"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.G.

Markov processes whose output probabilities are majorized by the analogous probabilities for Wiener processes. Trudy Mosk. mat. Ob-va 13:324-346 '65. (MIRA 18:9)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.G.

Linear differential equations with randomly perturbed parameters. Izv. AN SSSR. Ser. mat. 29 no.4:783-806 '65. (MIRA 18:9)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M. S.

Mbr., Polyclinic No. 1, Sverdlovsk, -c1948-c49-. "Use of the Coprological Method in Polyclinics in the Diagnosis of Dysentery," Sov. Med., No. 6, 1948; "Problem of the Clinical Aspects and Course of Amoebic Dysentery," ibid., No. 4, 1949; "Treatment of Chronic Dysentery with Gramicidin and a Ten-Percent Solution of Calcium Chloride, ibid., No. 7, 1949.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

PA 15/49T90

SHUR, M. S.

USSR/Medicine - Dysentery, Diagnosis Jun 48
Medicine - Feces, Examination

"Use of the Coprological Method in Polyclinics in the Diagnosis of Dysentery," M. S. Shur, Polyclinic No 1, Sverdlovsk, 1½ pp

"Sov Med" No 6

Coprological method is faster than bacteriological. Analyzes 140 cases. Describes two in detail. Concludes that use of coprological method in polyclinics considerably increased possibility of diagnosis in latent and chronic dysentery cases and should therefore be used.

[redacted] 15/49T90

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

PA 65/49T80

USSR/Medicine - Dysentery, Amoebic Diagnosis, Methods — Apr 49

"Problem of the Clinical Aspects and Course of Amoebic Dysentery," M. S. Shur, Sverdlovsk, 1 p

"Sov Med" No 4

Symptoms of amoetic dysentery often resemble those of colitis and gastroenteritis. The feces must be examined in all cases of acute and chronic gastrointestinal diseases. There are often atypical forms and cases with both bacillary and amoebic dysentery. The greatest problem is simultaneous diagnosis and treatment of chronic and atypical

[redacted] 65/49T80

USSR/Medicine - Dysentery, Amoebic (Contd) — Apr 49

clinical forms of amoebic dysentery which can be erroneously diagnosed.

[redacted] 65/49T80

SHUR, M. S.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

PA 153T77

SHUR, M. S.

USSR/Medicine - Dysentery Jul 49
Chemotherapy

"Treatment of Chronic Dysentery With Gramicidin and a Ten-Percent Solution of Calcium Chloride," M. S. Shur, Polyclinic No 1, Sverdlovsk, 1 p

"Sov Med" No 7

Tests on 50 patients at the polyclinic proved that Gramacidin S enemata in calcium chloride is effective therapeutic medium for treating chronic bacillary dysentery. Continued investigations on patients treated by this method indicated that in 95% of the cases recovery was complete.

153T77

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S. (Sverdlovsk).

Treating patients with chronic dysentery by the A.F.Bilibin method in combination with gramicidin and nicotinic acid. Sov.med.18 no.3:16-18 Mr '54. (MLRA 7:2)
(Dysentery)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S.

Treating chronic dysentery with biomycin and intrarectal ecmolin in combination with vitamin B_1. Sov.med. 21 no.11:123-125 N '57. (MIRA 11:3)

1. Iz gorodskoy bol'nitsy No. 12 (glavnyy vrach V.A.Titova) Sverdlovska.

(ANTISEPTICS, ther. use
ekmolin, intrarectal, in bacillary dysentery, with chlortetracycline & vitamin B_1)
(CHLORTETRACYCLINE, ther. use
dysentery, bacillary, with intraredtal ekmolin & vitamin B_1)
(VITAMIN B_1, ther. use, dysentery, bacillary, intrarectal admin. with ekmolin & with chlortetracycline)
(DYSENTERY, BACILLARY, ther., same)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S.

The role of rectoromanoscopy in the prevention of dysentry. Sov.med. 21 no.3:107-109 Mr '57. (MIRA 10:7)

1. Iz 12-y gorodskoy bol'nitsy Sverdlovska (glavnyy vrach V.A. Titova).

(DYSENTERY, prev. and control
rectoromanoscopy in food industry workers)
(INDUSTRIAL HYGIENE
rectoromanoscopy in prev. of dysentery in food industry workers)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S.(Sverdlovsk)

Chronic forms of dysentery. Fel'd. i akush. 22 no.1:24-29 Ja '57 (MLRA 10:4)

(DYSENTERY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S. (Sverdlovsk)

Chronic colitis. Fel'd. i akush. 23 no.2:13-19 F '58. (MIRA 11:3)
(COLITIS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S. (Sverdlovsk)

Alcoholism and diseases of the digestive organs. Fel'd. i akush. 23 no.7:52-54 Jl '58 (MIRA 11:8)
(ALCOHOLIMS)
(DIGESTIVE ORGANS--DISEASES)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S. (Sverdlovsk)

Early diagnosis of obliterated atypical forms of dysentery in the polyclinic. Fel'd. i akush. 23 no.9:15-19 S'58 (MIRA 11:10)
(DYSENTERY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S. (Sverdlovsk)

Treatment of chronic dysentery with biomycin and ecmolin per rectum in combination with vitamin B1. Klin.med. 36 no.2:130-133 F '58. (MIRA 11:4)

1. Iz 12-y gorodskoy bol'nitsy Sverdlovska (glavnyy vrach B.A. Titova)

(DYSENTERY, BACILLARY, ther.
chlortetracycline & ekmolin, rectal admin., with vitamin B1 (Rus))
(CHLORTETRACYCLINE, ther. use
bacillary dysentery, with ekmolin, rectal admin., & vitamin B1 (Rus))
(ANTISEPTICS, ther. use
ekmolin in bacillary dysentery, with chlortetracycline, rectal admin., & vitamin B1 (Rus))
(VITAMIN B 1, ther. use
bacillary dysentery, with chlortetracycline & ekmolin, rectal admin. (Rus))

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S. (Sverdlovsk)

Treatment of dysentery. Med.sestra 18 no.8:3-8 Ag '59. (MIRA 12:10)

(DYSENTERY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S., vrach

What colitis is. Med.sestra 19 no.2:27-31 F '60. (MIRA 13:5)

(COLITIS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, M.S. (Sverdlovsk)

What one must know about dysentery. Med.sestra 19 no.11:27-32 N '60. (MIRA 13:11)

(DYSENTERY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

GUBANOV, A.I.; SHUR, M.S.

Dynamics of crystals with a rutile structure. Fiz. tver. tela 7 no.9:2626-2633 S '65. (MIRA 18:10)

1. Fiziko-tekhnicheskiy institut imeni A.F.Ioffe AN SSSR, Leningrad.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

L 26368-66 EWT(1)/EWT(m) JD/JG

ACC NR: AP6012498 SOURCE CODE: UR/0181/66/008/004/1267/1269

26
21
B

AUTHOR: Shur, M. S.

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Variation in the low-frequency vibrational spectrum of KH_2PO_4 during phase transition

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1267-1269

TOPIC TAGS: vibration spectrum, phase transition, phosphate, potassium compound, crystal theory

ABSTRACT: Motion of the primary acid phosphate groups as a whole in the low-temperature modification of KH_2PO_4 is analyzed in an attempt to understand variations in the low-temperature vibrational spectrum of this crystal during phase transition. The elementary cell of the model for the H_2PO_4 group is shown in the figure where the numbers indicate nonequivalent particles. The analytic formulas used for calculating the low frequencies in the Raman spectrum are given together with a table comparing theoretical and experimental values above and below the Curie point. Calculations of frequency A_2 give an imaginary value which indicates that the model used for describing the normal mode is incorrect. The remaining frequencies agree satisfactorily with

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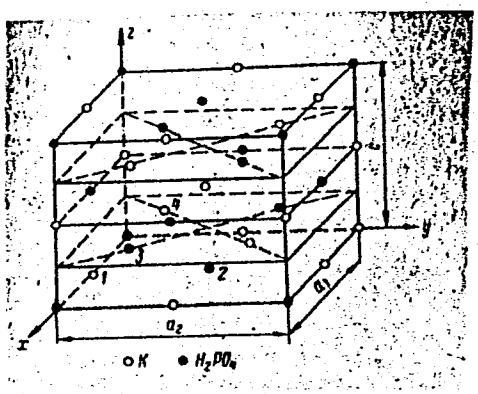
L 26368-66

ACC NR: AP6012498



experimental data. Theoretical predictions indicate splitting on some frequencies which may be experimentally detected with measurements in polarized light. I consider it my duty to thank A. I. Gubanov for interest in the work and valuable remarks, A. I. Stekhanov and Ye. A. Popova for proposing the topic and discussing the results and N. I. Lavnikova for assistance with the numerical calculations. Orig. art. has: 1 figure, 1 table, 3 formulas.

SUB CODE: 20/ SUBM DATE: 18Oct65/ ORIG REF: 006/ OTH REF: 006

Potassium

27

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

L 00705-66 EWA(c)/EWT(1)/EWT(m)/EWP(i)/EWP(b)/T/EWP(e)/EWP(t) IJP(c) GG/WH/JD

ACCESSION NR: AP5022697 UR/0181/65/007/009/2626/2633

AUTHOR: Gubanov, A. I.; Shur, M. S.

TITLE: Dynamics of crystals with rutile structure

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2626-2633

TOPIC TAGS: titanium dioxide, vibration spectrum, spectrum analysis, Raman spectrum, IR spectrum, Brillouin zone

ABSTRACT: A group-theoretical analysis of the vibration spectrum for crystals with rutile structure ($A^{IV}B_2^{II}$) is made for all singular points in the Brillouin zone. Melvin projection operators are used to derive formulas and secular equations of the second and third orders for vibration frequencies at a wave vector value of $q = 0$, starting from a secular equation of the 18th order. The results of numerical calculations for rutile (TiO_2) are used for interpreting infrared and Raman spectra and for determining effective ion charge. The ratio of the effective charge to the charge on the ion is found to be 0.63. Orig. art. has: 3 figures, 11 formulas, 4 tables.

Card 1/2

Card 2/2

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

L 06444-67 EWT(1)/EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD/JG/GG
ACC NR: AP6026724 SOURCE CODE: UR/0181/66/008/008/2504/2507

AUTHOR: Shur, M. S.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Normal translational vibrations of the ferroelectric crystal KH_2PO_4

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2504-2507

TOPIC TAGS: crystal lattice vibration, ferroelectric crystal, potassium phosphate

ABSTRACT: The normal vibrations of KH_2PO_4 were determined by theoretically calculating the frequencies of its translational vibrational spectrum at relatively low frequencies (up to 200 cm^{-1}). Fig. 1 and 2 show the normal translational vibrations of KH_2PO_4 for the high- and low-temperature modifications respectively, and give the corresponding frequencies. Comparison of these figures shows the character of the variation of normal translational vibrations during a phase transition. Authors thank A. I. Gubanov for useful remarks, A. I. Stekhanov and Ye. A. Popova for discussing the results, and N. I. Lavnikova for assistance in the numerical computations. Orig. art. has: 2 figures and 12 formulas.

Card 1/3

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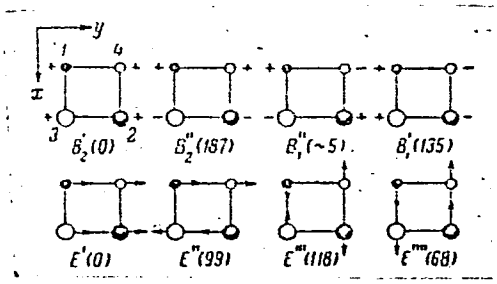
ACC NR: AP6026724

Fig. 1. Normal translational vibrations of KH_2PO_4 above the Curie point.[1b] Small circles represent K^+ ions, and large ones, (H_2PO_4) groups. Black circles represent particles in xy plane, and white circles, particles in the c/4 level. Shifts along axes x and y are indicated by arrows, with a plus sign in the positive direction and a minus sign in the negative direction. Numbers in parentheses denote the corresponding frequencies in reciprocal centimeters.



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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

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ACC NR: AP6026724

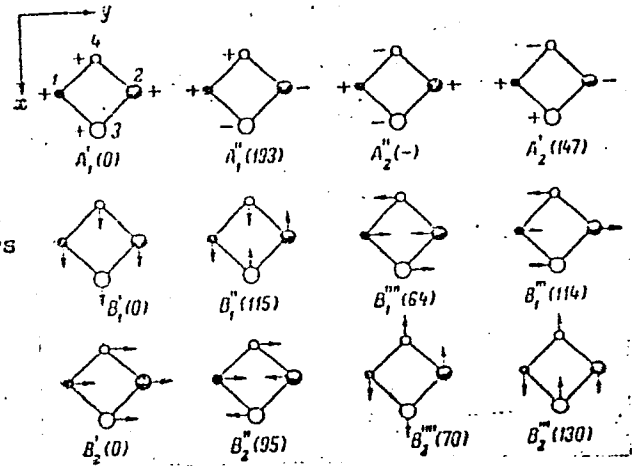

Fig. 2. Normal translational vibrations of KH_2PO_4 below the Curie point. Numbers in parentheses denote the corresponding frequencies in reciprocal centimeters.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

65707
SOV/139-59-2-6/30

24.2500

AUTHORS: Zverev, L.P., Noskov, M.M. and Shur, M.Ya.

TITLE: The Effects of an Electric Field on the Spectral Response Curve for Photoconductivity in Cuprous Oxide

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1959, Nr 2, pp 39-42 (USSR)

ABSTRACT: Polycrystalline Cu_2O is used at 77°K in this work. The spectral response is examined at high dispersion (6 Å/mm) with a grating spectrograph and the absorption spectra are also recorded. Only two field strengths (300 and 6000 V/cm) are used. Fig 1 shows spectral response curves (uncorrected for the energy distribution in the exciting spectrum); the wavelength scale is in mμ; Fig 2 shows a small region at higher resolution. Fig 3 shows the effect of the field for one specimen; curve I relates to 300 V/cm and curve II to 6000 V/cm. The first exciton line occurs in absorption at 612.53 mμ but it can be detected only in thick specimens; it is not seen in Fig 4b. (Fig 4a is merely Fig 3 on a larger scale.) Figure 4c is at the top right and relates to 6000 V/cm; Fig 4b is at the bottom right (300 V/cm). The second and third exciton lines lie at 579.2 and 575.6 mμ respectively

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84619

S/181/60/002/010/049/051
B019/B056

24.7700 (1043,1143,1559)

AUTHORS: Zverev, L. P., Noskov, M. M., and Shur, M. Ya.

TITLE: On the Contour of the Exciton Absorption Bands in Cuprous Oxide

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 10, pp. 2643 - 2646

TEXT: In the introduction the results obtained by investigations of the optical properties of crystals, especially of the absorption spectra, are discussed. Among others, E. I. Rashba, A. S. Davydov, and Ye. F. Gross are mentioned. The authors of the present paper experimentally investigated the contour of the second band of the yellow series of exciton absorption bands and of thin cuprous oxide single crystals at temperatures of from 4.2 - 190°K. The measurements were carried out on a diffraction spectograph of the type ДФС-4 (DFS-4) with high dispersion and photoelectric recording. The three samples investigated had a thickness of 9, 30, and 110 μ, respectively, and were produced from thin copper foils by oxidation in air at 1030°C. The contours of the exciton

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84619

On the Contour of the Exciton Absorption Bands in Cuprous Oxide

S/181/60/002/010/049/051
B019/B056

absorption bands (n = 2) in all three samples investigated showed good agreement. The maximum absorption coefficient was measured at 77.3°K as amounting roughly to 180 cm^{-1}. The temperature dependence of the exciton absorption line width is graphically represented in Fig. 1, and from the contour of the absorption line showed in Fig. 2 the good agreement of the measured results with those obtained from the formula (1) given by Toyozawa (Ref.3) for the absorption coefficient may be recognized. Thus, the opinion expressed by Toyozawa that the broadening of the exciton absorption bands is caused by the exciton-phonon interaction, is confirmed. Furthermore, it is also confirmed that the lifetime of the photoexcitons at temperatures below 55°K is principally determined by zero-vibrations of the lattice. From the good agreement between the experimental data with the theory, the conclusion may be drawn that only the acoustic branch of the lattice-vibration spectrum plays an essential part in exciton-phonon interaction. The authors thank N. V. Volkenshteyn for his assistance in the experiments and G. G. Taluts for discussing the results obtained. There are 2 figures and 10 references: 5 Soviet, 4 US, and 1 German.

Card 2/3

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

30808
S/181/61/003/011/056/056
B109/B102

9,4178 (1035,1114,1482)

AUTHORS: Zverev, L. P., Noskov, M. M., and Shur, M. Ya.

TITLE: Photomagnetoelectric effect and band structure in cuprous oxide

PERIODICAL: Fizika tverdogo tela, v. 3, no. 11, 1961, 3556-3558

TEXT: Owing to the lack of an appropriate monochromatic light source the spectral behavior of the photomagnetoelectric effect (PME) could so far not be sufficiently studied. These difficulties could be overcome by using a Д-3 (D-3) lamp with strong monochromators (pass band 15 to 40 Å). The measurements were made with 150-300-micron thick cuprous oxide platelets at 77°K in 25-koe fields between 4000 and 7000 Å. In this case the dark conductivity was much lower than photoconductivity. Fig. 1 shows the measurement results which clearly indicate three spectral ranges: (1) No PME occurs above 5800 Å. This can be explained by the fact that electrons are produced in the polaron state. As compared to the free electrons their mobility is lower and their diffusion length is shorter. (2)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

0808
S/61/003/011/056/056
Photomagnetoelectric effect and band ... B109/B102

ASSOCIATION: Ural'skiy gosudarstvennyy universitet im. A. M. Gor'kogo Sverdlovsk (Ural State University imeni A. M. Gor'kiy Sverdlovsk)

SUBMITTED: August 25, 1961

Fig. 1. Spectral dependence of the photoconductivity (б) and of the short-circuit current of the PME (а,в) for Cu_2O.

Legend: (1) I_{sc} short-circuit current; σ_{ph}, photoconductivity in arbitrary units; в is the first part of curve а on an enlarged scale.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, N.

Searcher for the new. Grazhd.av.13 no.3:11 Mr '56. (MLRA 9:7)
(Zolotarev, Nikolai Vasil'evich)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

MINKEVICH, A.N., kand.tekhn.nauk; Prinimali uchastiye: ANDRYUSHECHKIN, V.I.; AKULINICHEV, Ye.V.; SHUR, N.F.

Boride diffusion layers on metals. Metalloved. i term. obr. met. no.8:9-15 Ag '61. (MIRA 14:8)

(Case hardening) (Borides)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

S/129/62/000/007/008/008
E111/E535

AUTHORS: Zheleznyakova, Sh.R. and Shur, N.F., Engineers

TITLE: Non-scaling and heat resisting alloys in a carburizing atmosphere

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no.7, 1962, 52-57

TEXT: The authors have studied the behaviour of chromium, chromium-nickel and iron-chromium-aluminium steels and alloys at 1050°C in the following atmosphere: 0.1-0.2% CO_2, 30-35% CO, 55-60% H_2, 0.1-0.3% CH_4 and N_2 remainder. Details of the test procedure have been described previous (Elektrotermiya, no.2,1961). The following were tested: resistance alloys types ОХ27Ю5А (OKh27Yu5A), ОХ23Ю5А (OKh23Yu5A), Х20Н80 (Kh20N80), Х20Н80Т3Б (Kh20N80T3B), Х27Н70Ю3 (Kh27N70Yu3), Х15Н60 (Kh15N60), Х15Н60Ю3А (Kh15N60Yu3A); deforming steels 1Х13 (1Kh13), 2Х13 (2Kh13), Х17 (Kh17), Х25 (Kh25), Х25Т (Kh25T), Х6СЮ (Kh6SYu), Х12СЮ (Kh12SYu), Х18СЮ (Kh18SYu), Х23Н18 (Kh23N18), Х25Н25ТР (Kh25N25TR), Х25Н16ГНАР (Kh25N16GNAR), ЭИ921 (EI921); cast steels Х18Н35Ч (Kh18N35Ч), Х18Н24С2Л (Kh18N24S2L), Х24Н12Л (Kh2412L), Х25Н19С2Л

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

L 43050-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD/WB

ACC NR: AR6014386 (A,N) SOURCE CODE: UR/0137/65/000/011/I071/I071

AUTHORS: Zheleznyakova, Sh. R.; Zakatova, N. A.; Eyfer, M. Yu.; Shur, N. F. 68

TITLE: The behavior of high-temperature and scale-resistant steels and alloys in an endothermic atmosphere with different carbon potentials B

SOURCE: Ref. zh. Metallurgiya, Abs. 11I501

REF SOURCE: Tr. Vses. n.-i. in-ta elektroterm. oborud., vyp. 1, 1965, 224-235

TOPIC TAGS: steel, alloy steel, Kh25N20S2 steel, Kh25 steel
heat resistant steel, endothermic effect, gas corrosion, metal oxidation, corrosion resistance

ABSTRACT: Fourteen types of Cr-, Cr-Ni-, and Fe-Cr-Al steels and alloys were investigated. The endothermic atmosphere had a carbon potential 0.3--0.4% C and 0.8--0.9% C. The experimental temperature was 1050C, the duration of experiments was 100, 300, 500, 700, and 1000 hours. The furnace pressure was 10--15 mm H_2O. The flow rate was 350 liter/hr. The overall depth of gaseous corrosion was determined in terms of the sum of the surface and intercrystalline corrosion. The oxidation curves are compared with the oxidation in air; the carbon potential of the latter is assumed to be 0% C. All steels and alloys investigated were subject to surface oxidation; many carbonized, and steel Kh25N20S2 showed intercrystalline corrosion. Scale resistance of the investigated materials in an atmosphere of carbon potential 0.3--0.4 % C for short exposure is better and for long exposures worse than in an atmosphere of endogas with a carbon potential of 0.8--0.9 % C. For all exposures

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ACC NR: AR6014386

(for steel Kh25 after 10 000 hr), the scale resistance in endogas is better than in air. Recommendations for the use of the investigated materials for parts and the construction of electrical furnaces are presented. I. Strebkov [Translation of abstract]

SUB CODE: 11

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L 43091-66 EWT(m)/EWP(t)/ETI IJP(c) JD/WB

ACC NR: AR6014387 (A,N) SOURCE CODE: UR/0137/65/000/011/I073/I073

47
B

AUTHORS: Zheleznyakova, Sh. R.; Shur, N. F.

TITLE: Influence of elongation stresses on the oxidation of high-temperature steels

SOURCE: Ref. zh. Metallurgiya, Abs. 11I511

REF SOURCE: Tr. Vses. n.-i. in-ta elektroterm. oborud., vyp. 1, 1965, 235-239

TOPIC TAGS: austenite steel, high temperature oxidation, tensile stress, alloy steel / KhN77TYuR alloy steel, 1Kh25N25TR austenite steel, Kh23N18 austenite steel

ABSTRACT: The alloys KhN77TYuR (EI 427B) and the austenitic steels 1Kh25N25TR (EI 813) and Kh23N18 (EI417) were investigated. Cylindrical specimens, 10 mm in diameter and 150 mm long, were investigated for 145 hours at 1100C under a load of 0--0.5 kg/mm^2. It was found that surface oxidation increases linearly with increase in tension. The following formula is proposed for the calculation of the approximate weight loss of metal during oxidation working under a load of P_1 (kg/mm^2). $P_1 = P_0 + 1000$ kv where P_0 is the weight loss for $\sigma = 0$ kg/mm^2;

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

ACC NR: AT6034469 (A) SOURCE CODE: UR/0000/66/000/000/0295/0297

AUTHOR: Shur, N. F.

ORG: none

TITLE: Effect of certain factors on the oxidation of steels and alloys used in the construction of electric furnaces

SOURCE: AN SSSR. Institut metallurgii. Svoystva i primeneniye zharoprochnykh splavov (Properties and application of heat resistant alloys). Moscow, Izd-vo Nauka, 1966, 295-297

TOPIC TAGS: metal oxidation, heat resistant alloy, heat resistant steel, nickel base alloy, intergranular corrosion

ABSTRACT: The work reports an investigation of the effect of stresses and of internal defects on the oxidation of heat resistant materials. The materials tested were the nickel base alloy KhN77TYuR (EI437B) and the austenitic steel 1Kh25N25TR (EI813) which have a tendency toward intercrystalline corrosion at high temperatures in an atmosphere of air, and steel Kh23N18 which, under these conditions, is not subject to this type of oxidation. Standard cylindrical samples of steel Kh23N18, 10 mm in length and 150 long, were tested for creep for a period of 145 hours at a temperature of 1100°C, under the action of different loads. The results, plotted in a curve, show

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ACC NR: AT6034469

that surface oxidation of this steel increases linearly with an increase in the stresses. The tests on alloy KhN77RYuR and steel 1Kh25N25TR were carried out at a temperature of 1000° with different holding times and loadings. Results, shown graphically, demonstrate that the greater the applied stress and holding time, the larger the layer of intercrystalline oxidation. The study of the laws governing the oxidation of heat resistant alloys, used for the fabrication of heating elements, were carried out on the most widely used alloy, type Kh20N80, which has a high ohmic resistance. Samples made in the form of spiral heating elements were tested in air in laboratory units at a temperature of 1200°; the tests were continued to burnout. In the operating process, the heater became covered with a thick friable layer of black colored oxides. After a holding time of 2450 hours, the scale contained: 64.17% Ni; 24.4% Cr; 5.2% Fe. X ray phase analysis established that the scale had the composition: $NiO + (Cr_2O_3)_{small} + (FeO)_{trace}$. After a holding time of 100 hours, the scale on this alloy consisted of the oxides $Cr_2O_3 + NiCr_2O_4 + NiO$, which corresponds to literature data. Orig. art. has: 2 figures.

SUB CODE: 11/ SUBM DATE: 10Jun66/ ORIG REF: 003/ OTH REF: 002

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SHUR, R., inzh.

The "Moskvich" automobiles with van bodies. Avt. transp. 36 no.12:33 D '58. (MIRA 11:12)
(Motortrucks)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

ZABEZHINSKAYA, N.A.; OZEROVA, V.F.; SHUR, R.L.

Changes in the higher nervous activity and other functions in dogs under the influence of threshold amounts of acrylonitrile. Uch.zap.Mosk.nauch.-issl.inst.san. i gig.no.3:68-72'60. (MIRA 16:7)

(CONDITIONED RESPONSE) (ACRYLONITRILE--TOXICOLOGY)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

YAKOBSON, Ya., inzh.; SHUR, S., inzh.

Fibrolite floor boards. Stroi. mat. 4 no.3:9-10 Mr '58. (MIRA 11:3)
(Floors) (Sillimanite)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

VOLKOV, A., inzh.; SHUR, S., inzh.; YAKOBSON, Ya., inzh.

Improving the production of fibrolite. Stroi. mat. 4 no.8:21-23 Ag '58. (MIRA 11:9)

(Sillimanite)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

POPOV, I.S.; KIRILLOVA, N.I.; SHUR, S.G.; SCHUCHMAN, V.M.

Role of yeast-like fungi in eczema. Vest. vener. No.3:29-30 May-June 50. (CIML 19:4)

1. Of the Skin-Venereological Clinic (Director -- Prof. I.S.Popov), Second Khar'kov Medical Insitute (Director- Docent P.L.Shchupik).

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, S. I. Cand. Chem. Sci.

Dissertation: "Physicochemical Investigations of Wetting and Substantiation of Certain Printing Processes." Moscow Order of Lenin State U. imeni M. V. Lomonosov, 29 Jan 47.

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

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

ANISIMOVA, Ye.G., inzh.; SHMIDT, A.A., kand.tekhn.nauk; SHUR, S.I., kand.khim.nauk

Problem of the physicochemical characteristics of fatty oils refined to different degrees. Masl.-zhir.prom. 25 no.8:17-20 '59. (MIRA 12:12)

1. TSentral'naya nauchno-issledovatel'skaya laboratoriya zhirovoy promyshlennosti Mosgorsovnarkhoza.
(Oils and fats)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

VOL'FENZON, I.I., inzh.; SHEVLYAGINA, Ye.V., kand.khim.nauk; SHUR, S.I., kand.khim.nauk

Studying physicochemical properties of cosmetic creams. Masl.-zhir.prom. 25 no.12:21-25 '59. (MIRA 13:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh i natural'nykh dushistykh veshchestv (for Vol'fenzon, Shevlyagina). 2. TSentral'naya nauchno-issledovatel'skaya laboratoriya zhirovoy promyshlennosti Mosgorsovnarkhoza (for Shur).
(Cosmetics)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

VOL'FENZON, I.I.; SHUR, S.I.; SHEVLYAGINA, Ye.V.

Effect of certain factors on the structural strength of emulsifying creams. Trudy VNIISNDV no.5:165-170 '61. (MIRA 14:10)
(Cosmetics) (Emulsifying agents)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

VOL'FENZON, I.I., inzh.; SHUR, S.I., kand.khimicheskikh nauk

Investigating the viscoplastic properties of "water in oils" type emulsion creams. Masl.-zhir.prom. 28 no.3:30-32 Mr '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh i natural'nykh dushistykh veshchestv (for Vol'fenzon). 2. TSentral'naya nauchno-issledovatel'skaya laboratoriya zhirovoy promyshlennosti Mosgorsovnarkhoza (for Shur).
(Cosmetics--Testing)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

VOL'FENZON, I.I. SHUR, S.I.

Effect of various emulsifying agents on the structural-rheological properties of emulsion systems of the type water-oil. Trudy VNIISNDV no.6:169-173 '63. (MIRA 17:4)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, S.M., inzhener-arkhitektor.

New roof construction for factory manufactured houses. Biul.stroi.tekh. 10 no.15:4-7 O '53. (MLRA 6:10)

1. Industroyproyekt. (Roofs) (Buildings, Prefabricated)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

AID P - 1032

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 9/23

Author : Shur, S. S., Kand. of Tech. Sci.

Title : Subharmonic oscillations in a simple circuit with a steel core

Periodical : Elektrichestvo, 11, 52-57, N 1954

Abstract : Permanent oscillations, whose frequency is a fraction of that of the impressed force, are studied for an electrical oscillatory circuit containing a resistance, a saturable steel-core inductance, and a capacitance. Subharmonic oscillations of the order one third of the fundamental frequency are analysed. Formulas for the calculation of amplitudes and phase angles are presented and conditions of stability are investigated. The author finds that amplitudes of subharmonic oscillations in steady state are independent of the preceding transient state. Eight diagrams, 3 references (1Russian, 1947, 2 non-Russian, 1952-1953).

Institution : Scientific Research Institute of the Direct Current

Submitted : My 7, 1954

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

PHASE I BOOK EXPLOITATION 876

Marchenko, Ye.A., Rozovskiy, Yu.A., Shur, S.S., Candidates of Technical Sciences

Prodol'naya yemkostnaya kompensatsiya liniy elektroperedachi (Series Capacitor Compensation in Transmission Lines) Moscow, Gosenergoizdat, 1957. 47 p. (Series: Iz opyta sovetskoy energetiki) 11,300 copies printed.

Sponsoring Agency: Orgres, trust, Moscow. Byuro tekhnicheskoy informatsii.

Eds.: Korsuntsev, A.Y., Candidate of Technical Sciences, and Demkov, Ye.D.; Tech. Ed.: Medvedev, L.Ya.

PURPOSE: The book is intended for designers and network technicians undergoing training for the operation of series capacitor compensation installations.

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Series Capacitor Compensation in Transmission Lines 876

COVERAGE: The authors describe the purpose and applications of series capacitor compensation and discuss special features of short-circuit conditions in compensated transmission lines. They describe the basic principles of erecting series capacitor batteries and also special behavioral properties of compensated networks. They supply connection diagrams of capacitors and discuss the problems involved in protecting series capacitors against internal damage; they also give examples of completed installations and their operational testing. In writing the book the authors drew on materials published by teploelektroproyekt concerning construction of the Kuybyshev electric power transmission line, the works of N.N.Shchedrin and A.V.Korsuntsev; M.L.Levinshteyn of LPI; M.A.Babikov and A.I.Dolginov of MEI; and V.V.Andreyev, V.M.Faynitskiy and A.K.Gertsik of NIIPT. There are 40 references, of which 27 are Soviet, 10 English, 1 French and 2 German.

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AVAILABLE: Library of Congress (QC587.07)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, S. S.

Levin, A. V., Candidate of Technical Sciences, and Shur, S. S., Engineer.
Blade-root Torsional Vibration in Steam Turbines page 213

The article presents a theoretical investigation of turbine blade vibrations. The authors derive equations for determining the mode of vibration and also give curves showing the stresses developed in turbine blades.

Steam and Gas Turbine Construction, Moscow Mashgiz, 1957, 351 pp.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SOV/124-58-11-13460

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 214 (USSR)

AUTHORS: Levin, A. V., Shur, ~~S. S.~~

TITLE: Torsional Vibrations Arising Within Groups of Steam-turbine Rotor Blades (Vnutripaketnyye krutil'nyye kolebaniya rabochikh lopatok parovykh turbin)

PERIODICAL: [Tr.] Leningr. metallich. z-da, 1957, Nr 5, pp 213-230

ABSTRACT: An investigation of the vibrations of the blades of large turbines which lead to the rupture of the blades and the tearing of the banding. Solutions are adduced for the differential equations of the torsional vibrations for groups with a finite and an infinite number of blades of constant section. The great amount of scatter in the vibrational frequencies in various shapes of a single mode is noted; this scatter is confirmed by experimental data. Differential equations are adduced for the torsional vibrations of blades having a variable section; these are solved by the method of successive approximations. A method is provided for the determination of the relative stresses arising during torsional vibrations in a blade and in the banding.

K. S. Pul'kis

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, S. S.

621.315.1.051.025

2403. EXPERIMENTAL DETERMINATION OF THE PARAMETERS OF THE KUIBYSHEV HYDROELECTRIC STATION—MOSCOW TRANSMISSION LINE. D.E. Artem'ev and S.S. Shur. Elektrichestvo, 1958, No. 1, 31-9. In Russian.

Two methods were used, steady supply of system by generator with wide-range frequency control, and by damped oscillations set up by capacitor discharges. The values of phase—earth capacitance, phase—phase and operating capacitance, positive-sequence resistance and inductance, zero-sequence resistance and inductance, determined by the two methods combined, agree with calculation. The considerable variation of the direct (factor 1.5) and zero-sequence resistance (factor 8-10) in the range 10-130 c/s is remarkable, whereas inductances increase only by 20-25%.

Electrical Research Association

N.I.I. Postoyannogo toka

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

S/196/61/000/009/023/052
E194/E155

AUTHOR: Shur, S.S.

TITLE: Calculation of overvoltages that occur when switching off unloaded transformers

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.9, 1961, 37, abstract 9E 216. (Izv. N.-i. in-ta postoyan. toka, Sb.6, 1960, 203-215)

TEXT : The article considers a procedure for calculating the maximum possible overvoltage and the frequency of oscillation when switching off an unloaded transformer whose no-load characteristic approximates to a hyperbolic sine curve. This approximation is most convenient when the magnetisation curve is very non-linear. The procedure may be extended without difficulty to the case when the characteristic is represented by any uneven functions. It is shown that, by allowing for non-linearity, results may be obtained that are in good agreement with experiment; the error of calculation does not exceed 10-15%. An equivalent circuit is given for an unloaded transformer and a circuit to determine the calculated capacitance of the transformer. Justification is given

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for the assumptions made in the calculation, both in relation to the transformer and to the circuit-breaker which disconnects it. A curve is given of the error in calculation of the amplitude of the overvoltage (assuming $di/dt = \infty$) as a function of current-interruption time in the circuit-breaker arc. Further, an analytical method is given to determine the amplitude of the overvoltage and frequency of oscillation after disconnection. Data of an experimental check of the calculation procedure are given. The results mainly relate to disconnection of an unloaded transformer of 410/115/11 kV with a rating of 3 x 90 MVA. The tests were made by A.A. Akopyan on a 400 kV transmission line between the Volzhskaya GES and Moscow. It is shown that the calculated overvoltage differs from the experimental by not more than 15%. With this method of calculation it is also possible to explain the relationship between the factor by which the overvoltage exceeds the normal voltage and the magnitude of current disconnected. A curve is given of the relationship between this factor and the current broken, and the curve is explained by means of the procedure described in this work. 11 literature references. (see also R.Zh.E, no.12, 1959, 24437).

Card 2/2 [Abstractor's note: Complete translation.]

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

ARTEM'YEV, D.Ye.; SHUR, S.S.

Choice of interphase insulation in networks containing higher orders of voltages. Izv. NIIPT no.7:133-147 '61. (MIRA 14:9)
(Electric power distribution--Alternating current)
(Electric insulators and insulation)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

LEVIN, I.Ya.; SHUR, S.S.

Methodology for choosing the parameters of discharger disigned for limiting internal overvoltages. Izv. NIIPT no.7:148-175 '61. (MIRA 14:9)

(Electric protection)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

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25898
S/114/61/000/008/001/005
E194/E155

AUTHORS: Levin, A.V., Candidate of Technical Sciences, and Shur, S.S., Engineer

TITLE: Torsional oscillations of runner blades bound into a bundle

PERIODICAL: Energomashinostroyeniye, 1961, No.8, pp. 1-4

TEXT: The theoretical investigations of this article show that whereas an individual blade has a single mode of oscillation for each frequency of torsional oscillation, n blades laced as a group have n modes of oscillation. Blades in the group may oscillate at different amplitudes depending on the mode of oscillation: oscillations of this type are termed "inter-bundle torsional oscillations". For each harmonic the frequencies of the different modes of oscillation are very different from one another. In this respect, torsional oscillations differ from bending oscillations of bundles. The wide frequency range of inter-bundle torsional oscillations of various modes of a given harmonic, which is confirmed experimentally, makes it difficult to detune to prevent resonance, particularly as the lacing wire, though it may

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modify certain frequencies, does not render them impossible, as in bending oscillations. Fig.1 shows the modes of torsional oscillation (angles of twist) of the third harmonic of a group of seven blades of constant section laced by two wires, and Table 1 gives the frequencies of the fundamental frequency, the second and third harmonics of this group. At the maximum frequency for each harmonic all the blades twist in the same direction and differ from one another only in amplitude. At this frequency the mode of oscillation approximates to the mode of torsional oscillations of an individual blade, or to that of a group with an infinite number of blades in which all the blades oscillate under identical conditions. Accordingly, the upper limiting frequency for each harmonic may be determined by considering a group with an infinite number of blades. Thus, for the group which is the subject of Table 1 the frequency determined on the assumption of an infinite number of blades is as follows:

Harmonic	Frequency c/s
1	$f_1 = 1024$
2	$f_2 = 1371$
3	$f_3 = 2180$

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Fig.2 gives curves of the relative stresses in the third harmonic of torsional oscillation in blades of a group laced by two wires, and Table 2 gives the ratio of the stress in the upper wire to the stress in the lower one. It will be seen from this table that for the fundamental and third harmonics these ratios do not alter much for different modes of oscillation, whereas for the second harmonic the ratio varies from 1.3 to 3.27. During torsional oscillations of groups of blades the bending stresses in the lacing wires are much greater than the blade stresses; this is undoubtedly a cause of wire breakage in practice. The differential equation of torsional oscillation in the closed form can only be solved for blades of constant section, for which the equation is of the form

$$\frac{d^2S}{dx^2} + \rho^2 S = 0 \qquad (1)$$

where S is a function that determines the mode of torsional oscillation; x is the relative coordinate;

$$\rho^2 = \frac{p^2 \gamma J_c \ell^2}{gGJ_p} \qquad (2)$$

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where: p is the angular frequency of torsional oscillation; γ is the specific weight kg/cm^2; J_c is the polar moment of inertia of the section relative to the centre of bending, cm^4; ℓ is the working length of the blade, cm; g is the acceleration of gravity, cm/sec^2; GJ_p is the torsional rigidity kg/cm^2. The mass of the wire is assumed concentrated at the centre of bending. Boundary conditions are defined and a solution is presented as follows:

$$\left.\begin{aligned}
&0 < x < x_1;\\
S_m = &-\frac{l}{GJ_p\varrho\cos\varrho}\,[M_m\cos\varrho\,(1-x_1) + \\
&+ N_m\cos\varrho\,(1-x_2)]\sin\varrho x;\\
&x_1 < x < x_2;\\
S_m = &-\frac{l}{GJ_p\varrho\cos\varrho}\,[M_m\cos\varrho\,(1-x)\sin\varrho x_1 + \\
&+ N_m\cos\varrho\,(1-x_2)\sin\varrho x];\\
&x_2 < x < 1;\\
S_m = &-\frac{l}{GJ_p\varrho\cos\varrho}\,[M_m\sin\varrho x_1 + N_m\sin\varrho x_2]\times \\
&\times\cos\varrho\,(1-x).
\end{aligned}\right\} \qquad (6)$$

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In these equations M_m and N_m are respectively the torques acting on the mth blade from the lower and upper wires. The method of determining these torques is then explained. The following formula is then derived for a group of an infinite number of blades bound by two wires:

$$\frac{k_1 k_2}{\rho} \sin \rho x_1 \sin \rho(x_2 - x_1) \cos \rho(1 - x_2) + k_1 \sin \rho x_1 \cos \rho(1 - x_1) + k_2 \sin \rho x_2 \cos \rho(1 - x_2) + \rho \cos \rho = 0 \qquad (20)$$

As mentioned above, solution of this equation gives the maximum frequency of inter-group torsional oscillation. The method of determining the other frequencies of torsional oscillation is also explained.

There are 5 figures, 4 tables and 4 Soviet references.

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ARTEM'YEV, D.Ye.; KRYZHANOVSKIY, V.V.; SHUR, S.S.

Field testing of commutating dischargers. Izv. NIIPT no.8: 229-258 '61. (MIRA 15:7)

(Electric protection)
(Electric power distribution--Direct current)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, S.S., AKOPYAN, A.A., KOSTENKO, M.P., LEVINSHTEYN, M.L., LYSKOV, YU. I.
ROKOTYAN, S.S., FOTIN, V.P.

"E.H.V. line internal overvoltages and measures for their limiting."

Report to be submitted for the 19th Biennial Session, Intl. Conference on large electric systems (cigre), Paris, France, 16-26 May '62.

AKOPYAN, All-Union Elect. Engineering Inst. im V.I. Lenin, Moscow
KOSTENKO, AS, USSR, Inst. Electromechanics
LEVINSHTEYN, Leningrad Polytechinal Inst. im M.I. Kalinin
LYSKOV, All-Union Scientific Research Planning Inst. Thermoelectric Indust.
ROKOTYAN, Dept. Long Distance Power Transmission, All-Union Inst. Planning Steam-Electric Stations, Substations and Furnaces
FOTIN, All-Union Elect. Engineering Inst. im V.I. Lenin, Moscow
SHUR, Scientific Reasearch Inst. of Direct Current, Leningrad

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, S.S., ARTEMYEV, D.YE., BELYAKOV, N.N., BURGSDORF, V.V., LYSAKOVSKIY, G.I., POPOVOY, I.F.

"Internal overvoltage levels in the 110-220,000 V systems."

Report to be submitted for the 19th Biennial Session, Intl. Converence on Large Electric System (CIGRE), Paris, France, 16-26 May '62.

ARTEMYEV, Scientific Research Inst. of Direct Current, Leningrad
BELYSKOV, All-Union Scientific Research Inst. Electric Power
BURGSDORF, Central Scientific Research Elect. Engineering Lab., Min. Elect. Power Stations, USSR
POPOVOY, none given
Shur, Scientific Research Inst. of Direct Current, Leningrad

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

ARTEM'YEV, D.Ye., inzh.; BELYAKOV, N.N., kand.tekhn.nauk; BURGSDORF, V.V., doktor tekhn.nauk; SHUR, S.S., kand.tekhn.nauk

Internal overvoltage levels in 110 and 220 kv. electric power distribution networks. Elek.sta. 33 no.11:43-48 N '62. (MIRA 15:12)

(Electric power distribution)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

ARTEM'YEV, Dmitriy Yegorovich; TIKHODEYEV, Nikolay Nikolayevich; SHUR, Solomon Saulovich; SHCHEDRIN, N.N., nauchn. red.

[Statistical principles of the selection of the insulation of power transmission lines with potentials of a high order; switching surges and electrical characteristics of insulation] Statisticheskie osnovy vybora izoliatsii linii elektroperedachi vysshikh klassov napriazheniia; kommutatsionnye perenapriazheniia i elektricheskie kharakteristiki izoliatsii. Moskva, Energiia, 1965. 375 p. (MIRA 18:5)

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SHUR, S.S.

Steady operation of transmission lines loaded by a reactor with nonlinear magnetization characteristic. Izv. NIIPT no.1,283-302 '57. (MIRA 18:9)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

GERTSIK, A.K.; SHUR, S.S.

Consideration in the selection of insulation levels in 400-600 kv. class electric power transmission systems. Izv. NIIPT no.2: 189-207 '57. (MIRA 18:9)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, S.S.

Frequency division in complex networks containing a nonlinear ferromagnetic component with characteristic approaching a cubic binomial. Izv. NIIPT no.2:219-238 '57. (MIRA 18:9)

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AGAFEYEV, N.I.; BALATOV, P.S.; ZVEREV, B.P.; IVANOV, I.A.; KRUGLYY, S.M.; NIMYY, I.M.; FLEYSHMAN, V.G.; KHAIN, V.A.; SHUR, V.A.; EL'SKIY, V.N.

Condensation of a solution in vacuum evaporator installations. Prom.energ. 15 no.4:15-16 Ap '60. (MIRA 13:6)
(Evaporating appliances)

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PANKOV, I.A., inzh.; SKAZHENNIK, V.A., inzh.; SHUR, V.A., inzh.

New developments in the technology of investment casting.
Mashinostroenie no.3:36-38 My-Je '64.
(MIRA 17:11)

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VOL'PIN, M.Ye.; ILATOVSKAYA, M.A.; LARIKOV, Ye.I.; KHIDEKEL', M.L.; SHVETSOV, Yu.A.; SHUR, V.B.

Nitrogen fixation on hydrogen-activating transition metal complexes. Dokl. AN SSSR 164 no.2:331-333 S '65.

(MIRA 18:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i Institut khimicheskoy fiziki AN SSSR. Submitted February 15, 1965.

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VOL'PIN, M.Ye.; SHUR, V.B.; ILATOVSKAYA, M.A.

Fixation of nitrogen by the system based on dicyclopentadienyltitanium dichloride. Izv.AN SSSR,Ser.khim. no.9:1728-1729 S '64. (MIRA 17:10)

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VOL'PIN, M.Ye.; SHUR, V.B.

Nitrogen fixation on complex catalysts. Dokl. AN SSSR 156 1100-1104 Je '64. (MIRA 17:6)

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VOL'PIN, M.Ye.; SHUR, V.B.; BICHIN, L.P.

Study of nitrogen fixation on complex catalysts by means of N^{15}.
Izv. AN SSSR. Ser. khim. no.4:720-721 '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i Institut biologicheskoy i meditsinskoy khimii AMN SSSR.

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TA 9/49T25

USSR/Chemistry - Diazo Compounds, Structure
Chemistry - Oxidation

Jun 48

"The Problem of the Structure and Conversion of Diazo Compounds. VII. The Ability of Various Forms of Diazo Compounds to Oxidize," I.V. Grachev, V. M. Shour, State Order of Red Banner of Labor Inst of Applied Chem, 8 pp

"Zhur Obshch Khim" Vol XVIII (LXXX), No 6

p-1179 -

Determines oxidation potentials of various forms of p-nitro- and p-chlor-diazobenzenes. Results (in descending order) are: diazoxide, sodium diazoate, nitrosotriazene, diazone chloride, sodium nitrosaminate, nitrosamine acid. Establishes direct

9/49T25

[redacted]

USSR/Chemistry - Diazo Compounds, Structure (Contd)

Jun 48

relation of oxidation potential and ease of hydrolysis to diazohydrate and optimum hydrogen ion concentration for oxidation. Submitted 2 Feb 1947.

SHOUR, V.M.

[redacted]

9/49T25

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

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SHUR, YA.

The artificial universe Izd. 4. Moskva Moskovaskii rabochii, 1948.

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SHUR, Ya.

Perpetual calendars. IUn.tekh. no.6:60-62 Je '57. (MIRA 10:7)
(Calendar, Perpetual)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, Ya. A.

36694. Shur, Ya. A. Vliyaniye stareniya na vid krivoy temperaturnoy zavisimosti koertsitivoy, silyv dinamnoy stali. Doklady akad. Nauk SSR, novaya seriya t. LXIX No. 4 1949, s. 551-53

SO: Letopis' Zhurnal' nykh Statey, Vol. 50, Moskva, 1949

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

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SHUR, Yakov Isidorovich; LANINA, L.I., redaktor; FURMAN, G.V., tekhnicheskiy redaktor

[The magnetic compass; a historical sketch] Magnitnyi kompas; istoricheskii ocherk. Moskva, Izd-vo "Znanie," 1956. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser. 3, no.41) (MLRA 9:10)
(Compass)

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SHUR, Yakov Isidorovich; LEVENSHTEYN, G.V., otvetstvennyy redaktor; DOBROVOL'NOVA, T.I., tekhnicheskiy redaktor

[A faithful guide; stories of the compass] Vernyi putevoditel'; rasskazy o kompase. Moskva, Detgiz, 1956. 206 p. (MLRA 10:2)
(Compass--Juveline literature)

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L 05166-67 EWT(m)/EWP(j) aM

ACC NR: AP7000734 SOURCE CODE: UR/0062/66/000/006/1083/1084

VOL'PIN, M. Ye., CHAPOVSKAYA, N. K., SHUR, V. B., Institute of Heteroorganic Compounds, Academy of Sciences USSR (Institut elementoorganicheskikh soyedineniy AN SSSR)

34
B

"Reaction of Nitrogen with Systems Based on Phosphine Complexes of Transition Metals"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 6, 1966, pp 1083-1084

Abstract: The reaction of nitrogen with systems produced by the reaction of a number of phosphine complexes of transition metals [$(Ph_3P)_2TiCl_4$, $(Ph_3P)_2FeCl_3$, $(Ph_3P)_2CoCl_2$, $(Ph_3P)_2NiCl_2$, $(Ph_3P)_2PdCl_2$, and $(Ph_3P)_2PtCl_2$] with organometallic compounds [C_2H_5MgBr in ether, n-C_4H_9Li in n-heptane, and $(i\text{-}C_4H_9)_3Al$ in n-heptane] was studied. Systems including triphenylphosphine complexes of Ti (IV) and Fe (III) react with molecular nitrogen at room temperature. The other systems studied, as well as systems of the triphenylphosphine complexes with $LiAlH_4$ (in ether) and $NaBH_4$ (In water and alcohol) were essentially inactive in the reaction with nitrogen. The pattern observed was the same as for chlorides and acetylacetonates: the most active are compounds of the transition metals situated in the left-hand portion of the transition period. [JPRS: 37,023]

TOPIC TAGS: organometallic compound, organic phosphorus compound, lithium aluminum hydride

SUB CODE: 07 / SUBM DATE: 05Nov65 / ORIG REF: 004 / OTH REF: 006

Card 1/1 vmb UDC: 541.49 + 546.17 + 661.718.1

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YANUS, R. I., & SHUR, Ya. S.

The Bond in the Molecule of CO. ZhETF 5, 28, 1935. Sow . Phys. 7, 19, 1935.

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SHUR, Ya. S., & YANUS, R. I.

Magnetic Susceptibility of the Vapors of Bromide. ZhETF 5, 401, 1935.
Sow. Phys. 7, 501, 1935.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

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CA

Magnetic susceptibility of vapors of some organic substances. Ya. Shur and S. Sidorov. *Nature* **137**, 317 (1936); cf. E. Yanüs and Ya. Shur, *Comp. rend. acad. sci. U. R. S. S.* **2**, 465(1934); cf. *C. A.* **28**, 6036[8]; **29**, 6116[8].—CS[2] has the same magnetic susceptibility in the liquid and vapor states. Identical results were previously obtained with C_6H_6. Evidently org. compds. do not change in magnetic susceptibility when passing from the liquid to the vapor state (cf. Vaidyanathan, *C. A.* **22**, 17; Rao and Varadachari, *C. A.* **29**, 970[9]). G. M. P.

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SHUR, Ya. S.

Diamagnetism of Gases and Vapors.

Leningrad Physico-Technical Institute, 1936.

So: U-1837, 14 April 52.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2"

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Magnetic susceptibility of vapors of organic compounds

Ya. Shur. *Ural. Fiziko-Tekh. Inst. Fizicheskii Zhur.* 11, 194-203(1937); *Khim. Referat. Zhur.* 1, No. 1, 10(1938).

In the study of at. and mol. structures magnetic receptivity is being used successfully. But because of the small effect, especially in gases, errors are possible. Vaidyanathan (*C. A.* 22, 17, 1725) described the increase in the mol. diamagnetic receptivity of C_6H_6 and of CS_2 which is ~50% when changing from the liquid to the gaseous state. These facts are not explained theoretically. Therefore, the author repeated the expts. and found them to check to within ±0.6%. In the method used [Yanus and Shur, *C. A.* 29, 3880[1], 1916[2]] the difference in temp. and, therefore, the d. of gases in a homogeneous magnetic field causes a circulation of the gas which is measured with a micromanometer. The calibration is done so that the gas particles heated to a different degree are acted upon by the earth's magnetic field. The degree of accuracy is 2-3%. Cf. *C. A.* 30, 3280[1]. W. R. H.

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SHUR, Ya. S.

Magnetic Susceptibility of the Vapors of Mercury. Nature 239, 804, 1937.

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1ST AND 2ND ORDERS

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3RD AND 4TH ORDERS

CA

Magnetic hysteresis in monocrystals. Ya. Shur and R. Yamm. *J. Exptl. Theoret. Phys.* (U. S. S. R.) 8, 67–9(1938).—Measurements on the coercive forces in transformer steels along different axes in the (100) plane show that these have fairly const. finite values of 0.1 to 0.3 oersteds as also found by Ruder and Sixtus. In different directions these monocrystals show magnetic anisotropism. F. H. Rathmann

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2

Diamagnetism of gases and vapors. Ya. Shur. *Uspekhi Fiz. Nauk* 20, 410–46(1938).—In a theoretical and math. review, Shur discusses the classical and quantum theories of diamagnetism, and the methods of calcn. of the magnetic susceptibility. He then discusses various exptl. data for N_2, H_2, CO_2, He, Ne, A, Kr, Xe, CH_4, C_2H_4, C_2H_2, CS_2, C_6H_6, $(H_2O)_n$, Br_2 and Hg. Using a method of his own (cf. *C. A.* 31, 4862[5]) and also Yanus and Shur, (*Compt. rend.* (U. R. S. S.) 2, 465(1934)). Shur obtained the following values for $-\chi \times 10^6$; CS_2 gas 0.53, C_6H_6 gas 0.75, liquid CS_2 0.56–0.59, liquid C_6H_6 0.71–0.73, Br_2 gas 0.46, liquid or solid Br_2 0.40, Hg gas 0.39, Hg ion 0.20. The exptl. values agree best with the values calcd. by Slater's method.

F. H. Rathmann

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550220013-2

SHUR, Ya. S.; DARANOVSKIY, V. Ya.; POPEV, A. I.

Temperature Ration of the Coercive Force in Ferro-magnetic Monocrystals

ZhETF 9, 1512, 1939

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*Heat-Treatment of Ferromagnetic Polycrystals in a Magnetic Field. J. S. Shur (*Compt. rend.* (*Doklady*) *Acad. Sci. U.R.S.S.*, 1939, [N.S.], 22, (5), 455–459).—[In English.] Certain theoretical considerations are advanced which are supported by reference to the behaviour of 4% silicon steel.—N. B. V.

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The Heat Treatment in a Magnetic Field of Permanent Magnet Alloys of High Coercive Force. J. S. Shur. (Russian Journal of Technical Physics, 1940, vol. 10, No. 9, pp. 757-760). (In Russian). The author examined the magnetic properties of a permanent magnet alloy having the composition nickel 25-28%, aluminium 11-13%, and the remainder iron, after various forms of heat treatment, the object being to discover whether the coercive force could be increased by heat treatment instead of by adding the expensive element cobalt. The apparatus is described and illustrated. Soaking the sample for 1 hr. at 650° C. and quenching in water resulted in a marked increase in the coercive force and remanence. An English translation of this paper forms No. 73 of the Translation Series of The Iron and Steel Institute.

Evaluation B-58884

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m.a.

The Anisotropy of Hysteresis in Ferromagnetic Single Crystals.—II. Y. S. [illegible] (U.S.S.R.), 1940, 2, (1), 5–10; *Brit. Chem. Abs.*, 1941, [illegible] In English.] Cf. *Physikal. Z. Sowjetunion*, 1937, 12, 382. The [illegible] of previous investigations of the anisotropy of hysteresis in single [illegible] is demonstrated. The anisotropy of the coercive force (H_c) is measured [illegible] number of single-crystal discs of silicon-steel, cut without mechanical [illegible] and annealed with magnetic shielding. The results show: (a) [illegible] anisotropy of H_c; (b) max. and min. values of H_c dependent [illegible] on the crystallography of the specimen; and (c) that when the [illegible] properties of the specimen are made worse the disposition of the max. and min. relative to the crystallographic axes is maintained. In order to obtain commercial ferromagnetics with the smallest hysteresis losses, it is considered that: (i) the polycrystalline material should approach as closely as possible the single-crystal state, (ii) the texture of the material should be such that in normal working conditions the magnetic field lies along the direction in which the energy of anisotropy is a minimum, and (iii) the material should possess large individual grain-size. Calculated and experimental values of H_c agree satisfactorily. (Cf. following abstract.)

Ural Physico-Tech Inst., Sverdlovsk

1943

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9

Recrystallizing tempering of goods made of iron-silicon alloys as a means of strongly increasing their magnetic properties. Ya. S. Shur, V. I. Drozhzhina and P. N. Zhukova. *J. Tech. Phys.* (U. S. S. R.) 10, 1619–20 (1940).—It is proposed that the tempering of Fe-Si alloy layers on different objects must be carried out not during their production but on the finished goods. This method is especially recommended for the cores of transformers. A single tempering gives satisfactory results. R. G.

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