Armco Iron

SOV/6363

Ch. X. Prospects for Further Development of the Production of Low-Carbon Electrical Steel and Improvement of Its Quality 188

Bibliography 195

AVAILABLE: Library of Congress

SUBJECT: Metals and Metallurgy

Card 7/7

DV/clb/os
6/28/63

37472
S/129/62/000/005/003/011
E073/E535

12.1141

AUTHORS: Zhetvin, N.P., Candidate of Technical Sciences, Tunkov, V.P., Engineer and Paisov, A.I., Engineer

TITLE: Non-ageing low-carbon electrical steel

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no.5, 1962, 21-22

TEXT: The best method of preventing magnetic ageing is to combine nitrogen into stable aluminium nitrides. Introduction into the ladle of large quantities of aluminium causes intensive contamination of the steel by nonmetallic inclusions. Therefore, silicon was used in quantities corresponding to 0.3-0.5% in the finished steel. To reduce the burn-off of silicon, 400 to 600 g of aluminium per ton of liquid steel was first introduced into the furnace. Subsequent addition into the ladle of 400 to 600 g of aluminium per ton of liquid steel (instead of 1500 g/ton added for the usual killed steel) ensures stability against magnetic ageing. Steel of four experimental open-hearth heats were used, the composition of which was: 0.025-0.030% C, 0.11-0.19% Mn, 0.30-0.50% Si, 0.017-0.025% S, 0.010% P, 0.11-0.18% Ni, MAKSIMOV, S.K.; SKAKOV, Yu.A.; ZHETVIN, N.P.; PAISOV, A.I.

Role of phase composition of precipitates in the magnetic aging of mild steel. Izv. vys. ucheb. zav.; chern. met. 5 no.3:122-124 '62. (MIRA 15:5)

1. Moskovskiy institut stali i zavod "Serp i molot".
(Steel--Hardening) (Case hardening)

41546

S/136/62/000/010/003/004
E021/E435

1.1600 2408

AUTHORS: Paisov, A.I., Kolpashnikov, A.I., P'ang Ya-Chen'

TITLE: Structure and properties of SAP (sintered aluminium powder)

PERIODICAL: Tsvetnyye metally, vol. 35, no.10, 1962, 71-75

TEXT: The aim of the present work was to establish the connection between structure and properties. SAP of three types was investigated: Al + 7.5% Al_2O_3, Al + 10% Al_2O_3 and Al + 8.5% Al_2O_3 + 0.3% Zr. Samples were hot-pressed and also cold-rolled with various degrees of reduction. The structure was examined by an electron microscope, using carbon replicas of polished and electrolytically etched microsections. Mechanical tests were carried out at room temperature and at 500°C. It was shown that, after hot pressing, the oxide phase was present as individual irregular and regular particles and not as films round the Al powder. The particles were not uniformly dispersed but existed in chains. An increase in oxide content resulted in a larger number of particles but not in an increase in coarseness; this indicates that the higher oxide content is due to a finer initial powder rather than a thicker initial oxide film.

Card 1/3

S/136/62/000/010/003/004
E021/E435

Structure and properties ...

The SAP containing 10% Al_2O_3 (batch 2) had better mechanical properties than that containing 7.5% Al_2O_3 (batch 1) which, in turn, had better properties than the SAP containing 8.5% Al_2O_3 and 0.3% Zr (batch 3).

Results:

Batch	U.T.S. kg/mm^2	Elongation %	Hardness (Brinell)
1	27.2	11.5	79
2	33.1	-	84
3	23.1	13.0	64

This was true both at room and higher temperatures. The low properties of the SAP containing 8.5% oxide are attributed to the nonhomogeneous structure of the specimens. Cold-rolling resulted in increased strength because of the cold work in the

Card 2/3

PAISOV, A.I., kand. tekhn. nauk; SHLENSKIY, G.N., inzh.; SERGEYEVA, L.N., inzh.

Structural changes during the heating of SAP [sintered aluminum powder]. Trudy MATI no.57:127-134 '63. (MIRA 16:12)

PAISOV, A.I., kand. tekhn. nauk

Electron microscopy of SAP[sintered aluminum powder] with the help of coal replicas. Trudy MATI no.57:95-98 '63. (MIRA 16:12)

PAISOV, A.I., kand. tekhn. nauk; SERGEYEVA, L.N., inzh.

Character of the distribution of the oxide phase in SAP [sintered aluminum powder]. Trudy MATI no.57:136-138 '63. (MIRA 16:12)

L 15643-66 EWT(1)/EWP(e)/EWT(m)/EWP(t)/EWP(k)/EWP(z)/EWP(b) IJP(c) JD/HW

ACC NR: AT5027914 SOURCE CODE: UR/2536/65/000/062/0005/0013

AUTHOR: Sakharov, G. S. (Candidate of technical sciences); Kolpashnikov, A. I. (Doctor of technical sciences, Professor); Paisov, A. I. (Candidate of technical sciences); Shiryayev, Ye. V. (Engineer)

ORG: Moscow Aviation Technology Institute (Moskovskiy aviatsionnyy tekhnologicheskiy institut)

TITLE: Forging and hot stamping of sintered aluminum powder

SOURCE: Moscow. Aviatsionnyy tekhnologicheskiy institut. Trudy, no. 62, 1965. Obrabotka davleniyem legkikh splavov (Pressure working of light alloys) 5-13

TOPIC TAGS: metal stamping, sintered aluminum powder, hot die forging, closed die forging, material deformation, metal stress

ABSTRACT: Currently some organizations can accomplish with a fair degree of success the hot stamping of non-intricately shaped SAP (sintered aluminum powder) blanks (containing 6-11% Al_2O_3). This stamping, however, involves a number of difficulties owing to the low plasticity margin of the material. In this connection, the authors present the findings of an experimental study of the deformability of SAP by hot stamping. The SAP specimens used for forging and hot stamping differed in their Al_2O_3 content and as-delivered state: sintered briquets, pressed bars, clad rolled stock, etc., in order to determine the stampability of SAP as a function of the state of the specimen.

Card 1/2

UDC: 669.716:621.97.07

L 15643-66

ACC NR: AT5027914

The following experiments were performed: free drop forging, hot stamping in open dies, hot stamping in closed dies, high-temperature stamping. The free drop forging of specimens (pneumatic drop hammer with falling weight of 75 kg, hammer block heated to 130-150°C, SAP specimens, 20x20x60 mm, heated to 470-500°C) resulted in their early failure, apparently due to the unfavorable stressed state accompanying this forging technique. Hot stamping in open and closed dies also resulted in early cracking and failure owing to the low plasticity of SAP. However, the experimental hot stamping of Al-clad specimens in open dies produced much more encouraging results, since the cladding of SAP contributes to the healing of all sorts of surface microdefects which represent stress concentrators. Hot stamping in closed dies requires the prior vacuum degassing of SAP (particularly of SAP-2 and SAP-3, with their lower plasticity compared with SAP-1: the optimal hot-stamping temperature for SAP-2 and SAP-3 should be at least 600°C). High-temperature stamping (at 750°C) in a 200-ton vertical hydraulic press can be used to obtain intricately shaped forgings but it has the disadvantage of resulting in some nonuniformity of the distribution of oxide in individual sectors of the forging and hence the forgings thus produced can be used only for minor purposes. Orig. art. has: 10 figures, 1 table.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 2/2

PAISOV, A.I., kand.tekhn.nauk; KOLPASHNIKOV, A.I., doktor tekhn.nauk, prof.; TSIPULIN, I.P., inzh.; SHELAMOV, V.A., kand.tekhn.nauk

Dependence of the structure and properties of SAP [sintered aluminum powder] on the sintereing temperature and degree of deformation during rolling. Trudy MATI no.62:22-29 '65.

(MIRA 18:10)

L 150 ... EWT(1)/EWP(e)/EWT(m)/EWP(t)/EWP(k)/EWP(z)/EWP(b)

ACC NR: AT5027917 SOURCE CODE: UR/2536/65/000/062/0030/0037

AUTHOR: Paisov, A. I. (Candidate of technical sciences); Kolpashnikov, A. I. (Doctor of technical sciences, Professor); Kotiyeva, L. U. (Candidate of chemical sciences); Serbinovskaya, Ye. L. (Engineer); Shelamov, V. A. (Candidate of technical sciences)

ORG: Moscow Aviation Technology Institute (Moskovskiy aviatsionnyy tekhnologicheskiy institut)

TITLE: Transformations occurring in aluminum powder during its heating

SOURCE: Moscow. Aviatsionnyy tekhnologicheskiy institut. Trudy, no. 62, 1965. Obrabotka davleniyem legkikh splavov (Pressure working of light alloys), 30-37

TOPIC TAGS: aluminum powder, powder metal production, heating, aluminum oxide, phase composition, metal heat treatment

ABSTRACT: The investigation of the changes in the amount and composition of the oxide phase in heated Al powder is of great interest to the heating of this powder or to its briquetting in heated state, as well as to the heating of cold-pressed briquets to temperatures of 600°C and higher, performed for the purposes of degassing and sintering. The authors performed this investigation on the basis of a method proposed by L. U. Kotiyeva, since the conventional method of determining Al_2O_3 in Al powder and in sintered Al powder (SAP) according to the difference between the weight of sample

Card 1/3 UDC: 669.017:669.7.017.3

L 13041-66

ACC NR: AT5027917

and the amount of Al metal fails to take into account the possible changes in the composition of the oxide phase due to the hydration of Al_2O_3 and the decomposition of hydrated crystals. Kotiyeva's method is based on determining the content of Al metal by the customary gas-volumetric method and then titrating the solution with H_2SO_4 in order to determine the total amount of Al in the suspension. The difference between the total amount of Al and Al metal reveals the amount of Al bound in oxygen compounds. The amount of Al_2O_3 is then determined by calculating the bound Al in terms of Al_2O_3. On this basis it is established that, given the current conditions of the production and storage of Al powder, its oxide phase is represented by $Al_2O_3 \cdot 3H_2O$. In the SAP obtained by sintering and pressworking at 450°-500°C the oxide phase is represented by monohydrate of Al_2O_3 ($Al_2O_3 \cdot H_2O$). If the powder or SAP is heated above 550°C, its oxide phase does not contain chemically bound hydrated-crystal moisture (γ-Al_2O_3). The formation of γ-Al_2O_3 is not, however, tantamount to the complete degassing of the material: γ-Al_2O_3 is highly hygroscopic and can absorb moisture chemically, which accounts for the presence of considerable quantities of moisture in the residue. The vacuum heating of cold-pressed briquets at the rate of 50°C/hr results in the cessation of gas release only at 670-680°C. In view of the change in the composition (and hence also density) of the oxide phase during heating, the increase in its gravimetric content may be accompanied by a decrease in volumetric content. Further, prior heating in an oxidizing atmosphere for degassing purposes is allowable only in the case of properly nodulized powder; heating of non-nodulized powder leads to rapid increase

Card 2/3

SOURCE CODE: UR/2536/66/000/006/0021/0032

ACC NR: AT6036411 (N)

AUTHOR: Vishnyakov, D. Ya. (Doctor of technical sciences; Professor); Sovalova, A. A. (Candidate of technical sciences); Paisov, A. I. Candidate of technical sciences); Dmitriyev, B. I. (Engineer)

ORG: none

TITLE: The effect of the rate of rolling from the homogenizing temperature on the structure and properties of KhN77TYuR (EI437B) alloy

SOURCE: Moscow. Aviatsionnyy tekhnologicheskiy institut. Trudy, no. 66, 1966, Struktura i svoystva aviatsionnykh staley i splavov (Structure and properties of aircraft steels and alloys), 21-32

TOPIC TAGS: nickel chromium aluminum alloy, titanium containing alloy, boron containing alloy, alloy homogenization, cooling rate effect, alloy structure, alloy property/KhN77TYuR alloy

ABSTRACT: The structure and properties of KhN77TYuR(EI4337C) nickel-base alloy, homogenized at 1080C for 8 hr, cooled at different rates (in water, oil, air or in furnace) and then aged at 750C for 16 hr, have been investigated. Tests at room temperature showed that specimens cooled at a rate of 500 °/min (oil quenched) had the highest strength and ductility: tensile strength 96.0 kg/mm^2, yield strength 69.8 kg/mm^2, elongation of 18.8%, reduction of area 22.5%. The notch toughness also

UDC: 669.017:669.15'24

Card 1/2

ACC NR: AT6036411

increased with the increasing cooling rate from 2 kg·m/cm² in specimens cooled at a rate of 1 °/min to 6 kg·m/cm² in water-quenched specimens. The highest rupture strength was observed in specimens cooled at a moderate rate of 20 °/min. Specimens cooled at a higher or at a lower rate had lower heat resistance. Air cooling (140 °/min) causes decomposition of γ-solid solution and the precipitation of the Ni (Ti Al) strengthening phase at 780C. At lower cooling rates the decomposition of solid solution begins at a higher temperature (900C at 1 °/min rate). The particle size of the strengthening phase decreases with increasing cooling rate: 1200—2500 Å at 1 °/min and less than 500 Å at 20 °/min. The microsturcture of the alloy with a maximum rupture strength is characterized by a uniform distribution of the strengthening phase particles (300—500 Å) within grains of γ-solid solution, an accumulation of chromium carbides, primarily at grain boundaries, and by the presence of layers of solid solution free of the strenthening phase along the grain boundaries, which prevent failures at small amounts of deformation. Orig. art. has: 6 figures and 2 tables.

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 005/ ATD PRESS: 5107

Card 2/2

Samarin, A., Yaskevich, A., Paisov, I.

"Effect of Nitrogen on Stainless Steel," Iz. AK Nauk SSSR, Otdel, Tekh, Nauk, No. 5-6, 1943.

BR-52C59019

PAISOV, I.

"Effect of Nitrogen on Stainless Steel," Iz. AK Nauk SSSR, Otdel, Tekh, Nauk, No. 5-6, 1943.

BR-52059019

FAISOW, I.
A. SAMARIN, VAN, 1943, n. 5-6, pp. 71-77

PAISOV, I.
A. SAMARIN, IAN/OTN, 1943, Part 5/6, 71-77

ACCESSION NR: AP [illegible]

AUTHOR: Kreclmer, [illegible]

TITLE: Some pe[illegible] steels

SOURCE: IVUZ. Chem[illegible]

TOPIC TAGS: [illegible] steel, mechanical [illegible]

ABSTRACT: This pa[illegible] 45KhNMT steels [illegible] were melted in [illegible] of 850-1180C. The rods were [illegible] Impact and tensile strength [illegible] at 200-600C for two hours, an[illegible] tested on 0.7 mm wire. [illegible] recrystallization annealing [illegible] Internal friction and rigidity [illegible] at a frequency of 0.75-0.8[illegible]

Card 1/2

L 31101-65

ACCESSION NR: AP5003499

first plotted up to 150C, then [illegible] friction was measured again. [illegible] forth at 50C intervals up to [illegible] 500C were observed and plotted [illegible] explained by structural changes [illegible] their relaxation rigidity mod[illegible] rapid weakening than steel 45K[illegible] and manganese content. The composition of these two alloys is:

	C	Si	[illegible]
45KhGSNT	0.47	[illegible]	[illegible]
45KhSNT	0.44	1.70	[illegible]

[illegible]

L 25642-65
ACCESSION NR: AP5003504

Moscow Institute of Steel and Alloys)

SUBMITTED: 25Jun64 ENCL: 00 SUB CODE: MM, IE

OTHER: 000 ATD PRESS: 3185

S/122/62/000/002/004/007
D262/D301

AUTHORS: Paisov, I.V., Doctor of Technical Sciences, Professor and Rayev, I.I., Engineer

TITLE: Methods of quality control of high manganese steel

PERIODICAL: Vestnik mashinostroyeniya, no. 2, 1962, 49-51

TEXT: Various standard methods of quality control of high manganese steel Г13Л (G13L) (C-1.16, Mn-13.60, Si-0.42, Cr-0.16, Ni-0.15), water-hardened (1100°C) are described, test results (shown in form of graphs) are analyzed and the following conclusions reached: High manganese steel castings should not only be tested for micro-structure and hardness, but its mechanical properties should also be checked: 1) The hardness test can be done using the Poldi device, with the corrections obtained experimentally by the authors; 2) standard methods of the tensile test can be applied, but attaining the required accuracy is so difficult that operative control is excluded; 3) high manganese steel is little sensitive to impact testing; 4) bending tests are the simplest; quantitative and partially qualitative characteristics of the metal can be

Card 1/2

L 19697-65

ACCESSION NR: AP4049498

[illegible] ty and [illegible] ty rise [illegible] lengthening [illegible] and neck [illegible]. impact

[illegible]ATION: [illegible]

[illegible]

SUB CODE: MM NO REF SOV: 000 OTHER: 00[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]
50KhF	0.53	0.99	0.31	0.50	0.21	0.03	0.03
50KhFS	0.50	1.06	0.84	0.56	0.23	0.03	0.03
50KhFS2	0.54	1.13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Card 3/5

AUTHOR: Paleov, I. V.; Kreyme...

TITLE: High-strength struct...

SOURCE: IVUZ. Chernaya metallurgiya, no. 11, ...

TOPIC TAGS: high strength steel, low alloy steel, structural steel, ... steel, comp... steel

and notch toughness ... temperatures of 250—400C, at which tempered martens...

Card 1/2

possible to raise [illegible]

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 13May64

Card 2/2

L 13941-65 EWT(m)/EWA(d)/EWP(t)/EWP(b) ASD(m)-3 JD

ACCESSION NR: AP4049072

AUTHOR: Tomsinskiy, V. S.; Paisov, I. V

TITLE: The structure and properties of structural silicon steel

SOURCE: IVUZ. Chernaya metallurgiya

TOPIC TAGS: structural steel, silicon steel, alloy steel, steel tempering

ABSTRACT: In a systematic study of the effect of silicon on the structure and properties of quenched and tempered steels

Card 1/2

ACCESSION NR: AP464...

and by ...
3 photomicrographs, and 1 table.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 22Feb64

NO REF SOV: 007 OTHER: 002

Card 2/2

comes effective at a roll [illegible]

Card 1/2

oil quenching, annealing at [illegible] followed by oil [illegible]

[illegible] [illegible] Chernaya metallurgiya, no. [illegible], 1965, 14[illegible]-15[illegible]

NO REF SOV: 004 OTHER: 001 ATD PRESS: 4016

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012387

L 54[illegible]-65

ACCESSION NR: AP50[illegible]

treatment after the critical point Ac_3 was determined for all grades of steel studied. The samples were heated to optimum temperature (870-900°C) and subjected to plastic deformation in one pass on a roll stand with a roll diameter of 145 mm

[illegible]

degree of deformation [illegible]

[illegible] temperature [illegible]

[illegible] temperature [illegible]

[illegible] of the [illegible]

[illegible] sample [illegible]

[illegible]jected to ordinary thermal treatment [illegible] the hardness remains [illegible] cases

To study the effect of [illegible]

[illegible], the sample [illegible]

[illegible] The results [illegible]

[illegible] figures [illegible]

Card [illegible]

L 9635-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) MJW/JD

ACC NR: AP5027713 SOURCE CODE: UR/0129/65/000/011/0041/0042

AUTHOR: Belyakova, A. F.; Paisov, I. V.; Kryakovskiy, Yu. V.; Tatarintsev, V. Ya.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: Causes of the high impact strength of steels containing rare-earth metals

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1965, 41-42, and bottom half of insert facing p. 41

TOPIC TAGS: rare earth metal, steel, metal grain boundary contamination, electron microscopy, nonmetallic inclusion / EM-5 electron microscope

ABSTRACT: As recently established (A. F. Belyakova et al. MiTOM, 1959, no. 9), the addition of rare-earth elements (REM) such as ferrocerium to 40KhNMA steel results in the substitution of the plastic sulfides of Fe and Mn with relatively nonplastic spheroidal REM inclusions, i.e. with sulfides and oxysulfides of Ce. It is believed that REM decontaminate grain boundaries and that this is one of the reasons for their favorable effect on the properties of steel. To verify this, the authors performed an electronmicroscopic examination of the structure and properties of 40KhNMA steel alloyed with small amounts of REM. Following impact tests of the specimens, which revealed an increase of as much as 6.6 kg-m/cm^2 in impact strength, sections of the specimens were etched to reveal the grain boundaries and processed into replicas

Card 1/2 UDC: 620.178.167:620.187.2:699.85/26

L 9635-66

ACC NR: AP5027713

3

which then were examined with the aid of an EM-5 electron microscope (magnification 10,000 times). The findings were processed by selecting the boundaries separating ferrite grain, since the boundaries between ferrite and pearlite grains represented continuous chains of carbides oriented along the boundaries, and calculating the number of each of the following types of examined boundaries: completely pure boundaries and the boundaries containing 2-3, 4-7, 8-12, and >12 inclusions (nonmetallic inclusions, intermetallides, carbides) over a 15 μ long boundary section, and then determining their percentile ratio to the total number of the ferrite boundaries examined. On this basis it was established that the grain boundaries in steel containing REM are actually more contaminated than in REM-free steel. Hence, REM in reality do not decontaminate the grain boundaries. It was also found, however, that in REM-containing steel most segregations at grain boundaries are spheroidal, as opposed to their rectangle and square shapes in REM-free steel. The spheroidal segregations presumably represent the oxides and oxysulfides of REM and apparently are one of the reasons for the higher impact strength of REM-containing steel. The nature of these segregations should be a subject of further investigations. Orig. art. has: 3 figures.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 000

Card 2/2

L 21021-66 EWT(m)/EWA(d)/EWP(t) IJP(c) MJW/JD/JG

ACCESSION NR: AP5022580 UR/0129/65/000/009/0037/0041
669.85/6:620.18:669.14.018

AUTHOR: Belyakova, A. F.; Kryakovskiy, Yu. V.; Paisov, I. V.

TITLE: Effect of rare-earth metals on the structure and properties of machine steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 9, 1965, 37-41, and insert facing p. 25 and top half of insert facing p. 40

TOPIC TAGS: rare earth metal, machine steel, toughness, nonmetallic inclusion, grain structure, metal hardening

ABSTRACT: The structure and properties of the machine steels 40KhNMA and 34KhN1MAR were investigated as a function of the addition of ferrocerium (0.6 and 2 kg/ton, respectively) to the ladle. Electronmicroscopic, fractographic, mechanical, and other tests of specimens cut out of the ingots revealed that in steels with r.e.m. (rare-earth elements) grain-boundary tension is lower than in steels without r.e.m., and the boundaries are better-defined and less contaminated by impurities, since r.e.m. have a marked affinity with impurities and interact with

GRYAZNOV, A.G., inzh.; PAISOV, I.V., doktor tekhn.nauk, prof.

Effect of rare earth metals on the increase in hot plasticity of 10Kh16N25M6 steel. Vest.mashinostr. 45 no.11:58-60 N '65.

(MIRA 18:12)

L 45580-66 EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AT6031221 (A) SOURCE CODE: UR/3107/66/000/004/0018/0022

AUTHOR: Kreymerman, G. I. (Engineer); Tomsinskiy, V. S.; (Engineer); Paisov, I. V. (Engineer)

ORG: none

TITLE: Superstrength structural steels

SOURCE: Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Sektsiya metallovedeniya i termicheskoy obrabotki. Metallovedeniye i termicheskaya obrabotka, no. 4, 1966, 18-22

TOPIC TAGS: ~~superstrength~~ structural steel, silicon containing steel, steel property / 45KhNM structural steel, 45KhMF structural steel, 45KhGS structural steel, 45KhGSNMF structural steel, 45KGS2N3M structural steel, 45KGS2MF structural steel

ABSTRACT: The effect of silicon, at contents of up to 2.2% on the structure and properties of alloy steels containing up to 0.8% carbon has been investigated. It was found that steel strength increases steadily with increasing silicon content. For instance, the strength of steel containing 0.2% silicon and 0.6% carbon, hardened and tempered at 400C, was 135 kg/mm^2, while that of steel containing 2.2% silicon (other conditions being the same) was 195 kg/mm^2. The effect of

Card 1/2

L 04681-67 EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AR6020945 SOURCE CODE: UR/0137/66/000/002/I059/I059

AUTHOR: Paisov, I. V.; Krechmer, V. G.

TITLE: Mechanical properties of new high strength steels

SOURCE: Ref zh. Metallurg, Abs. 2I393

REF SOURCE: Sb. statey aspirantov i soiskateley. M-vo vyssh. i sredn. spets. obrazovaniya KazSSR. Metallurgiya i obogashch., vyp. 1, 1965, 181-187

TOPIC TAGS: high strength steel, metal grain structure / KhGSNTF steel, 45KhGSTF steel, 45KhGNTF1 steel, 40KhNMA steel, 30Kh2GN2 steel

TRANSLATION: The carbon content of the steels is 0.35-0.45%. Fine grain structure of the steel is attained through deoxidation and ferrotitanium. For grain refinement, 0.12-0.32% V was added. The composition of the experimental steels are as follows: 37KhGSNTF--0.37% C, 0.76% Si, 1.38% Mn, 1.34% Cr, 1.04% Ni, 0.15% Ti, and 0.27% V; 45KhGSTF--0.46% C, 0.86% Si, 1.59% Mn, 1.40% Cr, 1.10% Ni, 1.10% Ti, and 0.12% V; 35KhGSTF--0.34% C, 0.79% Si, 1.45% Mn, 1.0% Cr, 0.15% Ni, 0.35% Ti, and 0.32% V. Samples were quenched from 880°C and tempered at 200-600°C (air cooling). After tempering at 200°C 45KhGNTF1 steel had σ_b 180 kg/mm^2, a_k 7.7 kgm/cm^2, δ 10%, and ψ 40%. After tempering in the 500-600°C range we found a decrease of a_k and brittle fractures

Card 1/2 UDC: 669.018.298.3

ACC NR: AP6032460 (A) SOURCE CODE: UR/0129/66/000/009/0048/0051

AUTHOR: Shukyurov, R. I.; Paisov, I. V.

ORG: Azerbaydzhan Polytechnical Institute (Azerbaydzhanskiy politekhnicheskiy institut); Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: The effect of heat treatment and alloying on the structure and properties of silicon spring steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 9, 1966, 48-51

TOPIC TAGS: metal heat treatment, alloy steel, metal recrystallization, steel structure, spring steel, silicon steel, metal ausforming

ABSTRACT: The authors study the effect of heating temperature in the austenite region, degree of deformation and annealing temperature on the structure and properties of 55S2 steel alloyed with chormium, molybdenum, tungsten and vanadium. The steel was melted in a 50 kg induction furnace. The ingots were forged into a band 66 mm wide and 6-10 mm thick. The continuous flat specimens were produced after annealing to ensure a 3 mm thickness after deformation with 25, 50 and 75% reduction. The specimens were tensile tested on the IMCh-30 machine. The effect of alloying elements on the structure and properties of 55S2 steel after standard heat treatment, ausforming and rapid quenching was studied as a function of heating temperature before rolling at

UDC: 621.789:669.14.27'782

ACC NR: AP7001529 (A,N) SOURCE CODE: UR/0193/66/000/012/0017/0018

AUTHOR: Krechmer, V. G. (Candidate of technical sciences); Paisov, I. V. (Doctor of technical sciences)

ORG: none

TITLE: High-strength structural steel 40KhGSTF

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 12, 1966, 17-18

TOPIC TAGS: high strength steel, low alloy structural steel, ~~steel~~ metal heat treatment, ~~steel~~ mechanical property, steel wear resistance/40KhGSTF steel

ABSTRACT: A 40KhGSTF low-alloy high strength structural steel was developed as a wear-resistant modification of standard 30KhGS steel by increasing the carbon content from 0.25—0.35% to 0.40—0.45% and by additional alloying with 0.1—0.15% Ti and 0.15—0.20% V. Quenched from 880C and tempered at 200C, 40KhGSTF steel had a tensile strength of 200kg/mm², a yield strength of 180kg/mm², an elongation of 8 %, a reduction of area of 36% and a notch toughness of 5.0 m-kg/cm². The steel was tested for wear resistance in a chain conveyer. The chain rollers were 36mm in diameter and heat-treated to a hardness of 55RC, and the chain link plates were 400mm long, 12mm thick, with a hardness of 40—42RC. After 7400-hr operation during which 700,000 tons of coal were transported, the wear of 40KhGSTF steel rollers and link plates was 0.2—1.5 and 2.2—2.5, respectively, compared with 1.5—2.9 and 4.0—6.6 for rollers and link plates.

UDC: 669.15—194

Card 1/2

ACC NR: AP7003848 (N) SOURCE CODE: UR/0122/67/000/001/0059/0061

AUTHORS: Paisov, I. V. (Doctor of technical sciences, Professor); Bashnin, Yu. A. (Candidate of technical sciences, Docent); Tsurkov, V. N. (Engineer); Maslova, Yu. N. (Engineer); Kats, I. Ya. (Engineer); Bocharov, V. A.; Maksyuta, Z. I.

ORG: none

TITLE: Improving the mechanical properties of large forgings by changing the heat treatment parameters

SOURCE: Vestnik mashinostroyeniya, no. 1, 1967, 59-61

TOPIC TAGS: steel forging, metal heat treatment, steel, steel property / 50KhN steel, 60KhN steel, 55Kh steel, 60KhG steel

ABSTRACT: Factory tests on 32-ton, 1300-mm diameter forgings of 60KhN steel showed that the prescribed factory heat treatment for large forgings of 50KhN, 60KhN, 55Kh, and 60KhG steels gave mechanical properties which were below the norm (σ_T = 50.0 kg/mm^2, σ_b = 80.0 kg/mm^2, δ = 8.0%, ψ = 33.0%, a_n = 3.0 kgm/cm^2 is the norm). The factory heat treatment (see Fig. 1) was modified by the authors who replaced the isothermal heating at 720C by heating to 950C for 2—3 hours with subsequent cooling to 860C and holding at that temperature for 1 hr/100-mm cross section. Thermocouples were embedded in the test forgings at 50 mm, at 1/3 R from the surface, and at the center. It was

Card 1/2 UDC: 621.78:621.73.002.23

L 108/2-6/ EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6007112 (A) SOURCE CODE: UR/0129/66/000/002/0044/0046

30

AUTHORS: Tomsinskiy, V. S.; Paisov, I. V.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: The effect of silicon on the brittleness of spring steels

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1966, 44-46

TOPIC TAGS: spring steel, silicon steel, brittleness, elasticity, elastic stress

ABSTRACT: A study was made of the effect of silicon on the resistance of steel to small plastic deformations, and also on the relaxation of stresses in steels with varying silicon contents. The contents of tested specimens are shown in Table 1.

Table 1.

Steel Index	Chemical content, in %		
	C	Si	Mn
60	0.60	0.21	0.24
60S0.6	0.58	0.65	0.24
60S1.5	0.61	1.34	0.33
60S2	0.62	2.08	0.25

Card 1/3 UDC: 669.782:669.14.018.27:620.172.22

L 10472-67
ACC NR: AP6007112

authors conclude that the maximal elasticity characteristics of 0.6% carbon steels are obtained with a silicon content of 0.6--1.5% Si. The optimal cure temperature is 300C (not higher than 400C), a temperature at which a sufficiently stable troostite microstructure is prevalent. Orig. art. has: 3 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003

Card 3/3 egk

L 36089-66 EWT(m)/EWP(k)/T/EWP(t)/ETI IJP(c) JD/HW/DJ

ACC NR: AP6016591 (A, N) SOURCE CODE: UR/0129/66/000/005/0031/0033

AUTHORS: Paisov, I. V.; Lisitskaya, L. A.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: High-strength steel for die-casting molds

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 5, 1966, 31-33

TOPIC TAGS: high strength steel, die, metalworking machinery, yield stress, bending strength, steel, cyclic load, sintering/ 3Kh2V8 steel, 4Kh12N8G8MFB steel, 1Kh12N25MT3YuR steel, KhN77TYuR steel

ABSTRACT: The results of a study of various high-strength steels for die-casting molds are given, and the basic requirements for the material are listed. Study of the change in the mechanical properties of 3Kh2V8 steel at 600--800C as a function of temperature and the duration of cyclic tempering indicated that there is pronounced weakening of 3Kh2V8 steel at 750--800C. A material for the most important parts of die-casting molds, dies, and punches should have a yield point of not less than 25 kg/mm^2 at 750--800C, must retain its strength properties with repeated loading and repeated sintering at 750--800C, and must be stable to chemical and mechanical wear. Steel 3Kh2V8 was found to be unsuitable. Steel KhN77TYuR is of doubtful value. Steels 4Kh12N8G8MFB and 1Kh12N25MT3YuR were found to be the better materials, since they contain minimal amounts of nickel. Orig. art. has: 2 tables.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 002 UDC: 621.744.4.06:621.785

Card 1/1 LS

L 38740-66 EWT(m)/T/EWP(w)/EWP(t)ETI IJP(c) JD/JG

ACC NR: AP6025087 SOURCE CODE: UR/0122/66/000/007/0069/0071

AUTHOR: Gryaznov, A. G. (Engineer); Paisov, I. V. (Doctor of technical sciences; Professor)

ORG: none

TITLE: Improving the structure and properties of 10Kh16N25M6 steel by the addition of rare-earth metals

SOURCE: Vestnik mashinostroyeniya, no. 7, 1966, 69-71

TOPIC TAGS: steel, austenitic steel, heat resistant steel, chromium ~~containing~~ steel, cerium, cerium ~~containing~~ steel, steel structure, steel property/ 10Kh16N25M6 steel

ABSTRACT: The effect of cerium on the structure, properties, and on the gas- and nonmetallic-inclusion contents of 10Kh16N25M6 heat-resistant steel has been investigated on a laboratory scale. It was found that alloying with up to 0.03% cerium has an insignificant effect on steel macrostructure; it slightly increases the size of individual columnar crystals and equiaxial grains, and the whole zone of columnar crystals. This, however, does not adversely effect the steel plasticity. Cerium lowers the oxygen and nonmetallic-inclusion content, prevents the formation of a heavy carbide network, and improves the uniformity of carbonitride distribution within the austenite grains. It also increases the steel's ductility, reduces its

 UDC: 621:669.15'24'26'28-194

L 36060-66 EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HW/JG

ACC NR: AP6009261 SOURCE CODE: UR/0122/65/000/011/0058/0060

AUTHOR: Gryaznov, A. G., Engineer; Paisov, I. V., Doctor of technical sciences, Professor

ORG: none

TITLE: Effect of rare-earth metals (REM) on the increase in the hot plasticity of high-alloy stainless 10Kh16N25M6 steel

SOURCE: Vestnik mashinostroyeniya, no. 11, 1965, 58-60

TOPIC TAGS: high alloy steel, plasticity, tensile strength, impact strength, high temperature effect/10Kh16N25M6 steel austenitic steel,

ABSTRACT: The article deals with the effect of REM, added in the form of ferrocerium (~0.2% Ce), on the mechanical properties of 10Kh16N25M6 (0.08-0.10%C, 1.40-1.48% Mn, 0.32-0.44% Si, 0.022% P, 0.009-0.010% S, 15.52-15.78% Cr, 24.32-26.37% Ni, 5.85-6.33% Mo, 0.12% Cu, 0.11-0.12% N) high-alloy austenitic stainless steel in cast and rolled state. The specimens were tested for tensile and impact strength in hot state (at temperatures of 400-1200°C). For comparison, a melt of the same steel but without the addition of ferrocerium was also investigated; it still contained, however, some residual Ce (0.006%) because the charge included some scrap of steel melted with REM. Findings: At temperatures of 400-700°C the ultimate strength σ_B of the Ce-containing cast alloy somewhat increases while plasticity decreases, whereas σ_B of Ce-containing

UDC: 620.186.4:669.15-194.3

L 2112-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD

ACCESSION NR: AP5022402 UR/0369/65/000/004/0461/0464

AUTHOR: Kreymerman, G. I.; Paisov, I. V.

TITLE: Deformation tempering of high-strength structural steel

SOURCE: Fiziko-khimicheskaya mekhanika materialov, no. 4, 1965, 461-464

TOPIC TAGS: steel, structural steel, low alloy steel, steel treatment, thermomechanical treatment, low temperature treatment, steel property/45Kh steel, 45KhM steel, 45KhGS2N3M steel, 45KhGS2MF steel

ABSTRACT: The effect of additional tempering on the mechanical properties of low tempered and then cold worked alloy steels has been investigated. Specimens of 45Kh, 45KhM, 45KhGS2N3M, and 45KhGS2MF steels containing an equal amount of carbon, 0.4 to 0.45%, but different amounts of alloying elements, were austenitized, oil quenched, tempered at 200C for 1 hr, stretched at room temperature with 1% elongation, and again tempered at 200C, 300C, or 400C for 2 hr. It was found that such thermomechanical treatment increased the strength of the 45Kh and 45KhM steels by 10 dan/mm^2, and that of the complex 45KhGS2N3M and 45KhGS2MF steels by 25 dan/mm^2. The yield strength increased by as much as 90 dan/mm^2 and reached up to 240 dan/mm^2 at a satisfactory ductility. In complex alloyed steels, the strengthening effect was not an-

L 2112-66

ACCESSION NR: AP5022402

5

nihilated by tempering at temperatures as high as 400C, which, at the same time, increased the elongation to 6—7%. Generally, the cold working of low-tempered structural steels followed by an additional tempering raises the steel yield strength to at least 220 dan/mm^2 at satisfactory ductility. The beneficial effect of cold working in alloy steels with a high content of silicon is retained with prolonged tempering at temperatures considerably higher than that of the original low tempering. Orig. art. has: 2 figures. [ND]

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys) 44,55

SUBMITTED: 14Mar65 ENCL: 00 SUB CODE: MM

NO REF SOV: 004 OTHER: 006 ATD PRESS: 4113

Card 2/2

PAISOV, I. V.
A. M. SAMARIN, Metallurg, 1938, n. 11, pp. 80-83

Mechanical Properties of Certain High Strength Alloy Steels.

containing 0.4-0.45% C, 1-3% W, up to 1.1% Si, up to 2.5% Ni and up to 1.3% Mn; additionally, one of the steels contained 0.14% Ti. The compositions of the ten tested steels are given in the table, p.3. The steels were smelted in an induction furnace with a basic lining. 10 kg ingots were forged into 14 mm dia. rods; after forging they were slowly cooled and tempered at 680°C. After the primary mechanical working the specimens were hardened from 900°C in oil and then tempered at various temperatures between 200 and 600°C for two hours and cooled in air. Tensile tests were made at room and at elevated temperatures by means of a 5 ton test machine; impact tests were made on a Chapry test machine with specimens notched according to Mesnager. The mechanical properties (average values of 2 to 3 specimens) are graphed in Figs. 2 to 7. As a result of the tests two steels are recommended for the temperature range +20 to -30°C, the respective strength values of which are: limit of elasticity, σ_b = 205 kg/mm^2, yield point, σ_s = 171 kg/mm^2, impact strength, a_k = 6 kgm/cm^2, and σ_b = 225 kg/mm^2, σ_s = 191 kg/mm^2, a_k = 4 kgm/cm^2.

Card 2/3

PAISOV, I. V.

"Mechanical properities of Some types of High-Strength Alloy Steels." (45XH2CB2 steel [0.45% carbon, 1% chromium, 2% nickel, 1% silicon, 2% tungstun - according to designation] has a tencile strength of 230 Kg/mm^2 and a notch toughness of $4m\text{-}Kg/cm^2$).

Paper presented at the All-Union Conference on Heat Treatment and Metal Science held in May 1960, Odessa.

KIDIN, I.N.; PAISOV, I.V.; BELYAKOV, B.G.; LIZUNOV, V.I.

Heat treatment of bore rods made of U7 and 55C2 steel. Izv.vys. ucheb.zav.; chern.met. 4 no.9:138-142 '61. (MIRA 14:10)

1. Moskovskiy institut stali.
(Tool steel--Heat treatment) (Rock drills)

PAISOV, I.V.; PANCHENKO, Ye.V.; BUTENKO, O.I.

Processes occuring during the tempering of complex alloy steel.
Izv. vys. ucheb. zav.; chern. met. 4 no.7:149-153 '61.
(MIRA 14:8)

1. Moskovskiy institut stali.
(Steel alloys—Heat treatment)

SHUKYUROV, R.I.; PAISOV, I.V.

Effect of certain alloying elements on elasticity and fatigue limits of silicon steel for boring rods. Izv. vys. ucheb. zav.; chern. met. 7 no.9:131-136 '64. (MIRA 17:6)

1. Moskovskiy institut stali i splavov.

TOMSINSKIY, V.S.; PAISOV, I.V.

Changes in the relative narrowing of silicon-alloyed steels.
Metalloved. i term. obr. met. no.8:49-50 Ag '64. (MIRA 17:10)

1. Moskovskiy institut stali i splavov.

PAISOV, I.V.; BASHNIN, Yu.A.; TOMSINSKIY, V.S.

Effect of heat treatment on the properties of alloyed tool steels. Stan. i instr. 35 no.10:32-33 O '64. (MIRA 17:12)

BELYAKOVA, A.F.; PAISOV, I.V.; KRYAKOVSKIY, Yu.V.; TATARINTSEV, V.Ya.

Grain boundaries in structural steel with and without additions of rare earth metals. Izv. vys. ucheb. zav.; chern. met. 8 no.9:163-167 '65. (MIRA 18:9)

1. Moskovskiy institut stali i splavov.

VISHNYAKOV, Dmitriy Yakovlevich; PAISOV, Ivan Vasil'yevich; LAKHTIN, Yu.M., redaktor; ATTOPOVICH, M.K., tekhnicheskiy redaktor

[Laboratory manual for steel and heat treatment of steel] Posobie k laboratornym zaniatiiam po metallovedeniiu i termicheskoi obrabotke stali. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1955. 113 p. (MLRA 8:7)
(Steel)

PAISOV, I.V., prof., doktor tekhn. nauk; SHUKTUROV, R.T., inzh.

Steel for small diameter core rods. Gor. zhur. no.11:41-44
N '63. (MIRA 17:6)

1. Moskovskiy institut stali i splavov.

SOURCE: IVUZ. Chernaya metallurgiya

containing ... vanadium

ferritic steel

... drill steel used in the mining industry for drilling through various

Card 1/3

ACCESSION NR AP5001945

The best combination of ... 55S2V and 55S2FM, in which ... was obtained for steels 55S2... after tempering at 450 C; elastic ... ing in air following hot rolling and the fatigue strength between 74 and 88 varied betwen 103 and 120 kg/mm^2 and the fatigue strength between 74 and 88 kg/mm^2. Orig. art. has 4 figures and 3 tables.

(Moscow Institute of Steel and

Card 2/3

L 16008-65
ACCESSION NR: AP5001945

SUBMITTED: 21Apr64

NO REF SOV: 005 OTHER: 001 JPRS

Card 3/3

FAISOV, T. V.
A. M. SAMARIN, Metallurg, 1938, (11), 80-83

CA

PROCESSES AND PROPERTIES INDEX

13

Smoke-producing substances and the possibility of their production in our country [Jugoslavia]. M. Patrch. *Arhiv. hem. farm.* 4, 21-33(1930).—After a comprehensive search in the literature of smoke-producing substances, Berger's researches (*C. A.* 14, 2765-6) seem to be best suited for application in Jugoslavia. J. Kučera

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PAIVEL, A.

Beautify the ce rters of collective farms and individual dwellings with verdant grounds.

P. 316, (Sotsialistlik Pollumajandus) Vol. 12, no. 7, July 1957, Tallinn, Estonia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

PAIYIZ, E.
I. SZEKTAS, Magyar Kemiai Folyoirat, v. 46, 1950, n. 11, Nov.

PAIYU, L.

Community centers - Rumania

In the Rumanian club "Krasnaya Grivitsa." Club no. 8, August 1952

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

PAIYU, L.

Rumania - Community Centers

In the Rumania club "Krasnaia Grivitsa." Klub no. 8, 1952.

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

PAIZS, Janos

"Territorial input-output balances" by Rold Pieplow (from "Sozialistische Planwirtschaft," no.10, 1962). Reviewed by Janos Paizs. Stat szemle 41 no.6:657-658 Je '63.

PAIZS, Janos

"The effect of population growth on the consumer's demand" by Michael Tucke. Reviewed by Janos Paizs. Stat szemle 42 no.5:560-562 My '64.

PAIZS, Z.

FAIPAR. (Faipari Tudomanyos Egyesulet) Budapest.

Experiences in the field of manufacturing chairs in Czechoslovakia. p.243.

Vol. 8, No. 8/9, Aug./Sept. 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 3, March 1959 Unclass.

PAIZS, Z.

Improvement of the armchairs for theaters and motion-picture theaters. p.79

FAIPAR. (Faipari Tudomanyos Egyesulet)
Budapest, Hungary
Vol. 9, no.3, Mar. 1959

Monthly List of East European Accessions (EEAI) LC., Vol. 8, no.7, July 1959
Uncl.

ACCESSION NR AP[illegible]

AUTHOR Pajaczkowska, Anna

TITLE: Photoconductive [illegible]

[illegible] 165

[illegible] Przeglad elektron[illegible]

[illegible] cadmium tellur[illegible]
[illegible] layer, photoconductive [illegible]
[illegible] radiation [illegible]

ABSTRACT Photoconductive layers were produced [illegible] The layers were pr[illegible]
[illegible] spectrally were [illegible]
[illegible]
[illegible] to produce [illegible]
[illegible] over the temperature [illegible]
[illegible] advantageous temperature [illegible]
oxygen pressures. [illegible]
[illegible] in vacuum and with various [illegible]

[illegible] 2

L 10594-65

ACCESSION NR: AP4038542

of 0.1 mm Hg turned out to be the best. [illegible] sensitization was [illegible]

[illegible]

ASSOCIATION: Institut fiziki DAN [illegible] (Institute of Physics, [illegible])

[illegible]

CZARNY, Jerzy, mgr., inz.; PAJAK, Barbara, mgr.

A four shift work system in the iron and steel industry. Ekon org pracy 13 no.1:5-11 '62.

PAJAK, Boguslaw

Chronic inflammation of the orgital muscles (myositis orbitalis chronica). Neur. &c polska 10 no.3:319-325 My-Je '60.

1. Z Kliniki Neurologicznej A.M. w Krakowie Kierownik: prof. dr Wl.Jakimowicz
(MYOSITIS case reports)
(ORBIT dis)

PAJAK, Boguslaw; STEFANKO, Stanislaw; SZNAJDEROWA, Regina

Clinical picture and some histopathological characteristics of the nervous system in a case of acute porphyria. Neurologia etc., polska 12 no.2:203-211 '62.

1. Z Kliniki Neurologicznej AM w Krakowie Kierownik: prof. dr W.Jakimowicz.

(PORPHYRIA pathol) (NERVOUS SYSTEM pathol)

PAJAK, Boguslaw; SZNAJDEROWA, Regina

Angiogenic spinal paralysis of the upper extremities following an injury. Neurol. neurochir. psychiat. pol. 13 no.2:197-203 '63.

1. Z Kliniki Neurologicznej AM w Krakowie Kierownik: prof. dr W. Jakimowicz.

(SPINAL CORD INJURIES) (PARALYSIS)
(ARM) (VASCULAR DISEASES)

PAJAK, Boguslaw

Paroxysmal fear as a sign of epileptic seizures. Neurol., neuro-chir. psychiat. Pol. 14 no.3:529-531 My-Je '64

1. Z Wojewodzkiej Poradni Neurologicznej w Krakowie (Konsultant naukowy: doc. dr. med. S. Zebrowki).

PAJAK, Boguslaw; PFEIFER-BRYNIARSKA, Danuta.

Ataxia-teleangiectasis. Neurol., neurochir., psychiat. Pol. 14 no.3:533-535 My-Je '64

1. Z Kliniki Neurologicznej Akademii Medycznej w Krakowie (Kierownik: prof. dr. W. Jakimowicz).

DANILEWICZ, Halina; PAJAK, Boguslaw

Simultaneous lesions of the vestibular and facial nerve in herpes zoster oticus. Neurol., neurochir., psychiat. Pol. 15 no.1:71-76 Ja-F'65.

1. Z Kliniki Neurologicznej Akademii Medycznej w Krakowie (Kierownik: prof. dr. W. Jakimowicz).

PAJAK, F.

Research on sand deposits ffom the viewpoint of needs of the cement industry. p.61
CEMENT, WAPNO, GIPS (Panstwowe Wydawnictwa Techniczne) Krakow
Vol. 12, no. 3, Mar. 1956

So. East European Accessions List Vol. 5, No. 9 September 1956

SZYGOCKI, Anatol, mgr chem; NURKIEWICZ, Artur, techn mech; PIECZARA, Stefan, mgr chem.; PAJAK, Franciszek, inz.

Influence of sodium sulfite on the fluidity of sludge. Gosp paliw 11-Special issue no.(95):3-5 Ja '63.

1. Zjednoczenie Przemyslu Cementowego, Sosnowiec, (for Szygocki and Nurkiewicz). 2. Cementownia Nowa Huta, Krakow (for Pieczara). 3. Najwyzsza Izba Kontroli, Delegatura Katowice (for Pajak).

ADAMICZKA, Jerzy; PAJAK, Irena

Production of indium from Polish raw materials. Przegl elektroniki 4 no.12:699-701 D '63.

1. Instytut Metali Niezelaznych, Gliwice.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012387

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

11F

Comparative studies of different methods for determining maltose. A. Tychowski and I. Pajak. *Rocsniki Chem.* 17, 383-6(in German 386)(1937).—Better results are obtained by the method of Bertrand than by the methods of Willstätter and Schudel (C. A. 13, 400) Bang (C. A. 1, 590) or the grav. detn. with the aid of Fehling soln. M. Wojciechowski

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

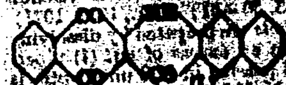
BC

A-3

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

[illegible] (Bull. [illegible]) [illegible] -y-1:4- [illegible] with [illegible] (I), m.p. 410° [illegible] derivatives [illegible] corresponding [illegible], and [illegible]). Sulphonic acids of (I) and of its NO_2-derivatives are described.



R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

3RD AND 4TH ORDERS

2ND LETTER

1ST AND 2ND LETTER

AUTHOR INDEX

BC

Comparative study of determination of maltose by the gravimetric method with Fehling's solution, and by Bertrand's, Willstätter and Schoorl's, and [illegible] volumetric methods. A. [illegible] and J. [illegible] ([illegible] Chem., 1937, 17, [illegible]).—Bertrand's method is preferred. R. T.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

PAJAK, J; BEBEN, A; OMDERKA Z.

The technique of deep-hole blasting in quarrying stone for crushing.

P. 266 (DROGOWNICTWO) Poland Vol. 11, No. 11, Nov. 1956
P.S. A plan of new Soviet Technical Conditions of the Building of Concrete road Surfaces.

SO: Monthly Index of East European Accessions (AEEI) Vol. 6, No.11, Nov. 1956

PAJAK, J,

Automatic reclosing of 11 kv. circuit breakers of the VEL and VEZL types. p. 156

ENERGETYKA (Ministerstwo Gornictwa i Energetyki oraz Stowarzyszenie Elektrykow Polskich) Bytom, Poland. Vol. 13, no. 6, June 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 9, September 1959
Uncl.