

USSR/Farm Animals. Sheep and Goats.

Abs Jour: Ref Zhur-Diol., No 17, 1958, 78760.

Author : Delobrova, N. F.; Dzhumaniyazov, Yu.

Inst :                   

Title : "Sur" Sheep in the Turkul Rayon of the Kara-Kalpak ASSR.

Orig Pub: Ovtsevodstvo, 1958, No 1, 31-34.

Abstract: As a personal property of the kolkhozes of the Turkul Rayon of the Kara-Kalpak ASSR, sheep are met with "sur" antique-fur coat. "Sur" sheep, in comparison with black sheep, are large, long, somewhat coarse and plump. A white mark on the head is considered a valuable sign of these sheep. There are different shades of coloring of the antique "sur" lambskins. The most valuable color

Card : 1/2

ACC NR: AP6033169

JUS/DW

SOURCE CODE: UR/0033/66/043/005/1039/1046

AUTHOR: Barabashov, N. P.; Belobrova, O. I.; Yezerskiy, V. I.; Yezerskaya, V. A.

ORG: Kharkov Astronomical Observatory (Khar'kovskaya astronomicheskaya observatoriya)

TITLE: Photometry of the marginal zone of the Moon

SOURCE: Astronomicheskiy zhurnal, v. 43, no. 5, 1966, 1039-1046

TOPIC TAGS: moon, photometry, lunar albedo, lunar landing, lunar surface, lunar optic property

ABSTRACT: Photometric characteristics of the eastern and western marginal zones of the lunar surface were studied by comparison with data for the photometric mean lunar surface. Analysis of published data as well as of original photometric measurements of regions in the eastern and western marginal zones showed the relative brightness of the eastern zone to be generally greater, and that of the western zone to be less than the photometric mean for the lunar surface. This indicates differences in the microrelief structures of the marginal zones—denser material in the outer layer of the eastern marginal zone (including the landing site of the Luna-9 station,  $\beta = +7^{\circ}08'$ ,  $\lambda = -64^{\circ}22'$ ) than in the western marginal zone. Heat anomalies of the lunar surface (e.g., less rapid heating of the eastern than of the western zone after the full phase; craters, warmer than surrounding regions, observed at the time of a lunar eclipse),

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UDC: 523.323

ACC NR: AP6033169

correlated with its photometric characteristics, are cited to support the possibility of the presence of rock formations in addition to porous material. The lesser intensity of the meteor stream near the eastern zone of the Moon caused by the Earth's gravitational field is mentioned as a possible explanation for the observed photometric and structural characteristics. Orig. art. has: 6 figures, 4 tables, and 2 equations.

SUB CODE: 03/ SUBM DATE: 26Apr66/ ORIG REF: 016/ OTH REF: 008 /  
ATD PRESS: 5101

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Card 2/2 a/s

BELOBROVA, Ye.D.

Motor function of intestines in dogs in two forms of experimental hypertension: the centrogenic (knolinic) and hypertension of central nervous origin obtained under conditions of "collapse" of the higher nervous activity. Trudy Khar. med. inst. no. 50:89-98 '62. (MIRA 19:1)

1. Kafedra normal'noy fiziologii (zav. - chlen-korrespondent AN UkrSSR prof. Ye.K.Prikhod'kova) Khar'kovskogo meditsinskogo instituta.

*GLAZOVYY, L.R.*

FRENKEL', I.M., kand. tekhn. nauk; MIRONOV, S.A., doktor tekhn. nauk, prof.; BARANOV, A.T., kand. tekhn. nauk; SUZHEVICH, G.A., kand. tekhn. nauk; MIKHAYLOV, K.V., kand. tekhn. nauk; MULIN, N.M., kand. tekhn. nauk; KHAYDUKOV, G.K., kand. tekhn. nauk; KORNEV, N.A., kand. tekhn. nauk; TESLER, P.A., kand. tekhn. nauk; HERDICEVSKIY, G.I., kand. tekhn. nauk; VASIL'YEV, A.P., kand. tekhn. nauk; LYUDKOVSKIY, I.G., kand. tekhn. nauk; SVETOV, A.A., kand. tekhn. nauk; CHINENKOV, Yu.V., kand. tekhn. nauk; BELOBROVYY, I.K., inzh.; KLEVTSOV, V.A., inzh.; DOBROMYSLOV, N.S., arkh.; DESOV, A.Ye., doktor tekhn. nauk, prof.; LITVER, S.L., kand. tekhn. nauk; PISHCHIK, M.A., inzh.; SKLYAR, B.L., inzh.; POPOV, A.P., kand. tekhn. nauk; NEKRASOV, K.D., doktor tekhn. nauk, prof.; MILOVANOV, A.F., kand. tekhn. nauk; TAL', K.E., kand. tekhn. nauk; KALATUROV, B.A., kand. tekhn. nauk; KARTASHOV, K.N., red.; MAKARICHEV, V.V., kand. tekhn. nauk, red.; YAKUSHEV, A.A., inzh., nauchnyy red.; BEGA, B.A., red. izd-va; NAUMOVA, G.D., tekhn. red.

[Reinforced concrete products; present state and prospects for development] Zhelezobetonnye konstruktsii; sostoianie i perspektivy razvitiia. Pod obshchei red. K.N. Kartashova i V.V. Makaricheva. Moskva, Gosstroizdat, 1962. 279 p.

(MIRA 15:8)

*(Continued on next page)*

GEL'MAN, N.L., inzh.; BELOBRZHESKII, N.A., inzh.; MUSATOV, T.P., inzh.;  
SOROKA, I.F., inzh.

Time intervals between repairs. Elek. sta. 36 no.9:74-76 S '65.  
(MIRA 18:9)

1. Rostovskoye rayonnoye upravleniye energeticheskogo khozyaystva  
(for Gel'man, Belobrhesskiy). 2. Glavnoye upravleniye energeti-  
cheskogo khozyaystva Donetskogo basseyna (for Musatov, Soroka).

GOLUBEV, A.I.; BELOBZHESKIY, A.V.; MIKHAYLOVSKIY, Yu.N.

"Theory of corrosion and metal protection" by N.D. Tomashov.  
Reviewed by A.I. Golubev, A.V. Belobzheskii, Iu.N. Mikhailovskii.  
Zhur.fiz.khim. 35 no.12:2825-2826 D '61. (MIRA 14:12)  
(Metals—Corrosion)  
(Tomashov, N.D.)

BELOBZHETSKIY, I.

Stricter conditions are indispensable. Fin.SSSR 20 no.3:67-68  
Mr '59. (MIRA 12:7)

1. Nachal'nik sektora gosdokhodov Baranovicheskogo gorfinotdela.  
(Baranovichi—Manufactures)

BELOBZHETSKIY, I.

New system of uniform prices on cereal products and control of the  
city financial department. Fin. SSSR 21 no.2:71-74 F '60.

(MIRA 13:1)

1. Nachal'nik sektora gosdokhodov Baranovichskogo gorfinotdela.  
(Baranovichi--Grain--Prices)

BELOBZHETSKIY, I.

From the practice of the Baranovichi Financial Department. Fin.  
SSSR 21 no.11;72-74 N '60. (MIRA 13:11)

1. Nachal'nik sektora gosdokhodov Baranovichskogo gorfinotdela.  
(Baranovichi--Finance)

BELOBEZHETSKIY, I.; ZAYEVSKAYA, N.

Analysis of annual reports helped to uncover hidden potentialities.  
Fin.SSSR 22 no.6:69-75 Je '61.  
(MIRA 14:6)

1. Zamestitel' zaveduyushchego Baranovichskim gorfinotdelom (for  
Belobezhetskiy). 2. Zamestitel' zaveduyushchego Baumanskim  
rayfinotdelom Moskvy (for Zayevskaya).  
(Auditing) (Financial statements)

BELOBZHETSKIY, I.

For the reliability of report data. Fin.SSSR 23 no.5:58-62 My  
'62. (MIRA 15:5)

1. Nachal'nik otdela gosudarstvennykh dokhodov Baranovichskogo  
gorodskogo finansovogo otdela.  
(Baranovichi—Financial statements) (Baranovichi—Auditing)

BELOBZHETSKIY, I.

In the effort for profitable production, Fin.SSSR 37 no.3,  
67-70 Mr '63.  
(MIRA 16:4)

1. Zamestitel' zaveduyushchego Baranovichskim gorodskim  
finansovym otdelom.  
(Baranovichi—Industrial management)

BELORZHETSKIY, I.

Miscalculations and oversights. Fin. SSSR 37 no.11:26-30 N'63.  
(MIRA 17:2)

1. Nachal'nik otdela gosudarstvennykh dokhodov Baranovichskogo  
gorodskogo finansovogo otdela.

17(2)

SOV/177-58-9-19/51

AUTHOR: Belochitskiy, A.E., Guards Captain of the Medical Corps

TITLE: Primary Suturation of a Wound Surgically Treated

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 9, pp 64-66  
(USSR)

ABSTRACT: In the past years, the author observed 84 patients with regard to the effectiveness of penicillin combined with norsulphasol in the primary suturation of a surgically-treated wound. Based on his experiences and 2 case reports, the author concludes that primary suturation of a wound surgically-treated (in bullet and other injuries) with application of antibiotics and the following penicillin-norsulphasol therapy makes it possible to convert an open fracture into a closed, and to reduce the time needed for healing.

Card 1/1

BELOCHKINA, N. I.

Belochkina, N. I.

"The use of antibiotics to treat pneumonia in young children." Khar'kov Medical Inst. Khar'kov, 1956. (Dissertation For the Degree of Candidate in Medical Sciences).

Knizhnaya letopis'  
No 34, 1956. Moscow.

BELOCHKINA, N.A., Cand Med Sci —(diss) "Treatment of pneumoniae  
with antibiotics in children of early age". Kharkov, 1958. 14 pp.  
(Khark'kov Med. Institute). 200 copies. (KL, 38-53, 107).

37

BELOCHKINA, N.O. [Bielochkina, N.O.], assistent

Urine color sedimentation reaction in the catamnesis of children  
having had infectious hepatitis. Ped., akush. i gin. 22 no.4:27-  
29 '60. (MIRA 14:5)

1. Kafedra detskikh infektsionnykh bolezney (zaveduyushchiy - dotsent  
A.D.Pevzner) Khar'kovskogo meditsinskogo instituta (direktor-kand.  
med.nauk B.A.Zadorozhnyi).

(URINE ANALYSIS AND PATHOLOGY)  
(HEPATITIS, INFECTIOUS)

S/149/63/000/001/001/008  
A006/A101

AUTHORS: Khan, G. A., Panteleyeva, N. F., Agranat, B. A., Belochkina, Ye. G.,  
Yakubovich, I. A. Kirillov, O. D.

TITLE: Experiments of using ultrasonic waves in selection of collective  
concentrates

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya,  
no. 1, 1963, 25 - 31

TEXT: The experimental investigation was carried out for the purpose of  
finding new effective means of selecting collective copper-molybdenum concen-  
trates. Among others, the method of eliminating reagent coatings from surfaces  
of mineral particles in ultrasonic process, were studied. The effect of ultra-  
sonic waves upon selective separation of molybdenite, chalcopyrite, pyrite and  
quartz was investigated with pure minerals and artificial mineral mixtures. It  
was found that the breakdown of reagent coatings from the surface of mineral  
particles was performed in an ultrasonic field above the threshold of cavitation  
of the liquid phase. The density of the processed pulp has a substantial effect

Card 1/2

Experiments of using ultrasonic waves in...

S/149/63/000/001/001/008  
A006/A101

upon subsequent flotation behavior of the mineral: the selection of the collective concentrate is improved during the ultrasonic processing of more diluted pulps with not over 10% content of solids; in denser pulps the possibility of breakdown of the reagent coatings from the surface of mineral particles is impaired. The time of ultrasonic processing of the pulp affects the results of breakdown of the reagent coatings from the mineral surfaces; 8 - 10 min is the most efficient time for processing. The breakdown of a fixed collector from the surfaces of pyrite and chalcopyrite in ultrasonic processing proceeds more fully; as a result the extraction of these minerals into a concentrate is reduced. Multi-stage processing of mineral mixtures by ultrasonic waves is not expedient, the process becomes more complex without increase in efficiency. A breakdown of xantogenate coatings without ultrasonic treatment, using merely filtration, was not observed. Filtration after ultrasonic treatment is not always necessary. There are 4 figures.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steels and Alloys) Kafedra obogashcheniya rud redkih metallov i kafedra fiziki (Department of Concentration of Rare Metal Ores and the Department of Physics)

SUBMITTED: April 18, 1962  
Card 2/2

BELODOED, D.G., elektromekhanik

Care should be taken not to violate the honor of the trademark  
of a factory. Avtom., telem.i sviaz' 6 no.6:41 Ap '62.  
(MIRA 1534)

1. Dom svyazi stantsii Mogocha Zabaykal'skoy dorogi.  
(Electric equipment industry—Quality control)

BELODEROV, N.

Metal forgers move forward. Prof.-tekhn.obr. 17 no.5:29  
My '60. (MIRA 13:?)  
(Railroads--Cars--Maintenance and repair)

SELOTVORSKIY, V.,

For the profitable utilization of the gas industry

Zhil. -kon. khoz. 2 no. 5, 1952

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204330010-8

BELODVORSKIY, Yu., upravlyayushchiy.

Mechanization of certain types of repair works on Moscow gas pipelines.  
Zhil.-kom. khoz. 3 no.3;8-10 Mr '53. (MLRA 6:5)

1. Trest "Mosgas"

(Moscow--Gas pipelines)

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204330010-8"

BELODYORSKIY, Yu., inzh.

Foe of metals. IUn.tekh. 7 no.1:16-19 Ja '63. (MIRA 16:5)

1. Upravlyayushchiy trestom gazoprovodov Upravleniya gazovogo khozyaystva Moskovskogo gorodskogo ispolnitel'nogo komiteta.  
(Corrosion and anticorrosives)

BELGBURSKY, J.

"Economical Operation Of The Gas Distribution System. Tr. From The Russian." p. 24f. (Paliva, Vol. 33, No. 11, Nov. 1 53, Praha.)

SO: Monthly List of East European Secessions, Library of Congress, March 1954, Unci.  
Vol. 3, No. 3.

~~SECRET DOCUMENT INDEXED~~  
~~REF ID: A6521~~  
~~1658~~  
BLODVOISKII, Yu.

Characteristics of gas consumption in municipal gas systems.  
Zhil.-kom.khoz. 4 no.5:15-16 '54. (MLRA 7:9)

1. Upravlyayushchiy trestom "Mosgaz"  
(Gas companies)

BERLODVORSKIY, Yu.

Mechanization of repair work in the gas supply administration.  
Zhil.-kom.khoz. 5 no.6:9-11 '55. (MIRA 9:1)

1.Upravlyayushchiy trestom "Mosgaz".  
(Moscow--Gas manufacture and works)

BELODVORSKIY, Yu.M.

KRUZHLOV, Anatoliy Georgiyevich; RUKHLYADEV, Nikolay Leonidovich;  
BELODVORSKIY, Yu. M., redaktor; AVRUSHCHENKO, R.A. redaktor  
izdatel'stva; KONIASHINA, A., tekhnicheskiy redaktor

[Gas distribution practice in foreign countries] Iz  
zarubezhnoi praktiki gazonabzheniya. Moskva, Izd-vo M-va  
kommun. khoz. RSFSR, 1956. 58 p. (MLRA 10:5)  
(Gas distribution)

*BELODVORSKIY, Yu. M.*

GORDYKHIN, Aleksandr Ivanovich, kandidat tekhnicheskikh nauk; BELODVORSKIY,  
Iu. M. redaktor; RACHEVSKAYA, M.I., redaktor izdatel'stva; KUZHNEV,  
A.D., tekhnicheskiy redaktor

[City gas networks] Gorodskie gasovye seti. Moskva, Izd-vo M-va  
kommun.khoz. RSFSR, 1957. 385 p. (MLRA 10:7)  
(Gas distribution)

BELODVORSKIY, Yu.; TSIKERMAN, L., starshiy nauchnyy sotrudnik

Classification of anticorrosive pipeline coatings. Zhil.-kom.khoz.  
7 no.12:8-9 '57. (MIRA 11:12)

1. Upravlyayushchiy trestom "Mosgaz"(for Belodvorskiy). 2. Akademiya  
kommunal'nogo khozyaystva imeni K.D. Pamfilova (for TSIkerman)  
(Corrosion and anticorrosives)

BELODVORSKIY, Yu. M.; PROFERANOV, V.P.; KORIGODSKAYA, B.P.; TSIKERMAN, L.Ya.

Methods for calculating corrosion resistance of insulated pipelines  
being under the effect of stray currents. Gor. khoz. Mosk. 32 no.10:  
28-31 0 '58. (MIRA 11:11)

1. Upravlyayushchiy trestom "Mosgaz" (for Belodvorskiy). 2. Trest "Orggas"  
Moskovskogo kommunal'nogo khozyaystva RSFSR (for Proferanov). 3. Otdel  
podzemnykh sooruzheniy Arkhitekturno-planirovochnogo upravleniya g. Moskvy  
(for Korigodskaya). 4. Akademiya kommunal'nogo khozyaystva imeni K.D.  
Pamfilova (for Tsiberman).

(Electric current, Leakage) (Pipelines)  
(Corrosion and anticorrosives)

BEKETOV, Pavel Nikolayevich, inzh.; BELODVORSKIY, Yu.M., red.; AKATOVA, V.G., red.izd-va; VOLKOV, S.V., tekhn.red.

[Servicing boilers operating on gas] Obsluzhivanie kotel'nykh, rabotaiushchikh na gazovom toplive. Moskva, Izd-vo M-va kommun. khoz. RSFSR, 1959. 127 p.  
(Boilers) (MIRA 13:3)

BELODVORSKIY, Yuliy Maksimovich; RYABTSEV, N.I., red.; VARGANOVA, A.N.,  
red.izd-va; LELYUKHIN, A.A., tekhn.red.

[Operation of urban gas distribution systems] Ekspluatatsiya  
gorodskogo gazovogo khoziaistva. Moskva, Izd-vo M-va kommun.  
khoz.RSFSR, 1959. 493 p. (MIRA 13:5)  
(Gas distribution)

BELODVORSKIY, Yu.M., inzh.

"Safe operation of gas equipment of industrial furnaces and boilers"  
by M.A.Neqhaev. Reviewed by Iu.M.Belodvorskii. Besplatnaya prom.  
6 no.11:36 N '62. (MIRA 16:2)  
(Gas burners—Safety measures)

BEDOVORSKIY, Yuliy Maksimovich; FORER, I.B., red.; CHEKRYZHOB,  
V.A., red. izd-vag SALAZKOB, N., tekhn. red.

[Gas supply and distribution] Gazosnabzhenie predpriatii.  
Moskva, Izd-vo M-va kommun.khoz. RSFSR. Pt.1. 1963. 193 p.  
(MIRA 16:5)  
(Gas distribution)

BELODVORSKII, Yu.M., nauchn. red.

[Practices in planning, constructing, and doing research  
on gas supply to cities and municipal services] Iz opyta  
proektirovaniia, konstruirovaniia i issledovaniii v oblasti  
gazifikatsii gorodov i kommunal'no-bytovykh ob'yektov;  
sbornik statei. Moskva, Stroizdat, 1964. 49 p.

(MIRA 18:5)

1. Nauchno-tehnicheskoye obshchestvo gorodskogo khozyay-  
stva i avtomobil'nogo transporta.

BELODVORSKIY, Yuliy Maksimovich; FORER, I.B., red.

[Supplying gas to enterprises] Gazosnabzhenie predpriatii.  
Moskva, Izd-vo lit-ry po stroitel'stvu. Pt.2. 1964. 166 p.  
(MIRA 17:8)

BELODVORSKIV Yuliy Maksimovich; BATURIN, T.K., nauchn. red.;  
MITROFANOVA, G.M., ved. red.

[Gas leakage, its causes and elimination] Utechki gaza, ikh  
prichiny i ustranenie. Leningrad, Nedra, 1965. 149 p.  
(MIRA 18:4)

~~Belodvortsev, A. A.~~

2

Fuel Abstracts  
Vol. 15, No. 2  
February 1954  
Steam Raising and  
Steam Engines.

1132. RATIONAL SCHEME FOR BOILER (FLUE) GAS ANALYSIS.

Belodvortsev, A. A. (Energetik (Avr Engr, Moscow), Sept. 1953,  
15, 16). An arrangement for connecting flue gas analysers in  
pairs, so that one operator can carry out four analyses simultaneously  
(L).

BELODVORTSEV, A. A.

PERIODICALS ABSTRACTS

Sub.: USSR/Engineering

AID 4157

PEKKER, YA. L. and A. A. BELODVORTSEV

ABRAZIVNOST' UNOSA ANTRATSITOVOGO SHTYBA (Abrasion due to anthracite culm fly ash). Teploenergetika, no. 1, Ja 1956: 46-49.

Experiments were made with incompletely combusted culm and the volatile dust which cause surface abrasion. It is reported complete combustion would eliminate abrasion. The abrasion caused by fly ash and volatile dust is considered totally insignificant. Four diagrams.

STANCHEV, L.; ZOGRAFSKI, B.; BELOEV, I.

Clinical aspects of recrudescent rheumatic endocarditis. Suvrem. med.,  
Sofia 8 no.12:77-84 1957.

1. Iz Katedrata po Fakultetska terapiia pri VMI--Sofiia (Zav. katedrata:  
prof. M. Rashev).  
(ENDOCARDITIS, etiol. & pathogen.  
rheum., recrudescent (Bul))  
(RHEUMATISM, compl.  
endocarditis, recrudescent (Bul))

ZOGRAFSKI, B.; BELOEV, I.

Two cases of ornithosis in man. Suvrem. med., Sofia 8 no. 9:66-74 1957.

J. Iz Katedrata po fakultetska terapiia pri VMI - Sofiia Zav. kadetrata:  
prof. M. Rashev.  
(ORNITHOSIS, case reports)

ZOGRAFSKI, B.; DOINOV, M.; BELOEV, I.

On some problems of acute pulmonary inflammatory conditions during  
the course of influenzal epidemics. Nauch. tr. vissh. med. inst. Sofia  
40 no.2:87-92 '61.

1. Predstavena ot prof. M. Rashev, rukovoditel na Katedrata po vnutreshni  
bolesti.

(PNEUMONIA etiol) (INFLUENZA compl)

RASHEV, M.; DOBREV, D.; BELOEV, I.; ANGAROV, G.; NIKOLOVA, N.

On the problem of some biochemical changes in atherosclerotic patients.  
Nauch. tr. vissh. med. inst. Sofia 40 no.6:1-16 '61.

1. Predstavena ot prof. M. Rashev, rukovoditel na Katedrata po vutreshni  
bolesti.

(ARTERIOSCLEROSIS blood)

GIZOV, G.; NINOVA, P.; VLADIMIROV, V.: BELOEV, I.

Diagnostic possibilities in congenital heart defects in children.  
Suvr. med. 12 no.8:19-32 '61.

1. Iz Katedrata po detski bolesti pri visshia meditsinski institut  
(Rukov. na katedrata prof. L. Rachev) i Katedrata po fakultetska  
terapiia pri vissh meditsinski institut (Rukov. na katedrata prof.  
M. Rashev)

(HEART DEFECTS CONGENITAL diag)

SLAVOV, Marin, inzh.; MARINOV, Marin Kr., inzh.; BELOGAI, Aleksandur, inzh.

Hydraulic cinder pipe of the Dimitur Blagoev State Sugar Refinery  
in Ruse. Khidrotekh i melior 7 no.7:216-218 '62,

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204330010-8

BELOGAI, A., inzh.

Mechanical unloading of beets. Tekh delo 467:2 9 Mr '63.

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204330010-8"

*Belogay, P. D.*

136-3-16/25

AUTHORS: Belogay, P. D., Galich, V.M. and Zakalyukin, I.S.

TITLE: Method of Fixing Filter Cloths onto Suction Filters.  
(Sposob krepleniya fil'trki na nutch-fil'trakh).

PERIODICAL: Tsvetnyye Metally, 1957, No.3, pp.77-78 (USSR)

ABSTRACT: This is a very brief illustrated description of a method used at the Davendinsk Works in which filter cloths in the form of rectangular bags are secured by the weight of a steel frame. Cloth changing takes 3 to 4 minutes.

1/1 There is one figure.

ASSOCIATION: Davendinsk Works. (Davendinskaya Fabrika)

AVAILABLE: Library of Congress

BELOGAY, P.D.; GALICH, V.M.

Hydrocyclones are a potentiality for increasing the productivity  
of comminution departments in ore dressing. Tsvet. met 33 no. 12:84-  
85 D '60. (MIRA 13:12)

(Separators (Machines))

MELIKOV, B.B.; AGAKISHIBENOV, Yu.R.; BELOGAY, P.D.

Introduction of washing and the wet classification of ores at the  
Paragachay factory. Tsvet. met. 34 no. 4:69-70 Ap '61.

(Paragachay (Nakhichevan A.S.S.R.)---Ore dressing)  
(MIRA 14:4)

BELOGAY, V.M.

25(1)

b-3

PHASE I BOOK EXPLOITATION

SOV/1440

Nauchno-tehnicheskoye obshchestvo mashinostroitel'noy  
promyshlennosti. Leningradskoye oblastnoye pravleniye

Lit'ye povyshennoy tochnosti (High-precision Casting) Mosgiz,  
Mashgiz, 1958. 196 p. (Series: Its: Sbornik, kn.45)  
7,000 copies printed.

Ed.: A.N. Sokolov; Tech. Ed.: L.V. Sokolova; Managing Ed. for  
Literature on Machine-building Technology (Leningrad Division,  
Mashgiz); Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for engineers and technicians at  
foundries and planning and research institutes.

COVERAGE: The book contains the transactions of a special  
conference called in November, 1956, by the Leningrad Oblast  
Administration of the Nauchno-tehnicheskoye obshchestvo NTO  
(Scientific and Technical Society of the Machine-building  
Industry). The articles describe advanced techniques used in

Card 1/5

... Scientific

-5/5

## High-precision Casting

SOV/1440

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| and Technical Society of the Machine-building Industry.<br>Equipment for Producing Castings in Shell Molds | 18 |
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HELOGAY, V.M.

Experience in shell molding. [ Izd. ] LOMITOMASH 45:61-63 '58.  
(Shell molding (Foundry)) (MIRA 11:6)

GRFKHOVA, L.N., inzh.; BELOGINTSEVA, N.V.

Use of a size with polyacrylamide for silk warp slashing.  
Tekst. prom. 25 no.4:35-36 Ap '65. (MIRA 18:5)

1. Nauchno-issledovatel'skaya laboratoriya tekstil'noy fabriki  
imeni Lakina (for Grekhova). 2. Master prigotovitel'nogo otdela  
tekstil'noy fabriki imeni Lakina (for Belegintseva).

SHAYKH, L. BELOGLAVEK, O.

Use of a quantometer in the analysis of steels. Zav.lab. 26 no.12:  
1380-1382 '60.  
(MIRA 13:12)

1. Soyedinennyye staleplavil'nyye zavody Kladno, Chekhoslovakija.  
(Steel--Spectra)

ZAYTSEV, V. G.; BELOGLAZKIN, Yu. V.

Mechanizing accounting work. Transp i khran nefti no. 11:40-41  
'63. (MIRA 17:5)

1. Saratovskoye upravleniye Glavnogo upravleniya po transportu i snabzheniyu neft'yu i nefteproduktsami RSFSR.

L 56537-65 EED-2/ENT(d)/EXP(1) Pg-4/Fk-4/Pq-4 IJP(c) BB/GG

ACCESSION NR: AP5016770

UR/0286/65/000/010/0086/0086  
681.14

AUTHOR: Beloglazov, A. A.

33  
B

TITLE: An electromechanical integrator<sup>16C</sup>, Class 42, No. 171176

SOURCE: Byulleten' izobreteniya i tovarnykh znakov, no. 10, 1965, 86

TOPIC TAGS: electromechanical converter, magnetic circuit, transducer, computer technology

ABSTRACT: This Author's Certificate introduces an electromechanical integrator which contains a rotor made in the form of a hollow aluminum cup, and a stator which consists of two magnetic circuits, one inside the rotor and the other encircling it. The rotor is made to rotate at a speed which is proportional to the angle of rotation of the input shaft by making the section of the stator inside the rotor movable, and fastening it to the input shaft.

ASSOCIATION: none

SUBMITTED: 03Dec63

ENCL: 00

SUB CODE: DP

Card 1/2

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204330010-8

L 56537-65

ACCESSION NR: AP5016770

NO REF SOV: 000

OTHER: 000

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Card 2/2

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204330010-8"

1. BELOGLAZOV, B. M.
2. USSR (600)
4. Meadows
7. Improving natural meadows in the highlands of Daghestan. Korm. baza. 3, No. 10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

CHETYZ, T.; BELOGLAZOV, D.; IVANOV, V.

Party and state inspection in action. Grazhd.av. 20 no.7:12-13  
Jl '63. (MIRA 16:9)

1. Predsedatel' gruppy sodeystviya komissii partiyno-gosudarstvennogo  
kontrolya Kiyevskogo aeroporta (for Chetyz). 2. Predsedatel' gruppy  
sodeystviya komissii partiyno-gosudarstvennogo kontrolya Belorusskogo  
territorial'nogo upravleniya Grazhdanskogo vozдушnogo flota (for  
Beloglazov). 3. Dezhurnyy po aeroportu Tbilisi (for Ivanov).  
(Airports)

BELOGLAZOV, D.

Bring the work to an end. Grazhd. av. 21 no.9:10-11 S '64.

(MIRA 17:10)

1. Predsedatel' gruppy sodeystviya partiynogo gosudarstvennogo  
kontrolya Belorusskogo territorial'nogo upravleniya.

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204330010-8

Apparatus for determining electrically the amount of particles suspended in a flowing gas. U.S. Patent Office, Serial No. 3,011,457. Filed May 1, 1947. U.S.P.T.O. U.S.P.R. 163,395. Structural details are given.

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204330010-8"

B E L O G [ A N O U ] G. J.

21(6)

TYPING IN BLOK INFORMATION

22/7/74

Vsesoyuznyy nauchno-tekhnicheskyy konferentsii po priemernym zadaniyam i steklyim i reakcijam v radioaktivnykh materialakh. Agrejat 1. Izmenn. Kotsen, 1951.

Trudy... Radioaktivnyye i prirodnostoyashchiye (fraktsionnyye) i stabilnyye radioisotopy i izotopy v radioaktivnykh materialakh. All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Sciences. Machine and Instrument Manufacturing. Moscow, Izd-vo Akad. Nauk SSSR, 1959. 358 p. 4,500 copies printed.

Sponsoring Agencies: USSR. Glavnaya upravleniya po ispol'zovaniyu atomnoy energii, and Akademika Nauk SSSR.

Editorial Board of Set: V.I. Dikushkin, Academician (Rep. RA), N.M. Shumilovskiy (Deputy Rep. Ed.), Yu. S. Zaslavskiy (Deputy Rep. RA), I.K. Fefochkin, B.I. Verikhovskiy, S.T. Marakov, L.I. Petrenko and N.O. Zeleninskaya (Secretary).

Ed. of Publishing House: P.M. Belyanin (Rep. RA), T.P. Polomova.

PURPOSE: This book is intended for specialists in the field of machine and instrument manufacture who use radioactive isotopes in the study of materials and processes.

COVERAGE: This collection of papers covers a very wide field of the utilization of tracer methods in industrial research and control techniques. The topic of this volume is the use of radioisotopes in the machine- and instrument-manufacturing industry. The individual papers discuss the applications of radioisotope techniques in the study of metals and alloys, problems of friction and lubrication, metal cutting, engine performance, and defects in metals. Several papers are devoted to the use of radioisotopes in automation of industrial processes, recording and measuring devices, quality control, flowmeters, load gauges, metering devices, reaction counters, etc. These papers represent contributions of various Soviet institutes and laboratories. They were published as transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes in Production, in the National Economy, and Science, April 1957-58. No personalities are mentioned. References are given at the end of most of the papers.

Tutin, A.Z. (Kazan' University - Institute of Aviation Materials). Study of the Wear of Parts in Fuel Supply Systems of Aircraft Engines. 70

Vyat'chayev, D.I., G.I. Polozayev, V.I. Dolin, V.P. Karmachanyan and N.G. Monakov (National University name-to-islandovatel'nyy avtomobil'nyy i avtotehnicheskyy institut - Central Scientific Research Institute for Automobiles and Automotive Engines). Mobile Research Laboratory for the Study of the Effect of Dust in Air and the Type of Air Filter for the Wear of Plastic Rings in Engines. 82

Maliuk-Zade, M. (Azerbaijan Scientific name-to-islandovatel'nyy nafto po neftopererabotke - Azerbaijan Scientific Research Institute for Petroleum Refining). Apparatus for the Study of Formation on Friction Surfaces. 86

Malinovskiy, O.Ye. (Centralnaya nauchno-issledovatel'skaya poligrafiya institut - Central Diesel Research Institute). Counter for the Measurement of Radiocactivity in Liquids. 89

Karakor-M.F. (Institut nauchno-tekhnicheskyyi nafto - Institute of Mechanical Engineering, Academy of Sciences, USSR). Research on Metal Cutting. 94

Lareboik, B.D. (Institut nauchno-issledovatel'skaya nafta - Institute of Mechanical Engineering, Academy of Sciences, USSR). Study of the Wear of Hardened Cutting Tools. 101

Jakupov, G.N. (Belorusiyskiy politekhnicheskyyi institut - Belorussian Polytechnical Institute). Study of the Wear of Cutting Tools. 109 (1)

NEMIROVSKIY, M.I., prepodavatel'; BMOGLAZOV, I.A., red.

[Program of a course in "Electric machines" for technical schools of ferrous metallurgy in the subjects: 1)"Electric equipment for industrial enterprises and establishments," 2)"Electric stations, circuits and systems"] Programma kursa "Elektricheskie mashiny dlja tekhnicheskikh chernoi metallurgii po spetsial'nostiam: 1)"Elektrooborudovanie promyshlennyykh predpriatii i ustanovok," 2)"Elektricheskie stantsii, seti i sistemy." [Moskva, n.d.] 23 p. (MIRA 11:8)

1. Russia (1923- U.S.S.R.) Ministerstvo chernoy metallurgii. Upravleniye uchebnykh zavedenii. Nauchno-metodicheskiy kabinet.
2. Dnepropetrovskiy industrial'nyy tekhnikum (for Nemirovskiy). (Electric machinery—Study and teaching)

ACCESSION NR: AP4044832

S/0280/64/000/004/0126/0136

AUTHOR: Beloglazov, I. N. (Moscow); Shchetinin, N. P. (Moscow)

TITLE: Oscillation in relay-type optimalizing system with synchronous detection

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 4, 1964, 126-136

TOPIC TAGS: automation, control system, optimalizing system, relay control system, control system oscillation, synchronous detection

ABSTRACT: The authors show that subharmonic oscillations may arise in relay-type optimalizing controllers with synchronous detection and derive the conditions for existence of forced oscillations and subharmonic operations in terms of the scanning signal parameters. A simple one-dimensional relay-controller is considered, with synchronous detection and sinusoidal scanning signal, the controlled object being free of inertia and having a parabolic characteristic. The controller utilizes a constant-speed motor to bring the controlled value to its extremum. The author then considers conditions for the generation of subharmonic oscillations. Frequency-analysis is difficult because of the optimalizing characteristic and the synchronous detector. The path of a signal is traced through the system and equations derived for phase shift, etc.

Card 1/2

ACCESSION NR: AP4044832

It is shown that symmetric subharmonic oscillations can arise with a period which is an odd multiple of the scanning period, the amplitude being determined entirely by the order of the subharmonic. The theoretical predictions were verified by simulation which showed when forced oscillations and subharmonic generation occurred in terms of bandwidth of the filter, etc. Orig. art. has: 5 figures and 27 numbered formulas.

ASSOCIATION: none

SUBMITTED: 20Aug63

ENCL: 00

SUB CODE: IE

NO REF SOV: 002

OTHER: 000

2/2

Card

BELOGLAZOV, I.N. (Moskva); SHCHETININ, N.P. (Moskva)

Oscillations in the switching systems of optimalizing control  
systems with synchronous detection. Izv. AN SSSR. Tekh. kib.  
no.4:126-136 Jl-Ag '64. (MIRA 17:12)

BELOGLAZOV, I.Z.; RAKHMATULIN, Sh.I.

Attachment for milling slits in screw heads. Rats. predl. na gor.  
elektrotransp. no.9:49-50 '64. (MIRA 18:2)

1. Sluzhba podvizhnogo sostava Tramvayno-trolleybusnogo upravleniya  
Sverdlovska.

STAFIYEVSKIY, A.N.; BELOGLAZOV, N.K., kand.tekhn.nauk

Filter press tiles made of reinforced rubber. Khim.prom.  
no.6:463-464 Je '62.

(Filters and filtration)

(MIRA 15:11)

"APPROVED FOR RELEASE: 06/06/2000

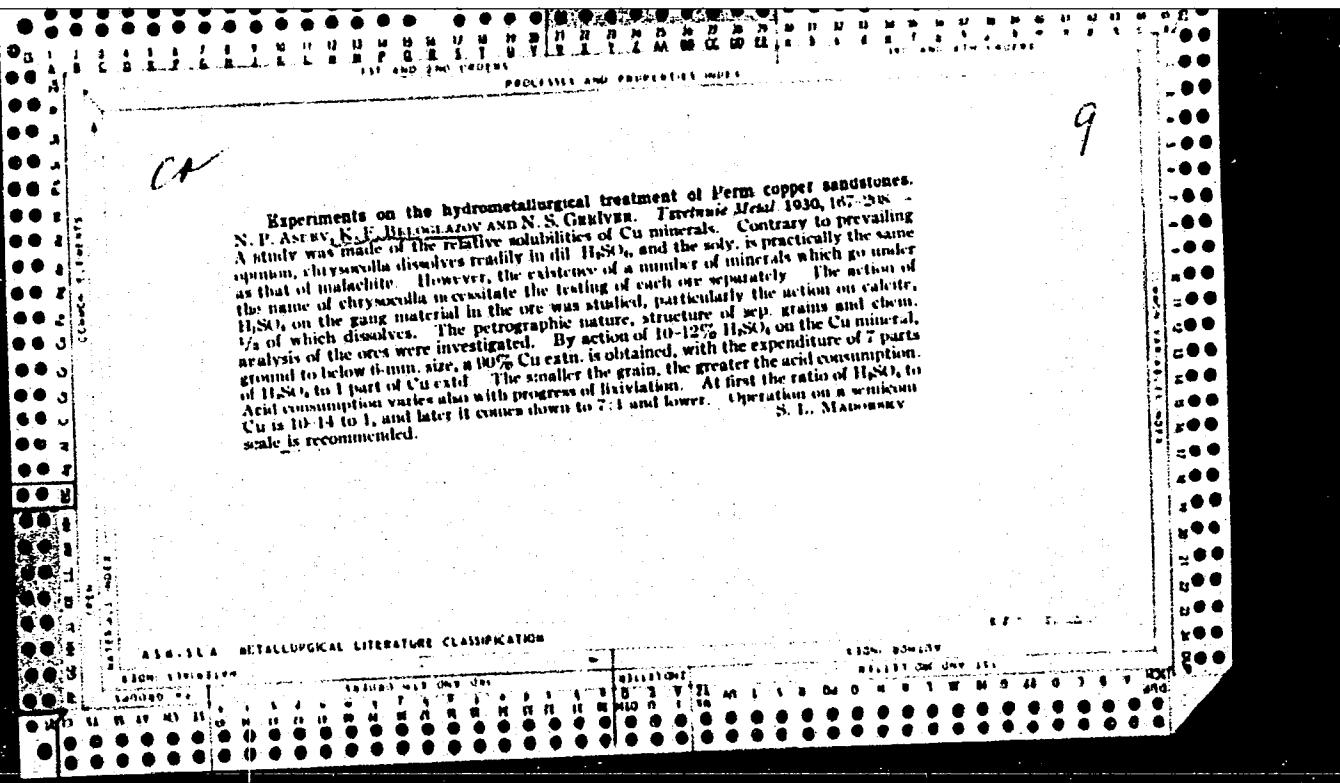
CIA-RDP86-00513R000204330010-8

BELOCLAZOV, K. F.

RT-1289 Report of Titanium Commission on the results of tests on manufacture of  
TiCl<sub>4</sub>. Doklad Titanovoi Komissii o rezul'tatakh opytov po polucheniiu TiCl<sub>4</sub>.  
Materialy dlia Izucheniiia Estestvennykh Proizvoditel'nykh Sil SSSR, (56): 20-23 1926.

APPROVED FOR RELEASE: 06/06/2000

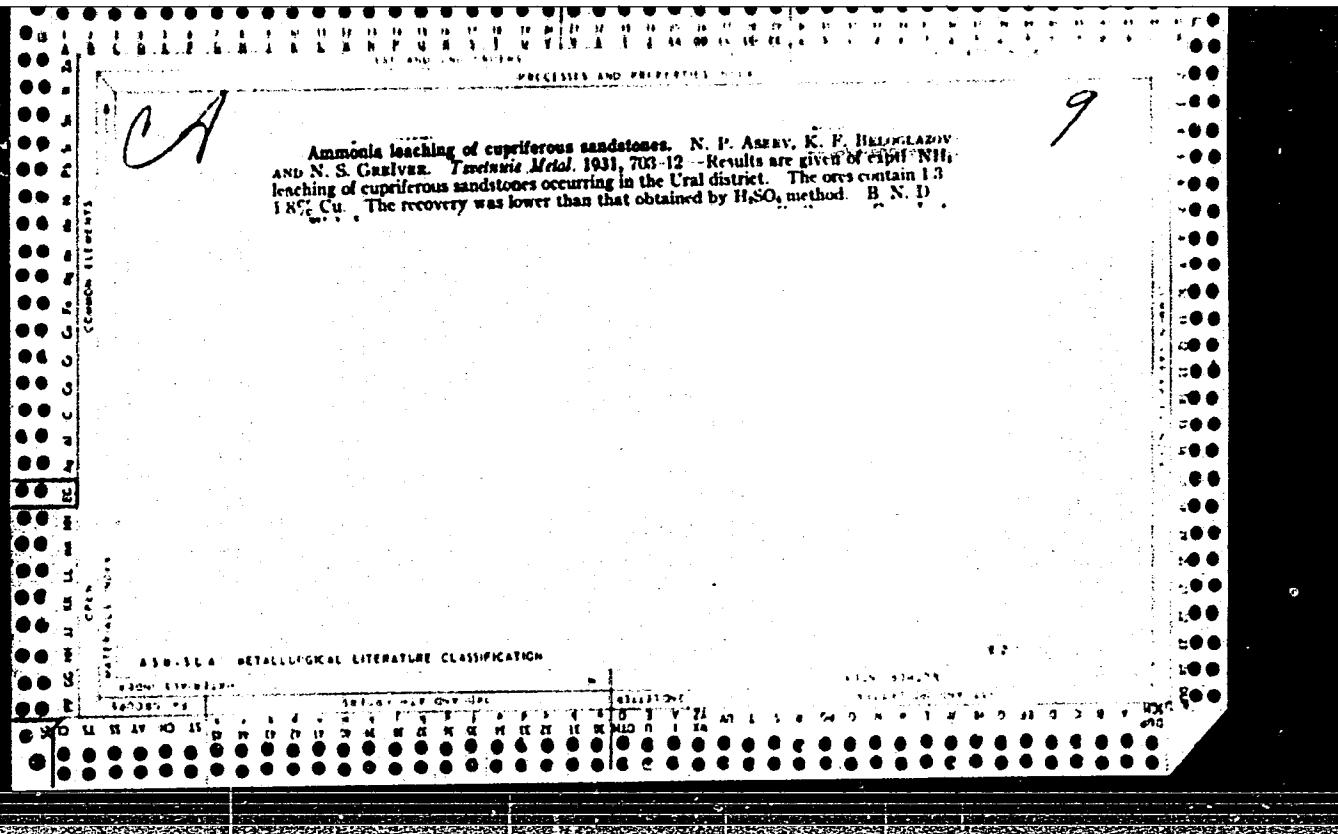
CIA-RDP86-00513R000204330010-8"



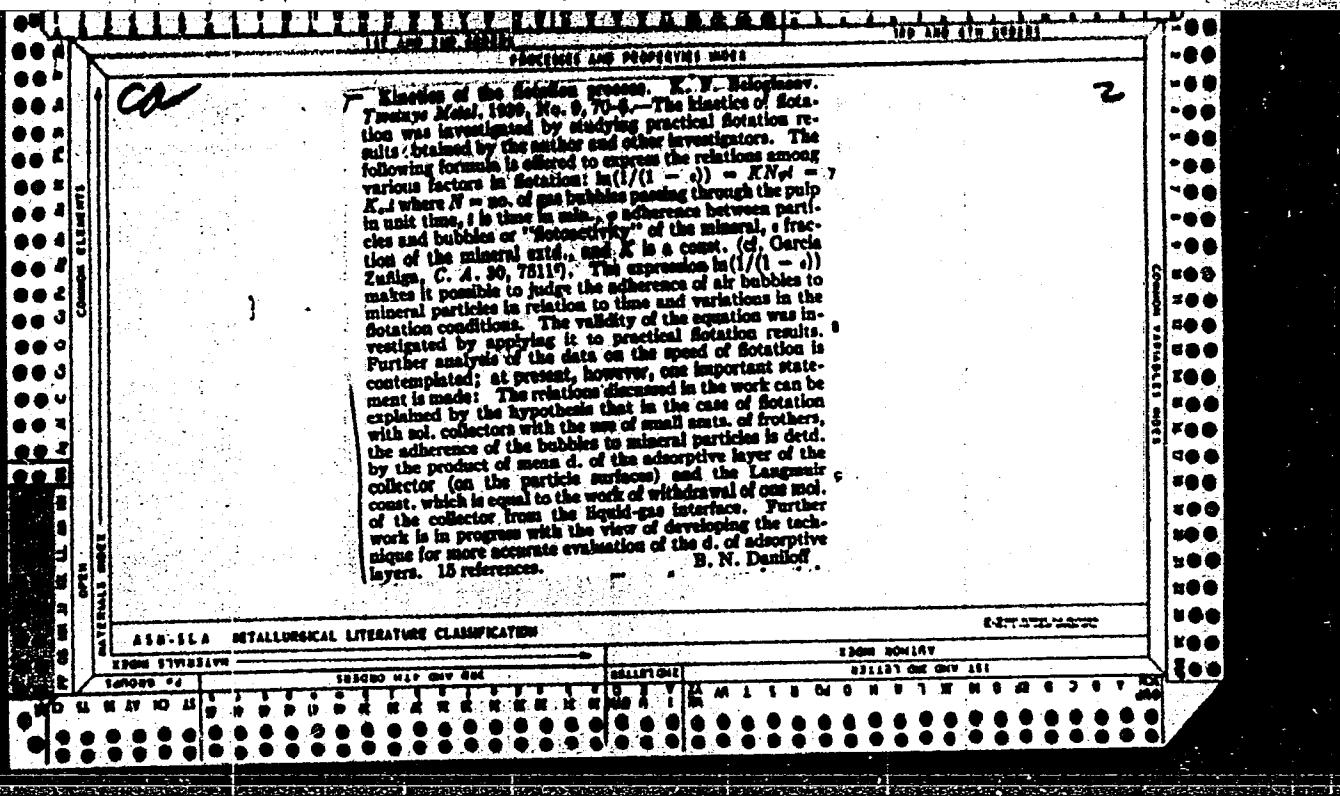
Hydrometallurgical acid treatment of carbonate ores. N. P. Asree, K. F. Buijs,  
Lazdy and N. S. Gavilan. *Treatise Metall.* 1931, 670-81. An investigation of the  
process of soln. of marble, calcite and limestone in sulfuric acid of varying concns.

The results may be briefly summarized as follows: (1) Formation of thin film of  $\text{CaSO}_4$  leads to a sharply defined min. of the speed of reaction of Ca carbonates at the concns. of about 2%  $\text{H}_2\text{SO}_4$ . (2) The thickness of the affected layer of carbonate depends on the concn. of the soln., but (for concns. employed in practice) does not depend on the size of the material to be treated. The degree of crushing, therefore, has a great influence on the consumption of the reagent. (3) The results obtained give very important indications regarding their application to practical processes of extg. metals from carbonates as well as any other material, in which the acid or any other reagent acting on a material forms an insol. film. Exptl. procedure and data are given. B. N. Danilov

ASME-A METALLURGICAL LITERATURE CLASSIFICATION



|                                                                                                                                                                                                                                                                                                                                                                                              |               |                                                      |               |         |               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------|---------------|---------|---------------|
| COMBINE ALUMINUM<br>OPEN MATERIALS                                                                                                                                                                                                                                                                                                                                                           |               | 1ST AND 2ND COPIES<br>PROCESSES AND PROPERTIES INDEX |               |         |               |
| CL                                                                                                                                                                                                                                                                                                                                                                                           |               |                                                      |               | 9       |               |
| <p>Separating chalcopyrite and bornite from the molybdenite or other sulfide ores by flotation. K. F. Beloglazov and K. A. Razumov. Russ. 33(31), Jan. 31, 1934. Before flotation the material is treated with sulfite and an acid, such as H<sub>2</sub>SO<sub>4</sub>, for the purpose of converting the surface of the chalcopyrite and bornite grains into chalcocite and covellite.</p> |               |                                                      |               |         |               |
| A.I.E.E.-SLA METALLURGICAL LITERATURE CLASSIFICATION                                                                                                                                                                                                                                                                                                                                         |               |                                                      |               |         |               |
| SUBJECTS                                                                                                                                                                                                                                                                                                                                                                                     |               | 183000-190000                                        |               | GENERAL |               |
| 140000-15                                                                                                                                                                                                                                                                                                                                                                                    | 150000-155000 | 183000-190000                                        | 190000-195000 | GENERAL | 195000-200000 |
| D                                                                                                                                                                                                                                                                                                                                                                                            | D             | D                                                    | D             | D       | D             |
| M                                                                                                                                                                                                                                                                                                                                                                                            | M             | M                                                    | M             | M       | M             |
| W                                                                                                                                                                                                                                                                                                                                                                                            | W             | W                                                    | W             | W       | W             |
| A                                                                                                                                                                                                                                                                                                                                                                                            | A             | A                                                    | A             | A       | A             |
| V                                                                                                                                                                                                                                                                                                                                                                                            | V             | V                                                    | V             | V       | V             |
| 15                                                                                                                                                                                                                                                                                                                                                                                           | 15            | 15                                                   | 15            | 15      | 15            |



BELOGLAZOV, K.F.; TROITSKIY, A.V., redaktor; VAYNSHTEYN, Ye.B., redaktor.

[Laws applicable to the flotation process] Zakenomernosti fletatsion-nogo protsessa. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1947. 143 p.  
(MLRA 7:?)  
(Flotation)

*Beloglazov, F.*

USSR/Physical Chemistry. Surface Phenomena. Adsorption Chromatography. B-13  
Ion Exchange.

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22530.

Author : K. F. Beloglazov.

Inst : Not given

Title : The Equation of Binary Solutions Free Surface Energy in the Absence of Adsorption. (normal surface layer).

Orig Pub : Zap. Leningr. gorn. in-ta, 1956, 32, No 3, 83-96.

Abstract : An equation of binary solution surface tension in the absence of adsorption, i.e., when the surface layer composition is identical with the composition of the whole solution:

$\sigma = [\sigma_0 + S_2 N \sigma_2 / (1-N) S_1] / [1 - S_2 N / (1-N) S_1]^{-1}$  (1);  
 $\sigma$  and  $\sigma_0$  - surface tension;  $S_1$  and  $S_2$  - components molar areas in the surface layer;  $N$  - molar part of component 2 in solution. It was presumed in evolving equation (1) that the molecules in surface layer always have a determined orientation and are carrying out the principle of their independent action. Many of the formerly offered correlations for binary solutions can be obtained from equation (1) as special cases. If  $S_1$  and  $S_2$  do not depend on solution composition it is possible to transform (1) into the form  $y (1-N)/N = Z$  const

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USSR/Physical Chemistry. Surface Phenomena. Adsorption Chromatography. B-13  
APPROVED FOR RELEASE 06/06/2000 CIA-RDP86-00513R000204330010-8"

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22530.

(2), where  $y = (\sigma - \sigma_0) / (\sigma - \sigma_0)$ ,  $Z = S_2 / S_1$ . The constancy of the value of  $Z$  is verified for binary systems: benzene + ether;  $\text{CHCl}_3$  + ether; benzene + acetone; benzene +  $\text{CCl}_4$ ; dioxane + tetrahydrofuran; phenol + dioxane, isobutylacetate + methylal, benzene +  $\text{CS}_2$ . Inconstancy of  $Z$  can indicate, either changes of molecular packing in the surface layer, or the change of components of the molecular state in solution (association, dissociation). The dependence of  $Z$  on solution composition can be used for experimental data verification on  $\sigma$  of binary solutions in cases when this dependence has no extremal points.

SOV/137-57-6-9492  
Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 23 (USSR)

AUTHOR: Beloglazov, K. F.

TITLE: The Fundamental Principles of the Flotation Process (Osnovnyye zakonomernosti flotatsionnogo protsessa)

PERIODICAL: Zap. Leningr. gorn. in-ta, 1956, Vol 32, Nr 3, pp 23-35.  
Discussion, pp 55-81

ABSTRACT: A paper and discussion at the Leningradskiy gornyy institut (Leningrad Mining Institute) in March and April 1951 devoted to the present status of flotation theory and an examination of K. F. Beloglazov's book "Zakonomernost' flotatsionnogo protsessa" (The principles of the Flotation Process), Metallurgizdat, 1947.  
Bibliography: 47 references.

A. Sh.

Card 1/1

BELOGLAZOV, M.M.

How we attained a pace of 3388 meters per standard month. Neft.  
khoz. 34 no.10:64-67 0 '56. (MLRA 9:8)

1. Burovoy master tresta Al'met'yevburneft'.  
(Oil well drilling)

BELOGLOZOV, N. E.

Dissertation: "Evaluation of the Effect of Operational Conditions on the Excessive Crushing of the Milling Product." Cand Tech Sci, Leningrad Mining Institute, Leningrad, 1953. (referativnyy zhurnal-knigiya, No 10, Moscow, May 1954)

SO: SUA 313, 23 Dec 1954

GAVLYAKOV, B.A.; BELGLAZOV, N.N.

Distribution of combustible matter and ash in coals by particle size classes. Izv. Sib. otd. AN SSSR no.9:122-126 '61.  
(NIRA 14:10)

1. Tomskiy politekhnicheskiy institut.  
(Coal--Analysis)

ZEMLYAKOV, B.A.; BELOGLAZOV, N.K.

Nomogram for calculating an efficient process of screening.  
Fiz.-tekhn. probl. razrab. pol. iskop. no.4:153-154 '65.

(MIRA 19:1)

1. Politekhnicheskiy institut, Tomsk. Submitted March 9, 1965.

S/137/61/000/012/139/149  
A006/A101

AUTHOR: Beloglazov, S. M.

TITLE: The effect of some organic additives on mechanical properties of steel during its cathodic polarization in sulfuric acid

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1961, 57, abstract 121432 ("Uch. zap. Permsk.un-t", 1959, v. 13, no. 3, 85-92)

TEXT: The author studied the effect of organic additives on hydrogenation of steel during its cathodic polarization in  $H_2SO_4$ -solutions. He established an inhibition effect on hydrogenization of gelatin, casein, alkaline hydrolysis products, egg albumin, formaldehyde, urotropine and dextrose. The addition to the  $H_2SO_4$  solution of agar-agar, tannin, starch and glycerin does not reduce hydrogenation of steel cathodes.

T. Rumyantseva

[Abstracter's note: Complete translation]

Card 1/1

18.8300, 5.1310

77647  
SOV/80-33-2-22/52

AUTHORS: Beloglazov, S. M., Polukarov, M. I.

TITLE: Concerning Hydrogen Brittleness of Steel, During Its Cathodic Polarization in Sulfuric Acid

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2,  
pp 389-397 (USSR)

ABSTRACT: The authors studied changes in mechanical properties of steel which take place upon absorption of hydrogen during polarization. Pure sulfuric acid and sulfuric acid containing substances that catalyze absorption of hydrogen ( $\text{SeO}_2$ ,  $\text{As}_2\text{O}_3$ , and colloidal tellurium) were used in experiments conducted at various temperatures, current densities, and concentrations of the acid. Figure 1 shows the electrolytic cell (constructed by S. M. Beloglazov) used for polarization of steel wires.

Card 1/8

Concerning Hydrogen Brittleness of Steel.  
During Its Cathodic Polarization in  
Sulfuric Acid

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SOV/80-33-2-22/52

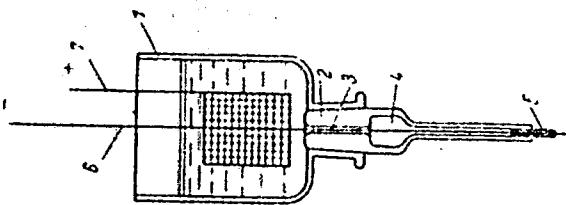


Fig. 1. Cell for studying absorption of hydrogen by a steel wire during its cathodic polarization.  
(1) electrolysis vessel; (2) ground glass stopper;  
(3) capillary in the stopper ( $\sim 0.5$  mm diam); (4)  
dilation in the capillary; (5) rubber stopper; (6)  
carbon steel wire (0.33 mm diam); (7) platinum net anode,  
surrounded by a glass coil for circulating water from  
ultrathermostat.

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Concerning Hydrogen Brittleness of Steel  
During Its Cathodic Polarization In  
Sulfuric Acid

7764/  
SOV/80-33-2-22/52

Dilation in the capillary excludes the possibility of contact between the acid and the rubber stopper (see fig.), which would increase hydrogen absorption. Current was supplied by a battery. Extent of hydrogen absorption was determined by measuring changes in tensile strength of the wire (by an RM-50 apparatus), torsion endurance (by a K-2 apparatus), and, in some cases, bending strength (by an NG-1--2 device). The latter two tests were found to be most sensitive. The measurements show that: (1) Absorption of hydrogen in solutions of pure sulfuric acid (technical grade) is very low and only slightly increases upon increase of acid concentration and rise in temperature. (2) Addition of even small quantities of  $\text{SeO}_2$  or  $\text{As}_2\text{O}_3$  causes a sharp increase in hydrogen absorption (and consequently, decrease in wire strength)--see Fig. 4 (the respective curve for  $\text{As}_2\text{O}_3$  is similar).

Card 3/8

Concerning Hydrogen Brittleness of Steel  
During Its Cathodic Polarization in  
Sulfuric Acid

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SOV/80-33-2-22/52

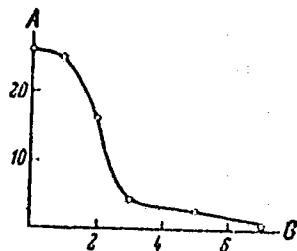


Fig. 4. Effect of time of polarization in 0.1N solution of  $H_2SO_4$  containing 2.5 mg/l  $SeO_2$  upon the tensile strength of steel. Cathodic current density  $D_C = 50 \text{ ma/cm}^2$ ; temperature  $t = 17^\circ$ . (A) Tensile strength (in kg); (B) time (in min).

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Concerning Hydrogen Brittleness of Steel  
During Its Cathodic Polarization in  
Sulfuric Acid

77647  
SOV/DO-33-2-22/52

A similar relationship between tension limit and quantity of absorbed hydrogen was found by F. Krüger and H. Jungnitz (Z. techn. Physik, 17, 302 (1936)) for palladium wire. Increase in current density speeds up hydrogen absorption, while a rise in temperature slows down the process. Data on cathode potential, measured in investigated solutions (calomel electrode was used as a standard), are shown in Table 2.

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77047 SOV/80-33-2-22/32

Table 2. Magnitude of cathode potential of steel sample during its polarization in solutions of  $H_2SO_4$ . Current density  $D_0 = 50 \text{ mA/cm}^2$ . (All data (in v) are with a negative sign.) (1) Electrolyte; (2) temperature ( $^{\circ}\text{C}$ ); (3) magnitude of cathodic potential at time of polarization; (4) 2 min; (5) 5 min; (6) 15 min; (7) 30 min; (8) solution  $H_2SO_4$  0.1N: without additives; (9) 2.5 mg/l  $SeO_2$ ; (10) 2.5 mg/l  $As_2O_3$ ; (11) solution  $H_2SO_4$  2N without additives.

| (1)      | (2)  | (3)   |       |       |       |
|----------|------|-------|-------|-------|-------|
|          |      | (4)   | (5)   | (6)   | (7)   |
| (8)      | 15   | 0.733 | 0.733 | 0.799 | 0.684 |
|          | 35   | 0.665 | 0.660 | 0.659 | 0.658 |
|          | 50   | 0.603 | 0.608 | 0.610 | 0.595 |
| (9)      | 15   | 0.697 | 0.715 | 0.713 | 0.713 |
|          | 35   | 0.623 | 0.616 | 0.610 | 0.600 |
|          | 50   | 0.540 | 0.540 | 0.506 | 0.483 |
| (10)     | 15   | 0.781 | 0.783 | 0.795 | 0.789 |
|          | 35   | 0.711 | 0.710 | 0.730 | 0.715 |
|          | 50   | 0.704 | 0.703 | 0.695 | 0.682 |
| Card 6/3 | (11) | 15    | 0.565 | 0.572 | 0.572 |
|          |      | 50    | 0.452 | 0.450 | 0.450 |

Concerning Hydrogen Brittleness of Steel  
During Its Cathodic Polarization In  
Sulfuric Acid

77637  
369/MG-33-2-22/32

The obtained data led the authors to the conclusion that while in the absence of a catalyst, hydrogen is absorbed as atoms and its absorption is inversely proportional to the hydrogen overvoltage; in the presence of a catalyst, the penetration of hydrogen takes place in the form of protons, which are reduced to atoms inside of the metal. The atoms combine into molecules, causing a sharp decrease in steel strength, which is reflected in the sloped section of the curve in Fig. 4 (the last, level section of the curve indicates formation of microscopic fissures in the wire). The rate of absorption of protons does not depend upon hydrogen overvoltage. There are 8 figures; 2 tables; and 10 references, 4 Soviet, 2 Polish, 3 German, 1 U.S. Abstracter's note: There are 9 references listed, but one of them was broken down into two. The U.S. reference is: D. Smith, Hydrogen in Metals, The University of Chicago Press (1946).

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Concerning Hydrogen Brittleness of Steel  
During Its Cathodic Polarization  
in Sulfuric Acid

77647  
SOV/80-33-2-22/52

ASSOCIATION: Perm State University (Permskiy gosudarstvennyy  
universitet)

SUBMITTED: June 18, 1958

Card 8/8

181530 1087, 1413, 1273

27394  
S/153/61/004/003/004/008  
E071/E435

AUTHOR: Beloglazov, S.M.

TITLE: On the relationship between hydrogen overvoltage,  
its diffusion into steel cathodes and the degree of  
the mechanical deformation of steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i  
khimicheskaya tekhnologiya, Vol.4, No.3, 1961,  
pp.452-457

TEXT: The object of the work was to investigate the dependence  
of the diffusion of hydrogen in steel during its cathode  
polarization in solutions of sulphuric acid on the tensile load  
applied to the steel specimen. Simultaneously, the cathode  
potential was measured. One series of experiments was done in  
acid containing selenium (a promoting agent of hydrogen diffusion  
in steel). Specimens from carbon spring steel 0.35 and 0.55 mm  
in diameter were used for the experiments. The amount of  
hydrogen diffused into the metal during the cathode polarization in  
acid was assessed on the basis of the change in the plasticity of  
the metal (number of turns during the torsion test), which was  
found to be a sensitive characteristic of the degree of  
Card 1/3

27394  
S/153/61/004/003/004/008  
E071/E435

On the relationship between ...

saturation of metal with hydrogen. The polarization potential of the cathode was measured in respect of a saturated calomel electrode by the compensation method. All the measurements were done at a temperature of  $18 \pm 0.2^\circ\text{C}$ . It was found that during the cathode polarization of steel under stressed conditions in solutions of chemically pure sulphuric acid (redistilled or commercially) the relationships between the hydrogen overpotential and the tensile load and between the degree of saturation with hydrogen and tensile load are similar (the corresponding plots are parallel). Small stresses (about 10% of the tensile strength) increase the degree of saturation with hydrogen; a further increase in the stresses lowers the degree of hydrogen saturation. During the cathode polarization in sulphuric acid containing a catalyst which promotes the diffusion of hydrogen into the metal an increase in the tensile load leads to a sharp increase in the degree of saturation with hydrogen with the absence of any relationship between the degree of saturation and hydrogen overpotential. It is postulated that the observed phenomena are related to changes of the interatomic distances in the crystal lattice with the tensile load applied, as shown by

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On the relationship between ...

27394  
S/153/61/004/003/004/008  
E071/E435

N.Ye.Khomutov (Ref.6: Zh. fiz. khimii, 24, 1201 (1950)) and to the activity of catalysts promoting the diffusion of hydrogen (Ref.10: M.N.Polukarov, N.A.Appollov, Zh. prikl. khimii, 10, 337 (1937)). There are 4 figures, 1 table and 10 references:

7 Soviet and 3 non-Soviet. The two references to English language publications read as follows: Ref.3: T.P.Hoar, J.C.Hines, J.Iron Steel Inst., 182, 124(1956); 184, 166 (1952) Ref.9: S.L.Smith, W.A.Wood, Proc. Roy. Soc. London, 192, 218 (1948).

ASSOCIATION: Permskiy gosudarstvennyy universitet

Kafedra fizicheskoy khimii  
(Perm State University, Department of Physical Chemistry)

SUBMITTED: November 23, 1959

Card 3/3

S/081/62/000/017/025/102  
B166/B180

AUTHOR: Beloglazov, S. M.

TITLE: Contribution to the question of the influence of selenium,  
tellurium, arsenic and antimony on the diffusion of hydrogen  
in steel cathodes

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 73, abstract  
17B509 (Uch. zap. Permsk. un-t, v. 19, no. 1, 1961, 23 - 31)

TEXT: The author studied the mechanism of the influence of additions of Se, As, Te and Sb compounds to 0.1 N H<sub>2</sub>SO<sub>4</sub> on the rate of diffusion of electrolytic hydrogen through membranes (0.30 mm) made of steel 08 (08) (12% C; 0.28 Mn; 0.025% S; 0.017% P; 0.08% Cr) with cathodic polarization (10 ma/cm<sup>2</sup>). The additions were introduced in the form of SeO<sub>2</sub>, As<sub>2</sub>O<sub>3</sub>, TeO<sub>2</sub> and SbCl<sub>3</sub>. The value was determined by successively alternating solutions of pure 0.1 N H<sub>2</sub>SO<sub>4</sub> and 0.1 N H<sub>2</sub>SO<sub>4</sub>-plus-additions in the cell. With the addition of 2 mg/l SeO<sub>2</sub> or 0.8 mg/l As<sub>2</sub>O<sub>3</sub> to 0.1 N H<sub>2</sub>SO<sub>4</sub>, v undergoes Card 1/2

Contribution to the question ...

S/081/62/000/017/025/102

B166/B180

a marked increase. If this solution is then replaced by a pure 0.1 N. solu-  
tion of  $H_2SO_4$  v falls to its initial value. Ultramicroscope analysis  
showed the presence of colloidal particles in the decanted 0.1 N solution  
of  $H_2SO_4$  plus additions. If additions are then made in higher concentrations  
there is visible precipitation of Se and As on to the electrode with simul-  
taneous increase in v. The addition of  $TeO_2$  (0.8 mg/l) to 0.1 N  $H_2SO_4$  in-  
creases v.  $SbCl_3$  has the same effect as the other additions. It is con-  
cluded that in small concentrations additions affect v in the colloidal  
state. Negative colloidal particles present at the surface of the electrode  
are transmitters of protons from the outer adsorption layer of the mycelle  
to the metal of the cathode. With high concentrations the additions pre-  
cipitate on the surface of the cathode, retard the recombination reaction  
and even accelerate the diffusion of hydrogen into the metal. [Abstracter's  
note: Complete translation.]

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S/081/62/000/017/026/102,  
B166/B180

AUTHOR: Beloglazov, S. M.

TITLE: The influence of colloidal selenium, tellurium, phosphorus  
and vanadium pentoxide on hydrogen absorption by steel cathodes

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 74, abstract  
17B510 (Uch. zap. Permek, un-t, v. 19, no. 1, 1961, 33 - 36)

TEXT: In order to test the theory of the stimulating effect of negatively charged colloidal particles on the absorption of electrolytic hydrogen by metals a study was made of the effect of colloidal particles of Se, Te, P and V<sub>2</sub>O<sub>5</sub> on the hydrogen absorption by steel in 0.1 N H<sub>2</sub>SO<sub>4</sub> with i = 50 ma/cm<sup>2</sup>, using variations in the ductility of specimens. For a specimen of carbon-steel spring wire (length 70 mm, diameter 0.35 mm) the number of revolutions to fracture in torsion was determined on a K-2(K-2) machine with a tensile load of 1 kg. The ductility was determined immediately after cathodic polarization had ceased. All the colloidal particles

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The influence of ...

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B166/B180

studied stimulated hydrogen absorption, which diminished as they broke down, approaching that which obtained in a pure 0.1 N solution of  $H_2SO_4$ .  
[Abstracter's note: Complete translation.]

Card 2/2

8/137/62/000/005/090/150  
A006/A101

AUTHOR: Beloglazov, S. M.

TITLE: The effect of hydrogenization in cathodic polarization upon the fatigue strength of steel

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 53, abstract 51309  
("Uch. zap. Permsk. un-t", 1961, 19, no. 1, 37 - 41)

TEXT: The author investigated the effect of cathodic polarization of steel in an acid without foreign admixtures and with a  $\text{SeO}_2$  hydrogenization stimulator and hydrogenization inhibitors, upon the fatigue strength of steel. Cathodic polarization of steel in solutions of chemically pure  $\text{H}_2\text{SO}_4$ , reduces slightly the fatigue strength and ductility of steel. These small changes in the fatigue strength of steel appear simultaneously also in the changes of revolution numbers when twisting a wire. Gelatin, casein, and formaldehyde, added to the acid solution, prevent hydrogenization and changes in the fatigue strength of steel.

T. Rumyantseva

[Abstracter's note: Complete translation]

Card 1/1