Magnico type alloys with a reduced cobalt content. (Cont.)

does not necessitate use of higher magnetic fields during the thermomagnetic treatment. The magnetic properties of the specimens after thermomagnetic treatment inside fields of various magnetic potentials in the case of tempering for four hours at 580 C are given in Table 2, p.10. Fig.2 gives the dependence on the cobalt content of magnico type alloys containing 15% Ni, whilst Fig.3 gives the same dependence for alloys containing 14% Ni. 3 figures, 2 tables, no references.

AVAILABLE:

Card 2/2

AUTHORS: Morozova, A. M. and Feygina, F. I. 126-5-3-8/31

TITLE: Effect of Annealing Conditions on the Thermal Magnetic Ageing of Permanent Magnets Made from Magnico-type Alloys (Vliyaniye rezhima otpuska na temperaturnoye magnitnoye stareniye postoyannykh magnitov iz splava tipa magniko)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1957, Vol V, Nr 3, pp 428-433 (USSR)

ABSTRACT: The object was to find conditions resulting in increased stability; it is shown that prolonged heating to 580°C, or a special sequence of temperatures and times, can give increased stability, as compared with normal treatments, which are directed to producing optimal field strength. The alloy used was composed of 15% Ni, 24% Co, 8.5% Al, 3% Cu and balance Fe. The specimens were 15 x 15 mm and from 30 to 180 mm long; all magnets were made from one batch of material. Three types of temperature cycle are used - I) 580°C for 24 hours, followed by coercive force measurement and thermal ageing; II) 580°C for four hours, 640°C for 2 hours, 580°C for four hours, and then as I; III) 700°C for 15 mins, 650°C for 30 min, 600°C for 1 hour, 580°C for two hours, 550°C for two hours (overall time

Card 1/2

126-5-3-8/31

Effect of Annealing Conditions on the Thermal Magnetic Aging of Permanent Magnets Made from Magnico-type Alloys

5 hours 45 mins), then as I. The thermal magnetic ageing was effected by cycling between +20 and -60°, a dry-ice cryostat being used to give -60°C. The results are given as three parameters a, b, and irreversible changes in the magnetic parameter (flux at zero magnetising field), a, the reversible change and E the change produced by the first cycle. The parameters are defined mathematically under Fig.1. The meanings of all four figures are not clear.
There are 4 figures.

ASSOCIATION: [illegible] (State Scientific Research Institute of the Radio Industry)

SUBMITTED: September 17, 1957

Card 2/2 1. Magnets--Materials 2. Magnetic alloys--Stabilization 3. Magnetic alloys--Heat treatment 4. Magnetic alloys--[illegible]

AUTHORS: B[illegible]rovskaya, [illegible] Engineer, [illegible] [illegible] 98-3-17/31
Engineer, Feygina, F. I., [illegible]

TITLE: On the T[illegible]rature [illegible] of [illegible]
temperaturnom starenii v/s [illegible] [illegible]

PERIODICAL: [illegible]

ABSTRACT: The [illegible] aging of samples and [illegible] consisting of three different alloys: A[illegible] Ni, [illegible] Al [illegible] Fe), Al'niko [illegible] Ni [illegible] Al, [illegible] Co, [illegible] Fe), Magniko [illegible] Ni, [illegible] Al, [illegible] Fe) are given here. On the basis of this investigation the following can be stated: [illegible] A previous aging of the [illegible] reduces the amount of the irreversible [illegible] of the magnetic properties, when the percentage [illegible], however, is sufficiently great, no irreversible [illegible] are observed; a previous aging had no influence [illegible] the amount of reversible modifications. [illegible] The [illegible] of the "Magniko" alloy sample is represented by a decrease of the magnetic flux in the center-line of the magnet and of the magnetic field strength in the

Card 1/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001135230004-2"

On the Temperature [illegible] ive [illegible] 105 [illegible]/31

gap of the [illegible] of ne- gati[illegible] the value of the re- [illegible] below [illegible] timum value 3) The irrever[illegible] increase and the re- versible [illegible] of the [illegible] decrease, when the de- [illegible] increased. The [illegible] of the de- [illegible] "[illegible]" and is not [illegible] 4) For the purpose of [illegible] ality (with [illegible] teristic, the [illegible] be below the optimum [illegible] able.

SUBMITTED: March [illegible]

Card 2/2

SOV/126-7-1-5/26

AUTHORS: Morozova, A. M. and Feygina, F. I.

TITLE: The Effect of Chemical Composition on Thermal Magnetic Ageing of Iron-Cobalt-Nickel-Aluminium Alloys (Vliyaniye khimicheskogo sostava na temperaturnoye magnitnoye stareniye zhelezokobal'tnikel'alyuminiyevykh splavov)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1959, Vol 7, Nr 1, pp 40-47 (USSR)

ABSTRACT: Thermal magnetic ageing of permanent magnets depends on the magnitude of the demagnetising factor, on the coercive force and on the type of the alloy and its composition. The present paper deals with the effect of composition of Fe-Co-Ni-Al alloys and the effect of Nb and Ta in Magnico-type alloys on thermal magnetic ageing of permanent magnets made from these alloys. The effect of composition on magnetic ageing was studied on samples of 15 x 15 x 50 mm dimensions of eight series of alloys. In Fe-Co-Ni-Al alloys the Al content was varied from 7 to 11% with 15% Ni (first series)

Card 1/5 and 12% Ni (second series); the Ni content was varied

The Effect of Chemical Composition on Thermal Magnetic Ageing of Iron-Cobalt-Nickel-Aluminium Alloys

from 12 to 15% (third series), the Cu content was varied from 1 to 7% (fourth series), the Co content was varied from 0 to 23% with 13% Ni (fifth series) and 12% Ni (sixth series). In Magnico-type alloys the effect of Nb (seventh series) and Ta (eighth series) was studied. Forty-eight alloys were prepared, and two to three samples of each alloy were tested. The compositions of all these alloys and their magnetic properties are given in a table on p 41. The authors investigated also the effect of the demagnetising factor - samples of the same cross-section but of different length, on thermal magnetic ageing of alloys of various compositions. The effect of composition on ageing of various magnet assemblies, made of one or more types of magnetic alloy, was also studied. These investigations of thermal magnetic ageing were carried out as follows. Before heat treatment the samples or the assemblies were magnetized to saturation at room temperature. Then either open-circuit magnetic flux of samples or magnetic

 field intensity in the gaps of assemblies, was measured at

The Effect of Chemical Composition on Thermal Magnetic Ageing of Iron-Cobalt-Nickel-Aluminium Alloys

temperatures of +20, -60, +20°C, and +20, +140, +20°C until a reversible state was reached. Measurements of the flux or the gap field were carried out using the same ballistic apparatus under the same conditions. Thermal magnetic ageing was expressed in terms of three instability parameters representing: irreversible changes (h), reversible changes (a), and changes on first cooling or heating (K). These parameters are given by

$$h = 100(B_{20} - A_{20})/A_{20},$$

$$a = 100(B_t - B_{20})/A_{20},$$

$$K = 100(A_t - A_{20})/A_{20}.$$

A_{20}, A_t are the initial values of the flux or the gap field at +20°C and at first application of a temperature t, respectively. B_{20}, B_t are the final (reversible state) values of the flux or the gap field at 20°C and a

The Effect of Chemical Composition on Thermal Magnetic Ageing of Iron-Cobalt-Nickel-Aluminium Alloys

temperature t respectively. The results obtained are given in Figs.1-6. Figs.1-3 show the effect of composition on the values of b, a and A of the eight series of samples; Fig.4 shows the effect of composition on the gap field of various magnet assemblies. Variations of the coercive force H_c with alloy composition are graphed in Fig.5, and the effect of the demagnetisation factor on the values of b, a and A of various alloys is shown in Fig.6. The authors draw the following conclusions from their results.
(1) The instability parameters A and n are more sensitive to variations of composition than the parameter a. Al and Ni show the greatest effect on thermal magnetic ageing of the alloys studied. With increase of the Al content stability of permanent magnets is lowered, while an increase in the amount of Ni improves their stability.
(2) The demagnetising factor exerts a great influence on magnetic ageing. All the three instability parameters retain their general dependence on the demagnetising factor when the alloy composition is altered: the parameters b

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The Effect of Chemical Composition on Thermal Magnetic Ageing of Iron-Cobalt-Nickel-Aluminium Alloys

and K increase, and the parameter a falls with increase of the demagnetising factor. There are 6 figures, 1 table and 5 references, of which 2 are Soviet, 2 German and 1 English.

SUBMITTED: September 28, 1956

VAKULIN, A.A.; V'YUNOV, S.F.; GORIN, T.I.; IVASHCHENKO, P.S.; KOMOVA, A.G.; KORNEYEV, V.A.; KOROSTELEVA, M.Ya.; LOBACHEV, A.Ya.; LASHMANOV, I.Ya.; MALYCHENKO, V.V.; MOROZOVA, A.M.; PANSHIN, I.A.; PROSVIROV, A.S.; ROZHKOVA, M.V.; YUROVA, N.F.; FEDORENKO, V.P.; TSEKHMISTRENKO, P.Ye.; SHEVCHENKO, I.S.; FEDOROV, N.A., red.; IZHBOLDINA, S.I., tekhn.red.

[Brief manual on the cultivation of fruits, berries, and grapes and the management of nurseries in Stalingrad Province] Kratkii spravochnik po plodovo-iagodnym kul'turam, vinogradu i pitomnikam dlia Stalingradskoi oblasti. Stalingrad, Stalingradskoe knizhnoe izd-vo, 1960. 215 p. (MIRA 14:3)

1. Stalingrad (Province) Upravleniya sel'skogo khozyaystva. (Stalingrad Province--Fruit culture)

KOVYRYALOV, Yu.P.; PANSHIN, I.A., dotsent; MOROZOVA, A.M., agronom; BARYSHEV, M.V., agronom; DMITRIYEV, N.I., agronom

One of the problems in the reclamation of the Volga-Akhtuba floodland. Zashch. rast. ot vred. i bol. 6 no.5:7-8 My '61. (MIRA 15:6)

1. Sekretar' Sredne-Akhtubinskogo rayonnogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza (for Kovyryalov). 2. Zaveduyushchiy kafedroy zoologii i entomologii Stalingradskogo sel'skokhozyaystvennogo instituta (for Panshin).
(Volga-Akhtuba flood plain--Fruit--Diseases and pests)

SAVZDARG, V.E.; MOROZOVA, A.M.

Man is glorified by his work. Zashch. rast. ot vred. i bol. 8 no.1:10-12 Ja '63. (MIRA 16:5)

1. Glavnyy agronom Volgogradskoy ekspeditsii po bor'be s vreditelyami sel'skokhozyaystvennykh rasteniy (for Morozova).
(Plants, Protection of)

BEZRODNYY, G.P.; MOROZOVA, A.M.

Our practices in grain crop protection. Zashch. rast. ot vred. i bol. 8 no.2:18-19 F '63. (MIRA 16:2)

1. Nachal'nik Volgogradskoy ekspeditsii (for Bezrodnyy). 2. Glavnyy agronom Volgogradskoy ekspeditsii (for Morozova).
(Volgograd Province--Grain--Diseases and pests)
(Volgograd Province--Spraying and dusting in agriculture)

MOROZOVA, A.N., prof.; ZUBALOVA, S.I.

Work of the Dnepropetrovsk Society of Pathoanatomists from December 1955 to December 1957. Arkh.pat. 21 no.3:89-92 '59. (MIRA 12:12)

1. Predsedatel' Dnepropetrovskogo obshchestva patologoanatomov (for (Morozova). 2. Sekretar' Dnepropetrovskogo obshchestva patologoanatomov (for Zubalova).
(DNEPROPETROVSK--PATHOANATOMICAL SOCIETIES)

MOROZOVA, A.N., prof.; REShCHIKOVA, I.P.

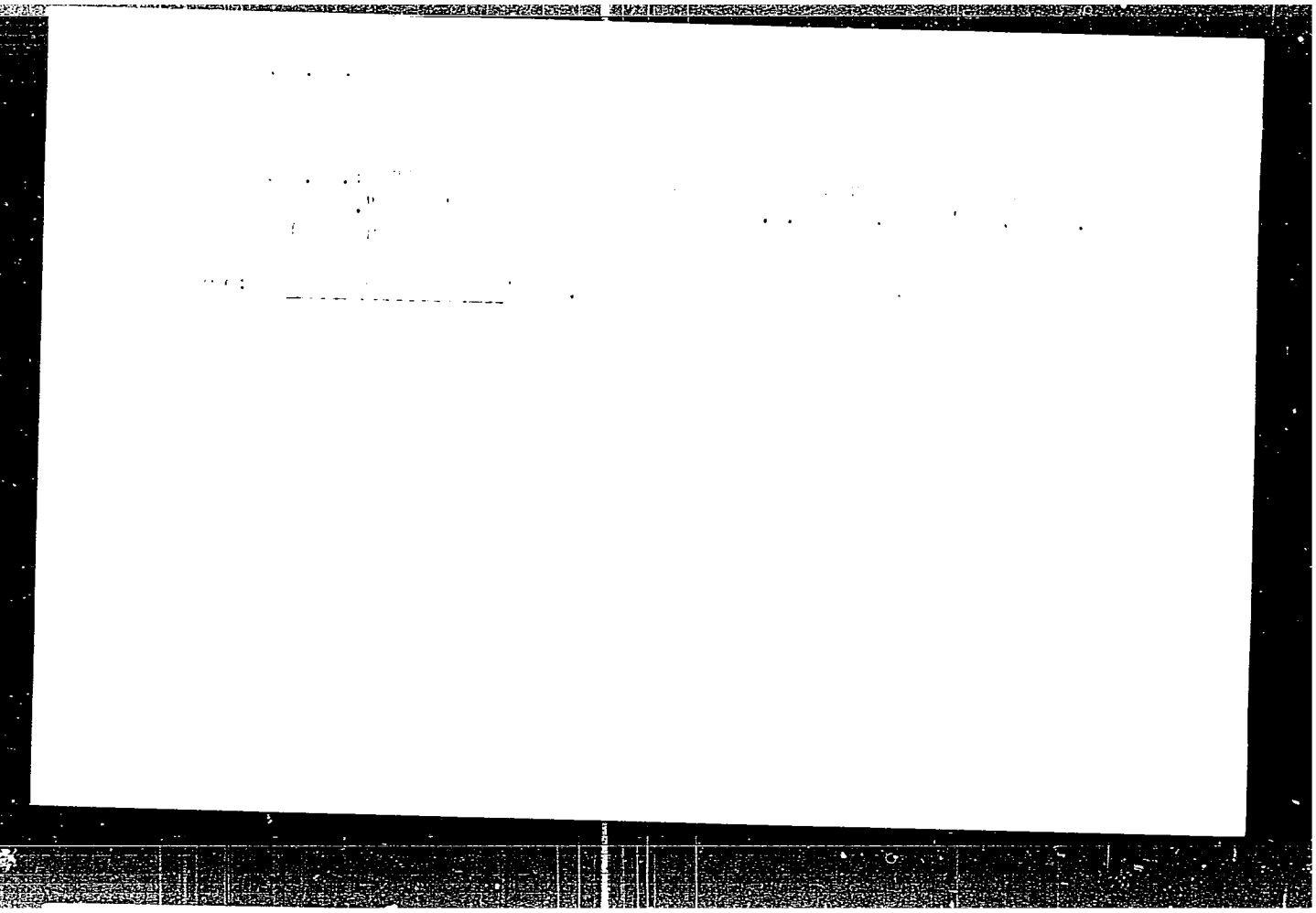
Work of the Dnepropetrovsk Pathoanatomical Society for 1958. (MIRA 13:5)
Arkh.pat. 21 no.7:91-93 '59.

1. Predsedatel' Dnepropetrovskogo obshchestva patologoanatomov (for Morozova) 2. Sekretar' Dnepropetrovskogo obshchestva patologoanatomov (for Reshchikova).
(DNEPROPETROVSK--PATHOANATOMICAL SOCIETIES)

MOROZOVA, A.N., prof.; [illegible]

[illegible] 1961-1962. Arkh. pat. [illegible] (MIRA 17:12)

1. Predsedatel' Dnepropetrovskogo nauchnogo obshchestva patologoanatomov (for Morozova). 2. Sekretar' Dnepropetrovskogo nauchnogo obshchestva patologoanatomov (for Zheranyuk).



APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001135230004-2"

KOROLEV, B.A., MOROZOVA, A.P.

Intra-arterial blood transfusion during resection of the lung. [with summary in English] Khirurgiia 34 no.4:83-85 Ap '58 (MIRA 11:7)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. B.A. Korolev) Gor'kovskogo meditsinskogo instituta (dir. - dots. N.N. Misinov).

(LUNGS, surgery
resection, intra-arterial blood transfusion in(Rus))
(BLOOD TRANSFUSION,
intra-arterial in resection of lungs (Rus))

MURSKIY, L.I.; MOROZOVA, A.P.

[Manual of human and animal physiology] Praktikum po fiziologii cheloveka i zhivotnykh. IAroslavl', 1960. 106 p.
(MIRA 14:11)

(PHYSIOLOGY—LABORATORY MANUALS)

MOROZOVA, A.P.

Effect of extraneous stimuli on conditioned reactions to a successive complex stimulus in children. Dokl. na nauch. konf. l no.4:74-81 '62. (MIRA 16:8)
(Conditioned response)

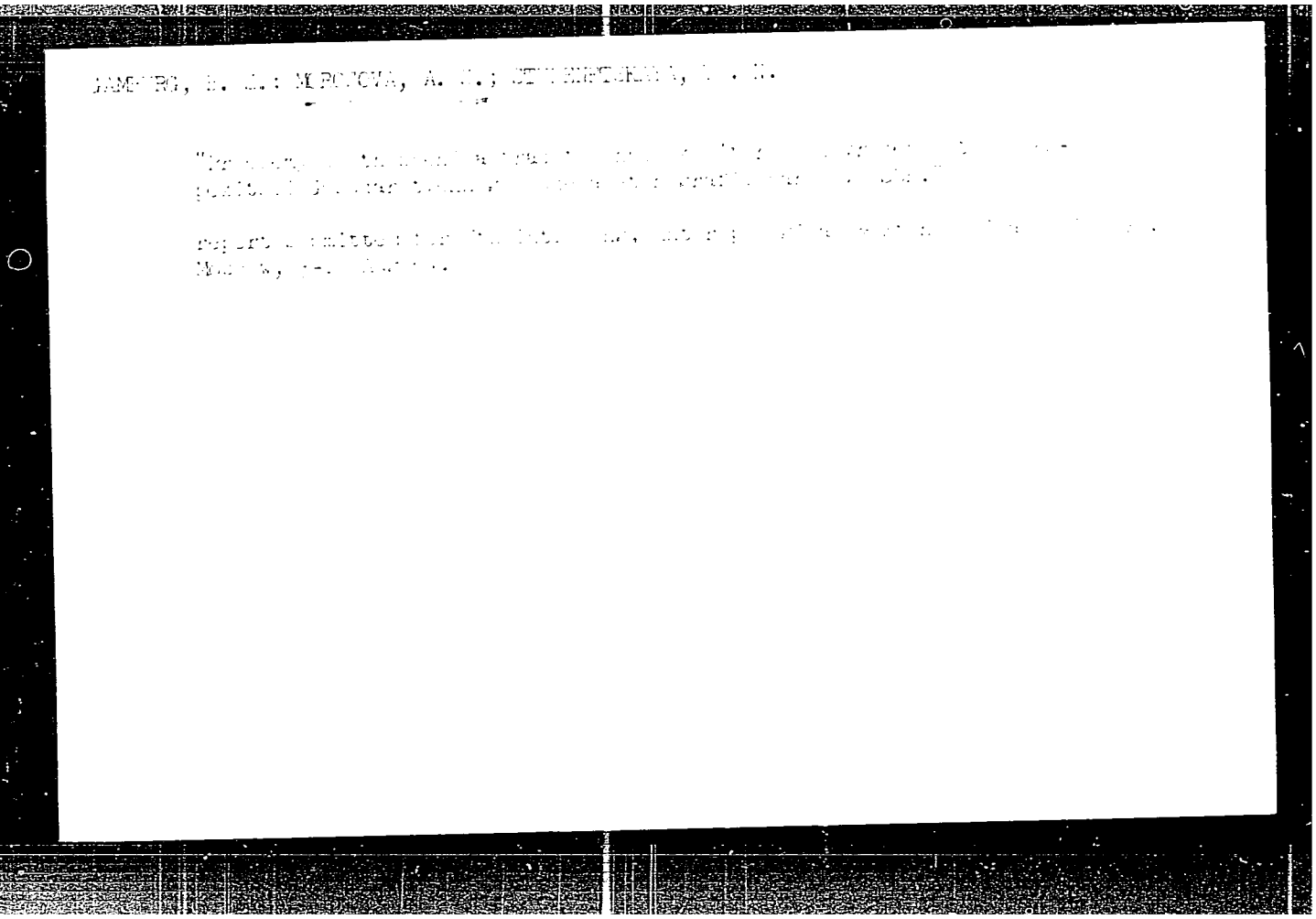
MOROZOVA, A.S.

USSR.

Polymeric arseno compounds. II. Preparation of various polymer homologs of Salvarsan by electrolytic reduction of 3-amino-4-hydroxyphenylarsonic acid. M. Ya. Kraft, O. I. Korzina, and A. S. Morozova (S. Ordzhonikidze All-Union Chem. Pharm. Inst., Moscow). *Sbornik Statei Obshchei Khim.* 2, 1356–9(1953); cf. *C.A.* 45, 2890*d*.—By regulation of H overvoltage on the cathode it is possible to obtain $HO(AsR)_xOH$ [R = 3,4-$H_2N(HO)C_6H_3$] by reduction of 3-amino-4-hydroxyphenylarsonic acid. It is possible that the higher polymers are also products of somewhat greater degree of reduction. The phenomena of viscosity in Salvarsan solns. are very complex since there is no parallelity between the viscosity and the iodine constant of a given specimen. The reductions were run in a divided cell (porcelain cup) with Pb cathode and Pb anode in 3*N* H_2SO_4 catholyte (with some KI added) and 3*N* H_2SO_4 anolyte; the reaction was run at 50–5° with c.d. 1–8 amp. per sq. decim. The products obtained at the different c.d. values are characterized by the following number of repeating units: at 1 amp. 7.8, at 2 amp. 10.0, at 4 amp. 13.4, at 8 amp. 14.5. Relative viscosities of the various specimens are tabulated. III. Preparation of various polymer homologs of Salvarsan by reduction of 3-nitro(or amino)-4-hydroxyphenylarsonic acid by sodium hydrosulfite. M. Ya.

OVER

Kraft, O. P. Al'bitskiya, and A. S. Morozova. *Ibid.* 1380-5.—To 40 g. NaCl and 50 g. cryst. Na_2CO_3 in 2 l. H_2O at 2° was added 510 g. 85% $Na_2S_2O_4$, followed immediately by 30 g. 3-nitro-4-hydroxyphenylarsonic acid (I), in 114 ml. 2*N* NaOH; after 15 min. the mixt. was heated to 60° for 1 hr. and the ppt. Salvarsan is filtered off, dissolved in aq. NaOH, clarified with C and acidified, yielding 73.7% Salvarsan sulfate, containing 30% As. This dissolved in aq. NaOH, clarified with C and treated with Na plumbate, filtered, and acidified with HCl gave *Salvarsan HCl salt*, which after washing and vacuum drying contained 31.39% As; iodine no. 0.18; the no. of repeating units in the *polymer* was 6.9 (av.). Reduction of 3-amino-4-hydroxyphenylarsonic acid (40.6 g.) with double amt. of hydrosulfite (104 g. 85%) gave 90.2% Salvarsan sulfate containing 30% As; this had 21 repeating units, as shown by iodine titration. A four-fold amount of hydrosulfite gave a similar product with 25 repeating units; a 9-fold excess of hydrosulfite gave a product with 10.2 repeating units. The Salvarsans from nitro acid show lesser iodine constant (degree of polymerization) than the products obtained by reduction of the amino acid. It is believed that toxicity of Salvarsan is a function of its degree of polymerization: the larger molecules are less toxic since the relative proportion of phenolic groups is smaller. Reduction of 23.3 g. 3-amino-4-hydroxyphenylarsonic acid with a soln. prepd. from 100 g. Ca hypophosphite and 200 ml. HCl in 700 ml. H_2O in the presence of a little KI gave 64% Salvarsan HCl salt contg. 29.64% As and having the number of repeating units, 28.5; another similar run gave a product with 30 repeating units. Reduction with $Na_2S_2O_4$ in the presence of $NaHSO_3$ leads to lesser yields of Salvarsan. G. M. Kosolapoff



NAZAROVA, L.A., CHERNYAYEV, I.I., MOROZOVA, A.S.

Rhodium acetate compounds. Zhur. neorg. khim. [illegible]
541 F '65. (MIRA 18:11)

1. Submitted July 20, 1964.

YARTSEVA, A.K.; MOROZOVA, A.V.; LOTOTSKAYA, Ye.A.

Soils of experimental plots of the "Stepanovskoe" State Farm in Bronnitsy District, Moscow Province and changes in their agrochemical properties due to the deepening of the plow layer. Trudy Pochv. inst. 49:86-128 '56. (MLRA 9:8)

(Bronnitsa District--Soils) (Plowing)

MIKHNOVSKIY, V.K.; MOROZOVA, A.V.

Effect of fertilizers and the depth of tillage in turf-Podzolic soils on the protein content of grass-mixture hays. Izv. AN SSSR. Ser. biol. no.5:753-761 S-O '60. (MIRA 13:9)

1. Soil Institute, Academy of Sciences of the U.S.S.R., Moscow.
(GRASSES--FERTILIZERS AND MANURES) (TILLAGE)
(PROTEINS)

Category USSR/Optics Physical Optics K

Abs Jour Ref Zhur - Fizika, No 2, 1957, No 4961

Author Morozova, A V

Title Dependence of the Light Emission on the Size of the Grain and on the Density of the Phosphor Layer on the Screen

Orig Pub Tekhn televid M-va el stantsiy i el prom sti SSSR. Byur tekhn inform., 1953, vyp. 8, 27-32

Abstract Investigation of the dependence of the light emission on the size of the grain and on the thickness of the layer of ZnSCdS-Ag and ZnSeS-Ag phosphors. Screens with various luminophor layer density (1 - 9 mg/cm²) made of particles of different size (1 - 20 microns) were prepared by successive separation of various fractions of a suspension of the luminophor in a dispersion medium (solution of sodium citrate). It was established that for grains ranging from 1 - 20 microns the light emission is almost constant for the optimum density of the phosphor layer. The optimum thickness of the layer increases with increasing grain size. The decrease in the light emission accompanying the decrease in the density of the phosphor layer is less frequent in phosphor having large grains

Card 1/1

20819

S/048/61/025/003/007/047
B104/B201

9.4150 (1137, 1138, 1395 also)

AUTHORS: Klabukova, Z.I., and Morozova, A.V.

TITLE: Cathodoluminophores with very short afterglow and an emission in the blue, yellow, and red spectral regions

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 3, 1961, 330 - 331

TEXT: This is a reproduction of a lecture delivered at the 9th Conference on Luminescence (Crystal Phosphors), which took place in Kiyev from June 20 to 25, 1960. During the production of CdS-Ag and ZnSe-AgNi luminophores from various sets of initial products the authors established in a number of cases the absence of reproducibility of luminescence properties. Laboratory samples and initial products of the firm "Krasnyy Khimik" with the classification "for luminophores" were used. All CdS sets were obtained by precipitation with hydrogen sulfide from $CdSO_4$ solutions, and ZnSe by the reaction $ZnS + SeO_2$. The mixture was sintered in the gaseous atmosphere of a furnace chamber for one hour at 600°C in the case of CdS-Ag,

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and for 1/2 hour at 900°C in the case of ZnSe-Ag,Ni. A shift from λ_{max} = 7400 - 7200 Å to 6900 Å with an increase of brightness at the same time was established for CdS-Ag luminophores. A closer study showed that the structure of CdS (as received) was not uniform (sphalerite, greenockite). As for the ZnSe-Ag-Ni luminophores, there was no reproducibility as regards spectrum, brightness, afterglow time, and thermal stability. Among all of the sets of ZnSe that were received, only two types of self-activated ZnSe(NaCl) luminophores were found with a λ_{max} = 6400 Å and 6100 Å. One ZnSe set only was found to be suited for bringing about a thermal stability of the ZnSe-Ag,Ni cathodoluminophore with a very short afterglow (about $2 \cdot 10^{-6}$ seconds). Two groups of ZnSe-Ag,Ni luminophores are indicated. Group A proved to be considerably more stable than group B to the introduction of Ag, heating in the air, heating in vacuum, and to changes in the excitation conditions with respect to its luminescence properties. The sets of ZnSe used by the authors were found to exhibit equal crystal structure (sphalerite); they differ, however, as to their Se content which still contains a ZnSe impurity. Elementary Se affects the formation

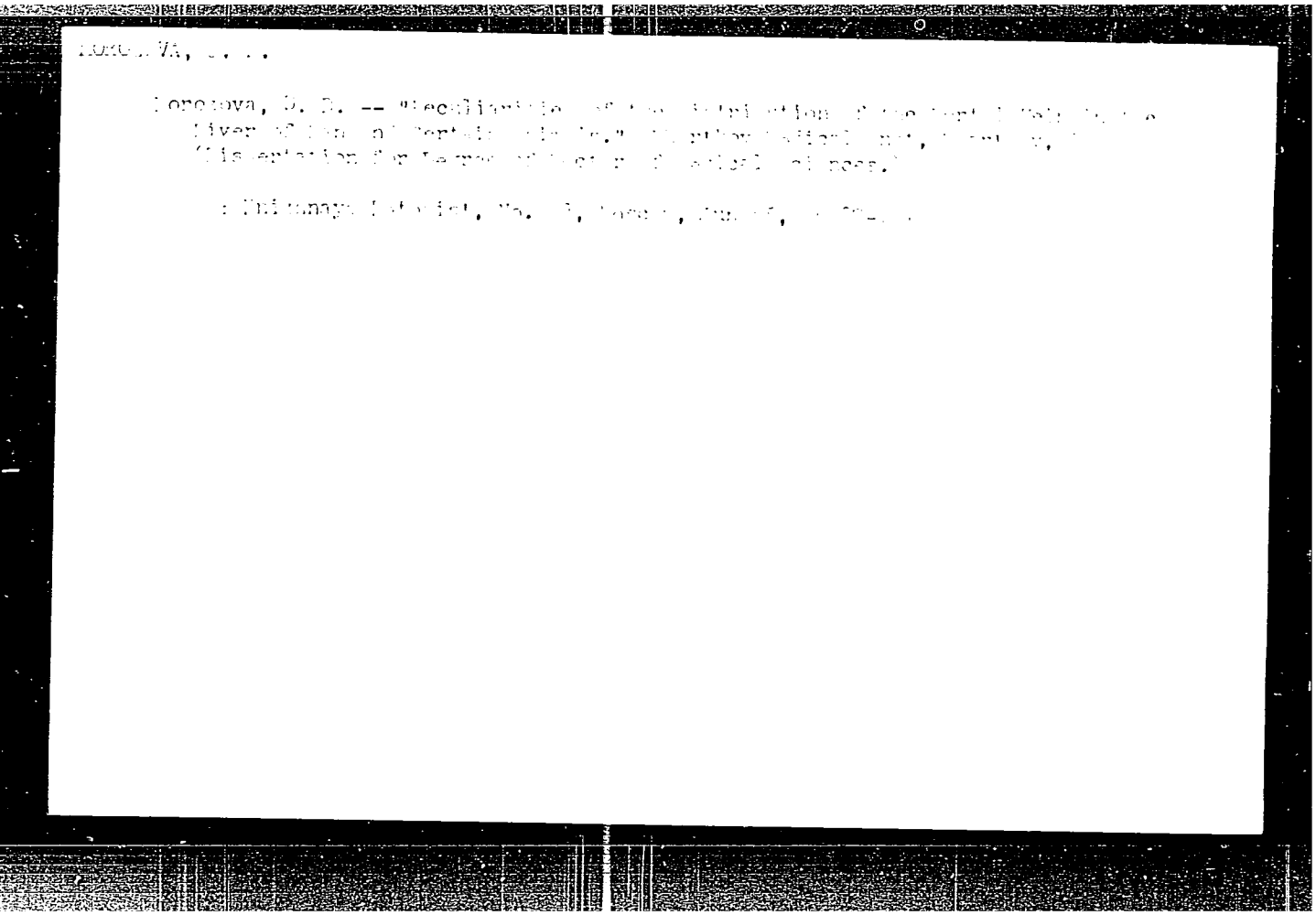
of luminescence centers and thus changes the luminescence properties. V. G. Prokhvatilov is thanked for having made the X-ray structural analyses, and F.M. Pekerman for having studied the photoluminescence spectra. There are 1 figure and 4 Soviet-bloc references.

DINERSHTEYN, L.I.; SVERCHKOV, N.I.; MOROZOVA, B.L.

"Penetration of methane into dwellings from settling tanks for sugar industry sewage. Gig. i san. 23 no.12:27 D '58. (MIRA 12:1)
(METHANE) (AIR--POLLUTION)
(SUGAR INDUSTRY--BY-PRODUCTS)

BARMIN, V.V.; KANAVETS, V.P.; MOROZOVA, B.V.; PERSHIN, I.I.

Energy dependence of assymetry coefficient in $\tau \to \pi^+ \to e^+$ decays for the low-energy section of the positron spectrum. Zhur. eksp. i teor. fiz. 35 no.2:542-544 Ag '58. (MIRA 11:10)
(Particles, Elementary--Decay)



VINOGRADOVA, S.V.; KORSHAK, V.V.; v eksperimental'noy rabote prinimali uchastiye laboranty: ARTEMOVA, V.S., MOROZOVA, D.T.

Heterochain polyesters. Part 19: Polyesters of quinite. Vysokom. soed. 1 no.5:656-661 My '59. (MIRA 12:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Cyclohexanediol)

18180

15 4110 Vys S 2208, 2109 S/190/61/003/010/004/015
B124, B110

AUTHORS: Korshak V. V., Vinogradova S. V., Mirzoyeva I. I.

TITLE: Study of coordination polymers. VII. Coordination polymers based on dihydroxyanthraquinone and 4,4'-bis-acetoacetyl-diphenyl ether

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 10, 1961, 1500-1506

TEXT: The authors synthesized the homogeneous coordination polymers of quinizarin (I) with Mg, Ca and Be, the coordination polymers of I with two different metals and finally, the coordination polymers on the basis of I and 4,4'-bis-(acetoacetyl)-diphenyl ether (II) with Be, Ca, Mn, Ni, Co, Mg, Zn, Cd and Be and studied their properties. The results obtained with homogeneous coordination polymers and mixed coordination polymers are given in Tables 1 - 4. The studied polymers were homogeneous, solid powder like substances of intense color, practically insoluble in chloroform, dichloroethane, tetrachloroethane, a mixture of tetrachloroethane and phenol, chlorobenzene, methanol, dimethyl formamide, diethyl methanidioxane, tetrahydrofuran, methyl ethyl ketone, ethyl acetate, and cresol

Card 1/9

28180

Study of coordination

S/190/61/003/010/[illegible]
B124/B110

except for the coordination polymers of beryllium which were rather easily soluble in chloroform, cresol, and dimethyl formamide. The molecular weights of polymers of I with Be varied from [illegible] - 1800 and from 3[illegible]00 - 3600. As proved thermomechanically mixed coordination polymers of I with Zn and Cd or Zn and Cu are more stable than the respective homopolymers. This is reverse with Be polymers. Heat [illegible] of all compounds was found between 200 - [illegible]0°C [illegible] chemical decomposition. As proved by X-ray tests most of them consist of crystalline and amorphous phases together. The synthesis was carried out by heating the ligands solved in dimethyl formamide in N_2 current at [illegible]0°C, addition of the metal compound solved in dimethyl formamide at [illegible]0°C, and [illegible] hr heating at [illegible]0°C, [illegible] hr at [illegible]0 - [illegible]0°C, [illegible] hr at 1[illegible]0°C. The authors thank the collaborators of the laboratories of INEOS AN SSSR under supervision of [illegible] Slonimskiy, A. I. Kitaygorodskiy, and M. [illegible] [illegible]man, [illegible] S. [illegible] and V. Ye. Sh[illegible] (Ref. [illegible]: Vysokomolek. soyed., 2, 652 ([illegible])) are mentioned. There are [illegible] figures, [illegible] tables, and [illegible] Soviet references.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elemental Organic Compounds AS USSR)

Card [illegible]

SHUMNAYA, V.A., inzh.; Prinimali uchastiye: MOROZOVA, E.I., nauchnyy sotrudnik; BEREZOVSKIY, V.V., nauchnyy sotrudnik

Pilot plant equipment for the rapid lacquering of black steel strip. Sbor. trud. TSNIICHM no.28:212-223 '62. (MIRA 15:11)
(Lacquer and Lacquering--Equipment and supplies)
(Sheet steel)

MOROZOVA, E.I., inzh.; Prinimal uchastiye: BEREZOVSKIY, V.V., mladshiy nauchnyy sotrudnik

Effect of electric field intensity on the degree of dispersion of spray guns. Sbor. trud. TSNIICHM no.28:224-232 '62. (MIRA 15:11)
(Spray painting, Electrostatic)

KOVUN, P.K., NEVZOROV, A.P., ANTONENKO, G.P.,; BUDINA,L.V.; VORONINA, Ye.P.; GUSEV, P.I.; YELAGIN, M.N., ZHURAVLEV, M.A., ZALOZNYY, K.D.; KOMKOV,V.N.; KOROBOV, A.S.;KORCHAGIN, V.N.; LAVROV, V.N.; LAPSHINA, O.V.; LUTIKOV,I.Ye.; MAKEVNIN, A.Ya.;MOROZOVA, P.I.;NEVZOROV, A.P.;PONOMARCHUK, M.K.;PUCHKOV, A.M.; RAZMOLOGOVA, A.N.;RUBIN, S.M.; SELEZNEVA, O.V.;SEMENOVA, F.I.; SPIRIDONOVA, A.I.;SUSHCHEVSKIY, M.G.;USOV, M.P.; TARKOVSKIY, M.I.; CHENYKAYEVA, Ye.A.;SHENDRIKOV, G.L.; SHUL'GIN, G.T.;TSITSIN, N.V.,akademik, redaktor;REVENKOVA, A.I.,redaktor; KHOKHRINA, N.M., khudozhestvennyy redaktor; VESKOVA, Ye.I., tekhnicheskiy redaktor; PEVZNERV.B.I., tekhnicheskiy redaktor.

[Plant breeding at the 1955 All-Union Agricultureal Exhibition] Rastenievodstvo na Vsesoiuznoi sel'skokhoziaistvennoi vystavke 1955 goda. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1956. 687 p. (MLRA 10:4)
(Moscow--Plant breeding--Exhibitions)

MOROZOVA, ..F.

[illegible]

IVANENKO, Pavel Ivanovich; BEREZIN, Nikolay Konstantinovich; MOROZOVA, E.T., red.

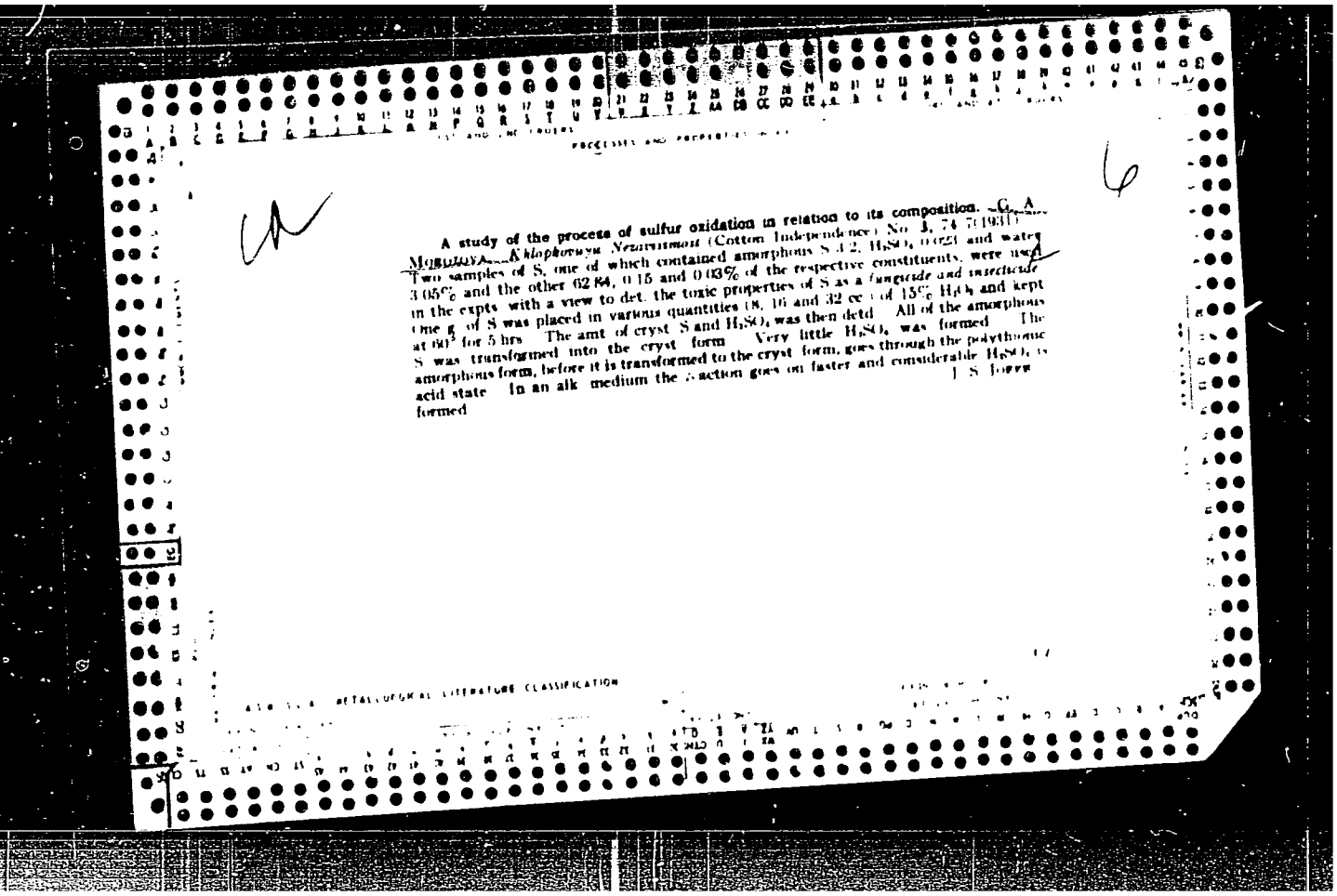
[Collective organization and wages in industry and construction] Kollektivnaia organizatsiia i oplata truda v promyshlennosti i stroitel'stve. Moskva, Ekonomika, 1965. 149 p. (MIRA 18:7)

KOSTAKOV, Vladimir Georgiyevich; LITVYAKOV, Pavel Petrovich; KATASHOVA, A.I., red.; MOROZOVA, E.T., red.

[The balance of labor; its nature and the method for working it out] Balans truda; soderzhanie i metodika razrabotki. Moskva, Ekonomika, 1965. 310 p. (MIRA 18:8)

MOROZOVA, F. S.

Cand Biol Sci - (diss) "Electron-microscopic investigation of the seasonal changes of the chloroplasts of the English daisy (Bellis perennis L.)." Minsk, 1961. 17 pp; (Academy of Sciences Belorussian SSR, Inst of Biology); 200 copies; price not given; (KL, 5-61 sup, 184)



A study of the process of sulfur oxidation in relation to its composition. G. A. Mosolova. *Khlopkovoe Nezavisimost* (Cotton Independence) No. 3, 74-7 (1931). Two samples of S, one of which contained amorphous S, 4.2; H_2SO_4, 0.025 and water 3.05%, and the other 62.84, 0.15 and 0.03% of the respective constituents, were used in the expts with a view to det. the toxic properties of S as a *fungicide and insecticide*. One g. of S was placed in various quantities (8, 16 and 32 cc.) of 15% H_2S and kept at 90° for 5 hrs. The amt. of cryst. S and H_2SO_4 was then detd. All of the amorphous S was transformed into the cryst. form. Very little H_2SO_4 was formed. The amorphous form, before it is transformed to the cryst. form, goes through the polythionic acid state. In an alk. medium the reaction goes on faster and considerable H_2SO_4 is formed. J. S. Joffe

MOROZOVA, G.A.

Materials on introducing East Asian plants in the Batum Botanical Garden. Izv. Bat. bot. sada [illegible]:85-115 '59. (MIRA 14:6)
(Batum--Plant introduction)

[illegible] : [illegible]
[illegible] : Cultivated Plants - Industrial. [illegible] [illegible]

[illegible] : [illegible], No. [illegible] [illegible]

[illegible] : Serolov, [illegible], [illegible]
[illegible] : Batum Botanical Garden, [illegible] Georgian SSR
[illegible] : [illegible] Tree [illegible] (Ia.) [illegible] and the Properties of [illegible] its Fruits.

[illegible] : [illegible] Botan. [illegible]

[illegible] : [illegible] characteristics of its fruit. [illegible] moisture content and also on the content of [illegible] cellulose and raw fat both in the fruit [illegible] its separate parts. The content of oil in the fruit equals on an average [illegible]% with variations from [illegible] to 63% in its different parts. The consistency of the [illegible] is [illegible]. The content of ash and nitrous substances is [illegible]

[illegible] : 1/2

126

USSR / Plant Diseases. Diseases of Forest Species.

Abs Jour : Ref Zhur - Biologiya, No 22, 1958, No. 100557

Author : Morozova, G. A.
Inst : Not given
Title : On the Natural Prophylactic Properties of the Wood of Osage Orange

Orig Pub : Lesn. kh-vo, 1957, No 12, 70-71

Abstract : Slices from the specimens of healthy, dead wood tissue of oak, budzhun var. smoothleaf elm, savin juniper, prickly juniper [Tkara], osage orange and pine were placed in a glass retort and inoculated with Lentinus squamosus, Daedalea quercina, Lenzites sepiaria and kept for 3 years at 25-30°. Most severely infected proved to be pine. The wood tissue of osage orange was not infected by any of the fungus species. The chemical composition of the wood tissue remained unchanged. The

Card 1/2

Country : [illegible] M
Category : [illegible] Plants. [illegible]

Abs. Jour. : Ref Zhur Biol., 21, 1958, No 96195

Author : [illegible]
Inst. : [illegible] USSR
Title : [illegible] Plants at Batum Botanical Garden.

Orig. Pub. : Byul. Gl. bot. [illegible] AN SSSR, 1957, vyp. 24, 25-31

Abstract : [illegible] noted in 113 [illegible] the garden. [illegible] produced a seed genera-[illegible] fruitbearing, 45 - an [illegible] self-seeding [illegible]. The times for seed germination [illegible] various forms connected with the [illegible] habitats are given. The [illegible] correspond for the [illegible] with those of full grown plants. [illegible] useable for soil reinforcement and ornament are indicated.--L.G. Suyetova

Card: 1/1

MOROZOVA, G.A.

Trees and shrubs of the Batum Botanical Garden. Angiosperms. Part 3. Izv. Bat. bot. sada no.11:3-63 '62. (MIRA 16:6)
(Batum--Woody plants) (Batum--Angiosperms)

L 1055-66 EWT(m)/EPF(c)/EPF(n)-2/EWP(t)/EWP(b) IJP(c) MJW/JD/WW/JG/WB

ACCESSION NR: AP5022382 UR/0136/65/000/009/0079/0082
669.721.5:66.046.52

AUTHOR: Lashko, N. F.; Morozova, G. I.; Tikhova, N. M.

TITLE: Modifying magnesium alloys with zirconium and the lanthanides

SOURCE: Tsvetnyye metally, no. 9, 1965, 79-82

TOPIC TAGS: magnesium alloy, zirconium containing alloy, hydride, grain size, phase analysis

ABSTRACT: The reason why Zr has a beneficial effect on the strength and corrosion resistance of magnesium alloy is apparently because Zr forms stable chemical compounds with Fe and Si, compounds which subsequently settle to the bottom of the smelting crucible and are eliminated together with the slag. The modification of magnesium alloys by Zr is usually explained by the segregation of Zr particles -- grain nuclei -- from the melt through a peritectic reaction. Nevertheless, the role of Zr in this modification has not yet been precisely determined. In this connection, recent studies point to the great role of zirconium hydrides in the change in the physical properties of magnesium alloys.

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L 1055-66

ACCESSION NR: AP5022382

4

Hence, the authors performed chemical and X-ray investigations of ZrH insoluble in HCl, and found that, in every case, the so-called "insoluble" Zr was not elementary zirconium but represented one or several compounds of Zr with H and with the impurities of magnesium alloys. Thus, examination of the insoluble residue isolated from different melts of the alloy ML10 revealed that in all cases the residue contained no α-zirconium but represented a mixture of phases: the ε-phase of ZrH and an unknown phase, apparently a compound of Zr and the impurities present in the alloy. Microstructural examinations indicate that the modifying effect of Zr on magnesium alloy cannot be reduced to the formation of the crystallization centers of α-zirconium, which is isomorphic to magnesium. Apparently the decrease in grain size in Zr-containing magnesium alloys may be based on another mechanism as well, namely: the high-melting components forming in the liquid phase of the first stage of crystallization may serve as the grain nuclei. A similar decrease in grain size is effectuated when the lanthanides (Ce, La, Nd, and others) are added to alloys of the Mg-Zn-Zr or Mg-Zr systems. Orig. art. has: 1 figure, 1 table.

ASSOCIATION: none

Card 2/3

L-1055-66

ACCESSION NR: AP5022382

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, SS

NO REF SOV: 005 OTHER: 004

Card 3/3 DP

NIKOLAYEV, A.I.; [illegible]MAN, M.Sh.; MOROZOVA, G.A.

Changes in the immunological specificity of tissue proteins in [illegible] mice under the effect of penicillin. Antibiotiki 10 no.6:547-550 Je '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy institut rentgenologii, radiologii i onkologii Ministerstva zdravookhraneniya Uzbekskoy SSR, Tashkent.

[illegible]ZA, L.A.

Flowering and fruiting of bamboo. S.ob. Ak. Inst. SSR 38 no.1:169-173 Ap '65. (MIRA 18:11)

1. Batumskiy botanicheskiy sad AN GruzSSR. Submitted June 4, 1964.

L 28475-66 EWT(l)/EWT(m)/EWP(t)/ETI IJP(c) AT/JD

ACC NR: AP6013134 SOURCE CODE: UR/0057/66/036/004/0753/0755

AUTHOR: Gu[illegible]kov, Yu.K.; Kiryushchenko,A.I.; Lebedev,M.A.; Morozova,G.A.

ORG: none

TITLE: Measurement of the electron temperature in a low-voltage cesium arc

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 4, 1966, 753-755

TOPIC TAGS: arc discharge, cesium, zinc, electron temperature, spectrometry

ABSTRACT: The authors have determined electron temperatures in 3A low-voltage arcs burning in a mixture of cesium and zinc vapors in the 6 mm gap between 18 mm diameter hot stainless steel electrodes, by measuring the intensity of the 5D recombination continuum. The cesium pressure was varied from 0.1 to 1 mm Hg and the zinc pressure from 10^{-5} to 5×10^{-4} mm Hg by adjusting the temperature of a side tube containing the metals. The cathode and anode temperatures were 1100 and 800 °K, respectively. The arc could be imaged on the spectrometer slit with the latter either parallel or perpendicular to the axis of the arc. A field of view stop assured a linear resolution of 0.2 mm. In the low pressure (0.1 mm Hg) arc the electron temperature was maximum (4000°K) at a distance from the cathode of the order of an electron free path (0.6 mm), dropped rapidly to about 2000 °K, and rose somewhat near the anode. As the pressure was increased the position of the electron temperature maximum shifted closer to the cathode, and in the highest pressure arc the temperature was constant at about

Card 1/2 UDC: 533.9.07

2000 °K over the full length of the gap. The temperature rise observed near the anode is ascribed to experimental error due to the low intensity of the recombination radiation from this region. The electron velocity distribution could not be; Maxwellian at the location of the observed temperature maximum near the cathode, and the concept of electron temperature becomes meaningless for this region. The electron temperature at 1.8 mm from the cathode in the 0.1 mm Hg arc decreased from 1850 °K on the axis of the arc to 1725 °K at 2 mm from the axis. The intensity of the recombination radiation at greater distances from the axis was too low for accurate measurement. The authors thank I.P.Stakhanov and I.I.Kasikov for their interest in the work. Orig. art. has: 2 formulas and 3 figures.

SUB CODE: 20 SUBM DATE: 21May65 ORIG.REF: 005 OTH REF: 001

MOROZOV, P.V., kand.sel'skokhozyaystvennykh nauk; MOROZOVA, G.D.

Cultivating buckwheat in the non-Chernozem belt. Zemledelie 25 no.4:52-54 Ap '63. (MIRA 16:5)

1. Moskovskaya selektsionnaya stantsiya.
(Mowcow Province--Buckwheat)

L 13553-65 EWT(m)/EPR/EWP(t)/EWP(b) Ps-4 SSD/AFWL/ESD(gs)/ESD(t) JD JG
ACCESSION NR: AP4046464 S/0032/64/030/010/1187/1189

AUTHOR: Lashko, N. F.; Morozova, G. I.

TITLE: Phase analysis of magnesium alloys containing cerium or neodymium

SOURCE: Zavodskaya laboratoriya, v. 30, no. 10, 1964, 1187-1189

TOPIC TAGS: magnesium cerium alloy, magnesium neodymium alloy, magnesium, cerium, neodymium, alloy phase composition

ABSTRACT: Magnesium-rich phases have been isolated by anodic dissolution from Mg-Ce and Mg-Nd alloys containing 6.1% Ce and 6.2% Nd. X-ray diffraction and chemical analysis of anodic residua showed that phases had a composition of $Mg_{12}Ce$ or $Mg_{12}Nd$. The compounds are isomorphic and have a $Mn_{12}Th$-type crystal structure. The electrolyte used in this case can also be employed for the extraction of phases from alloys of the Mg-Al-Zn-Mn or Mg-Ce-Mn systems. Orig. art. has: 1 table.

ASSOCIATION: none

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L 13553-65
ACCESSION NR: AP4046464

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 003 OTHER: 001 ATD PRESS: 3130

Card 2/2

24(7) FIRST I BOOK EXPLOITATION SOV/1700

Lvov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii, 1956.
t. III: Atomnaya spektroskopiya (Materials of the 10th All-Union Conference on Spectroscopy, 1956. Vol 2: Atomic Spectroscopy) Lvov, Izd-vo L'vovskogo un-ta, 1958. 568 p. (Series: Its: Trudy, t. 9(10)) 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii.

Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.); B.S. Neporent, Doctor of Physical and Mathematical Sciences; I.I. Fabelinskiy, Doctor of Physical and Mathematical Sciences; V.A. Fabrikant, Doctor of Physical and Mathematical Sciences; V.O. Kortskiy, Candidate of Technical Sciences; S.M. Rayskiy, Candidate of Physical and Technical Sciences; L.K. Klimovskaya, Candidate of Physical and Mathematical Sciences; V.S. Milyanchuk (Deceased), Doctor of Physical and Mathematical Sciences; A.Ye. Glauberman, Doctor of Physical and Mathematical Sciences; M.I. Gaser; Tech. Ed.: T.V. Baranyuk.

PURPOSE: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel using spectrum analysis in various industries.

COVERAGE: This volume contains 177 scientific and technical studies of atomic spectrography presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and include extensive bibliographies of Soviet and other sources. The studies cover many phases of spectroscopy: spectra of rare earths, electromagnetic radiation, physicochemical methods for controlling uranium production, physics and technology of gas discharge, optics and spectroscopy, abnormal dispersion in metal vapors, spectroscopy and the combustion theory, spectrum analysis of ores and minerals, photographic methods for quantitative spectrum analysis of metals and alloys, spectral determination of the hydrogen content of metals by means of isotopes, tables, and atlases of spectral lines, spark spectrographic analysis of calibration curves, determination of traces of metals, spectrum analysis in metallurgy, thermochemistry in metallurgy, and principles and practice of spectrochemical analysis.

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Materials of the 10th All-Union Conference (Cont.) SOV/1700

Karabash, A.G., Sh.I. Feyzulayev, N.L. Siyusareva, N.F. Sotnikova, N.I. Smirnova-Averina, Z.N. Samsonova, L.S. Kraus, G.G. Petrova, L.S. Romanovich, I.I. Smirenkina, V.M. Lipatova, S.K. Zhanova, L.I. Pogacheva, V.F. Nasheva, Ye.P. Voronova, P.D. Gorbachev, P.A. Kosterova, E.T. Kosterova, A.I. Yelovatskaya, and M.M. Kuznetsova. Methods of Spectrochemical Analysis of Pure Metal for Impurities 536

AVAILABLE: Library of Congress TM/dfh 7-7-59

Card 31/31

129-1-7/14

AUTHOR: Tseytlin, V.Z., Candidate of Technical Sciences, and Morozova, G.G., Engineer.

TITLE: Change in the Properties of the Nickel-chromium Alloy EI765 for Stationary and Mobile Turbines in the Process of Long Duration (Up to 10 000 Hours) Isothermal Heating (Izmeneniya svoystv nikel'khromovogo splava EI 765 dlya statsionarnykh i transportnykh turbin v protsesse dlitel'nogo (do 10 000 chas.) izotermicheskogo nagreva)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, No.1, pp. 30 - 35 (USSR).

ABSTRACT: A considerable number of published papers are devoted to nickel-base, particularly nickel-chromium, alloys. In most cases, the experiments were carried out predominantly for short time durations (amounting to a few hundred hours). In this paper, the results are described of observation of the long duration isothermal heating, of up to 10 000 hours, on the properties of the nickel-chromium base alloy EI765 which has a high relaxation strength at 700 - 750 °C. The heat treatment of the alloy consisted of hardening after heating for three hours at 1 150 or 1 200 °C, tempering at 800 °C for 20 hours or at 760 °C for 25 hours. The long-duration isothermal
Card 1/5 heating was effected at 700 - 750 °C and the change with time

Change in the Properties of the nickel-chromium Alloy ЭИ765 for Stationary and Mobile Turbines in the Process of Long Duration (up to 10 000 Hours) Isothermal Heating.

was studied of the hardness, impact strength, micro-structure, lattice parameter, phase composition, electric and magnetic properties and the resistance to corrosion in air. The heat resistance was determined predominantly on the basis of the relaxation strength. In Fig.1, the change in hardness, impact strength, specific electric resistance and magnetic susceptibility are graphed for isothermal heating at 750 °C for durations of 10 000 hours. Fig.2 shows the change in the contents of nickel, aluminium, titanium, molybdenum and tungsten in the separated-out phases as a function of the isothermal annealing time. Fig.3 shows the change in the residual stress after 10 000 hours as a function of the test temperature for an initial stress of 25 kg/mm^2. Fig.4 shows the change of the residual stress after 10 000 hours as a function of the initial stress for a test temperature of 700 °C. Fig.5 shows the change of the residual stress as a function of the number of loadings whereby the test duration between the repeated loadings was 1 500 hours. Fig. 6 shows the

Card2/5 relaxation curves for repeated loadings. It was found that

Change in the Properties of the Nickel-chromium Alloy ЭИ765 for Stationary and Mobile Turbines in the Process of Long Duration (up to 10 000 Hours) Isothermal Heating.

each repeated loading to the initial stress increases the relaxation strength; after 6 loadings for 1 500 hours each, the stress can be increased from 14 kg/mm^2 (first cycle) to 23 kg/mm^2 (sixth cycle). The speed of gas-corrosion in air at 700 °C, determined by L.P. Kestel' is very low, amounting to about 0.0011 mm/year. Observations relating to the change in the properties of nickel-chromium alloys alloyed with molybdenum and tungsten, carried out for isothermal hardening at 700 and 750 °C for durations of 10 000 hours (which is equal to the maximum duration of overhaul periods of power plants), permit the following conclusions: alloys of this type have a high stability of their properties for long service lives at 700 to 750 °C. Particularly, the relaxation curves show that the relaxation strength is maintained for periods exceeding the test durations and this also applies, to some extent, to hardness and impact strength. Physico-chemical processes proceed in the temperature range 700 to 750 °C very slowly for the alloys under consideration, the α'-phase in this temperature range is stable and combination of this phase into

Change in the Properties of the Nickel-chromium Alloy ЭИ765 for Stationary and Mobile Turbines in the Process of Long Duration (... to 10 000 Hours) Isothermal Heating.

Ni_3Ti was not observed even after isothermal annealing for 10 000 hours at 750 °C. Some change in the properties of the alloy detected in the interval of 1 000 to 3 000 hours is attributed to dissociation of binary carbides and possibly to changes in the composition of the carbide $Me_{23}C_6$, as a result of which an impoverishment takes place of the separated-out phases in molybdenum and tungsten and an enrichment of these with a solid solution and it is also attributed to processes of coagulation of the α'-phase which is activated at 700 °C after 1 000 hours of heating and at 750 °C somewhat earlier; however, these changes in the properties of the alloy are insignificant and do not affect the relaxation strength of the alloy. The fact that the physico-chemical processes in the studied alloys are slow can be explained by the complicated composition and by the increase in the number of separated-out phases (presence of carbide phases) and also by a complication in the composition and the structure of interacting phases which, according to the views expressed by A.A. Bochvar [Ref. 5],

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129-12-7/14

Change in the Properties of the Nickel-chromium Alloy ЭИ765 for Stationary and Mobile Turbines in the Process of Long Duration (to 10 000 Hours) Isothermal Heating.

bring about a braking of diffusion exchange processes at the boundaries of division of these phases. M.F. Lesnykh participated in the experimental part of this work. N.F. Karpenko measured the lattice period and took the X-rays of the precipitates and L.A. Nude carried out the chemical analysis of the phases of the precipitates.
There are 6 figures and 5 references, 3 of which are Slavic.

ASSOCIATION: TsNIITMASh.

AVAILABLE: Library of Congress.

Card 3/3

KARABASH, A.G.; PEYZULAYEV, Sh.I.; SLYUSAREVA, R.L.; SOTNIKOVA, N.P.; SMIRNOVA-AVERINA, N.I.; SAMSONOVA, Z.N.; KRAUZ, L.S.; MOROZOVA, G.G.; ROMANOVICH, L.S.; SMIRENKINA, I.I.; LIPATOVA, V.M.; SAZANOVA, S.K.; PUGACHEVA, L.I.; USACHEVA, V.P.; VORONOVA, Ye.F.; GORBACHEV, P.D.; KOSTAREVA, F.A.; KOSTEREVA, N.T.; YELOVATSKAYA, A.I.; KUZNETSOVA, N.N.

Spectrochemical analysis of pure metals for impurities. Fiz. sbor. no.4:556-562 '58. (MIRA 12:5)
(Spectrochemistry)

KARABASH, A.G.; BONDARENKO, L.S.; MOROZOVA, G.G.; PEYZULAYEV, Sh.I.

Spectrochemical method for determining impurities in lead. Zhur. anal. khim. 15 no.5:623-627 S-O '60. (MIRA 13:10)
(Lead--Analysis)

KARABASH, A.G.; PEYZULAYEV, Sh.I.; MOROZOVA, G.G.; SMIRENKINA, I.I.

Spectrochemical analysis for detecting impurities in metallic germanium and germanium dioxide. Trudy Kom. anal. khim. 12:25-35 '60.
(MIRA 13:8)

(Germanium--Analysis) (Spectrum analysis)

18 8200
24 4200

23882
S/590/61/101/000/001/015
D217/D304

AUTHORS: Mirkin, I.L., Doctor of Technical Sciences, Professor
Tseytlin, V.Z., Candidate of Technical Sciences, and
Morozova, G.G., Engineer

TITLE: Internal friction and modulus of slip of some pure metals used as constituents of refractory alloys

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya. [Trudy] v. 101, 1961. Issledovaniye novykh zharoprochnykh splavov dlya energetiki, 34 - 48

TEXT: A study of the temperature dependence of internal friction and modulus of slip for pure Ni, Al and Mo by means of low frequency torsional oscillations was carried out, using a modified Ke apparatus known as РКФ -2 (RKF-2). The modification was carried out by the Kafedra fiziki instituta stali (Physics Department of the Steel Institute). By means of this instrument, the temperature dependence of internal friction and the modulus of slip of the ma-

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me specimen can be measured under vacuum. A vacuum of $1 \cdot 10^{-3}$ to 10^{-4} mm Hg was maintained for the tests. The logarithmic decrement was taken as a measure of internal friction. The modulus of slip was proportional to the square of the frequency of free torsional oscillations of the specimen; the coefficient of proportionality depended only on the geometry and distribution of the masses in the system participating in the torsional oscillations. The specimens were wires, 500 mm long and having a diameter of 0.8 mm. The natural frequency of torsional oscillations of the specimen in all measurements was between 0.4 and 2 cycles/sec. The logarithmic decrement was determined by observing consecutive amplitudes of oscillation within a definite period of time. In all measurements and at all temperatures, the maximum amplitude of oscillation was less than 5 cm. For the wire specimens investigated, this amplitude corresponded to the maximum deformation by slip on the wire surface. An analysis of the results has led to the following conclusions: 1) The curve for the temperature dependence of internal friction of nickel exhibits three peaks: a) a low-temperature peak

Internal friction and ...

at between 100 and 200°, due to the ferromagnetic striction phenomenon. b) a medium temperature peak between 300 and 450° or 450-500° under different conditions of annealing), due to stress relaxation along the grain boundaries during viscous slip of the grains c) a high-temperature peak between 700 and 800°, when measuring internal friction whilst annealing heavily deformed nickel; the nature of this peak is not yet fully understood. 2) Annealing heavily deformed nickel decreases internal friction. Increasing the annealing temperature from 500-950° results in an increase of the temperature of the medium-temperature peak, and only a further increase in annealing temperature to 1200° brings about a decrease in peak temperature. 3) The temperature dependence of the modulus of slip at room temperature is similar to that of the Curie point; this is due to the ferromagnetic striction. 4) Only one peak is observed on the temperature dependence of internal friction curve for Al at between 100 and 200°; this is caused by relaxation of stresses along the grain boundaries. 5) An increase in grain size with rise in annealing temperature lowers the height of the peak, since a decrease in the total length of boundaries decreases the

Card 3/4

intensity of processes occurring along the grain boundaries. b) No peaks are observed on the temperature dependence curve for Mo on heating to 900°. c) The temperature range in which the internal friction curve begins to rise is greatest for Mo and lowest for Al. However, at comparable temperatures (T/T_{MP}), this range can be considered approximately constant for all three metals (T/T_{MP} = 0.35-0.40). There are 11 figures, 1 table, and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: S. Siegel and S. Onimby, Dependence of Young's modulus for nickel upon temperature and magnetization, "Physical Review", 49, 663, 1936

Card 4/4

1

C/137/62/000/006/095/163
A150/A101

AUTHORS: Mirkin, I. L., Tseytlin, V. Z., Morozova, G. G.

TITLE: An investigation of the internal friction and the shear modulus of binary nickel alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 13, abstract 6I76 (In collection: "Issled. novykh zharoprochn. splavov dlya energetiki", Moscow, Mashgiz, 1961, 43 - 50)

TEXT: Investigated was the magnitude of internal friction Q^{-1} and the square magnitude of the frequency of vibrations f^2 (proportional to the shear modulus) in relation to the test temperature for solid solutions of Ni-Cr, containing 0 - 20.5% Cr, and for Ni-Al alloys containing 0 - 7% Al. Ni-Cr alloys were vacuum smelted, and Ni-Al alloys in an atmosphere of argon and in air. The ingots were forged into rods with a diameter of 8 mm and were cold-drawn into wires with a diameter of 0.8 mm. Samples of the Ni-Cr alloy were annealed at 800°C for 3 hours, and samples of the Ni-Al alloys - at temperatures of 600 - 900°C for 3 hours. The tests were carried out at 20 - 950°C with the help of a РКФ - МИС

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S/137/62/000/006/095/163
A160/A101

(RKF-MI) apparatus. Presented are the curves of Q^{-1} and f^2 of the alloys in relation to the temperature. A great effect of the content of Al and Cr in Ni on the temperature relations of Q^{-1} and f^2 was noted. The low-temperature peak of Q^{-1} shifted to lower temperature ranges and completely disappeared at 5% Al and 4.7% Cr. This is caused by losses of the magnetic properties of Ni when alloyed with Al and Cr. Also observed was a decrease or disappearance of the anomaly in the temperature dependence of the shear modulus during alloying, which was due to the ΔE-effect. The rise of the Q^{-1} curves and the high-temperature peak of internal friction shifted by 200 - 400°C to higher temperature ranges during alloying. This is explained by an increase of the bond strength in the solid solution lattice during alloying within the given limits.

A. Batarek

[Abstracter's note: Complete translation.]

Card 2/2

KARABASH, A.G.; PEYZULAYEV, Sh. I.; USACHEVA, V.P.; MOROZOVA, G.G.; MESHKOVA, V.M.; LOBANOVA, V.L.

Determination of impurities in thorium and its compounds by the combined chemical and spectral method. Zhur.anal.khim. 16 no.2:217-222 Mr-Ap '61. (MIRA 14:5)
(Thorium--Analysis)

MIRKIN, I.L., doktor tekhn.nauk, prof.; TSEYTLIN, V.Z., kand.tekhn.nauk; MOROZOVA, G.G., inzh.

Investigating the aging process in nickel alloys by changes in the temperature relation of internal friction. [Trudy] TSNIITMASH 101:61-79 '61. (MIRA 14:10)
(Nickel alloys--Metallography)
(Internal friction)

MOROZOVA, G.S.

L 27476-66 EWT(1) IJP(c) AT
ACC NR: AT6008419 SOURCE CODE: UR/3158/65/000/018/0001/0008

AUTHOR: Gus'kov, Yu. K.; Kiryushchenko, A. I.; Lebedev, M. A.; Morozova, G. G.

ORG: None

TITLE: Measurement of electron temperature in a cesium low voltage arc (Brief report)

SOURCE: Obninsk. Fiziko-energeticheskiy institut. Doklady, no. 18, 1965. Izmereniye elektronnoy temperatury v tseziyevoy nizkovol'tnoy duge, 2-8

TOPIC TAGS: cesium plasma, arc discharge, electron temperature, recombination radiation

ABSTRACT: The authors present preliminary results of the measurements of the electron temperature in a low voltage arc in cesium vapor with zinc impurity taken over the recombination continuum. The measurements were made in a discharge chamber with the electrodes made of stainless steel of 18 mm diameter. The electrodes were indirectly heated. The gap was 6 mm. A detailed description of an analogous discharge chamber was published earlier (ZhTF v. 34, No. 8, 1451,

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ACC NR: AT6008419

1964). The measurements were made at low cesium vapor pressure (0.1-1 Torr). The corresponding zinc vapor pressure ranged from 10^{-5} to 5 x 10^{-4} Torr. The measurements were made in the 5D continuum with an ISP spectrograph, using a photographic recording and microphotometry technique. Measurements at 3.0 amp discharge current and cathode and anode temperatures 1100K and 800K respectively, with a cesium vapor pressure 0.1 Torr show a maximum in the electron temperature (~4000K) at a distance of the order of the mean free path of the electron from the cathode (6 x 10^{-2} cm). The electron temperature then drops rapidly to about 2000K, but increases again near the anode. With increasing pressure the maximum shifts toward the cathode. A brief analysis shows that the electron temperature near the cathode can in fact not be uniequely defined, since there is no Maxwellian distribution. This is confirmed also by probe measurements. The rise in the temperature near the anode is attributed to measurement errors. In the rest of the gap the electron temperature is practically uniform and differs somewhat from probe measurements. The authors thank I. P. Stakhanov and I. I. Kasikov for continuous interest in the work. Orig. art. has: 3 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 004/ OTH REF: 001

Card 2/2 BLG

NIKOL'SKIY, G.V.; GROMCHEVSKAYA, N.A.; MOROZOVA, G.I.; PIKULEVA, V.A.

Fishes of the upper Pechora basin. Mat.k pozn.fauny i flory SSSR.Otd. zool.no.6:5-202 '47. (MLRA 9:9)
(Pechora River--Fishes)

MOROZOVA, G.I.

Influenzal croup and croup in cases of catarrh of the upper respiratory tract in children [with summary in English]. Pediatriia (MIRA 11:5)
36 no.4:54-59 Ap'58

1. Iz kafedry detskikh infektsiy (rukovoditel' - prof. D.D. Lebedev) II Moskovskogo meditsinskogo instituta.
(CROUP)

LASHKO, N.F.; MOROZOVA, G.I.

Crystalline structure of phases rich in magnesium in alloys of the systems magnesium-cerium and magnesium-neodymium. Kristallografiia 9 no.2:269-270 Mr-Ap'64. (MIRA 17:5)

L 45448-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) MJW/JD/GS
ACCESSION NR: AT5011338 UR/0000/65/000/000/0039/0047 32 B+1

AUTHOR: Blok, N. I.; Lashko, N. F.; Morozova, G. I.; Radetskaya, E. M.

TITLE: Surface oxidation and phase changes in heat-resistant nickel alloys in the stressed state

SOURCE: Fazovyy sostav, struktura i svoystva legirovannykh staley i splavov (Phase composition, structure, and properties of alloy steels and alloys). Moscow, Izd-vo Mashinostroyeniye, 1965, 39-47

TOPIC TAGS: nickel alloy, heat resistant alloy, alloy phase transition, alloy oxidation, surface oxidation, alloy structure, alloy fatigue, metal diffusion, alloy aging, carbide formation

ABSTRACT: The aim of this work was to study the influence of stress on structural changes related to diffusion processes in the surface and inner layers of heat-resistant nickel alloys EI437B, EI617, and EI929. The specimens were fatigue-tested, and their anodic deposits were analyzed chemically. In alloy EI437B, the following phases were observed by x-ray analysis: intermetallic γ' phase $Ni_3(Al, Ti)$, containing a small amount of chromium; chromium carbides Cr_7C_3 and $Cr_{23}C_6$; titanium carbonitride Ti(C, N). Aging of EI437B at 800C is associated

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ACCESSION NR: AT5011338

with the phenomenon of recovery. Alternate loading of alloy EI617 at 800-1018C has no appreciable effect on the oxidation rate or on the migration of the alloying elements away from the surface layers as compared to the action of heat alone. The effect of stress on EI617 is manifested to a lesser extent than in the case of EI437B. Aging of EI617 at 900C is accompanied by its softening, which is extensive both during fatigue testing and during heating without a load. In the high alloy EI929, the application of loads at 900C has almost no effect on the phase composition. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 17Dec64 ENCL: 00 SUB CODE: MM, SS

NO REF SOV: 004 OTHER: 002

Card 2/2

L 14969-65 EWT(m)/EWA(d)/EWP(t)/EWP(b) Pad ASD(m)-3/AFETR MJW/JD/HW/JG/MLK

ACCESSION NR: AT4048094 S/0000/64/000/000/0078/0083

AUTHOR: Blok, N.I., Glazova, A.I., Kozlova, M.N., Lashko, N.V., Morozova, G.I., Sorokina, A.F., Khromova, O.A.

TITLE: Comparison of methods for the phase separation of nickel chromium alloys

SOURCE: Spektral'ny*ye i khimicheskiye metody* analiza materialov (Spectral and chemical methods of materials analysis); sbornik metodik. Moscow, Izd-vo Metallurgiya, 1964, 78-83

TOPIC TAGS: nickel alloy, chromium alloy, phase separation, Alpha phase, carbide phase, electrolysis

ABSTRACT: The most widely used methods of electrolytic phase separation for heat-stable Ni-Cr alloys were investigated and compared. The baths proposed by different organizations for isolating the α-phase and carbide phase are as follows: 1. 10 g $(NH_4)_2SO_4$, 10 g citric acid, 1200 ml H_2O; 2. 5 g $(NH_4)_2SO_4$, 15 ml HNO_3, 35 g citric acid, 1000 ml H_2O; 3. 3% $FeSO_4 \cdot 7H_2O$, 3.5% NaCl, 5% H_2SO_4; 4. 20 g $CuSO_4$, 10 g sodium citrate, 5 ml H_2SO_4, 1000 ml H_2O; 5. anolyte: 10 g $CuSO_4$, 1 g citric acid, 250 ml C_2H_5OH, 1000 ml H_2O; catholyte: 10 g $CuSO_4$, 10 g citric acid, 10 ml C_2H_5OH,

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ACCESSION NR: AT4048084

1000 ml H_2O; 6. 100 ml H_3PO_4, 1000 ml H_2O. The current density in all cases was 0.05-0.07 amps/cm^2, for 60 minutes at room temperature. The chemical analysis of the χ-phase and anode residues is described in detail. Two heat-stable Ni-Cr alloys were used: EI437B (0.037 % C, 20.57% Cr, 2.75% Ti, 0.70% Al) and EI617(0.056%C, 15.17% Cr, 3.67% Mo, 2.00% Ti, 5.30% W, 0.21% V, 1.70 % Al) under different conditions of tempering. As shown by tabulated data, the electrolytes used are suitable for the separation of the χ-phase. The electrolyte with a smaller amount of ethyl alcohol gives a slightly decreased amount of α-phase. Variation in the pH from 0.8 to 2.6 does not affect the total amount of α-phase. The phase separation proceeds most favorably in electrolytes containing 30 g of citric acid during electrolysis. X-ray data show that for EI437B, a carbide of the type Ti(C, N) and $Me_{23}C_6$ and for EI617 a carbide of the type TiC, $Me_{23}C_6$ and Ni_n (W, Mo, Cr_m)C are obtained. The best results were obtained with the VIAM bath (50 ml HCl 100 ml glycerol, 1000 ml CH_3OH, current density 0.05 amps/cm^2 1 hr.) Orig. art. has: 4 tables and 1 figure.

ASSOCIATION: none

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L 14969-65

ACCESSION NR: AT4048094

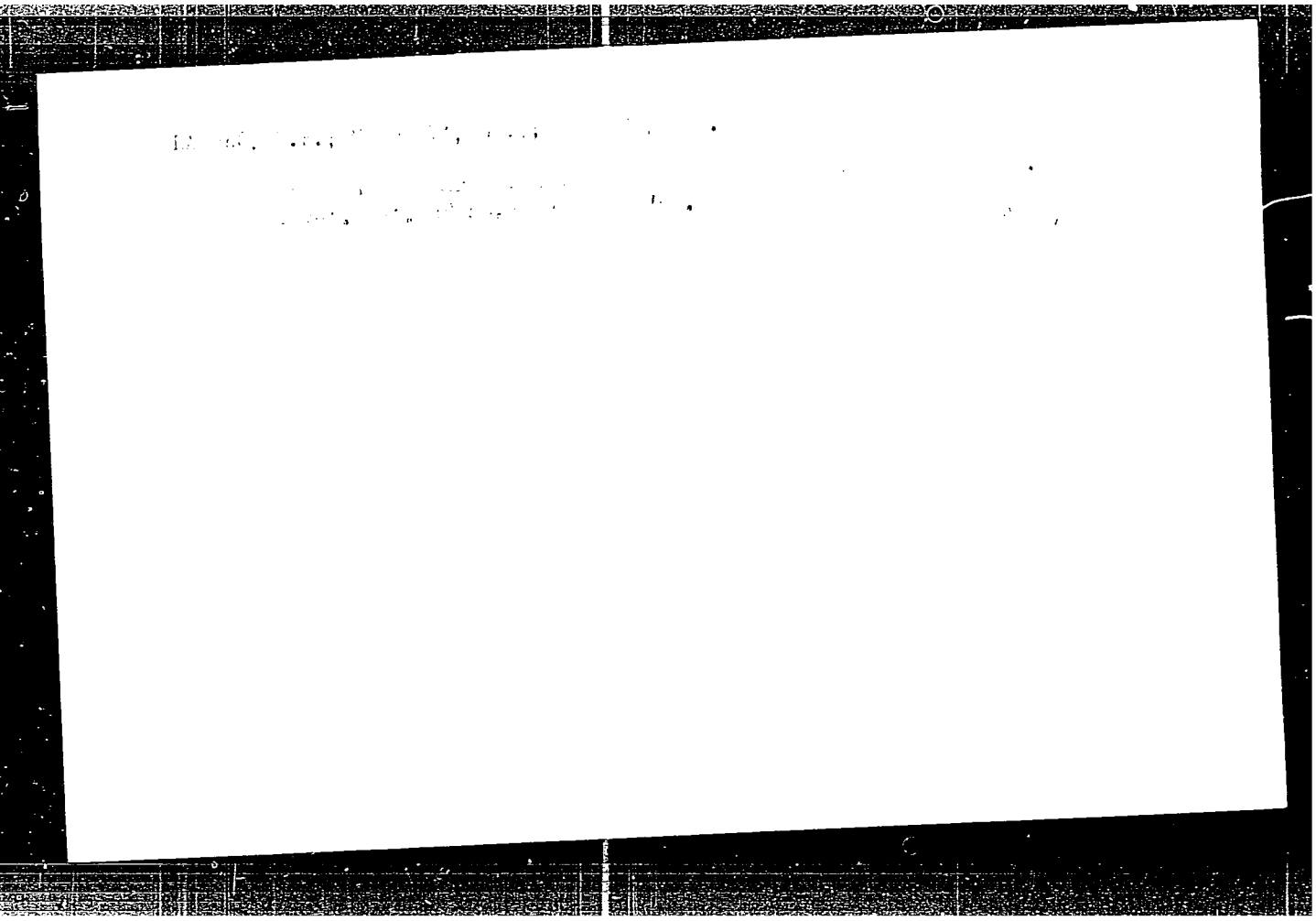
SUBMITTED: 12Feb64 ENCL: 00 SUB CODE: MM, IC

NO REF SOV: 007 OTHER: 001

Card 3/3

[illegible], V. [illegible]; [illegible], L.I.

[illegible] analysis of the magnesium alloys containing cerium and neodymium. Zav. lab. [illegible]:1187-1189 '64. (MIRA 18:4)



MOROZOVA, G.K.

USSR/Chemistry

Card 1/1 : Pub. 151 - 10/42

Authors : Feodosyev, N. N.; Osipov, O. A.; and Morozova, G. K.

Title : Heat of blending dioxane with water

Periodical : Zhur. ob. khim. 24/9, 1540-1542, Sep 1954

Abstract : The surface tension, density, vapor pressure, index of refraction and solidification point of the dioxane-water system were investigated. The heats of blending dioxane with water were measured in a calorimeter with isothermal shell. The isothermal curve, representing the blending heats for the dioxane-water system, was found to have positive as well as negative sections which is explained by the formation of a molecular hydrate type compound between the water and the dioxane and decomposition of the water. Four references: 2-USSR; 1-USA and 1-German (1907-1949). Table; graph.

Institution : State University, Rostov/Don

Submitted : May 17, 1954

MOROZOVA, G.K.; BLYUMENFEL'D, L.A.

Effect of oxygen on electron paramagnetic resonance of lyophilized tissues. Biofizika 5 no. 2:235-238 '60.
(MIRA 14:4)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.
(OXYGEN—PHYSIOLOGICAL EFFECT) (PARAMAGNETIC RESONANCE AND RELAXATION) (TISSUES)

SHAREVSKAYA, D.I.; STREIKOV, P.G.; BOROVIK-ROMANOV, A.S.; ASTROV, D.N.; MOROZOVA, G.Kh.

Difference in the temperature coefficients of the resistance of some kinds of platinum in the range of 10.8 and 273.16°K. Izm.tekh. no.7:34-37 Jl '60. (MIRA 13:7)
(Thermometry) (Platinum--Thermal properties)

S/076/60/034/08/...
B015/B...

AUTHORS: Kostryukov, V. N. and Morozova, G. Kh.

TITLE: Thermodynamic Studies at Low Temperatures. X. Specific Heat of the Yellow Modification of Lead Monoxide in the Temperature Range 12.-300°K and Entropy at 298.15°K

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 8, pp. 1833 - 1836

TEXT: The specific heat of yellow PbO in the temperature interval 12-300°K has been determined by direct calorimetric measurements which were then used to determine entropy for 298.15°K since different values are mentioned in publications (Refs.2-6). The test method applied is described in Ref.7; samples with a particle size of 5 were used. 103 measurements were made in the above temperature interval. The specific heat of PbO is given in Table 1. Anomalies were not observed. Using V. V. Tarasov's formula for heterodynamic structures (Ref.10), the values of entropy and enthalpy for 12°K were extrapolated: $S_{12^oK} - S_{0^oK} = 0.15 \pm 0.02$ e.u.; $H_{12^oK} - H_{0^oK} = 1.61 \pm 0.2$ cal. The values of enthalpy and the potentials

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Thermodynamic Studies at Low Temperatures. X. Specific Heat of the Yellow Modification of Lead Monoxide in the Temperature Range 12.5-[illegible]°K and Entropy at 298.15°K

S/076/60/034/008 [illegible] XX
B015/B063

were determined from these data and from the integrated equations of the experimental curves $C_p(T)$ and [illegible]. This table shows that the standard entropy of yellow PbO is $S^\circ_{298.15^\circ K} = 16.42 \pm 0.05$ cal mole·degree. A comparison between this value and published data indicates that the authors' value is very exact. Professor P. G. Strelkov is thanked for guidance and interest. There are 4 tables and 10 references: 2 Soviet, 4 US, 2 German, 1 British, and 1 Canadian.

ASSOCIATION: Institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy (Institute of Physical, Technical, and Radio-technical Measurements)

SUBMITTED: December 1, 1958

Card 2/6

KROTOVICH, M.F.; MOROZOVA, G.M.

Determination of ρ_n based on [illegible] electric-telluric profiling data. Geol. i geofiz. no.11:105-109 '63. (MIRA 17:2)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

(Prospecting--Geophysical methods)

9,9720

S/169/62/000/009/049/120
D228/D307

AUTHORS: Van'yan, L. L., Morozova, G. M. and Lozhenitsyna, L.V.

TITLE: Theoretical curves of the induced polarization method

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 39, abstract 9A261 (Geologiya i geofizika, no. 10, 1961, 118-123)

TEXT: The induced polarization phenomenon is considered as a quasistatic process, describable by Laplace's equation. Electric dipoles, arising within a polarizing body under the action of the field current, are presumed to be the sources of the induced polarization's emf. When calculating theoretical curves, a change is made from the volume distribution of secondary dipoles to the surface distribution of charges. The main quantity studied in induced polarization vertical electric sounding is the apparent polarizability η_{app}. η_{app} is calculated on the basis of the formula given for its magnitude (which is correct when the polarizability values

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of separate beds are low); the calculation's basis is the expression of the subintegral function through hyperbolic cotangents. The theoretical curves of η_{app}, computed from the derived formula, are compared with the corresponding curves of vertical electric sounding. It is noted that the curves of η_{app} possess a high resolving power. [Abstracter's note: Complete translation.]

Card 2/2

KROTEVICH, N.F.; MOROZOVA, G.M.

Some problems of magnetotelluric profiling and results of testing it in the southeast of the West Siberian Lowland. Trudy Inst. geol. i geofiz. Sib. otd. AN SSSR no.11:73-86 '61. (MIRA 15:2)
(Electromagnetic prospecting)

VAN'YAN, L. L.; MOROZOVA, G. M.

Dot charts for the interpretation of the generation of a magnetic field. Dokl. AN SSSR 147 no.6:1359-1360 D '62.
(MIRA 16:1)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom A. L. Yanshinym.

(Magnetic prospecting)