"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.A.

24740. FRIDMAN, A.A. O Yypuklykh Funktsiyakh Opredelennykh Na Mnozhestve I Funktsionalnom Uravnenii F (x+y) = F (x) + F (y). Uchen. Zapiski Kazakh. Gos. Un-ta Im. Kirova, T. XII, 1949; S-21-33--Bibliogr: S-33

SO: Letopis' No. 33, 1949

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.A., dotsent

Whittaker's method for solving equations. Uch.zap.RGPI 13: 324-327 '56. (MIRA 12:8)
(Equations--Numerical solutions)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.A. (III)

Some remarks on the iteration method. Uch.zap.RGPI 15:45-54 '58. (MIRA 12:7)

(Differential equations)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.A. (III)

Possibility for ordering complex numbers. Uch.zap.RGPI 15:55-56 '58. (MIRA 12:7)

(Numbers, Complex)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.A.

Relationship between the problem of identity and the problem of conjugation in finite-determined groups. Trudy Mosk.mat. ob-va 9:329-356 '60. (MIRA 13:9)
(Groups, Theory of)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

S/020/62/147/004/008/027
B112/B186

AUTHOR: Fridman, A. A.

TITLE: Degrees of insolvability of the identity problem in finitely defined groups

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 4, 1962, 805 - 808

TEXT: The reduction of algorithmical problems by means of unlimited Post tables (cf. E. L. Post, Bull. Am. Math. Soc., 50, 284 (1944)) is investigated. The principle result is contained in the following theorem: for any degree α of insolvability a finitely defined group $\mathfrak{G}_\alpha$ may be exhibited within which the problem of identity of words has the degree α of insolvability. This theorem is an answer to a question formulated by A. I. Maltsev at the IV. Congress of Mathematicians. P. S. Novikov is said to have constructed the first example of a finitely defined group involving insolvability.

PRESENTED: June 14, 1962, by P. S. Novikov, Academician
SUBMITTED: June 2, 1962
Card 1/1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.A.

The curvature of space. Usp. fiz. nauk 80 no.3:439-446 Jl '63. (MIRA 16:9)

(Cosmology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.A.

Possibility of a universe with a constant negative curvature of space. Usp. fiz. nauk 80 no.3:447-452 Jl '63. (MIRA 16:9)
(Cosmology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

L 48237-65 EWT(1)/EEC-4/EEC(t)/T/FCS(k) Pi-4/Pac-4/Pj-4/Pl-4 WR 48 B

ACCESSION NR: AP5014065 RU/0005/64/008/005/0222/0226

AUTHOR: Tanach, Valentin (Engineer); Stanciulea, Lucia (Engineer); Fridman, Alexandru (Physicist)

TITLE: Magnetic antennas for short waves

SOURCE: Telecomunicatii, v. 8, no. 5, 1964, 222-226

TOPIC TAGS: antenna, antenna engineering, ferromagnetic material

ABSTRACT: (Author's English summary modified): After reviewing the characteristics of a new ferrite type with perminvar characteristics which led to the elaboration of materials with high permittivity and low short-wave losses, the authors report successful use of this type of ferrite in form of a rod as a replacement for the currently-used electric short-wave antenna. Orig. art. has 4 figures, 8 formulas and 2 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EC

NO REF SOV: 001 OTHER: 002 JPRS

Card 1/1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

TANACH, Valentin, ing.; STANCIULEA, Lucia, ing.; DAVID, Bella, ing.; COJOCARU, Zoe, ing.; FRIDMAN, Alexandru, fiz.

Achievements in the field of perminvar-type ferrites and their applications. Telecomunicatii 9 no.3:80-84 Mr '65.

1. Research and Electrical Engineering Planning Institute, Bucharest (for Stanciulea, David, Fridman).

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

L 60032-65 EWP(e)/EPA(a)-2/EWT(m)/EPF(c)/EWP(t)/EPA(a)-2/EWG(m)/EWA(d)/
EPA(w)-2/T/EWP(t)/EWP(z)/EWP(b) Pr-4/Pa-4/Pt-7/Po-4 ISP(c) JD/WW/JG/AT/
JAJ/WW

ACCESSION NR: AP5018271 UR/0226/65/000/007/0034/0040

AUTHOR: Brokhin, I. S.; Fridman, A. A.

TITLE: Preparation and study of certain titanium nitride - molybdenum cermets

SOURCE: Poroshkovaya metallurgiya, no. 7, 1965, 34-40

TOPIC TAGS: titanium nitride cermet, molybdenum containing cermet, cermet corrosion

ABSTRACT: Optimal conditions were selected for the preparation of powdered titanium nitride by direct nitrogenation of titanium powder in a medium of purified nitrogen in a TVV-2 furnace. Titanium nitride (TiN) having a nearly stoichiometric composition was thus obtained. Optimal conditions for the preparation of dense samples of TiN cermets containing 5 - 80% Mo were also determined; the method used involved hot pressing of TiN + Mo mixtures. The microstructure and phase composition of the sintered bodies (containing 5 - 60 vol. % Mo) were investigated, and it was shown that TiN and Mo practically do not interact under the given conditions. The hardness and transverse strength of the experimental cermets containing 5 - 50 vol. % Mo were measured. Short-term (up to 2 hr.) corrosion tests in air at 900-1300C were carried out on these cermets, and the corresponding corrosion curves were plotted (temperature dependence

Card 1/2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

L 60022-65

ACCESSION NR: AP5018271

2

and time dependence). Compositions containing the minimum amount of molybdenum were found to have the highest resistance to scaling. "The method of preparing the samples was developed by G. A. Danilina." Orig. art. has: 7 figures, 1 formula and 3 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut tverdykh splavov (All-Union Scientific Research Institute of Hard Alloys)

SUBMITTED: 28Sep64 ENCL: 00 SUB CODE: MM

NO REF SOV: 006 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, Aleksandr Aleksandrovich (1888-1925)

[The universe as space and time] Mir kak prostranstvo i vremia. Moskva, Nauka, 1965. 109 p. (MIRA 18:7)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.E.

Disorders of potassium metabolism and their clinical significance. Pediatriia no.10:80-86 '61. (MIRA 14:9)

1. Iz kafedry gospital'noy pediatrii (zav. - deystvitel'nyy chlen AMN SSSR zasluzhennyy deyatel' nauki prof. A.F. Tur) Leningradskogo pediatricheskogo meditsinskogo instituta (dir. - kand.med.nauk Ye.P. Semenova).

(POTASSIUM—METABOLISM)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.E.

Content of potassium and sodium in the blood serum and urine of healthy children. Vop.okh.mat. i det. 7 no.12:47-50 D'62. (MIRA 16:7)

1. Iz kafedry gospital'noy pediatrii (zav.-deystvitel'nyy chlen AMN SSSR zasluzhennyy deyatel' nauki prof. A.F.Tur) Leningradskogo pediatricheskogo meditsinskogo instituta (dir.-kand.med. nauk Ye.P.Semenova).
(POTASSIUM IN THE BODY) (SODIUM IN THE BODY)
(CHILDREN—MEDICAL EXAMINATION)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FEOKTISTOV, A.T., inzh.; FRIDMAN, A.G., inzh.

Intensify control of boring and blasting operations. Bezop. truda v prom. 5 no. 5:11-12 My '61. (MIRA 14:5)
(Mining engineering—Safety measures)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

L 61024-65 EWT(1)/EWT(m)/EPF(n)-2/EWG(m)/EWP(v)/EPA(w)-2/T/EWP(t)/EWP(k)/EWP(b)
EWA(c) Pz-6/Po-4/Pf-4/Pi-4 IJP(c) JD/HW/AT

ACCESSION NR: AR5017412 UR/0137/65/000/006/V041/V041

62
B

SOURCE: Ref. zh. Metallurgiya, Abs. 6V265

AUTHOR: Farnasov, G. A.; Filippov, A. F.; Frenkel', P. G; Fridman, A. G.
55 55 55

TITLE: Experimental developments and new constructions in plasma melting apparatus
55 14

CITED SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 42, 1964, 43-46

TOPIC TAGS: plasma arc, plasma jet, arc furnace, melting furnace

TRANSLATION: A plasma arc electric melting furnace was built in the ChSSR. A plasma arc heater was the heat source. Work is being carried out in the Physico technical Institute of the AN GDR on melting of tungsten in a closed bottom crystallizer. In the experimental apparatus, a plasma jet is formed between a tapered rod shaped tungsten cathode and a water cooled pure copper anode. In the United States, Alloid (Translator's Note=Sic) Electronics Corp. has developed an electron plasma electric furnace. Orig. art. has: 5 figures, 5 literature titles.
D. Kashayeva.

Card 1/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

L 61024-65

ACCESSION NR: AR5017412

SUB CODE: MM ENCL: 00

awm

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

L 26615-65 EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(b) IJP(c) JD

ACCESSION NR: AP5005078 S/0130/65/000/002/0020/0022

AUTHOR: Farnasov, G. A.; Filippov, A. F.; Frenkel', P. G.; Fridman, A. G.

23
21
B

TITLE: Plasma in metallurgy

SOURCE: Metallurg, no. 2, 1965, 20-22

TOPIC TAGS: plasma furnace, plasma melting, metal melting furnace

ABSTRACT: An experimental plasma furnace with integrated mold bottom was built in East Germany in 1958 for melting tungsten wire. The temperature of the plasma jet is at least 9000C at 15-kw power. The plasma jet is 30 mm long. Another laboratory-size plasma furnace with movable mold bottom was built in Czechoslovakia. It melts 25-mm diameter ingots of low-carbon steel, pure iron, chromium, titanium and nimonic-type alloys. The surface of all ingots, except those of nimonic alloy, is smooth and bright. The iron ingots were dense and sound with a coarse-grained, homogeneous structure. Oxygen content in iron dropped from 0.15 to 0.0025% and in low-carbon steel from 0.030 to 0.0029%. Czechoslovak specialists maintain that

Card 1/2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

L 26615-65

ACCESSION NR: AP5005078

the high quality of produced metal fully justified the immediate development of argon-plasma furnaces. Orig. art. has: 5 figures. [ND]

ASSOCIATION: none

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

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3188

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.I.

Quality of coke as determined by the presence of grains above 6 mm. in the blended charge. Koks i khim. no.2:18-19 '56. (MLRA 9:7)

1.Rutchenkovskiy koksokhimicheskiy zavod.
(Coke)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.I.

Automatic sampling of tar at the time of charging it into the still and dehydrator. Koks i khim. no.3:61 '56. (MLRA 9:8)

1. Rutchenkovskiy koksokhimicheskiy zavod.
(Coal tar--Analysis)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.I.

Uniformity of qualitative standards for blended coal charges.
Koks i khim. no.7:11-12 '56. (MLRA 9:12)

1. Rutchenkovskiy koksokhimicheskiy zavod.
(Coal)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A. I.

AUTHOR: Fridman, A.I. 68-6-13/19

TITLE: Sticking of Medium Temperature Pitch (Slipayemost srednetemperaturnogo peka)

PERIODICAL: Koks i Khimiya, 1957, No.6, pp. 46 - 47 (USSR)

ABSTRACT: Complaints about the sticking of pitch during transport were investigated. It was established that in order to prevent the sticking of pitch its temperature during discharge from the delivery tank should be maintained in the cold season not higher than 160 °C and in summer not higher than 145-150 °C. Softening temperature of pitch should be maintained not lower than 75 °C. It is recommended changing the standards ГОСТ 1038-41 for the softening temperature of pitch for medium temperature pitch to 76-86 °C or to 78-88 °C. There is 1 table.

ASSOCIATION: Rutchenkovo[illegible] Coke Oven Works. (Rutchenkovskiy Koksokhimicheskiy Zavod)

AVAILABLE: Library of Congress

Card 1/1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

AUTHOR: Fridman, A. I. [illegible]-58-6-14/21

TITLE: The Influence of Coke Porosity on Its Moisture Content (Vliyaniye poristosti koksa na stepen' ego vlazhnosti)

PERIODICAL: Koks i Khimiya, 1958, Nr 6, p 54 (USSR)

ABSTRACT: The results of an investigation of the relationship between the porosity of coke and its moisture content are given in the table. In general the moisture content of coke decreases with decreasing proportion of small pores and vice versa.
There is one table.

ASSOCIATION: Rutchenkovskiy koksokhimicheskiy zavod (Rutchenkovo Coke Oven Works)

1. Coke--Porosity 2. Coke--Moisture content

Card 1/1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

VAN-VAN-E, A.P.; FRIDMAN, A.I.

Studying geological and hydrogeological factors governing the accumulation of gas in Noril'sk deposits. Izv. vys. ucheb. zav.; geol. i razv. 1 no.7:132 Jl '58. (MIRA 12:7)
(Noril'sk region--Gas, Natural--Geology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

SOV/68-58-12-9/25

AUTHOR: Fridman, A.I.

TITLE: On the Determination of the Mechanical Strength of Coke (Ob opredelenii mekhanicheskoy prochnosti koksa)

PERIODICAL: Koks i Khimiya, 1958, Nr 12, pp 28-30 (USSR)

ABSTRACT: The possibility of replacing the Sundgren test requiring 410 kg sample by a similar test of a 50 kg sample was investigated. Samples of coke were simultaneously tested by the standard method (410 kg sample 15 min. rotation) and a simplified test in which a 50 kg sample was rotated for 15, 10 and 5 minutes. The results obtained are compared in the table. It was found that the results of the standard test were very close to the results of rotating a 50 kg sample for 5 minutes.

Card 1/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

SOV/68-58-12-9/25

On the Determination of the Mechanical Strength of Coke

It is therefore proposed to introduce the simplified test into routine practice, until the standard apparatus can be replaced by a smaller drum.
There is 1 table.

ASSOCIATION: Rutchenkovskiy koksokhimicheskiy zavod (Rutchenkovo Coking Works)

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.I.

Geology and geochemistry of natural gases in Urup copper pyrite deposits (Northern Caucasus). Izv.vys.ucheb.zav.; geol. i razv. 2 no.9:79-95 S '59. (MIRA 13:4)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.
(Urup region (Caucasus, Northern)--Gas, Natural--Geology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.I.

Gas potential of some mineral deposits associated with igneous rocks.
Trudy MGRI 37:209-225 '61. (MIRA 15:1)
(Gas, Natural--Geology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.I.

Geologic conditions determining the accumulation of gas in some copper pyrite deposits in the central part of the Northern Caucasus. Izv.vys.ucheb.zav.; geol. i razv. 4 no.12:67-74 D '61. (MIRA 15:2)

1. Moskovskiy geologorazvedochnyy institut imeni S.Ordzhonikidze.
(Caucasus,Northern—Gas,Natural—Geology)
(Caucasus,Northern—Chalcopyrite)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

MEKHTIYEVA, V.L.; FRIDMAN, A.I.

Results of microbiological research on the rocks and underground waters of the Urup copper pyrite deposts. Mikrobiologiia 30 no.5: 946-951 S-O '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut.
(URUP REGION--PYRITES) (WATERS, UNDERGROUND--MICROBIOLOGY)
(ROCKS--MICROBIOLOGY)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

VOYTOV, G.I., inzh.; POLYANSKIY, M.N., inzh.; FRIDMAN, A.I., kand. geologo-minr. nauk

Nature of gas occurrences in mines of the Khibiny apatite-nepheline deposits. Izv. vys. ucheb. zav.; gor. zhur. 6 no.4: 39-44 '63. (MIRA 16:7)

1. Moskovskiy geologorazvedochnyy institut imeni Ordzhonikidze. Rekomendovana kafedroy goryuchikh iskopayemykh.
(Khibiny Mountains—Mine gases)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.I.

Using methods for the investigation of natural gases to prospect and study the geological structure of ore deposits. Razved. i okh. nedr 30 no.4:17-20 Ap '64. (MIRA 17:12)

1. Moskovskiy geologorazvedochnyy institut.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.I., kand. geol.-mineral. nauk

Gas content and character of the liberation of flammable gases into mine workings of Urup copper pyrite deposits. Izv. vys. ucheb. zav.; gor. zhur. no.8:71-75 '64 (MIRA 18:1)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze. Rekomendovana kafedroy goryuchikh iskopayemykh.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

KRAVTSOV, A.I.; FRIDMAN, A.I.

Natural gases of ore deposits. Dokl. AN SSSR 165 no.5:1168-1170 D '65. (MIRA 19:1)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze. Submitted June 19, 1965.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

SAKHAROV, G.M.; FRIDMAN, A.L.

Institute helps industry. Mashinostroitel' no.10:35-36 '60. (MIRA 13:10)

(Industrial safety)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

MOKHNENKO, A.P. ; FRIDMAN, A.M.

Quality of medical diagnosis and medical first aid; according to data of the Mechnikov Hospital and of the emergency ward of Polyclinic No.25. Trudy LSGMI 72:154-161 '67. (MIRA 17:4)

1. Kafedra organizatsii zdravookhraneniya (isnpolnyayushchiy obyazannosti zaveduyushchego - dotsent A.P. Mokhnenko) Leningradskogo sanitarno-gigyenicheskogo meditsinskogo instituta i Ob"yedinennaya bol'nitsa imeni Urits'kogo, Leningrad (glavnyy vrach bol'nitsy - zasluzhennyy vrach Latviyskoy SSR D.A. Shushkov).

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

GOFMAN-ZAKHAROV, P.M., inzh.; KATS, R.M., inzh.; FRIDMAN, A.M., inzh.

Thermal field of the underground isothermal storage of liquefied hydrocarbon gases. Nauch. zap. Ukrniiproekta no.9:130-136 '62. (MIRA 16:7)

(Liquefied gases--Storage)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, Aleksandr L'vovich; IONAS, V.A., red.

[External factors affecting fishing equipment; lectures on the course "The theory and design of commerical fishing equipment"] Vneshnie faktory, deistvuiushchie na rybolovnye orudiia; lektsii po kursu "Teoriia i proektirovanie orudii promyshlennogo rybolovstva." Kaliningrad, Kaliningradskoe knizhnoe izd-vo, 1964. 31 p. (MIRA 18:6)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

LEBEDEV, Nikolay Nikolayevich; FRIDMAN, Abel' Mendelevich; ZHILOV, I.I., red.; LIFEROVA, A.I., red. izd-va; KOZLENKOVA, Ye.I., tekhn. red.

[Collection of problems on the economics and planning of the Soviet cooperative trade]Zadachnik po ekonomike i planirovaniiu sovetskoi kooperativnoi torgovli. Moskva, Izd-vo TSentrosoiuza, 1962. 190 p. (MIRA 15:9)
(Retail trade)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

MOISEYEV,S.S.; FRIDMAN, A.M. (Novosibirsk)

"The influence of turbulence on the transport phenomena in an ionized gas in a strong magnetic field".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

ACCESSION NR: AP4022654 S/0207/64/000/001/0099/0101

AUTHOR: Fridman, A. M. (Novosibirsk)

TITLE: Theory of stability of a nonhomogeneous plasma in a magnetic field

SOURCE: Zhurnal priklad. mekhan. i tekhn. fiz., no. 1, 1964, 99-101

TOPIC TAGS: plasma stability, nonhomogeneous plasma, isothermal plasma, plasma diffusion, diffusion coefficient, instability increment

ABSTRACT: A nonhomogeneous isothermal plasma in a strong magnetic field ($H^2 \gg 8\pi p$, where p is the plasma pressure) is studied. As contrasted with a homogeneous plasma, the dielectric properties of a nonhomogeneous plasma may be essentially changed, even for a small space gradient. In this case, "side" oscillations appear, the phase velocities of which coincide with the drift velocities of the electrons in the magnetic field because of the density gradient. The discussion is limited to the case where $k_\perp r_e \ll 1$ ($k_\perp$ is the wave vector of the perturbing wave perpendicular to the direction of the magnetic field and r_e is the mean free path of the electrons). The investigation is carried out for "intermediate

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ACCESSION NR: AP4022654

frequencies"

$(v_{Ti} \ll \omega/k \ll v_{Te})$, where v_{Te}, v_{Ti}

are the thermal velocities of electrons and ions. Formulas for the growth increment of instability and diffusion coefficients are derived. "The author thanks A. A. Galeyev, R. Z. Sagdeyev and I. O. Foreskin." Orig. art. has: 20 equations.

ASSOCIATION: none

SUBMITTED: 15May63 DATE ACQ: 08Apr64 ENCL: 00

SUB CODE: PH, AS NO REF SOV: 003 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

ACCESSION NR: AP4044727

S/0207/64/000/004/0115/0118

AUTHOR: Fridman, A. M. (Novosibirsk)

TITLE: On the magnetohydrodynamic stability theory of nonhomogeneous ionized gas in a magnetic field

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 4, 1964, 115-118

TOPIC TAGS: MHD theory, magnetic field, plasma oscillation, electric potential, plasma instability, dispersion relation

ABSTRACT: The stability of small oscillations in equilibrium two-component gas in a magnetic field was investigated. The following assumptions were made: 1) gas pressure much less than magnetic pressure, $nT \ll 1/8\, H^2/\pi$; 2) the electric field irrotational and arbitrarily small oscillations about the equilibrium position; and 3) quasi-neutral gas. From equations of motion of electrons transverse to the magnetic field, equations of motion for ions and electrons along magnetic lines of force, and ion and electron mass conservation laws, the following second-order dispersion equation is obtained

$$\frac{d^2\varphi}{dx^2} + \frac{1}{r_{Hi}^2}\left[\frac{\omega_n - \omega}{\omega_n + \omega}\left(\frac{i\nu_e\omega - \omega^2}{k_z^2 v_{Te}^2} - 1\right) + r_{Hi}^2 k_y^2\right]\varphi = 0,$$

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ACCESSION NR: AP4044727

where φ - electric potential, and the electron inertia term has been retained in the electron momentum equation. The solution of this equation is given in the form

$$\omega = \omega_{n0}(1 - k_y^2 r_{Ll}^2)\left(1 + k_y^2 r_{Ll}^2 + i\frac{\nu_e + i\omega}{k_z^2 V_{Te}^2}(\omega_{n0} - \omega)\right)^{-1}.$$

Two limiting cases are discussed: $\omega < \omega_n$ and $\omega > \omega_n$. It is shown that the larger the inequality $k_z << k_y$, the larger is the instability. For $\omega >> k_z V_{Te}$, ω_{ne}, ν_e, the instability increment γ yields $\gamma = -(\omega_{n0} k_z^2 V_{Te}^2)^{1/2}$. Thus, the electron inertia plays a role analogous to the electrical resistivity. "The author is grateful to A. A. Galeyev, S. S. Moiseyev, and R. Z. Sagdeyev for their influence in this work." Orig. art. has: 16 formulas.

ASSOCIATION: none

SUBMITTED: 15May63

SUB CODE: ME

NO REF SOV: 003

ENCL: 00

OTHER: 003

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

ACCESSION NR: AP4013326 S/0020/64/154/003/0567/0570

AUTHOR: Fridman, A. M.

TITLE: Critical magnetic field and anomalous diffusion in weakly ionized plasma

SOURCE: AN SSSR. Doklady*, v. 154, no. 3, 1964, 567-570

TOPIC TAGS: critical magnetic field, weakly ionized plasma, anomalous diffusion in plasma, plasma instability

ABSTRACT: At a certain value of the magnetic field, "noises" appear which indicate instability and increased diffusion in plasma across the magnetic field. The theoretical analysis in the present paper discloses the existence of a new group of oscillations, the "antidrift" waves which permit the estimation of the magnitude of the critical magnetic field. The results are in agreement with the experimental data (R. Geller, Phys. Rev. Lett., September 15, 1962).

Card 1/2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

ACCESSION NR: AP4013326

The author expresses his gratitude to A. A. Galeyev and R. Z. Sagdeyev for helpful advice and fruitful discussion. Orig. art. has: 22 equations

ASSOCIATION: Novosibirskiy gosudarstvenny*y universitet (Novosibirsk State University).

SUBMITTED: 12Oct63 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: PH NO REF SOV: 003 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

ZASLAVSKIY, G.M.; FRIDMAN, A.M.

Motion of a quasi-classical particle in the quasi-periodical potential. Dokl. AN SSSR 166 no.3:58[illegible]-583 Ja '66. (MIRA 19:1)

1. Novosibirskiy gosudarstvennyy universitet. Submitted February 4, 1965.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

ACC NR: AP6037072

SOURCE CODE: UR/0056/66/051/005/1430/1444

AUTHOR: Mikhaylovskiy, A. B.; Fridman, A. M.

ORG: Novosibirsk State University (Novosibirskiy gosudarstvennyy universitet)

TITLE: Drift waves in a finite pressure plasma

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 5, 1966, 1430-1444

TOPIC TAGS: plasma wave, plasma instability, plasma temperature, inhomogeneous plasma

ABSTRACT: This is a continuation of earlier work dealing with local "microscopic" instabilities of a finite-pressure plasma (ZhETF v. 45, 1566, 1963 and elsewhere), and the calculations are made without some of the simplifying assumptions of the earlier work. The results of a recent analysis (ZhTF v. 37, no. 6, 1967) are used to show that, in an inhomogeneous collisionless plasma at arbitrary pressure, just as in a uniform plasma, there are two wave modes which are the analogs of the magnetosonic and the Alfven waves. When the angle between the wave vector and the magnetic field is close to 90°, the dispersion relations are determined by the inhomogeneity of the plasma and the magnetic field. At other propagation angles, the oscillations become the usual magnetosonic and Alfven waves. It is shown that, as in a homogeneous plasma, there is no interaction between the resonant particles and the Alfven waves in the approximation in which the ion Larmor radius is taken to be zero. However, these waves can be associated with a hydrodynamic instability if the plasma

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

ACC NR: AP6037072

pressure is comparable with that of the magnetic field and if the temperature and density gradients are in opposite directions. In the case of the magnetosonic waves, an analysis of the instabilities shows that in general a finite value of the pressure exerts a stabilizing effect, although in some cases excitation of the magnetosonic waves is possible. It is also shown that certain new plasma instabilities arise when the relative temperature gradient is comparable to or greater than the density gradient and is opposite in sign. The ion temperature instability of such a plasma is discussed and it is shown that this instability disappears when the plasma pressure is greater than the magnetic pressure. From the point of view of plasma stability theory, the most interesting result concerns drift magnetosonic waves, especially those associated with the ion temperature instability in the plasma. Instabilities can also be a result of oscillations that are sensitive to magnetic drift velocity of the particles. Orig. art. has: 1 figure and 51 formulas.

SUB CODE: 20/ SUBM DATE: 30Apr66/ ORIG REF: 023/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A. M., Engineer

"The Stability and Strength of Steel-Frame Bars." Cand Tech Sci, Moscow Order of Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev, 21 Dec 54. (VM, 10 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556 24 Jun 55

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

BRODSKIY, A.Ya., kandidat tekhnicheskikh nauk; FRIDMAN, A.M., inzhener.

Equipment for assembling and spot welding of reinforced frame elements with multiple bar joints. Biul. stroi.tekh. 13 no.12: 10-12 D '56. (MLRA 10:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut promyshlennykh sooruzheniy.
(Electric welding) (Reinforced concrete)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

SOV 125-58-3-7/15

AUTHORS: Brodskiy, A.Ya., Sokolovskiy, P.I. and Fridman, ~~A.M.~~

TITLE: Spot Welding of a Reinforcement Framework with Heat Treatment of Cluster Joints Between the Electrodes of the Machine (Tochechnaya svarka armaturnykh karkasov s termicheskoy obrabotkoy uzlov mezhdu elektrodami mashiny)

PERIODICAL: Avtomaticheskaya svarka, 1958, 11 Nr 3, pp 50-56 (USSR)

ABSTRACT: Thus far, reinforcement frames for concrete structures were are-welded. Experience has shown that contact spot welding is cheaper and more efficient in the production of reinforcement frames without diagonal links. However, joining three or five periodical-profile "St 5"-steel bars into cluster joints by contact spot welding entails metal hardening at the joint, caused by fast heating and subsequent fast cooling. The article gives a detailed description of experiments carried out for the purpose of eliminating this hardening. Engineer V. Yakovleva took part in the experiments. The developed technology consists in subsequent heating of the joints to a definite temperature between the electrodes of the welding machine and in slow cooling. Details of technology are given in table 3. Chemical composition of the

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SOV 125-58-3-7/15

Spot Welding of a Reinforcement Framework with Heat Treatment of Cluster Joints Between the Electrodes of the Machine

periodic-profile steel used for the experiments is also given. The described method has been put to practical use in the reinforcement workshop of a Chelyabinsk construction project. Automatic heat treatment between machine electrodes requires modernization of the standard welding machines and welding transformers.
There are 3 tables, 1 photo, 2 figures, 5 graphs, 2 sets of microphotos and 5 Soviet references.

ASSOCIATION: TsNIISK

SUBMITTED: September 25, 1956

1. Reinforcing steel--Spot welding 2. Spot welds--Effectiveness
3. Welded joints--Heat treatment

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A M

BRODSKIY, A.Ya., kand. tekhn. nauk; YEVGEN'YEV, I.Ye., kand. tekhn. nauk; FRIDMAN, A.M., inzh.; TSAPLIN, V.P., inzh.

Device for controlling strength of joints in welded reinforcements. Nov. tekh. i perod. op. v stroi. 20 no.4:11-12 Ap '58. (MIRA 11:3)
(Reinforced concrete)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.M., inzh.

Lap welding of reinforcement bars on contact spot-welding machines. Nov. tekh. i pered. op. v stroi. 20 no.6:25-26 Je '58. (MIRA 11:6)
(Reinforced concrete) (Electric welding)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

GUDKEVICH, L.A., inzh.; MIRENBURG, S.L., inzh.; FRIDMAN, A.M., kand.tekhn. nauk.

Construction of open steam power plants. Elek. sta. 29 no.6:7-11 Je '58. (MIRA 11:9)

(Steam power plants)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

GVOZDEV, A.A., prof., doktor tekhn.nauk; DMITRIYEV, S.A., kand.tekhn. nauk; MULIN, N.M., kand.tekhn.nauk; BALDIN, V.A., kand.tekhn. nauk; BRODSKIY, A.Ya., kand.tekhn.nauk; SOKOLOVSKIY, P.I., kand.tekhn.nauk; FRIDMAN, A.M., mladshiy nauchnyy sotrudnik. Prinimal uchastiye MADATYAN, S.A., mladshiy nauchnyy sotrudnik. KLIMOVA, G.D., red.izd-va; NAUMOVA, G.D., tekhn.red.

[Instructions for using hot-rolled ribbed 30KhG2S steel reinforcements in making prestressed reinforced-concrete construction elements] Ukazaniia po primeneniiu goriachekatanoi armatury periodicheskogo profilia iz stali marki 30KhG2S v predvaritel'no napriazhennykh zhelezobetonnykh konstruktsiiakh. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 21 p. (MIRA 14:1)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona (for Gvozdev, Dmitriyev, Mulin). 3. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Gvozdev). 4. Laboratoriya metallicheskikh konstruktsiy TSentral'nogo nauchno-issledovatel'skogo instituta stroitel'nykh konstruktsiy (for Baldin, Brodskiy, Sokolovskiy, Fridman). 5. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Baldin). 6. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (for Madatyan).

(Prestressed concrete) (Reinforcing bars)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

BRODSKIY, A.Ya., kand.tekhn.nauk; FRIDMAN, A.M., inzh.

Arc welding of 30KG2S reinforcing steel for prestressed reinforced concrete construction elements. Bet.i zhel.-bet. no.6:261-266 Je '60. (MIRA 13:7)
(Steel, Structural--Welding)
(Reinforced concrete)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

S/125/60/000/012/004/014
A161/A030

AUTHORS: Brodskiy, A.Ya; Fridman, A.M; Yermanok, Ye.Z; Frolov, S.A.

TITLE: Resistance Welding of 30KhG2S Reinforcement Steel for Pre-Stressed Reinforced Concrete Structures

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 12, pp. 28 - 36

TEXT: The weldability of 30ХГ2С (30KhG2S) reinforcement steel in resistance welding machines has been investigated and practical recommendations are given. The standard composition of this steel (GOST 5058-57) is: 0.26 - 0.35% C; 0.6 - 0.9% Si; 1.2 - 1.6% Mn; 0.6 - 0.9% Cr; not above 0.3% Ni and Cu (each); the mechanical properties: conditional yield limit $\sigma_{0.2} \geqslant 60$ kg/mm^2; ultimate strength $\sigma_B > 90$ kg/cm^2; elongation $\delta_5 > 6\%$; bending angle 45° in cold state around a mandrel with diameter equal to 5 diameters of the tested rod. Rods used for experiments were periodical, with 14 - 28 mm diameter, produced by the Stalino and Magnitogorsk metallurgical works. Round test specimens with sharp notch in different heat affected zones, so-called ЦНИПС (TsNIPS specimens) were used with success first of all with other reinforcement steel, but had to be replaced with Menazhe (Russian transliteration) notch specimens for 30KhG2S because of its very high notch sensitivity. It proved also very sensitive to inaccuracy of connection

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

S/125/60/000/012/004/014
A161/A030

Resistance Welding of 30KhG2S Reinforcement Steel for Pre-Stressed Reinforced Concrete Structures

angle in cross connections as well as to burns in machine grips during resistance welding. It is recommended to prevent burns by using electrodes with a wide contact surface, to raise the gripping effort, to carefully clean the surface of electrodes and rods, and to reduce the current density in these spots, which is possible by not only conducting current to the bottom electrodes but also to the upper hold-downs made from copper alloy. In view of the high sensitivity to heating time with butt welding, preheating should be carried out, (not too drastically) - e.g. continuous fusing is not premissible - for chilling in the heat-affected zone reduces strength through the formation of martensite spots (Fig. 3) which affects deformability and thus causes cracks. The formation of martensite can be prevented by heat treatment between the electrodes of resistance welding machines fitted with special automatic devices. [Abstracter's note: No details of such devices are mentioned]. The optimum welding process conditions were found in experiments in an АСИф-75 (ASIF-75) welder with a recorder which enabled the duration and temperature of preheating, the magnitude of upsetting, the number of preheating cycles, and the total welding time to be determined. The optimum values of the following major parameters were determined. setting length l уст,

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

S/125/60/000/012/004/014
A161/A030

Resistance Welding of 30KhG2S Reinforcement Steel for Pre-Stressed Reinforced Concrete Structures

fusion length $l_{опл}$, and upsetting length l_{oc}, as well as the transformer stage. The optimum process was determined by the shape of the curves of breaking load, bending angle and impact strength in butt joints. For medium-diameter reinforcement rods the $\frac{l_{уст}}{d}$, $\frac{l_{опл}}{d}$ and $\frac{l_{oc}}{d}$ values must be 2.8; 0.7 and 0.35 respectively. Butt joints in 20 and 28 mm diameter rods were so welded in ASIF-75 and MCP-100 (MSR-100) welders. In spot welding of cross joints the weldability of 30KhG2S steel was much lower than of Ст.5 (St.5), and the highest possible mechanical strength was obtained with about 2 sec. holding (St.5 requires three times as much holding). With St.5 rods, spot welded connections can be obtained with mechanical strength not below the strength of the base metal, regardless of the transformer stage, but in 30KhG2S spot welds the strength can drop drastically and be very uneven. The cause is the presence of martensite and heterogeneous structure. The properties of cross joints can appearantly be improved by heat treatment in the welding machine (between electrodes) (Ref. 3) (A. Ya. Brodskiy, P.I. Sokolovskiy. A.M. Fridman, "Avtomaticheskaya svarka", No. 3, 1958). Conclusions: 1) Resistance welding with 30KhG2S reinforcement steel is more difficult than with other Soviet reinforcement steel grades, but butt joints

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

S/125/60/000/012/004/014
A161/A030

Resistance Welding of 30KhG2S Reinforcement Steel for Pre-Stressed Reinfor ed Concrete Structures

are possible with ultimate strength not below the standard minimum for this steel. 2) Smooth Cr.3 (St.3) steel rods can be joined with 30KhG2S rods by spot welding into cross joints without weakening the rods. Cross joints of 30KhG2S with 30KhG2S have not more than 86% of initial metal strength before welding. 3) Brittleness is the drawback of all joints in 30KhG2S steel rods made by resistance welding, but it may be eliminated by heat treatment between electrodes. There are 6 figures and 3 Soviet references.

ASSOCIATIONS: TsNII stroitel'nykh konstruktsiy ASiA SSSR (TsNII of Construction Frameworks AS and A USSR). A.Ya. Prodskiy and A.M. Fridman; NII zhelezobeton pri Mosgorispolkome (Scientific Research Institute for Reinforced Concrete at Moscow City Executive Committee), Ye.Z. Yanmanok; MVTU imeni Baumana (MVTU imeni Bauman), S.A. Fralov

SUBMITTED: March 3, 1960

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

S/097/61/000/001/004/004
A053/A029

AUTHORS: Brodskiy, A.Ya., Candidate of Technical Sciences, Senior Scientific Coworker, Fridman, A.M., Junior Scientific Coworker

TITLE: Reply to an Article by A.A. Ulesov and V.Ya. Dul'kin on the Misrepresentation of Electric Arc Bath Welding

PERIODICAL: Beton i zhelezobeton, 1961, No. 1, pp. 28-30

TEXT: A.A. Ulesov and V.Ya. Dul'kin have raised two questions in their article - one concerning the effectiveness of bath welding in general with regard to butt joints of reinforcement rods - and the other on butt welding of reinforcement joints in reference to steel of 30ХГ2С(30KhG2S) grade. Ulesov and Dul'kin try to solve the question rationally by applying the characteristics of bath welding of brand Ст.3 (St.3) and Ст.5 (St.5) steel to 30KhG2S steel which is a mistake. The experience of Ulesov and Dul'kin are based on the production of monolithic reinforced (but not prestressed) concrete constructions, dealing with field welding of 80-90 mm rods made from

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

S/097/61/000/001/004/004
A053/A029

Reply to an Article by A.A. Ulesov and V.Ya. Dul'kin on the Misrepresentation of Electric Arc Bath Welding

Ст.4 (St.4) and Ст.5 (St.5) carbon steel, which belong to the easily weldable grades. On the other hand there exist steel grades, as shown in the table issued by Mashgiz in 1951, which are only weldable if thermically treated before or after the welding process. Such are the steels of 30ХГС (30KhGS) and 35ХГС (35KhGS) grade. Since thermic treatment is not applicable on the site, the utilization of such high-grade low-alloy steel for welding purposes in concrete reinforcement is prohibitive. In commenting on the statements and proposals of Ulesov and Dul'kin the authors of this article explain the reasons, why bath welding of the butt joints of reinforcement rods is not to be recommended in reinforced concrete structures and arrive at the following conclusions: 1) Steel of 30 KhG2S grade from which high-grade rods for prestressed reinforced concrete structural elements are made, having a diameter of 10-32 mm belong according to ГОСТ 5058-57 (GOST 5058-57) to the number of difficult weldable steels. 2) The butt welding of the joints of such rods can only be executed in plants, while resistance butt welding appears to be the most progressive method of welding. 3) In the ab-

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

S/097/61/000/001/004/004
A053/A029

Reply to an Article by A.A. Ulesov and V.Ya. Dul'kin on the Misrepresentation of Electric Arc Bath Welding

sence of resistance butt welding machines, reliable butt joints of rods from 30KhG2S steel can be obtained from arc welding by the application of round bars, in accordance with the technology contained in the "Directives", 4) Bath welding of butt joints of rods from 30KhG2S steel does not ensure sufficient strength and should therefore not be applied. 5) The utilization of covers in butt welding of joints of rods from 30 KhG2S steel is permissible only if there are no other more progressive methods of welding available. In this connection TsNIISK has developed and introduced a certain number of methods of mechanized welding of rods made from steel of St.3, St.5, 25ГС (25G2S), 35ГС (35GS), 18ГС (18G2S) grades etc (electroslag hand welding and multi-electrode bath welding methods), TsNIISK is constantly engaged in investigating and developing more progressive and more perfect means (semi-automatic and automatic electroslag welding) for the general welding method, as worked out by the Institut elektrosvarki im.Patona (Electrowelding Institute im.Paton). There is 1 table and 1 Soviet reference.

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ULESOV, A.A., elektrosvarshchik, Gvardiya Geroya Sotsialisticheskogo Truda; DUL'KIN, V.Y.; BLODSKIY, A.Ye., kand.tekhn.nauk, starshiy nauchnyy sotrudnik; FEIDMAN, A.M., mladshiy nauchnyy sotrudnik; MASONOV, V.N.; KARTASHOV, K.N.

Welding the 30KhG2S reinforcing steel. Bet. i zhel.-bet. no.1:25-31 Ja '61. (MIRA 14:2)

1.Kuybyshevgidrostroy (Ulesov). 2. Starshiy inzh.otdela issledovaniya i kontrolya Kuybyshevgidrostroya (for Dul'kin). 3. Direktor TSentral'nogo nauchno-issledovatel'skogo instituta stroitel'nykh konstruktsiy (for Masonov). 4. Direktor nauchno-issledovatel'skogo instituta betona i zhelezobetona (for Kartashov).
(Reinforcing bars—Welding)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

BRODSKIY, A.Ya.; FRIDMAN, A.M.; MULIN, N.M.; LEYKIN, I.M.; ROSHCHINA, A.A.

Low-alloy ribbed reinforcing steel with large diameters (40 ÷ 90 mm.). Bet. i zhel.-bet. 8 no.7:303-306 Jl '62. (MIRA 15:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy Akademii stroitel'stva i arkhitektury SSSR (for Brodskiy, Fridman). 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR (for Mulin). 3. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Leykin, Roshchina).
(Concrete reinforcement—Testing)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.M., inzh.

Submerged arc butt welding of multiple-row reinforcements for reinforced concrete constructions. Svar.proizv. no.7:16-18 Jl '62. (MIRA 15:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy Akademii stroitel'stva i arkhitektury SSSR.
(Concret reinforcement--Welding)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

SAVCHENKOV, V.A., kand.tekhn.nauk; TRUBILKO, V.I., inzh.; BRODSKIY, A.Ya., kand.tekhn.nauk; FRIDMAN, A.M., mladshiy nauchnyy sotrudnik

Weldability of St. 5ps capped reinforcement steel. Prom.stroi. no.10:51-53 '62. (MIRA 15:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov (for Savchenkov, Trubilko). 2. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy Akademii stroitel'stva i arkhitektury SSSR (for Brodskiy, Fridman).
(Concrete reinforcement—Welding)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

BRODSKIY, A.Ya., kand. tekhn. nauk; FRIDMAN, A.M., inzh.; ZUBKOVA, M.S., red.; KASIMOV, D.Ya., tekhn. red.

[Investigating the welding of reinforcements for reinforced-concrete structures; welding of 35GS reinforcement steel] Issledovaniia svarki armatury zhelezobetonnykh konstruktsii; svarka armaturnoi stali marki 35GS. Moskva, Gosstroiizdat, 1963. 85 p. (MIRA 16:12)
(Concrete reinforcement) (Electric welding)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

FRIDMAN, A.M. (Moskva)

Computing the stability of columns in frames. Stroi.mekh.i rasch.soor. 5 no.2:28-31 '63. (MIRA 16:6)
(Structural frames) (Stability)

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BRODSKIY, A.Ya., kand.tekhn.nauk; FRIDMAN, A.M., inzh.

Weldability of grades St.5 and 35GS steel strengthened by cold drawing. Bet.i zhel.-bet. 9 no.5:210-215 My '63. (MIRA 16:6)

(Concrete reinforcement—Welding)

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FRIDMAN, A.M., kand. tekhn. nauk (Moskva)

Elastoplastic calculations for the stability of frame systems using differentiation. Issl. po teor. sooruzh. no.12:123-139 '63. (MIRA 16:6)

(Structural frames) (Stability)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

ESSEL', Aleksandr Yefimovich; FRIDMAN, A.M., red.

[Indirect hemagglutination reaction] Reaktsiia nepriamoi gemaggliutinatsii. Leningrad, Meditsina, 1965. 50 p. (MIRA 18:5)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

BUTYRINA, Galina Yakovlevna; FRIDMAN, A.M., red.

[Exercise therapy in burns] Lechebnaia fizkul'tura pri ozhogakh. Leningrad, Meditsina, 1965. 57 p. (MIRA 18:4)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

MARSHAK, Moisey Yefimovich; FRIDMAN, A.M., red.

[Physiological bases of hardening the human organism] Fiziologicheskie osnovy zakalivaniia organizma cheloveka. Leningrad, Meditsina, 1965. 148 p. (MIRA 18:9)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

VINOGRADOV, Aleksey Viktorovich; FRIDMAN, A.M., red.

[Acute circulatory insufficiency in myocardial infarct] Ostraia nedostatochnost' krovoobrashcheniia pri infarkte miokarda. Leningrad, Meditsina, 1965. 188 p. (MIRA 18:9)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

PORTNOY, A.S.; FRIDMAN, A.M., red.

[Surgical treatment of adenoma of the prostate gland] Khirurgicheskoe lechenie adenomy predstatel'noi zhelezy. Leningrad, Meditsina, 1965. 198 p. (MIRA 18:12)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

MOLCHANOV, Nikolay Semenovich; KLIMOV, S.P., red.; FRIDMAN, A.M., red.

[Acute pneumonias] Ostrye pnevmonii. Leningrad, Meditsina, 1965. 206 p. (MIRA 18:6)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

MIL'MAN, Leonid Yakovlevich; ROZHDESTVENSKIY, V.I., red.; FREIMAN, A.M., red.

[Impotence; etiology, prevention and treatment] Impotentsiia; etiologiia, profilaktika i lechenie. Izd.2., perer. i dop. Leningrad, Meditsina, 1965. 222 p. (MIRA 18:3)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

LEVIN, Veniamin Moiseyevich; RUTENBURG, Emma Samuilovna; FRIDMAN, A.M., red.

[Doctor's examination of adolescents for work] Vrachebnaia professional'naia konsul'tatsiia podrostkov. Leningrad, Meditsina, 1965. 235 p. (MIRA 18:2)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

BLAGOVESHCHENSKAYA, Nataliya Sergeyevna; FRIDMAN, A.M., red.

[Otoneurological symptomatology in the clinical aspects of cerebral tumors] Otonevrologicheskaia simptomatika v klinike opukholei golovnogo mozga. Leningrad, Meditsina, 1965. 254 p. (MIRA 18:9)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

DENISENKO, Petr Prokof'yevich; FRIDMAN, A.M., red.

[Central cholinolytics; their pharmacology and clinical use] TSentral'nye kholinolitiki; farmakologiia i klinicheskoe primenenie. Leningrad, Meditsina, 1965. 279 p. (MIRA 18:8)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

POPOV, Vitaly Ilich; [illegible], Vladimir Ivanovich; TIMOFEYEV, N.S., red.; FRIDMAN, A.M., red.

[Restorative surgery on the esophagus] Vosstanovitel'naia khirurgiia pishchevoda. Leningrad, Meditsina, 1965. 310 p. (MIRA 18:3)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

BRODSKIY, A.Ya., kand. tekhn. nauk; FRIDMAN, A.M., inzh.

Resistance welding of hardened reinforcement rods made of carbon steel. Svar. proizv. no.3:5-8 Mr '65. (MIRA 18:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy.

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PHASE I BOOK EXPLOITATION SOV/4017

Leningradskiy metallicheskiy zavod. Otdel tekhnicheskoy informatsii

Issledovaniya elementov parovykh i gazovykh turbin i osevykh kompressorov (Investigations of the Components of Steam and Gas Turbines and Axial-Flow Compressors) Moscow, Mashgiz, 1960. 488 p. (Series: Its: Sbornik, No. 6) Errata slip inserted. 3,200 copies printed.

Sponsoring Agency: RSFSR. Leningradskiy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva. Upravleniye tyazhelogo mashinostroyeniya.

Ed.: A.S. Zil'berman, Candidate of Technical Sciences; Eds. of Publishing House: V.P. Vasil'yeva and N.Z. Simonovskiy; Tech. Ed.: O.V. Speranskaya; Managing Ed. for Literature on the Design and Operation of Machines (Leningrad Division, Mashgiz): P.I. Petisov, Engineer; Editorial Board of Series: A.S. Zil'berman, Candidate of Technical Sciences; M.M. Koren', Engineer; V.K. Naumov, Candidate of Technical Sciences; and I.N. Shibalov, Engineer.

PURPOSE: This collection of articles is intended for engineering and technical personnel of turbine-construction plants and related organizations and may also be used by engineers and technicians at power plants employing steam and gas turbines.

COVERAGE: The collection contains 43 reports which present the methods and results of investigations of the working process and the statics and dynamics of the operation of turbine and axial-flow compressor components. Also described are test setups, devices, and apparatus. The first part of the collection deals with the aerodynamics of turbine and compressor components. The following members of the aerodynamic, compressor, and turbine laboratories took part in the work: D.M. Reshet'ko, V.I. Zemlyanskiy, Ye.A. Rusakova, the technicians T.Ya. Kiyanova, V.I. Karabach, N.D. Yegorova, and innovators N.K. Tutayev, and I.I. Gribanov. The second part of the collection consists of reports which illustrate that part of the work of the Laboratory (Central Laboratory of the Design Office for Steam and Gas Turbines of the Leningrad Metal Plant) concerned with the study of vibrations of turbines and their components, particularly the blades. The following members of the vibration laboratory participated in the work: Engineers I.D. Novikova, G.L. Lyudin, and V.I. Melent'yeva, technicians and workers A.N. Krasheninnikov, V.I. Zimin, Yu.G. Kazimov, and Ye.P. Kudryavtsev. The third part is concerned with the calculation and experimental study of the state of stress and the deformations of turbine components. This work was performed by the Turbine-Component Laboratory. Personalities mentioned are the head of this laboratory M.M. Koren', Engineers Ye.S. Zukrova and I.V. Urinson, technicians and workers S.P. Senchenok, and Z.M. Shul'gina. The last part contains articles dealing with instruments, apparatus, and test setups. At the end of the collection methods for producing rotating parts of experimental turbines and compressors are presented. Personalities mentioned are the supervisors of the shop of the laboratory N.N. Prolova and G.P. Gavrilova, the leading innovators Ye.V. Markova, I.I. Gvozdeva, and V.P. Troynikova. References are to be found at the end of 24 of the 43 articles.

Investigations of the Components (Cont.) SOV/4017

Gurskiy, A.N., Engineer. Study of the Serviceability of the Journal of an Austenitic Steel Shaft in a Babbitt Bearing 389

PART IV. INSTRUMENTS, APPARATUS, AND INSTALLATIONS

Blokh, V.A., Engineer, V.S. Syrkin, Engineer, and A.N. Fridman, Engineer. Devices of the LMZ for the Operational Control and Protection of Steam and Gas Turbines 399

Fridman, A.N.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513720002-1

BLOKH, V.A., inzh.; SYRKIN, V.S., inzh.; FRIDMAN, A.N., inzh.

The IMZ instruments for operational control and protection of steam and gas turbines. [Trudy] IMZ no.6:399-407 '60. (MIRA 13:12)
(Electric instruments)

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L 5297-66 EWT(m)/EPF(c)/EWP(j)/T RM

ACC NR: AP5025033 SOURCE CODE: UR/0286/65/000/016/0083/0083

AUTHORS: Verkhorubov, B. A.; Fridman, A. N.; Olerinskiy, B. I.; Monakhova, Ye. V.; Chaplin, Yu. V.; Petrova, L. V.; Vavilova, I. I.

ORG: none

TITLE: A method for obtaining polyolefin. Class 39, No. 173945

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 83

TOPIC TAGS: polyolefin, monomer, organometal, catalyst

ABSTRACT: This Author Certificate presents a method for obtaining polyolefin by high-pressure circulation of gaseous monomer through a polymerizer filled with a solvent and an active complex, and containing an organometallic catalyst. To prevent polyolefin, formed in the early stage of the reaction, from sticking to the walls of the polymerizer, the latter is first filled with pure solvent. The active complex is then added to the solvent.

SUB CODE: MT, GC/ SUBM DATE: 23Jan63/ ORIG REF: 000/ OTH REF: 000

Card 1/1 UDC: 678.742

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L 13288-66 EWT(d)/EWT(m)/EWP(v)/EWP(j)/T/EWP(k)/EWP(h)/EWP(1) RM

ACC NR: AP6000321 (A) SOURCE CODE: UR/0286/65/000/021/0010/0010

INVENTOR: Belotelov, N. A.; Verkhorubov, B. A.; Kal'noy, V. G.; Kryuchkov, A. D.; Litvin, A. P.; Mel'nichenko, V. Z.; Morozov, G. N.; Olerinskiy, B. I.; Klebanova, I. S.; Solnyshkin, L. M.; Fridman, A. N.; Shilov, L. A.; Shchutskiy, S. V.; Yanovskiy, E. A.

ORG: none

TITLE: A device for automatic control of an installation for polymerizing gaseous olefins. Class 12, No. 175923 [announced by the Leningrad Affiliate of the All Union Scientific Research and Design Institute for Chemical Machine Building (Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'skogo i konstruktorskogo instituta khimicheskogo mashinostroyeniya)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 10

TOPIC TAGS: polymerization, olefin, chemical engineering, automatic control equipment

ABSTRACT: This Author's Certificate introduces a device for automatic control of an

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L 13288-66

ACC NR: AP6000321

installation for polymerizing gaseous olefins, e.g. in production of low pressure polyethylene. The unit consists of two temperature controllers connected to a flow regulator for the product reactor, and a pressure regulator connected to the controller for the coolant. For increased productivity and optimization of the process, one temperature controller is connected through a speed reducer to the pressure controller which is connected through a second speed reducer to the flow regulator for the product reactor. The other temperature controller is connected to the flow regulator for the coolant.

Card 2/3

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L 13288-66

ACC NR: AP6000321

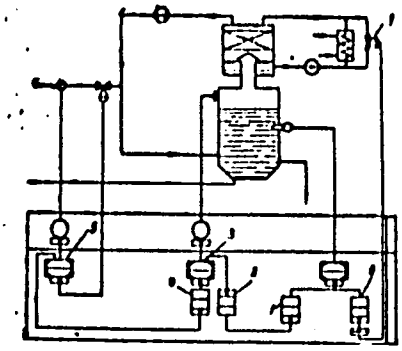

Fig. 1. 1 - first temperature controller; 2 - first speed reducer; 3 - pressure regulator; 4 - second speed reducer; 5 - flow regulator for the product; 6 - second temperature controller; 7 - flow regulator for the coolant.

SUB CODE: 07/ SUBM DATE: 01Feb65/

Card 3/3

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CA

FRIDMAN, A.P.

A comparative study of the distribution of electrolytes (Cl, P, Ca, Mg) in the cerebrospinal fluids of animals and man. A. P. Fridman and V. V. Petrova. *Arch. sci. biol.* (U. S. S. R.) 39, 209-17(1935).—The following av. figures in mg./l. are reported with min. and max. in parentheses: Cl (as NaCl): man 730 (725-50), cattle 633 (611-713), dogs 667 (622-783); inorg. P: man 1.75 (1.5-2.1), cattle 3.20 (4.06-2.15), dogs 3.00 (2.82-8.47); Ca: man 6.2 (4.0-6.8), cattle 6.58 (6.01-7.18), dogs 6.50 (5.13-7.40); Mg: man 2.7 (1.02-3.5), cattle 2.17 (2.13-3.20), dogs 3.00 (2.58-3.81). Some attempt is made to correlate the figures with age, state of nutrition, sex, etc., but the no. of observations is insufficient for significant evaluation.

W. A. Perlzweig

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1ST AND 2ND ORDERS — PROCESSES AND PROPERTIES INDEX — 3RD AND 4TH ORDERS

CA

FRIDMAN, A. P.

11F

The cerebrospinal-fluid sugar in animals and in man. A. P. Fridman and R. Ch. Arkina. *Arch. sci. biol.* (U. S. S. R.) 39, 539-46(in German 540-7)(1935).—The results of 300 analyses of spinal-fluid sugar by the Hagedorn-Jensen method are reported. Normal human fluid contains 42.5-60.5 mg.%; av. 49 mg.%. The cisternal fluid of cattle (cows and bulls) is adults av. 47 mg.% and calves 51 mg.%. In sheep and goats the av. is 51 mg.%; in dogs 45-77 mg.%, av. 64 mg.%. There do not appear to be any significant differences in the species tested.

W. A. Perlzweig

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FRIDMAN, A.P.

CA

11f

The cerebrospinal-fluid sugar constant in rabbits. A. P. Fridman and R. Kh. Arkina. *Arch. sci. biol.* (U. S. S. R.) 40, No. 1, 113-15(in English 115)(1930); cf. C. A. 30, 7186[6].—On the basis of analyses of 175 samples of cisternal spinal fluid obtained without anesthesia from 50 rabbits of 5 different species the following results are given: The sugar content varies between 45 and 79 mg. %. The amplitude of fluctuation showed little dependence upon the age or the species of rabbit studied. In comparison with the other animals studied (*C. A.* 30, 7186[6]) rabbits and dogs show a wider amplitude of fluctuation, pointing to a greater permeability of the hematocerebral barrier than in animals occupying a higher place in the phylogenetic scale. W. A. Perlzweig

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FRIDMAN, A.P.

CA

11P

The comparative determination of vitamin C and glutathione in the cerebrospinal fluid. A. P. Fridman. *Arch. sci. biol.* (U. S. S. R.) 40, No. 1, 117-120 (in English 120) (1936).—The spinal fluid of man and animals does not contain glutathione. The vitamin C content of dogs, rabbits, cattle, sheep and horses varied between 0.28 and 0.48 mg. % regardless of species. In 15 human cases of diseases of the central nervous system the range was 0.21 0.42 mg. %, disturbances in the metabolism of the brain being assocd. with the lower figures. W. A. Perlzweig

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FRIDMAN, A.P.

1X

The permeability of the cerebrospinal barrier to sugar and lactic acid A. P. Fridman and R. Kh. Arkina. *Arch. sci. biol.* (U.S.S.R.) 50, No. 1-2, 129-37 (in English, 137) (1938). The coeff. of permeability of the cerebrospinal barrier to sugar is practically const. in dogs, horses, cows and rabbits, varying within the limits 1.0 to 1.81. The quantity of lactic acid (I) in the cerebrospinal fluid is not const. and is independent of its concn. in the blood. Conclusion: I is most probably of local origin in the brain. S. A. Karjala

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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FRIDMAN, A.P.

Chemical method for vitamin C determination in the cerebral fluid A. P. Fridman *Lab. Delo* (U. S. S. R.) 1939, No. 1, 9-11. Into a 50-cc. Erlenmeyer flask is introduced 7 vols. of distd. water, 1 vol. of cerebral fluid, 1 vol. of 10% $Na_2WO_4 \cdot 2H_2O$ soln. and 1 vol. of [illegible] N H_2SO_4. After the mixt. is shaken and filtered, the clear filtrate is titrated with Tillmans' reagent (2,6-dichlorophenol-indophenol) until a light pink color is obtained. The end point must be carefully watched. Two methods for the prepn. of Tillmans' reagent and the calcn. method are given. The amts. of vitamin C found in different fluids are: rabbits 2-3 mg. %, dogs 1-6 mg. %, horse 2-4 mg. %, cow 3-5 mg. %, human 0.5-2.5 mg. %. W. R. Heun

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FRIDMAN, A. P.

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Biological and chemical methods for the determination of vitamin C in [cerebrospinal] fluid. A. P. Friedman, L. Ya. Kriyanovskaya and P. Ch. Arkina. *Bull. biol. med. exptl. U. S. S. R.* 7, 85-7(1939)(in German). There is close agreement between the chem. and biol. methods.

S. A. Karjala

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