new charts provide considerably more information on regions in the Southern Hemisphere. In the southern part of the Indian Ocean, for example, the horizontal component has increased 0.01 oe, the vertical component

Card 1/2

L 10690-65

ACCESSION NR: AP4043256

diminished 0.02 oe, while the magnetic inclination increased 4°. On the Antarctic coast changes in the H value reach 0.02 oe, and those in the I value reach 0.04 oe. The charts are useful in the solution of theoretical and practical problems in terrestrial magnetism for navigation. They can also serve as a basis for determining the oblique magnetic field earth satellite.

Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln
Leningradskoye otdeleniye (Institute of Terrestrial Magnetism, Ionosphere,
and Radio Wave Propagation, AN SSSR, Leningrad, USSR)

SUBMITTED: 04Nov65

ENCL: 00

SUB CODE: IS

NO REF SOV: 009

OTHER: 051

ATD PRESS: 3116

Card 2/2

ARKHANGEL'SKIY, Yu.B.; CHUGUYEV, G.P.

Power supply for relay systems operating on a time pace principle.
Sbor. rab. po vop. elektromekh. no.9:70-79 '63. (MIRA 17:2)

SOV/146-2-5-2/19

9(8)

AUTHORS: Posnov, N.N., Candidate of Physical and Mathematical Sciences, Petrov, Yu.P., Engineer, Chuguyev, G.P., Engineer

TITLE: The Operation of Relays Actuated by a Diode Pulser

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Priboro-stroyeniye, 1959, Nr 5, pp 13-19 (USSR)

ABSTRACT: The authors investigated two-coil "RMU" relays (relay adjustment sheet RS4.523.360, nominal voltage 27 volts, coil resistance 220 and 280 ohms), receiving pulses from an alternating current grid through a circuit forming a series of semi-sinusoidal pulses called diode pulses (Figure 2). The results obtained are also valid for other fast operating relays. Blocking by separate windings, as well as blocking by one winding (Figure 7) are discussed, and the respective oscillograms of the current and voltage are illustrated (Figures 5,6). One disadvantage of the diode pulser is that only pulses

Card 1/3

SOV/146-2-5-2/19

The Operation of Relays Actuated by a Diode Pulser


of a fixed duration (10 milliseconds); can be generated; therefore, such circuits must have an additional pulse-multiplying circuit. The first ever method of multiplying cadence pulses was developed and applied at the Leningrad Electrical Engineering Communication Institute imeni Boch-Bruyevich, where the relay computer "Sintez" was built and is now used in accordance with this method. It is concluded that diode pulsers have great advantages over square-pulse pulsers because the overvoltages are many times lower and the operational conditions of the relays and diodes are improved. For full utilization of relays in complex circuits, the peculiarities of relays fed through a diode pulser must be duly considered. The a.c. voltage must be selected in accordance with the rules mentioned in the article. The voltage in blocking circuits of relays working with hot windings must be lower than in control circuits. For quick cut-out of blockings, the



Card 2/3

SOV/146-2-5-2/19

The Operation of Relays Actuated by a Diode Pulser

relay must be lifted by two contacts. The article was recommended by the Kafedra teoreticheskoy radiotekhniki Leningradskogo elektrotekhnicheskogo instituta svyazi imeni M.A. Bonch-Bruyevicha (Chair of Theoretical Radio Engineering of the Leningrad Electrical Engineering Communication Institute imeni M.A. Bonch-Bruyevich). There are 8 diagrams. 

ASSOCIATION: Leningradskiy vychislitel'nyy tsentr (Leningrad Computing Center)

SUBMITTED: January 4, 1959

Card 3/3

L 5177-66 EWT(d)/EWT(l)/EWP(v)/EWP(k)/EWP(h)/EWP(l)/EWA(h) IJP(c)
ACCESSION NR: AT 5021845 TG/GS/SC UR/0000/65/000/000/0167/0173

AUTHOR: Arkhangel'skiy, Yu. B.; Zdanovich, V. V.; Chuguyev, G. P.

TITLE: Program logic methods for reliability improvement in digital control systems

60
B+1
9

SOURCE: An SSSR. Institut elektromekhaniki. Avtomatizirovannyy elektroprivod; sledyashchlye sistemy, upravleniye i preobrazovatel'nyye ustroystva (Automated electric drive; tracking systems, control and converter devices). Moscow, Izd-vo Nauka, 1965, 167-173

TOPIC TAGS: random process, computer control system, digital computer, telescope, computer application, computer program logic, automatic control system

ABSTRACT: Computer errors are essentially random in character, and the present authors discuss them from the point of view of the theory of random processes. For the control of information processed by computers, they propose program logic control based on the redundancy of the original and intermediate information. This differs from other cases encountered in various branches of technology where the computer control may be based on comparisons with appropriate standards. The redundancy leads to various control relationships connecting the calculated quantities which may then be

Card 1/2

L 5177-66

ACCESSION NR: AT5021845

verified at the end of each computational cycle. This computer self-control is applied to the specific case of telescope control. The authors give a complete block diagram of the program logic and test control appropriate for this type of azimuthal rotation control. Orig. art. has: 11 formulas and 1 figure.

ASSOCIATION: None

SUBMITTED: 12Apr65

NO REF SOV: 004

ENCL: 00

SUB CODE: DP, IE

OTHER: 001

Card 2/2 *md*

CHUGUYEV, I., kapitan

For high norms. Voen. vest. 42 no.3:102-103 Mr '63.

(MIRA 17:1)

CHUGUYEV, YU. V.

137-58-5-8764

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 6, (USSR)

AUTHOR: Chuguyev, Yu. V.

TITLE: Ensuring the Fulfillment of Goals for the First Year of the Sixth Five-year Plan (Obespechit' vpolneniye plana pervogo goda shestoy pyatiletki)

PERIODICAL: Kolyma, 1956, Nr 5, pp 1-4

ABSTRACT: Conditions necessary for the fulfillment of the plan at the Dal'stroy mines are examined.

A. Sh.

1. Industry--USSR

Card 1/1

CHUGUYEV, Yu. V.

137-1958-1-86

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 15 (USSR)

AUTHOR: Chuguyev, Yu. V.

TITLE: Guarantee Unconditional Fulfillment of the State Plan for Metal Production (Obespechit' bezuslovnoye vpolneniye gosudarstvennogo plana dobychi metallov)

PERIODICAL: Kolyma, 1957, Nr 2, pp 1-5

ABSTRACT: Fulfillment of the 1956 plan at the enterprises of Dal'stroy. Shortcomings in the work of Dal'stroy. Goals for the next placer-mining season.

A. Sh.

1. Metals--Production--USSR 2. Mining industry--USSR

Card 1/1

L 62788-65 EWT(1)/EWA(h) Feb GW

ACCESSION NR: AT5018589

UR/2517/65/079/000/0160/0181

AUTHOR: Gol'tsman, F. M.; Zolotukhina, L. A.; Latyshev, K. P.; Khalfin, L. A.; 26
Khalfina, N. M.; Chuguyeva, V. N. B+

TITLE: Statistical problems in the interpretation of seismic data

SOURCE: AN SSSR. Matematicheskiy institut. Trudy, v. 79, 1965. Raboty po matematicheskoy statistike i teorii veroyatnostey (Papers on mathematical statistics and the theory of probability), 160-181

TOPIC TAGS: statistical analysis, seismic wave, random process, reflected shock wave

ABSTRACT: Statistical analysis of seismic data is based on reflected wave theory. Noise may then be regarded as additive and its distribution given in the clearest and most natural way. The noise signal on the seismograph is treated as a random process independent of the useful signal. It is normally stationary in the region of observation, having an average amplitude equal to zero, and it presents a Markov correlation in time. Given the process $v(t, s) = F(t, s; C, \tau, \gamma) + n(t, s)$, with C, τ, γ unknown parameters and $n(t, s)$ a normal gaussian process with zero mathematical

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ACCESSION NR: AT5018589

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expectation, observed in the interval $(-T, T)$, the problem consists in estimating the above parameters at the k -th occurrence of the process $v(t, x_k)$. The parameters are estimated by the maximum likelihood method, since estimates made in this way turn out to be asymptotically effective, that is, consistent and asymptotically normal with a dispersion coinciding with the lower bound of the Rao-Cramer inequality. The probability of signal detection on a background of noise is treated in terms of the problem of the criterion strength of the two hypotheses H_0 (no signal) and H_1 (signal). Orig. art. has: 112 formulas, 4 figures:

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: ES, MA

NO REF SOV: 007

OTHER: 004

alk
Card 2/2

CHUGUYEVETS, N.

Why do construction industry units need motor vehicles? Avt.transp.
41 no.11:12-13 N '63. (MIRA 16:12)

1. Nachal'nik upravleniya glavnogo mekhanika, glavnogo energetika
i transporta Glavtselinstroya.

16.1000

87147

S/041/60/012/003/011/011
C111/C222AUTHOR: Chuich, A.G.

TITLE: On Some Relations for the Number Functions

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, 1960, Vol. 12, No. 3,
pp. 354 - 357TEXT: Let $f(n)$ be an arbitrary function defined uniquely for every integer n ; let $[x]$ be the integral part of x ; let d, n, k, q be positive integers, p be a prime number. Let

$$(1) \phi(n) = \sum_{d \setminus n} f(d),$$

$$(2) \phi(q+1, n-q) = \sum_{d \setminus n-q, d \geq q+1} f(d)$$

Theorem : For the functions defined by (1), (2) it holds

$$(3) \phi(n) + \phi(2, n-1) + \phi(3, n-2) + \dots + \phi(q+1, n-q) = \sum_{k=1}^{k=n} f(k)$$

$$q = \left[\frac{n-1}{2} \right]$$

Card 1/2

07/11/1

On Some Relations for the Number Functions

S/041/60/012/003/011/011
C111/C222

Several conclusions are given, e.g. : If $f(k) = \ln k = \ln p$ for $k = p$ and $f(k) = 0$ for k being no prime number, and if $\theta(n)$ denotes the sum of logarithms of the prime numbers $< n$, $A(n) = \sum_{p \leq n} \ln p$, $A(q+1, n-q) =$

$\sum_{p \leq n-q} \ln p$, then it holds

(15) $A(n) + A(2, n-1) + A(3, n-2) + \dots + A(q+1, n-q) = \theta(n)$.

SUBMITTED: December 17, 1958

Card 2/2

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0
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621-52

491 ADJUSTMENT OF STATIC SYSTEMS OF AUTOMATIC CONTROL V.G.Chouh.

Electronics, 1957, No. 9, 19-42. In Russian.
When the relationships between feedback and control parameters of such a system may be established, they are not readily applicable to a specific system, and are not of the simplest type. An analysis of the system and its replacement by an equivalent circuit enables the basic circuit for which the required relationships are known, to be used. Alternatively, the general relationship may be converted into the specific form required for the particular case. This analysis is applied to the case of voltage control of a d.c. generator by means of an electrodynamic amplifier. B.F.Kraus

Design of Automatic Control Systems (Cont.)

SOV/2979

COVERAGE: The book deals with the application of the theory of automatic control and servomechanisms to the solution of practical problems in investigating and designing static and dynamic regimes of closed-loop automatic control systems. Construction of block and schematic diagrams, frequency characteristics, equations, and transfer functions of automatic control systems and servomechanisms are described. Considerable attention is given to the use of computers in research and design. Design calculations in sections 16 and 17 were made by Yu. N. Reshetnikov and Ye. M. Neplokhov. There are 35 references, all Soviet.

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Card 4/5

CHUIKIN, Ye.I.; BOCHKAREV, V.M.; SARAPUL'TSEV, I.A.

Exclusion of the potassium background by the double-standard method.
Med. rad. 5 no.9:70-72 S '60. (MIRA 13:12)
(POTASSIUM) (RADIATION--MEASUREMENT)

CHUSHCHEV, V.M.

Optimum importance of the temperature of the absorber
entering the distillation column. Koks i khim. no.1:36-38
'64. (MIRA 17:2)

1. Dnepropetrovskiy khimiko-tekhnologicheskij institut.

AM4017086

BOOK EXPLOITATION

S/

Gertsriken, S. D.; Dekhtyar, I. Ya.; Krivoglaz, M. A.; Larikov, L. N.; Ly*tsak,
L. I.; Nesterenko, Ye. G.; Novikov, M. N. ; Sosnina, Ye. I.; Slyusar, N. F.;
Tikhonov, L. V.; Trefilov, V. I.; Chulistov, K. V.

Physical bases of the strength and ductility of metals (Fizicheskiye osnovy*
prochnosti i plastichnosti metallov) Moscow, Metallurgizdat, 1963. 321 p.
illus., biblio. Errata slip inserted. 4250 copies printed. Editor of the
publishing house: Ye. N. Berlin; Technical editor: L. V. Dobuzhinskaya;
Bindery artist: Yu. M. Vashchenko

TOPIC TAGS: strength of metals, ductility, crystal lattice, dislocations, metal
failure, strain hardening, solid solution, microstress, lattice defect, plastic
strain, relaxation, polygonization, recrystallization, grain growth

PURPOSE AND COVERAGE: This collection of articles is intended for scientific
personnel and for engineers and metals physicists; it also may be useful to stu-
dents at metallurgical and machine-building vuzes. The results of study of
crystal-lattice imperfections and the dislocation theory of metal failure are

Card 1/3

AM4017086

presented. Contemporary concepts of the nature and mechanism of different weakening processes in metals are expounded, as well as present-day thinking concerning the effect of impurities on the kinetics of the weakening processes. The articles in this collection are principally the original results of research performed in recent years at the Institut Metallofiziki AN USSR.

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1. Crystal-lattice defects (L. V. Tikhonov) -- 5

2. Imperfections in crystal structure and strain hardening in the case of the dissociation of solid solutions (Ye. N. Nesterenko, E. V. Chuistov) -- 48

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Sec. II. Methods of investigating crystal-lattice imperfections

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AM4017086

2. Determining the disorientation and dimensions of blocks (greater than 10^{-4} cm) (Ye. I. Sosnina) -- 129
3. Determination of elastic distortions (or microstresses) and dimensions of disperse blocks (L. I. Ly*sak) -- 153
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Sec. III. Plastic strain and the failure of metals

1. Plastic strain and the failure of metals (V. I. Trefilov) -- 190

Sec. IV. Weakening of metals

1. Relaxation, polygonization, recrystallization, and grain growth (L. N. Larikov) -- 255

SUB CODE: ML, AP

SUBMITTED: 23Aug63

NR REF SOV: 253

OTHER: 463

DATE ACQ: 17Jan64

Card 3/3

NESTERENKO, Ye.G. [Nesterenko, I.E.H.]; ~~CHUISTOV, K.V.~~

Changes in the crystalline structure of aging Cu-Ti alloys.
Ukr. fiz.zhur. 3 no.2:276-278 Mr-Apr '58. (MIRA 11:6)

1. Institut metalofiziki AN URSR.
(Copper-titanium alloys)

NESTERENKO, Ye.G. [Nesterenko, I.B.H.]; CHUISTOV, K.V.

Effect of plastic deformations on crystal structure changes in Cu -
Ti alloy aging. Ukr. fiz. zhur. 3 no.3:427-429 My-Je '58.
(MIRA 11:10)

1. Institut metallofiziki AN USSR.
(Copper-tin alloys--Testing)

CHUISTOV, K. V.: Master Phys-Math Sci (diss) -- "Crystal-structural changes
in the decomposition of supersaturated solid solutions based on copper". Kiev,
1958. 11 pp (Acad Sci Ukr SSR, Inst of the Physics of Metals) 150 copies
(KL, No 5, 1959, 143)

Chulstov, K.V.

807/117

FRASE I BOOK REFLECTIONS

Академия наук УССР, Институт металловедения
 Yegorov V.I. Metallurgy (Problems in the Physics of Metals and
 Metallography) Kiev, 1959, 215 p. (Series: IIS: Sbornik
 naukovykh rabot, no. 10) 3,000 copies printed.
 M. of Publishing House: O.M. Kobzareva; Tech. Ed.: E.A. Danyl; Editorial
 Board: V. V. Kovalenko, Academy of Sciences USSR (Resp. Ed.),
 S.B. Gerasimov, Doctor of Physics and Mathematics, and I.Ye. Dabiyar,
 Doctor of Technical Sciences.

NOTE: This collection of articles is intended for scientific workers, engineers
 and engineers working in metal physics, metallography and metallurgy, and for
 students in advanced courses of metallurgy and physics departments.

CONTENT: The collection of articles gives the results of an investigation of the effect
 of high heating rates, thermal treatment, deformation, and crystallization
 conditions on the phase structure, structure and properties of metals and
 alloys, and of the effect of alloying additives on volume and intergranular

807/117

Problems in the Physics of Metals and Metallography

disturbances in alloys, as well as the effect of repeated tempering by ultrasonic
 irradiation on the physical properties of alloys. There is also a description
 of an x-ray camera for studying the structure of the individual grains. The
 following personalities are mentioned: V. Babitskiy, A.A. Sidorov, G.G. Glanovoy,
 Ye.I. Morozov, V. Puzilov, I.M. Kibot', and I. Ye. Dabiyar', Doctor of
 Technical Sciences. There is a bibliography of Soviet and non-Soviet references
 at the end of each article.

Сидоров, Е.И., Пилипов, В.И., Бабитский, В.И., Морозов, Е.И., Пузилов, В.И., Кибот', И.М., Дабияр', И.И.
 Проблемы физики металлов и металловедения. Влияние ультразвуковой обработки на физические свойства сплавов. Описание рентгеновской камеры для изучения структуры отдельных зерен. Упомянуты следующие личности: В. Бабитский, А.А. Сидоров, Г.Г. Глановый, Е.И. Морозов, В. Пузилов, И.М. Кибот', и И.Е. Дабияр', доктор технических наук. В конце каждого статьи дан библиографический указатель советской и зарубежной литературы.

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28/m/mas
9-10-60

Card 6/6

SOV/139-58-6-15/29

AUTHORS: * Arbutov, M.P. and Chuistov, K.V.

TITLE: Change of Fine-Grained (Tonkoy) Crystal Structure in Softened Deformed Copper and in the Alloys Cu-Zn and Cu-Al (Izmeneniye tonkoy kristallicheskey struktury pri razuprochnenii deformirovannoy medi i splavov Cu-Zn i Cu-Al)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, 1958, Nr 6, pp 91-98 (USSR)

ABSTRACT: The experimental material consisted of specimens 10 x 10 x 10 mm, which were hardened by uniaxial compression of 80%. Softening was accomplished by heating in a salt bath at temperatures of 100, 200, 300, 400 and 500°C. Samples were taken from the hardened and softened samples for X-ray examination and Rockwell hardness measurement. The size of the second-order distortions [this expression is not further defined in the paper] and the mean size of the mosaic blocks were derived from the X-ray diagrams and, together with Rockwell hardness, are plotted against temperature in Fig 1-3. It is concluded (1) that the introduction of Al and Zn into Cu leads to an increase both in the

Card 1/2

SOV/139-58-6-15/29

Change of Fine-Grained (Tonkoy) Crystal Structure in Softened Deformed Copper and in the Alloys Cu-Zn and Cu-Al

softening temperature and in the hardening of the alloy with compression; (2) the character of the softening is identical in copper and in the alloys Cu-Al and Cu-Zn; (3) the size of the mosaic blocks plays a predominant part in the conservation of hardness on heating. There are 4 figures, 7 tables and 5 Soviet references.

ASSOCIATION: Kiyevskiy Institut Grazhdanskogo Vozdushnogo Flota (Kiyev Institute of the Civil Aviation)

SUBMITTED: 5th April 1958

Card 2/2

S/126/60/009/01/025/031
E021/E191

AUTHORS: Nesterenko, Ye.G., and Chuistov, K.V.

TITLE: Characteristics of the Initial Stages of Decomposition
of a Supersaturated Solid Solution of Titanium in Copper

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol 9, Nr 1,
pp 140-147 (USSR)

ABSTRACT: The alloy investigated contained 4.5 weight % Ti and was made from electrolytic Cu and iodide Ti. The ageing process was followed by changes in hardness using a Vickers pyramid, and structures were examined by X-ray crystallography. Samples were quenched in water from 850 °C and aged at 200-700 °C in vacuo for one hour at each temperature. Heating at 300 °C resulted in no change in the diffraction pattern. At 350 °C less sharp additional lines were observed, which were symmetrical about the interference lines of the original alpha solid solution (satellites). From this behaviour, it was proposed that a modulated structure is formed by redistribution of the Ti atoms, giving parts rich and deficient in Ti. An increase in temperature leads to an increase in the intensity of the satellites. With a

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further increase to 450-500 °C, the lines of a new phase appear. At the same time the lattice parameter of the solid solution begins to decrease. The number and position of the new interference lines do not correspond to the stable beta-phase (Cu_3Ti), the lines of which appear at 600-700 °C. The composition of the Ti-rich regions during the formation of the modulated structure is quite close to that of the stable beta-phase. The experiments confirm that precipitation from supersaturated solid solutions begins not with formation of nuclei of the new phase, but by formation of regions in the matrix which are rich in the atoms of the alloying element, but have the same lattice as the initial solid solution.

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There are 4 figures, 3 tables and 17 references, of which 7 are English, 2 German, 2 French and 6 Soviet.

ASSOCIATION: Institut metallofiziki AN USSR (Metal-Physics
(Institute, Acad.Sci. Ukr.SSR)

SUBMITTED: June 7, 1959

69693
S/126/60/009/03/016/033
E091/E435

18.1220

AUTHORS: Nesterenko, Ye.G. and Chuistov, K.V.

TITLE: Phase Changes in a Copper-Titanium Alloy on Ageing

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol 9, Nr 3, pp 415-421 (USSR)

ABSTRACT: The results are given of an investigation of structural changes occurring in the Cu - 4.5% Ti alloy on ageing in a temperature range in which excess phases are formed. The study was carried out by X-ray methods on polycrystalline specimens. In Fig 1a, 1b and 1c, photomicrograms of X-ray pictures are shown of quenched Cu-Ti alloy specimens which were subsequently aged at 500 and 600°C for one hour. In order to interpret the structure of the intermediate phases, the authors separated particles of this phase electrolytically. Fig 1B is the photomicrogram of an intermediate phase separated from a piece of quenched and aged (500°C, one hour) Cu-Ti alloy. In Table 1, the reflection angles (ψ) of various planes are given and the interplanar distances (d) and lattice parameters along the a and c axes calculated from ψ . The lattice parameters of this phase are close to that of

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the matrix and hence the authors called this phase α' . The reflection angles of the various planes of the α' -phase are practically independent of the ageing temperature and time of holding (see Table 2). After the decomposition of the Cu-Ti alloy at 500°C, each line in the X-ray picture separates into two and hence it can be assumed that a decomposition of the alloy into two phases with tetragonal lattices takes place. The authors assume that $c/a < 1$ in the metastable α' -phase and $c/a > 1$ in the matrix and that the interplanar distances of the matrix and α' -phase are similar, ie the tetragonal doublets can be superimposed on each other as shown in Fig 2. A calculation of the relative intensities of the doublet components was worked out for two cases:
(a) in the α -phase $c > a$, in the α' -phase $c' < a'$;
(b) in the α -phase $c = a$, in the α' -phase $c' < a'$.
It was assumed that the quantity of the α' -phase in the alloy was 25%. The results of such a calculation are shown in Fig 3. Table 4 shows the intensities of reflection from copper powder and from matrix crystals

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of a Cu-Ti alloy after quenching and ageing at 500°C for one hour. The authors conclude that: (1) the formation of α' -phase crystals leads to considerable ternary distortions in the original solid solution; (2) electrolytic separation of α' -phase crystals does not change either the structure or the crystal lattice parameters of the intermediate α' -phase and enables the structure and state of the intermediate phase crystals to be analysed in greater detail. There are 4 figures, 4 tables and 8 references, 6 of which are Soviet and 2 English.

ASSOCIATION: Institut metallofiziki AN USSR
(Institute of Physics of Metals, AS UkrSSR)

SUBMITTED: July 7, 1959

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NESTERENKO, Ye.G.; CHUISTOV, K.V.

Characteristics of the aging of copper-titanium-beryllium
alloys. Sbor. nauch. rab. Inst. metallofiz. AN URSR no.13:
142-146 '61. (MIRA 14:12)
(Copper-titanium-beryllium alloys—Hardening)

S/126/61/012/004/009/021
E193/E383

AUTHORS: Nesterenko, Ye.G. and Chuistov, K.V.

TITLE: The effect of small additions of beryllium, cerium, zirconium, chromium and iron on the composition of a supersaturated copper-titanium solid solution

PERIODICAL: Fizika metallov i metallovedeniye, v. 12, no. 4, 1961, 567 - 575

TEXT: According to earlier findings of the present authors (Ref. 4 - FMM, 1960, 9, no. 1; Ref. 5 - ibid no. 3), the decomposition of a supersaturated Cu-Ti solution takes place in the following three stages: 1) formation of regions enriched in, and denuded of, Ti (formation of, so-called, modulated structure); 2) precipitation of an intermediate α' -phase; 3) precipitation of a stable β -phase (Cu₃Ti). The object of the present investigation was to establish whether and to what extent the mechanism and kinetics of this process are affected by the presence of a small quantity of a third component. The alloying additions chosen have all different atomic radii and their solubility in Cu decreases in every case with decreasing
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temperature. The composition of the experimental alloys is given in Table 1, in at.%. Hardness measurements were used to study the process of decomposition of specimens solution-treated at 950 °C which, according to the results of X-ray diffraction, constituted single-phase alloys. The structural changes were studied by X-ray diffraction, which was also used to determine the crystal structure of the intermediate phase, separated from the matrix by electrolytic dissolution, to study the variation of the modulation period Q and to determine the particle size of the α' - and β -phases precipitated during ageing at 400 and 450 °C. The kinetics of the process studied are illustrated in Fig. 2, where Vickers hardness (HV , kg/mm^2) is plotted against $\log \tau$ (where τ is the ageing time, min, at 400 °C), the various curves relating to alloys as indicated by the inserted region. Data for alloys aged at 500 °C are reproduced in the same manner in Fig. 4. In Fig. 3, the modulation period Q (\AA) of alloys aged at 500 °C (top set of curves) and 400 °C (bottom set of curves) is plotted against $\log \tau$. Finally, in Fig. 5, the particle size L_ϕ (\AA) of the

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α' -phase in alloys aged at 500 °C is plotted against $\log \tau$, the continuous curves representing results based on the (002) reflections, broken curves denoting results calculated from (020) reflections. It was inferred from the results obtained that small Be, Ag, Zr, Cr and Fe additions did not affect the mechanism of decomposition of the Cu-Ti alloys but affected the rate at which the individual stages of the process took place. The rate of growth of Ti-enriched regions in the initial stage of decomposition is increased by Ag, Be and Zr and decreased by Cr and Fe additions. The rate of coalescence of the α' -phase particles and formation of the β -phase is accelerated by Ag. On the other hand, addition of elements which decrease the difference between the lattice parameter of the matrix and the α' -phase stabilizes this phase and slows down the process of its coalescence and formation of the β -phase.

There are 5 figures, 5 tables and 12 references: 7 Soviet-bloc and 5 non-Soviet-bloc. The four latest English-language references quoted are: Ref. 3 - A. Ceisler - Phas. Transformation in Solids, N.J., 1951; Ref. 7 - W. Dauliel, H. Lipson - Proc. Roy. Soc., 1943, A181, 368;

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The effect of small additions S/126/61/012/004/009/021
E193/E383

Ref. 8 - B. Warren, B.J. Averbach - J. Appl. Phys., 1952, 23,
497 and Ref. 12 - A. Guinier - Acta met., 1955, 3, 510.

ASSOCIATION: Institut metallofiziki AN UkrSSR
(Institute of Physics of Metals AS UkrSSR)

SUBMITTED: February 17, 1961

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32658

S/126/61/012/005/018/028

E073/E535

10-1200

AUTHORS: Nesterenko, Ye. G. and Chuistov, K. V.

TITLE: Influence of plastic deformation on phase changes in the alloy Cu-Ti

PERIODICAL: Fizika metallov i metallovedeniye, v. 12, no. 5, 1961, 756-758

TEXT: The influence of plastic deformation on the stability of the structure of rejections during the process of decomposition of saturated solid solutions has been little studied and only some electron microscope investigations are available, which indicate that plastic deformation may lead to appreciable structural changes. In this paper the results are given of X-ray investigations of the influence of plastic deformation on the structure of crystals of a Cu-Ti alloy (4.5% Ti) after preliminary decomposition at 400 and 500°C for durations of 150 and 60 min, respectively. In earlier work the authors have shown that after ageing of the Cu-Ti alloy at 400°C for durations of 6 to 300 min, the X-ray diffraction patterns reveal satellites, indicating the formation in the alloy of areas which are, respectively, titanium
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enriched and titanium impoverished. An increase in the duration of the ageing to 480 min leads to a cessation of the satellites on the X-ray patterns and to the appearance of reflections from an intermediate α' -phase. Ageing at 400°C for 1440 min did not lead to the appearance of reflections from the stable β -phase (Cu₂Ti). This earlier work has shown that after ageing of a Cu-Ti alloy at 500°C for 15 to 1800 min, the X-ray patterns contain only reflections from the matrix and from crystals of the intermediate α' -phase. An increase in the duration of the decomposition to 2100 min led to a cessation of the interference from the α' -phase and to the appearance of reflections from the crystals of the stable β -phase. In the experiments described in this paper this structural state was changed by additional heat treatment at relatively high temperatures. The structures obtained after ageing of the alloy at 400°C for 150 min and at 500°C for 60 min were relatively stable. The thus heat-treated specimens were subjected to cold plastic deformation (4.3 to 58%) by compression. No satellites were detected after plastic deformation on specimens preliminarily aged at 400°C for 150 min.

X

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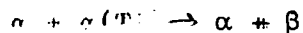
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However, regardless of the degree of deformation, lines were detected which correspond to the stable β -phase. It was possible that the satellites did not cease to exist but that they simply could not be singled out from the main reflections due to the considerable widening of the reflections from the matrix. Therefore, all the specimens were again annealed at 400°C for 60 min, as a result of which the reflections from the matrix became narrow; in spite of this no satellites could be detected on the X-ray patterns. Similar investigations were carried out on specimens aged at 500°C for 60 min and deformed by 4.5 to 58%; deformation by up to 16.2% did not lead to additional reflections. However, deformation above 33% led to the appearance on the X-ray patterns of interference lines from the stable β -phase. Additional annealing at 400°C for 60 min did not bring about any change in the general interference pattern. Thus, cold plastic deformation leads to the following phase changes:

1. Annealing at 400°C for 150 min plus deformation above 9.8%



(α (Ti) - Ti-enriched matrix areas) leading to the
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appearance of satellites on the X-ray patterns).

2. Annealing at 500°C for 60 min plus deformation by 53% and more



X-ray investigations of electrolytically produced precipitates from the specimens yielded the following results;

Table 2

Specimen No.	Heat-treatment	Composition of the precipitates
1	400°C - 60 min	-
2	400°C - 60 min + 50.5% deformation	$\alpha' + \beta$
3	400°C - 60 min + 49.7% deformation + 400°C - 60 min	$\alpha' + \beta$
4	500°C - 60 min	α'
5	500°C - 60 min + 34% deformation	$\alpha' + \beta$
6	500°C - 60 min + 37.3% deformation + 400°C - 60 min	$\alpha' + \beta$

The results agree with those published earlier by the authors (Ref. 6: Sb, voprosy fiziki metallov i metallovedeniya, no. 10, UkrSSR, 1961). The following conclusions are arrived at: the Card 4/5