

MEZHVILK, A.A.

Tertiary sediments in the northern Kharaulakh Range. Trudy NIIGA
80:61-78 '58. (MIRA 14:11)
(Kharaulakh Range—Coal geology)

MEZHVINSKAYA, E.A.

The importance of certain microelements for the fertility of domestic animals and birds. I. I. Zaderif, V. M. Meshchenko, and E. A. Mezhyvinskaya. *Zhur. Obshch. Biol.* 15, 70-88 (1954).—Three alluvial zones, lowland, foreland, and highland, in a Carpathian region were studied with respect to the zonal effect on the fertility of mares and chickens. The result indicated a higher fertility in lowland than in highland. The chem. compn. of the fodder (oats, corn (seeds), oat straw, and hay) showed higher amts. of total protein, digestible protein, Ca, P, and vitamins A and D in the highland fodder, proving that these chem. constituents apparently do not affect the fertility. The difference in fertility was shown to be related to the iodine deficiency in the fodder and drinking water of the highland. In the fodder examd. (oats, barley (seeds), hay, green rye, alfalfa, and clover) the amt. of I varied from 27 (alfalfa, highland) to 205 γ /kg. (hay, foreland); the largest zonal difference was found in barley seeds: highland 74, lowland 100 γ /kg., resp. The spring waters of the region contained 0.3-0.1 (highland), 7.3 (foreland), and 19.0-51.9 γ /l. (lowland); the P content was 68.9-180.6, 0, and 0-60.9 γ /l., resp. Fertilized chicken eggs contained more I (10.3-15.8) than sterile ones (2.1-6.3 γ /100 g.). Supplementary feeding with 1 mg. KI/bird/day increased the overall egg hatching by 33% by decreasing the amt. of sterile eggs and the amt. of eggs with weak embryos; the output of eggs per bird was not increased. The feeding of 0.38 mg. CoSO_4 /bird/day increased not only the egg fertility (19%) but also the egg production (21-27%). However, the effect was less pronounced in highland since the fodder contained sufficient Co.

E. W. Wankel

KMIT, G.I.; MBZHVINSKAYA, E.A.

Mineral content of diets in Transcarpathian kindergartens [with summary in English]. Vop.pit. 16 no.6:38-41 M-D '57. (MIRA 11:3)

1. Iz Uzhgorodskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(FOOD, mineral content in child, nutrition (Rus))

MESHCHENKO, V.M.; ALEKSIK, V.I.; MEZHVINSKAYA, E.A.

Iodine, bromine, fluorine & cobalt in drinking waters of Transcarpathian Province [with summary in English]. Gig. i san. 24 no.2:7-11 P '59. (MIRA 12:3)

1. Iz Uzhgorodskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(WATER SUPPLY

bromine, cobalt, fluorine & iodine in drinking waters of Transcarpathian region (Rus))

MESHCHENKO, V.M.; ALEKSIK, V.I.; MEZHVINSKAYA, E.A.

Concentration of some trace elements (cobalt, iodine, fluorine, bromine) in soils, drinking water, and foodstuffs in different biogeochemical provinces of Transcarpathia. Trudy Biogeokhim. lab. no.11:120-123 '60. (MIRA 14:5)

1. Uzhgorodskiy institut epidemiologii, mikrobiologii i gigiyeny.
(TRANSCARPATHIA—TRACE ELEMENTS)

SABUROV, N.V.; MEZHVINSKAYA, T.B.

New method of storage of fresh vegetables. Voprosy Pitaniya 12, No.1.
82-83 '53. (MLRA 6:3)
(CA 47 no.14:7133 '53)

1. K.A. Timiryazev Agr. Acad., Moscow.

SABUROV, N., professor; ¹³~~MEZHVINSKAYA, T.~~, kandidat sel'skokhozyaystvennykh
nauk.

Storing green vegetables. Sov. torg. no.8:18-20 Ag '56.
(MLRA 9:10)

(Vegetables--Storage)

PALILOV, N.A.; D'Y ACHENKO, V.S.; Prinimali uchastiye: MEZHVINSKAYA,
T.B.; ZHARKOV, A.V.

Storability and quality of vegetables grown in flood plains.
Biokhim.pl.i ovoshch. no.7:218-223 '62. (MIRA 16:1)

1. Nauchno-issledovatel'skiy institut ovoshchnogo khozyaystva.
(Vegetables--Storage)

MEZHHERIN, V.A. (Kiyev)

Dehnel's phenomenon and an attempt to explain it. Acta
theriolog 8 10.1/16:95-114 '64.

PASHCHENKO, Yu.I.; ~~MEZHNERIN, V.G.~~

Distribution and ecology of the arguta lizard (*Eremias arguta* Pall.)
in the Ukraine. *Zauk.ssp.Kiev.un.* 13 no.12:133-134 '54. (MLRA 9:10)
(Ukraine--Lizards)

PASHCHENKO, Yu.I.; MEZHZHERIN, V.A.

Biology of the pond turtle (Emys orbicularis L.) in the Ukraine.
Nauk.sop.Kiev.un.13 no.12:134-135 '54. (MLRA 9:10)
(Ukraine--Turtles)

~~MEZHHEIN, Y.O.~~

Calculating the populations of shrews. Nauk.zap.Kiev.un. 15
no.3-93-97 56. (MIRA 10:7)

(Shrews)

MEZHHERIN, V.A.

Feeding of the common and pygmy shrew (*Sorex araneus* L. and *Sorex minutus* L.) [with summary in English]. Zool. zhur. 77 no.6:948-953 Je '58. (MIRA 11:7)

1. Kafedra zoologii Sumskogo gosudarstvennogo pedagogicheskogo instituta.

(Ukraine--Shrews)

(Animals, Feeding habits of)

MEZHHERIN, V.A.

Population density of the common shrew (*Sorex araneus* L.) and its variations over a period of 17 years. Zool.zhur. 39 no.7: 1080-1087 J1 '60. (MIRA 13:7)

1. Zoological Museum, Kiev State University.
(Ukraine--Shrews)

MEZIC, ALEKSANDAR

Mezic, Aleksandar. Zdravstveno obezbedenje velikih radilista. (Autoput 1959. g.)
Beograd, Medicinska knjiga, 1951. 93 p. [Public sanitation service in great
workshops; highway building in 1949]

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, #10, October,
1953, Uncl.

MEZIC, Aleksandar, pukovnik dr.

The modern construction and organisation of hospitals. Voj. san.
pregl., Beogr. 11 no.7-8:303-307 July-Aug. 54.
(HOSPITALS
construction & organis.)

MIZIC, Aleksandar, pukovnik dr.

**Centralisation and decentralization of individual hospital services
and functional sections. Voj. san. pregl., Beogr. 11 no.9-10:384-
390 Sept-Oct 54.**

(HOSPITAL ADMINISTRATION

**centralization & decentralization of various hosp.
serv. & sections)**

~~MRZIC, Stefan~~ ar, pukovnik dr.

Hospital location. Voj. san. pregl., Beogr. 11 no.11-12:678-685
Nov-Dec 54.

(HOSPITAL ADMINISTRATION
planning & location)

MEZIC, Aleksandar, Fokovnik d-r

Role and position of a physician in construction of a medical building. Voj.san.pregl., Beogr. 12 no.3-4:167-172 Mar-Apr 55.

(HOSPITALS,
construction, med. supervision)

MEZIC, Aleksandar, pukovnik d-r

The organisation of a hospital for chronic patients. Voj.san.
pregl., Beogr. 12 no.5-6:271-276 May-June '55.

1. Vojnomedicinska akademija.

(HOSPITALS,

chronic dis.hosp.,organis.(Ser))

(CHRONIC DISEASES,

hosp.,for, organis.(Ser))

MEZIC, Aleksandar

MEZIC, Aleksandar, Pukovnik dr.

Ways of traffic of material and persons in the hospitals. Voj.
san. pregl., Beogr. 13 no.5-6:272-276; contd., May-June 56.

(HOSPITAL ADMINISTRATION
planning of corridor traffic (Ser))

MEZIC, Aleksandar, Pukovnik dr.

Ways of communication for persons and material in a hospital.
Voj. san. pregl., Beogr, 13 no.7-8:383-387 July-Aug 56.

(HOSPITAL ADMINISTRATION)

MEZIC, Aleksandar San. pukovnik dr.

Convalescent care. Voj. san. pregl., Beogr. 14 no.3:129-
133 Mar 57.

(CONVALESCENCE,
care for convalescents (Ser))

MEZIC, Aleksandar

Considerations on the problem of first aid (mutual aid and self-help) and personal protection during modern warfare. *Voj. san. pregl., Beogr.* 16 no.3:226-230 Mar 59.

(MEDICINE, MILITARY AND NAVAL,

first aid & personal protection during warfare, review (Ser))

(FIRST AID,

military, during warfare, review (Ser))

MEZIC, Aleksandar, sanitetski pukovnik d-r

Problem of selection of the personnel for the army. Psychotechnical investigations. Voj. san. pregl., Beogr. 16 no. 7-8:633-640:contd
Jl-Ag '59.

(ARMED FORCES PERSONNEL psychol.)
(PSYCHOLOGICAL TESTS)

MEZIC, Aleksandar, sanitetski pukovnik d-r

Reflections on the Agadir disaster. Voj. san. pregl., Beogr. 17
no. 3: 267-269 Mr '60.
(DISASTERS)

MEZINCRAK, F.

AGRIC LTURE

Periodical MECHANISACE ZEMLEDELSTVI. Vol. 8, no. 24, Dec. 1958.

MEZINCRAK, F. Plan of activity for tractor operators in the winter period. p. 562.

Monthly List of East European Accessions (ILA.) LC, Vol. 8, no. 3, March, 1959. Incl.

MEZHRADSKY, Josef.; MURGAS, Karol; SIMKOVA, Viera

Studies of the hemolymphatic organs. V. Notes on the lymphatic circulation in the spleen of the white rat. *Biologia* 15 no.11:832-838 '60. (KKAJ 10:5)

Histologicky ustav Lekarskej fakulty University Komenskeho.
Bratislava.

(HEMOLYMPH) (SPLEEN)

MEZILEV, A. A.

USSR/Engineering - Foundry, Methods

Dec 51

"Precision Casting Into Ceramic Molds," A. A. Mezilev, Engr, Leningrad Carburetor Plant

"Litey Proizvod" No 12, pp 2, 3

Describes simple and economical method for fabricating small thin-walled and hollow parts out of ferrous, nonferrous and special alloys by casting into molds made of mixt of quartz sand with phenolic bakelite. Process of making ceramic molds consists of blowing mixt into compression mold, using hot air, and subsequent compacting of this mixt to required density.

203T30

DILENDIK, N.N., kand.sel'skokhoz.nauk; SAVCHENKO, agronom po zashchite rasteniy; MEZIN, A.F.; TOLMACHEVA, N.P., agronom po zashchite rasteniy (Moskovskaya obl.)

Letters to the editor. Zashch. rast. ot vred. i bol. 6 no.4:12
Ap '61. (MIRA 15:6)

1. Belorusskiy nauchno-issledovatel'skiy institut lesnogo khozyaystva, g. Gomel' (for Dilendik).
(Plants, Protection of)

MEZIN A. F. (Minsk)

Chemical weed control in White Russia. Zashch. rast. ot vred.
1 bol. 6 no.6:7-8 Je '61. (MIRA 16:4)

(White Russia--Weed control)

MEZIN, Aleksandr Fedorovich; PIL'KO, Mikhail Matveyevich; OREKHOV,
V.I., red.; DIK, V.M., tekhn. red.

[Concise manual on poisonous chemicals and spraying and dust-
ing equipment]Kratkii spravochnik po iadokhimikatan i appara-
tam i apparature. Minsk, Sel'khozgiz BSSR, 1962. 113 p.

(MIRA 16:3)

(Agricultural chemicals)
(Spraying and dusting equipment)

MARKOVETS, A.F., kand.biolog.nauk; MEZIN, A.F.

In White Russia. Zashch. rast. ot vred. i bol. 7 no.2:3-6
F '62. (MIRA 15:12)

1. Nachal'nik Upravleniya zashchity rasteniy Ministerstva sel'skogo khozyaystva Belorusskoy SSR (for Markovets).
2. Glavnyy agronom Upravleniya zashchity rasteniy Ministerstva sel'skogo khozyaystva Belorusskoy SSR (for Mezin).
(White Russia--Plants, Protection of)

BONDIN, V.P.; SVECHNIKOV, I.D.; CHIGAREV, G.A.; PANAFIDIN, K.A.; MEZIN,
A.F.; KUDEL', K.A., kand.biolog.nauk (Kiyev); NOVODED, M.F.,
mladshiy nauchnyy sotrudnik (Kiyev)

Mist spraying against the Colorado beetle. Zashch.rast.ot vrod.1
bol. 7 no.6:50-53 Je '62. (MIRA 15:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut Grazhdanskogo vozdushnogo flota, Vsesoyuznyy institut zashchity rasteniy i Ministerstvo sel'skogo khozyaystva Belorusskoy SSR (for Bondin, Sevchnikov, Chigarev, Panafidin, Mezin). 2. Ukrainskiy institut zashchity rasteniy (for Novoded).
(Potato beetle) (Spraying and dusting)

MILZIN, L. N.

STUL'NIKOV, V. I., inzhener.

Remarks on [dotsent] E.K.Mezin's article "Self-exciting clutch with a collector" by V.I.Stul'nikov with an answer by Mezin. Elektrichestvo no.4:86 Ap '54. (MLRA 7:5)
(Electric machinery) (Clutches (Machinery)) (Mezin, E.K.)

MEZIN, I. S. Dr. Tech. Sci.

Dissertation: "Theoretical and Experimental Investigations of Transportation Generator Installations and Methods for Their Rationalization." Inst. of Mechanization and Electrification of Agriculture, Imeni V. M. Volotov, 9 Apr 47.

SO: Vechernyaya Moskva, Apr, 1947 (Project #17836)

GORBELIK, A.M., inzhener; OSIPYAN, A.V., kandidat tekhnicheskikh nauk; otvetstvennyy redaktor; ZIL'BERBERG, Ya.G., inzhener; BRILING, N.R., doktor tekhnicheskikh nauk, professor; KALISH, G.G., doktor tekhnicheskikh nauk, professor; MEZIN, I.S., doktor tekhnicheskikh nauk; PEVZNER, Ya.M., doktor tekhnicheskikh nauk; KHRUSHCHEV, M.M., doktor tekhnicheskikh nauk, professor; BRYZGOV, N.N., kandidat tekhnicheskikh nauk; KOZLOVSKIY, I.S.; kandidat tekhnicheskikh nauk; LYTKIN, I.I., kandidat tekhnicheskikh nauk; RAMAYYA, K.S., kandidat tekhnicheskikh nauk; BUT'YUKIN, A.G., tekhnicheskiy redaktor; MATVEYEVA, Ye.N.; tekhnicheskiy redaktor.

The effect of vertical forces on automobile wheels. Trudy NAMI no.65:1
'52. (MLRA 8:11)

1. Direktor NAMI (for Osipyan)
(Automobiles--Wheels)

TOKAREV, G.G., kandidat tekhnicheskikh nauk; MEZIN, I.S., doktor tekhnicheskikh nauk, retsentsent; SOLOV'YEV, N.S., inzhener, redaktor; MODEL', B.I., tekhnicheskiiy redaktor.

[Gas producers for automobiles] Gazogeneratornye avtomobili. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1955. 203 p.
(Automobiles--Gas producers) (MIRA 8:5)

TOPCHIYEV, A.V., akademik, glavnyy redaktor; SHUMILOVSKIY, N.N., doktor tekhnicheskikh nauk, otvetstvennyy redaktor; LOSSIYEVSKIY, V.L., redaktor; MEZIN, I.S., redaktor; MADZHAPOV, E.M., redaktor; PLISKIN, L.G., redaktor; STRAKHOVA, L.P., redaktor; YARMOL'CHUK, G.G., redaktor; PRUSAKOVA, T.A., tekhnicheskiy redaktor

[Session of the Academy of Sciences of the U.S.S.R. on scientific problems in automatization of production, October 15-20, 1956. Overall automatization of production processes] *Seansiia Akademii nauk SSSR po nauchnym problemam avtomatizatsii proizvodstva, 15-20 oktiabria 1956 g; kompleksnaia avtomatizatsiia proizvodstvennykh protsessov. Moskva, 1957. 310 p. (MLBA 10:4)*

1. Akademiya nauk SSSR.
(Automatic control) (Automation)

MAMINKINOV, Azop Gasparovich, ~~MEMIN~~, i. ., otz. red.; DECK P'YEVA, N.I., red.;
RYLINA, Yu.V., tekhn. red.

[Automatic control in oil fields] Avtomatizatsiia neftepromyslov.
Moskva, Izd-vo Akad.nauk SSSR, 1958. 65 p. (MIRA 11:2)
(Petroleum engineering)
(Automatic control)

MEZIN, I. S. and MALYY, A. L.

"Automation of Drying Drums." p. 177

Automation of Production Processes, No. 2, Moscow, Izd.-vo AN SSSR, 1957
177 p/

The volume contains articles summarizing the results of investigations carried out in laboratories for the automation of production processes of the Institut avtomatiki i telemekhaniki, AN SSSR (Institute for Automatics and Telemechanics of the USSR Academy of Sciences). The articles discuss the following topics: 1) basic objectives of automation 2) classification of industrial processes and formulation of typical automation solutions 3) experimental methods employed in studying industrial processes subject to regulation 4) considerations in determining the rational sequence and the extent of automation, and 5) results of studies on the automation of some industrial processes and establishments.

MEZIN, I.S.; MALYY, A.L.

Automatization of drying drums. Avtom. proizv. prots no.2:139-152
'58. (MIRA 13:8)
(Drying apparatus) (Automatic control)

MEZIN, P.D.

AKBEROV, Ya.Kh.; MEZIN, P.D.; redaktor; KRASIL'SHCHIK, S.I., redaktor;
TOKER, A.M., tekhnicheskii redaktor.

[Handbook of safety techniques for lathe workers, drillers, milling
machinists, planers, and mortisers] Pamiatka po tekhnike bezopas-
nosti dlia rabotaiushchikh na tokaraykh, sverlil'nykh, frezeraykh,
stregal'nykh i dolbeshnykh stankakh. [Sostavil IA.Kh.Akberov.
Redaktor P.D.Mezin] Moskva, Gos. izd-vo lit-ry po stroitel'stvu i
arkhitekture, 1954. 24 p. (MLRA 7:8)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva. Otdel
tekhniki bezopasnosti i promyshlennoy sanitarii.
(Metal cutting--Safety measures)

AKBEROV, Ya.Kh.; MEZIN, P.D., redaktor; LANOVSAYA, M.R., redaktor;
TOKER, A.M., —tehnicheskiiy redaktor

[Booklet on safety measures for mechanics of sections assembling
steel constructions] Pamiatka po tekhnike bezopasnosti dlia
mekhanikov uchastkov po montashu stal'nykh konstruktsii. Moskva,
Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1954. 66 p.
(MLRA 7:8)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva. Otdel
tekhniki bezopasnosti i promyshlennoy sanitarii.
(Building, Iron and steel--Safety measures)

MEZIN, Yefim Konstantinovich, kand.tekhn.nauk, dots.

Experimental determination of armature resistance of a d.c.
machine. Izv.vys. ucheb. zav.; elektromekh. 1 no.6:39-42 '58.
(MIRA 11:9)

1. Leningradskaya vysshaya inzhenerno-morskoye uchilishche imeni
admirala Makarova.

(Electric machinery--Direct current)

MEZIN, Ye. K.

PA 3/4/T30

WARR/Electricity
Circuits, Coupled
Currents, Electric

May 48

"Self-Acting Asynchronous Electromagnetic Coupling,"
Ye. K. Mezin, Cand Tech Sci, Leningrad Elec Eng Inst
imani Lenin, 2 pp

"Elektrichestvo" No 5

Discusses use of multiphase current to convert
ordinary coupling in Diesel-equipped ships to self-
acting asynchronous electromagnetic coupling.

3/4/T30

MEZIN, Doc Ye. K.

PA 237T26

USSR/Electricity - Electromagnetic Clutches Jul 51
Engineering - Machine Tools

"Self-Excited Clutch With Commutator," Doc Ye. K.
Mezin, Cand Tech Sci, Leningrad

"Elektrichestvo" No 7, pp 17-19

Treats self-excited electromagnetic clutch with
series excitation. Substantiates basic property
of clutch in unsaturated state (ability to oper-
ate at constant slip independent of braking torque).
Slip is regulated by resistance in armature cir-
cuit. Clutch can be used as speed control and as
a reducing gear with smooth regulation of trans-
mission ratio. Submitted 14 Nov 51.

237T26

MEZIN, Yevgeniy Kalistratovich; BABAYEV, A.M., otvetstvennyy red.; KUZNETSOV, A.D., red. 1zd-va; KOTLYAKOVA, O.I., tekhn. red.

[Electromagnetic slip couplings for ships] Sudovye elektromagnitnye
mufy skol'zhenia. Leningrad, Izf-vo "Morskoi transport," 1958.

45 p.

(MIRA 11:10)

(Couplings) (Ship propulsion)

MEZIN, Yevgeniy Kallistratovich; KONIK, B.Kh., red.; KOTLYAKOVA, O.I.,
tekh. red.

[Brief course in electric machinery for ships] Kratkii kurs
sudovyykh elektricheskikh mashin. Leningrad, Izd-vo "Morskoi
transport," 1958. 267 p. (MIRA 11:9)
(Electricity on ships)
(Electric machinery)

MEZIN, Yevgeniy Kallistratovich, kand. tekhn. nauk, dotsent

Special features of the external characteristic of a generator
with mixed excitation. Izv. vys. ucheb. zav.; elektromekh. 5
no.11:1289-1295 '62. (MIRA 16:1)

(Electric generators)

MEJN, Yevgeniy Kharistratovich

[Electrical machinery on ships] Osnovnye elektricheskie mashiny. Moskva, izd-vo "Transport," 1962. 382 p.
(MIR) 17-81

ALYAB'YEV, Mikhail Ivanovich; TRESHCHEV, I.I., doktor tekhn. nauk
retsensent; MEZIN, Ye.K., kand. tekhn. nauk, nauchn. red.;
CHICHKANOVA, V.S., red.

[General theory of electric machinery on ships] Obshchaya
teoriya sudovykh elektricheskikh mashin. Leningrad, Sudos-
stroenie, 1965. 300 p. (MIKA 18:5)

BEREZINA, Ye.Kh.; ZAITSEVA, A.I.; SAKULINSKAYA, M.G.; VISHNEVSKAYA, O.P.;
MEZINA, A.A.; MAKHEYEV, Ya.M.; BELOBORODOV, P.A. Prinsipali
uchastiye: BASHKATOVA, Z.V.; OLEYNIKOVA, Ye.I.; SIBIRYAKOVA, A.A.
MIKHAYLOV, A.N., otv.red.; LIVSHITS, B.Kh., red.; VLADIMIROV,
O.G., tekhn.red.

[Agroclimatic manual for Kirov Province] Agroklimaticheskiy spravochnik po Kirovskoi oblasti. Leningrad, Gidrometeor.izd-vo, 1960. 190 p. (MIRA 14:3)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. Verkhne-Volzhskoye upravleniye. (Kirov Province--Crops and climate)

L 20765-65/ EWA(k)/EWT(1)/EWT(m)/EPF(c)/EPF(n)-2/EEC(t)/EEC(b)-2
Pr-4/Pu-4/Pb-4 IJP(c)/BSD/ASD(a)-5/AS(mp)-2/AFMDC/ESD(t) GG
ACCESSION NR: AT5000401 S/3119/64/000/001/0073/0088

AUTHOR: Shvarts, K.K., Aluker, E.D., Mezina, I.P., Grube, M.M.

TITLE: Thermal quenching of the x-ray luminescence of some alkali halide crystals

SOURCE: AN LatSSR, Institut fiziki. Radiatsionnaya fizika, no. 1, 1964.
Ionny*ye kristally* (Ionic crystals), 73-88

TOPIC TAGS: alkali halide crystal, x-ray luminescence, luminescence activator,
thermal quenching, neutron bombardment, ionizing radiation, thermoluminescence

ABSTRACT: This paper constitutes the beginning of a series of papers on the quenching of the luminescence of alkali halide crystals activated by mercurylike ions. The purpose of these investigations was to study quenching processes as a function of the mode of excitation (x, beta and gamma rays, neutrons), type of activator (Tl, Pb, In, etc.), and its concentration. The program also included a study of scintillation. In this paper, the authors studied the temperature dependence of the intensity of steady luminescence, of the flare-up of x-ray luminescence, and the thermoluminescence in the range 100-700K. In order to study the effect of x-irradiation on the state of the activator, the flare-up and the excitation spectrum of the activator cross section were measured. Grown crystals of KCl-Tl, KBr-Tl, KI-Tl, and KI-In were employed.

Card

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ACCESSION NR: AT5060401

Basic assumptions are made concerning the mechanism of quenching of x-ray luminescence, mechanism of transfer of energy to the activator centers, and the nature of the flare-up of luminescence, but the need for additional data is emphasized. Orig. art. has: 14 figures and 2 tables.

ASSOCIATION: Institut fiziki AN Lat. SSR (Physics Institute, AN Lat. SSR)

SUBMITTED: 18Mar64 ENCL: 00 SUB CODE: OP, SS

NO REF SOV: 021 OTHER: 013

Card 2/2

L 41714-65 EWA(k)/EWT(l)/EWT(m)/EEC(t)/EWP(t)/EWP(b) P1-4 IJP(c)
ACCESSION NR: AR5008416 JD/LHB UR/0058/65/000/001/D054/D054

SOURCE: Ref. zh. Fizika, Abs. 1D409

AUTHORS: Aluker, E. D.; Mezina, I. P.

TITLE: Temperature dependence of the x-ray luminescence spectra of alkali halide crystals activated with thallium

CITED SOURCE: Izv. AN LatvSSR. Ser. fiz. i tekhn. n., no. 4, 1964, 17-22

TOPIC TAGS: x ray luminescence, luminescence spectrum, alkali halide, thallium, temperature dependence, thermal luminescence, activator center

TRANSLATION: The authors measured the temperature dependence of x-ray luminescence (XS) and of thermal luminescence spectra (TS) of KCl-Tl, KBr-Tl, KI-Tl, NaI-Tl, and CsI-Tl in the temperature interval 100 - 500K. It is shown that the TS coincides with the XS. Only the usual activator centers (Tl of type I) glow in iodides with large Tl concentration. With decreasing temperature, the spectra of KCl-Tl and KBr-Tl experience a redistribution of the intensity among the bands

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ACCESSION NR: AP5008416

corresponding to the glow of the different Tl centers and pure matter.

SUB CODE: OP

ENCL: 00

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SCHWARZ, K.K.; ALUKER, E.D.; MEZINA, I.P.

On the temperature quenching of radioluminescence of some thallium activated alkali halides. Acta physica Pol 26 no.3/4:795-799 S-0 '64.

1. Institute of Physics of the Academy of Sciences of the Latvian S.S.R.

ACC NR: AT7001788

SOURCE CODE: UR/3119/66/000/004/0099/0106

AUTHOR: Aluker, E. D.; Dobrzanskiy, G. F.; Mezina, I. P.

ORG: Institute of Physics, AN LatSSR (Institut fiziki AN LatSSR); Institute of Crystallography AN SSSR (Institut kristallografi AN SSSR)

TITLE: Temperature dependence of x-ray luminescence of alkali-halide crystals activated with In

SOURCE: AN LatSSR. Institut fiziki. Radiatsionnaya fizika, no. 4, 1966. Ionnyye kristally (Ionic crystals), 99 -106

TOPIC TAGS: alkali halide, activated crystal, x ray luminescence, thermoluminescence, temperature dependence

ABSTRACT: This is a continuation of earlier work (Izv. AN Latviyskoy SSR, Ser. fiz.-tekh. nauk v. 4, 17, 1964 and elsewhere) dealing with radioluminescence processes in different alkali-halide crystals activated with thallium. The present investigation extends these results to other bases and to other activators. The tests were made on KCl-In, KBr-In, and KI-In crystal phosphors grown by the Stockbarger method. They consisted of measuring the x-ray luminescence spectra at various temperatures and the temperature dependence of the intensity of activator glow under x-ray excitation at temperatures 77 - 600K, and plotting the thermoluminescence curves following x-ray exposure at liquid-nitrogen and room temperatures. The temperature dependence of the x-ray luminescence of the measured crystals exhibited many features common to those

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ACC NR: AT7001788

for crystals activated with thallium. Just as in the case of thallium, the samples activated with indium had temperatures at which the intensity of the activator glow had a maximum (340, 270, and 260° for KCl, KBr, and KI). The most intense thermoluminescence peaks (330, 140, and 130°, respectively) were observed in this region. In the chlorides and bromides activated with indium, unlike those activated with thallium, the low-temperature decrease of the activator glow was not accompanied by an increase in the glow of another spectral composition, whose intensity increased with decreasing concentration of the activator. The growth of the activator concentration decreased the depth of the low-temperature decrease of the activator-glow intensity. The authors thank K. K. Shvarts for suggesting the topic and continuous interest. Orig. art. has: 7 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 008

Card 2/2

ACC NR: AP7003891

SOURCE CODE: GE/0030/67/019/001/0035/0040

AUTHOR: Aluker, E. D.; Mezina, I. P.

ORG:

TITLE: Radioluminescence output in alkali halide crystal phosphors as a function of temperature

SOURCE: Physica status solidi, v. 19, no. 1, 1967, 35-40

TOPIC TAGS: radioluminescence, alkali halide, crystal phosphor, luminescence, thermoluminescence, *temperature dependence, thallium compound, indium compound, x radiation, color center*

ABSTRACT: The emission spectrum, the thermoluminescence, and the temperature dependence of the output of luminescence of thallium and indium doped halide phosphors were determined and measured under the effect of x-ray radiation in the 80 to 600K range. The decrease in the output of luminescence at low temperatures is explained as being due to the formation of electron activated coloration centers. The authors express their thanks to K. K. Shvarts for his interest and assistance in this work. Orig. art. has: 5 figs. and 1 table. [Based on authors' abstract]

SUB CODE: 20/SUBM DATE: 13Sep66/ORIG REF: 013/OTH REF: 004/ [SP]

Card 1/1

MEZINA, M.H.

Work norm sheet for slubbers. Tekst. prom. 18 no.2:8-9 P '58.
(MIRA 13:3)
(Cotton spinning--Tables, calculations, etc.)

MEZINA, N. M.

Extraction in radioactive titration. I. M. Koronias, E. P. Shvaynova, N. M. Mezina, and M. I. Osmishchyn (N. I. Lobucherskiy State Univ., Gorki). *Zhur. Anal. Khim.* 12, 18-24 (1957). —Radioactive titration can be carried out by tagging the titrated ion, the titrating ion, or both ions. In either case, the reaction product is extd. with an org. solvent and the radioactivity of the org. and the aq. layer are detd. The 3 methods give characteristic titration curves. Zn and Hg were titrated with dithizone by the first of the above methods by using Zn⁶⁵ and Hg²⁰³ as indicators and CHCl₃ as org. liquid. The radioactive indicator does not have to be an isotope of the titrated ion; it can be any other radioactive element. This was shown by titrating Hg with dithizone in CHCl₃ by using Zn⁶⁵ as indicator.

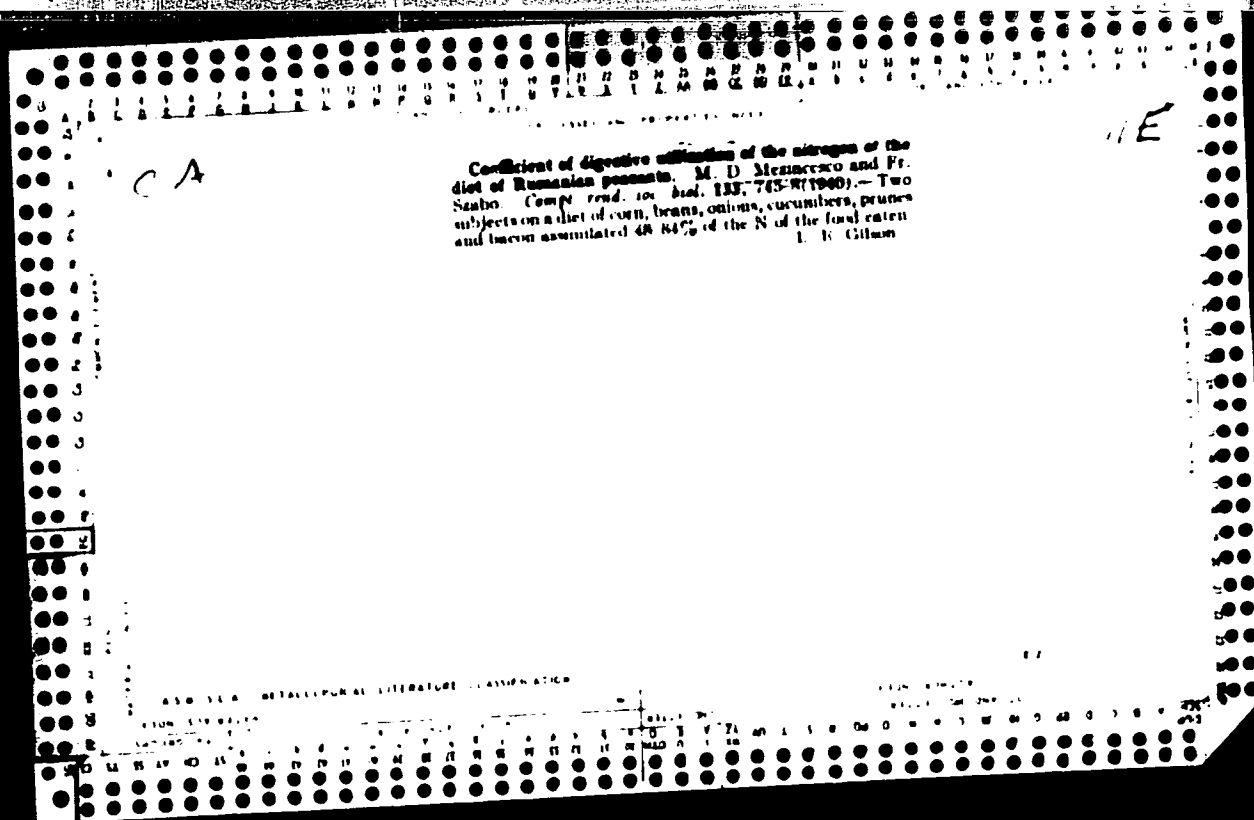
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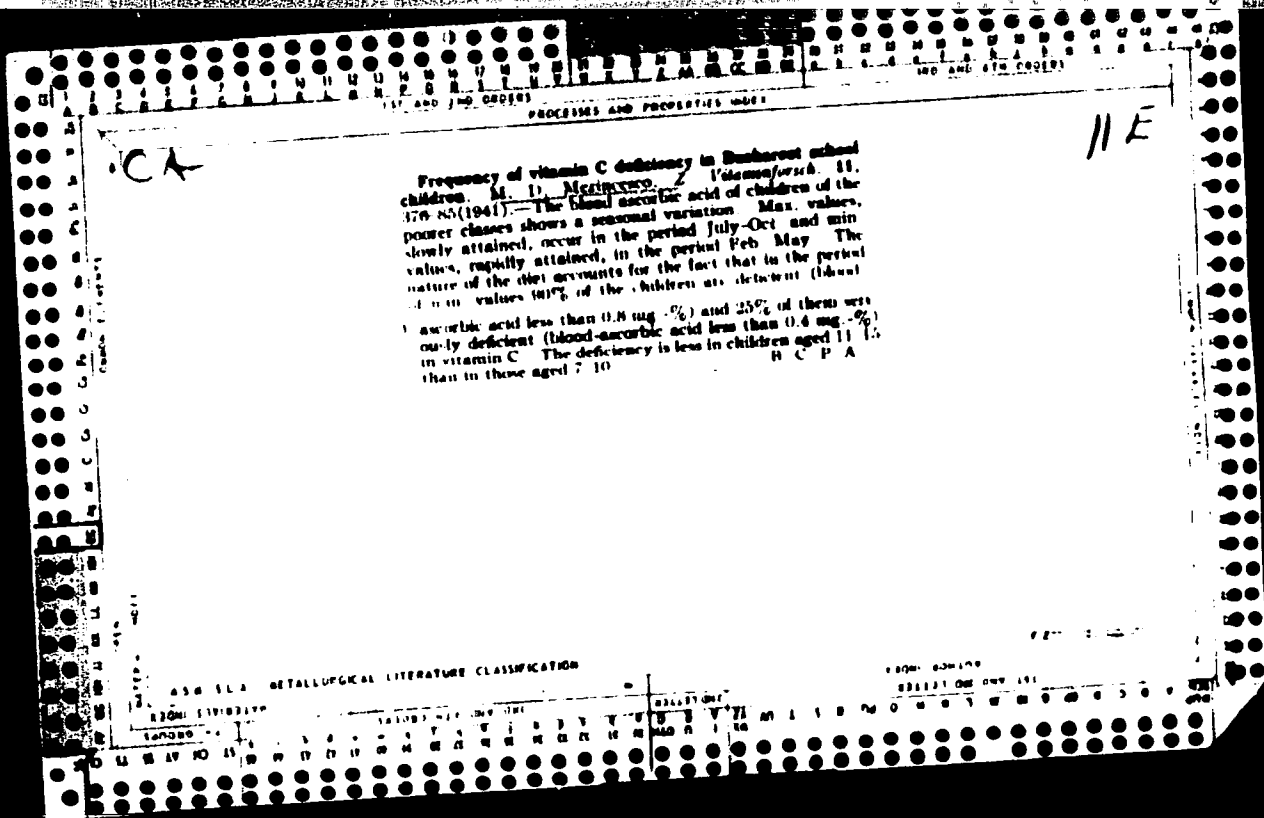
M. Mezina
1957

MEZINGESCU, M.D.; POPESCU-STEFANESCU, A.; BALAN, C.

Method for studying the contingent variations of the need of nitrogen. *Studia Univ B-B S Chem* 8 no.1:506 '63

1. Institute of Medicine and Pharmacy, Bucharest.





1ST AND 2ND COPIES										3RD AND 4TH COPIES									
PROCESSES AND PROPERTIES INDEX																			
<p>cd</p> <p>Fatal poisoning by ingestion of ethylene dichloride. C. Iemstra and M. D. Mezinisco. <i>Bull. acad. med. Roumanie</i> 14, 614-17(1963).—A case of poisoning is reported in which the patient died 41 hours after ingestion of ethylene dichloride, apparently of circulatory failure. Death occurred after a remission of two days during which time the patient was apparently normal. The chief symptoms were those of nausea, vomiting, and intoxication similar to that produced by alcohol. Win M. Govier</p> <p>11-71</p>																			
ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION																			
MATERIALS INDEX										COMMON ELEMENTS									
OPEN										CLOSED									
SEARCHED										SERIALIZED									
INDEXED										FILED									

MEZINGHESCU, M.D.; MIHAIESCU, C.; DUMITRESCU-OPREAN, Z.

Determination of vitamin C in plant products. Rev. igiena microb. epidem., Bucur. No.2:47-59 Apr-June 54.

(PLANTS

vitamin C content of food plants, determ.)

(VITAMIN C, determination
in food plants)

(FOOD

plant products, vitamin C content, determ.)

Mezincescu, M.D.

9 Blood nicotinic acid in pellagra. M. D. Mezincescu and Z. Dumitrescu-Chiriac. *Compt. Rend. Acad. Sci. Rep. Publ. Roum. Acad. Sci. B* 4: 65-68 (1954).—The nicotinic acid (N) content of the blood of 53 pellagrous persons was determined. The results varied between 2.44 and 9.24 μ g per ml. The mean of values is 4.03 μ g with a standard deviation ± 1.49 . In 115 healthy people the results were 6.03 μ g/ml, with a standard deviation of ± 1.37 . The individual values cannot be considered as an index of I nutrition. Only group means have a significance. A. Hatan

MEZINESCU-M.D.

✓ The deficiency role of riboflavin and thiamine in the etiology of pellagra. M. D. Mezinescu, C. Mănescu, B. Serodine, and M. Ionescu. *Commun. Acad. Rep. Populare Romine* 4, 751-8 (1964).—Evidence is presented that the pellagrous persons are afflicted with it because of a deficiency of riboflavin in their diet. But the riboflavin deficiency does not constitute a steady character of the pellagrous patient's nutrition as in the case of the nicotinic deficiency (cf. *Ann. Intern. Med.* 47, 1, 1957; *Ann. Intern. Med.* 2, 122, 1959). From the time of the appearance of the erythema, the nutrition improves considerably concerning the riboflavin and a no. of pellagrous patients respond in a satisfactory manner (about 25%) to the said test. On the other hand data concerning the thiamine in nutrition are very reliable and demonstrative. They also show that the most of the pellagrous patients to thiamine are generally afflicted. There are no reasons which would justify the classification of pellagra in a special category of deficiency ailment. F. Z. Jurgens

MEZINESCU, M.D.

M.D. / The role of a riboflavin deficiency in the etiology of pellagra. B. Scodnic, V. Spiridonescu, and M. D. Mezinescu. *Comun. Acad. Rep. Populare Romine* 5, 611-14 (1955). Satm. tests with riboflavin were carried out on 83 patients suffering from pellagra. It appears that one cannot attribute a detg. role in the genesis of pellagra to a deficiency of riboflavin. Brunnel Merdinger 3/

MEZINESCU, M.; POPESCU*STEFANESCU, A.

Test for determining the amount of nicotinic intake based on quantitative determination of N¹-methyl-2-pyridonr-5-carboxylamide in urine. p. 777.
COMUNICARILE. Bucuresti.
Vol. 5, no. 4, Apr. 1955

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

POPESCU-STEFANESCU, A.; BALAN, C.; MEZINCESCU, M.D.

Comparative research on some methods for liver xanthinoxidase activity determination. Studii cerc biochimie 6 no.4:529-537 '63.

1. Catedra de chimie biologica I, Institutul medico-farmaceutic, Bucuresti.

TOTH, Istvan (Budapest, VI., Baross u. 42); MEZINGER, Ferenc
(Pocapetri, Pocsi u. 13); MEMETH, Tibor, okleveles gépész-
és gazdasági mérnök (Szombathely, I., Schönherz Zoltán körut
1)

Engineer or technician? Musz élet l^o no. 4: 5 13 P '64.

MEZINOV, F.V.

Work of the Power Supply Section of the Rostov Regional
Power System in connection with electric power savings. Prom.
energ. 15 no.4:7-8 Ap '60. (MIRA 13:6)
(Rostov Province--Electric power)

BOGUN, A.F.; MEZINOV, M.M., red.

[Mechanization of the work and the progressive technology
of ship repairs] Mekhanizatsiia proizvodstva i progres-
sivnaia tekhnologiya sudoremonta. Moskva, Transport, 1964.
87 p. (MIRA 18:2)

MEZINOVA, N.H.

Uterine baroreceptors in women. Akush. gin. no.2:21-25 Mar-Apr 1953.
(GML 24:3)

1. Of the Department of Obstetric and Gynecology (Head -- Prof. Ya. S. Klenitskiy), Kazakh Medical Institute imeni V. M. Molotov.

MEZINOVA, N.N., kand.med.nauk

Underdevelopment of the genitalia as a cause of sterility in women.
Akush.i gin. 35 no.5:78-79 S-O '59. (MIRA 13:2)

1. Iz kafedry akusherstva i ginekologii (zaveduyushchiy - prof. Ya.S. Klenitskiy) lechebnogo fakul'teta Alma-Atinskogo meditsinskogo instituta.
(STERILITY, FEMALE, etiology)
(GENITALIA, FEMALE, abnorm.)

UTEGENOVA, K.D.; MEZINOVA, N.N.; LADYGINA, T.B.

More about the diagnosis and treatment of sterility. Zdrav. Kazakh.
21 no. 4:27-30 '61. (MIRA 14:4)

1. Iz kafedry akusherstva-ginekologii lechebnogo fakul'teta (zav. -
professor K.D. Utegenova) Kazakhskogo meditsinskogo instituta.
(STERILITY)

MEZINOVA, N.N., kand. med. nauk

Treatment of female sterility, caused by inflammatory processes in the uterine adnexa, with cortisone and hyaluronidase combined with antibiotics. Akush. i gin. no.6:92-95 N-D '63.

(MIRA 17:12)

1. Iz kafedry akushers va ginekologii (zav. - prof. K.D.Utegenova) lechebnogo fakul'teta Kazakhskogo meditsinskogo instituta.

✓

PLSD, N.Y., 2nd ^{Teek} Ed. (1957) "The ~~1957~~ ¹⁹⁵⁸ ...
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of ... [...], 1958, ...
(Appl. Sci. Technol. ...)
(17, 22-23, 196).

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PHASE I BOOK EXPLOITATION

SOV/3816

Mezis, V. Ya.

Vliyaniye izmeneniya znaka kholodnoy plasticheskoy deformatsii na nekotoryye svoystva metalla; avtoreferat dissertatsii na soiskaniye uchenoj stepeni kandidata tekhnicheskikh nauk (Effect of Reversing the Sign of Cold Plastic Deformation on Some Properties of Metals; Author's Abstract of a Dissertation for the Degree of Candidate of Technical Sciences) Moscow, 1958. 19 p. 175 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A.A. Baykova.
Faculty advisor: I.M. Pavlov, Corresponding Member, Academy of Sciences USSR.

PURPOSE: This book is intended for metallurgists and production engineers.

COVERAGE: This is the author's abstract of his dissertation for the degree of Candidate of Technical Sciences. The author presents his investigation of the effect of reversing the sense (sign) of plastic deformation along certain axes of the workpiece on the properties of metal during upsetting, die forging, extrusion, etc. The samples were made of electrolytic copper, commercial

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Effect of Reversing the Sign of Cold Plastic (Cont.)

80V/3816

pure aluminum and rimmed commercial iron (Armco-type), and were die-forged. The author compares the above-mentioned effect with that of the deformation of the same sign. The final results of the investigation are summarized in 15 conclusions. Soviet personalities mentioned include: V.G. Osipov; N.N. Davidenkov; E.M. Shevandin; Ya. V. Fridman; V. Kuntse; N.P. Shchapov; L.A. Shofman; S.I. Ratner; S.I. Gubkin; E.S. Bogdanov; I.M. Pavlov; V.I. Zalesskiy; A.V. Puzanchikov (Moscow Steel Institute). There are 3 references, all Soviet.

TABLE OF CONTENTS: None given.

AVAILABLE: Library of Congress (TA460.M48)

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VK/ram/gmp
8-9-60

PAVLOV, I.M.; MEZIS, V.Ya.

Effect of directional change in plastic deformation on certain properties
of the metal. Trudy Inst.met. no.3:295-306 '58. (MIRA 12:3)
(Deformations (Mechanics)) (Metallography)

AUTHORS: Pavlov, I. I., Meis, V. Y. 3 1 1 1 - 1 1 1 1

TITLE: The Dependence of the Mechanical Properties on the Micro Structure of Metals on the Change of the Signs of Plastic Deformation (Zavisimost' mekhanicheskikh svoystv i mikrostruktury metalla ot izmeneniya znaka knobleniya plasticheskoy deformatsii,

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurhiya, 1970, Nr 4, pp 172-180 (USCR)

ABSTRACT: The characterization of the physical state of a deformed metal by determining the extent of the composite deformation is not satisfactory. It is necessary to take into account the change of the signs of the deformation. In the present paper investigations of the dependence of the properties of the metals deformed on the change of the signs of the deformation were carried out, and the character of the change in strength of the alloys according to the change of the signs of the plastic deformation was determined. Pure metals (aluminium metal and technical iron of the Armco type) were used for this purpose. The samples were investigated as to their strength and their

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The Dependence of the Mechanical Properties and the Micro Structure of Metals on the Change of the Signs of Plastic Deformation

microstructure. From the results obtained may be concluded that the strength of the alloys increases with the increase of the degree of deformation. The hardness of metals after deformation with variable signs is smaller than that of metals after deformation with constant signs. The change of the signs of plastic deformation as well as all anisotropic properties of the metals were investigated in their longitudinal and their vertical direction and it was found that the change of the signs of plastic deformation has an effect on the microstructure of the metal samples. Such an effect was found in aluminium samples and in technical iron. In the working processes of the metals it is necessary to take into account the change of the signs of plastic deformation. There are 5 figures and 6 references, all of which are Soviet.

Card 2, 3

The Dependence of the Mechanical Properties and the Micro Structure of Metals on the Change of the Signs of Plastic Deformation. SOV/103-18-3-29/49

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute,
Institut metallurgii AN SSSR (Metallurgical Institute, AS SSSR)

SUBMITTED March 10, 1958

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SOV/24-58-6-30/35

AUTHORS: V. Ya. Mezis and I. M. Pavlov

TITLE: On the Specific Character of the Microstructure and on the Anisotropy of the Mechanical Properties of Metals observed after Cold Plastic Deformation of Changing Sign (Ob osobom kharaktere mikrostruktury i anizotropii mekhanicheskikh svoystv metalla, nablyudayemykh v rezul'tate kholodnoy plasticheskoy deformatsii peremennogo znana)

PERIODICAL: Izvestiya akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, Nr 6, pp 142-144 (USSR)

ABSTRACT: The experimental test pieces measuring 7 x 4 x 3 cm were prepared from pure copper, commercially pure aluminium and armco iron. After bright annealing in a protective atmosphere, to produce a homogeneous microstructure and sufficiently large grains, the test pieces were subjected to cold plastic deformation, (a) in tension and (b) in tension followed by compression. From the deformed materials test pieces were cut in the direction parallel and perpendicular to the direction of the deformation, and these test pieces were used for hardness measurements and determination of ultimate tensile strength, proof stress

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SOV/24-58-6-30/35

On the Specific Character of the Microstructure and on the Anisotropy of the Mechanical Properties of Metals observed after Cold Plastic Deformation of Changing Sign .

and ductility of the material. After deformation of various kinds the microstructure of the various metals was examined. It was found that: (a) The general character of the relationship between the degree of work hardening and the total deformation, both uni-directional and alternating, is the same; work hardening increases with increasing degree of total deformation. (b) The difference in the properties in the perpendicular direction resulting from alternating deformation in aluminium and commercial iron reached 16 to 18% for the ultimate tensile strength, and up to 32% for the ductility. (c) The character of anisotropy is also affected by alternating the deformation: In the case of uni-directional deformation the ultimate tensile strength and proof stress of the test pieces cut in the direction parallel to the direction of the deformation were higher than those of the test pieces cut in the perpendicular direction, whilst, after alternating deformation, the tensile strength and proof stress were higher in the perpendicular direction.

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On the Specific Character of the Microstructure and on the
Anisotropy of the Mechanical Properties of Metals observed after
Cold Plastic Deformation of Changing Sign

However, in a number of cases, for instance in the case of pure copper, no effect of alternating deformation was observed. The effect of alternating deformation on the mechanical properties and their anisotropy is best explained by the difference in the shape of various stress risers (micro-defects) present in the metals and by variation in their orientation in relation to the direction of the applied stress. The main effect of alternating deformation appears to be on the microstructure (Figs 1-7). Metal subjected to alternating deformation in comparison with that subjected to unidirectional deformation of the same degree is characterised by the following features: (a) absence of fibrous structure. (b) a grain shape similar to that of the undeformed metal. (c) presence in the grains of sets of slip lines intersecting at right angles. (d) a final form of the microstructure which indicates that deformation occurs mainly inside the grains and only to a very

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SOV/24-58-6-30/35

On the Specific Character of the Microstructure and on the Anisotropy of the Mechanical Properties of Metals observed after Cold Plastic Deformation of Changing Sign

small degree along the grain boundaries. It was established that alternating deformation does not affect the microstructure in the same degree as unidirectional deformation. In spite of this difference in the microstructure, in many cases (eg in the case of Cu) the mechanical properties of metal after both types of deformation were similar. This indicates that work hardening after cold plastic deformation is associated, not with changes of structure visible under a microscope, but with changes of the character and disposition of dislocations occurring inside the grains.

There are 7 photomicrographs and 2 Soviet references.

SUBMITTED: March 17, 1958

Card 4/4

BYCHKOVA, Z.S. (Moskva); VINOGRADOV, Yu.V (Moskva); DANIL'CHENKO, A.N.
(Moskva); DZUGUTOV, M.Ya. (Moskva); MEZIS, V.Ya. (Moskva); RASTEGAYEV,
M.V. (Moskva); STEPANOV, V.P. (Moskva).

Investigating the recrystallization of nickel-base heat-resistant
alloy castings. Izv. AN SSSR. Otd. tekhn. nauk. Met. i topl. no.5:
70-78 S-0 '60. (MIRA 13:11)
(Heat-resistant alloys--Metallography) (Crystallization)

PLEASE I BOOK REPRODUCTION 507/14513 507/10-3-5

Akademiya nauk SSSR, Institut metallurgii
Metallurgiya, metallovedeniye, fiziko-khimicheskiye metody issledovaniya
(Physicochemical Research Methods in Metallurgy and Metal Science) Moscow,
Izdovo AN SSSR, 1960. 251 p. (Series: Itai Trudy, 779. 5) Errata slip
inserted. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR, Institut metallurgii (Inst A.A. Baykova,
Beep. No. 1, P. Barkin, Akademicheskaya (Deceased); Ed. of Publishing House;
V.A. Etkov; Tech. Ed.: T.P. Kabanova.

REMARKS: This collection of articles is intended for metallurgists and metal
researchers.

CONTENTS: The collection contains articles on metallurgy, metal science, and
physicochemical research methods. Separate articles discuss the structure
and properties of some metals and alloys. The effect of cold treatment and
inclusions on the properties of alloys are analyzed, and instruments and

Shalimov, I.B., and A.M. Semarin. Study of the Sulfur Absorption Capacity
of Magnesium Oxide and Silicon Oxide 16

Perest, Yu. P., V.A. Kobelitskiy, and A.M. Semarin. Effect of Decarburization
of Titanium Alloy of Vanadium, Silicon, and Aluminum on the Content and
Composition of Oxide Inclusions in Steel 22

Dobobolov, A. Ye. On the Problem of Utilizing the Results of Mechanical
Tests for Evaluating the Technology of Smelting and Casting of Steel
Zagorodskiy, A.I. On the Sequence of Crystallization of Nonmetallic
Inclusions in Steel, and of Oxides and Sulfides in Casts 36

Vorobey, A.A. Relation of Coefficients of Diffusivity at Different and
Exothermic Heat Exchange and a Diagram for Determining These Coefficients
Kochkin, V.S. On the Theory of Production of Lead Dross and in the Process of Copper-
and Nickel-Slag Smelting 40

Radchik, V.S. Utilization of Sulfur Dioxide at Nonferrous Metallurgical
Plants 70

Prokhor, G.F., and Ye. I. Danilova. Interaction of Sulfur Dioxide With
the Oxides and Sulfides of Some of the Nonferrous Metals 76

Al'tamir, O.V., and G.F. Prokhor. Interaction of Selenium With
Titanium Sulfide 81

Devin, M. Ye., I.A. Strizhenko, and L.B. Kozhik. Study of the
Behavior of the Magnesium Phase of Some Magnesium-Base Alloys 85

Prudomskiy, I.A., and A.A. Pukhachenko. Effect of Cold Work on the
Properties of Aluminum-Copper and Titanium-Copper-Magnesium Alloys
Under Various Aging Conditions 95

Perlov, I.B., and I.B. Kozhik. Dependence of Metal Hardness on Change
of Deformation Rate During Cold Straining 100

Perlov, I.B., and Ye. Ye. Reiss. Dependence of Tensile Strength, Maximal
Elongation, and Specific Elongation on Slip Change of Plastic Deformation
of Metal 113

Perlov, I.B., and Ye. Ye. Reiss. Dependence of the Microstructure of a
Metal on Change in the Plastic Deformation Sign 117

Osipov, V.D. Final Deformations of Simple Shear 133

Korotkiy, I.I., and L.B. Polyzovskiy. Study of the Heat Resistance of
Plastic Alloys with Various Crystals, Polymers, Fibers, and
Aluminum, by the Bonding Method 149

Gromovskiy, B.Y., and V.G. Gromova. Possibility Curve of the
St-37 - 80 System 145

MEZIS, WYA

FROM I RICE RESEARCHER 8/7/502

Abstracts from 1950. Summary report on problems in microalloying of heat-resistant alloys. Vol. 6 (Investigations of Heat-Resistant Alloys, Vol. 6) Moscow, 1960. 119 p. Price 40p. 3,000 copies printed.

Summary report on problems in microalloying of heat-resistant alloys. Summary report on problems in microalloying of heat-resistant alloys.

Editorial Board: I. P. Bardis (Moscow), G. V. Shchegolev, E. V. Agapov, Corresponding Member, Academy of Sciences USSR (Morg. M.), I. A. Gilya, L. B. Rykova, and I. F. Kudin, Candidate of Technical Sciences; M. of Publishing House: V. A. Kabanov; M. S. G. Kabanov.

NOTE: This book is intended for research workers in the field of physics of alloys and for metallurgists, particularly those working on heat-resistant alloys.

CONTENTS: This collection of 15 articles deals with various problems in the production of heat-resistant alloys. Special attention is paid to the question of deformation of such alloys as aluminum, copper, iron, and nickel. The book contains a number of tables and diagrams illustrating the results of the investigations. The articles are: 1. The problem of the stability of heat-resistant alloys in the solid state; 2. The stability of heat-resistant alloys, depending upon defects of their crystalline structure; 3. The kinetics of change in isolated pores; 4. The irreversible thermal transformation of alloy bodies, etc. No personal names are mentioned. References follow each article.

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MELIS, V. YA

1964

IS 7100 1146.1416.1416 S/180/60/000/005/005/041
 AUTHORS: Pechovs J S, Vinogradov Yu V, Dashi'chenko A N
 Pechovs Yu A, Vinogradov Yu V, Kiselevskiy M V, and
 Stepanov Yu P (Moscow)

TITLE: Investigation of the Recrystallization of Cast
 Nickel-Based Heat Resisting Alloy

PERIODICAL: Investiya Akademiya Nauk SSSR Otdel'nye tekhnicheskikh
 nauk, Metallurgiya i toplivo, 1963, No. 5, pp 70-73

TEXT: The authors describe their investigation of the
 difficultly deformable nickel-based alloy Ni-20Cr-10Al-10Ti-10Nb
 composition). The object of the work was to study conditions for
 its hot deformation, which is a special reference to recrystallization
 the microstructure of the cast alloy is shown in the top left
 section of Fig. 1, while that after 10% linear compression was
 sectioned by Baksteyev. Ref. 1) is shown in the top right.
 Differences in grain size under different conditions are illus-
 trated by the lower sections of Fig. 1. For the main
 investigation the authors used a production lot of the alloy to
 make blanks (somewhat larger than in the original) used of lower
 deformation (Ref. 1) which were deformed at 1100, 1150, 1200 and
 Card 1/3

1240 Cc to 0.5-005. After air cooling, the deformed specimens
 were cut vertically into four parts, one of which was annealed at
 the deformation temperature for 2 hours, another at 1100 Cc for
 5 hours. Polished sections were made from each, results are
 presented as graphs of average grain size against degree of
 deformation and temperature, Figs. 2, 3 and 4 relate respectively
 to deformation without annealing, deformation with annealing at
 the same temperature, and deformation with annealing at 1100 Cc.
 Complete recrystallization regions with a second or defective
 structure and with welded defects are indicated. Fig. 5
 illustrates microstructures of undeformed and deformed specimens
 at high degrees of deformation defects formed at lower degrees are
 welded up. New grains appear and grow at 1100 Cc, the influence of
 deformation. An investigation was also made of the influence of
 high-temperature treatment (annealing) on the grain structure of
 test blanks deformed at 1100 Cc. For this type (Fig. 6, 7) circular
 test blanks were made from discs prepared from the alloy at 1240 Cc
 (cooling to 750-800 Cc in 10-12 min, then in air).
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Structure was determined without (Table 1) and with (Table 2)
 deformation. Under certain conditions the heat resisting
 properties of the alloy are improved as a result of the
 appearance of serrations at grain boundaries (Fig. 6).
 The work was directed by I. M. Elyagin.

SUBMITTED: June 1, 1960
 Card 3/3

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AUTHORS:

Rastegayev, M.V., Danil'chenko, A.N., Dzugutov, M.Ya.,
Rychkova, Z.S., Mezis, V.Ya., Vinogradov, Yu.V., and
Stepanov, V.P.

TITLE:

Recrystallization of cast, deformation-resistant
alloys of the nichrome type

SOURCE:

Akademiya nauk SSSR. Institut metallurgi. Issledova-
niya po zharoprochnym splavam, v. 7, 1961, 47 - 57

TEXT: The work was carried out under the supervision of I.M. Pav-
lova. The recrystallization of nichrome-type alloys has been stu-
died very little, since their low plasticity in the cast state ma-
kes experimenting difficult. Therefore, a new method of hot working
had to be developed, rendering upsetting without rupturing possible.
This method, in which uniform upsetting is achieved, consists of
making shallow flat grooves (0.5 - 0.8 mm) with rims of 0.5 mm
width, in the end faces of a cylindrical specimens (20 mm long and
20 mm diameter). The grooves are filled with moistened asbestos or

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Recrystallization of cast, ...

water glass, acting as lubricants during high temperature deformation under a drop hammer or press. This enables the contact friction to be decreased to a minimum and thereby permits deformation under conditions of linear compression. The results of investigations of recrystallization processes occurring in metallic alloys on hot working by pressure, are usually presented in the form of space diagrams of recrystallization of the second order within the coordinates "temperature, grain size and degree of deformation". However, these diagrams do not represent the entire recrystallization process which includes the old crystals to a certain extent, as well as any possible intercrystalline failures and their weldability. Therefore, the regions of full and incomplete recrystallization, as well as regions of failure and weldability between the crystals, should be indicated. A nichrome type alloy ingot, made under production conditions, was used in the investigation. Since the maximum transverse diameter of the dendritic crystals of the ingot attains 10 - 13 mm, the dimensions of the specimens were increased to 30 mm diameter and 40 mm length, as against 20 x 20 mm used in the uniform upsetting method. The dimensions of the end fa-

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Recrystallization of cast. ...

ce grooves were increased proportionately to the new specimen dimensions. The specimen axes coincided with the longitudinal direction of the ingot. Three-dimensional recrystallization diagrams were constructed for cast nichrome type alloys by the "uniform" upsetting method, and also for cases in which the soaking time during annealing of the hot deformed metal had to be allowed for. The regions of complete recrystallization of a sound or defective structure, as well as regions of complete recrystallization of structure with welded-in defects were labelled. In all stages of hot deformation of nichrome-type alloys (in the cast or preliminarily recrystallized state) recrystallization (appearance and growth of new grains) was observed to take place. It was found that under certain conditions of hot working and appropriate cooling of forgings, a complex intercrystalline cohesion structure could be obtained in nichrome-type alloys which effectively increased their high temperature resistance. There are 6 figures, 3 tables and 12 Soviet-bloc references.

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AUTHORS Pavlov, I M , Danil'chenko, A N , Rastegayev, M V , Mezis, ^V Ya , Dzugutov, M Ya
and Vinogradov, Yu V

TITLE The influence of plastic deformation during rolling on the time to failure, and on the
mechanical properties of heat-resisting alloys

SOURCE Akademiya nauk SSSR Institut metallurgii Issledovaniya po zharoprochnym splavam
v 9 1962 Materialy Nauchnoy sessii po zharoprochnym splavam (1961 g), 108-13

TEXT In an article published in vol. 6 of this series, the same authors (except Pavlov) concluded that the
above influence should be investigated for every heat-resisting alloy individually. In the present article, a non-
defined alloy designated as "Alloy B" usually used for flat forgings was investigated. As a criterion of its
heat-resistance the time was taken to failure at 800°C, and its plasticity was evaluated from its shock resistance
at 800°C, and at room temperature. It was concluded that the time to failure of this alloy and its mechanical
properties can be increased by plastic deformation with subsequent heat treatment. This increase is probably
due to the close-packed lattice of the acicular strengthening phase. There are 3 figures.

Card 1/1

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Fu-4 IJP(e) - MJW/JD/HW/JG

ACCESSION NR: AR5008958

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SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruksii i raschet detaley mashin. Otd. vyp., Abs. 1.48.125

AUTHOR: Pavlov, I. M.; Danil'chenko, A. N.; Rastegayev, M. V.; Mezis, V. Ya.; Napalkov, L. A.; Kulashov, M. Ya.TITLE: A study of plasticity and microstructure of VM-2 alloy when deformed by upsetting

CITED SOURCE: Tr. Mosk. in-ta metallurgii, Mosk. energ. in-ta i Mosk. in-ta stali i splavov vyp. 44, 1963, 256-263

TOPIC TAGS: molybdenum alloy, alloy plasticity, alloy microstructure, hot upsetting, bulge test, optimum deformation temperature, VM-2 alloy

TRANSLATION: The report gives the results of a study of the plasticity and microstructure of VM-2 molybdenum alloy after upsetting. The alloy's mechanical properties at room temperature were: $\sigma_{0.2} = 27.2 - 28.0 \text{ kg/mm}^2$, $\sigma_{cr} = 37.0 - 41.0 \text{ kg/mm}^2$, $\delta = 6-10\%$, $\alpha = 5-8.5\%$. Samples with diameter = 20 mm were bulge-tested on a 450 kg-m vertical impact tester with a max. ram drop rate of 10 m/sec. Billets were annealed at 1400C prior to shaping into cylindrical samples.

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