

ACCESSION NR: AP4037066

S/0129/64/000/005/0044/0046

AUTHOR: Gindin, I. A.; Lazareva, M. B.; Nikishov, A. S.; Rink, L. P.; Starodubov, Ya. D.; Yarov, I. A.

TITLE: Mechanical properties of structural alloys at low temperature

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 5, 1964, 44-46

TOPIC TAGS: alloy, structural alloy, austenitic iron alloy, Kh25N16G7AR alloy, Kh12N20T3R alloy, Kh16G9AN4 alloy, KhN35VTYu alloy, titanium alloy, OT4 alloy, copper alloy, BrKh08 alloy, ZhS6KP alloy, steel, martensitic steel, VNS2 steel, EI659 steel, cryogenic alloy

ABSTRACT: Mechanical properties and fracture tests of Kh25N16G7AR, Kh12N20T3R, Kh17G9AN4, KhN35VTYu; austenitic iron base alloys VNS2 (EP225) and EI659, martensitic steels, ZhS6KP high-strength alloy, OT4 titanium alloy, BCKh08 copper alloy, and other [unidentified] alloys were investigated at temperatures in the 4.2—300K range.

Card 1/3

51

ACCESSION NR: AP4037066

Specimens (either flat with a cross section of 1.5 x 2 mm or round and 2.2 mm in diameter) were tested in a heat-treated condition [shown in the article]. With a decreasing test temperature the resistance to plastic deformation and the tensile strength of all alloys increased. This was found to be particularly pronounced in the case of VNS2 alloy which at 293, 77, and 20K had a tensile strength of 97.5, 155.0, and 180.0 kg/mm² (annealed at 950C, air cooled, and tempered at 620C for 1 hr). All alloys were found to maintain some ductility at temperatures as low as that of liquid hydrogen except for E1659 steel and OT4 alloy which failed with respective elongations of 0% (at 20K) and 0.7% (at 77K). The elongation of the VNS2 alloy, on the contrary, was found to increase with a decrease of temperature from 15% at 293K to 20% at 20K. BGKh08 copper-base alloy was also very ductile at low temperatures (at 4.2K an elongation of 18.6%). A simultaneous increase of the ductility and strength of VNS2 alloy might be explained by some changes of phase composition under the effect of low-temperature deformation. All the materials tested at temperatures down to 20K yielded uniformly, some with, some without necking. Only in the case of the VNS2 steel did the strain-stress curve at 20K have a saw-like

Card 2/3

L 11227-53

EWP(a)/EWT(m)/BDS--AFFTC/ASD--JD

ACCESSION NR: AP3000488

8/0129/63/000/005/0040/0044 ⁵⁶AUTHOR: Bokshteyn, S. Z.; Kishkin, S. T.; Nikishov, A. S.; Polyak, E. V.; Solovyev, G. G.TITLE: Aging of plastically deformed alloys (A)

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 5, 1963, 40-44

TOPIC TAGS: thermomechanical treatment, high temperature, low temperature, heat resistant steel, heat resistant alloy, titanium alloy, aging, mechanical properties, rupture life

ABSTRACT: A review of published reports on thermomechanical treatment of steels and alloys (TMT) indicates that TMT has a beneficial effect on rupture strength only up to a certain temperature. At higher temperatures the diffusion processes which cause softening proceed at a considerably higher rate than in conventionally treated alloys. For instance, an Ni-Cr-W-Mo-Ti-Al alloy [unidentified] after TMT and aging had a rupture life at 850C 30 to 40% lower than conventionally treated alloys, although its tensile strength was 25% higher. At lower service temperatures (550C for Ni-base alloys and 450 to 500C for Ti-base alloys) TMT greatly increases creep strength and rupture life, especially when combined with aging.

Card 1/2

L 11227-63

ACCESSION NR: AP3000488

The optimum combination of tensile strength, notch toughness, and rupture life for the KhNGGTuR alloy [Nimonic 80A] is obtained by plastic deformation at 1000 to 1050C with a reduction of ~ 30% followed by aging. The VTZ-1 Ti-base alloy, forged at 920C, water quenched, and aged at 550C for 2 hr, had a tensile strength at room temperature of 145.5 kg/mm², elongation of 9.4%, reduction of area of 47%, a notch toughness of 2.0 mkg/cm², and a rupture life (at 450C under 52 kg/mm² stress) of over 150 hr; corresponding figures for a conventionally treated alloy were 117.0 kg/mm², 12%, 34%, 2.9 mkg/cm², and 108 hr. Still greater effects can be achieved by two-stage TMP: deformation at 1200C followed by water quenching; reheating to 1000C and a second deformation with a reduction of 5 to 10%, followed by water quenching and aging. After such treatment the alloy had a rupture life of 200 hr at 550C under a stress of 92 kg/mm² and 100 hr at 650C under a stress of 62 kg/mm²; corresponding figures for conventionally treated alloys were 3 to 7 hr and 60 hr. Combined treatment of the Khl2N2VMF steel (forging with 60% reduction at 1010C, water quenching, sizing at 600C with 5 to 10% reduction, combined with aging for 2 hr) increased the tensile strength at 20C by 40% and at 450C by 60%, and the rupture life (at 450C under a stress of 75 kg/mm²) by 250%. Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: none

Card 2/2

NIKISHOV, I., podpolkovnik.

The shape of foxholes. Voen.vest. 36 no.4:58-60 Ap '56.(MLRA 9:8)
(Intrenchments)

RADOMYSEL'SKIY, I.D.; NIKISHOV, I.S.; PSHEKOVA, V.P.; SMOLYANKIN, A.B.

Investigating the process of grinding reduced iron sponge and developing a procedure for obtaining iron powders of varying bulk weight. Porosh.met. 2 no.5:51-54 S-0 '62. (MIRA 15:11)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.
(Powder metallurgy)

NIKISHOV, K.N.

Determination of the actual refractive index of uniaxial crystals. Geol. i geofiz. no. 1: 137-140, 1964. (MIA 1814)

1. Institut geologii i razvedki pri Sibirskogo otdeleniya AN SSSR. (Crystal optics)

LUTS, B.G.; NIKISHOV, K.N.

Relation of the composition of garnets to their genesis. Trudy
IAFAN AN SSSR Ser. geol. no.9:99-102 '63. (MIRA 16:12)

NIKISHOV, M. I.

USSR/Geophysics - Geographical Atlas Jan/Feb 52

"New Educational Geographical Atlas," M. I. Niki-
shov, Cen Sci Res Inst of Geodesy, Aerial Photog-
raphy and Cartography

"Iz Ak Nauk SSSR, Ser Geog" No 1, pp 53-58

New geographical atlas of 60 pp contains an intro-
ductory part, 24 pp of special physico-geographic
and social-economic maps, including 2 maps indi-
cating pressures and winds in January and July, a
map showing growth of new cities under Soviet rule,
industrial centers and transportation roads, agri-
culture and animal husbandry and Stalin's plan of
improvement of nature. Cultural maps show locations
of 800 scientific institutes in 250 cities. 205T52

ВИТКОВ, В. П.

Atlases

What a teacher must know about the new geographical atlas of the U.S.S.R. V.
Nikishov. Geog. v. 1 no. 3, 1952.

o. Monthly List of Russian Accessions. Library of Congress, September 1957, Incl.

NIKISHOV, M.I., kand.geograf.nauk; LAPSHINA, T.M.

Results of the evaluation of the "Geographic atlas of the U.S.S.R.
for the seventh and eighth grades of secondary schools." Sbor.st.
po kart.no.4:65-73 '53. (MIRA 10:12)

(Atlases)

NIKISHOV, M. I.

"The Next Tasks of Economic Cartography," Sb. Statey po Kartografii, No 4, 3-8, 1953

The author considers the main task of economic cartography to be the development of methods for the representation on economic maps of the manifestation of the principal economic rules governing contemporary capitalism and socialism. (RZhGeol, No 1, 1955)

SC: Sum. No. 536, 10 Jun 55

NIKISHOV, M.

Agricultural map of the U.S.S.R. and work with it in school. Geog. v
shkole no.2:48-52 Nr-Ap '53. (MLBA 6:5)
(Geography, Economic--Maps) (Agriculture--Maps)

NIKISHOV, M. I., kandidat geograficheskikh nauk, redaktor; YAKIMOVA, M. A.,
otvetstvennyy redaktor; USMANOV, A. G., tekhnicheskiy redaktor

[Geographical atlas for classes 7 and 8 of the secondary school.
Union of Soviet Socialist Republics] Geograficheskii atlas dlia
7-go i 8-go klassov srednei shkoly. Soiuz Sovetskikh Sotsialisti-
cheskikh Respublik. Moskva, 1954. 76 p. (MLRA 7:8)

1. Russia (1923-- U.S.S.R.) Glavnoye upravleniye geodezii i
kartografii.
(Geography--Maps)

NIKISHOV, M. I.; ZASLAVSKIY, I. I.; LAPSHINA, R. M.; SOLOV'YEV, A. I., redaktor;
ROMAN'KOVA, L. M., redaktor; SHLENSKIY, I. A., tekhnicheskiy redaktor
[deceased]

[Workbook to be used with the geographic atlas of the U.S.S.R. for
classes 7 and 8 the secondary school] Posobie k rabote s geografii-
cheskim atlasom SSSR dlia 7 i 8 klassov srednei shkoly. Moskva,
Izd-vo geodezicheskoi lit-ry, 1954. 115 p. (MIRA 8:4)
(Atlases) (Geography--Study and teaching)

NIKISHOV, Maksim Ivanovich

[Azerbaijan SSR] Azerbaidzhanskaiia SSR. Moskva, 1955. 38 p.
(Azerbaijan) (MLRA 8:11)

NIKISHOV, M.I., kandidat geograficheskikh nauk; TEPILOVA, S.N., redaktor;
LIFSHTITS, N.I., tekhnicheskii redaktor; SIMONOVSKIY, A.Ya, tekhnicheskii redaktor.

[Geographical atlas of foreign countries; for class 9 of secondary schools] Geograficheskii atlas zarubezhnykh stran; dlia 9-go klassa srednei shkoly. Moskva, Glavnoe upravlenie geodesii i kartografii MVD SSSR, 1955. 79 p. (Atlases) (MLRA 9:5)

NIKISHOV, M.I., kand.geogr.nauk

A few improvements in editing work. Sbor.st.po kart.st.8 5-8 '56
(MIRA 10:12)

(Cartography)

KONDRAT'YEV, B.A.; LAPSHINA, T.M.; NIKISHOV, M.I.; SOLOV'YEV, A.I., redakter;
SHAMAROV, T.A., redakter; KUZ'MIN, G.M., tekhnicheskiy redakter.

[Work manual to accompany the atlas of foreign countries for secondary
schools] Posobie k rabote s geograficheskim atlasom zarubezhnykh stran
dlia srednei shkoly. Moskva, Izd-vo geodezicheskoi lit-ry, 1956. 54 p.
(Atlases) (MLRA 9:6)

NIKISHOV, Maksim Ivanovich; LYSYUK, V.N., red.; SHAMAROVA, T.A., red. izd-va;
ROMANOVA, V.V., tekhn. red.

[Agricultural maps and atlases] Sel'skokhoziaistvennye karty i
atlasy. Moskva, Izd-vo geodez. lit-ry, 1957. 182 p. (MIRA 11:7)
— — — [Supplement] 1957. 50 p. of maps.
(Agriculture—Maps)

НИКЕИТОВ № 1

PHASE I BOOK EXPLOITATION

278

Tsentral'nyy nauchno-issledovatel'skiy institut geodezii, aeros"yemki i kartografii.

Issledovaniya po kartografii (Research in Cartography) Moscow, Geodezizdat,
1957. 97 p. (Its: Trudy, vyp. 117) 1,700 copies printed.

SPONSORING

AGENCY: Glavnoye upravleniye geodezii i kartografii MVD SSR.

Ed.: Bashlavina, G. N.; Tech. Ed.: Romanova, V. V.; Ed. of Publishing
House: Shamarova, T. A.

PURPOSE: This collection of articles is intended to inform the general reader
and the specialist of the latest achievements in map making and to
suggest some new ideas and improvements.

COVERAGE: See Table of Contents

Card 1/7

Research in Cartography

278

The author makes numerous suggestions on how best to present an agricultural map and outlines 33 typical farm and animal husbandry regions, although the regions are not outlined with respect to any definite geographical areas. There are no diagrams or references.

Gurari, Ye. I., Candidate of Economic Sciences. Some Questions on the Presentation of Industries in Economic School Maps 21

The author discusses the difficulties connected with the presentation of any large concentration of industrial activities e.g. (The Ruhr, Lancashire, etc) in a small area without omitting some of the activities. The author suggests making two or more maps of the same area and illustrates this with the example of Łódź. He also suggests some symbols to be used for such a map; these symbols are shown on several maps drawn by the author, among them a general economic map of Moravia. The author believes that the lack of adequate information on potential industrial resources, such as the possibilities for power development or the existence of unexploited mineral wealth is one of the major defects of all present-day economic school maps. In his opinion potential industrial resources should be included in school maps on economic conditions in a given area. There are 7 maps and 1 Soviet reference.

Card 3/7

Research in Cartography

278

Kel'ner, Yu. G., Candidate of Geographical Sciences; Lozinova, V. M. Candidate of Technical Sciences; Naumova, A. I. Experiments in Making Composite Physicogeographic Maps of the USSR for Use in Schools of Higher Learning 39

The author emphasizes the importance for schools of higher learning, of composite landscape maps, i.e. maps showing all the topographic features of the given region. As an example, the author describes the map "Prirodnyye usloviya SSSR," scale 1:4,000,000, intended to show natural conditions of the country as a whole. This map was prepared in 1950-53 in the cartographic division of the Central Scientific Research Institute of Geodesy, Aerial Photography and Cartography. In 1943-47, the study and preparation of composite maps in the Institute of Geography of the Academy of Sciences was led by Gerasimov, I. P. and Lavrenko, Ye. M. Analytical landscape maps were also compiled by students of Moscow and Leningrad Universities. The author commends Ivanov, N. N. for introducing a better method of showing the amount of humidity in a given area by using different colors. The article contains suggestions on how to deal with various types of vegetation (e.g., coniferous forests) and with phenomena like drainage or evaporation in the preparation of a composite map. There are 18 drawings and 8 Soviet references.

Card 4/7

Research in Cartography

278

Karpov, N. S., Candidate of Technical Sciences. Contemporary Foreign School
Atlases

57

The article surveys a number of atlases published outside of the Soviet Union. It does not, however, discuss each individual atlas. The article is divided into chapters, each dealing with one particular aspect of atlas making, such as the utilization of space, the gazetteer, the projections and scales, the system used in compiling the atlas illustrations, etc. There are 29 titles of foreign atlases, of which one half refer to the Soviet satellites and China. There are no diagrams. The article praises foreign atlases for presentation and for richness of pictorial material.

Card 5/7

Research in Cartography

278

Kopylova, A. D. On Possibilities of Using Colored Hachures in Printing
Map Backgrounds

79

The article refers to the research on the above subject done by Sadchikov, S.F. in the division of cartographic printing at the Central Institute of Geodesy, Aerial Photography and Cartography. As an illustration of what is considered general practice, the author mentions the hatching of ocean depths in various degrees of blue. The article surveys the experience gained in the field of optimal utilization of colors in dotting and hatching map backgrounds and makes a number of suggestions on how to draw hatch lines. The author recommends using three and never more than four colors for such drawings. He also prescribes exact specifications for the thickness of the hatch lines, for the type of print used over the hatching, etc. There are 1 table of 15 maps and 3 tables with specifications. No references are listed.

Card 6/7

273

Research in Cartography

Bashlavina, G. N., Myshetskaya, Ye. N., Candidates of Technical Sciences
On Further Improvement of School Atlases in Accordance with the Change
in the Geography Curriculum

87

The authors analyze the content of school atlases for the 4th, 5th, 6th, and 7th grades and suggest a number of improvements in presenting the material. In addition, the authors urge, pursuant to the recent changes in the geography curriculum, the inclusion in future atlases of maps bearing on the new topics of interest, such as map reading, topography, regional geography, etc. Special emphasis is laid on the study of the particular oblast in which the school happens to be located. There are no references.

AVAILABLE: Library of Congress: (QB275.M64)

GC/GMP
May 26, 1958

Card 7/7

NIKISHOV, M.I., kandidat geograficheskikh nauk.

~~Agricultural~~ atlas of the U.S.S.R. Geod. i kart. no.3:60-65 Mr '57.
(Russia--Maps) (MLRA 10:8)
(Geography, Economic--Maps)

NIKISHOV, M.I.

NIKISHOV, M.I., kand. geogr. nauk. . -

Developments in compiling complex agricultural maps of the U.S.S.R.
Trudy TSNIIOAIIK no.117:3-20 '57. (MIRA 10:12)
(Agriculture--Maps)

AUTHOR: Nikishov, M. I. Candidate of Geographical Sciences ~~SSV/6-52-1-1/70~~

TITLE: The Publication of an Agricultural Atlas of the USSR - An Important Task for Soviet Cartography (Izdatiye Atlasa sel'skogo khozyaystva SSSR - vazhnaya zadacha sovetskoy kartoografi.)

PERIODICAL: Geodeziya i kartografiya, 1956, Nr 6, pp. 3-7 (USSR)

ABSTRACT: This atlas is one of the most voluminous works published by the Central Office of Geodesy and Surveying. In this atlas the distribution of the individual branches and types of cultivations of agriculture in the entire USSR, in the individual Union Republics and in the economic districts is shown for the first time. The agricultural maps of the Great Soviet Atlas of 1937 are highly obsolete. The Council of Editors for the atlas consists of: President - Director of the All Union Scientific Research Institute for Economics of Agriculture A. I. Tulupnikov (Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva); members: the Members of the Academy of Sciences, USSR, I. P. Gerasimov, S. G. Kolesnev, V. A. Shelikovskiy, and I. S. Varuntsyan; the Doctors of Sciences: I. A. Minkevich, F. F. Davitaya, I. A. Borein, V. A. Solov'yev, P. I. Kolesnikov, Yu. G. Saushkin, A. I. Preobrazhenskiy; the Candidates of

Card 1/4

The Publication of an Agricultural Atlas of the USSR - SOV/6-58-6-1/21
An Important Task for Soviet Cartography

Sciences: A. N. Rukhovich, P. A. Letinov, V. I. Savrilov, and V. B. Zhmuyda; the representatives of the Ministry of Agriculture of the USSR and of the RSFSR (Ministerstvo sel'skogo khozyaystva SSSR and Ministerstvo sel'skogo khozyaystva RSFSR). R. V. Kartashov, G. I. Mikheylov, P. Ya. Usikov and others. At present the project concerning the atlas is worked out. It was approved by the Council of Editors and by the Central Office of Geodesy and Surveying. Numerous remarks coming from the following institutions were taken into account in the projecting: The Ministries of Agriculture of the USSR and of the Union Republics, the All-Union Academy of Agricultural Sciences ineni V. I. Lenin, AS USSR (Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk SSSR). (Institutes of Economics, Geography, Soil Science and the Council for the Study of **Productive Forces**, the Academy for Agriculture ineni K. A. Timiryazev, (Sel'skokhozyaystvennaya Akademiya ineni K. A. Timiryazeva) the All-Union Institute of Botany, the All Union Institute of Animal Breeding, the All-Union Institute of Agricultural Engineering, Fertilizers and Agricultural Soil Science, the All-Union Agricultural Exhibition

Card 2/4

The Publication of an Agricultural Atlas of the USSR - An Important Task for Soviet Cartography

the Central Office of the Hydro-Meteorological Service, the Moscow Institute of Landscaping, the Institute of Geography of the Academy of Sciences, Aerial Photography and Cartography, the Central Institute of Forests, the All-Union Scientific Center of the Institute of Agricultural Economics, the Moscow State University. The atlas has 300 pages (16 x 23cm) with 300 maps. Section I: Maps showing the Political Administration, the density of population and the distribution of peoples in the USSR. Section II: Maps concerning soil flora, climate. Section III: Maps showing the USSR to be the country with the largest agriculture, which is mechanized to the greatest degree. Section IV and V: Maps showing the distribution of arable land, the utilization of fertilizers, cultivation of fallow ground, fallow ground, irrigation and drainage, distribution of soil material in the types of cultures and cattle population. A great part of the atlas contains agricultural data in the last section prospects of further development agriculture. The atlas gives a survey of the great changes undergone by agriculture during the last 40 years. About 20% of the atlas is intended as an attachment containing photographs. This atlas will

Card 3/4

The Publication of an Agricultural Atlas of the USSR - An Important Task for Soviet Cartography

is superior to all other Soviet Atlases and represents a great progress in the development of Soviet Cartography. Mapping began in 1950. The atlas is to be published in 1970. In connection with this a number of important cartographic mapping are explained.

1. Agriculture
2. Mapping--Applications
3. Soils
4. Climate
5. Irrigation systems
6. Drainage

Card 4/4

NIKISHOV, M. I., kand. geograf. nauk

Method of compiling provincial agricultural maps. Spor. st. p. 10-11.
no. 10:3-17 '58. (MIRA 11:11)

(Agriculture--Maps)

SCY/IC-59-4-30/20

AUTHOR: Nikishov, M.I.
TITLE: Agricultural Atlas of the Ukrainskaya SSR
PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya, 1958, Nr 4, pp 140-142 (USSR)
ABSTRACT: This is a review of the above-mentioned atlas published by the **Kyiv** State University, in 1958.

Card 1/1

NIKISHOV, M.; CHERDANTSEV, G.N.[deceased], red.; SHAMAROVA, T.A., red.izd-va;
ROMANOVA, V.V., tekhn.red.

[Compilation and editing of agricultural maps and atlases] Sostavlenie
i redaktirovanie sel'skokhoziaistvennykh kart i atlasov. Moskva, Izd-vo
geodez.lit-ry., 1959. 271 p. (Moscow, Tsentral'nyi nauchno-issledo-
vatel'skii institut geodezii, aeros'emki i kartografii. Trudy, no.
130). (HIRA 13:10)

(Agriculture--Maps)

SUKHOV, V.I., prof., doktor tekhn. nauk; YUROVSKIY, Ya.I., dots.,
kand. tekhn. nauk; LIODT, G.N., prof., doktor geogr. nauk;
~~NIKISHOV, M.I., starshiy nauchnyy sotr., doktor tekhn. nauk;~~
BYKOVA, M.G., red.; DEYEVA, V.M., tekhn. red.

[Making agricultural maps] Sostavlenie sel'skokhozyaystvennykh
kart. Izd.2., perer. Moskva, Izd-vo sel'khoz. lit-ry, zhurna-
lov i plakatov, 1961. 310 p. (MIRA 15:2)
(Agriculture—Maps)

NIKISHOV, M.I.

Letter to the editors. Izv. AN SSSR. Ser. geog. no. 4:174
Jl-Ag '61. (MIRA 14:7)
(Climatology--Charts, diagrams, etc.)

NIKISHOV, M.I.

Agricultural maps in republican, territorial, and provincial
atlases. Geod. i kart, no.9:41-45 S 1961. (MIRA 14:9.
(Agriculture--Maps)

NIKISHOV, M. I.

Maps representing different branches of agriculture and stock
breeding. Sbor.st.po kart. no.12:46-66 6l. (MIRA 15.4)
(Agriculture--Maps)

NIKISHOV, M.I.

Agricultural maps of the republics of the Union and economic
regions of the R.S.F.S.R. Sbor.st.pokart. no.12:67 76 '61.
(MIRA 15:4)

(Agriculture--Maps)

BONDARCHUK, V.G., akademik, otv. red.; KOROLEVA, M.A., glav. red.;
KOCHUBEY, A.D., red.; RADUL, M.M., kand. geogr. nauk, red.;
BILYK, G.I., kand. biol. nauk, red.; GEYDEMAN, T.S., kand.
biol. nauk, red.; ZAMORIY, F.K., doktor geol.-min. nauk, prof.,
red.; KUCUKALO, I.A., kand. ekon. nauk, starshiy nauchnyy stor.,
red.; MARINICH, A.M., dotsent, red.; MUKOMEL', I.F., kand. geogr.
nauk, starshiy nauchnyy sotr., red.; PRIKHOT'KO, G.F., kand.
geogr. nauk, red.; ROMANENKO, I.N., akademik, red.; TAL'NOVA,
N.N., red.; BYUSHGENS, L.M., kand. geogr. nauk, retsenzent;
DIDKOVSKIY, I.Ya., kand. geol.-miner. nauk, retsenzent;
KEL'NER, Yu.G., kand. geogr. nauk, retsenzent; NADEZHIN, P.F.,
retsenzent; NIKISHOV, M.I., doktor tekhn. nauk, retsenzent;
PIDPLICHKO, I.G., retsenzent; KURDINA, O.P., red.-kartograf;
RACHINSKAYA, Z.P., red.-kartograf; SLEPTSOVA, L.M., redaktor-
kartograf.

[Atlas of the Ukrainian S.S.R. and the Moldavian S.S.R.] Atlas
Ukrainskoi SSR i Moldavskoi SSR. Moskva, 1962. vi p. 90 p.
of col.maps. (MIRA 15:5)

(Continued on next card)

BONDARCHUK, V.G.--- (continued) Card 2.

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i kartografii. 2. Akademiya nauk USSR, direktor Instituta geologicheskikh nauk Akademii nauk USSR (for Bondarchuk). 3. Nachal'nik kartosostavitel'skogo tsekha fabriki No.1 (for Koroleva). 4. Zamestitel' predsedatelya Gosudarstvennogo planovogo komiteta Soveta Ministrov USSR (for Kochubey). 5. Direktor Instituta ekonomiki Akademii nauk Moldavskoy SSR (for Radul). 6. Zamestitel' direktora po nauchnoy rabote Instituta botaniki Akademii nauk USSR (for Bilyk). 7. Direktor Botanicheskogo sada Akademii nauk Moldavskoy SSR (for Geydeman). 8. Zaveduyushchiy kafedroy geomorfologii Kiyevskogo gosudarstvennogo universiteta (for Zamoriy). 9. Institut ekonomiki Akademii nauk USSR (for Kugukalo). 10. Zaveduyushchiy kafedroy fizicheskoy geografii Kievskogo gosudarstvennogo universiteta (for Marinich). 11. Ukrainskiy nauchno-issledovatel'skiy institut ekonomiki i organizatsii sel'skogo khozyaystva (for Mukomel'). 12. Direktor Ukrainskogo nauchno-issledovatel'skogo gidrometeorologicheskogo instituta (for Prikhot'ko).

(Continued on next card)

BONDARCHUK, V.G.---(continued) Card 3.

13. Direktor Ukrainского nauchno-issledovatel'skogo instituta ekonomiki i organizatsii sel'skogo khozyaystva, Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Romanenko). 14. Direktor fabriki No.1 (for Tal'nova). 15. Chlen-korrespondent Akademii nauk USSR (for Pidoplichko).

(Ukraine--Maps)

(Moldavia--Maps)

NIKISHOV, M.I.

Cartography at the service of the chemicalization and intensification of agriculture. Geod. i kart. no.4:3-6 Ap '64.
(MIRA 17:8)


MEMORANDUM FOR THE DIRECTOR

Subject: [Illegible]

NIKISHOV, M.I.

Some problems of economic cartography in the light of the
decisions of the 22d Congress of the CPSU. Geod.1 kart.
no.6:3-8 Je '62. (MIRA 15:8)

(Cartography)

BYUSHGENS, L.M.; GRYUNBERG, N.V.; NIKISHOV, M.I.; YANVAREVA, 

Compiling complete regional atlases; on the publication of
the atlas of the Armenian S.S.R. Geod. i kart. no.11:57-63
N '62. (MIRA 15:12)

(Armenia--Maps)

NIKISHOV, M.I.

Methodology of preparing agricultural atlases for the various provinces. Geod. i kart. no.11:53-57 N '63. (MIRA 17:1)

NIKISHOV, M.I.

New book on economic cartography. Geod. i kart. no.2:69-73
F '64. (MIRA 17:3)

NIKISHOV, M.I.

Concerning V.A. Lartin's book "Scientific and technical geo-
graphic map projection." Geod. i kart. no. 5:69-71 My '64.
(MIRA 17:8)

GRYUNBERG, N.V.; KARIY, N.S.; NIKISHOV, M.I.; YAKOVLEV, V.V.; ...

[Contents and methods of making the economic maps of foreign countries for scientific reference atlases.] *Soderzhanie i metody sostavlenia ekonomicheskikh kart zarubezhnykh stran v nauchno-spravochnykh atlasakh.* Moskva, Izd-vo "Nedra." Pt. 1. 1964. 122p. (Moscow. Tsentral'nyi nauchno-issledovatel'skii institut geologii, aerofotemki i Fotografii. Trudy, n. 1.)

L 32641-66 EWT(1) JXI(CZ)/GW

ACC NR: AP6016922

(A)

SOURCE CODE: UR/0006/66/000/005/0073/0076

AUTHORS: Kel'ner, Yu. G.; Nikishov, M. I.

23

ORG: none

B

TITLE: The second scientific and technical conference on cartography held in Leningrad from 26 to 29 January 1966

12

SOURCE: Geodeziya i kartografiya, no. 5, 1966, 73-76

TOPIC TAGS: cartography, geographic conference, industrial development, economic geography

ABSTRACT: The second scientific and technical conference on cartography was called by the Geographical Society of the SSSR (Geograficheskiy obshchestvo SSSR) in Leningrad on Jan. 26-29, 1966. More than 300 individuals participated, from all parts of the Soviet Union, representing many different universities, institutes, societies, and other organizations, and covering many different fields of related study: geodesy, geology, hydrology, geophysics, geography, and botany. Seventy reports by individuals from 30 different organizations were given: 20 at a plenary session, 17 at a symposium on Maps of Natural Conditions and Natural Resources, 16 at a symposium on Socio-geographic Maps, and 17 at a joint meeting of the two symposia. Four basic problems received most attention at the conference: 1) organization of thematic mapping, 2) mapping natural features and natural resources,

Card 1/2

NIKISHOV, M. N.

USSR/Scientists - Economic geography

Card 1/1 Pub. 45 - 13/15

Authors : Cherdantsev, G. H., and Nikishov, M. N.

Title : Economic cartography

Periodical : Izv. AN SSSR. Ser. geog. 5. 90 - 92. Sep - Oct 1954

Abstract : A review is made of the book, "Economic Cartography," by A. I. Preobrazhenskiy, published by the State Textbook Publishing Office of the Ministry of Education of the RSFSR, in 1953, and containing 202 pages. The fact that the book does not show the breakdown of the principles for construction of specific types of economic maps is considered a defect, but in general the book is rated good.

Institution:

Submitted:

NIKISHOV, N. I.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Nikishov, M. I. Zaslavskiy, I. I. Tarasov, A. P. Yakimova, M. A. Lapsnina, G. M. Davydov, V. I.	"Geographical Atlas of the USSR" (for the 7th and 8th grades of secondary schools	Central Scientific Research Institute of Geodesy, Aerial Photography and Cartography

80: W-30604, 7 July 1954

NIKISHOV, V.G., inzh. (g.Kagan)

Let's carry out preparatory operations ahead of time. Stroi.
truboprov. 5 no.10:2'-24 0'60. (MIRA 15:10)
(Pipelines)

NIKISHOVA, F. B.

USSR/Solid State Physics - Systems, E-4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34667

Author: Galaktionova, N. A., Nikishova, F. B.

Institution: None

Title: Effect of Titanium on the Structure of Iron-Cobalt-Aluminum Alloys

Original Periodical: Fiz. metallov i metallovedeniye, 1955, 1, No 3, 506-509

Abstract: An investigation was made of the structure of the alnico-5 type alloys with addition of Ti (0.8 - 5%) after hardening (cooling from a temperature of 1,300° in a magnetic field at the critical speed), in high-coercive state, and after tempering for an hour at 850°. The investigation methods used were metallography, electron diffraction, X-rays, dilatometry, and the change in the magnetic properties. The added Ti contributes to a breakdown of the β_{12} phase, increases the amount of the iron-rich β phase, and lowers the degree of dispersion of the latter. In the absence of Ti, specimens in the high-coercivity state display a broadening of the lines in the X-ray diffraction patterns. In the 5% Ti alloy one observes a resolution of the doublet, a considerable increase in the period of the β phase lattice, and no change in the lattice period of the β_2 phase. A treatment of the obtained experimental results is given.

1 of 1

- 1 -

SOTNIKOV, V.S.; BELANOVSKIY, A.S.; NIKISHOVA, F.B.

Adsorption of ions of certain metals from water during silicon washing. Part 4. Radiokhimiia 4 no.6:725-731 '62.

(MIRA 16:1)

(Metals)

(Silicon)

(Adsorption)

NIKISHOVA, G. D.

"Interference Spectroscopy by Means of Fizeaux Bands. Cand Phys-Math Sci,
Khar'kov State U, Min Higher Education, Khar'kov, 1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)

SO: Sum. No. 556, 24 Jun 55

USSR/Fitting Out of Laboratories - Instruments, Their Theory, Construction, and Use, H

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61950

Author: Sinel'nikov, K. D., Nikishova, G. D.

Institution: None

Title: Use of Wedge Interferometer as an Interference Monochromator

Original

Periodical: Uch. zap. Khar'kovsk. un-ta, 1955, 64, 125-126

Abstract: Description of a method of utilizing a wedge interferometer with multiple layer dielectric coatings for the segregation of individual components of ultrafine structure of complex spectrum lines. Individual components are segregated by slits formed by foil strips which are cemented to the wedge of the interferometer. The low illuminating power of a wedge interferometer renders this method suitable for use with sources of high luminosity.

Card 1/1

NIKISHOVA G.D.

K-5

Category : USSR/Optics - Physical Optics

Abs Jour . Ref Zhur - Fizika, No 2, 1957, No 4931

Author Sinel'nikov, K.D . Nikishova, G.D.

Title Use of the Wedge Interferometer as an Interferometric Monochromator.

Orig Pub : U. zap. Khar'kovsk. un-t. 1955, 64, 125-126

Abstract : It is proposed to employ a wedge interferometer with a multi-layer dielectric coating to separate the components of the hyperfine structure. A mask with narrow slits that separate the necessary components in the different orders is placed over the wedge interferometer. The mask for the visible region can be made out of foil. The work requires preliminary monochromatization and a strong source of light.

Card : 1/1

KRASOVITSKIY, B.M.; MATSKEVICH, R.M.; NIKISHOVA, T.M.

Relationship between the structure and certain properties of
azo dyes containing amide groups. Dokl.AN SSSR 108 no.1:91-94
Ky '56. (MLRA 9:8)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gor'kogo.
Predstavleno akademikom A.V. Topchiyevym.
(Azo dyes)

NIKISHOVA, T. M.

Chem Relation between the structure and properties of azo
dyes containing amide groups. B. M. Kuzovitskii, R. M.
Mutskevich, and T. M. Nikishova. *Proc. Acad. Sci.
U.S.S.R., Ser. Chem.* 108, 215-17(1956) (English transla-
tion). — See *C.A.* 50, 14231c. B. M. B.

S/032/63/029/003/011/020
B112/B186

AUTHORS: Granovskiy, Yu. V., ~~Nikishova, V. V.~~, Adler, Yu. P.,
Nalimov, V. V., and Komissarova, L. N.

TITLE: Sifting experiments for investigating the extraction of
zirconium from tributylphosphate

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 3, 1963, 321 - 326

TEXT: Those influences which predominatingly affect the process of extraction of zirconium from tributylphosphate are selected by the method of random balance. The following variables are codified: concentration of the metal (A), concentration of the acid (B), concentration of the reagent (C), volume of the restricted phase (D), extraction time (τ), revolution velocity of the mixers during extraction (F), volume of the re-extractant (G), number of re-extractions (H), re-extraction time (I), revolution velocity of the mixers during re-extraction (J), time of phase separation after extraction (K), time of phase separation after re-extraction (L). The results of the experiments are represented in the dispersion diagram (Fig. 1). The selection of the predominating effects A, B, C, AB, BC, and CD was obtained under conditions at which 78 effects (12 linear and 66 pair Card 1/2

S/032/63/029/003/011/020
B112/B186

Sifting experiments for...

interactions) could be of importance. There are 6 figures and 5 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet i Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redko-metallicheskoj promyshlennosti (Moscow State University and State Scientific Research and Planning Institute of Rare-Metal Industry)

Card 2/2

NIRINDE, T. N., VOLKOVICH, V. T., and VIKHAR, L. V.

"Stretching films of polymer. I. potential infrared light," *Journal of Research Natl. Acad. Sci.* Paper presented at the 5th Congress of the Chemistry and Physics of High Polymers, 2nd Jan-2 Feb 57, Moscow, 3-3.004, 305.

NIKITAN, Ya. A.

191T70

USSR/Hydrology - Alluvium

Oct 51

"Determining the Discharge of Bottom Alluvium in Middle Asian Rivers," Ya. A. Nikitin, Engr

"Gidrotekh i Meliorat" Vol III, No 10, pp 54-57

Subject is important in the design and use of dams, particularly across mountain rivers. Nikitin tabulates coeff of discharge of alluvium and presents data for many Asiatic rivers.

191T70

NIKITAN, Yu.P.; SHABALIN, Ye.P.

A process opposite to the $\pi \rightarrow \mu + \gamma$ decay in a Coulomb nuclear field.
Zhur. eksp. i teor. fiz. 43 no.3:1119-1120 '62. (MIRA 15:10)
(Mesons) (Neutrinos) (Nuclear reactions)

GABRIYELOVA, M.G.; SEMENOV, A.N.; PARYLIS, S. Ya.; NIKITIN, V.G.

Separation of fluorine in the production of double superphosphates.
Khim. prom. 41 no. 12:924-925 D '65 (MIRA 19.1)

L 2355-66

ACCESSION NR: AP5021792

UR/0340/65/000/008/0010/0011

AUTHOR: Nikitayev, A. (Engineer)

TITLE: The airpurifier of a tractor must be in good condition

SOURCE: Sel'skiy mekhanizator, no. 8, 1965, 10-11

TOPIC TAGS: tractor, towing vehicle

ABSTRACT: The author states that the DT-75 and T-74 tractors have complicated airpurifiers and enumerates the various reasons which cause the latter to malfunction. He recommends very careful maintenance, including a thorough checkup after each 60 hours of operation and a complete overhaul following 240 hours of operation. He concludes by saying that if the surrounding temperature exceeds +40°, the addition of 10-15% (by volume) of US-2 lubricating grease into the oil will moisten the cartridge. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: 00

NO REF SOV: 000

OTHER: 000

PC
Card 1/1

1 44769-66 EMT(d)/EMT(m)/EMT(l)/EMT(t)/ETI/ETP(l) JD/JW/...
ACC NR: AP6031407 SOURCE CODE: UR/0064/66/000/009/0063/0064

AUTHOR: Gabrielova, M. G.; Semenov, A. N.; Nikitash, V. G.

ORG: none

TITLE: A new method for defluorination of phosphoric acid

SOURCE: Khimicheskaya promyshlennost', no. 9, 1966, 63-64

TOPIC TAGS: phosphoric acid, defluorination, sodium fluosilicate

ABSTRACT: A new method for defluorination of raw phosphoric acid has been introduced at the Krasnoural'sk Copper Combine. The method differs from the conventional removal of volatile fluorine compounds which involves evaporation at the acid concentration stage by the precipitation of sodium fluosilicate with soda-sodium sulfate solution prior to the concentration operation. The soda-sodium sulfate solution (which also contains Al_2O_3 , Fe_2O_3 , $NaCl$, SiO_2 , etc.) is obtained as a by-product in the manufacture of aluminum and contains approximately 7% Na_2CO_3 and approximately 15% Na_2SO_4 . Stoichiometric quantities of this solution are added to the raw phosphoric acid at 60-65C. The precipitated Na_2SiF_6 is separated by settling and filtering or centrifuging. The sediment is washed twice with water; the washing liquids are recirculated by adding them to the defluorinated acid (wash I) and to the soda-sulfate solution (wash II). The precipitation removes 75-80% of total fluorine from the raw acid; the residual fluorine content depends on the solubility of Na_2SiF_6 in the given

Card 1/2

UDC: 66/067.661.634.2-963.546.16

L 44769-66

ACC NR: AP6031407

raw acid batch (23.7—25% ²⁷P₂O₅). The Na₂SiF₆ ²⁷obtained is used in the glass and cement ⁴industry. Compared with the conventional defluorination by evaporation, the method described has the following advantages: simpler equipment and a simpler flow-sheet, lower fluorine content in the vapors of the concentration state, lower corrosiveness and better hygienic conditions. ¹⁴ [BN]

SUB CODE: 07, 11/ SUBM DATE: none/ ATD PRESS: 5079

Card 2/2 ULP

SOV/137-58-10-21658

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 173 (USSR)

AUTHORS: Livanov, V.A., Shilova, Ye.I., Golokhmatova, T.N.,
Nikitayeva, O.G.

TITLE: Methods of Hardening Aluminum Alloys Intended for Operation
at Elevated Temperatures (Puti uprochneniya alyuminiyevykh
splavov dlya raboty pri povyshennykh temperaturakh)

PERIODICAL: V sb.: Legkiye splavy. Nr 1. Moscow, 1958, pp 88-122

ABSTRACT: Investigations were performed in order to determine the
effect of various degrees of cold hardening, as well as of con-
ditions of artificial aging (AA), on the mechanical properties
of sheets of D16 alloy (A) at room temperature and at elevated
temperatures. The initial material consisted of hot-rolled
sheets of the D16 A which had been tempered only, or were
tempered and subjected to natural aging for a period of five
days; the sheets of the A were work-hardened by means of rol-
ling with reductions equivalent to 5, 10, 15, 20, 25, and 30%.
AA of work-hardened sheets, as well as sheets which have not
been so treated, was accomplished at temperatures of 150,
170, 190, and 200°C, the soaking time being 6, 8, 10, and 12

Card 1/2

SOV/137-58-10-21658

Methods of Hardening Aluminum Alloys (cont.)

hours, respectively. Optimal AA conditions, established on the basis of studies of properties of the A's at room temperature, were maintained during tests at elevated temperatures. The laws governing the changes occurring in the properties of the A relative to the temperature of AA are identical both at room temperature and at elevated temperatures. Specimens which have been aged at 170-180° possess maximal values of σ_s and σ_b , but exhibit very low values of δ . At lower temperatures of AA (130-150°), the strength characteristics of the A's are somewhat impaired, but the δ values are increased. Conducting the AA at a temperature of 190-200° results in a lowering of all mechanical properties of the A. It has been established that the strength of tempered and naturally aged D16 A is favorably affected by work hardening at temperatures of 100-200°. Work hardening (5-20% reduction) increases the σ_b of sheets of the D16 A by as much as 10-15% at a temperature of 100° and by 13-18% at a temperature of 150°. Optimal conditions for processing of sheets of D16 consist of tempering operations and work hardening by means of rolling with reductions of 5-20% followed by AA (130-150° for 10-20 hours). Problems on the nature of hardening of an A by means of mechanical working of it after the operations of tempering and prior to the process of AA are discussed in Aluminum alloys--Hardening Card 2/2 1. Aluminum alloys--Temperature factors E.K.

S/137/62/000/005/104/150
A006/A101

18.210/20.8.

AUTHORS: Nikitayeva, O. G., Kutaytseva, Ye. I., Romanova, O. A., Karpovich,
Yu. M., Kondrat'yeva, N. B.

TITLE: The effect of aluminum purity on the mechanical properties and
heat-resistance of aluminum alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 71, abstract 51432
(V sb. "Deformiruyemye alyumin. splavy", Moscow, Oborongiz, 1961,
30 - 43)

TEXT: The authors studied the effect of Fe and Si admixtures upon the pro-
perties of deformed Al-alloys at room and higher temperatures. For the prepara-
tion of grade 16, 19, AK4 -1 (AKCh-1), D 20 (D20), D 21 (D21), B 95 (V95) and
AMr 6 (AMg6) alloys, three Al grades were used, namely: Al A00, and AB000
(AV000); Mg- and Zn-metal, and addition-alloys Al-Cu, Al-Mn, Al-Ti, Al-Ni, Al-Fe.
The strength of pressed rods made of D16 and D19 alloys increases somewhat at
room temperature with a higher purity of the initial Al. The mechanical proper-
ties of forgings in short-lasting tension of D20 and D21 alloys, do practically

Card 1/2

S/137/62/000/005/104/150
A006/A101

The effect of aluminum purity on...

not depend on the initial aluminum grade. The strength of AKCh-1 alloy forgings decreases with higher Al purity. The endurance strength of semi-products of all alloys decreases with a higher purity of the initial Al. A decrease in contamination of V95 and V96 alloys reduces somewhat the number of cycles until the breakdown in repeated static-loading tests. It is not expedient to use high-purity Al (AV000) to raise the heat-resistance of sheets and forgings made of Al alloys at 200°C.

T. Rumyantseva

[Abstracter's note: Complete translation]

Card 2/2

37741

S/137/62/000/005/107/150
A006/A101

18.1210 (2011)

AUTHORS: Shilova, Ye. I., Nikitayeva, O. G.

TITLE: The effect of plastic deformation on processes of softening
Duralumin-type alloy Д 19 (D19) during heating in a temperature
range of 175 - 300°C

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 72, abstract 51436
(V sb. "Deformiruyemye alyumin. splavy", Moscow, Oborongiz, 1961,
124 - 130)

TEXT: Studies were made of the nature of structural changes which take
place under the effect of plastic deformation in a solid-solution type D19 alloy
containing in %: Cu 3.88, Mg 1.88, Mn 0.7, Fe 0.3, Si 0.25, produced under
industrial conditions. To obtain coarse grains the sheets prior to quenching
were annealed under the following conditions: heating at 380 - 400°C for 4.5
hours, cooling at a rate of 50 degrees/hour down to 250°C; subsequent air cool-
ing. The sheets were then heated in a saltpeter bath at 512 - 513°C for 15
minutes and water-quenched. Plastic deformation of the alloys in quenched and
aged state causes 2 types of structural changes which affect in a different manner

Card 1/2

20265

11710A

S/180/61/000/002/003/012
E073/E535

AUTHORS: Shilova, Ye. I. and Nikitayeva, O.G. (Moscow)

TITLE: Influence of Small Degrees of Plastic Deformation on the Properties of the Aluminium Alloy Д16 (D16) with Various Grain Sizes

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1961, No.2, pp.68-71

TEXT: Deformed aluminium alloys which are hardened by heat treatment (quenching followed by natural or artificial ageing) become considerably softer on heating in the temperature range 200 to 250°C. The degree of softening depends on the composition and also on the structure. In this temperature range Al-Zn-Mg-Cu alloys show the highest degree of softening, whilst alloys of the system Al-Cu-Mg show the least softening. Slight degrees of deformation in the cold state and a coarse grain structure have a positive influence on strength and the authors of this paper studied the simultaneous influence of these two factors. The investigations were made on sheets of the aluminium alloy D16 (4.6% Cu, 1.38 % Mg, 0.6% Mn, 0.35% Fe and 0.25% Si) from normal

Card 1/6

20265

Influence of Small Degrees ...

S/180/61/000/002/003/012

E073/E535

production batches. After cold rolling to 2 mm, a part of the specimens were annealed for 4.5 hours at 380 to 400°C, cooled with a speed of 50°C/hour to 250°C and then in air. Directly after rolling and after annealing, all the sheets were hardened by heating in a saltpetre bath for 15 min at 500°C, followed by quenching in water. After quenching, the sheets were straightened. All the sheets, including some which had not been straightened, were then tested at room temperature after artificial ageing for 30 days and also at 200, 250 and 300°C. Furthermore, the time to failure at loads of 20, 10 and 4 kg/mm², respectively, was determined at 200, 250 and 300°C. Sheets hardened from the cold rolled state differed from those hardened from the annealed state only by the grain size, which was approximately four times smaller for the first than for the second state. Slight deformation of both sheets ($\epsilon = 1$ to 3%), after hardening, increases the strength by 1 to 1.5 kg/mm², the yield point by 2 kg/mm² and reduces the relative elongation by 2 to 3 units. For the hardened material, the deformation during straightening has a considerably greater influence on the mechanical properties at elevated temperatures

Card 2/6

20265

Influence of Small Degrees ...

S/180/61/000/002/003/012
E073/E535

than it has at room temperature, thereby this influence is greatly affected by the original grain size of the material. Fig.2 shows the influence of the degree of deformation, ϵ , %, during straightening of sheets quenched from the cold rolled state (continuous lines) and annealed state (dashed lines) on the strength, σ_b , kg/mm^2 at 200, 250 and 300°C for degrees of deformation: 1 - 0%, 2 - 1%, 3 - 2%. Small degrees of deformation have a very positive influence on the long run strength of coarse grain material; considerable differences were encountered between the behaviour of fine grained and coarse grained materials at various temperatures. Fig.3 shows the influence of the degree of deformation, ϵ , %, during straightening of sheets quenched from the cold rolled (continuous line curves) and the annealed (dashed line curves) states on the long run strength at 200, 250 and 300°C and the stresses 20, 10 and 4 kg/mm^2 , respectively. τ , hours is the time to failure of the specimens. The following conclusions are arrived at: in the temperature range in which hardening phases are rejected from the solid solution the loss in hardness is small (200-250°C for the alloy D16). The strength characteristics in short duration and particularly in long

Card 3/6

20265

Influence of Small Degrees ...

S/180/61/000/002/003/012
E073/E535

duration runs can be considerably increased by applying coarse grained material with grain sizes of the order of $400 \mu^2$, which, after quenching, has been straightened by straightening rolls or by stretching with a degree of reduction of 1 to 2%. At temperatures above 270°C coarse grained material which has not been subjected to deformation possesses the highest strength. Coarsening of the grain in cold deformed semifinished products can be produced by quenching from the annealed state. Differing grain sizes can be obtained by controlling the annealing temperature, the heating speed and also the degree of deformation in the cold state prior to annealing or quenching. The strength increase obtained for the Al alloy D16 by means of slight deformation of coarse grained material after quenching, can also be applied for other aluminium alloys. There are 3 figures, 1 table and 15 references: 11 Soviet and 4 non-Soviet.

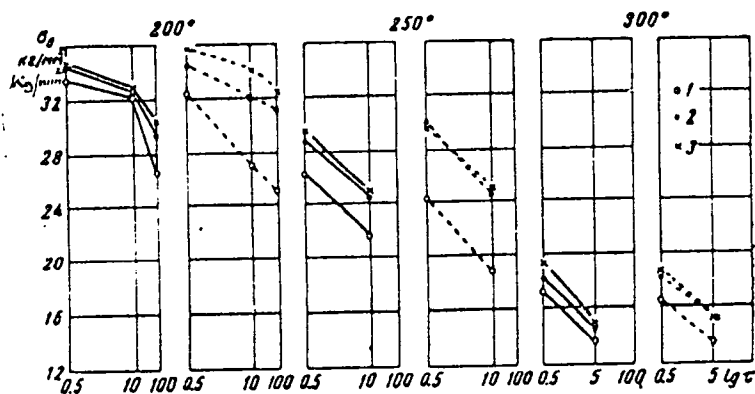
SUBMITTED: September 6, 1960

Card 4/6

Influence of Small Degrees ...

20265
S/180/61/000/002/003/012
E073/E535

Fig.2



Card 5/6

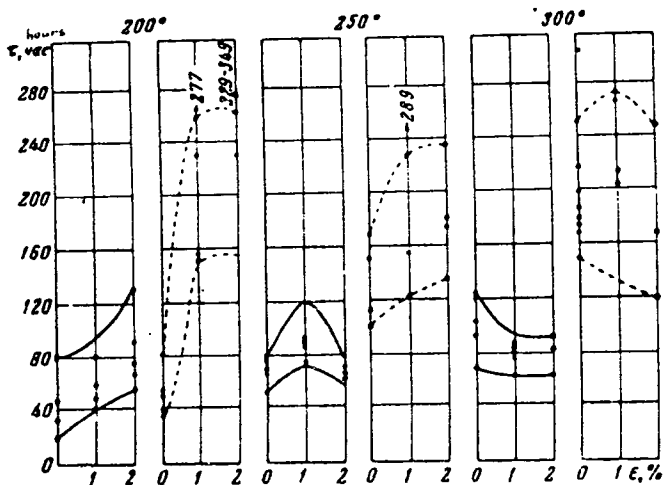
20265

Influence of Small Degrees ...

S/180/61/000/002/003/012
E073/E535

X

Fig.3



Card 6/6

S/806/62/000/003/006/018

AUTHORS: Shilova, Ye. I., Nikitayeva, O. G.

TITLE: On the "recovery" phenomenon in the aging of Duralumin-type alloys.

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Issledovaniye splavov tsvetnykh metallov. no.3. 1962, 61-67.

TEXT: The paper describes experimental evidence on the appearance of the "recovery" phenomenon, i.e., a lowering of the hardness and strength of a naturally-aged Duralumin-type material upon short-term heating to 200-300°C to the values first observed directly after quenching, a lowering which upon subsequent aging is recovered again. It is postulated that the "recovery" state of Duralumin is not structurally identical with the freshly-quenched state. D16 (D16) and D19 (D19) sheet material (compositions listed) were tested in two states: (I) quenched, 2%-straightened, and cold-rolled; (II) tempered and quenched without straightening. Specimens of both batches were tested immediately after water quench and after 5-day natural aging. Experimental short-term high-T soaking in a saltpeter bath lasted 30, 60, 120, 240, and 360 sec at 200°C; 0, 20, 45, and 60 sec at 250°C; 0, 10, 20, and 40 sec at 300°C. These times were in addition to a warm-up period of 15-20 sec. Specimens were then water-cooled at 20-25°C and one-half buried in snow (to maintain the freshly-quenched condition) and one-half exposed to aging in air. Test results (over-full-page tabulations) show that an up-to-6-min 200°C heating of D16

Card 1/2

✓

On the "recovery" phenomenon in the aging ...

S/806/62/000/003/006/018

and D19 leads to a small loss in strength, the magnitude of which is dependent on the composition of the alloy and the antecedent state of the material: D16(I) loses 2 kg/mm², D16(II) about twice as much; D19(I) loses 1 kg/mm², D19(II) about twice as much. Further aging does not alter the tensile strength of the material. Hence, 200° does not constitute a "recovery T" for these alloys. Heating to a 250°C affects D16 and D19 differently: D16, in either state I or II, loses about 5 kg/mm² tensile strength after 20-60 sec heating, but subsequent aging leads to full "recovery" of the initial strength. D19, by contrast, loses 3 kg/mm² in state I and about 4.5 kg/mm² in state II, but does not recover in subsequent aging. Total recovery occurs upon heating to 300°C, if the "soaking" following the warm-up is "0" sec. With longer 300° soaking, the alloys gain in strength by high-T aging (as indicated by an appreciable decrease in elongation). In both alloys, the most total softening occurs in specimens not exposed to straightening. Of the two alloys D16 is more intensely softened by heating to 250-300°. The recovery phenomenon is observed in high-T-aged unstraightened D16 specimens. No recovery occurs in 2%-straightened specimens of either D16 or D19 upon short-term heating to 250-300°. It is hypothesized that the decrease in loss of strength occurring as a result of recovery treatment on sheets straightened after quenching is attributable to the presence in such sheets of a block-type substructure which affords a hardening up to higher T than that effected by age-hardening. There is 1 figure, 2 tables, and 4 Russian-language Soviet references.

Card 2/2

ASSOCIATION: None given.

S/129/62/000/011/005/007
E193/E383

AUTHORS: Shilova, Ye.I., Candidate of Technical Sciences and
Nikitayeva, O.G., Engineer

TITLE: Mechanical properties of the alloy L16 (D16) plate
at elevated temperatures

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
no. 11, 1962, 23 - 27

TEXT: The object of the present investigation was to determine the mechanical properties of alloy D16 plate as a function of its composition and method of fabrication. The composition of the alloy varied within the following limits (%): 4.12-4.79 Cu, 1.28-1.56 Mg, 0.5-0.6 Mn, 0.3-0.38 Fe and 0.26-0.30 Si. The experimental specimens were tested after one of the following treatments: cold-rolling and solution-treatment with and without subsequent stretching (straightening) operation; annealing and solution-treatment with or without subsequent stretching operation. The experimental work included the following: tensile tests conducted at room temperature on specimens aged naturally for 6-30 days; tensile tests at 200 °C conducted on specimens held at the
Card 1/3

Mechanical properties

S/129/62/000/011/005/007
E193/E383

temperature for 0.5-100 hours; tensile tests at 250 °C on specimens held at the temperature for 0.5 - 20 hours; time-to-rupture tests at 200, 250 and 300 °C. Conclusions: 1) Alloys with the alloying-element content near its lower limit have the lowest strength. 2) Plate that has been straightened by stretching after the solution-treatment has a higher UTS and yield point (both at room and elevated temperatures) than material that has been solution-treated only. 3) As long as the plate is stretched after solution-treatment it does not matter whether the material has been cold-rolled or annealed before the solution-treatment: the strength of both types of materials is about the same and higher than that of unstretched plate. 4) Although some plastic strain (about 1% during the stretching operation) is necessary to improve the mechanical properties of the plate, the variation in the degree of plastic deformation (in the 1-3% range) during stretching has little effect on the mechanical properties of the alloy studied. 5) The stretching operation after solution-treatment is the most important factor determining the time-to-rupture of the plate at 200 °C, the beneficial effect of this treatment being much more pronounced in

Card 2/3

Mechanical properties

S/129/62/000/011/005/007
E193/E383

coarsely-granular material. 6) The creep properties of the plate at 250 and 300 °C depend much more on its grain size than on the stretching operation. Specimens solution-treated after annealing have a time-to-rupture twice as long as those that have been solution-treated after cold-rolling and, consequently, have grains three to four times smaller than the former material. There are 3 figures and 2 tables.

Card 3/3

SHILOVA, Ye.I. (Moskva); MESHKOVA, O.V. (Moskva); NIKITAYEVA, O.G. (Moskva);
YELKINA, A.G. (Moskva)

Effect of grain size in D16 and D19 alloys on crack formation
and the strength of welded joints. Avtom. svar. 15 no.8:14-20
Ag '62. (MIRA 15:7

(Nonferrous alloys--Metallography)
(Sheet metal--Welding)

ACCESSION NR: AT4037665

S/2981/64/000/003/0237/0250

AUTHOR: Shilova, Ye. I.; Nikitayeva, O. G.; Kozlovskaya, V. P., Vasil'yeva, Ye. N.

TITLE: Heat resistant alloy D 19

SOURCE: Alyuminiyevy*ye splavy*, no. 3, 1964. Deformiruyemy*ye splavy* (Malleable alloys), 237-250

TOPIC TAGS: aluminum, aluminum alloy, alloy D 19, heat resistant aluminum alloy, copper admixture, manganese admixture, magnesium admixture, duraluminum, duraluminum mechanical property, duraluminum corrosion resistance

ABSTRACT: According to its composition, the heat-resistant aluminum alloy D 19 of the Al-Cu-Mg-Mn system is an intermediate alloy between D 16 and D17, and is intended for sheets, pressed semifinished products, and rivet wire. The alloy contains 3.2-4.3% Cu, 1.8-2.6% Mn, 0.03-0.15% Ti, 0.0005-0.005% Be and no more than 0.3-0.5% Fe or Si, and 0.1% Zn. In the present paper, the authors report the results of a general investigation of the mechanical properties of D 19 alloy semifinished products. Initial studies concerned the influence of natural aging time (0-30 days) on the mechanical properties of quenched sheet specimens having various compositions, i. e.: Cu and Mg at the lower limit; Cu and Mg at the higher limit; Cu at the higher limit and Mg at the lower limit; Cu at the lower

Card 1/3

ACCESSION NR: AT4037665

limit and Mg at the higher limit. Before quenching, the specimens were in the annealed or cold rolled condition. Other tests were made to determine the effect of heating to 200 and 250 C on the mechanical properties at room temperature of sheet specimens with different histories of heat-treatment and strain hardening. The mechanical properties of sheet and wire specimens were also determined at elevated temperatures (up to 300 C). Furthermore, creep rupture tests were performed on sheet specimens at 175-300 C, and zero-to-tension fatigue tests on specimens previously subjected to various heat treatments or strain hardening operations. Rivets of D 19 P and V 95 were tested at repeated zero-to-maximum shear loads at room temperature and at 175 C. Finally, specimens of D 19 and D 16 alloys under various conditions were tested for corrosion resistance in 3% NaCl or 3% NaCl + 0.1% H₂O₂. On the basis of the results obtained, it was concluded that: the duraluminum type alloy D 19 is a heat-resistant alloy; at temperatures of 20 - 150 C its strength is equal to the strength of D 16 alloy, while at 170-250 C its strength is higher than that of D 16 alloy by approximately 8-10%. Under a repeated static load, the strength of D 19 alloy is similar to that of D 16. Alloy D 19 has a reduced rate of strengthening during natural aging; therefore, cold working operations can be performed with this alloy during a longer period of time (6-8 hours) than with alloy D 16; this property is particularly desirable for riveting material. Products made of alloy D 19, in contrast to D 16, do not exhibit a tendency to intergranular corrosion during heating in the temperature range

Card 2/3

ACC. NO. 100

Author: Malova, Ye. I.

URL: none

TITLE: Properties of alloys of the system Al-Cu-Ni-Mg

SOURCE: AN SSSR. Institut metalurgii. Metallurgiya i splavy metallografiya of light alloys. Moscow, 124-ve B. ul., 198, 198-17

TOPIC TAGS: alloy phase diagram, metal ^{property}, ~~alloy~~ alloy, V65 alloy, D1 alloy, D16 alloy, D19 alloy, VD17 alloy, D19 alloy

ABSTRACT: The strength limit, relative elongation, corrosion stability, fatigue limit, and the tendency towards crack formation during welding of the alloys formed by the system Al-Cu-Ni-Mg were studied. The specimens were prepared in a graphite crucible at 680-690C and were homogenized at 480C for 24 hr. The coefficient of crack formation during welding was calculated according to the formula

$$K = \frac{\sum l_{cr}}{\sum l_{weld}} \cdot 100.$$

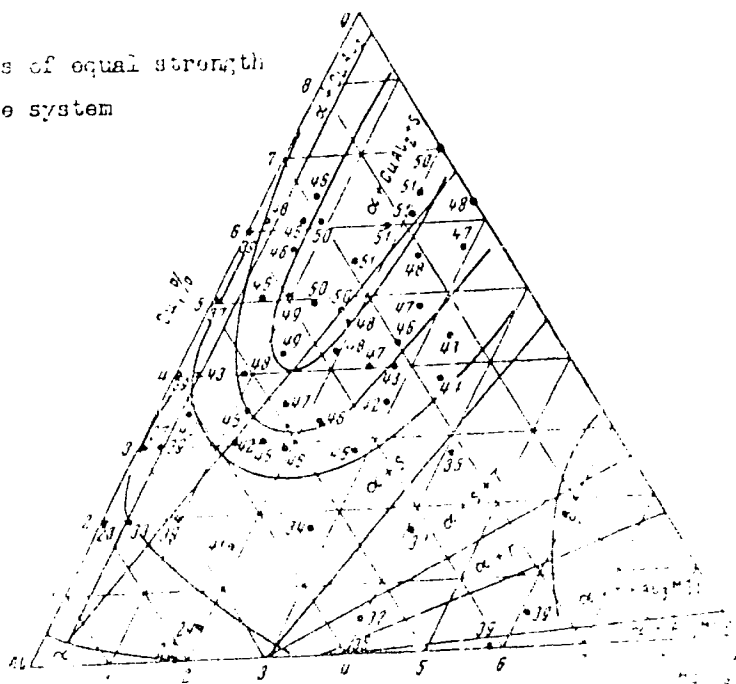
where $\sum l_{cr}$ is the total length of cracks and $\sum l_{weld}$ is the total length of weld.

The experimental results are shown graphically (see Fig. 1). The experimental

Card 1/3

L 39884-66
ACC NR: AT6016413

Fig. 1. Curves connecting points of equal strength limit (kg/mm^2) for alloys of the system Al-Cu-Mg-Mn in the tempered and naturally aged state at normal temperature.



Card 13

ACC NO. 10010011

results were compared with the corresponding results for the systems VCS, VI, VGR, VII, VIII, and IX. It was found that the stability of the system (for more than 10) showed the least dependence on the initial condition. The stability of alloy containing 1-2% of Ni, was also investigated. Their phase position, i.e., $\alpha - \text{CuNi}_2$ or $\alpha - \text{Ni}$. However, intermetallic compound which results from short-time heating to 1500 was dependent on the nature of the phase composition. Orig. art. has: 1 table and 7 figures.

SUB CODE: 11/ SUBM DATE: 16Sep65/ ORIG: REF: 011/ OTH REF: 002

Card 3/3

ACC NR: AP6036439

SOURCE CODE: UR/0370/66/000/006/0089/0096

AUTHOR: Shilova, Ye. I. (Moscow); Nikitayeva, O. G. (Moscow); Vasil'yeva, Ye. N. (Moscow)

ORG: none

TITLE: The effect of grain size on the properties of AK4-1 aluminum-alloy sheets

SOURCE: AN SSSR. Izvestiya. Metally, no. 6, 1966, 89-96

TOPIC TAGS: aluminum, copper, magnesium alloy, nickel containing alloy, metal property, grain size/AK4-1 aluminum alloy

ABSTRACT: AK4-1 aluminum alloy sheets (1.5 x 1200 x 3000 mm), cold rolled from fully annealed plates of various thicknesses with reductions of 0.5, 10 and 64%, were solution annealed at 525 ± 30 for 15 min and water quenched. One group of sheets was artificially aged at 190C for 12 and 24 hr, which produced grain sizes of 22—38 μ . Another group of sheets was naturally aged for 3—720 hr. It was found that the duration of natural aging has little or no effect on the elongation. The yield strength and tensile strength are not affected by aging for up to 15 hr, then increase rather sharply, and after about 48 hr remain on the same level. The mechanical properties, especially yield strength, of naturally and artificially aged specimens increase with the decrease of grain size. The optimal grain size was found to be 30—40 μ , which is obtained by a deformation of 10—15%. Subsequent

Card 1/2

UDC: 669.715

ZAYTSEV, A.N. (Kiyev); KHOKHULYA, B.V. (Kiyev); NIKITCHENKO, M.P. (Kiyev)

Advanced technology for the repair of freight cars. Zvel.-for.transp.
45 no.12:69-73 **Д** '63. (MIRA 17:2)

1. Nachal'nik Darnitskogo vagonoremontnogo zavoda (for Zaytsev).
2. Glavnyy tekhnolog Darnitskogo vagonoremontnogo zavoda (for Khokhulya).
3. Nachal'nik planovogo otdela Darnitskogo vagonoremontnogo zavoda (for Nikitchenko).

ANTSYFEROV, M.S., kand. fiziko-matematicheskikh nauk; NIKITCHENKO,
R.F., inzh.; BALAKIREVA, N.G., inzh.

Apparatus for laboratory hydraulic modeling seismic phenomena
in mine workings. Nauch. soob. IGD 11:118-125 '61.
(MIRA 16:4)

(Blasting) (Hydraulic models)

BARON, L.I., prof., doktor tekhn.nauk; LICHELI, G.P., gornyy inzh.;
NIKITCHENKO, R.F., inzh.

Study of the action of a blast in a fractured medium. Gor.
zhur. no.9:43-46 S '62. (MIRA 15:9)

1. Institut gornogo dela im.Skochenskogo, Moskva.
(Blasting--Models)

NIKITCHENKO, V.D., inzh.

Interlocking self-supporting tile. Stroi.mat. 8 no.3:12-13
Mr '62. (MIRA 15:8)

(Hollow tiles)

LAVRUSHIN, V.F.; TSUKERMAN, S.V.; NIKITCHENKO, V.M.

Synthesis of some unsaturated ketones containing a thiophene ring. Ukr.khim.zhur. 27 no.3:379-384 '61. (MIRA 14:11)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M.Gor'kogo.
(Katores)
(Thiophene)

LAVRUSHIN, V.F.; TSUKERMAN, S.V.; NIKITCHENKO, V.M.

Synthesis of thiophene analogs of di- and trimethoxychalcones and
their vinyl analogs. Zhur.ob.khim. 31 no.9:284⁵-2850 S '61.
(MIRA 14:9)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo.
(Chalcone) (Thiophene)