L 29938-66 EWT(1)/T JK

ACC NR: AP6007591 SOURCE CODE: UR/0240/66/000/001/0039/0044

51
50
B

AUTHOR: Molchanov, Yu. S.

ORG: Chair of Industrial Hygiene and Occupational Diseases, Ukrainian Institute for the Advanced Training of Physicians, Khar'kov (Kafedra gigiyeny truda i profzabolevaniy Ukrainskogo instituta usovershenstvovaniya vrachey)

TITLE: Changes of the body's immunobiological reactivity under the influence of low-intensity infrared radiation

SOURCE: Gigiyena i sanitariya, no. 1, 1966, 39-44

TOPIC TAGS: immunology, thermal radiation, experiment animal, infective disease, vaccine, infrared radiation, biologic effect

ABSTRACT: An infrared radiation intensity of 0.2 cal/cm^2/min at λ_{max}=3 microcoulombs was used for a period of 9 1/2 months. The agglutinin titer after hypodermic immunization with typhoid fever vaccine containing 1.5 billion microbes/ml served as the immunobiological reaction index, and indicated the phagocytic activity of blood neutrophils. The experiments were conducted on 21 rabbits. The 13 rabbits in the experimental group were subjected to preliminary radiation for 1 1/2 months and were subsequently immunized. The remaining 8 (control group) were immunized only. The immunization of both groups was carried out at the same time and their diet was

Card 1/2 UDC: 612.017.014.44+613.165.6:612.017

L 29938-66

ACC NR: AP6007591

identical. The long-term irradiation of the animals caused a considerable increase in their immunobiological reactivity, which manifested itself in an increase in phagocytic activity of the neutrophils and in the agglutinin titer after the typhoid fever vaccination. There was a slight rise in the acetylcholine level and in cholinesterase activity. The globulin fraction of the blood serum was increased at the expense of α_1 and α_2 globulins, and the albumin fraction was reduced. The sulfhydryl group content increased. However, no changes were noted in the content of 17-ketosteroids. Orig. art. has: 4 tables. [19]

SUB CODE: 06/ SUBM DATE: 25May65/ ORIG REF: 008/ ATD PRESS: 5011

Card 2/2

KUZNETSOV, Nikolay Ivanovich; MOLCHANOVA, A., red.

[International system of units (SI)] Mezhdunarodnaia sistema edinits (SI). Izd. 2., ispr. i dop. Minsk, Vysshaia shkola, 1965. 93 p. (MIRA 18:8)

MolcHANOVA, A.A.

3/

Effect of a preparation of hypophysis on certain phases of fat exchange. S. M. Leites, A. A. Molchanova, and T. S. Yakusheva (All-Union Inst. Exptl. Endocrinol., Moscow). *Problemy Endokrinol. i Gormonoterap.* 2, No. 3, 49–53(1956).—Anterior lobes of pituitary from cattle and swine were treated as follows: extd. with KOH or NaOH at pH 11, fractionated with $(NH_4)_2SO_4$, dialyzed, boiled for 10–15 min. at pH 10, and pptd. with $(CH_3)_2CO$ or EtOH. Yield: 4–5 g./kg. of gland. This prepn. contains an active fraction which induces a transient accumulation of fat in the liver, an increase in production of the oxidation products of fat (ketone bodies), and retardation in weight gain in animals (mice and rats). Liver glycogen and blood sugar remain unaffected. These effects are not produced by any known component of the gland, and a possibility of the existence of a new component is thus indicated.

Med

I—A. Stel'makh

VAYNSHTEYN, O.Ya.; MOLCHANOVA, A.A.; POVOLOTSKIY, D.Ya.; KHRYUKINA, V.A.; SHUL'KIN, M.L.

Production of 18KhNT and 15KhGNTA steel in open-hearth furnaces. (MIRA 16:9)
Stal' 23 no.7:621-623 Jl '63.
(Steel alloys—Metallurgy) (Open-hearth furnaces)

L 01517-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD

ACCESSION NR: AP5014375 UR/0383/65/000/001/0061/0065
669.187.6—8

AUTHOR: Zhukov, D. G.; Keys, N. V.; Men'shenin, Ye. B.; Pegov, V. G.; Molchanova, A. A.

TITLE: Treatment of electric steel with liquid synthetic slag

SOURCE: Metallurgicheskaya i gornorudnaya promyshlennost', no. 1, 1965, 61-65

TOPIC TAGS: electric steel, synthetic slag

ABSTRACT: The treatment of electric steel with liquid synthetic slag was adopted on a mass-production scale at the Chelyabinsk metallurgical plant for the first time in the history of Soviet metallurgy in July, 1964. The chemical composition of the materials and the procedure employed in the preparation of the lime-alumina slag are described. ShKh15 steel was treated with the slag obtained. The slag treatment was found to reduce considerably the contamination of the steel with non-metallic impurities, to decrease the sulfur content, and to raise the output of the electric furnaces by 12 to 15%. The macrostructure of slag-treated ShKh15 steel shows virtually no differences from that of steel of standard batches. "The

Card 1/2

L 01517-66

ACCESSION NR: AP5014375

18

work was carried out in collaboration with TsNIIChM under the supervision of Doctor of Technical Sciences S. G. Voinova. In addition to the authors, engineers N. V. Keys, Ye. S. Golikov, I. A. Lubenets, G. Pegov, N. V. Ridenik, A. A. Molchanova, M. Ye. Anisimova and others participated in the study." Orig. art. has: 2 figures and 5 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000

Card 2/2 DP

LUBENETS, I.A.; ZHUKOV, D.G.; VOINOV, S.G.; SHALIMOV, A.G.; KOSOY, L.F.; KALINNIKOV, Ye.S.; CHERNYAKOV, V.A.; YARTSEV, M.A.; GOLIKOV, Ye.S.; MYSINA, G.Ye.; Prinimali uchastiye: KEYS, N.V.; PEGOV, V.G.; MEN'SHENIN, Ye.B.; BARNOVALOV, M.A.; SHIRER, G.B.; SHATALOV, M.I.; MOLCHANOVA, A.A.; ANISIMOVA, M.Ye.

Refining steel with synthetic slag from large-capacity arc furnaces. Stal' 25 no.3:232-235 Mr '65. (MIRA 18:4)

MOLCHANOVA, A.I.

Spotseeding oak in irrigated areas. Izv. AN Ur.SSR no.1:80-84 '53.
(Soviet Central Asia--Oak) (MIRA 11:3)

MOLCHANOVA, A. I.

Dissertation: "Forest Cultivation by the Sowing Method Under the Irrigated Conditions Prevailing in Uzbekistan." Cand Agr Sci, Tashkent Agricultural Inst, 17 Jun 54. (Pravda Vostoka, Tashkent, 8 Jun 54)

SO: SUM 318, 23 Dec 1954

NASYROV, R.G.; MOLCHANOVA, A.I.

Organization of work in shelterbelt forestry and landscape gardening in the Golodnaya Steppe. Mat. po proizv. sil. Uzb. no.15:448-455 '60. (MIRA 14:8)

1. Glavgolodnostepstroy i Nauchno-issledovatel'skiy institut lesnogo khozyaystva Akademii sel'skokhozyzystvennykh nauk Uzbekskoy SSR.
(Golodnaya Steppe—Windbreaks, shelterbelts, etc.)
(Golodnaya Steppe—Landscape gardening)

PETROVSKIY, Ivan Ivanovich; MOLCHANOVA, A.K., red.

[Electron theory of semiconductors; introduction to the theory] Elektronnaia teoriia poluprovodnikov; vvedenie v teoriiu. Minsk, Vysshaia shkola, 1964. 218 p. (MIRA 18:2)

TSEDRIK, Mikhail Semenovich, kand. fiz.-mat. nauk, dots.; BIRICH, Yevgeniya Vasil'yevna; MAKEYEVA, Galina Pavlovna; SAVITSKAYA, Inessa Fedorovna; VEREVKINA, N.M., red.; MOLCHANOVA, A.K., red.

[Graphs in physics] Fizika v grafikakh. [By] M.S.TSedrik i dr. Minsk, Vysshaia shkola, 1964. 258 p. (MIRA 17:6)

TSEDRIK, Mikhail Semenovich, kand. fiz.-matem. nauk; KITUNOVICH, Fedor Grigor'yevich; MIKULICH, Aleksey Stepanovich; KACHINSKIY, Anatoliy Mikhaylovich. Prinimal uchastiye YUSHKEVICH, N.A.; MOLCHANOVA, A.K., red.

[Textbook on physics for persons entering schools of higher education] Posobie po fizike dlia postupaiushchikh v vuzy. Minsk, Vysshaia shkola, 1965. 278 p. (MIRA 18:6)

KOLOBOV, Aleksandr Mikhaylovich; KOLCHANOVA, A.K., red.

[Selected chapters of higher mathematics] Izbrannye glavy vysshei matematiki. Minsk, Vysshaia shkola. Pt.1. 1965. 220 p. (MIRA 18:7)

MOLCHANOVA, A.M. (Kazan')

Pathogenesis, diagnosis and treatment of syringomyelia. (MIRA 15:3)
Kaz. med. zhur. no.5:78-79 S-O '61.
(SYRINGOMYELIA)

MOLCHANOVA, A.M., assistent

Dystonia with painful manifestations of traumatic origin cured with a novocaine block. Kaz.med.zhur. no.2:80-81 Mr-Ap'63. (MIRA 16:11)

1. Kafedra nervnykh bolezney (zav. - prof. L.I.Gmorokov) Kazanskogo meditsinskogo instituta na baze Respublikanskoy klinicheskoy bol'nitsy (glavnyy vrach - Sh.V.Bikchurin [deceased]).

MOLCHANOVA, A.Ya., kand. ekonom. nauk; MANIN, I.I.

Improving wages for railroad transportation workers during the transition to communism. Uch. zap. LIIZHT no.3:115-137 '62. (MIRA 17:3)

1. Zaveduyushchiy otdelom truda i zarabotnoy platy Upravleniya Oktyabr'skoy zheleznoy dorogi (for Manin).

MOLCHANOVA, D.K.; GERASIMOV, A.N.

Case of intravital diagnosis of tuberous sclerosis of the brain with changes in the fundus oculi. Vest. oft. 76 no.1: 78-80 Ja-F'63. (MIRA 16:6)

1. Kafedra glaznykh bolezney (zav. - prof. I.F.Vorob'yev) Saratovskogo meditsinskogo instituta.
(TUBEROUS SCLEROSIS) (EYE—DISEASES AND DEFECTS)

USSR / General and Specialized Zoology. Insects. P

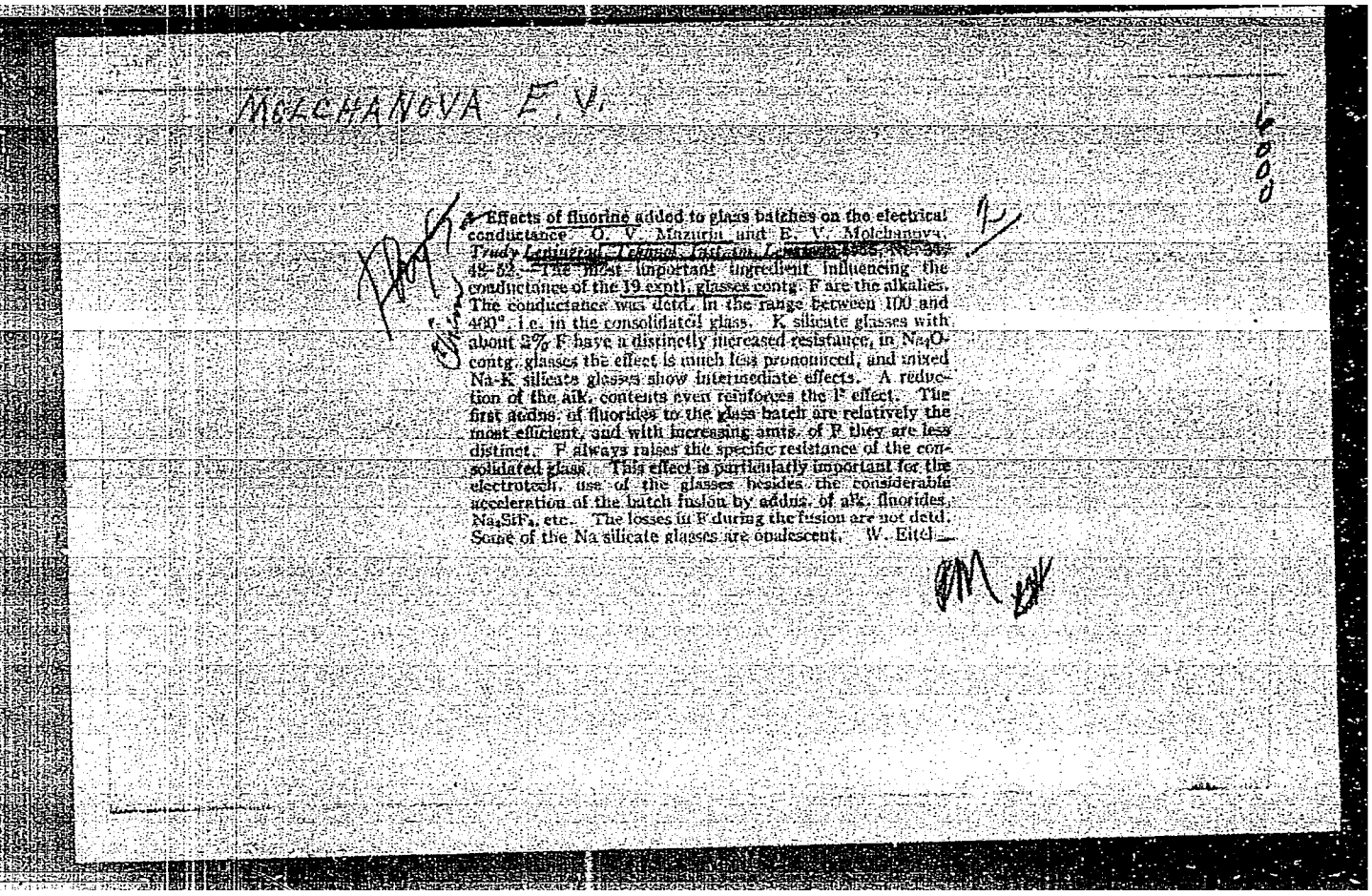
Abs Jour: Ref Zhur-Biol., No 2, 1958, 6851.

Author : Molchanova, E. P.
Inst : Ivanovo Agricultural Institute.
Title : The Use of DDT Against the Poplar Moth.

Orig Pub: Sb. nauchn. tr. Ivanovsk. S.-Kh. in-ta, 1956, vyp. 14, 222-229.

Abstract: The high effectiveness of 10% DDT dust and of 0.1-3% suspension of this dust against poplar moth butterflies, has been established by laboratory experiments. The use of DDT is recommended during the moment of mass emergence of the butterflies from their wintering places and during the period of mass births of the second generation. The DDT dust is not effective against the eggs of the poplar moth. -- V. G. Gubina.

Card 1/1



MOLCHANOVA E. V.

600

Effects of fluorine added to glass batches on the electrical conductance. O. V. Mazurin and E. V. Molchanova. *Trudy Leningrad. Tekhnol. Instituta, Leningrad* 1955, No. 30, 48–52.—The most important ingredient influencing the conductance of the 19 exptl. glasses contg. F are the alkalies. The conductance was detd. in the range between 100 and 400°, i.e. in the consolidated glass. K silicate glasses with about 2% F have a distinctly increased resistance, in Na_2O-contg. glasses the effect is much less pronounced, and mixed Na-K silicate glasses show intermediate effects. A reduction of the alk. contents even reinforces the F effect. The first additn. of fluorides to the glass batch are relatively the most efficient, and with increasing amts. of F they are less distinct. F always raises the specific resistance of the consolidated glass. This effect is particularly important for the electrotech. use of the glasses besides the considerable acceleration of the batch fusion by additn. of alk. fluorides, Na_2SiF_6, etc. The losses in F during the fusion are not detd. Some of the Na silicate glasses are opalescent. W. Eitel

PROSVIRIN, V. (Riga); VINOGRADSKAYA, Ye.(Riga); MOLCHANOVA, G.(Riga)

Phase changes of transient class steels by deep cooling. Vestis Latv ak no.10:65-70 '60. (EEAI 10:9:10)

1. Akademiya nauk Latviyskoy SSR, Institut mashinovedeniya.

(Steel)

PROSVIRIN, V. (Riga); VINOGRADSKAYA, Ye. (Riga); MOLCHANOVA, G. (Riga)

Dispersion hardening of some high alloy steels. Vestis Latv ak no.12: 39-42 '60. (EEAI 10:9)

1. Akademiya nauk Latviskoy SSR, Institut energetiki i elektrotekhniki.

(Steel)

37840

S/123/62/000/008/016/016
A004/A101

18.7500

AUTHORS: Vinogradskaya, Ye. A., Molchanova, G. A., Prosvirin, V. I.

TITLE: The specific features of phase transformations in transition type steels

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 8, 1962, 2, abstract 8G12 (V sb. "Prevrashcheniya v splavakh i vzaimodeystviye faz". Riga, AN LatvSSR, 1961, 3-19)

TEXT: The authors have plotted hysteresis loops of $\gamma \rightarrow \alpha$ and $\alpha \rightarrow \gamma$ transformations for a group of steels of the transition class, which are characterized by a variable nickel and aluminum content. These loops, showing the nature and kinetics of transformations, made it possible to establish the "critical" temperatures of martensite transitions. It was found that alloys of this category containing 7.75% nickel at a Cr-content of 15% pertain to the group of steels whose austenite is stable down to -78°C. If the Cr-content is reduced to 12.5%, the nickel content of the alloy should be increased to 9.5% to obtain a stable austenitic state. Increasing the heating temperature from 850 to 1,050°C considerably affects the kinetics of all subsequent transformations.

Card 1/3

The specific features of phase ...

If the temperature is increased, a diffusion of the secondary phases is taking place, which results in the solid solution being enriched with alloying elements, increasing its stability. Therefore, steels of this category may not have a martensite transformation after high-temperature heating. A protracted holding of the steels at such high temperatures as 850 - 950°C leads to precipitation processes of excess alloying elements and compounds from austenite and to a decomposition of δ-ferrite into a mixture consisting of γ' and carbides. In both cases, the formation of less alloyed austenite promotes a more complete martensite transformation during the subsequent cooling. The preceding heat treatment, during which $\gamma \rightarrow \alpha$ and $\alpha \rightarrow \gamma$ transformations were taking place, lowers the stability of austenite formed at high-temperature heating and contributes to its more complete transformation during the subsequent cooling. Hardening is effected up to 500°C in the case of a partial or full martensite transformation preliminarily taking place in the steel. The more complete the martensite transformation, the more considerable is the effect of precipitation hardening. A hardening of the steels may take place as a result of the secondary phase precipitating from the austenite subjected to phase workhardening in the process of martensite transformation. The energy additionally imparted to the steel on account of deformation during phase workhardening lowered the stability

Card 2/3

The specific features of phase ...

of austenite during heating and moreover, caused a precipitation of the secondary phases at a lower temperature. High-temperature hardening (700 - 750°C) is accompanied by diffusion processes of precipitation in the solid solution and can be observed in those cases in which the steel is not undergoing a preliminary martensite transformation during the heat treatment. Hardening is taking place during the precipitation of secondary phases from the solid γ-solution which is analogous to the hardening of austenitic and heat-resistant steels.

[Abstracter's note: Complete translation]

Card 3/3

X

S/685/61/000/000/001/004
D205/D301

AUTHORS: Vinogradskaya, Ye.L., Molchanova, G.A., and Prosvirin, V.I.

TITLE: Peculiarities of phase transformations in steels of the transition class

SOURCE: Akademiya nauk Latviyskoy SSSR. Institut avtomatiki i mekhaniki. Prevrashcheniya v splavakh i vzaimodeystviye faz. Riga, 1961, 3 - 49

TEXT: The present work is concerned with the phase transformations occuring in high resistance, low carbon steels lying between the martensitic and austenitic types. A critical survey of the published work on the subject precedes the presentation of the performed investigation. Two groups of alloys have been studied. The first group includes alloys having constant Cr and Mo contents, (15.0 and 2.5 % respectively) and variable Ni and Al contents (in ranges 5.9 - 7.75 and 1.2 - 0.7 % respectively). The second group includes alloys having a lower Cr content - 12.5 %, Ni from 7.88 to 9.57 %; Al from 1.4 to 0.9 % and Mo - 2.5 % as in the first group. The carbon

Card 1/4

Peculiarities of phase ...

content of all alloys was 0.07 %. In the range 5.9 - 9.57 % Ni steels ranging from austenitic-martensitic have been prepared. δ-ferrite was revealed in both groups, its amount in the first group being somewhat higher. In every group, however, the amount of δ - ferrite varied from alloy to alloy. After smelting, the specimens were forged to rods of 7 - 8 mm radius, quenched from 1050°C and annealed for 3 hours at 750°C. The obtained state was considered as the starting structure. The kinetic and the quantitative relations of the phase changes were investigated by the magnetic method. The microstructure and hardness of the alloys were also measured. Hysteresis loops of the $\gamma \rightarrow \alpha$ and $\alpha \rightarrow \gamma$ transformations in the +700 to -78°C temperature range are given. From these loops the temperatures of the martensitic transformations were determined. It was found that alloys containing 15 % Cr and 7.75 % Ni preserve their austenitic structure down to -78°C. If the Cr content is lowered to 12.5 %, the Ni content is to be increased to 9.5 % in order to ensure the stable austenitic state. The thermal history preceding the cooling-heating cycle of the hysteresis loop has a large influence on the loop itself. The increase of the pre-heating tem-

Card 2/4

Peculiarities of phase ...

perature from 850 to 1050°C causes the dissolution of the secondary phases and thus the solid-solution is enriched by alloying elements and its stability increases, the martensitic transformations being prevented. Prolonged pre-heatings at high temperatures cause separation of the excess of the alloying elements from the austenite and the decomposition of the δ-ferrites into γ' and carbides, enhancing the martensitic transformations during the hysteresis cycle. A complex secondary thermal treatment in which the $\gamma \rightarrow \alpha$ and $\alpha \rightarrow \gamma$ transformations take place enhances the martensitic transformations during the hysteresis cycle. The quantitative data on the influence of pre-heating temperature and the final cooling temperature on the phase composition and hardness of the alloys (Vickers degrees) are given for alloys of the I and II groups. The influence of annealing for 1 hour in the 300 - 700°C range was investigated. The annealing strengthens the alloys, but the exact character of this depends again on the previous history of the alloy. If the alloy did previously undergo a martensitic transformation, the highest strengthening occurs below 500°C, otherwise the strengthening occurs at 650 - 750°C and is quantitatively lower than in the first case. The influence of ageing performed at temperatures from 400 to

Card 3/4

S/685/61/000/000/001/004
D205/D301

Peculiarities of phase ...

750°C for up to 36 hours was also studied. Again, the hardening during ageing depends upon the annealing. There are 21 figures, 6 tables and 22 references: 11 Soviet-bloc and 11 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: Gibraith, Austral. Machinery, 11, 1958, 117, 23-31; Iron Age, 181, 1958, 22, 88-89; White, Metal Progr., 73, 1958, 6, 74-78; West, Metals, 15, 1957, 10, 62.

Card 4/4

88367

S/129/61/000/001/004/013
E111/E152

24 7100

AUTHORS: Vinogradskaya, Ye.L., Candidate of Technical Sciences, and Molchanova, G.A., Engineer

TITLE: Influence of Martensite Transformations on Fine Crystal Structure

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1961, No. 1, pp. 20-25

TEXT: The relation between changes in individual parameters of fine crystal structure of phases and transformation effects has been reported (Refs 1-7). The authors describe their work on the fine crystal structure of gamma and alpha phases in the course of forward and reverse martensite transformations in an iron alloy with 0.16% C, 13.8% Mn and 1.8% Cu. The fine structure was measured from the width of X-ray interference lines of the K_{α}-series (200) and (211) for the alpha and (220) and (311) for the gamma phases, with iron-radiation on a type УРС-70 (URS-70) installation. A definite region of the same specimen, heat treated to give first the forward and then the reverse transformation, was photographed. The degree of transformation was found with the aid

Card 1/3

Influence of Martensite Transformations on Fine Crystal Structure

of a magnetometer, as described by Ye.L. Vinogradskaya (Ref.8). The heat treatments and corresponding changes are shown in Fig.1 and Table 1 for an undeformed specimen. To observe the effect of external load on the fine crystal structure changes of alpha and gamma phases, the standard specimen was cooled to a low temperature and deformed by extension at room temperature to 2.1%. The treatments and corresponding changes are shown in Fig.2 and Table 2. This table also gives results (shown in Fig.3) when other deformation and heat treatments were included. The authors conclude that the state of both alpha and gamma phases changes in the forward and reverse martensite transformations; the observed stabilization of the gamma phase with prolonged holding at the critical temperature shows that there are factors additional to hardening which promote stabilization. Slight plastic deformation of the hardened specimen promotes relaxation of heterogeneous local stresses, which in the gamma-phase lattice favours additional transformation to alpha and, perhaps, growth of coherent scattering regions in the alpha → gamma transformation.

88367

S/129/61/000/001/004/013
E111/E152

Influence of Martensite Transformations on Fine Crystal Structure

Plastic deformation at 20 °C of both hardened and untreated specimens has no effect on the critical temperatures of the reverse martensitic transformations, and the effect of plastic deformation is completely eliminated by suitable treatment. There are 3 figures, 2 tables and 10 Soviet references.

ASSOCIATION: Institut mashinovedeniya AN Latviyskoy SSR
(Institute of Science of Machines,
AS Latvian SSR)

Card 3/3

S/126/61/011/005/012/015
E073/E335

AUTHORS: Prosvirin, V.I., Vinogradskaya, Ye.L. and Molchanova, G.A.

TITLE: On Phase Transformations in Steels of the Intermediate Class

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol. 11, No. 5, pp. 775 - 781

TEXT: Steels of the intermediate class, i.e. intermediate from martensitic to austenitic, are characterised by a combination of properties and phase-transformations which are characteristics for both martensitic and austenitic steels. The results are described of investigations of phase-transformations in three steels of this class. Of these, Steel 1 is nearer to the martensitic class, Steel 3 is nearer to the austenitic and Steel 2 occupies an intermediate position between the two. The contents of C, Cr and Mo were maintained constant and the quantities of Ni and Al were slightly varied (C 0.07%, Mn 0.07%, Si 0.4%, Cr 12.5%,

On Phase Transformations ....

Ni 7.8-8.8%, Al 1.4-1.1%). The ratios of the yield point to the UTS for the Steels 1, 2 and 3 after normalisation treatment at 1 050 °C are, respectively, 0.76, 0.23, 0.21. After a second normalisation treatment at 950 °C and additional cooling to -70 °C, followed by subsequent ageing at 500 °C for one hour, these ratios reached values of 0.9. For a maximum value of $\sigma_{0.2T}$ = 150 kg/mm^2 for Steel 1, δ = 14% and Ψ = 54% were achieved. A feature of these steels is that they occupy a very narrow range as regards composition, which involves practical difficulties during manufacture. An increase in the hardening temperature from 850 - 1 050 °C (air quenching) brings about a large increase in the quantity of the residual austenite, particularly in Steel 3 which is nearer to the austenitic-class steel. Fig. 1a shows the influence of the hardening temperature, °C, on the quantity of the residual austenite, A, %, and on the hardness HV. Fig. 1б shows the decrease in the quantity of the austenite (Δ A, %) and the increase in the hardness Δ HV as functions

Card 2/7

of the hardening temperature, °C, after cooling the specimens to -194 °C. The influence of stepwise heat was also investigated. All the steels were subjected to stepwise heating for one hour at 350, 500, 650 and 800 °C for one hour, with intermediate cooling at room temperature, after initial cooling to 15 °C and after cooling to -194 °C. Regardless of the original hardening temperature the steels hardened considerably (by 40-50%) as a result of subsequent heating to 500 °C. However, the quantity of austenite remained practically unchanged and this indicated that precipitation-hardening occurred; reheating even to 650 °C resulted in a decrease in hardness which was still higher than the original value; the austenite quantity increased by about 12% for all the tested original hardening temperatures. A further heating of the specimens to 800 °C brought about a further decrease in hardness and a decrease in the quantity of austenite. The increase in the quantity of austenite on heating to 650 °C is due to reversible martensitic transformations during heating. To reveal more clearly the nature of the hardening

On Phase Transformations ....

of the hardened steels during stepwise heating, the temperature steps were made more close. Each specimen was first heated to 350 °C for one hour, cooled to 20 °C, again heated to 400 °C, cooled to 20 °C, reheated to 450 °C, etc., the maximum temperature being 1 050 °C. The preliminary heat-treatment was hardening from 950 and 1 050 °C and part of the specimens were first subjected to cooling to -78 °C. The obtained results show that the increase in hardness of the alloy on heating it to 500-550 °C will be the more intensive the more complete the martensitic transformation. The close temperature steps used in experiments have revealed a very interesting feature, namely, that regardless of the original heat-treatment the steel tends to reach a certain limit hardness of about 300 Vickers units, which is conserved up to temperatures of 900-950 °C. The nature of precipitation-hardening during ageing was investigated for hardened steel, heated to 400, 450, 500, 700 and 800 °C for durations of 1 to 36 hours; part of the specimens were deep-cooled to

-194 °C for 20 min prior to heating. The results confirmed that precipitation-hardening in the temperature range 400 - 500 °C was associated with rejections from phase-hardened austenite. If the martensite point was not reached during hardening but the final cooling temperature was near to the martensite point, a slow precipitation-hardening was also observed. This may be due to diffusional development of martensitic nuclei which do not develop into martensitic transformation. Phase-hardening by precipitation-hardening produces hardening of the austenite which is unstable and decreases on prolonged heating to 500 °C. Higher heating temperatures produced active processes of rejection, dissolution and coagulation. Results obtained for steels aged at 700 and 800 °C indicated that regardless of the original state, steel heated to temperatures up to 700 °C tended to reach a hardness of 300 kg/mm^2 after 36-40 hours. At 800 °C the process of coagulation of secondary phases was more intensive and had a considerable influence on the process of

softening; at 800 °C both hardening and softening proceed simultaneously. There are 7 figures, 1 table and 10 references: 6 Soviet and 4 non-Soviet. The four English-language references quoted are: Ref. 3 - A. Gibraith, Austral Machinery, 1958, 11, No. 117, 23; Ref. 4 - (Review) Iron Age, 1958, 181, No. 22, 88; Ref. 5 - (Review) West Metals, 1957, 15, No. 10, 62; Ref. 6 - R. White, Metal Progress, 1958, 112, 51.

ASSOCIATION: Institut avtomatiki i mekhaniki AN Latviyskoy SSR (Institute of Automation and Mechanics of the AS Latvian SSR)

SUBMITTED: August 29, 1960

Card 6/7

37538
S/197/62/000/004/001/001
B104/B102

18.7100
AUTHORS: Vinogradskaya, Ye., Molchanova, G.

TITLE: Regeneration of the initial structure of alloys

PERIODICAL: Akademiya nauk Latviyskoy SSR. Izvestiya, no. 4, 1962, 27-31

TEXT: The occurrence, growth, and loss of the magnetic phase of an alloyed steel (0.12% C, 12.93% Mn, 0.16% Co, 1.61% Cu) during $\gamma \rightarrow \alpha$ and $\alpha \rightarrow \gamma$ phase transitions were investigated with a magnetometer. Samples 4 mm in diameter and 70 mm long were heated to 650°C, slowly cooled to -196°C in the bath of the magnetometer, and again heated up to 600°C and higher temperatures. At t_{A_f} = 600°C, austenitic transformation was complete. During a second cooling to - 196°C the samples did not undergo a $\gamma \rightarrow \alpha$ phase transition. Higher temperatures in this treatment ($> t_{A_f}$)

Card 1/2

Regeneration of the initial structure ...

reduced the stability of the γ'-phase during the cooling process. When the samples were heated up to 850°C, they became completely unstable. Another cooling to -196°C produced the same amount of γ-phase as had been obtained in the first γ'→γ phase transition. The original structure of slightly deformed samples was completely restored by annealing them at t_{A_f} + 250°C for a given time, followed by slow cooling. There are 3 figures.

ASSOCIATION: Institut avtomatiki i mekhaniki AN Latv. SSR
(Institute of Automation and Mechanics AS LatSSR)

SUBMITTED: November 23, 1961

Card 2/2

X

MOLCHANOVA G.A.

2

ACCESSION NR: AT4040795 S/2685/63/000/002/0003/0021

AUTHOR: Vinogradskaya, Ye. L. (Candidate of technical sciences); Proevirin, V. I. (Doctor of technical sciences); Molchanova, G. A.

TITLE: Properties and structure of austenitic steel

SOURCE: AN LatSSR. Institut avtomatiki i mekhaniki. Prevrashchaniya v splavakh i vzaimodeystviye faz, no. 2, 1963, 3-21

TOPIC TAGS: steel, steel structure, steel mechanical property, austenitic steel, transition steel, plastic deformation, heat treatment, alloy steel, ferrite

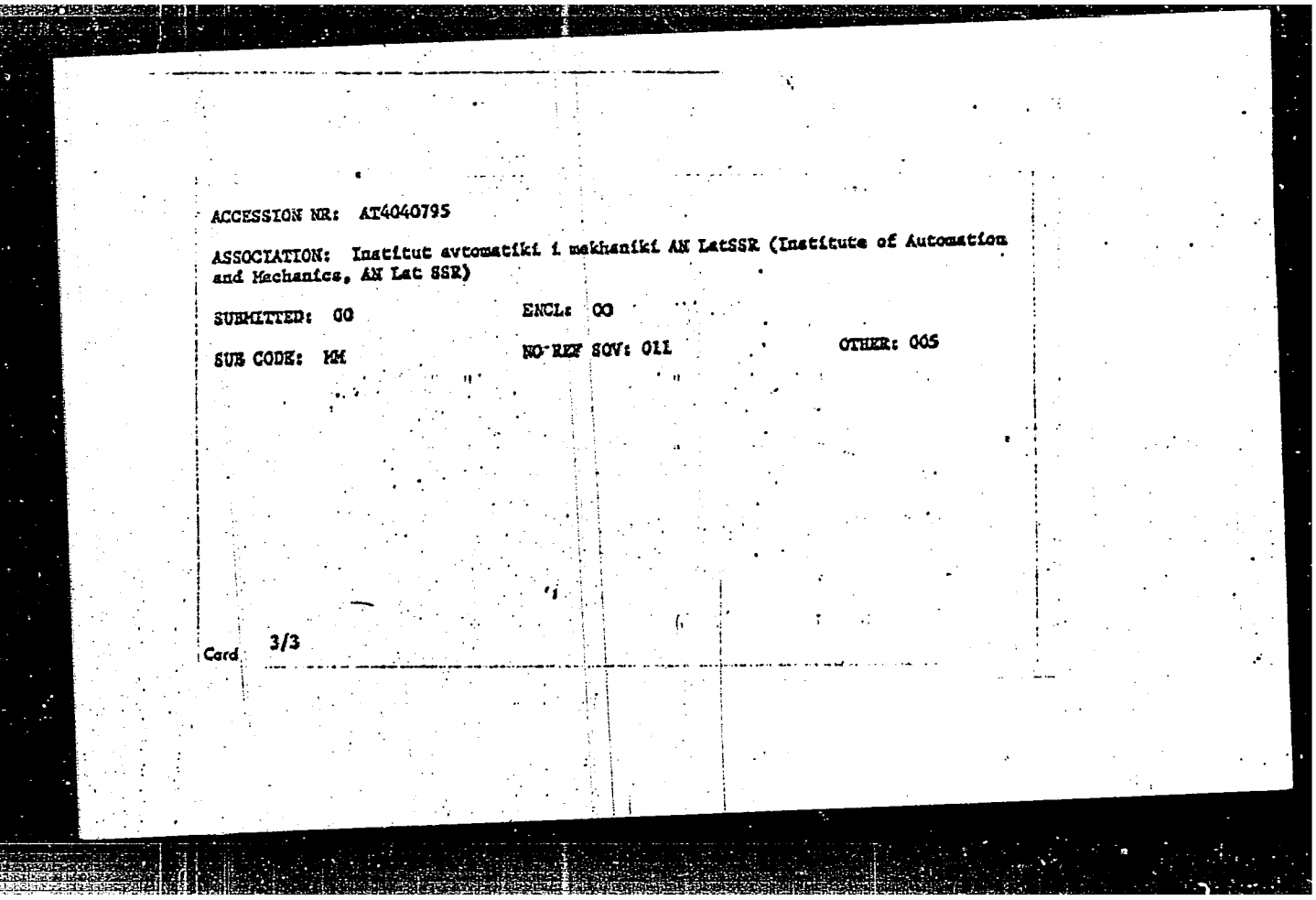
ABSTRACT: At the present time, considerable attention is being paid to the austenitic-ferritic alloys — the so-called transition grade steels. The strength of these steels is determined by martensitic transformation, and can be increased by aging as well as by strain hardening. The present authors investigated a steel of the transition class (0.07% C; 15.0% Cr; 5.9% Ni; 2.5% Mo; 1.2% Al) in order to study its structure and properties in relation to heat treatment and various degrees of plastic deformation. Specimens 5 mm in diameter and 20 mm long after 20 min. annealing at temperatures of 1200, 1050, 950 and 850C, with subsequent air cooling, were examined microscopically, and the effect of plastic deformation was investigated on specimens of varying original size, selected so as to obtain a

Card 1/3

ACCESSION NR: AT4040795

5 x 20 mm specimen after deformation. The results of phase transformation and microhardness tests are graphed. It is concluded that two basic phases are preserved in the structure of austenitic-ferritic steel after all possible variations in treatment - austenite and delta-ferrite as separate grains of various sizes and form. In the process of high-temperature annealing, diffusional interchange may occur between the grains of austenite and delta-ferrite, producing variations in the concentration of alloying elements in these phases. As the result of such an exchange, the properties and structure of the grains are changed, and correspondingly also the final properties of the alloy. As shown by microhardness distribution, grains of austenite and delta-ferrite are heterogeneous with regard to their composition, even within the limits of a micrograin. Cold plastic deformation strengthens austenite grains to a higher degree than delta-ferrite grains. Because of the considerable heterogeneity in composition of the grains, their strengthening due to phase transformation, precipitation, or plastic deformation is non-uniform. Drawing of an alloy at 600 C reduces the strength of the grains in phases obtained by quenching from high temperatures (1050; 1200 C) and strengthens the grains in phases obtained by quenching from low temperatures (850 C). Orig. art. has: 5 graphs and 25 photomicrographs.

Card 2/3



ACCESSION NR: AT4040795

ASSOCIATION: Institut avtomatiki i mekhaniki AN LatSSR (Institute of Automation and Mechanics, AN Lat SSR)

SUBMITTED: 00 ENCL: 00

SUB CODE: MM NO REF SOV: 011 OTHER: 005

Card 3/3

ACCESSION NR: AT4040786 S/2686/63/000/002/0023/0030

AUTHOR: Vinogradskaya, Ye. L. ; Molchanova, G. A.

TITLE: Changes in phase structure and hardening pattern of high alloy steels in the process of cold forming

SOURCE: AN LatSSR. Institut avtomatiki i mekhaniki. Prevrashcheniya v splavakh i vzaimodeystviye faz, no. 2, 1963, 23-30

TOPIC TAGS: steel, plastic deformation, high alloy steel, steel structural changes, steel phase conversion, steel hardening pattern, heat treatment, precipitation hardening, phase conversion, deformation level, work hardening, annealing

ABSTRACT: Four compositions (see Table 1 in the Enclosure) were tested for the effects of heat treating procedure (air cooling after 20 min. at 850, 950, 1050 or 1200C, preceded by annealing for 3 hrs. at 750C) and deformation levels (cold forming to 3-18% deformation) on changes in phase structure and hardness. In addition, samples of alloy No. 1 were hardened by air cooling from 850, 1050 or 1200C, then step-tempered from 350 to 1000C at 50° intervals of 1 hour duration, to determine effects of deformation levels (4.7-17.9%) on processes of precipitation hardening. It is concluded that the pattern of changes in phase structure and properties of an alloy are governed by its phase stability. Alloys containing high proportions

Card 1/3 2

ACCESSION NR: AT4040796

of austenite obtained by high temperature hardening are not subject to phase conversions as a result of plastic deformation. Strength increases (from 200 to 300 kg/mm^2) as a result of excess phase separation from solid solution and work hardening. Supplemental annealing increases hardening still further, especially above 650C, due to precipitation hardening caused by submicroscopic separations of secondary phases. Plastic deformation of alloys with less stable austenite, obtained by hardening from lower temperatures, leads to hardening due to partial γ to α conversions and work hardening processes. Annealing at 500C enhances hardness further, to levels of 500 kg/mm^2. "The authors thank Ya. M. Potak (Candidate in the Technical Sciences) and V. L. Chugunov (Engineer) for preparing the alloys." Orig. art. has: 1 table and 3 graphs.

ASSOCIATION: Institut avtomatiki i mekhaniki AN LatSSR (Institute of Automation and Mechanics, AN LatSSR)

SUBMITTED: 00 DATE SEL: 15Jul64 ENCL: 01

SUB CODE: MM NO REF SOV: 010 OTHERL 005

Card 2/3

L 4114-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AP5012423 UR/0374/65/000/002/0009/0014

AUTHOR: Vinogradskaya, Ye. L. (Riga); Molchanova, G. A. (Riga); Tarasov, B. Ya. (Riga)

TITLE: Effect of processing technology on the nature of the supramolecular structure in crystalline polymers

SOURCE: Mekhanika polimerov, no. 2, 1965, 9-14

TOPIC TAGS: crystalline polymer, high pressure polyethylene, polycaprolactam, polymer processing, supramolecular structure, polymer microhardness, polymer density

ABSTRACT: A study has been made of the effect of the processing technology on the nature of morphological forms (supramolecular structures) and physical and mechanical properties of crystalline polymers, and of the relationship between the supramolecular structure and properties of these polymers. It is stressed that determination of this relationship will contribute to the proper design and effective use of polymeric materials. Experiments were conducted with high-pressure polyethylene and polycaprolactam (Poliamid 6) specimens prepared by compression molding under various conditions. The effect of molding temperature, molding pressure, cooling rate, and aging on supramolecular structure, microhardness, and density was determined. From the results of the study, which are given in graphic form, it was

Card 1/2

L 47748-65

ACCESSION NR: AP5012423

concluded that processing technology considerably affects the nature of the supramolecular structure of polymeric materials. This structure depends on the chemical composition of the material and on crystallization conditions. The properties of polymeric materials are determined by the nature of the supramolecular structure components. The principal forms of supramolecular structure in polyethylene and polycaprolactam are spherulites of different textures and sizes. The strength of spherulites increases with the degree of their ordering. Fine spherulites are harder than coarse spherulites. Supramolecular structures undergo changes in the course of aging of the material owing to relaxation of internal stresses and additional crystallization. Prolonged aging increases the hardness and density of the material. The authors express their gratitude to Academician V. A. Kargin for advice given in the course of this study. Orig. art. has: 8 figures. [BO]

ASSOCIATION: none

SUBMITTED: 16Dec64 ENCL: 00 SUB CODE: OC, MT

NO REF SOV: 009 OTHER: 004 ATD PRESS: 4004

Card 2/2

MOLCHANOVA, G.Ya., kandidat meditsinskikh nauk.

Etiology of face presentation. Akush. i gin. 32 no.1:19-23 Ja-F '56
(MLRA 9:6)

1. Iz kafedry akusherstva i ginekologii lechebnogo fakul'teta (zav. prof. I.F. Zhordania) II Moskovskogo meditsinskogo instituta imeni I.V. Stalina.
(LABOR, PRESENTATION
face, etiol.)

MOLCHANOVA, G.Ya., kand. med. nauk.

Diagnostic errors in the determination of face presentation in labor. Sov. med. 23 no.3:53-58 Mr '59. (MIRA 12:4)

1. Iz kafedry akusherstva i ginekologii lechebnogo fakul'teta (zav. - prof. I.F. Zhordania) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.

(LABOR PRESENTATION,
face, diag. errors (Rus))

OSTROVERKHOV, G.Ye., prof.; MOLCHANOVA, G.Ya., kand.med.nauk

Future plans for the publication of textbooks for medical schools. (MIRA 13:1)
Sov.med. 23 no.9:132-136 S '59.
(BOOKS)
(EDUCATION MEDICAL)

MOLCHANOVA, Genriatta Yakovlevna

[Diseases of women] Zhenskie bolezni. Moskva, Medgiz, 1960. 36 p. (MIRA 14:8)

(WOMEN—DISEASES)

MOLCHANOVA, Genriyetta Yakovlevna

[Face presentation of the fetus] Litsevoe predlezhanie ploda. Moskva, Medgiz, 1960. 94 p. (MIRA 13:9)
(LABOR (OBSTETRICS))

MOLCHANOVA, G.Ya., kand. med. nauk; NIKONCHIK, O.K., kand. med. nauk; PIRADOVA, M.D., kand. med. nauk; RAFAL'KES, S.B., red.; BEL'CHIKOVA, Yu.S., tekhn. red.

[Transactions of the Tenth All-Union Congress of Obstetricians and Gynecologists, December 11-18, 1957 in Moscow] Trudy Vsesoiuznogo s"ezda akusherov-ginekologov. Moskva, 1957. Moskva, Medgiz, 1961. 189 p. (MIRA 15:11)

1. Vsesoyuznyy s"yezd akusherov-ginekologov. 10th, Moskva, 1957. (GYNECOLOGY--CONGRESSES) (OBSTETRICS--CONGRESSES)

ALEKSANDROV, Mikhail Sergeyevich; SHINKAREVA, Lyidmila Fedorovna; MOLCHANOVA, G.Ya., red.; KUZ'MINA, N.S., tekhn. red.

[Extra-uterine pregnancy] Vnematochnaia beremennost'. Moskva, Medgiz, 1961. 218 p. (MIRA 15:3)
(PREGNANCY, EXTRA-UTERINE)

MOLCHANOVA, G.Ya., kand.med.nauk (Moskva)

Publication of textbooks for medical schools. Med. sestra 20 no. 2:33-35 F '61. (MIRA 14:4)
(MEDICINE--TEXTBOOKS)

OSTROVERKHOV, G.Ye., prof.; MOLCHANOVA, G.Ya., kand.med.nauk

Publication of medical textbooks in the socialist countries. Sov. zdrav. 20 no.11:74-77 '61. (MIRA 14:12)
(COMMUNIST COUNTRIES--MEDICINE--TEXTBOOKS)

MOLCHANOVA, G.Ya., kand.med.nauk

Use of dimelin in obstetrical practice. Akush.i gin. no.1:59-63 '62. (MIRA 15:11)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. A.A. Lebedev) pediatricheskogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova i rodil'nogo doma No.25 (glavnyy vrach Ye.K. Sitnikova).

(PIPECOLINE) (OBSTETRICS)

MOLCHANOVA, G.Ya., kand.med.nauk

Obstetrical problem no.5, Fel'd i akush. 28 no.5:59-60 My '63.
(MIRA 16:7)

(LABOR, COMPLICATED)

MOLCHANOVA, G.Ya., kand. med. nauk; YELIZAROVA, I.P., kand. med. nauk

Resuscitation and care of asphyxial infants. Sov. med. 28 no.4: 90-95 Ap '64. (MIRA 17:12)

1. Nauchno-issledovatel'skiy institut akusherstva i ginekologii (direktor - prof. O.V. Makeyeva) Ministerstva zdravookhraneniya SSSR, Moskva.

MOLCHANOVA, I. M. USSR.

Photocolorimetric method for determining aluminum in tannery liquors and leather. V. L. Voltsekhovskii and I. M. Molchanova. *Trudy Tsentral. Nauch.-Issled. Inst. Kozhevenno-Obuvnoi Prom.* 1953, No. 21, 60–6; *Referat. Zhur., Khim.* 1954, No. 20316.—Boil a finely ground 0.4-g. sample of leather for 3–5 min. in 15–20 ml. of 30% H_2O_2. Cool and dil. to 250 ml. To 5 ml. of the soln. taken for analysis and to 5 ml. of blank add 5 ml. of 1*N* HCl, 5 ml. of 3*N* NH_4OAc, water to make 80–5 ml., and 5 ml. of 0.1% aluminon soln; kept for 2 days. Dil. to 100 ml., and view in a photocolorimeter after 10 min. with a green filter. Best results are obtained with 0.01–0.1 mg. Al/100 ml. of soln.

M. Hesch

MOLCHANOVA, I.M.

Chromaffin elements in leeches. Uch.zap.Kaz.un. 120 no.6:76-87 '60. (MIRA 16:2)

(Leeches) (Chromaffin system)

NOLCHANOVA, I. V. --

"Observations on the Chromaffin Elements in Some Animals." Cand Biol Sci, Kazan' Veterinary Inst, Kazan', 1953. (KhBiol, No 3, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 461, 5 May 55

MOLCHANOVA, I.N.

Method for detecting chromaffin elements in the animal organism. Biul.eksp.biol. i med. 45 no.2:123-125 F '58. (MIRA 11:5)

1. Iz kafedry obshchey biologii (zav. - doktor biol.nauk prof. V.V. Izosimov) Kazanskogo meditsinskogo instituta.
(PARAGANGLIA,
detection of chromaffin elements in animal organism (Rus))

L 19309-63 EMP(q)/EMT(m)/BDS ASD/AFFTC JD S/0137/63/000/007/I019/I019

ACCESSION NR: AR3006904

SOURCE: RZh. Metallurgiya, Abs. 71126

AUTHOR: Shteynberg, M. M.; Molchanova, I. P.; Farafonov, V. K.; Kodes, Ye. S.

TITLE: Investigation of the kinetics of austenite decomposition and the thermal stability of EI-415 steel

CITED SOURCE: Sb. Metallovedeniye i liteyn. proiz-vo Sverdlovsk, 1960, 50-62

TOPIC TAGS: austenite, steel, EI-415, thermal stability, carbide, ferrite, austenitization

TRANSLATION: The kinetics of the decomposition of supercooled austenite (A) of steel EI-415, with composition (in %): C 0.19, Si 0.21, P 0.008, Ni 0.24, Cr 2.47, W 0.42, Mo 0.51, V 0.7, was investigated by the methods of microstructural, magnetic, and dilatometric analyses (under isothermal conditions and with continuous cooling). The character of the structural components was studied, and the microhardness of the decomposition products was measures. The influence of the character of the structure on the thermal stability of the steel was also investigated. The presence of two stages of the decomposition of A, separated

Card 1/2

L 19305-63
ACCESSION NR: AR3006904

by a temperature interval of relative stability of A, was established. The relatively low C content and the character of the alloying of the steel are responsible for the unique mechanism of the decomposition of A according to the first degree type (temperature range 820-625C): the mechanism of decomposition of A into a ferrite-carbide mixture not eutectoidally, but by the formation of supersaturated ferrite, followed by the deposition of carbides from it, proved kinetically more favorable. Rates of cooling 1250 deg/hr are required to suppress the decomposition of A according to the first degree type. Decomposition of A according to a second degree type begins at 465C and reaches a maximum completeness at 300C (degree of conversion 89%). Increasing the temperature of austenitization from 960 to 1020C somewhat increases the stability of A in the first degree temperature region and exerts no noticeable influence on the kinetics of the conversion at the second degree temperatures. Steel with an initial structure of supersaturated ferrite possesses a minimum creep resistance; steel with a beinite initial structure possesses a maximum. The thermal stability of steel with a mixed structure can be extremely varied, depending on the quantitative ratio and mutual arrangement of the products of the first and second-degree decomposition of A. A. Nefedov.

DATE ACQ: 12Aug 63 SUB CODE: ML ENCL: 00

Card 2/2

MOLCHANOVA, I.P.

Participation of students of the Institute of Forestry in the revolutionary movement during the years of the new revolutionary uprsurge. Nauch.trudy LTA no.95:127-137 '61.

(MIRA 16:2)

(Leningrad--Students) (Leningrad--History)

ACCESSION NR: AT4042637 S/3104/64/000/005/0048/0054

AUTHOR: Shteynberg, M. M., (Doctor of Technical Sciences); Molchanova, I. P., (Engineer)

TITLE: Effect of neodymium on the breakdown of undercooled grade 25Kh1MF austenite steel

SOURCE: Ural'skiy mashinostroitel'ny*y zavod, Sverdlovsk. Nauchno-issledovatel'skiy institut tyazhelogo mashinostroyeniya. Proizvodstvo krupny*kh mashin, no. 5, 1964. Metallovedeniye i termicheskaya obrabotka (Metallography and heat treatment); sbornik statey, 48-54

TOPIC TAGS: neodymium, neodymium alloy, steel undercooling, austenite transformation, austenite breakdown, alloy steel, 25Kh1MF steel

ABSTRACT: Rare earth metals are being ever more widely used in metallurgy since they affect the structure and properties of iron-carbon alloys. The published information, however, considers mainly master alloys containing cerium and similar rare earth elements. The present investigation is concerned with the effect of neodymium on the breakdown of

Card 1/3

ACCESSION NR: AT4042637

undercooled, austenitic, grade 25Kh1MF steel (R2 steel) used for steam turbine rotors. Samples were prepared with 0.05, 0.10, 0.15 and 0.20% neodymium added to the steel. The samples were homogenized, normalized and tempered. Austenitic transformation was studied both under isothermal conditions and under a constant cooling rate. The austenite structure was examined by the structural and magnetic particle inspection methods under isothermal conditions and by dilatometry at constant cooling rates. The cooling temperature interval for the structural method was between 775 and 300C. Beginning at 550C and lower, the magnetic device designed by D.S. Shteynberg was used. The "Chevenar" dilatometer was used for investigating austenitic transformation under constant cooling rates of about 1800C per hour in air, and 800, 400, 300, 250 and 100C per hour in a furnace. The authors found that 0.10-0.15% neodymium increases austenite stability significantly during the first stage of transformation. A further increase in the neodymium content (up to 0.25%) does not affect the kinetics of the breakdown process. Alloying with neodymium leads to a slight increase in the first stage temperature (25C). The effect of

Card 2/3

ACCESSION NR: AT4042637

neodymium during the second stage is insignificant. Addition of neodymium as an alloy to 25Kh1MF steel improves the bainite annealing properties, allowing the zone depth free of excess ferrite to be increased significantly in large sections, thus improving the heat resistance of the steel. Orig. art. has: 6 graphs and 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy institut tyazhelogo mashinostroyeniya, Ural'skiy mashinostroitel'ny*y zavod, Sverdlovsk (Scientific Research Institute for Heavy Machine Building, Urals Machine Design Plant)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 000

Card 3/3

MAKHONINA, G.I.; MOLCHANOVA, I.V.; SUBBOTINA, Ye.N.; TIMOFEYEV-RESOVSKIY N.V.; TITLYANOVA, A.A.; TYURYUKANOV, A.N.

Experimental investigation of radioisotope distribution in natural biogeocoenoses. Dokl.AN SSSR 133 no.2:484-487 Jl '60. (MIRA 13:7)
(Radioactive substances) (Forest ecology)

MAKHONINA, G.I.; MOLCHANOVA, I.V.; Prinimali uchastiye: TITLYANOVA, A.A.; TYURYUKANOV, A.N.

Investigating the behavior of very small quantities of iron and zinc in soils. Nauch. dokl. vys. shkoly; biol. nauki no.4:218-225 '61. (MIRA 14:11)

1. Rekomendovana kafedroy pochvovedeniya Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(SOILS--IRON CONTENT) (SOILS--ZINC CONTENT)

AGRE, A.L.; MOLCHANOVA, I. V.; TIMOFEYEV-RESOVSKIY, N.V.

Self-purification of water from cesium-137 in bodies of water with slow circulation at different speeds and volume of water and cesium concentration. Biul. MOIP. Otd. biol. 69 no. 3: 20-24 My-Je '64. (MIRA 17:7)

L 34889-66

ACC NR: AP6026573 SOURCE CODE: UR/0186/65/007/006/0687/0692

AUTHOR: Molchanova, I. V.; Titlyanova, A. A. 39 B

ORG: none

TITLE: Behavior of micro-quantities of yttrium and cerium in soil

SOURCE: Radiokhimiya, v. 7, no. 6, 1965, 687-692

TOPIC TAGS: yttrium, cerium, soil chemistry, sorption, colloid chemistry, adsorption

ABSTRACT: Sorption of micro-quantities of yttrium by soil is practically complete within a broad range of solution pH and yttrium concentration. When hydrolyzable elements (Al and Fe) are present in solution, yttrium sorption drops off in the weakly acidic and neutral region, which is probably due to the formation of negatively charged yttrium colloids. The sorption of micro-quantities of cerium by soil depends on the cerium concentration, the solution pH, and the presence of hydrolyzable elements in the solution. In the alkaline range, cerium sorption drops off with an increase in cerium concentration, and also when iron and aluminum are present in the solution. This is evidently associated with the formation of negatively free or adsorbed cerium colloids. Orig. art. has: 3 figures and 3 tables. [JPRS: 36,455]

SUB CODE: 07, 06 / SUBM DATE: 23Jun64 / ORIG REF: 006 / OTH REF: 002

Card 1/1 mjr

UDC: 546.641+546.655:631.4

09/6 2267

BARANOV, V.I.; PAVLOTSKAYA, F.I.; FEDOSEYEV, G.A.; TYURYUKANOVA, E.B.; RODIONOVA, L.M.; BABICHEVA, Ye.V.; ZATSEPINA, L.N.; VOSTOKOVA, T.A.; Prinimali uchastiye: YEMEL'YANOV, V.V.; BELYAYEVA, L.I.; LEVKINA, N.I.; MOLCHANOVA, I.V.

Distribution of Sr^{90} on the surface horizon of soils of the Soviet Union during 1959-1960. Atom. energ. 18 no.3:246-250 Mr '65. (MIRA 18:3)

PA 34/49T75

MOLCHANOVA, K. A.

USSR/Medicine - Maxillitis, Therapy Jul/Aug/Sep 48
Medicine - Penicillin, Therapy

"Treatment of Acute Purulent Maxillitis With Penicillin," K. A. Molchanova, Chair of Maxillary Surg, Second Moscow Med Inst imeni I. V. Stalin, 4½ pp

"Stomatologiya" No 3

Material on 50 cases. Describes nine in detail. Concludes that penicillin is an effective auxiliary therapeutic medium in treating acute purulent inflammatory processes of the face, neck, and jaws.

34/49T75

MOLCHANOVA, K. A.

Ch. Maxilla Surgery, 2nd Moscow Med. Inst, im.

I. V. Stalin, -c1948-49-.

"Treatment of Acute Purulent Maxillitis with Penicillin,"

Stomatologiya, No. 3, 1948;

Pathogenesis and Clinical Aspects of Lymphadenites of the

Mandibular Region," ibid., No. 1, 1949.

MOLCHANOVA, K.A.

Use of penicillin in treatment of osteomyelitis of the jaws. Khirurgiia, Moskva No.12:39-43 Dec 50. (CLML 20:5)

1. Of the Department of Maxillary Surgery (Head--Prof.I.M. Starobinskiy), Second Moscow Medical Institute imeni I.V. Stalin.

MOLCHANOVA, K. A., Physician ..... Cand Medical Sci

"Morphological Changes in the Tissues of the Teeth and Amphodonta During Hypertonic Illness, Rheumatism and Lingering Septic Endocarditis." Sub 8 Oct 51, Second Moscow State Medical Inst imeni I. V. Stalin.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

MOLCHANOVA, K. A.

Teeth - Diseases

Morphological changes in the dental tissues and periodentium in hypertension. Stomatologii No. 3, 1952.

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

MOLCHANOVA, K.A., dotsent

Use of antibiotics in treating acute inflammatory processes of jaw and adjacent soft tissues. Stomatologiia 35 no.1:34-38 Ja-F '56. (MLRA 9:6)

1. Iz gospital'noy khirurgicheskoy kliniki (zaveduyushchiy professor A.V.Gulyayev) pediatricheskogo fakul'teta II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni I.V.Stalina.
(JAWS--DISEASES) (ANTIBIOTICS)

MOLCHANOVA, K. A.: Master Med Sci (diss) -- "The conservative treatment and prophylaxis of scoliosis in children of school age". Novosibirsk, 1958. 12 pp (Novosibirsk State Med Inst), 250 copies (KL, No 6, 1959, 145)

MOLCHANOVA, K.A., dotsent

Use of intranasal novocaine block in the treatment of inflammatory processes of the maxillofacial region. Stomatologiia 38 no.3:54-57 My-Je '59. (MIRA 12:8)

1. Iz stomatologicheskoy kliniki (zav. - prof.F.M.Khitrov) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova (dir. - prof.O.V.Kerbikov).
(NOVOCAINE) (FACE--DISEASES)

MOLCHANOVA, K.A., dotsent

Necrotic processes in the oral cavity in chronic cardiovascular insufficiency. Stomatologiia 40 no.2:33-39 Mr-Ap '61. (MIRA 14:5)

1. Iz kursa stomatologii (zav. - prof. F.M.Khitrov) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova (direktor - dotsent M.G.Sirotkina).

(HEART FAILURE) (MOUTH--ULCERS)
(NECROSIS)

MOLCHANOVA, K.A., dotsent (Moskva, TSvetnoy bul'var d. 9, kv. 32.)

Correction of gaping defects of the pharyngeal wall and cervical segment of the esophagus using the tissues surrounding the defect. Vest. khir. 91 no.11:30-32 '63. (MIRA 17:12)

1. Iz stomatologicheskoy kliniki (zav. - dotsent K.A.Molchanova) 2-go Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

SAVCHENKO, Ye.D.; MOLCHANOVA, K.A.

Pathomorphological basis for restorative operations following a compound treatment of cancer of the larynx. Med. rad. 10 no.11: 20-27 N '65. (MIRA 19:1)

1. Patomorfologicheskiy otdel (zav. - dotsent Ye.D. Savchenko) Gosudarstvennogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya RSFSR i stomatologicheskaya klinika (zav. - dotsent K.A. Molchanova) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova. Submitted March 3, 1965.

KAZAK, V.N.; MOLCHANOVA, K.P.

Effect of the angle of pitch of a seam on the size of the reaction surface of combustion in thin coal seams. Trudy VNIIPodzemgaza no.12:57-67 '64. (MIRA 18:9)

1. Laboratoriya gornogeologicheskaya Vsesoyuznogo nauchno-issledovatel'skogo instituta podzemnoy gazifikatsii ugley.

GARBER, I.S.; MOLCHANOVA, K.P.

Selection of an expedient net of prospecting holes in exploitation prospecting under conditions present at the Kamenskiy underground gasification station. Nauch. trudy VNIIPodzemgaza no.8:27-34 '62. (MIRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy marksheyderskiy institut i Vsesoyuznyy nauchno-issledovatel'skiy institut podzemnoy gazifikatsii ugley.
(Donets Basin--Coal gasification, Underground)
(Boring)

PAVLOV, N.M.; MOLCHANOVA, L.A.

Damages of the visual organs in children in rheumatism. Vest. oft., Moskva 32 no.4:14-21 July-Aug 1953. (CIML 25:1)

1. Professor for Pavlov; Departmental Physician for Molchanova. 2. Of the Clinic for Eye Diseases of Stavropol' Medical Institute.

MOLCHANOVA, L.A.

Tertian malaria with prolonged incubation in Turkmenia. Med. parax. i paras. biol. no.4:352-353 O-D '54. (MLRA 8:2)

1. Iz Instituta malyarii i meditsinskoy parazitologii Ministerstva zdravookhraneniya Turkmenskoy SSR (dir. instituta dotsent G.A.Pravikov)
(MALARIA, epidemiology,
in Russia, tertian malaria with prolonged incubation period)

MOLCHANOVA, L.G.

Effect of heat treatment occurring during the welding process on properties of the weld metal made with use of low-alloy electrodes. Svarka 1:49-60 '58. (MIRA 12:8)
(Electric welding) (Welding--Testing) (Metallography)

MOLCHANOVA, L.G., kand.tekhn.nauk; POGOREL'SKAYA, M.Z.; SHKATOV, Yu.I., inzh.

Effect of tempering on the properties of welded joints in chromium-molybdenum-vanadium steel. Svarka 1:61-72 '58. (MIRA 12:8)

(Chromium-molybdenum steel--Welding)
(Chromium-vanadium steel--Welding)
(Tempering)

MOLCHANOVA, L.G., kand.tekhn.nauk

Effect of the structural shape of welded joints on their strength. Svarka 1:115-125 '58. (MIRA 12:8)
(Steel, Structural--Welding) (Welding--Testing)

MOLCHANOVA, L.G., kand.tekhn.nauk; POGOREL'SKAYA, M.Z., kand.tekhn.nauk; SHKATOV, Yu.I., inzh.

Effect of subjecting it to long intervals of high temperatures on the brittleness of welded chromium-molybdenum-vanadium steel. Svarka 2:110-120 '59. (MIRA 14:5)
(Chromium-molybdenum steel--Welding)
(Metals at high temperatures)

LAZEBNIK, V.V. [Lazebnyk, V.V.]; MOLCHANOVA, L.P.

Spectroscopic method for determining ferric oxide in sand. Leh. prom. no.1:63-65 Ja-Mr '65. (MIRA 18:4)

MOLCHANOVA, L.V.

Effect of antithrombin VI intravenous introduction on the blood coagulation system in rats. Vop. med. khim. 9 no.1: 33-37 Ja-F '63. (MIRA 17:6)

1. Laboratoriya fiziologii i biokhimii svertyvaniya krovi biologo-pochvennogo fakul'teta Moskovskogo gosudarstvennogo universiteta.

ACCESSION NR: AP4040687 S/0129/64/000/006/0012/0015

AUTHOR: Nagorskaya, N. D.; Molchanova, L. V.; Rayevskaya, M. V.; Novoselova, A. V.; Fridlyander, I. N.; Yatsenko, K. P.; Rogova, L. K.

TITLE: Crystallization in the Be-Nb system

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 6, 1964, 12-15, and insert facing p. 25

TOPIC TAGS: beryllium niobium system, beryllium niobium alloy, alloy crystallization, alloy structure, alloy phase composition, alloy hardness, niobium beryllide, niobium beryllium solubility

ABSTRACT: Investigation of alloys of the Be-Nb system containing up to 58% Nb showed the existence of three phases: the beryllium base α-phase, the Nb-Be_{12} compound γ-phase, and the $NbBe_{17}$ compound δ-phase. In the alloys containing up to 46% Nb, the α- and γ-phases form a eutectic with a very limited amount of the latter phase. The Vickers hardness of the alloy annealed at 850C for 14 days and water quenched increases from 121 at 0.7% niobium to 1108 at 58% niobium.

Card 1/2

ACCESSION NR: AP4040687

The cast alloy had roughly the same hardness as alloys annealed for 29 days. The Vickers hardness of individual phases (annealed and water quenched) was found to be 110 for the α-phase, 160 for the eutectic, 480 for the γ-phase, and 1060 for the δ-phase. The solid state solubility of niobium in beryllium is low. A considerable amount of $NbBe_{12}$ was found in an alloy containing as little as 0.7% Nb. The eutectic of the α- and γ-phases contains 2.5% Nb. The eutectic temperature is close to the melting temperature of pure beryllium. Alloys of the eutectic and hypoeutectic compositions have a fine structure, but at a certain amount of primary formations of intermetallic compounds, the fine structure disappears. In hypereutectic alloys the structures of the upper and lower parts of ingots are different due to segregation. Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00 ATD PRESS: 3051 ENCL: 00

SUB CODE: MM NO REF SOV: 004 OTHER: 006

Card 2/2

KUDRYASHOV, B.A.; MOLCHANOVA, L.V.; BAZAZ'YAN, G.G.

Fibrin-stabilizing factor in various functional states of the physiological anticoagulation system. Vop.med.khim. 11 no.6:77-79 N-D '65. (MIRA 18:12)

1. Laboratoriya fiziologii i biokhimii svertyvaniya krovi pri kafedre fiziologii cheloveka i zhivotnykh Moskovskogo universiteta. Submitted April 21, 1965.

KUDRYASHOV, B.A.; MOLCHANOVA, L.V.; BAZAZ'YAN, G.G.; KALISHEVSKAYA, T.M.; SYTINA, N.P.

Preventive action of antithrombin VI in experimental thrombogenesis. Vop.med.khim. 8 no.1:68-72 Ja-F '62. (MIRA 15:11)

1. Laboratoriya fiziologii i biokhimii svertyvaniya krovi kafedry biokhimii zhivotnykh biologo-pochvennogo fakul'teta Moskovskogo gosudarstvennogo universiteta imeni Lomonosova, Moskva.

(THROMBOSIS) (ANTICOAGULANTS (MEDICINE))