

B. BRIZANTSEV, V.G., doktor tekhn. nauk, prof.

Determining the coefficients of reserve strength in foundations
subjected to vertical loads. Sbor. LIIZHT no.157:136-141 '59.
(Foundations) (Soil mechanics) (MIRA 12:11)

BEREZANTSEV, V.G., prof., doktor tekhn.nauk; SIDOROV, N.N., dotsent, kand.
tekhn.nauk

Using reinforced concrete shell piles. Sbor.LIIZHT no.164:187-197
'59. (MIRA 13:8)

(Concrete piling)

BEREZANTSEV, V.G., prof., doktor tekhn.nauk; SIDOROV, N.N., dotsent,
kand.tekhn.nauk

Testing the strength of sand foundations of bridge supports.
Sbor.LIIIZHT no.164:198-208 '59. (MIRA 13:8)
(Bridges--Foundations and piers--Testing)

report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

- [illegible]

BEREZANTSEV, Vsevolod Glebovich, prof., doktor tekhn.nauk; KONDIH,
A.D., inzh., nauchnyy red.; KAPLAN, M.Ya., red.izd-va;
VORONETSKAYA, L.V., tekhn.red.

[Calculating the strength of foundations] Raschet prochnosti
osnovanii sooruzhenii. Leningrad, Gos.izd-vo lit-ry po stroit.,
arkhit. i stroit.materialam, 1960, 137 p. (MIRA 13:2)
(Soil mechanics)

BEREZANTSEV, Vsevolod Glebovich, doktor tekhn. nauk, prof.; KSENOFONTOV, Aleksandr Ivanovich, kand. tekhn. nauk, dots.; PLATONOV, Yevgeniy Vladimirovich, prof.; SIDOROV, Nikolay Nikolayevich, kand. tekhn. nauk, dots.; YAROSHENKO, Vsevolod Aleksandrovich, kand. tekhn. nauk, dots.; GOL'DSHTEYN, M.N., doktor tekhn. nauk, prof., retsenzent; YERLETSKIY, V.P., inzh., retsenzent; LAPIDUS, L.S., inzh., retsenzent; ZHEREBTSOV, I.V., inzh., retsenzent; GLOTOV, N.M., inzh., retsenzent; SILIN, K.S., inzh., retsenzent; SURODEYEV, V.P., inzh., red.; KHITROV, P.A., tekhn. red.

[Soil mechanics and foundation engineering] Mekhanika gruntov, osnovaniya i fundamenty. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniya, 1961. 339 p. (MIRA 14:8)

(Soil mechanics)

(Foundations)

BEREZANTSEV, V.G. (Leningrad); GOLUBKOV, V.N.; ZHILINSKIY, K.A., dotsent;
MAKAROVCHIN, M.F., prof.; MEDKOV, Y.I., prof.; BALUSHEV, B., prof.;
MYSLIVETS, A., professor doktor (Praga, Chekhoslovakiya)

"Foundations" by N.A. TSytovich. Reviewed by V. G. Berazantsev and
others. Osm., fund. i mekh. grun. 3 no.1:28-29 '61. (MIRA 14:3)

1. Zaveduyushchiy kafedroy osnovaniy i fundamentov Odesskogo inzh-
enerno-stroitel'nogo instituta (for Golubkov). 2. Voronezhskiy
inzhenerno-stroitel'nyy institut (for Zhilinskiy). 3. Zaveduyushchiy
kafedroy Belorusskogo politekhnicheskogo instituta chlen-korrespon-
dent Akademii stroitel'stva i arkhitektury SSSR (for Makarovchin).
4. Zaveduyushchiy kafedroy Moskovskogo instituta inzhenerov
zheleznno-dorozhnogo transporta (for Medkov). 5. Ot litsa kafedry
osnovaniy i fundamentov Inzhenerno-stroitel'nogo instituta, Sofiya,
Bolgariya (for Balushev). 6. Chlen-korrespondent Cheshskoy akademii
nauk (for Myslivets).

(Foundations)
(TSytovich, N.A.)

DEREZANTSEV, V.G.

PHASE I BOOK EXPLOITATION

SOV/6201

29

Vsesoyuznyy s"yezd po teoreticheskoy i prikladnoy mekhanike. 1st, Moscow, 1960.

Trudy Vsesoyuznogo s"yezda po teoreticheskoy i prikladnoy mekhanike, 27 yanvarya -- 3 fevralya 1960 g. Obzornyye doklady (Transactions of the All-Union Congress on Theoretical and Applied Mechanics, 27 January to 3 February 1960. Summary Reports). Moscow, Izd-vo AN SSSR, 1962. 467 p. 3000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Natsional'nyy komitet SSSR po teoreticheskoy i prikladnoy mekhanike.

Editorial Board: L. I. Sedov, Chairman; V. V. Sokolovskiy, Deputy Chairman; G. S. Shapiro, Scientific Secretary; G. Yu. Dzhanelidze, S. V. Kalinin, L. G. Loytsyanskoy, A. I. Lur'ye, G. K. Mikhaylov, G. I. Petrov, and V. V. Rumyantsev; Resp. Ed.: L. I. Sedov; Ed. of Publishing House: A. G. Chakhirev; Tech. Ed.: R. A. Zamarayeva.

Card 1/6

Transactions of the All-Union Congress (Cont.)

SOV/6201

(25)

PURPOSE: This book is intended for scientific and engineering personnel who are interested in recent work in theoretical and applied mechanics.

COVERAGE: The articles included in these transactions are arranged by general subject matter under the following heads: general and applied mechanics (5 papers), fluid mechanics (10 papers), and the mechanics of rigid bodies (8 papers). Besides the organizational personnel of the congress, no personalities are mentioned. Six of the papers in the present collection have no references; the remaining 17 contain approximately 1400 references in Russian, Ukrainian, English, German, Czechoslovak, Rumanian, French, Italian, and Dutch.

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Transactions of the All-Union Congress (Cont.)

SOV/6201

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SECTION III. MECHANICS OF RIGID BODIES

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Thin Shells 339

Card 5/6

BEREZANTSEV, V.G. (Leningrad)

"Stability of footings on a sand foundation" by M.I.Gorbunov-
Posadov. Reviewed by V.G.Berezantsev. Osn., fund.i mekh.grun.
4 no.5:30-31 '62. (MIRA 15:12)

(Foundations)
(Gorbunov-Posadov, M.I.)

GOL'DSHTEYN, M.N.; BEREZANTSEV, V.G.

Teaching the course, "Foundations." Osn., fund. i mekh. grun. 4
no.6:1-2 '62. (MIRA 16:1)

(Foundations)

BEREZANTSEV, V.G.; YAROSHENKO, V.A.

Features of the deformation of sandy foundations under deep
footings. Osn., fund. i mekh. grun. 4 no. 1:3-7 '62.

(MIRA 16:2)

(Foundations)

BEREZANTSEV, V.G. (Leningrad)

Concerning the compound stressed state of the bases of deep
foundations. Osn., fund. i tekhn. grun. 5 no.5:1-5 '63.
(MIRA 16:10)

"Some problems of axial symmetrical limit stress condition of soils."

report submitted for Intl Symp on Rheology & Soil Mechanics, Grenoble, France,
1-8 Apr 64.

BEREZANTSEV, V. G. (Leningrad)

"The development of the limit equilibrium theory of loose medium"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 1964.

ABELEV, Yu.M., doktor tekhn. nauk, prof.; ABELEV, M.Yu., inzh.;
 BAKHOLDIN, B.V., kand. tekhn. nauk; BEREZANTSEV, V.G.,
 doktor tekhn. nauk, prof.; VYALOV, S.S., doktor tekhn.
 nauk; GODES, E.G., inzh.; GORBUNOV-POSADOV, M.I., doktor
 tekhn. nauk, prof.; DALMATOV, B.I., doktor tekhn. nauk,
 prof.; DOKUCHAYEV, V.V., kand. tekhn. nauk; KRUTOV, V.I.,
 kand. tekhn. nauk; KSENOFONTOV, A.I., kand. tekhn. nauk;
 MARIUPOL'SKIY, G.M., kand. tekhn. nauk; MORARESKUL, N.N.,
 inzh.; PERLEY, Ye.M., inzh.; SAVINOV, O.A., doktor tekhn.
 nauk; SIDOROV, N.N., kand. tekhn. nauk; SMORODINSKIY,
 N.A., kand. tekhn. nauk; SOKOLOV, N.M., doktor tekhn. nauk;
 FRIDKIN, A.Ya., inzh.; SHASHKOV, S.A., kand. tekhn. nauk;
 SNEYKOV, M.L., inzh.; YAROSHENKO, V.A., kand. tekhn. nauk,
 [deceased]; KHALIZEV, Ye.P., kand. tekhn. nauk, nauchn. red.,

[Manual for the designing of industrial plants, apartment
 houses, and public buildings and structures; foundations]
 Spravochnik proektirovshchika promyshlennyykh, zhilykh i
 obshchestvennykh zdaniy i sooruzheniy; osnovaniya i funda-
 menty. Leningrad, Stroiizdat, 1964. 268 p.

(MIRA 18:1)

BUREZANTSEV, V.G.; CORBUNOV-POSADOV, M.I.; KALININ, N.V.

Review and bibliography. Osn., fund. i mekh. grun. 6 no.5:30-32
'64. (NIRA 17:12)

BEREZANTSEV, V.G. (Leningrad)

Calculation of the settling of deep foundations in clay beds.
Osn., fund. i mekh. grun. 7 no.3:1-4 '65.

(MIRA 18:6)

S/194/61/000/011/050/070
D271/D302

AUTHORS: Vlasov, V. and Berezentsev, Yu.

TITLE: Shallow depth signalling device for the "Reka" echo
sounder

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 11, 1961, 15-16, abstract 11 E104 (Rechn. trans-
port, 1961, no. 3, 53-54)

TEXT: A shallow depth signalling device is described which
frees the pilot from the need for constantly watching the echo soun-
der indicator. When the depth under the vessel is less than a pre-
set value, the device sounds an acoustic signal. The operation of
the device is based on measuring the average value of the current
flowing through the indicator bulb of the echo sounder. When a
pre-set value of current is exceeded, a transistorized electronic
relay operates and, through the intermediary of an electromagnetic
relay, closes the circuit of the electric bell. The basic circuit

Card 1/2

Shallow depth signalling...

S/194/61/000/011/050/070
D271/D302

of the device is given and features of its application are described. ✓
[Abstracter's note: Complete translation]

Card 2/2

BEREZANTSEV, YU. A.

Device for catching flying bloodsucking insects

Zool. zhur. 31, no. 3, 1952

BEREZANTSEV, Yu.A.

The raccoon dog as a new host of trichinella. Dokl.AN SSSR 94
no.4:791 F '54. (MIRA 7:2)

1. Voenno-meditsinskaya akademiya im. S.M.Kirova.
(Trichina and trichinosis) (Parasites--Raccoons)

BEREZANTSEY Ye.A.

Data on the endemic nature of trichinellosis [with English summary in insert]. Zool.zhur.35 no.11:1730-1732 D '56. (MLRA 10:1)

1. Kafedra obshchey biologii i parazitologii imeni akademika Ye.N. Pavlovskogo Voenno-meditsinskoy akademii imeni S.M. Kirova.
(Trichina and trichnosis)

BEREZANTSEV, Yu. A.

Development and calcification of trichina cysts [with summary in English]. Zool. zhur. 36 no.2:187-190 P '57. (MLRA 10:6)

1. Kafedra obshchey biologii i parazitologii im. akad. Ye.N. Pavlovskogo Voenno-meditsinskoy akademii im. S.M. Kirova.
(Trichina and trichinosis)

BEREZANTSEV, Yu.A.

Deer tick (*Lipoptena cervi* L). Med.paras.i paraz.bol. 27 no.6:738
N-D '58. (MIRA 12:2)

1. Iz kafedry obshchey biologii i parazitologii imeni akad. Ye.N.
Pavlovskogo Voenno-meditsinskoy ordena Lenina akademii imeni S.M.
Kirova.

(LOUSE FLIES)

BEREZANTSEV, YU. A.

"The Importance of Natural Foci of Infestation in the Epidemiology of Trichinosis."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

(Leningrad)

BEREZANTSEV, Yu.A.

Trichinelloscopy. Lab.delo 5 no.6:21-24 N-D '59.

(MIRA 13:3)

1. Iz kafedry obshchey biologii i parasitologii imeni Ye.N.
Pavlovskogo Voenno-meditsinskoy ordena Lenina akademii imeni
S.M. Kirova.

(TRICHINA AND TRICHINOSIS)

KEREZANTSEV, Yu.A.

A dark tent for counting biting insects. Med.paraz. i paraz.bolemn.
23 no.1:97-99 Ja-F '59. (MIRA 12:3)

1. Iz kafedry obshchey biologii i parazitologii imeni akademika
Ye.N. Pavlovskogo Voenno-meditsinskoy akademii imeni S.M. Kirova.
(FLIES,
appar. for Diptera count (Rus))

BEREZANTSEV, Yu. A.

Means of spreading of Trichinella in natural conditions. Wiadomosci
parazyt. 6 no.4:315-317 '60.

1. Kafedra parazitologii, Voenno-Med. Akademii Leningrad, SSSR.
(TRICHINOSIS transm)

BEREZANTSEV, Yu. A.

Development of Trichinella larvae in the muscles. Wiadomosci
parazyt. 6 no.4:360-363 '60.

1. Kafedra parasitologii, Voenno-Med. Ak. Leningrad, SSSR.
(TRICHINOSIS exper)

"Hog trichinellosis infection and its prophylaxis."

Veterinariya, Vol. 37, No. 5, 1960, p. 24

Military-Medical Order Lenin Academy in S.M. Kirov

BEREZANTSEV, Yu.A.

Role of rodents and insectivorous mammals in the maintenance of
natural foci of trichinosis. Zool.zhur. 39 no.6:832-837 Je
'60. (MIRA 13:7)

1. Department of General Biology and Parasitology, S.M.Kirov
Military Medical Academy, Leningrad.

(TRICHINA AND TRICHINOSIS)

(RODENTS AS CARRIERS OF DISEASE)

(INSECTIVORES AS CARRIERS OF DISEASE)

ERIZANTSEV, Yu.A.

Pathway of transmission of Trichinella infection. Med. paraz. i
paraz. bol. 30 no. 2: 150-156 May-Apr '61. (MIRA 14:4)

1. Iz kafedry obshchey biologii s parazitologiyey imeni akad.
Ye. N. Pavlovskogo Voenno-meditsinskoy ordena Lenina akademii
imeni S. M. Kirova (nachal'nik kafedry - prof. G. S. Pervomayskiy).
(TRICHINA AND TRICHINOSIS)

BEREZANTSEV, Yu.A.

Role of zoological parks in the epizootiology of trichinosis.

Zool. zhur. 40 no.6:934-935 Je '61.

(MIRA 14:6)

1. Department of Biology with Parasitology, S. M. Kirov Military
Medical Academy, Leningrad.

(Trichina and trichinosis)

(Zoological gardens)

BEREZANTSEV, Yu.A.

Interrelation between plerocercoids of some Diphyllbothriidae
and the tissues of additional hosts. Trudy Astr. zap. no.6:
33-43 '62. (MIRA 16:7)

(Cestoda—Host animals)

BEREZANTSEV, Yu. A.

Studies on natural foci of trichinellosis in the USSR. (Review of recent literature). Wiadomosci parazyt. 8 no.1:47-50 '62.

(TRICHINOSIS)

BEREZANTSEV, Yu. A.

On relation of Trichinella to the intestinal wall. Wiadomosci parazyt.
8 no.1:57-61 '62,

1. Kafedra obshchey biologii i parazitologii voyenno-Meditsinskoy
Akademii im. S. T. Kirova, Leningrad.

(TRICHINOSIS pathol) (INTESTINES pathol)

BEREZANTSEV, Yu.A.

Encapsulation of nematode larvae in the tissues of mammals. Vest.
LQU 17 no. 21:42-53 '62. (MIRA 15:12)
(PARASITES--MAMMALS) (NEMATODA)

BEREZANTSEV, Yuriy Aleksandrovich; SHNAYDER, B.Ye., red.; LEBEDEVA,
G.T., tekhn. red.

[Trichinosis in man and animals] Trikhinellez cheloveka i
zhivotnykh. Leningrad, Medgiz, 1963. 30 p.

(MIRA 16:12)

(TRICHINA AND TRICHINOSIS)

BEREZANTSEV, Yu.A.

Simple method for studying the muscles in trichinosis by means of digestion in artificial gastric juice. Lab.delo 6 no.6:7-8 N-D '60.
(MIRA 13:11)

1. Kafedra biologii s parazitologiyey imeni akademika Ye.N.Pavlovskogo (nachal'nik prof. G.S.Pervomayskiy) Voenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.
(TRICHINA AND TRICHINOSIS) (MUSCLE)

BEREZENKO, A.I.

Device for automatic closing of the vacuum pan-air valve.
Sakh.prom. 33 no.10:34-35 0 '59. (MIRA 13:3)

1. Cherkasskiy sakhsveklotrest.
(Sugar machinery)

KOVALENKO, D.S., inzh.; BEREZENKO, G. M. [Berezenko, H. M.],
inzh.

Efficient use of raw meat products. Kharch. prom. no.
4:20-24 O-D '63. (MIRA 17:1)

BEREZENKO, G.Z.; AVAZKHODZHAYEV, M.Kh.; GLADYSHEV, D.A.

Portable device for measuring the biopotentials of plants under
field conditions. Uzb. biol. zhur. 8 no.6:66-67 '64.
(MIRA 18:3)

1. Institut yadernoy fiziki AN UzSSR.

BEREZENKO, G.Z.; AVAZKHODZHAYEV, M.Kh.

Role of tanning substances in rendering salts harmless to
grapevines. Uzb. biol. zhur. 9 no.2:82-83 '65.

(MIRA 18:5)

1. Institut eksperimental'noy biologii tekhnicheskikh i
zernovykh kul'tur AN UzSSR.

KHARITONOVICH, F.N., otv. red.; BEREZENKO, N.M., zam. otv. red.
MOISEYENKO, F.P., red.; ORLENKO, Ye.G., red.; OSTROGLAZOV,
V.A., red.; RYVKIN, B.V., red.; SAVCHENKO, A.I., red.;
SINITSKIY, V.P., red.; POBEDOV, V.S., red.; BARKAN, V.,
red.; ZUYKOVA, V., tekhn. red.

[Forestry science and practice] Lesovodstvennaia nauka i prak-
tika. Minsk, Sel'khozgiz BSSR, 1962. 246 p. (MIRA 16:1)
(White Russia--Forests and forestry)

BEREZENKO, N.M.

Petration of meadow and field grasses under the canopy
of an oak forest. Bot.; issl. Bel. otd. VBO. no. 5:5-8 '63.
(MIRA 17:5)

KUYUN, A.I. (Kiyev); BEREZENKO, V.P. (Kiyev)

Cyclic temperature changes caused by repeated variable loading.
Prikl. mekh. 1 no.5:120-122 '65.

(MIRA 18:7)

1. Institut mekhaniki AN UkrSSR.

S/536/61/000/052/002/008
D201/D302

AUTHOR: Berezentsev, V.A., Engineer

TITLE: New methods of manufacturing precision potentiometers

SOURCE: Moscow. Aviatsionnyy tekhnologicheskii institut. Trudy
no. 52, 1961. Nekotoryye voprosy sovremennoy tekhnolo-
gyi priborostroyeniya, 29 - 32

TEXT: The author discusses the technology of manufacturing precision potentiometers used in gyro- and other aviation instruments. At present the following materials are paired for the wiper and winding materials respectively: ПН-5 (PN-5) with ПМ-8 (PM-8); ПДИ-18 (PDI-18) with ПИ-10 (PI-10); ПИ-25 (PI-25) with ПЗЛ (PZL) and ПДИ-18 (PDI-18) with constantan. The winding is wound on an aluminum strip made of АМг (AMg), anodized in oxalic acid and impregnated with resin КП-18 (KP-18) or 1154. The KP-18 resin was experimentally found to give the best contact between the winding and wiper after 50,000 - 60,000 contact cycles. The experiments made it possible to evolve a new technology of toroidal potentiometer production. The stages of this production are as follows: After manu-
Card 1/2

New methods of manufacturing ...

S/536/61/000/052/002/008
D201/D302

facture the windings are impregnated with KP-18, prepared from the polyester No. 9 (MΦ 9) (mgF 9) - 90 parts by weight, polyester No 1 - 10 parts by weight, siccative 64B (64B) - 3 parts by weight and benzene peroxide - 1 part. The No. 9 polyester is placed with the peroxide in a mixer, mixed for 30 minutes, then no. 1 is added with further mixing for 10 minutes and a further 5 minutes after addition of the siccative. Impregnation is carried out in vacuo. After the impregnation the excess resin is removed and the winding is thermostatically dried in the following manner: For 1 hour temperature increasing from +20 to 150°C, 2 hours at 150°C, cooling down to 60 - 70°C. After drying the wiper path is checked for resin removal. Experimental checks of more than 400 potentiometers manufactured by this method have shown perfect contact between winding and the potentiometer wiper. There are 1 table and 4 figures.

Card 2/2

BEREZENTSEV, Vasilii Potapovich

Structural changes of mucous membrane of the stomach after (gastroenterostomy).

Dissertation for candidate of a Medical Science Degree.
Astrakhan Medical Institute, 1946

VLASOV, V., kand.tekhn.nauk; BEREZENTSEV, Yu., inzh.

Reasons for the unreliability of the "Reka" sounding devices.
Rech. transp. 19 no. 6:49-50 Je '60. (MIRA 14:2)
(Sounding and soundings)

COUNTRY : USSR
CATEGORY :

B-4

ASS. JOUR. : RZBiol., No. 1, 1959, No. 255

AUTHOR : Berezentseva, G. F.
INST. : Kuban Medical Institute
TITLE : Materials on Morphology and Histochemistry
of Striated Musculature in Embryogenesis

ORIG. PUB. : Nauchn. tr. Kubansk. med. in-t, 1957,
15(28), 10-16

ABSTRACT : Study of histogenesis and innervation of muscle fibers of the tongue and foreward extremity in rabbit embryos 0.9, 1.5, 3.5 and 4.5 cm long, and also in newborn rabbits. Muscle fibers develop from initially compact, undivided symplast. Different muscles and the individual fibers of each of them begin to develop at different time. Even in a newborn there are still retained many cambial elements in the region of endings of muscle fibers within connective tissue. In 4.5 cm embryos the typical motor end-plates are still absent, but there are nerve endings, at muscle tubules, in the form of rods, varicose swellings or knobs. In newborns the end-plates are

CARD: 1/2

12

COUNTRY : USSR
CATEGORY :

ABS. JOUR. : RZBiol., No. 1, 1959, No. 255

AUTHOR :

DATE :

ORIG. PUB. :

ABSTRACT : already formed. RNA is distributed in the sarcoplasm of developing fibers in a diffused state and in the form of minute granules. In the nucleus, RNA was found not only in nucleoli, but also in chromatin, together with DNA. The author claims that concentration of RNA in muscle fibers of newborns is higher than in the embryos. In addition to inclusions and a diffused distribution of glycogen in the sarcoplasm, its presence was also noted in the Q disks of myofibrils.

P. P. Kopyantsev.

CARD: 2/2

KORNYUSHENKO, N.P.; KAGANOVA, S.S.; BEBEZANTSEVA, L.F.

Influence of streptomycin on the tubercle bacilli in the cerebro-spinal fluid. Prob.tuberk., Moskva no.2:58-60 Mr-Apr '50. (GIML 19:3)

1. Of the Bacteriological Laboratory (Head -- Candidate Medical Sciences N.P.Kornyushenko), Ukrainian Scientific-Research Tuberculosis Institute (Director -- A.S.Mamolat; Scientific Director -- Prof. N.S.Morozovskiy).

BEREZANTSOVA, L. F.

Early diagnosis and manifestations of tuberculous meningitis.
Pediatria, Moskva No. 4, July-Aug. 50. p. 20-6

1. Of the Children's Clinic (Head--Docent I. Yu. Angenitskiy),
Ukrainian Scientific-Research Tuberculosis Institute (Director--
A. S. Mamolat; Scientific Director--Prof. N. S. Morozovskiy).

GLML 19, 5, Nov., 1950

BEREZANTSEVA, L. F.
(# 2710)

Contribution to the method of treatment of tb meningitis Probl. Tuberk. 1951, 3
(32-35) Graphs 2

Examinations of the streptomycin (str.) level in the CSF were undertaken. 50 mg. were administered to younger children and 100 mg. to older children by the lumbar and suboccipital routes and the str. level determined in the fluid obtained by both routes at various lapses of time after the administration. The str. level was generally lower with 50 mg. than with 100 mg. There were no significant differences in the str. concentration either in the lumbar or cisternal fluid, by whichever route the drug was given. Thus with 100 mg. 24 hr. after a lumbar injection the concentration in the lumbar fluid was on the average (av.) 10.5 U. (20-5.5) in the cisternal fluid on the av. 8.4 U. (10-2.5). After a cisternal injection: in the cisternal fluid av. 9.7 U. (10-9) and in the lumbar fluid av. 10.5 U. (20-6). After an intrathecal administration of str. it is often present for 3 days in bacteriostatic concentration, which is according to Vitchkanova 1-2 U. but there were great individual variations. Thus in some cases 3.5-8 U. were still present after 17 days and in one case after 33 days. After intramuscular injection of 250 mg. daily in 4 children with active tb meningitis 2.5-5 U. were found in the CSF. In 12 cases with tb in children without tb meningitis, receiving str. intramuscularly in therapeutic doses of 100-250 mg. daily, str. was found in the CSF in concentrations of 2.5-10 U. in 7 cases, but more often with the larger dosage the drug passed the barrier. In

ORLINSKIY, B.M.; BEREZAYEV, A.N.

Determination of the dynamic fluid level in the casing space by
radiometry. Neft. khoz. 39 no.6:42-45 Je '61. (MIRA 14:8)
(Oil well logging, Radiation)

RUSSKIKH, V.N.; BEREZATSEV, A.N.

Method for the calculation of fluid inflow to a well based on data obtained by means of a small radiation logging tool.
Nefteprom. delo no.23-5'63. (MIRA 17:7)

1. TSekh nauchno-issledovatel'skikh i proizvodstvennykh rabot i promysel No.5 neftepromyslovogo upravleniya "Tymazaneft'"

HEREZENKO, A.I.

Device for making and burning coal dust on fire grates. Sakh.
prom. 33 no.4:48-49 Ap '59. (MIRA 12:6)

1. Cherkasskiy sakhsveklotrest.
(Sugar industry—Equipment and supplies)

BEREZENKO, G. Z.

Berezenko, G. Z. — "Physiological Basis of the Culture of the Grape in Saline Soils (Conditions of the Delta of the Amu-Dar'ya)." Moscow Order of Lenin Agricultural Acad imeni K. A. Timiryazev, Moscow, 1955. (Dissertation for Degree of Candidate of Biological Sciences).

SO: Knizhnaya Letopis', No. 23, Moscow, June, 1955, pp. 87-104.

BEREZENKO, N.

"The Above-Ground Living Cover of Groves of Trees in the Southern Region of the Belorussian SSR and Its Effect on the Restoration of Oak." Cand Agr Sci, Kiev Agricultural Inst, Gomel', 1953. (RZhBiol, No 6, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No.521, 2 Jun 55

BEREZENTSEV, V. P.

25917 Berezentsev, V. P. K voprosy O khirurgicheskoy taktike pri
ognestrel'nykh cherepno-mozgovykh rananiyakh. V sb: Problemy
vosstanovit. Lecheniya invalidov Otechesta. Voyny. Astrakhan',
1948, s. 36-43

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

BEREZENTSEV, V. P.

Berezentsev, V. P. and Solov'yeva, L. A. - "Experimental data on the significance of fish bones in the pathogenesis of acute inflammations of the stomach and digestive tract", Trudy Astrakh. gos. med. in-ta, Vol. IX, 1948, p. 175-79.

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

BEREKHENTSEV, V.P. dots. (Astrakhan', ul. Khalturina, 5, kv.8)

Structural changes in gastric mucous membrane following resection for exclusion with preservation of the pylorus [with summary in English]. Vest. khir. 80 no.2:34-37 F '58. (MIRA 11:3)

1. Iz gosпита'noy khirurgicheskoy kliniki Astrakhanskogo meditsinskogo instituta (dir.-prof. V.M.Bal')

(GASTRECTOMY, exper.

subtotal with pyloric preservation for exclusion, morphol. changes of mucous membrane in dogs (Rus)

~~BEREZENTSEVA, O.F.~~

Morphology and histogenesis of muscle fibers of the tongue in mammals.
Arkh. anat., Moskva 30 no.4:3-9 July-Aug 1953. (GIML 25:4)

1. Of the Laboratory of the Department of Histology and Embryology, Kuban'
Medical Institute.

BEREZENTSEVA, G.F.; SHUBICH, M.G.

New optical method for counting blood platelets in a counting chamber.
Lab.delo 3 no.4:25-27 JI-Ag '57. (MIRA 10:8)

1. Iz kafedry gistologii Kubanskogo meditsinskogo instituta
(PHASE MICROSCOPE) (BLOOD PLATELETS)

USSR/Human and Animals Physiology - Action of Physical Factors. T-13

Abs Jour : Ref Zhur - Biol., No 7, 1958, 32340

Author : Berozentseva, G.F.

Inst : -

Title : On the Problem of the Influence of X-Rays on the Growth
of White Rats and the Condition of Their Ovaries.

Orig Pub : Nauchn. tr. Kubansk. med. in-t, 1957, 15 (29), 17-23.

Abstract : No abstract.

Card 1/1

012

GLIKINA, E.L.; HEREZENTSEVA, G.F.

Glycogen concentration and distribution in *Trichocephalus vulpis*
(Fröhlich, 1989). Med.paras. i paraz.bol. 27 no.5:575-577 S-0 '58.
(MIRA 12:1)

1. Iz kafedry biologii i gistologii Kubanskogo meditsinskogo ins-
tituta (dir. instituta -- pref. V.K. Suprunov).

(TRICHINELLOIDEA, metab.

Trichocephalus vulpis, glycogen concentration (Rus))

(GLYCOGEN, metab.

Trichocephalus vulpis (Rus))

SHTIL'MAN, Ye.I., kand.tekhn.nauk; BARINGOL'TS, A.Z.; BEREZETSKIY, V.I.

The role of transverse beams in bridge design. Avt.dor. 24
no.6:23-24 Je '61. (MIRA 14:7)
(Bridges, Concrete) (Precast concrete construction)

SHTIL'MAN, Ye.I., kand. tekhn. nauk; BEREZETSKIY, V.I., inzh.; SHAMRAY,
V.S., inzh.

Electrothermal stressing of lateral reinforcements in bridges.
Avt. dor. 28 no.1:20-22 Ja '65. (MIRA 18:3)

S/081/63/000/C02/044/088
B156/B144

AUTHORS: Botvinkin, O. K., Berezhnaya, I. N.

TITLE: γ -ray coloration of quartz glass

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1963, 375, abstract
2M68 (Steklo. Byul. Gos. n.-i. in-ta stekla, no. 2 (111),
1961, 15-20)

TEXT: The effects of various impurities in quartz on its coloring under radiation were investigated, and the effects of the conditions under which quartz glass is melted were determined. The irradiation was carried out in a K-20000 (K-20000) apparatus for radiation chemistry research. The integral dose used was $5.6 \cdot 10^6$ r. The integral dose was increased to $7.5 \cdot 10^8$ r in the case of specimens which the first dose did not color. A number of specimens were irradiated in an atomic reactor (integral dose $2 \cdot 10^9$ r). The effects of the irradiation were assessed from the changes in the spectral characteristics of the specimens investigated, determined with an SF-4 (SF-4) spectrophotometer in the

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γ-ray coloration of quartz glass

S/081/63/000/002/044/088
B156/B144

230-110 mμ range. The spectral characteristics are given. The quartz glass was melted in a moderately oxidizing atmosphere, in air, and in the flame from a torch burning on natural gas and oxygen. The effects of the conditions under which the quartz glass was produced on the extent to which irradiation colored it were also investigated with specimens melted in a oxy-hydrogen flame and in vacuum-press furnaces. It was established that the result of impurities being present in quartz is that irradiation colors it. The intensity of coloring and the locations of the absorption bands (AB) depend on the type of impurity and its concentration. Increase in the contents of Al, Ge, Fe or Ta oxides brings about the formation of AB with a maximum of ~400 mμ. It is suggested that, by analogy with crystalline quartz, the absorption in this range is caused by centres of coloration which form when the Si^{4+} in the framework of the glass is replaced by Fe^{3+} , Al^{3+} , Ge^{4+} , etc. The characteristic AB formed when quartz glass is irradiated are in the 300 and 550 mμ range. AB in the 300 mμ range form in every case. The formation of AB in the 550 mμ range is promoted if the melting conditions are of a reducing nature. It is suggested that the AB in the 300 mμ range are due to the presence of unbound oxygen atoms, and that the AB in the 550 mμ range are due to vacancies in unbound oxygen atoms. A hypothesis regarding the formation

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γ -ray coloration of quartz glass

S/081/63/000/002/044/088
B156/B144

of the AB is proposed on the basis of the theory for the development of coloration centres and the quantum theory for the state of electrons in solid bodies. [Abstracter's note: Complete translation.]

Card 3/3

PEREZKHANOVA, K. T.

Sesame

White-seeded sesame M-7. Sel. 1 sem. 20, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

Ca		11-6	
Origin of hyperketonemia in diabetes. S. G. Genes and N. M. Bereshanova (Ukrain. Central Inst. Endocrinol., Kharkov). <i>Byull. Eksp. Biol. Med.</i> 11, 290-302(1941).—The hyperketonemia occurs not because of decreased oxidation of ketone bodies in the muscle, but because of increased generation in the liver. Actually oxidation of the ketone bodies in muscle occurs at a higher than normal rate, but this lags behind the output of the liver. From both healthy and depancreatized angiotomized dogs, simultaneous blood samples were taken of the in- and out-flowing blood from the liver and hind extremities. The av. values (expressed as β-hydroxybutyric acid) were: liver elimination 1.7 mg. % in healthy and 4.0 mg. % in diabetic dogs; muscle retention 0.7 mg. % in healthy and 1.0 mg. % in diabetic dogs. In a few instances this trend was unexplainedly reversed.			
G. M. Kosolapoff			
ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION			
FROM CONTAINER		TO CONTAINER	
1-1000 11		11-1111 111	

BEREZHANSKIY, Kost' Petrovich [Berezhasn'kyi, K.P.]; DOROSHENKO, M., red.;
NEDOVIZ, S., tekhn. red.

[New horizons] Novi horyzonty. L'viv, Kryzhkogo-zhurnal'ne vyd-
vo, 1960. 41 p. (MIRA 14:12)

(Ukraine--Collective farms)

BERKZHINSKIY, L.I.; LISITSA, M.P.

Testing the quality of plane optical surfaces. Zhur. prikl. spektr.
2 no.5:409-414 My '65. (MIRA 18:7)

... (L'vov); BEREZHNIISKIY, L.T. (L'vov); KOVCHIK, S.Ye. (L'vov)

Propagation of an arbitrarily oriented rectilinear crack during
the stretching of a plate. Prikl. mekh. 1 no.2:48-55 '65.
(MIRA 18:6)

1. Fiziko-mekhanicheskiy institut AN UkrSSR.

BEREZHANSKAYA, T. S. Cand Med Sci -- (diss) "The ^{Course}~~Theory~~ of Military Tuberculosis in Children During Treatment With Antibacterial Preparations." Kiev, 1957. 18 pp 20 cm. (Kiev Order of Labor Red Banner Medical Inst im Academician A. A. Bogomolets), 200 copies (KL, 28-57, 111)

- 33 -

BEREZHEANSKAYA, T.S. [Bereszhans'ka, T.S.]; PIL'MAN, N.I., kand.med.nauk

Significance of an examination of the fundus oculi in children with
miliary tuberculosis or tuberculous meningitis. Ped., akush. i gin.
19 no.2:29-31 '57. (MIRA 13:1)

1. Kafedra gosspital'noy pediatrii (zav. - chlen-korrespondent AMN SSSR
O.M. Khokhol) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinsko-
go instituta im. akad. A.A. Bogomol'tsa (dir. - prof. Ye.F. Shamray)
na base bol'nitsy im. M.I. Kalinina (glavnyy vrach - V.O. Udintseva).
(EYE-EXAMINATION) (TUBERCULOSIS)

ZHUGAN, T.Yu. [Zhuhau, T.IU.]; BEREZHANSKAYA, T.S. [Berezhaus'ka, T.S.]

Case of abnormal location of the stomach in the thoracic cavity. Ped.,
akush. i gin. 19 no.4:30-32 '57. (MIRA 13:1)

1. Rentgenodiagnosticheskoye otdeleniye (rukovoditel' - kand.med.nauk
V.Yu. Arungasliyev) Kiyevskogo rentgeno-radiologicheskogo instituta
(direktor - prof. I.T. Shevchenko) i klinika gosspital'noy pediatrii
(zav. - prof. O.M. Khokhol) Kiyevskogo ordena Trudovogo Krasnogo Znameni
meditsinskogo instituta im. akad. A.A. Bogomol'tsa (direktro - prof.
Ye.F. Shamray).

(STOMACH--ABNORMALITIES AND DEFORMITIES)

BEREZHANSKAYA, T.S. [Berezhans'ka, T.S.], kand.med.nauk; TANTSYURA, K.M.,
dotsent

Some data on aplastic anemia in childhood. Fed., akush. i gin. 22
no.3:21-24 '60. (MIRA 14:4)

1. Kafedra gospiatal'noy pediatrii (zav. - chlen-korrespondent AMN
SSSR prof. O.M.Khokhol) Kiyevskogo ordena Trudovogo Krasnogo Znameni
meditsinskogo instituta im. akademika A.A.Bogomol'tsa (direktor -
dotsent I.P.Alekseyenko). (ANEMIA)

By. ch. BEREZHNYA, H.A.

Refractories.

Production of siliceous bricks for roofs of electric (steel) furnaces for Upper Silesia works: A. I. Gerasimova and A. G. Prokopenko (Dnepropet. 2442, 24, 121; 2442, 24, 121; 1949, 22a).—Crushed quartz from the Kuznetsk mountains (SiO₂ 98-91, Al₂O₃ 1-6, Fe₂O₃ 1-2, CaO 0-4, and MgO 0-3%); loss on ignition up to 1-1% is present, and ground, mixed with sulphite lye to give green strength, and fired in 4-6 hrs. The heating and cooling schedule is detailed. The 2442 bricks (2442, 24, 121; 1949, 22a) have a refractoriness of 1710-1720°. CaO 2-4-3, and MgO 0-3% have a refractoriness of 1710-1720°. A table shows the no. of units possible when using the bricks in the roof of electric steel furnaces of different sizes. R. B. CLARK.

L 13459-66 EPT(1) IJP(c)

ACC NR: AP6002439

SOURCE CODE: UR/0057/65/035/012/2167/2175

AUTHOR: Berezhetskiy, M.S.; Grebenshchikov, S. Ye.; Popryadukhin, A.P.

ORG: Physics Institute im. P.N. Lebedev, Moscow (Fizicheskiy institut)

TITLE: Investigation of the structure of magnetic surfaces in a stellarator with a double helical field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 12, 1965, 2167-2175

TOPIC TAGS: helical magnetic field, ~~plasma confinement~~, magnetic trap, magnetic field measurement, *electron beam, magnetic field*

ABSTRACT: ^{21, 44, 55} The magnetic surfaces of the stellarator field in the L-1 toroidal magnetic trap have been explored with electron beams. The L-1 machine has been described elsewhere by G.M. Batanov et al. (DAN SSSR, 160, 1293, 1965). The stainless steel chamber was a torus with large and small radii of 60 cm and 5 cm. The longitudinal magnetic field had a strength of 3 kOe during the measurements and its corrugation on the axis was about 1.5%. The helical magnetic field was produced by four helical conductors of 7 turns each, neighboring conductors carrying currents in opposite directions. The ratio h/H of the fundamental harmonic h of the helical field to the longitudinal field H could be varied from 0.3 to 0.7. Three different techniques were employed to explore the magnetic surfaces: 1) A beam of 60-100 eV electrons was directed along a line of force at a selected point in the chamber and was collected after a single revolution

Card 1/2 UDC: 538.122

L 13459-66

ACC NR: AP8002439

on an electrode that filled the entire cross section of the chamber. By varying the position of the gun the area was mapped out from which substantially all the injected electrons reached the collector. 2) A pulse of 20 eV electrons was injected along a line of force and the lifetime of the electrons in the chamber was determined with an electrostatic induction probe. Lifetimes of 200-300 μ sec, corresponding to 150-200 revolutions, were usual. 3) An electron pulse was injected and the corresponding magnetic surface was mapped out with a small movable electrostatic induction probe. By measuring the time between injection and detection of the pulse, the number of revolutions (up to about 20) corresponding to a given point on the magnetic surface could be determined. The presence of closed magnetic surfaces was established for values of h/H less than 0.6. The magnetic surfaces were highly distorted or destroyed when h/H was increased beyond 0.6; the reason for this is not understood. Low order resonant perturbations were detected. These were evinced by a sharp decrease in the lifetime of the injected electron pulse at the resonant values of h/H and by break-up of the magnetic surface into two or three pieces, depending on the order of the resonance. The resonances were observed at the predicted values of h/H . The effect of a transverse magnetic field on the magnetic surfaces was investigated. This was found to shift the positions of the magnetic surfaces without significantly distorting them, in accord with theoretical calculations. The authors thank N.M.Zverev and G.S.Voronov for assistance with the experiments, and M.S.Rabinovich for his interest and for valuable discussions. Orig. art. has: 1 formula and 8 figures.

SUB CODE: 20

SUBM DATE: 18Apr65

ORIG. REF: 016

OTH REF: 004

Card 3/3

DR

L 10406-67 EWT(1) IJP(e) AT
 ACC NR: AT6033032 SOURCE CODE: UR/2504/66/032/000/0020/0028³³
 AUTHOR: Berezhetskiy, M. S.; Grebenshchikov, S. Ye.; Zverev, N. M.; Chpigel', I. S.³⁴
 ORG: none
 TITLE: Toroidal magnetic trap of the stellarator type with external injection of the plasma
 SOURCE: AN SSSR. Fizicheskiy institut. Trudy, v. 32, 1966. Fizika plazmy (Plasma physics), 20-28
 TOPIC TAGS: magnetic trap, plasma injection
 ABSTRACT: The vacuum chamber of the magnetic trap under consideration was in the form of a torus with a diameter of 120 cm and a cross section diameter of 10 cm. A magnetic field of the stellarator type (without taking the toroidal character into account) has the following form:

$$\Phi = H_0 s + \frac{1}{a} \sum_{k=0}^{\infty} H_p I_p(p a r) \sin p(\varphi - \alpha s), \quad (1)$$

$$p = n(2k + 1),$$

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ACC NR: AT6033032

where Φ is the scalar potential of the magnetic field; H_0 is the magnitude of the longitudinal field; H_p is the amplitude of the p-th harmonic of the helical field; r, Φ, z are coordinates. There follows a mathematical development for the case of a helical field with $n = 2$. The article gives detailed mechanical drawings of several of the main features of the equipment used, including a cross section view of the apparatus, details of the helical winding, and a block diagram of the feeding system. A further figure shows an oscillogram of the current flowing through the winding. The experimental data confirm the validity of the approach to the problem. "In conclusion the authors express their sincere thanks to M. S. Rabinovich for his continuing interest in the work and for his helpful discussions, as well as to Ye. P. Aleksandrov, V. I. Dudin, V. I. Kryukov, and V. P. Solov'yev who took part in the construction of the equipment, and to G. I. Os'kina who took part in the construction of the winding system." Orig. art. has: 5 formulas, 7 figures, and 1 table.

SUB CODE: 20/ SUBJ DATE: none/ ORIG REF: 014/ OTH REF: 003

Cord 2/2 ⁶⁷⁷⁰

BEREZHIANI, D.I.

Complex treatment of thyrotoxicoses. Trudy Inst.eksp.i klin.khir.
i gemat. AN Gruz.SSR 10:169-175 '62. (MIRA 16:2)
(THYROID GLAND--DISEASES)

BEREZHIANI, L.B.

Nature of the molecular compound in the system stearic acid
palmitic acid. Soob. AN Gruz. SSR 31 no.1:45-52 J1 '63.
(MIRA 17:7)

KAKABADZE, V.M.; NIKOLAYSHVILI, Z.G.; MSHVENIYERADZE, N.G.; BEREZHIANI, I.B.

Physicochemical analysis of the products of interaction between magnesium nitrate and urea. Dokl. AN SSSR 161 no.5:1156-1157 Ap '65. (MIRA 18:5)

1. Gruzinskiy politekhnicheskii institut im. V.I.Lenina. Submitted October 14, 1964.

SOV/137-58-8-18007

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 257 (USSR)

AUTHOR: Berezhiani, V. M.

TITLE: A New Method of Investigation of the Processes of Phase Transformations in Metallic Alloys (Novyy metod issledovaniya protsessov fazovykh prevrashcheniy v metallicheskih splavakh)

PERIODICAL: Tr. In-ta metalla i gorn. dela. AN GruzSSR, 1957, Vol 8, pp 61-69

ABSTRACT: A complex method is proposed for the study of phase transformations in aging Al alloys, consisting of the construction of temperature-properties diagrams, with isochronic cross-section lines entered on them, and of the determination of the magnitude of the effect of aging (EA). EA is characterized by the difference in the properties of the alloy in the tempered and in the aged states and permits the control of the state of the solid solution in the course of the entire time of transformation. It is known that EA decreases if the formation of a new phase occurs in the process of aging and, by contrast, that it increases upon the dissolution of the phases already existing in the alloy. For the determination of EA, the temperature-

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SOV/137-58-8-18007

A New Method of Investigation of the Processes of Phase (cont.)

properties diagrams and the lines of isochronic cross section are constructed for the tempered and the aged states. The distance between the curves characterizes EA. This method was applied to the study of the aging process of an Al-Cu-Mg alloy with 3.74% Cu and 0.62% Mg. It is demonstrated that the phases that form during natural aging are not identical with the phases produced with artificial aging. In the latter case the process of their formation proceeds through the solution of the metastable phases in the solid solution and the separation of the already stable phases from the supersaturated solid solution formed.

1. Aluminum-copper-magnesium alloys--Transformations T. M.
2. Aluminum-copper-magnesium alloys--Temperature factors
3. Aluminum-copper-magnesium alloys--Aging

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SOV/137-58-9-19844

Translation from: Referativnyy zhurnal, Metallurgiya. 1958, Nr 9, p 249 (USSR)

AUTHOR: Berezhiani, V.M.

TITLE: ~~On the Problem of the Nature of Aging of Metallic Alloys~~ (K voprosu o prirode stareniya metallicheskikh splavov)

PERIODICAL: Tr. In-ta metalla i gorn. dela AN GruzSSR, 1957, Vol 8, pp 71-75

ABSTRACT: The mechanism of aging of metallic alloys is examined. It is shown that in the case of Al-Cu and Al-Cu-Mg alloys the temperatures of complete recovery are fairly close to each other and are independent of the concentration of the alloy. The concept of aging as being a process of formation of a chemical compound (C) is confirmed. The temperature greatly influences the process of formation of chemical C's and effects the formation of intermediate C's within the alloy which differ in structure, composition, and stability. The intermediate C's are stable only within a definite interval of temperatures and tend to change into more stable C's as the temperature is increased. The intermetallic C's which are formed in metallic alloys are not stable chemically and are, in their nature, more

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SOV/137-58-9-19844

On the Problem of the Nature of Aging of Metallic Alloys

similar to solvates; while the process of aging is similar to the process of solvation. Thus, the results obtained in the investigation of aging processes facilitate the development not only of the theory of phase transformations but of the theory of solutions as well.

1. Alloys--Aging 2. Alloys--Transformations

L.M.

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69358

SOV/123-59-19-78742

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 19, p 126 (USSR)

18.12.10

AUTHOR: Berezhiani, V.M.

TITLE: On the Aging of Aluminum Alloys¹

PERIODICAL: Tr. In-ta metallurgii AS GruzSSR, 1958, Vol 9, pp 89 - 96

ABSTRACT: The author describes the evolution of views on the aging mechanism of aluminum alloys and criticizes the prevailing theories. Treating aging as a decomposition process would be justified if the initial super-saturated hard alloy contained molecules of the phase being formed during the aging. It is established, however, that the initial hard solution does not contain phase molecules that are being formed during the aging process. In aging alloys phases are formed which, depending on the temperature, are different in structure, composition and stability, and, if the temperature is increased, less stable phases are converted into more stable chemical compounds. Consequently, the processes taking place in metallic alloys during aging cannot be considered as a simple process of decomposition. These are complex processes of the forming of chemical compounds, or a combination of the processes of decomposition and formation of chemical

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4X

On the Aging of Aluminum Alloys

69358

SOV/123-59-19-78742

compounds. The idea set forth by the author is confirmed by the phenomenon of reversal, the point of which is, that the aged alloys, as a result of short-time heating up to certain temperatures, lose the qualities they acquired in the aging process and pass over into the initial hardened condition. In artificially aged alloys this phenomenon of reversal was not discovered. Thereby a number of investigators were led to the conclusion that there are principal differences between the processes of natural and artificial aging. The author found out that the process of reversal can also be observed in artificially aged alloys. During the reversal, the process of diffusion of phases is preceded by a considerable softening of the alloy, which can be explained by the tearing off of coherent phases from the hard mother solution. In order to check these assumptions, the diffusion processes of coherent and incoherent phases of aluminum alloys were investigated. As investigation objects, phases were selected, forming in Al-Cu and Al-Cu-Mg alloys during the annealing process. In these alloys the diffusion processes of coherent phases are accompanied by a preliminary softening of the alloy, while during the diffusion of incoherent phases a preliminary softening is not observed. The new physical-chemical theory of metallic alloy aging considers the processes of artificial and natural aging as different stages of the forming of chemical compounds. The problem of the nature of the reversal process is analyzed and a new treatment of this phenomenon, based on the advanced theory of aging, is given. 3 figures, 36 references.

Card 2/2

P.S.M.



BEREZHTANT, V.N.

PHASE I BOOK EXPLOITATION

SOV/5411

Konferentsiya po fiziko-khimicheskim osnovam proizvodstva stali. 5th,
Moscow, 1959.

Fiziko-khimicheskiye osnovy proizvodstva stali; trudy konferentsii
(Physicochemical Bases of Steel Making; Transactions of the
Fifth Conference on the Physicochemical Bases of Steelmaking)
Moscow, Metallurgizdat, 1961. 512 p. Errata slip inserted.
3,700 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni
A. A. Baykova.

Responsible Ed.: A. M. Samarin, Corresponding Member, Academy
of Sciences USSR; Ed. of Publishing House: Ya. D. Rozentsveyg.
Tech. Ed.: V. V. Mikhaylova.

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115
Physicochemical Bases of (Cont.)

SOV/5411

PURPOSE: This collection of articles is intended for engineers and technicians of metallurgical and machine-building plants, senior students of schools of higher education, staff members of design bureaus and planning institutes, and scientific research workers.

COVERAGE: The collection contains reports presented at the fifth annual convention devoted to the review of the physicochemical bases of the steelmaking process. These reports deal with problems of the mechanism and kinetics of reactions taking place in the molten metal in steelmaking furnaces. The following are also discussed: problems involved in the production of alloyed steel, the structure of the ingot, the mechanism of solidification, and the converter steelmaking process. The articles contain conclusions drawn from the results of experimental studies, and are accompanied by references of which most are Soviet.

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