"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, A., dispetcher

Transportation expenses should be accounted for. Avt. transp. 41 no.5:34 My '63. (MIRA 16:10)

1. Trest tsentralizovannykh perevozok gruzov No.3 Glavmosavtotransa Moskovskogo gorodskogo ispolnitel'nogo komiteta.
(Moscow--Transportation, Automotive)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, A.I.

Method for determining the vitality of dwarf tapeworm eggs. Lab. delo 2 no.3:16-17 My-Je '56. (MLRA 9:10)

1. Iz kafedry obshchey biologii (zav. - prof. F.N.Bassin) Arkhangel'skogo meditsinskogo instituta.
(TAPEWORMS)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, A. I.

G

USSR / Zooparasitology - Parasitic worms

Abs Jour: Ref Zhur - Biol., No 7, 1958, 29116

Author : Gushchina, A.I.
Inst : ~~Not given~~
Title : Effect of Ultra-Violet Rays on Viability of Hymenolepidal Eggs. (Vliyanie ultrafioletovykh luchey na zhiznesposobnost yaits gimenolepidid)

Orig Pub: Sb. tr. Arkhang. med. in-t, 1957, No 15, 188-189

Abstract: Irradiation of Hymenolepis nana and H. straminea eggs by a bactericidal lamp BUV-30-P mildly affects their viability. Irradiation by PRK-2 lamp without a filter causes swelling of oncospheres, loss of characteristic luster,

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

USSR/Zooparasitology. Parasitic Worms. General Problems. G

Abs Jour: Ref. Zhur. - Biol., No 23, 1958, 104010

Author : Gushchina, A. I.

Inst : Archangel Medical Institute

Title : Material on the Study of the Formation and Structure of Hymenolepis Eggs.

Orig Pub: Sb. tr. Arkhang. med. in-t, 1957, No 17, 226-232

Abstract: There is a relationship between the size of Hymenolepis nana and H. straminea, the number of the segment and of proglottids in which the development of eggs begins. Thus, in the dwarf tapeworm, H. nana, measuring 7 mm in length and consisting of 79 proglottids, the eggs appear beginning with the 58th segment;

Card 1/3

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USSR/Zooparasitology. Parasitic Worms. General Problems. G

Abs Jour: Ref. Zhur. - Biol., No 23, 1958, 104010

in a tapeworm measuring 300 mm and which has 280 proglottids, the developing eggs are found only beginning with the 205th segment. However, the mature eggs with onchospheres are found only in the last 4-10 proglottids, whereas in H. straminea in which the number of proglottids reaches 1735 the ripe ova are found only in the last 25-35 segments. In H. nana ova the embryos are surrounded by a granular structureless mass, from which the protective embryonic envelope of chitinoid nature is later formed. Between the envelopes filaments appear which take their origin from the so-called "corkscrews" in muscle tapeworms. The space between the envelopes is filled with fluid in which it is readily possible to demonstrate fat droplets after treatment with 1% osmic acid and glycogen granules, after treatment with Lugol's solution. The

Card 2/3

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

USSR/Zooparasitology. Parasitic Worms. General Problems. G

Abs Jour: Ref. Zhur. - Biol., No 23, 1958, 104010

embryonic hooks subsequently are arranged in pairs. Successive heating and cooling increases the activity of the onchospheres and, in a number of cases, the hatching of them. By means of their hooks the onchospheres subsequently destroy the envelopes and emerge from them. After hatching they remain active in the environment from several minutes to two hours. -- E. R. Geller

Card 3/3

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

GUSHCHINA, A. I.

"New Data on the Formation of the Shells of Hymenolepsis Oncospheres."

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.

Institute of Biology, Karelian Branch of the USSR Academy of Sciences (Petrozavodsk)

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, A.I.

Comparative characteristics of the eggs of Hymenolepis nana (Siebold, 1852) and Hymenolepis fraterna (Stiles, 1906), family Hymenolepididae. Trudy Kar. fil. AN SSSR no.30:97-102 '61. (MIRA 15:9)

(Tapeworms)
(Worms--Eggs)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, A.I.

Role of secreting glands in the onchosphere of Hymenolepididae. Trudy Kar. fil. AN SSSR no.30:103-106 '61. (MIRA 15:9)
(Tapeworms) (Embryology--Worms)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, A.P., aspirant

Functional changes in the respiratory and cardiovascular system of adolescents with destructive forms of pulmonary tuberculosis in the process of therapy. Probl.tub. 36 no.7:32-38 '58. (MIRA 12:8)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - kand.med.nauk V.F. Chernyshev, zam.dir.po nauchnoy chasti - prof.D.D.Aseyev).
(RESPIRATORY ORGANS--DISEASES)
(CARDIOVASCULAR SYSTEM--DISEASES)
(TUBERCULOSIS)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, A.P.

Course of destructive tuberculosis of the lungs with localization in the lower lobe in adolescents. Probl.tub. 39 no.1:24-31 '61. (MIRA 14:1)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - kand.med.nauk V.F. Chernyshev, zam.dir. po nauchnoy chasti - prof. D.D. Aseyev).
(TUBERCULOSIS)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, A.V.

Clinical and epidemiological characteristics of foci of fresh forms of trachoma during its eradication. Vest.oft. no.5:53-58 '62. (MIRA 15:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut glaznykh bolezney imeni Gel'mgol'tsa (dir. A.V.Roslavtsev).
(CONJUNCTIVITIS, GRANULAR)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 53990-65 EWT(m)/EWP(i)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) Pf-4
IJP(c) JD/HM/JG

ACCESSION NR: AP5015509 UR/0286/65/000/008/0042/0042
621.791.75

AUTHOR: Rabkin, D. M.; Shteyn, R. O.; Busherin, V. A.; Gushchina, A. V. 29 B

TITLE: Method of fusion welding silver to steel. Class 21, No. 170135 27 18

SOURCE: Byulleten'izobreteniy i tovarnykh znakov, no. 8, 1965, 42

TOPIC TAGS: welding, silver to steel welding 18

ABSTRACT: This author certificate introduces a method of fusion welding silver to steel. To improve the weld quality, either a copper layer is deposited before welding on the steel or a copper-clad steel plate is joined to the steel. [ND]

27 18

ASSOCIATION: none

SUBMITTED: 28Feb64 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4021

Card 1/1

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

KURUMCHIN, Kh.A.; GUSHCHINA, G.G.; PYATIGORSKAYA, G.Z.

Pilot plant testing of the hydrometallurgical processing of a copper-zinc pyrite ore dressing product. TSvet.met. 38 no.10:32-35 O '65. (MIRA 18:12)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

ACC NR: AP6036395 SOURCE CODE: UR/0032/66/032/011/1430/1431

AUTHOR: Cherkinskiy, B. Z.; Gushchina, G. I.

ORG: none

TITLE: Sixteenth conference on high-molecular-weight compounds

SOURCE: Zavodskaya laboratoriya, v. 32, no. 11, 1966, 1430-1431

TOPIC TAGS: polymer, ~~macromolecule formation~~, polymer ~~property, polymer study method~~ structure molecular property

ABSTRACT: The conference was held in May 1966, sponsored by the Scientific Council on High-Molecular-Weight Compounds of the Department of General and Technical Chemistry, Academy of Sciences USSR, in collaboration with the Institute of Organic Synthesis, Academy of Sciences Latvian SSR. More than 1000 scientists attended. The conference dealt with methods of investigating macromolecule formation and polymer properties in three sections devoted to chemical, physicochemical, and physical and mechanical properties of polymers, respectively. The following review papers were presented at the plenary session: I. A. Malmeysber. Fundamentals of the science of the strength of polymers materials: G. V. Vinogradov. Modern methods of rheological studies of polymer systems: P. I. Sogolova. Methods of studying the mechanical properties of polymers with the use of very small test samples: V. N. Tsvetkov. Working methods for determining molecular [sic] substances and polydispersity:

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

ACC NR: AP6036395

V. G. Berezkin. Chromatographic methods of studying polymers: P. I. Zubov. Methods for evaluating the life of polymer materials. The conference adopted a resolution establishing the basic trends in the development of methods of studying polymers and urged the ministries and services concerned to increase, improve, and standardize the production of new testing apparatus.

SUB CODE: 11, 07/ SUBM DATE: none/ ATD PRESS: 5106

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

STRAKHOV, I.P., doktor tekhn.nauk,prof.; GUSHCHINA, I.A., inzh.

Effect of the styrol copolymer and maleic anhydride on the tanning action of aluminum salts. Kozh.-obuv.prom. 3 no.4:24-27 Ap '61. (MIRA 14:5)

(Tanning materials)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

ACCESSION NR: AR4015696 S/0081/63/000/023/0398/0398

SOURCE: RZh. Khimiya, Abs. 23M148

AUTHOR: Gushchina, I. I.

TITLE: The search for glass lubricants for the hot pressing of chromium-nickel alloys and titanium

CITED SOURCE: Steklo. Inform. materialy* Gos. n.-i. in-ta stekla, no. 1 (118), 1963, 62-67

TOPIC TAGS: hot pressing, stamping, chromium nickel alloy, titanium, glass lubricant

ABSTRACT: The composition of the glass lubricant KS176a for hot pressing of machine parts (profiles) from chromium-nickel alloys of the "nimonik" type was obtained. Tests of glass lubricants during pressing of parts from Ti and its alloys showed the perspectives of the application of glass lubricants during hot working of Ti and the suitability of continuing the work in this direction. The use of a powdered glass lubricant by application of the glass suspension to the cold surface of the material permits the non-oxidative heating of the metal during hot working if the composition of the glass is properly chosen. From the author's

Card 1/2

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 12061-65 EWT(m)/EPF(c)/EPR/EWP(k)/EWA(d)/T/EWP(e)/EWP(...
Pr-4/Pq-4/Ps-4/Pad ASD(a)-5/ESD(gs)/ESD(t) JD/WW/HW/WB/DJ/MLK/NR

ACCESSION NR: AT4045969 S/0000/64/000/000/0293/0300

AUTHOR: Anisimova, I. V.; Gushchina, I. I.; Yurina, Z. I.

TITLE: Glass lubricants in machine building

SOURCE: Novy*ye materialy* v mashinostroyenii (New materials in machinery manufacturing). Moscow, Izd-vo Mashinostroyeniye, 1964, 293-300

TOPIC TAGS: glass lubricant, extrusion, hot pressing, pressing lubricant, pipe manufacture, forging, stamping

ABSTRACT: In connection with the production of pipes, bars, and other shapes from materials with low plasticity, such as high-alloy steels, and heat-resistant and corrosion-resistant alloys, glass lubricants have been developed for effective lubrication during hot working (1200-1600C). However, each technological process, type of metal, and shape of product requires special glass lubricants because of the different interactions between glass and different metals and the high sensitivity of glass to the operating conditions. The physical form (powder, granules, fibers) of the glass lubricant and its method of application also vary. In the present paper, the authors review the use of glass lubricants in the Soviet Union for hot pressing (extrusion) of tubes and bars (glass lubricant in the form of granules); hot pressing and stamping of small details (application of suspended

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 12061-65

ACCESSION NR: AT4045969

glass lubricant); stamping and forging of details after heating of blanks in a glass bath; and protection of metals and alloys from oxidation during heat treatment (coating with molten glass suspension). The chemical composition of glass lubricants is usually close to that of industrial glass. However, some alloys require a special composition. Most frequently, three types of glass are used: borosilicates with a low alkali content; silicates together with boron and lead compounds; and alkali silicates. The first group exhibits good wetting properties and forms a continuous protective coating on the part. Boron-free glasses with a high alkali content do not produce a continuous protective coating because of high surface tension. Alkali boron-free glasses are used for protection against oxidation in a bath, and for non-suspension lubrication. The presence of lead oxide prevents the use of a glass lubricant at temperatures above 1100-1200C because of lead deposition on the surface of the part. A correctly selected glass lubricant covers the part with a uniform protective coating, does not react with the metal, protects it from oxidation, dissolves scale, and is easily removed after cooling. As shown in Fig. 1 of the Enclosure, "long" and "short" glasses can be distinguished from the relationship between viscosity and temperature. For lubrication, "long" glasses are generally used with a viscosity of 10^2--10^4

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 12061-65

ACCESSION NR: AT4045969

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poise. Components which regulate the viscosity include the oxides of sodium, potassium, lead, silicon, aluminum, calcium, and magnesium. An increase in the boron oxide content improves the wetting properties of glass on alloys with chromium, nickel, and titanium. The granular form of glass lubricant (frit) is produced by shattering molten glass in water. To obtain the suspension type of lubricant, glass is ground in vibration mills, and afterwards mixed with water. Low alloy steels and carbon steels react violently with suspension glass lubricants at temperatures above 1000C. For such steels, an adhering glass coat is used as a lubricant following hot working. A promising trend is the use of glass suspensions as a protective coating during heat treatment, for example for pipe manufacture in a hydraulic press. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 16May64 ENCL: 01 SUB CODE: MT,MM

NO REF SOV: 000 OTHER: 000

Card 3/4

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 12061-65
ACCESSION NR: AT4045969

ENCLOSURE: 01

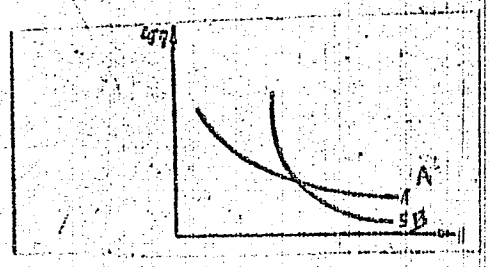

Fig. 1. Graph showing the temperature dependence of glass viscosity.

A - for "long" glasses
B - for "short" glasses

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 45093-65 EWP(e)/EWT(m)/EPF(c)/EWP(i)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) Pq-4/
Pad IJP(c) JD/HW/WB/WH
ACCESSION NR: AP5011056 UR/0182/65/000/004/0039/0042

AUTHOR: Gushchina, I. I.

TITLE: Nonscale heating of steels and alloys in glass

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 4, 1965, 39-42

TOPIC TAGS: nonscale metal heating, glass protective film, glass suspension metal coating, Mazacera drum furnace, metal working, metal oxidation, furnace design

ABSTRACT: The author calls attention to the considerable interest shown in recent years to the use of glass as a protective medium in the heating of metal before it is worked by pressure. The advantages offered by glass for this purpose are briefly reviewed, and it is pointed out that melted glass affords the possibility of carrying out nonscale heating of metals over a wide temperature range (from 800 to 1300C and above). The author further notes that in both Western and Soviet metallurgical practice two methods for the employment of glass as a protective medium have become particularly accepted. These methods, which differ from one another considerably both in terms of the heating technology itself and with regard to the requirements made of the properties of the glass, are: 1) heating of billets in a bath with a silicate melt, and 2) application of suspension coatings

Card 1/3

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 45093-65
ACCESSION NR: AP5011056

on the surface of the metal before heating. The first method requires the creation of special heating equipment for the glass melt. It is possible to use, for this purpose, drum furnaces for large billets of any form. Furnace design considerations are discussed in the article, with particular attention directed at the drum furnace produced by the Mazacera firm in Italy (similar furnaces have also been built in the United States on Italian patents). The technological process involved in the use of this method is described in full and the decisive role of viscosity in the selection of the type of glass to be used is discussed in detail. The second method of using glass as a protective medium consists, as stated above, in the application of a thin layer of a glass suspension of definite chemical composition on the billet surface. During heating, this layer melts and coats the metal with a protective film. The specific requirements levied on the composition of the glass in this method are considered. Among other things, a high degree of wettability of the metal and continuity of the glass film must be provided at high heating temperatures and for long exposures. The choice of glass is dictated by the type of metal and the temperature of the heating. A detailed description of this suspension method is given in the paper, covering methods of application, drying, rate of consumption, glass coat factors, viscosity require-

Card 2/3

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L 45093-65

ACCESSION NR: AP5011056

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ments, temperature factors for various steels and alloys, etc. The author has shown, on the basis of this work, the the heating of carbon, low-alloy and medium-alloy steel, as well as of refractory metals, to 1100-1300C for forging, stamping and pressing, may be conveniently carried out in a glass melt. In the case of high-alloy steels or nickel- and titanium-base alloys, suspension-type glass coatings can be employed. In either cases, the requirements of the glass include: chemical neutrality, low viscosity of the melt, good wettability of the metal, and retention of continuity in the glass covering (film) during the entire heating cycle. Orig. art. has: 3 figures, 1 formula and 5 tables.

ASSOCIATION: None

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

NO REF SOV: 003 OTHER: 002

mc

Card 3/3

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 26260-66 EWT(m)/T/EWP(t) IJP(c) JD/WB

ACC NR: AP6013270 SOURCE CODE: UR/0413/66/000/008/0070/0070

.14
B

INVENTOR: Gushchina, I. I.; Shadek, Ye. G.

ORG: none

TITLE: Glass for oxidation-free heating of steel and alloy billets. Class 32, No. 180769 [announced by the State Scientific Research Institute of Glass (Gosudarstvennyy nauchno-issledovatel'skiy institut stekla.)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 70

TOPIC TAGS: metal heating, alloy heating, molten glass heating, oxidation free heating, glass composition

ABSTRACT. This Author Certificate introduces a glass for oxidation-free heating of steel and alloy billets which contains SiO_2, Na_2O, CaO, BaO, Al_2O_3, and MgO. To reduce the glass viscosity at 1200—1300C and to make it less active toward metal and refractory furnace linings, the glass composition is set as follows: (wt%) 47.7—50.7 SiO_2, 22.5—25.0 Na_2O, 8.3—9.3 CaO; 9.0—9.5 BaO, 1.5—3.0 Al_2O_3, 4.5—5.0 MgO, and 1.75—2.5 F'. [AZ]

SUB CODE: 11/ SUBM DATE: 08Feb65/ ATD PRESS: 4243

Card 1/1 UDC: 666.113.621'431'46'41'33'28'16

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 46774-66 EWP(k)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW/GH

ACC NR: AP6031732 (N) SOURCE CODE: UR/0182/66/000/009/0034/0037

AUTHOR: Gushchina, I. I.; Shadek, Ye. G.

ORG: none

TITLE: Development and investigation of special glass compositions for billet heating

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 9, 1966, 34-37

TOPIC TAGS: molten glass bath, metal heating, oxidation free heating, metal hot working, glass bath metal heating, glass, metalworking, metal heat treatment

ABSTRACT: Experiments have been made to determine the optimal compositions of glass used for uniform, oxidation-free heating of various steels and alloys for hot pressure working. Two glasses, 291a glass containing (%) 47.7 SiO_2, 23.5 Na_2O, 9.3 Ca, 2.5 Al_2O_3, 5 MgO, 9.5 BO, 2.5 F; and 291vl glass containing (%) 44 SiO_2, 16 Na_2O, 16 CaO, 1.5 Al_2O_3, 4 MgO, 5 BaO, 10 B_2O_3, 3.5 F, gave the best results and were accepted for industrial tests. The 291a glass at 1200C has a viscosity of 50 poise, it forms a film 0.4—0.5 mm thick and wets equally well carbon steel, low- and medium-alloy steels, EI617 nickel-base alloy and refractory metals, and remains intact for 1.5—2 min with cooling in air. The 291vl glass has a viscosity of 20 poise at 1100C, forms a 0.1-mm film, and remains intact with cooling to room temperature. Specimens of St.45, 40Kh, U8A and R18 steels and EI617 alloy heated in 291a and 291vl glass baths at 1200—1230C for 1 hr showed little or no oxidation

Card 1/2 UDC: 621.78.3

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 46774-66

ACC NR: AP6031732

and decarburization. A noticeable decarburization of 20KhNR and 40 Kh steels was observed after holding at 1300—1350C for 5 hr; oxidation of these steels began after 8 hr heating. No decarburization was observed in Kh18N10T stainless steel and ET617 alloy. Orig. art. has: 2 figures and 2 tables. [MS]

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 007/ ATD PRESS: 5091

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

KOLESNIKOV, P.A.; GUSHCHINA, K.G. (Moskva)

Use of "porolon" polyurethan foams in clothing. Shvein. prom. no. 6:8-9 N-D '60. (MIRA 14:1)
(Clothing, Cold weather) (Urethans)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, [illegible]

Methodology for the evaluation of heat insulating properties of textile fabrics. Izv.vys.ucheb.zav.; tekh.tekst.prom. no.3:26-32 '65. (MIRA 18:8)

1. Moskovskiy tekstil'nyy institut.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, L.A.

Functional state of the thrombocytes in coronary insufficiency. Terap.arkh. 33 no.10:23-28 '61. (MIRA 15:1)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. T.S. Istamanova) I Leningradskogo meditsinskogo instituta imeni akad. I.P. Pavlova.
(CORONARY HEART DISEASE) (BLOOD PLATELETS)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, L.A.

Some characteristics of the distribution of air temperature in the Rybinsk Reservoir region. Sbor. rab. Ryb. gidromet. obser. no. 2:123-145 ' 65. (MIRA 19:1)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

KODWER, M. S.; FILIPPOV, M. P.; GUSHCHINA, L. F.

Determination of benzoic, isophthalic, and terephthalic acids in their mixtures. Zhur. VKHO 8 no.2:229-230 '63. (MIRA 16:4)

1. Lisichanskiy filial Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti i produktov organicheskogo sinteza.

(Benzoic acid) (Isophthalic acid)
(Terephthalic acid)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

KUDZIN, A. Yu.; GUSKINA, L. G.; PLTRUSHKEVICH, I. S.

Stabilization of the domain structure of barium titanate single crystals. Fiz. tver. tela 6 no. 1:92-95 Ja '64. (MIRA 17:2)

1. Dnepropetrovskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

ALFEROVA, L.A., kand.tekhn.nauk; BONDAREVA, T.N.; SHERSTNEVA, V.A., inzh.; IVANSKAYA, L.N., inzh.; GUSHCHINA, L.I.

Amount of acid waters formed in the manufacture of fatty acids. Masl.-zhir.prom. 29 no.11:40-43 N '63. (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrologii Akademii stroitel'stva i arkhitektury SSSR (for Alferova, Bondareva). 2. Volgodonskoy filial Vsesoyuznogo nauchno-issledovatel'skogo i proyektnogo instituta sinteticheskikh zhirozameniteley (for Sherstneva, Ivanskaya, Gushchina).

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

PAVLOV, V.A., kandidat tekhnicheskikh nauk, dotsent; TUNIMANOV, A.Z., inzhener; ANTONOV, A.K., inzhener; GUSHCHINA, L.M., inzhener; RIVKIN, S.S., doktor tekhnicheskikh nauk; SAYDOV, P.I., kandidat tekhnicheskikh nauk dotsent; PEL'POR, D.S., doktor tekhnicheskikh nauk, professor; RYABOV, B.L., doktor tekhnicheskikh nauk, professor; TIKHMENEV, S.S., doktor tekhnicheskikh nauk, professor; FRIDLENDER, G.O., doktor tekhnicheskikh nauk, professor; CHISTYAKOV, N.I., doktor tekhnicheskikh nauk, professor.

Can V.A. Pavlov's book "Aircraft gyroscope instruments" be recommended for use as a textbook? Priborostroenie no.1:29-31 Ja '57. (MIRA 10:4)

1. Chlen pravleniya Leningradskogo otdeleniya nauchnogo inzhenerno-tekhnicheskogo obshchestva priborostroitel'noy promyshlennosti (for Tunimanov). 2. Chlen pravleniya Vsesoyuznogo nauchnogo inzhenerno-tekhnicheskogo obshchestva priborostroitel'noy promyshlennosti (for Gushchina) 3. Moskovskoye Vysshaye tekhnicheskoye uchilishche imeni Baumana (for Pel'por, Tikhmenev). 4. Moskovskiy aviatsionnyy institut imeni Serge Ordzhonikidse (for Ryabov). 5. Voyenno-vozdushnaya inzhenernaya akademiya imeni N.Ye. Zhukovskogo (for Chistykov)
(Gyroscope)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, L. S.

GUSHCHINA, L. S.: "Combined treatment, using penicillin and sanazin, of septic puerperal patients". Khar'kov, 1955. Khar'kov, Medical Inst. (Dissertations for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1955. Moscow.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

Gushchina, L.S.

11072. (Russian.) Change in Structure and Mechanical Properties of Low-Alloy Steel in the Zone Around the Seam in Welding Thermal-Cycle Conditions. Izmenenie struktury i mekhanicheskikh svoistv nizkolegirovannoi stali v okolo [illegible] usiovnakh [illegible]

Inst. Metallurgy im A.A. Baykov, AS USSR

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

AID P - 5265

Subject : USSR/Engineering

Card 1/1 Pub. 107-a - 1/18

Authors : Shorshorov, M. Kh., Kand. of Tech. Sci., G. N. Klebanov, Eng., and L. S. Gushchina, Eng. (Institute of Metallurgy im. A. A. ~~Baykov, Academy~~ of Sciences, USSR).

Title : Formation of grain and changes in structure and mechanical properties of low-alloyed steel in adjacent-to-seam area.

Periodical : Svar. proizv., 9, 1-4, S 1956

Abstract : A study of causes and conditions of possible local failures in welded metal and a new method for the appraisal of weldability of metals are described. The characteristics of grain development and decomposition of austenite in welded alloyed steels are included. Two drawings, 8 graphs; 1 Russian reference (1951).

Institution : As above

Submitted : No date

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

MILOSLAVSKIY, M.Ya., kand.med.nauk; GUSHCHINA, L.S.; MARIM'YAN, L.S.

Case of extremely premature puberty. Akush. i gin. 40 no.3:127-129 My-Je '64. (MIRA 18:6)

1. Ukrainskiy institut okhrany materinstva i detstva imeni Krupskoy (dir. - kand.med.nauk A.I.Kornilova), kafedra akusherstva i ginekologii pediatricheskogo fakul'teta (zav. - prof. V.F. Matveyeva) Khar'kovskogo meditsinskogo instituta i Ukrainskiy institut eksperimental'noy endokrinologii (dir. - kand.med.nauk S.V.Maksomov).

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

Gushchina, M.M.

Corrosion of feed lines of an electro-generating station and means for its prevention. M. M. Gushchina and I. R. Bazhenov. *Sbornik Inform. Materialov Mosenergo* (Moscow-Leningrad). *Gosenergoizdat* 1954, No. 4, 31–8; *Referat. Zhur., Khim.* 1955, No. 4978.—After replacing the soda-lime treatment of feed water by H-Na cationic treatment, the treated water contained 60–70 mg./l. free CO_2. De-
a aerators satisfactorily removed the O, but part of the CO_2 remained in the feed water. This caused appreciable corrosion, particularly in the preheaters. To remove the bulk of the CO_2 in the water to the deaerators a decarbonizer (a tower with wooden fillings) was added, wherein the water was treated with air. The water from the decarbonizer still contained 3–5 mg./l. CO_2; to neutralize it boiler water was added to the upper part of the deaerators. The required amt. of boiler water was estd. from the intensity of the pink
b color when phenolphthalein was added to the water. As a result of this procedure, corrosion stopped. M. Hosch

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, M.M.

USSR/Chemical Technology -- Chemical Products and Their Application. Water Treatment. Sewage Water. I-11

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12735

Author : Gushchina M.M.
Inst : Moscow Power Installations
Title : Utilization of Acetylene Production Byproducts in Water Softening

Orig Pub : Inform. materialy Mosenergo, 1955, No 8, 51-52

Abstract : At a water treatment plant operating by lining of the water, experiments were conducted on utilization of $Ca(OH)_2$ obtained as a byproduct of C_2H_2 production. The experiments yielded positive results. Elimination of odor was effected by aeration of the lime solution and also by an addition of chlorinated lime.

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

CHERNOVA, L.A., inzhener; GUSHCHINA, M.M., inzhener.

Experience starting and operating salt-removing water purifying apparatus in the Moscow Power Production system. Energetik 5 no.4: 11-14 Ap '57. (MLRA 10:6)

(Feed-water purification)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, M.N., inzh.; PADERNO, I.P., kand.tekhn.nauk

Atomic lantern. Avtom., telem. i sviaz' no.9:45 S '57.
(MIRA 11:4)
(United States--Railroads--Equipment and supplies)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, M.N., inzh.; PADERNO, I.P., kand. tekhn. nauk

Equipment used for determining overheating of axle bearings. Zhel. dor. transp. 41 no.4:84-87 Ap '59. (MIRA 12:6)
(Car axles) (Bearings (Machinery))
(Railroads--Equipment and supplies)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

Mar 1947

USSR/Geophysics
Solar Radiation

"Photometry of the Twilight Glow," M. V. Gushchina, A. D. Zamorskiy, 9 pp

"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XI, No 2

Photography of the particolored horizontal strip along the horizon caused by the absorption and scattering of the light of the twilight light-body on the way to the observer's eye, carried out through red and green filters. Data shows that the more the air mass is covered with dust, the larger the relation green/red and the higher the angle-height of the maxi-

50T46

[redacted]

Mar 1947

USSR/Geophysics (Contd)

mum of brightness of the given color. With the sun's depth under the horizon the angle-height of the maximum of brightness decreases. The relation green/red decreases with the sun's depth to 2°, and then increases slowly to the end of the twilight. The relation green/red increases continuously from the horizon to 20°. Submitted by Academician L. S. Leybenzon.

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[redacted]

GUSHCHINA, M.V.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 01755-67 EWT(1) GW
ACC NR: AT6029354 (N) SOURCE CODE: UR/2531/66/000/191/0035/0046

AUTHOR: Gushchina, M. V.; Kagan, R. L.

ORG: none

47
45
B+1

TITLE: Statistical structure of a precipitation field

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy, no. 191, 1966. Primeneniye statisticheskikh metodov v meteorologii (The application of statistical methods in meteorology), 35-46

TOPIC TAGS: practical meteorology, rain, diurnal variation, statistic analysis, correlation statistics, error statistics, mean square error

ABSTRACT: The statistical structure of the rainfall field in north-central regions of the SSSR is analysed and the data is used for evaluating the accuracy of rainfall estimates averaged over a given area. Correlation functions were calculated for the amount of precipitation over short periods of time at two points under three variants-- for days of simultaneous precipitation at both stations, days when there was rain at only one station, and regardless of the presence or absence of rain at either station. The precipitation field has a well defined statistical structure and correlation between the amount of rain at different stations extends for considerable distances. The territory and especially the topography of the region very significantly affects

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

ACC NR: AT0029314

2

the value of the correlation function and the distance at which there is correlation between individual points. Thus in the Volday region the correlation coefficient for diurnal precipitation for a distance of 60 km is 0.08, while in the UGMS central region (56°25' - 58°15' N; 35°30' - 39°00' E) the semidiurnal correlation coefficient of nightly precipitation is 0.50, and by day it is 0.39. Data for semidiurnal precipitation at one point is not representative with respect to the surrounding territory: the error in determining the average, even for an area of 1 km^2, is over 2 mm. Hence for precipitation data to be representative, the amount of precipitation overaged over a considerable area must be considered. With the existing network density of one station for about 400 km^2, the average precipitation in each of the 100 areas in the 40,000 km^2 is determined with an error of less than 10%. The mean square of the error in determining monthly precipitation, based on data from one station, is less than 15% even if the station covers an area of 600-700 km^2. The estimates presented refer only to errors in calculating precipitation by means of random factors. Errors of a systematic nature should be evaluated individually. "Calculation of correlation coefficients was carried out by P. P. Drozdov and T. S. Nurok on the "Ural-4" computer". Orig. art. has: 5 tables, 5 figures and 4 equations.

SUB CODE: 04, 12/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 001

Card 2/2 pb

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

VOLOKH, V.G.; GUSHCHINA, M.V.; IGRUNOV, V.D.; NECHAYEV, I.N.; POKROVSKAYA, I.A.; TRIFONOVA, T.S.; TSYGANOVA, A.M.; RUSIN, N.P., otv.red.; KITAYTSEV, A.M., red.; KUZ'MIN, L.A., red.; OLIMPOV, V.G., red.; SKITEYKIN, I.S., red.; BERLIN, I.A., red.; NECHAYEV, I.N., red.; SHCHERBAKOVA, L.F., red.; MARTYNOV, S.I., red.; SIMONOV, Ya.P., red.; IVANOV, A.P., red.; BESSONOV, N.P., red.; YASNOGORODSKAYA, M.M., red.; VLADIMIROV, O.G., tekhn.red.

[Directions for hydrometeorological stations and posts] Nastavlenie gidrometeorologicheskim stantsiiam i postam. Leningrad, Gidrometeor.izd-vo. No.3, pt.1. [Observations at meteorological stations] Meteorologicheskie nabliudeniia na stantsiiakh. 1958. 223 p. (MIRA 12:12)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. 2. Sotrudniki Metodicheskogo otdela Glavnoy geofizicheskoy observatorii im. A.I.Voyeykova (for Volokh, Gushchina, Igrunov, Nechayev, Pokrovskaya, Trifonova, TSyganova). 3. Glavnoye upravleniye Gidrometeorologicheskoy sluzhby SSSR (GUGMS)(for Kitaytsev, Kuz'min, Olimpov, Skiteykin). 4. Glavnaya geofizicheskaya observatoriya (GGO) (for Berlin, Nechayev, Rusin, Sherbakova). 5. Mestnyye upravleniya Gidrometeorologicheskoy sluzhby (for Martynov, Simonov, Ivanov, Bessonov).

(Meteorology—Observations)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, M.V.; TRIFONOVA, T.S.

Variation in time of snow cover characteristics and the selection of intervals between snow surveys. Trudy GGO no.108: 26-41 '60. (MIRA 13:11)

(Snow surveys)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, M.V.

Variability with time of the snow cover characteristics and errors of their interpolation in different regions. Trudy GGO no.130:11-28 '62. (MIRA 15:7)

(Snow surveys)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, M.V.

Station tests of the method of determining the cloud base from ground data. Trudy GGO no.160:138-143 '64. (MIRA 17:9)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, M.V.

Gradients of soil temperature according to observations made with cased thermometers. Trudy GGO no.174:42-49 '65. (MIRA 19:1)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

VESELOV, S.I.; GUSHCHINA, N.; MAKUSHKIN, L.G.; RULINA, L.B.; CHICHILO, I.K.; SHABUNIN, Ye.M.; CHILIKIN, M.G., prof.; YUSHKOV, S.B.; GOSIS, I.N.; RYABTSEV, N.I.; KRUPOVICH, V.I.; PETROV, N.I.: PATARUYEV, A.D.; BEYRAKH, Z. Ya., doktor tekhn. nauk

Twenty-first anniversary of the publication "Promyshlennaia energetika". Prom. energ. 21 no. 1:5-7 Ja '66 (MIRA 19:1)

1. Nachal'nik Gosudarstvennoy inspektsii po energeticheskomu nadzoru Ministerstva energetiki i elektrifikatsii SSSR (for Veselov). 2. Moskovskoye pravleniye nauchno-tekhnicheskogo obshchestva energeticheskoy promyshlennosti (for Gushchina). 3. Predsedatel' Sverdlovskogo pravleniya Nauchno-tekhnicheskogo obshchestva energeticheskoy promyshlennosti (for Makushkin). 4. Glavnyy energetik Pervogo gosudarstvennogo podshipnikovogo zavoda (for Chichilo). 5. Glavnyy energetik Moskovskogo metallurgicheskogo zavoda "Serp i molot" (for Shabunin). 6. Rektor Moskovskogo energeticheskogo instituta (for Chilikin). 7. Glavnyy inzhener instituta Tyazhpromelektroproyekt (for Krupovich). 8. Glavnyy konstruktor Moskovskogo zavoda teplovoy avtomatiki (for Beyrakh).

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

26

BTR GUSHCHINA, N. A.

9395* **The Gaseous Phase in the Calcining of Chromites.** (In Russian.) O. I. Pudovkina and N. A. Gushchina. *Zhurnal Prikladnoi Khimii*, v. 24, Nov. 1951, p. 1136-1139.

Laboratory experiments on the above showed that, for satis

factory oxidation of Cr_2O_3 to CrO_3, the furnace gases must con
tain not less than 7.5-10% O_2. Data are tabulated

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 05857-67 EWT(1)

ACC NR: AP6015482 SOURCE CODE: UR/0181/66/008/005/1569/1573

34
18

AUTHOR: Gubanov, A. I.; Gushchina, N. A.

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

2

TITLE: Calculation of the disordered chain by the method of linear combination of atomic orbitals

SOURCE: Fizika tverdogo tela, v. 8, no. 5, 1966, 1569-1573

TOPIC TAGS: linear combination, atomic orbital, disordered chain, wave vector, approximate solution, wave function

ABSTRACT: The authors perform a numerical calculation of the power spectrum E(k) for a unidimensional disordered chain, consisting of identical atoms, using the LCAO method based on the statistical properties of the system of atoms, developed by one of the present authors (A. I. Gubanov. DAN SSSR, 159, 46, 1964; FTT, 7, 3145, 1965). The calculation is performed in the approximation of closest neighbors; moreover, the number of internal atoms N_1, the configuration of which is assumed given, was taken to equal 3, and the number of intermediate atoms N_2, in the first approximation was taken to equal zero. A considerable advantage of the

Card 1/2

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 05857-67

ACC NR: AP6015482

method presented is the possibility of obtaining the coefficient C_1^2 and the phase ϕ_1 in the function of the configuration of the surrounding central atom, which allows to judge on the dependence of the wave function of the system on the neighboring order in each point of the chain. The results of the calculations for C_1^2 (q, 0), of the difference of the phases which is determined as

$$\operatorname{tg}\Delta\varphi(q,0)=\frac{(\epsilon^2-\beta_2^2)^2-\beta_2^4}{2\beta_2^2(\epsilon^2-\beta_2^2)+\cos\varphi^*(\epsilon^2-\beta_2^2)^2+\beta_2^4\cos\varphi^*}, \quad (1)$$

as well as the local value of the wave vector $k_{loc} = \Delta\phi/q$ are presented in graphs. It is noted that C_1^2 substantially depends on the configuration of the surrounding neighbors and, evidently, cannot be considered constant as assumed by T. Kasuya (J. Phys. Soc. Japan, 13, 1906, 1287, 1958). Furthermore, the value of k_{loc} along the disordered chain is not constant and with a strong convergence of the neighbors of k_{loc} may even change sign. Orig. art. has: 20 formulas and 4 figures.

SUB CODE: 20/ SUBM DATE: 06Jul65/ ORIG REF: 003/ OTH REF: 002

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Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 05068-67 EWT(m) IJP(c)

ACC NR: AT6027934 SOURCE CODE: UR/0000/66/000/000/0175/0183

AUTHOR: Voznesenskiy, R. M.; Gushchina, N. A.; Pokrovskiy, Yu. N.; Sergeyev, Yu. A.

ORG: None

TITLE: Radiation heating of the screen for the thermal shield in the TES-3 reactor vessel

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 175-183

TOPIC TAGS: reactor shielding, heating, atomic energy plant equipment

ABSTRACT: The authors discuss experimental data on radiation heating of the thermal shield in the pressure vessel of the water-water reactor used in the 1500 kw TES-3 atomic electric power station. Chromel-alumel thermocouples were used for measuring the temperature of the screen in the thermal shield. The thermocouple emf was potentiometrically registered. Curves are given showing heat release in the screen as a function of thickness. A maximum density of total heat release of 9.9 w/cm^3 is observed on the inner surface of the screen. Formulas are derived for determining the temperature distribution in the screen and curves are given showing the temperature difference in the screen and on its inner surface for various reactor power levels. A comparison of theoretical and experimental results shows satisfactory areement in spite of several sources of error. Orig. art. has: 5 figures, 1 table, 5 formulas.

SUB CODE: 18/ SUBM DATE: 12Jan66/ ORIG REF: 006/ OTH REF: 001

Card 1/1

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

L 11026-66 EWT(m)/T/EWP(j)/ETC(m) WW/RM

ACC NR: AP5025663 SOURCE CODE: UR/0080/65/038/010/2383/2386

44,55 44,55 44,55 44,55

AUTHOR: Burmistrova, R. S.; Gushchina, N. A.; Florentseva, L. I.; Yanovskiy, D. M.

ORG: none

TITLE: Effect of certain derivatives of benzophenone on thermal and photodecomposition of polyvinyl chloride

15,44,55

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 10, 1965, 2383-2386

TOPIC TAGS: polyvinyl chloride, thermal decomposition, photochemical reaction, free radical, benzene, phenol, UV spectrum, UV irradiation, alkyl radical

ABSTRACT: The article gives directions for the synthesis and properties of the following derivatives of benzophenone: 2,2',4-trihydroxybenzophenone, 2,2'-dihydroxy-4-methoxybenzophenone, 2,2'-dihydroxy-4-octoxybenzophenone, 2,4,4'-trihydroxybenzophenone, 2-hydroxy-4,4'-dimethoxybenzophenone, 2-hydroxy-4,4'-dipropoxybenzophenone, 2-hydroxy-4,4'-dibutoxybenzophenone and 2-hydroxy-4,4'-dioctoxybenzophenone. Ultraviolet spectra of solutions containing 0.008 g/l of the investigated substances in isopropyl alcohol were measured by means of an SF-4 spectrophotometer. It was found that 2,2'4- and 2,4,4'-trihydroxybenzophenones have a slight retarding effect on the thermal decomposition of polyvinyl chloride and no stabilizing effect on the photodecomposition of polyvinyl chloride. The replacement of hydrogen of the hydroxyl

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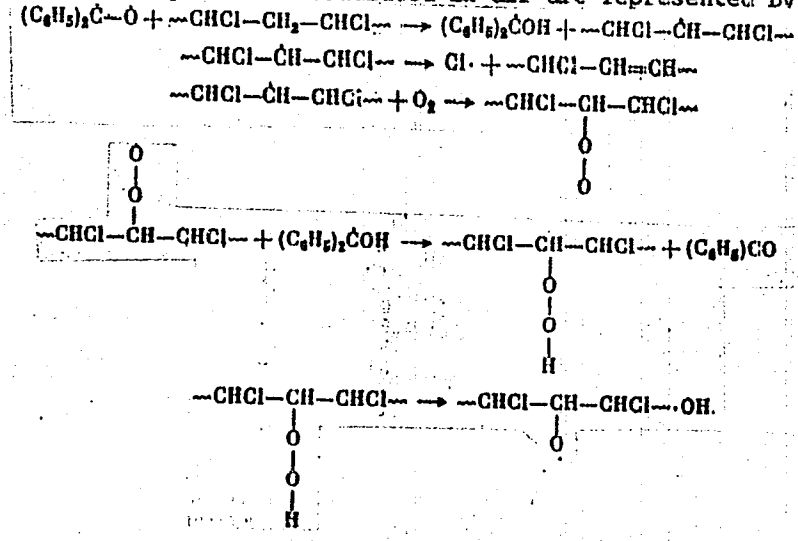
group in these compounds in paraposition to carbonyl by an alkyl radical increases the photostabilizing effect of the benzophenone derivatives. When polyvinyl chloride containing benzophenone is irradiated with ultraviolet radiation, splitting of the hydrogen from the polymer through the resulting benzophenone biradicals. The processes which take place when the samples are irradiated in air are represented by the following reactions:



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ACC NR: AP5025663

The alkoxy radical can either decompose or convert into carbonyl containing compounds by losing hydrogen. The produced carbonyl compounds easily lose HCl or decompose under the action of light produced free radicals which are capable of initiating the process of dehydrochlorination of polyvinyl chloride. The authors express their gratitude to E. G. Pomerantseva for the ultraviolet absorption spectra of benzophenones. Orig. art. has: 2 tables, 1 figure.

SUB CODE: 07/ SUBM DATE: 17Sep63/ ORIG REF: 002/ OTH REF: 006

HW

Card 3/3

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, N.B.; SKOBELEV, V.M., inzhener.

Air disinfection by means of bactericidal lamps. Svetotekhnika 2 no.4: 1-3 Jl '56. (MLRA 9:10)

1. Institut obshchey i kommunal'noy gigiyeny Akademii meditsinskikh nauk SSSR i moskovskiy elektrolampovyy zavod.
(Ultraviolet rays) (Air--Purification)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, N. B.

VLODAVETS, V.V.; GUSHCHINA, N.B. (Moskva)

Air disinfection by ultraviolet rays in laboratories. Vrach.delo no.4:399-401 Ap '57. (MIRA 10:7)

1. Institut obshchey i kommunal'noy gigiyeny AMN SSSR
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT)
(AIR--PURIFICATION)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, N.B., aspirant

Use of bactericidal ultraviolet radiation for air disinfection in nurseries in the presence of children [with summary in English] Gig. i san. 22 no.3:41-45 Mr '57. (MLRA 10:6)

1. Iz Instituta obshchey i kommunal'noy gigiyeny Akademii meditsinskikh nauk SSSR

(AIR, microbiol.
disinfect. by ultraviolet radiation in nurseries in presence of child.)
(ULTRAVIOLET RAYS, eff.
disinfect. of air in nurseries in presence of child.)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA

VLODAVETS, V.V.; GUSHCHINA, N.B.

Air disinfection in laboratories by ultraviolet rays. Zhur. mikrobiol. epid. i immun 28 no.2:140-141 F '57 (MIRA 10:4)

1. Iz Instituta obshchey i kommunal'noy gigiyeny AMN SSSR.
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT)
(AIR--PURIFICATION)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, N. B. Cand Med Sci -- (diss) "~~The~~ Hygienical evaluation of the experi~~ment~~ence of disinfection of the air in children's institutions by means of ultraviolet irradiation in the presence of the children." Mos, 1958. 15 pp (Acad Med Sci USSR. Inst of General and Communal Hygiene im A. N. Sysin), 200 copies (KL, 13-58, 100)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

[illegible], [illegible]

"Air sanitation in children's institutions [illegible] in the presence of children."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

BEREZINA, O.Ya., starshiy nauchnyy sotrudnik; SHAKHOVA, Ye.A., inzh.; GUSHCHINA, N.G., inzh.

Studying the causes of the formation of periodical unevenness of the product on spinning machines. Tekst. prom. 24 no.10: 40-43 O '64. (MIRA 17:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut kompleksnoy mashinnoy promyshlennosti (for Berezina). 2. Zaveduyushchiy proizvodstvennoy laboratoriyey pryadil'no-tkatskoy fabriki imeni Frunze (for Shakhova). 3. Nachal'nik proizvodstvennogo pryadil'nogo tsekha pryadil'no-tkatskoy fabriki imeni Frunze (for Gushchina).

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, N.S.

2

Petalite from pegmatites of eastern Transbaikalia. A. I. Ginzburg and N. S. Gushchina. *Trudy Mineralog. Muzeya, Akad. Nauk S.S.S.R.* 1954, No. 6, 71-80.—Three petalite varieties are described. Petalite I occurs in large angular masses (up to 15-20 cm. in length) in assocn. with mica, quartz, microcline, and apatite. It has sp. gr. 2.400-2.410 and contains SiO_2 76.67, Al_2O_3 15.29, Fe_2O_3 1.80, FeO 0.25, CaO 0.80, MgO 0.27, Li_2O 3.60, K_2O + Na_2O 1.00, H_2O 1.07%. Its color is yellow to yellow-rose, the latter variety exhibiting strong Bq lines in its spectrogram. Petalite II occurs in typically smaller, colorless-to-white crystals, sp. gr. 2.327-2.328. It is richer in Li_2O (4.10%), and much poorer in FeO, CaO, K_2O + Na_2O, and H_2O. It occurs with microcline, in spodumene solns. cavities. Petalite III consists of colorless needles which occur along cracks in microcline. Its sp. gr. is 2.391-2.393 and it is chemically quite similar to Petalite II. Petalite is converted to heulandite by reaction with CaO. The by-product Li_2O appears in the mineral cookeite, which is invariably present in these petalite deposits. The action of MgO on petalite forms kerolite, quartz, and cookeite. Petalite and related minerals may be converted naturally to montmorillonite. C. L. Fuchsman

Geo

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

ORLOV, L.L.; GUSHCHINA, O.S.

Electrokymogram of patients suffering from chronic coronary insufficiency. Vop.kard. 2-go MGMI no.2:101-127 '62. (MIRA 16:1)

(ELECTROKYMOGRAPHY) (CORNOARY HEART DISEASE)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

ACC NR: AP6034267 SOURCE CODE: UR/0386/66/004/007/0244/0248

AUTHOR: Krinchik, G. S.; Gushchina, S. A.

ORG: Physics Department of the Moscow State University im. M. V. Lomonosov (Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta)

TITLE: Influence of magnetic field on spin-orbit interaction effects in ferromagnetic d-metals

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 4, No. 7, 1966, 244-248

TOPIC TAGS: ferromagnetic material, spin orbit coupling, magnetooptic effect, Kerr effect, Hall effect, magnetic saturation

ABSTRACT: In view of the lack of data on magnetooptical effects in ferromagnets placed in strong magnetic fields, the authors measured the equatorial Kerr effect δ in Fe, Ni, and Co at an incident-light angle $\varphi = 75°$, in magnetic fields up to 40 kOe. The experimental setup was described earlier (ZhETF v. 36, 1022, 1959). The beam was made monochromatic with optical filters. The measurement error did not exceed 0.5%. The measurements have shown that the increase of the Kerr effect in the saturation region is anomalously large, greatly exceeding the corresponding increase of the saturation current. The observed effect cannot be attributed to additional magnetization of the surface layer of the sample, to saturation, or to the influence of the magnetic field on the carrier motion. It is proposed that the effect is caused by the

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SOV/126-8-4-8/22

AUTHORS: Smol'kov, N.A., and Gushchina, S.A.

TITLE: Nickel-Cadmium Ferrites

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 8, Nr 4, pp 557-561 (USSR)

ABSTRACT: The authors made ferrites of eleven compositions by a ceramic method with the general formula $Ni_{1-x}Cd_xFe_2O_4$, where x varies from 0 to 1 in 0.10 intervals. The basic raw materials were the higher oxides Fe_2O_3 and CdO of the "ChDA" class and the lower nickel oxide NiO of the "Ch" class. The specimens were pressed at a pressure of 3 t/cm^2. In order to obtain material with high magnetic properties, the charger after milling, drying and sieving was given a preliminary annealing at 950 °C for 3 hours, and was then ground again and mixed with a plasticizer (polyvinal alcohol). From the pressed powder specimens were made which were annealed at 1245 °C for 3 hours. Specimens made without preliminary annealing exhibited low magnetic properties. The Curie point Θ_k of the ferrites was determined by the fall in induction of a ferrite core-coil on heating, and the static properties (initial and

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SOV/126-8-4-8/22

Nickel-Cadmium Ferrites

maximum magnetic permeabilities, μ_0 and μ_{max}, coercive force H_c, residual and maximum magnetic inductions, B_r and B_m), were measured in toroidal specimens by means of a ballistic instrument. The results of measurements of the above properties in relation to composition are shown in Figs 1-4. By means of an earlier described method (Ref 8) the authors studied the Faraday effect in cylindrical ferrite specimens of 55 mm length and 5 mm diameter at room temperature at a frequency of 9370 megahertz. Fig 5 shows a curve for the dependence of the angle of rotation of the polarisation plane φ of $Ni_{1-x}Cd_xFe_2O_4$ ferrites at a fixed magnetising field H of 460 oersted, on composition. Simultaneously the high frequency quality Q of ferrites was determined at a fixed magnetising field of H = 600 oersted. The measurements were carried out on plate-like ferrite needles, 3 x 7.5 x 95 mm, by means of an apparatus, the layout of which is shown in Fig 6. In this apparatus the phase shift $\Delta\varphi$ and the damping δ (in decibels)

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SOV/126-8-4-8/22

Nickel-Cadmium Ferrites

were determined and from the results obtained the high frequency quality $Q = \Delta\varphi/\delta$ was calculated. In Fig 7 the dependence of Q of the $Ni_{1-x}Cd_xFe_2O_4$ on composition at a frequency of 9370 megahertz at a fixed magnetisation field of $H = 600$ oersted, is shown. The authors arrive at the following conclusions. In solid solutions of nickel and cadmium ferrites the Curie point decreases steadily with increase in the concentration of cadmium ferrite in the solution, the initial and maximum magnetic permeabilities increase, reaching a maximum in the range of 60% cadmium ferrite concentration and then fall sharply; the coercive force attains a minimum for a composition of 50% cadmium ferrite; the residual and maximum magnetic inductions attain a maximum in the range of 20% cadium ferrite concentration; the compositions $Ni_{0.9}Cd_{0.1}Fe_2O_4$ and $Ni_{0.8}Cd_{0.2}Fe_2O_4$ have maximum values of angle of rotation of the polarisation plane φ and high frequency quality Q.

There are 7 figures and 8 references, of which 6 are Soviet, 1 is French and 1 is European (S. Ceram. Ind.)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

67686
SOV/126-8-4-8/22

Nickel-Cadmium Ferrites

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov)

Card 4/4

SUBMITTED: February 12, 1959

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, S.A.; SAVOSINA, O.N.; SHARLYKOV, V.A.

Need of the population of Kazan for prosthodontics. Nauch. trudy Kaz. gos. med. inst. 14:23 '64. (MIRA 18:9)

1. Kafedra ortopedicheskoy stomatologii (zav. - prof. I.M. Oksman) i stomatologicheskaya poliklinika (glavnyy vrach - N.Sh.Blinova) Kazanskogo meditsinskogo instituta.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, S. P.

May 50

USSR/Chemistry - Bismuth
Analysis, Chronometric

"Chronometric Method for Determination of Minimum Quantities of Bismuth," M. T. Kozlovskiy, S. P. Gushchina, Inst of Chem, Kazakh Affiliate, Acad Sci USSR, 3½ pp

"Zavod Lab" Vol XVI, No 5

Attempts to establish possibilities for chronometric determination of small amounts of bismuth, e. g., to establish inverse proportionality between bismuth quantity and time required for darkening of solution. Finds chronometric determination of bismuth in quantities 0.0014-0.045 mg is approximately ten times more sensitive than method with potassium iodide. Error of determination may amount to up to 10%.

PA 160T11

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

KROTKOV, I.N.; GUSHCHINA, T.M.

Method for precise checking of condensers with different initial capacitance ratings. Trudy inst. Kom. stand., mer i izm. prob. no.39:93-104 '60. (MIRA 14:3)

(Electric capacitors--Testing)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

KROTKOV, I.N.; GUSHCHINA, T.M.

Determination of condenser parameters by means of decade comparisons. Trudy inst. Kom. stand., mer i izm. prib. no.39:105-118 '60.

(Electric capacitors--Testing) (MIRA 14:3)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, T.M.

Physicochemical properties of lean coals at the "Podzemgaz" gas station in Kamenskaya. Trudy VNNIPodzemgaza no.13:21-25 '65.

(MIRA 18:8)

1. Laboratoriya tekhnologii podzemnoy gazifikatsii kamennykh ugley Vsesoyuznogo nauchno-issledovatel'skogo instituta podzemnoy gazifikatsii ugley.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

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AKIMOVA, K.I.; BAZHENOV, M.F.; BAKHVALOV, G.T.; BEZKIUBENKO, N.P.; BERMAN, S.I.; BOGDANOV, Ye.S.; BODYAKO, M.N.; BOYKO, B.B.; VINOGRADOV, S.V.; GAGEN-TORN, K.V.; GLEK, T.P.; GOREV, K.V.; GRADUSOV, P.I.; GUSHCHINA, T.E.; YEMEL'YANOV, A.K.; YESIKOV, M.P.; ZDZYARSKIY, A.V.; ZAKHAROV, M.V.; ZAKHAROVA, M.I.; KARCHEVSKIY, V.A.; KOMAROV, A.M.; KORZHENKO, O.T.; LAYNER, V.I.; MAL'TSEV, M.V.; MILLER, L.Ye.; MILOVANOV, A.I.; MIRONOV, S.S.; NIKONOROVA, N.A.; OL'KHOV, N.P.; OSIPOVA, T.V.; OSOKIN, N.Ye.; PERLIN, I.L.; PLAKSIN, I.N.; PROKOF'YEV, A.D.; RUMYANTSEV, M.V.; SEVERIENKO, V.P.; SEREDIN, P.I.; SMIRYAGIN, A.P.; SPASSKIY, A.G.; TITOV, P.S.; TURKOVSKAYA, A.V.; SHAKHNAZAROV, A.K.; SHPICHINETSKIY, Ye.S.; YURKSHTOVICH, N.A.; YUSHKOV, A.V.; YANUSHEVICH, L.V.

Sergei Ivanovich Gubkin. TSvet.met. 28 no.6:60-61 N-D '55. (MIRA 10:11)
(Gubkin, Sergei Ivanovich, 1898-1955)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, Ye. G.

GUSHCHINA, Ye. G. -- "The Oak and Broad Leaf Forests of Moskovskaya Oblast." Sub 19 Dec 52, Moscow Oblast Pedagogical Inst. (Dissertation for the Degree of Candidate in Biological Sciences).

SO: Vechernaya Moskva January-December 1952

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

SHEVLYAGINA, Ye.V.; GUSHCHINA, Ye.I.; BELOV, V.N.

Relation between the structure of organic compounds and their odor. Report No.7: Lactone of hydroxy-cis-dekalin-2-acetic acid. Trudy VNIISNDV, no.4:44-47 '58. (MIRA 12:5)
(Perfumes, Synthetic) (Acetic acid)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

SHEVLYAGINA, Ye.V.; GUSHCHINA, Ye.I.; BELOV, V.N.

Relation between the structure of organic compounds and their odor. Report No.8: Synthesis of the lactone of 2-hydroxy-4-tertiary-butyl-cyclohexyl)-acetic acid. Trudy VNIISNDV no.4:47-50 '58. (MIRA 12:5)

(Perfumes, Synthetic) (Acetic Acid)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

VOYTSEKHOVSKAYA, A.L.; SHEVLYAGINA, Ye.V.; GUSHCHINA, Ye.I.

Preparation of linoleic and linolenic acid esters (vitamin F). Report No.1. Preparation of vitamin F. Trudy VNIISNDV no.5: 124-128 '61. (MIRA 14:10)

(Linoleic acid) (Linolenic acid) (Cosmetics)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

VOYTSEKHOVSKAYA, A.L.; SHEVLYAGINA, Ye.V.; GUSINCHINA, Ye.I.

Preparation of cetiolan, a new kind of cosmetic material.
Trudy VNIISNDV no.5:134-135 '61. (MIRA 14:10)
(Cosmetics) (Acids, Fatty)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

GUSHCHINA, Ye. M.

GUSHCHINA, Ye. M. -- "The Synthesis of Derivatives of Phenylmethyl Isopyrazolone and the Investigation of the Reaction of Their Azo Compounds." Min Higher Education USSR. Leningrad Order of Labor Red Banner Technological Inst imeni Leningrad Soviet. Leningrad, 1955. (Dissertation for the Degree of Candidate in Chemical Sciences)

SOURCE Knizhnaya Letopis', No 6 1956

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

Gushchina, Z.M.

109-10-12/19

AUTHORS: Fabrikov, V.A., Kudryavtsev, V.D., and Gushchina, Z.M.

TITLE: Nickel-Copper Ferrites having a Narrow Absorption Line at Ultra-high Frequencies (Nikel'-Mednye ferrity s uzkoy rezonansnoy krivoy pogloshcheniya na sverkhvysokikh chastotakh)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol.II, No.10, pp. 1299 - 1300 (USSR)

ABSTRACT: Some nickel-copper ferrites were produced which, when operated at frequencies of the order of 10^{10} c.p.s., gave an attenuation ratio of 125 for the two opposite directions of the magnetising field. Thus, it was found that over a bandwidth of $\pm$ 3%, the direct losses in a rectangular waveguide were 0.5 db, while the reverse losses were more than 20 db. The authors thank Corresponding Member of the Ac.Sc.USSR A.A. Pistol'kors for his constant attention. There are 1 photograph and 2 **references.**

SUBMITTED: July 16, 1957.

AVAILABLE: Library of Congress.

Card 1/1

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

SOV/109-4-3-28/38

AUTHORS: Fabrikov, V.A., Gushchina, Z.M., and Vasil'yev, V.N.

TITLE: Magnesium Ferrite-Chromites for the Application at the Lower Region of the Ultrahigh-Frequency Band (Magniyevyye Ferrito-khromity dlya primeneniya v nizhnem diapazone sverkhvysokikh chastot)

PERIODICAL: Radiotekhnika i Elektronika, Vol 4, Nr 3, 1959, pp 536-537 (USSR)

ABSTRACT: Ferrite-chromites of the type $MgCr_{0,64}Fe_{1,36}O_4$, baked at a temperature of 1350°C or 1300°C are of considerable interest for microwave applications. These ferrite-chromites are characterised by magnetic saturation of 600G and a Curie temperature of 160°C, while their resistivity at dc is 10^8 ohm.cm. The parameters of the second type of the material (baked at 1300°C) are illustrated in Figs 1, 2 and 3. Fig 1 shows the dependence of the non-reciprocal phase shift and the losses on the magnitude of the magnetising field at a wavelength of 10 cm; the material was employed as a valve device and a waveguide. The dependence of the tensorial parameters of the material on the magnetising field at a wavelength

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SOV/109- - -4-3-28/38

Magnesium Ferrite-Chromites for the Application at the Lower Region of the Ultrahigh-Frequency Band

of 14 cm are illustrated in Fig 3. The authors make acknowledgement to Yu.N. Afanas'yev and A.A. Manaylova for collaboration in carrying out the measurements. There are 3 figures and 4 references, one of which is English and 3 Soviet.

SUBMITTED: January 4, 1958

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

24(3)

AUTHORS: Fabrikov, V. A., Kudryavtsev, V. D., Gushchina, Z. M. SOV/48-23-3-17/34

TITLE: Ferrites With Intense Saturation Magnetization and a Narrow Resonance Absorption Curve at Superhigh Frequencies (Ferrity s bol'shoy namagnichennost'yu nasyshcheniya i uzkoy rezonansnoy krivoy pogloshcheniya na sverkhvysokikh chastotakh)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 3, pp 372-376 (USSR)

ABSTRACT: In the present paper the authors investigated Ni-Cu-ferrites with admixtures of cobalt and small quantities of manganese, which had been added in order to attain a higher electric resistance of the material in direct current (Ref 12). Saturation magnetization, density, electric resistance in direct current, width of the resonance absorption curve on the frequency of 9,350 megacycles, working characteristics of ferrites in a valve device of the resonance type in the same range of frequency, as well as the microstructure of the material were measured. The results obtained in connection with the investigation of the ferromagnetic resonance of spherical samples in the rectangular resonator

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are given in figure 1. The width of the resonance curve depends to a considerable extent on the copper content. Figure 2 shows by means of an experimentally found curve the effect of Co admixtures exercised upon the width of the resonance curve of Ni-Cu-ferrites. The dependence on the temperature of sintering is given in figure 3. Compositions with an especially narrow line of resonance are characterized in a waveguide valve by relations of the wave extinction device (in decibels) which correspond to two opposite directions of propagation (Ref 7). All Ni-Cu-ferrites can be divided into two groups with respect to microstructure. In the case of a substitution of less than 14 % nickel by copper the ferrites usually have fine-grained structure with an average size of grains amounting to 10 μ. If the substitution amounts to more than 14 %, the average size of grains varies between 45 and 55 μ. Figures 4 and 5 show photographs of typical structures of both types as well as experimentally found curves. The authors thank A. A. Pistol'kors for the interest he displayed. There are 5 figures and 16 references, 2 of which are Soviet.

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S/194/61/000/007/067/079
D201/D305

9.2571(1047)

AUTHORS: Gushchina, Z.M., Fabrikov, V.A. and Kudryavtsev, V.D.

TITLE: Temperature characteristics of ferrite elements in SHF devices

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1961, 49, abstract 7 I298 (V sb. Ferrity. Fiz. i fiz. khim. svoystva, Minsk, AN SSSR, 1960, 522-529)

TEXT: A study has been made of the temperature characteristics of ferrite elements in switching devices with the rotation of the polarization plane. It was shown that by choosing the optimum operating conditions, it is possible to obtain a good temperature stability (TS) of the rotation angle of the polarization plane of the wave: 45 ± 2.5° in the temperature range -60 to +100°C. The admixture of Cu to the Mg-Mn ferrites improves the TS of the ferrite

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GUSHCHINA, Z. M.

PHASE I BOOK EXPLOITATION SOV/4893

Vsesoyuznoye soveshchaniye po fizike, fiziko-khimicheskim svoystvam ferritov i fizicheskim osnovam ikh primeneniya. 3d, Minsk, 1959

Ferrity; fizicheskiye i fiziko-khimicheskiye svoystva. Doklady (Ferrites; Physical and Physicochemical Properties. Reports) Minsk, Izd-vo AN BSSR, 1960. 655 p. Errata slip inserted. 4,000 copies printed.

Sponsoring Agencies: Nauchnyy sovet po magnetizmu AN SSSR. Otdel fiziki tverdogo tela i poluprovodnikov AN BSSR.

Editorial Board: Resp. Ed.: N. N. Sirota, Academician of the Academy of Sciences BSSR; K. P. Belov, Professor; Ye. I. Kondorskiy, Professor; K. M. Polivanov, Professor; R. V. Telesnin, Professor; G. A. Smolenskiy, Professor; N. N. Shol'ts, Candidate of Physical and Mathematical Sciences; E. M. Smolyarenko; and L. A. Bashkirov; Ed. of Publishing House: S. Kholyavskiy; Tech. Ed.: I. Volokhanovich.

PURPOSE: This book is intended for physicists, physical chemists, radio electronics engineers, and technical personnel engaged in the production and use of ferromagnetic materials. It may also be used by students in advanced courses in radio electronics, physics, and physical chemistry.

COVERAGE: The book contains reports presented at the Third All-Union Conference on Ferrites held in Minsk, Belorussian SSR. The reports deal with magnetic transformations, electrical and galvanomagnetic properties of ferrites, studies of the growth of ferrite single crystals, problems in the chemical and physicochemical analysis of ferrites, studies of ferrites having rectangular hysteresis loops and multicomponent ferrite systems exhibiting spontaneous rectangularity, problems in magnetic attraction, highly coercive ferrites, magnetic spectroscopy, ferromagnetic resonance, magneto-optics, physical principles of using ferrite components in electrical circuits, anisotropy of electrical and magnetic properties, etc. The Committee on Magnetism, AS USSR (S. V. Vonsovskiy, Chairman) organized the conference. References accompany individual articles.

Ferrites (Cont.) SOV/4893

Perekalina, T. M., and A. A. Askochenskiy. Investigation of the Ferromagnetic Resonance of a Cobalt Ferrite in an Internal Field of Anisotropy 501

Zyryanov, P. S., T. G. Izyumova, and G. V. Skrotskiy. The Effect of Electronic Magnetic Resonance on the Optical Properties of Ferromagnetic and Paramagnetic Dielectrics 505

Izyumov, Yu. A., and G. V. Skrotskiy. Magnetic Spin Resonance in Conduction Electrons in Alkali and Ferromagnetic Metals 513

Kotyukov, Yu. N., and A. N. Burnysheva. The Effect of Anisotropic Elastic Stresses on Ferromagnetic Resonance Absorption in Nickel Ferrite 519

Gushchina, Z. M., V. A. Fabrikov, and V. D. Kudryavtsev. Temperature Characteristics of Ferrite Components in SHF Devices 522

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AUTHORS: Fabrikov, V. A., Gushchina, Z. M., and Kudryavtsev, V. D.

TITLE: Ferrites with high saturation magnetization and narrow shf resonance absorption line

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25, no. 11, 1961, 1429-1430

TEXT: The authors developed a series of ferrite types with high saturation magnetization and narrow shf resonance absorption line. Some of these ferrites may be of practical importance when used in shf valve devices, for example, ferrites of the types П-28 (P-28), M-55 (M-55), and M-258 (M-258). P-28, is an improved modification of the formerly developed Mg-Mn-Zn ferrite П-1 (P-1) (Ref. 1: Authors, Radiotekhnika i elektronika, 4, no. 11, 1940 (1959)). Its composition in % by weight is: 53.55% of Fe_2O_3, 6.76% of MgO, 30.35% of $MnCO_3$, 9.34% of ZnO. It has the following characteristics: saturation magnetization M_s = 3200-3400 gauss; for a wavelength of 3 cm, the width of the resonance line

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Ferrites with high saturation ...

ΔH = 50-70 oersteds (in some carefully polished samples, ΔH may be below 40 oersteds). Curie temperature T_c = 170-180°C; the d-c resistivity $\varrho_V = 10^7$ ohm·cm. The ferrite was produced by sintering in air at 1370°C for 5 hr and subsequent vacuum cooling, in the furnace. The briquettes were annealed for 6 hr at 900°C. M-55 is an improved modification of the formerly developed ferrite type M-50. Its composition in % by weight is as follows: 63.79% of Fe_2O_3, 20.95% of NiO, 4.89% of $MnCO_3$, 10.37% of ZnO. The characteristics of M-55 are as follows: M_s = 4300-4500 gauss; ΔH = 230-250 oersteds; T_c = 330-350°C; $\varrho_V = 10^7$ ohm·cm. Annealing took place in air for 4 hr at 1300°C. Preliminary annealing of briquettes was conducted for 2 hr at 1100°C. M-258 was developed on the basis of the U. S. 4-component (Ni-Zn-Mg-Mn) ferrite "Ferramic C" (Ref. 2: see below) by introduction of 20 mole% of CuO. It has the following characteristics: M_s = 4600-4800 gauss; ΔH = 120-140 oersteds; T_c = 300°C; $\varrho_V = 10^5$ ohm·cm. It was produced by sintering the following mixture at 1150°C in air for 20 hr: 66.38% of Fe_2O_3, 8.11% of ZnO, 9.93% of NiO,

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7.63% of $MnCO_3$, 1.34% of MgO, and 6.61% of CuO. Briquettes were previously annealed for 2hr at 900°C. All ferrite types mentioned were tested at helium temperature. Testing methods and investigation results are described in Ref. 3 (Misezhnikov, G. S., Rozenberg, Ya. I., Shteynshleyger, V. B., Present Periodical no. 11, 1961, 1430). At these temperatures, the line of ferrimagnetic resonance is considerably widened and attains values of 800 oersteds (M-258) and more (P-28, M-55). The saturation magnetization does not increase essentially and reaches a value of 5600 gauss for M-258. [Abstracter's note: Essentially complete translation.] There are 3 references: 2 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: Ref. 2: American Institute of Physics Handbook, p. 5, 217, N. Y., 1957.

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FABRIKOV, V.A.; GUSHCHINA, Z.M.; KUDRYAVTSEV, V.D.

Ferrates with high saturation magnetization and a narrow resonance absorption line at ultrahigh frequencies. Izv. AN SSSR. Ser. fiz. 25 no.11:1429-1430 N '61. (MIRA 14:11)
(Ferrates--Magnetic properties)
(Ferromagnetic resonance)

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L 07947-67 EWT(1) GD/JXT(CZ)

ACC NR: AT6028974 SOURCE CODE: UR/0000/66/000/000/0042/0047

AUTHORS: Gushchina, Z. M.; Kudryavtsev, V. D.; Trot'yakov, Yu. D.; Fabrikov, V. A.; Khomyakov, K. G.;

ORG: none

39
B+1

TITLE: Application of zero-diffusion method to the technology of preparing ultra-high-frequency ferrites

SOURCE: Vsesoyuznoye soveshchaniye po ferritam. 4th, Minsk. Fizicheskiye i fizikokhimicheskiye svoystva ferritov (Physical and physicochemical properties of ferrites); doklady soveshchaniya. Minsk, Nauka i tekhnika, 1966, 42-47

TOPIC TAGS: ultrahigh frequency, ferrite, solid solution, resonance line / P-28 ferrite

ABSTRACT: The ceramic method for preparing UHF ferrites is reviewed and found inadequate. A suggested new method consists of preparing micro-heterogeneous ferrite powders from solid solutions of isomorphic salts. For example, ferrite batches are obtained from solid solutions of schoenite-type double salts which, under heat treatment, yield

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ACC NR: AT6028974

$$\frac{1}{3}(NiFe_2O_4) + 1\frac{2}{3}SO_3 + \frac{1}{3}SO_2 + 2NH_3 + 7H_2O.$$

The ferrites obtained by this zero-diffusion method are found to be dense and sufficiently homogeneous. Resonance absorption line curves plotted against density in the ferrite material show straight lines and, for cases where nondiffusive methods are used, the ferrite density is found to reach 4.86 g/cm^3 with 24- to 30-oersted line widths. A detailed description is given for the preparation of a P-28, Mg-Mn ferrite, using the nondiffusive method. Orig. art. has: 4 figures, 1 formula, and 1 table.

SUB CODE: 11/ SUBM DATE: 22Dec65/ ORIG REF: 005

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617620009-0

ACC NR: AT6028996 SOURCE CODE: UR/0000/66/000/000/0343/0349

AUTHORS: Gushchina, Z. M.; Stolyarov, A. K.; Fabrikov, V. A.;

ORG: none

TITLE: Ferrite materials for alternating field valves

SOURCE: Vsesoyuznoye soveshchaniye po ferritam. 4th, Minsk. Fizicheskiye i fizikokhimicheskiye svoystva ferritov (Physical and physicochemical properties of ferrites); doklady soveshchaniya. Minsk, Nauka i tekhnika, 1966, 343-349

TOPIC TAGS: ferrite, magnetic property, magnetic hysteresis, magnetization curve

ABSTRACT: Several ferrite materials for use in alternating field valve installations were developed. The choice of starting materials and experimental conditions was guided by the theoretical considerations of A. L. Mikaelyan (Teoriya i primeneniye ferritov na sverkhvysokikh chastotakh. Gosenergoizdat, 1963), and the experimental conditions are tabulated. The Curie temperature, the resonance line width, and the thermal dependence of magnetization of the synthesized ferrites were determined. The experimental results are shown graphically (see Fig. 1). It is concluded that ferrites of type P-28, P-43, and M-274 are suitable materials for use in alternating field

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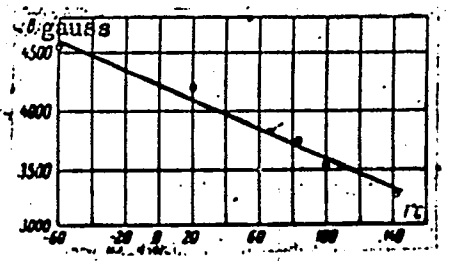

Fig. 1. Temperature dependence of magnetization of ferrite M-274

valve installations. Orig. art. has: 2 tables, 6 graphs, and 2 equations.

SUB CODE: 11/ 20/ SUBM DATE: 22Dec65/ ORIG REF: 004/ OTH REF: 002

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