

89162

S/057/61/031/002/008/015
B124/B202

Penetration of hydrogen ...

device is shown in Fig. 1; it consists of three main parts: 1) pulsed mass spectroscope IMS, 2) diffusion cell B, and 3) supply system of the gas into cell B and IMS for calibrating the latter with respect to the gas flow. L is the Pd supply pipe, K a stopcock, IMS and the supply system were evacuated by means of two independent vapor - oil pressure pumps 4BN-100 (TsVL-100), i.e., in the former to a residual pressure of about

$5 \cdot 10^{-7}$ mm Hg and in the latter to some 10^{-6} mm Hg. With a resolution of 60 the sensitivity of IMS to H_2 and D_2 with respect to the vertical displacement of the oscilloscope beam of 1 mm is equal to $1.84 \cdot 10^{-7}$ and $2.92 \cdot 10^{-7}$ mm.l/sec, respectively. The diffusion cell B is schematically shown in Fig. 2. The cup-shaped nickel membrane M with flat bottom (area $A = 2.55 \text{ cm}^2$, thickness $d = 0.395$ mm) was welded to the thick-walled steel cylinder C (wall thickness 10 mm) by means of copper. The cylinder C was hermetically connected with the flange F. The membrane was heated to $650-700^\circ\text{C}$ by an external furnace P, the temperature was measured by a Pt-PtRh thermocouple with an accuracy of $\pm 5^\circ$. The time dependence of the height of the peaks of H_2^+ or D_2^+ ions was measured for three different temperatures T (Fig. 3).

Card 2/4

Penetration of hydrogen ...

S/057/61/031/002/008/015
B124/B202

The area $F = \int_0^t l(t)dt$ bounded by curve $l(t)$ and the axis of time is

proportional to the total amount of gas which has passed through the membrane during the time t . Fig. 4 shows the diagram $F(t)$ for three different membrane temperatures. Fig. 5 shows the dependence of the quantities $D(2)$ and $P(1)$ (D -- diffusion coefficient, P -- specific permeability) on $1/T$. The calculated values of E_D (activation energy of diffusion), E_P (activation energy of permeability), P_0 and D_0 (which are constants under the given conditions), S_0 (solubility of the isotopes in nickel), and E_s (dissolution temperature) are given in the table. These data indicate that 1) $S_{oH} = S_{oD}$, 2) $E_{DH} = E_{DD}$, 3) E_P and E_s of deuterium in nickel are by 800-900 cal./g-at. higher than in the light isotope, and 4) $D_0:P_0$ in both hydrogen isotopes is equal to $\sqrt{2}$. The penetration of hydrogen into the nickel lattice can be divided into several stages as is illustrated by the energy

Card 3/04

89162

Penetration of hydrogen ...

S/057/61/031/002/008/015
B124/B202

diagram shown in Fig. 6. An abrupt change of the diffusion properties of the system H_2 -Ni is observed at the Curie point. The isotope effects observed are explained by the different dissociation energies of the molecules H_2 and D_2 and the different characteristic oscillation frequencies. There are 6 figures, 1 table, and 13 references: 4 Soviet-bloc and 9 non-Soviet-bloc. X

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR
Leningrad (Institute of Physical Technology im. A. F. Ioffe
AS USSR, Leningrad)

SUBMITTED: June 30, 1960

Card 4/04

ACCESSION NR: AP4017608

8/0109/64/009/002/0357/0359

AUTHOR: Zubenko, Yu. V.; Shakirova, S. A.; Sokol'skaya, I. L.;
Belyakov, Yu. I.

TITLE: Using an omegatron for investigating the composition of gases liberated
by some vacuum coatings subjected to an electron bombardment

SOURCE: Radiotekhnika i elektronika, v. 9, no. 2, 1964, 357-359

TOPIC TAGS: mass spectrometer, omegatron mass spectrometer, electron
bombardment, vacuum device residual gas, Pt liberated residual gas, tin oxide
liberated residual gas, Ag liberated residual gas, aquadag liberated residual gas,
willemite liberated residual gas

ABSTRACT: The results of an investigation of residual gases liberated by an
electron bombardment of conductive coatings on glass, such as platinum, tin
oxide, aquadag, silver paste, and willemite on tin-oxide film, are briefly

Card 1/2

ACCESSION NR: AP4017608

reported. Although a qualitative investigation of gases was the objective, some quantitative results were obtained at pressures exceeding 10^{-7} torr. A most-simply designed omegatron was built, after J. S. Wagener, et al. (J. Appl. Phys., 1957, 28, 9, 1027), with a 15x15x15-mm resonance chamber. The gases liberated from Pt were: CO, N₂ and CO₂; those liberated from other coatings were: CO, N₂, and to a lesser degree CO₂ and CH₄. The ion currents of principal atomic or molecular ions are tabulated. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: none

SUBMITTED: 18Jan63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: PH, GE

NO REF SOV: 001

OTHER: 005

Card 2/2

BELYAKOV, Yu.I.

Electrolytic method for producing atomic hydrogen in a vacuum.
Vest. LGU 20 no.16:140-141 '65. (MIRA 18:9)

L 1316-66 EWT(m)/EPF(c)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) LJP(c)
ACCESSION NR: AP5022172 MJV/JD/JW UR/0032/65/031/009/1107/1109
543.51

AUTHOR: Belyakov, Yu. I.; Zverdin, Yu. I.

TITLE: Mass-spectrometric method of studying the hydrogen permeability of heat-resistant materials

SOURCE: Zavodskaya laboratoriya, v. 31, no. 9, 1965, 1107-1109

TOPIC TAGS: mass spectrometry, hydrogen, metal hydropermeability, chromium steel, heat resistant steel

ABSTRACT: An IMS nonmagnetic pulse mass spectroscopy is used to measure the permeability and diffusion of hydrogen through a specimen of Kh18N10T steel in the form of a membrane at 450-850C. A diagram of the diffusion cell employed is given. The permeability and diffusion increase with the temperature in accordance with the exponential relations $P = P_0 e^{-E_P/RT}$ and $D = D_0 e^{-E_D/RT}$. Values of the activation energies E_P and E_D and the constants P_0 and D_0 , calculated by a graphic analytic method, are tabulated. The presence of weld joints holding the steel membrane between the ends of Kh18N10T tube holders is found to have no effect on the permeability of hydrogen. The mass spectrometric method makes it possible to

Card 1/2

L 1316-66

ACCESSION NR: AP5022172

determine the permeability, diffusion, and solubility of hydrogen in various materials over a wide range of pressures and temperatures, and to follow continuously the composition of the gas phase in the course of the measurements, which is an important advantage in studies of gas diffusion in metals. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: M4

NO REF SOV: 003

OTHER: 001

Card

mlr
212

ACC NR: AP6034773

(N)

SOURCE CODE: UR/0362/66/002/010/1082/1088

AUTHOR: Boguslavskiy, S. G.; Belyakov, Yu. M.

ORG: none

TITLE: Similarities of the dynamics of the water of the subantarctic intermediate current in the Atlantic

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 10, 1966, 1082-1088

TOPIC TAGS: ocean current, ocean dynamics, oceanographic expedition, oceanographic research facility

ABSTRACT: The article reports results of investigations of the intermediate subantarctic current by the expedition on the research vessel "Mikhail Lomonosov" in accord with the International Program "Equalant-III" in 1964. The currents were measured with autonomous buoy stations with fuel and repair bases driven by windmills. The buoys were arranged perpendicular to the current in the line running from Rio de Janeiro to San Roque. The average velocity in the core in the intermediate current was found to fluctuate between 20 and 40 cm/sec, with the quantity of the flow being near $30 \times 10^8 \text{ m}^3/\text{sec}$. Observations of the distribution of the temperature, salinity, and concentration of the oxygen were used to calculate the coefficients of vertical and horizontal exchanges, and also the vertical component of the average velocity. It is shown that the investigated current plays an important role in the formation of the water masses of the tropical and southern Atlantic. Maps showing the distribu-

Card 1/2

UDC: 551.465.45

ACC NR: AP6034773

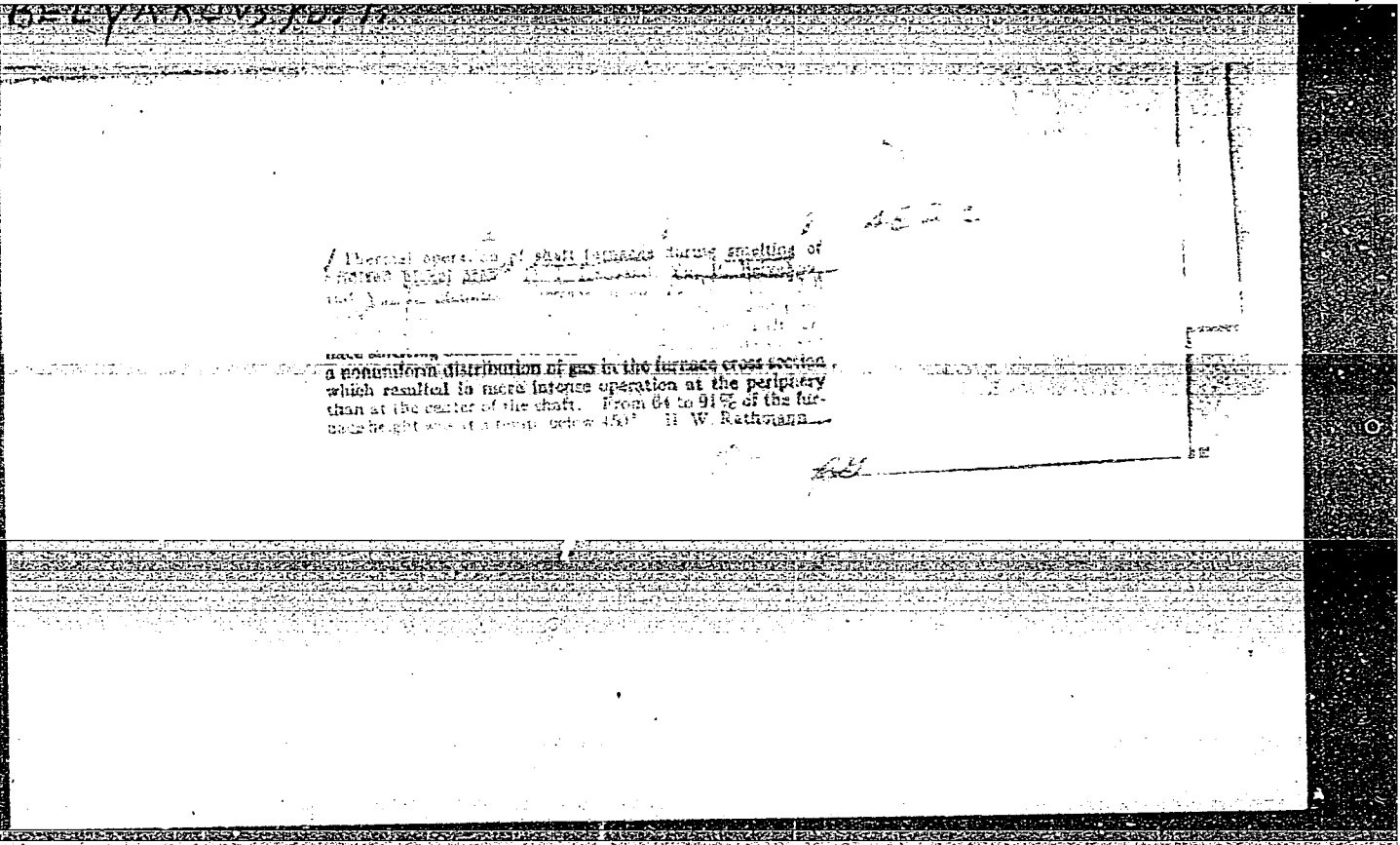
tion of the velocity and salinity in the core and the cross section through the intermediate current in various points are shown, and the distribution of the velocity as a function of the latitude and longitude is given in the form of a table. A table showing the first and second derivatives of the temperature, salinity, and concentration of the oxygen with respect to the three dimensions is also given. Orig. art. has: 2 figures, 1 formula, and 3 tables.

SUB CODE: 02/ SUBM DATE: 24Jan66/ ORIG REF: 003/ OTH REF: 004

Card 2/2

BELYAKOV, Yu.M.; BELYAKOVA, O.M.

Determination of certain parameters of subsurface waves in the
Sargasso Sea by the method of autocorrelation. Trudy Mor.
gidrofiz.inst. AN URSR 28:3-10 '63. (MIRA 17:3)



SOV/137-58-10-20423

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 11 (USSR)

AUTHORS: Belyakov, Yu. P., Lisovskiy, D. I.

TITLE: Model Investigation of the Distribution of the Gas Flow in a Shaft Furnace (Issledovaniye na modelyakh raspredeleniya gazovogo potoka v shakhtnoy pechi)

PERIODICAL: Sb. nauchn. tr. Mosk. in-t tsvetn. met. i zolota, 1957, Nr 27, pp 147-162

ABSTRACT: The conditions for application of the theory of similarity to the model testing of the motion of gases are presented. The study was conducted, at first, on a small model of a shaft furnace (1/20th of full size), where 3 sinter fractions, 8-10, 5-8 and 2.5-5 mm, were used, corresponding to 160-200, 100-160 and 50-100 mm. The data obtained were verified on a larger model, in which the cross section of the shaft was 0.425x 0.425 m, and the height 1 m, the inside lining being fireclay 1/2 brick thick. The results showed that the distribution of the gas flows across the cross section of the shaft furnace depends upon the size of the material. An increase in the size of the larger pieces of charge causes a more

Card 1/2

SOV/137-58-10-20423

Model Investigation of the Distribution of the Gas Flow in a Shaft Furnace

uniform gas distribution, while a decline in lump size causes a greater flow of the gas toward the periphery. The most uniform distribution of the gas flow results: a) When a 15-20 mm fraction is charged, which, allowing for the dimensions of the model, would represent 60-80 mm in an industrial furnace; and b) when larger lumps of charge are placed in the middle than at the periphery.

Ya. S.

1. Sintering furnaces--Operation
2. Gas flow--Analysis

Card 2/2

BELYAKOV, Yu. P.: Master Tech Sci (diss) -- "Investigation of the distribution of gas streams in a shaft furnace to intensify the melting of oxidized nickel ores and reduce dust loss". Moscow, 1959. 13 pp (Min Higher Eduo USSR, Krasnoyarsk Inst of Nonferrous Metals im M. I. Kalinin), 150 copies (KL, No 15, 1959, 116)

BELYAKOVA, A.F.; KRYAKOVSKIY, Yu.V.; PAISOV, I.V.

Effect of rare-earth metals on the structure and properties of
structural steel. Metalloved. i term.obr.met. no.9:37-41 S '65.
(MIRA 18:10)

1. Moskovskiy institut stali i splavov.

BELYAKOVA, A.F.; PAISOV, I.V.; KRYAKOVSKIY, Yu.V.; TATARINTSEV, V.Ya.

Causes of a high impact toughness in steel containing rare-earth metals. Metalloved. i term. obr. met. no.11:41-42 N '65.
(MIRA 18:12)

1. Moskovskiy institut stali i splavov.

BELYAKOV-BODIN, V.I.; KOLESNIKOV, M.A.; TORGOV, Yu.I.; SHAFRANSKIY,
V.V.; SMIRYAGIN, V.P., otv. red.; ORLOVA, I.A., red.

[Supervision of the operation of electronic computers] Kontrol'
raboty elektronnykh vychislitel'nykh mashin. Moskva, 1965. 48 p.
(MIRA 18:8)

1. Akademiya nauk SSSR. Vychislitel'nyy tsentr.

BELYAKOV-BODIN, V.I.

Law of the stimulation of a neuroid. Seeb. po vych. tekhn. no.4:
53-60 '65. (MIRA 18:9)

ZAKHAROVA, H.S.; SAPOZHNIKOV, I.I.; BELYAKOV-BODIN, V.I.

Cybernetic analysis of some data of immunoepidemiological studies. Zhur.mikrobiol., epid. i immun. 42 no.12:16-20 D '65. (MIRA 1981)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

BELYAKOVA, A. (Leningrad)

Young firement of Vasili Island. Pozh.delo 7 no.5:16-18 My '61.
(MIRA 14:5)

1. Sekretar' Vasileostrovskogo rayonnogo komiteta Vsesoyuznogo
Leninskogo kommunisticheskogo soyusa molodezhi.
(Leningrad--Pioneers (Communist youth))
(Fire extinction--Societies)

BELYAKOVA, A.

Making luminous stencils by the decalcomania method. Av.prom.
26 no.8:87 Ag '57. (MIRA 15:4)
(Stencils and stencil cutting)

BELYAKOVA, A.

Training specialists. Avt.transp. 43 no.3:46-47 Mr '65.

(MIRA 18:5)

ZBOROVSKIY, A.B., dotsent; BELYAKOVA, A.A.; YEFIMOVA, G.F.

Clinical tests of nitrosarbide in coronary disease. Vrach. delo
no.6:36-39 Je '61. (MIRA 15:1)

1. Kafedra gospital'noy terapii (zaveduyushchiy - dotsent A.B.
Zborovskiy, nauchnyy rukovoditel' - prof. I.V.Vorob'yev). Stalin-
gradskogo meditsinskogo instituta i tret'ye bol'nichno-poliklinicheskoye
ob'yedineniye.

(CORONARY HEART DISEASE) (SORBITOL)

BELYAKOVA, A.F., meditsinskaya sestra (Moskva)

The moral personality of a soviet nurse. Med. sestra 22
no.6:24-27 Je'63. (MIRA 16:9)

(NURSES AND NURSING)

L 21021-66 EWT(m)/EMA(d)/EWP(t) IJP(c) MJM/JD/JG

ACCESSION NR: AP5022580

UR/0129/65/000/009/0037/0041

669.85/6:620.18:669.14.018

AUTHOR: Belyakova, A. F.; Kryakovskiy, Yu. V.; Paisov, I. V.

TITLE: Effect of rare-earth metals on the structure and properties of machine steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 9, 1965, 37-41, and insert facing p. 25 and top half of insert facing p. 40

TOPIC TAGS: rare earth metal, machine steel, toughness, nonmetallic inclusion, grain structure, metal hardening

ABSTRACT: The structure and properties of the machine steels 40KhNMA and 34KhN1MAR were investigated as a function of the addition of ferrocerium (0.6 and 2 kg/ton, respectively) to the ladle. Electronmicroscopic, fractographic, mechanical, and other tests of specimens cut out of the ingots revealed that in steels with r.e.m. (rare-earth elements) grain-boundary tension is lower than in steels without r.e.m., and the boundaries are better-defined and less contaminated by impurities, since r.e.m. have a marked affinity with impurities and interact with

Card 1/2

L 21021-66

ACCESSION NR: AP5022580

3

them to form stable chemical compounds within the grain body, thus preventing the impurities from segregating out at the boundaries. Furthermore, the addition of r.e.m. to 40KhNMA steel enhances its impact toughness owing to the effect of r.e.m. on the form of nonmetallic impurities -- the transformation of threadlike (linear) sulfides into spheroidal inclusions with r.e.m. and the reduction in the proportion of large linear inclusions. In addition, r.e.m. delay the growth of austenite grains by causing the number of inclusions to increase while at the same time causing the size of the average inclusion to decrease. For the same reasons, r.e.m. reduce the hardenability of steel. Investigations of the effect of r.e.m. on hardness, electric resistance, amount of residual austenite, and impact toughness revealed that aside from the impact toughness of hardened steel at low and medium tempering temperatures, r.e.m. do not appreciably change these characteristics. Orig. art. has: 5 figures, 3 tables.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: /00

ENCL: 00

SUB CODE: MM, SS

NO REF SOV: 005

OTHER: 000

Card

2/2

BK

1. 9635-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) MJW/JD

ACC NR: AP5027713 SOURCE CODE: UR/0129/65/000/011/0041/0042 ⁴⁶
⁴³

AUTHOR: Belyakova, A. F.; Paisov, I. V.; Kryakovskiy, Yu. V.; Tatarintsev, V. Ya. ⁵⁵ ⁵⁵ ⁵⁵ ^B

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov) ⁵⁵

TITLE: Causes of the high impact strength of steels containing rare-earth metals ¹⁶ ^{55 27}

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1965, 41-42, and bottom half of insert facing p. 41

TOPIC TAGS: rare earth metal, steel, metal grain boundary contamination, electron microscopy, nonmetallic inclusion / EM-5 electron microscope

ABSTRACT: As recently established (A. F. Belyakova et al. MITOM, 1959, no. 9), the addition of rare-earth elements (REM) such as ferrocium to 40KhNMA/steel results in the substitution of the plastic sulfides of Fe and Mn with relatively nonplastic spheroidal REM inclusions, i.e. with sulfides and oxysulfides of Ce. It is believed that REM decontaminate grain boundaries and that this is one of the reasons for their favorable effect on the properties of steel. To verify this, the authors performed an electronmicroscopic examination of the structure and properties of 40KhNMA steel alloyed with small amounts of REM. Following impact tests of the specimens, which revealed an increase of as much as 6.6 kg-m/cm² in impact strength, sections of the specimens were etched to reveal the grain boundaries and processed into replicas

Card 1/2 UDC: 620.178.167:620.187.2:699.85/26

L 9635-66

ACC NR: AP5027713

3

which then were examined with the aid of an EM-5 electron microscope (magnification 10,000 times). The findings were processed by selecting the boundaries separating ferrite grain, since the boundaries between ferrite and pearlite grains represented continuous chains of carbides oriented along the boundaries, and calculating the number of each of the following types of examined boundaries: completely pure boundaries and the boundaries containing 2-3, 4-7, 8-12, and >12 inclusions (nonmetallic inclusions, intermetallides, carbides) over a 15 μ long boundary section, and then determining their percentile ratio to the total number of the ferrite boundaries examined. On this basis it was established that the grain boundaries in steel containing REM are actually more contaminated than in REM-free steel. Hence, REM in reality do not decontaminate the grain boundaries. It was also found, however, that in REM-containing steel most segregations at grain boundaries are spheroidal, as opposed to their rectangle and square shapes in REM-free steel. The spheroidal segregations presumably represent the oxides and oxysulfides of REM and apparently are one of the reasons for the higher impact strength of REM-containing steel. The nature of these segregations should be a subject of further investigations. Orig. art. has: 3 figures.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 000

Card

2/2

BELIAKOVA, A.F.; PAISOV, I.V.; KRYAKOVSKIY, Yu.V.; TATARINTSEV, V.Ya.

Grain boundaries in structural steel with and without additions
of rare earth metals. Izv. vys. ucheb. zav.; Chern. met. 8
no.9:163-167 '65. (MIRA 18:9)

1. Moskovskiy institut stali i splavov.

PASHKOV, B.M.; KARACHEVTSEVA, V.N.; ROBUSTOV, G.V.; KHAMAGANOVA, A.V.; ANDROSOVA, A.A.; BELYAKOVA, A.G.; GENKINA, G.B.; ZATURENSKAYA, P.O.; VYMEKAYEVA, M.A.; GOL'DENBERG, M.M.; BOLDYREVA, A.M.; TURANOV, N.M., kandidat meditsinskikh nauk, direktor; BRONSHTAYN, V.G., kandidat meditsinskikh nauk, zaveduyushchiy; VINOGRADOVA, K.A., zaveduyushchaya.

Results of the treatment of syphilis in children according to the 1949 program of the Ministry of Health of USSR; preliminary communication. Vest. ven.i dermat. no.2:28-34 Mr-Apr '53. (MLRA 6:5)

1. Tsentral'nyy kozhno-venereologicheskiy institut (for Pashkov, Karachevtseva, Robustov, Khamaganova, Turanov). 2. Bol'nitsa imeni Korolenko (for Androsova, Belyakova, Genkina, Zaturenskaya). 3. Vtoroy Moskovskiy vendisperser (for Vymekayeva, Gol'denberg, Bronshteyn). 4. Pervyi vendisperser (for Boldyreva, Vinogradova). (Syphilis) (Penicillin--Therapeutic use)

USSR / Pharmacology and Toxicology--Chemotherapeutic Preparations V-6

Abs Jour: Ref Zhur-Biol, No 23, 1958, 107417

Author : Maslov, P. Ye., Petrushevskiy, S. E., Belyakova, A. G.

Inst : Not given

Title : Pentabismol, a New Domestic Water-Soluble Bismuth Preparation for the Treatment of Patients Affected with Syphilis

Orig Pub: Vestn. dermatol. i venerol., 1957, No 3, 32-35

Abstract: Pentabismol (P), a water-soluble preparation of bismuth, was used on 198 patients with different forms of syphilis. P was introduced intramuscularly in a dose of 2 ml every second day (in order to

Card 1/2

PASHKOV, B.M., prof.; ANDROSOVA, A.A.; HELYAKOVA, A.G.; GENKINA, G.B.;
ZATURENSKAYA, P.O.; KHAMAGANOVA, A.V.

Results of treating congenital syphilis according to the 1949
treatment system and reasons for switching to the 1954 system [with
summary in English]. Vest.derm. i ven. 32 no.1:37-42 Ja-F '58.

(MIRA 11:4)

1. Iz otdela sigilidologii (zav.-prof. M.A.Rozental) Tsentral'nogo
kozhno-venerologicheskogo instituta (dir.-dtsent N.M.Turanov)
Ministerstva zdravookhraneniya SSSR, iz Klinicheskoy bol'nitsy imeni
Korolenko (glavnyy vrach-zasluzhennyy vrach RSFSR V.P.Nikolayev)
i kafedry kozhnykh i venericheskikh bolezney (zav.-prof. B.M.Pashkov)
Moskovskogo meditsinskogo stomatologicheskogo instituta (dir.-dts.
G.N.Beletskiy)

(SYPHILIS, CONGENITAL, ther.
in Russia (Rus))

MASLOV, P.Ye.; BELYAKOVA, A.G.

Clinical aspects, treatment, and prevention of Leiner's erythro-
derma desquamativum. Vest.derm.i ven. 34 no.10:43-48 '60.

(MIRA 13:11)

1. Iz Tsentral'nogo nauchno-issledovatel'skogo kozhno-venerologi-
cheskogo instituta (zav. otdelom - prof. M.A. Rosentul, dir.
instituta - kand.med.nauk N.M. Turanov) Ministerstva zdravookhra-
neniya RSFSR i iz klinicheskoy kozhno-venerologicheskoy bol'nitsy
imeni Korolenko (glavnyy vrach - A.I. Pustovaya).

(SKIN—DISEASES)

ROZENTUL', M.A., prof.; STUDNITSIN, A.A., prof.; MASLOV, P.Ye., starshiy nauchnyy sotrudnik; RAKHMALEVICH, Ye.M., starshiy nauchnyy sotrudnik; KHAMAGANOVA, A.V., mladshiy nauchnyy sotrudnik; IVANOVA, N.K., mladshiy nauchnyy sotrudnik; KHRUNOVA, A.P., mladshiy nauchnyy sotrudnik; BEL'YAKOVA, A.G., vrach; ZATURENSKAYA, P.I., vrach

Pathogenesis and treatment of eczema and neurodermatitis in children. Vest.derm.i ven. no.12:3-8 '61. (MIRA 15:1)

1. Iz Tsentral'nogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (dir. - kand.med.nauk N.M. Turanov) i iz Bol'nitsy imeni Korolenko (glavnyy vrach A.I. Pustovaya).
2. Bol'nitsa imeni Korolenko (for Bel'yakova i Zaturenskaya).
(ECZEMA) (SKIN--DISEASES)

BESPALOVA, M.T.; PETROVSKAYA, L.B.; GORBUNOV, G.I., doktor geol.-
miner. nauk, red.; BE LYAKOVA, A.I., red.

[Kola Peninsula; a bibliography of Soviet literature, 1962]
Kol'skii poluostrov; bibliograficheskii ukazatel' sovetskoi
literatury (1962 god). Apatity, 1965. 62 p. (MIRA 18:10)

1. Akademiya nauk SSSR. Kol'skiy filial, Kirovsk. Biblioteka.

BELYAKOVA, A.M.

Case of laryngeal cancer associated with pseudobulbar paralysis of the vagus nerve
Vest. oto.-rin., 14, no. 4, 1952

BELYAKOVA, Anna Mikhaylovna; YUDIN, Yu.A., red.; YERMAKOV, M.S., tekhn.red.

[Contracts covering the shipping of freight by rail] Dogovor
zheleznodorozhnoi perevozki gruzov. Isd-vo Mosk.univ., 1958.
52 p. (MIRA 12:4)

(Railroad law)

BELYAKOVA, Anna Mikhaylovna; SYROVATSKAYA, A.A., red.;
MASLENNIKOVA, T.A., tekhn. red.

[Liability for personal injuries]Vozmeshchenie vreda, pri-
chinennogo uvech'em. Moskva, Izd-vo Mosk. univ., 1961.

44 p. (MIRA 15:4)
(Employers' liability) (Accident law)

Periya Nova, A.A.

SHUBERT, S.A.; PERLINA, A.M.; KULZHINSKIY, V.I.; SIDENKO, T.K.; ALEKSANDROV,
D.N.; SOKOLOV, V.F.; PAL'KOVSKAYA, L.N.; BRUK-LEVINSON, T.L.;
BELYAKOVA, A.N.; KOZHEVNIKOVA, Ye.K.; AVRUSHCHENKO, R.A., red.
izd-va; VOLKOV, S.V., tekhn.red.

[Water purification for water supply to machine-tractor stations
and state farms] Ochistka vody dlia vodosnabzhenia poselkov
MTS i sovkhosov. Moskva, Izd-vo M-va kommun.khoz. RSFSR, 1957.
69 p. (MIRA 11:6)

1. Akademiya kommunal'nogo khozyaystva, Moscow.
(Water—Purification) (Water supply, Rural)

BELIAKOVA, A.P.; BOKOV, Yu.S.; LAVRISHCHEV, V.P.; KONOVALOV, P.G.;
VASKEVICH, D.N.

Photosensitivity of polyvinyl cinnamate and its nitro derivatives.
Vysokom. soed. 7 no.9:1637-1640 S '65. (MIRA 18:10)

1. Vsesoyuznyy zaachnyy politekhnicheskii institut.

BELYAKOVA, A.P.; KULIKOV, V.V.

Spontaneous uterine rupture in 36-37-week pregnancy. Akush.i gin.
35 no.5:109 S-0 '59. (MIRA 13:2)

1. Iz rodit'nogo doma (zaveduyushchiy A.P. Belyakova), Zhigulevsk
Krybyshevskoy oblasti.

(UTERUS--RUPTURE)

L 1859-66 EWT(m)/EPF(c)/T/EWA(h)/EWA(1) DS/RM

ACCESSION NR: AP5022614

UR/0190/65/007/009/1637/1640
678.01:54+678.744

AUTHOR: Belyakova, A. P.; ^{Miss} Bokov, Yu. S.; ^{Miss} Lavrishchev, V. P.; ^{Miss} Konovalov, P. G.; ^{Miss} Vaskevich, D. N.

TITLE: Photosensitivity of poly(vinyl cinnamate) and its nitro-derivatives

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 9, 1965, 1637-1640

TOPIC TAGS: ^{Miss} polymer, photosensitivity, polyvinylcinnamate, photosensitive polymer

ABSTRACT: The purpose of this work was to clarify the effect of substituents in the monomer molecule on the photosensitivity of the polymer. Poly(vinyl cinnamate) and the o, m, and p-nitroderivatives were prepared by heating poly(vinyl alcohol) (mol. wt. 12,000, 0.72% acetate groups) in pyridine for 4 hours at 50C with cinnamyl chloride, or the appropriate nitrocinnamyl chloride. Polymer films, 100 ± 10 μ thick, were irradiated with ultraviolet light and their thermomechanical properties, solubilities, ultraviolet and infrared spectra were measured and compared to those of untreated films. It was found that the photosensitivity of the compounds in-

Card 1/2

L 1859-66

ACCESSION NR: AP5022614

creases in the following order: poly(vinyl cinnamate) (PVC) > o-NO₂-PVC > m-NO₂-PVC > p-NO₂-PVC. Orig. art. has: 2 figures and 2 tables. [VS]

ASSOCIATION: Vsesoyuznyy zaachnyy politekhnicheskiy institut (All-Union Correspondence Polytechnic Institute)

SUBMITTED: 29oct64

ENCL: 00

SUB CODE: OC, OP

NO REF SOV: 007

OTHER: 005

ATD PRESS: 4087

Card 2/2

BELYAKOVA, A. S. and VARSHAVSKIY, G. Ye.

"Power Expended to Rotate the Instrument During the Drilling of
Small-Diameter Shafts," Razvedka i Otkrytiya Nedr, No. 5, pp 17-18, 1954

SO: W31429, 2 Sep 55

BELYAKOVA A. S.

AID P - 332

Subject : USSR/Mining
Card : 1/1
Authors : Mezhlumov, O. A., Belyakova, A. S. and Varshavskiy, G. E.
Title : Three years of double bore drilling in Dagestan
Periodical : Neft. Khoz., v. 32, #5, 27-30, My 1954
Abstract : A comparison of single and double hole drilling in different depths (about 900, 1100 and 1500 meters) is outlined. The rates of drilling in each case are presented in two tables. The results indicate the appreciable advantage of double bore drilling. 4 Russian references (1951-52).
Institution : None
Submitted : No date

BELYAKOVA, A.S.; GRIGOREVSKIY, V.M.

Period of CV Cygni. Astron. tsir. no.207:13 D '59. (MIRA 13:6)

1. Odesskaya astronomicheskaya observatoriya, selo Mayaki.
(Stars, Variable)

GRIGOREVSKIY, V.M.; BELIAKOVA, A.S.

CV Cygni. Per.zvezdy 13 no.2:136-142 N '60.

(MIRA 14:10)

1. Odesskaya astronomicheskaya observatoriya.
(Stars, Variable)

TURGEL', Ye.O.; BE LYAKOVA, A.Ye.

Thermal decomposition products of higher fatty acids.

Trudy VNIIneftekhim no.5:63-74 '62.

(MIRA 15:7)

(Acids, Fatty)

KEYSAR, A.P.; HELYAKOVA, E.V.

Acute toxic dystrophy of the liver in a pregnant woman. *Akush.*
i gin. 37 no.2:99-100 F '61. (MIRA 14:3)

1. Iz akushersko-ginekologicheskogo otdeleniya (nach. A.P. Keysar)
Yaroslavskoy dorozhnoy bol'nitsy Severnoy zheleznoy dorogi.
(PREGNANCY, COMPLICATIONS OF) (LIVER—DISEASES)

SYMBOL	USSR
CATEGORY	<u>M</u>
ABS. JOUR.	CULTIVATED PLANTS. Potatoes. Vegetables. Cucurbits. PLANTUR · BIOLOGIYA, NO. 4, 1959, No. 15660
AUTHOR	Usnova, Z.; <u>Belyakova, G.</u>
INST.	Moscow Agric. Acad.
TITLE	. Certain Characteristics of the Growth and Development of American artichoke in the Moscow Oblast.
ORIG. PUB.	: Sb. stud. nauchno-issled. rabot. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1958, vyp. 8, 89-95
ABSTRACT	: The authors think it is inaccurate to divide the American artichoke sorts into the red-tuber and white-tuber varieties. According to bush type all sorts can be divided into: (1) low-growth, drooping, intensely branching (Kievskaya krasnaya, Belaya uro- zhaynaya, Vadim) does not flower near Moscow; (2) high-growth, with straight-stand- ing stalk, few branches (Tambovskaya : Krasnaya, Saratovskaya, Hybrids 15, 120, 177-35)

CARD: 1/2

Subject : USSR/Mining AID P - 1351
Card 1/1 Pub. 78 - 14/30
Author : Eventov, Ya. S., Il'in, V. D. and Belyakova, G. M.
Title : Artesian fresh water in the Stalingrad Region of
the Volga River.
Periodical : Neft. khoz., v.32, #12, 49-51, D 1954
Abstract : The geology of the left shore of the Volga river
is discussed in respect to the sand-clay
formations essential for the accumulation of
fresh water. Geological data and water capacities
are given for various districts of the Volga river
region.
Institution: All-Union Scientific Research, Geological Survey
Institute (VNIGRI)

[Handwritten signatures and notes]

IL'IN, V.D.; BELYAKOVA, G.M.; SHMIDT, O.I.

Sediments of the Danian stage in the lower Amu Darya River.
Geol.nefti 2 no.10:46-47 0 '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy
institut.

(Amu Darya Valley--Geology, Stratigraphic)

IL'IN, V.D.; BELYAKOVA, G.M.

Geology of the western margin of the Caspian Lowland. Trudy
VNIGNI no.30:320-351 '61. (MIRA 14:9)
(Caspian Lowland--Geology)

ALIYEV, I.M.; BELYAKOVA, G.M.; DIKENSHTEYN, G.Kh.; ZHUKOVSKIY, L.G.; IL'IN,
V.D.; KAYESH, Yu.V.; LEVINA, Ye.Ye.; SOTIRIADI, K.A.; KHON, A.V.

Some results of the study of the geology of the Neogene and Qua-
ternary movements of closed areas of western Uzbekistan using the
method of geological mapping of the Pre-Neogene surface. Trudy
VNIGNI no.30:64-72 '61. (MIRA 14:9)
(Uzbekistan--Geology, Structural)

L 34870-66 EWT(1)/EEC(k)-2/T IJP(c) TT/WW/AT
ACC NR: AP6014521 (A) SOURCE CODE: UR/0115/65/000/011/0036/0038

AUTHOR: Buzinov, V. S.; Belyakova, G. M.

ORG: none

TITLE: Determining frequency error of TVB thermoelectric converters

SOURCE: Izmeritel'naya tekhnika, no. 11, 1965, 36-38

TOPIC TAGS: frequency characteristic,
thermoelectric convertor / TVB thermoelectric convertor

ABSTRACT: Reference instruments are available for excluding frequency errors (up to 300 Mc, with a residual error of 0.5% or less) from thermoelectric converters measuring 0.1 amp or heavier currents. For lower current converters no such instrument has been available; hence, a method and equipment are suggested for determining frequency error in TVB-1 to TVB-7 converters which measure currents below 0.1 amp; the frequency error can be reduced to 1-1.5%.

Card 1/2

UDC: 621.36.029.63.088

L 34870-66
ACC NR: AP6014521

0
A half-wave symmetrical transmission line with a radiating dipole on one end and the test converter (or bolometer) on the other is recommended for finding the converter frequency error with relation to that of the bolometer. The latter can be estimated from well-known formulas. This method is held suitable for frequencies up to 1000 Mc. It was experimentally found that: TVB-1 converters can be used only at frequencies below 150 Mc; TVB-3, up to 300 Mc; TVB-4, -5, -6, and -7 have better frequency characteristics. Orig. art. has: 3 figures and 1 formula.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 003

Card 2/2 *mgs*

24.7100

77126
SOV/70-4-6-27/31

AUTHORS: Belyakova, G. S., Belyayev, L. M.

TITLE: Organic Mix-Crystals for Scintillation Counters.
Brief Communications

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 6, pp 929-930
(USSR)

ABSTRACT: The article deals with the luminescence spectra of impure naphthalene crystals grown from a melt, contaminated with 0.001-1.0% anthranilic acid, methylantranilate, 1,4-diphenylbutadiene-1,3, and 1,6-diphenylhexatriene-1,3,5. The impurity contents in the crystals are not studied, but the changing luminescence spectra and light output indicate the differing impurity contents in the crystals. A change in the spectra occurs only if the contaminating molecules are similar to those of the solvent with which they form solid solution, i.e., mix-crystals. There are 2 figures; and 4 references,

Card 1/3

Organic Mix-Crystals for Scintillation
Counters. Brief Communications

77126
SOV/70-4-6-27/31

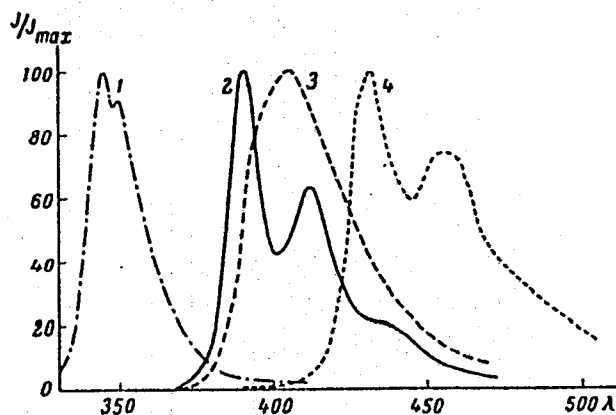


Fig. 1. Luminescence spectra of naphthalene crystals contaminated by various impurities: (1) pure crystal; (2) crystal contaminated by 1,4-diphenylbutadiene (1%); (3) by anthranilic acid (1%); (4) by 1,6-diphenylhexatriene (0.5%).

Card 2/3

Organic Mix-Crystals for Scintillation
Counters. Brief Communications

77126
SOV/70-4-6-27/31

3 Soviet, 1 U.K. The U.K. reference is: J. Birks,
Proc. Phys. Soc., 63, 36, 9A, 1944, 1950.

ASSOCIATION: Crystallographical Institute of the Academy of
Sciences of the USSR (Institut kristallografi AN
SSSR)

SUBMITTED: June 15, 1959

Card 3/3

ACC NR: AP6021716

(A)

SOURCE CODE: UR/0237/66/000/003/0018/0024

AUTHOR: Belyakova, G. V.; Prokop'ev, V. M.

ORG: None

TITLE: Analysis of a raster modulator in form of a grating

SOURCE: Optiko-mekhanicheskaya promyshlennost', no. 3, 1966, 18-24

TOPIC TAGS: optic modulator, ~~radiation, photoelectric detection, photoelectric detection~~, photoelectric detection

ABSTRACT: This paper investigates the modulation process of a radiant flow with an arbitrary two-dimensional energy distribution over its cross section, by a raster modulator in form of a moving grating. The problem posed is to find the modulator output, as a function of time, on the basis of a specified modulator (constant specified velocity of a dimensionally and optically specified grating), and a known modulator input. The purpose of this research is to enable calculation of the output spectrum of a phototransducer, fed by the radiant flow of the modulator output on the basis of a known input to the modulator. The modulator is assumed in form of a grating with alternate fully transparent and fully opaque strips, moving with a velocity V_x along the x-axis. An arbitrary distribution of luminosity in the plane of the modulator, $E(x, y)$, is assumed. Expressions are developed for the computation of the amplitudes and phases of the harmonic components of the modulated radiant flow. As an example,

Card 1/2

UDC: 621

ACC NR: AP6021716

the modulation of a radiant flow having a uniformly illuminated circular, semicircular, square and rectangular cross section is studied and determined for various orientations of the cross section with respect to the strips of the rostral modulator. Formulas for the calculation of the important first signal harmonics are given. The developed theoretical conclusions and formulas are substantiated by an experimental verification. Orig. art. has 5 figures, 24 formulas.

SUB CODE: 17 / SUBM DATE: 25May65/ ORIG REF: 003/ OTH REF: 002

Card 2/2

L 2959-66 ENT(1)/T/EED(b)-3 LJP(c)

ACCESSION NR: AP5021446

UR/0146/65/008/004/0104/0109
681.4.07

39
36
8

AUTHOR: Belyakova, G. V. 55, 44

TITLE: A photoelectric method for measuring the working distances of photographic lenses
GM

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 4, 1965, 104-109

TOPIC TAGS: photographic lens, optic instrument, industrial instrument
2044 55

ABSTRACT: The author describes a photoelectric instrument for determining the distance between a camera lens and its image plane. A schematic diagram of the device is shown in fig. 1 of the Enclosure. The circular diaphragm 3 is illuminated by incandescent lamp 1 through condenser lens 2, and the image is projected by the lens to be tested 4 and collimator lens 5 on raster 7 which is made in the form of a radial test negative. The raster is placed at the focal plane of the collimator lens. The raster is rotated by motor 6 to modulate the light flux with a frequency given by the formula $f = nN$, where n is the number of rotations of the raster disc, and N is the number of transparent or opaque sectors on the test negative. The periodic light signals are focused by lens 8 on photoreceiver 9, which converts them

Card 1/5

L 2959-66

ACCESSION NR: AP5021446

into electric signals. The electric signals from amplifier 10, which is tuned to modulation frequency f , are fed to recording instrument 11, which fixes the variation in the amplitude of the electric signal. The signal amplitude is a maximum when the diameter of the diaphragm image is equal to the distance between the sectors of the raster at a definite radius, i. e. at 100% modulation of the light flux. The signal amplitude does not change when the image diameter is reduced. When the image diameter is increased, the signal amplitude decreases, since the depth of modulation is reduced (see fig. 2 of the Enclosure). The diameter of the diaphragm is given by the formula $d = \frac{2\pi R f_t}{N_1 f_c}$, where R is the working radius of the

raster in mm, N_1 is the total number of sectors in the raster, f_t is the focal strength of the lens being tested, and f_c is the focal length of the collimator lens. The variation in modulation depth as a function of defocusing Δ is shown in fig. 2b of the Enclosure. The sensitivity and accuracy of the instrument may be improved by making the measurements in the two out-of-focus planes where the positive and negative slopes of this curve are a maximum. The specific parameters of the instrument are given and test data are compared with those of visual and photographic methods for determining the working distances of two photographic lenses. This

Card 2/5

L 2959-66

ACCESSION NR: AP5021446

instrument will be widely used in plants which mass produce photographic lenses. 3
Orig. art. has: 3 figures, 1 table.

ASSOCIATION: Moskovskoye ordena Lenina i ordena Trudovogo Krasnogo Znameni
vyesheye tekhnicheskoye uchilishche im. Baumana (Moscow "Order of Lenin and Order
of the Red Banner of Labor" Higher Technical School) - 4/4/55

SUBMITTED: 17Dec64

ENCL: 02

SUB CODE: ES, OP

NO REF SOV: 004

OTHER: 003

Card 3/5

L 2959-66

ACCESSION NR: AP5021446

ENCLOSURE: 01

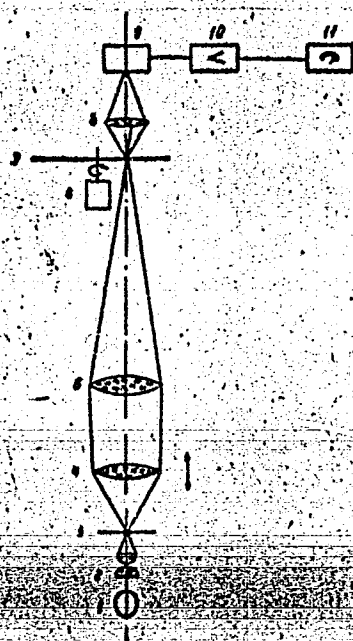


Fig. 1. Schematic diagram of the instrument: 1--light source; 2--condenser; 3--diaphragm; 4--lens to be tested; 5--collimator lens; 6--motor; 7--raster; 8--collector lens; 9--photoreceiver; 10--amplifier; 11--recording device

Card 4/5

L 2959-66

ACCESSION NR: AP5021446

ENCLOSURE: 02

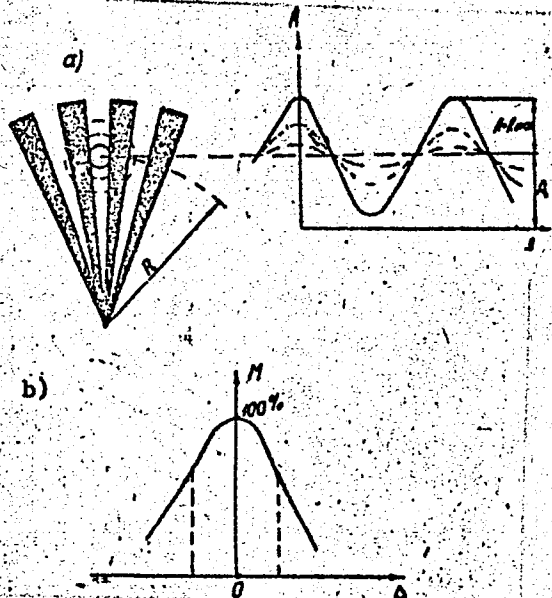


Fig. 2. Determination of the image plane: a) variation in the amplitude of the electric signal as a function of the increase in diameter of the image during defocusing; A --amplitude of the electric signal; f --modulation frequency; b) relationship between modulation depth and defocusing; M --depth of modulation; Δ --magnitude of defocusing.

BVK
Card 5/5

L 65132-65 EWP(m)/EWP(f) RM

ACCESSION NR: AP5021598

UR/0286/65/000/013/0070/0070

AUTHORS: Korshak, V. V.; Sergeyev, V. A.; Shitikov, V. K.; Burlutskiy, V. F.;
Belyakova, I. Kh.; Zhebtakova, S. G.

TITLE: A method for obtaining phenolaldehyde resins. Class 39, No. 172489 15 3/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 70

TOPIC TAGS: resin, phenolaldehyde, formaldehyde

ABSTRACT: This Author Certificate presents a method for obtaining phenolaldehyde resins by condensing phenol or formaldehyde in the presence of a solvent. The condensation is conducted in the presence of methylol derivatives of phenolphthaleine, using dimethyl formamide as the solvent.

ASSOCIATION: none.

SUBMITTED: 13Jul62

ENCL: 00

SUB CODE: 00

NO REF SOV: 000

OTHER: 000

Card 1/1

SEN', Z.P.; SIVCHIKOVA, M.G.; LUCHKA, M.Kh.; EELYAKOVA, I.N.;
YARMAK, O.F.; DAYN, F.L.

Possibility of lowering the temperature of porcelain firing
and of its replacement in drying under high temperatures.
Stek.i ker. 19 no.9:21-24 S '62. (MIRA 15:9)
(Porcelain)

L 4177-66 EWT(m)/EWP(e)/EWP(i)/EWA(a)/EWP(v)/T/EWP(t)/EWP(k)/EWP(s)/EWP(b)/EWA(e)

ACC NR: AP5024405JD/HR/HM/JO NJW(GL)/ SOURCE CODE: UR/0286/65/000/015/0083/0083

INVENTOR: Estulin, G. V.; Zimina, L. N.; Kosheleva, G. F.; Topilin, V. V.; Boyarinova, A. P.; Tsvetkova, V. K.; Khatalakh, R. F.; Shnyakin, N. B.; Polyakov, K. M.; Mel'nikov, M. V.; Belyakova, K. A.; Il'in, A. A.; Morozov, B. S.; Bogdanovskiy, S. P.; Khrakovskaya, P. S.

ORIG: none

TITLE: Wrought, heat-resistant, nickel-base alloy. Class 40, No. 173418 (announced by Central Scientific Research Institute of Ferrous Metallurgy im. Bardin (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii); s-d "Elektrostal" im. I. P. Tevosyan)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 83

TOPIC TAGS: alloy, nickel alloy, chromium containing alloy, molybdenum containing alloy, tungsten containing alloy, titanium containing alloy, aluminum containing alloy, carbon containing alloy, beryllium containing alloy, cerium containing alloy

ABSTRACT: This Author Certificate introduces a wrought, heat-resistant, nickel-base alloy with improved mechanical properties and weldability. The alloy contains 17 to 20% chromium, 8-12% molybdenum, 0-6% tungsten, 2-3% titanium, 1-2% aluminum, 0.1% max carbon, 6% max iron, 0.01% max sulfur, 0.01% max phosphorus, 0.5% max manganese, 0.6% max silicon, 0.01% max boron, and 0.02% max cerium. (AZ)

SUB CODE: MM/ SERM DATE: 05Feb64/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4198

UDC: 669.845

Card 1/2

OYKS, G.N.; MATEVOSYAN, P.A.; ANSHELES, I.I.; FATKULLIN, O.Kh.; SELIVANOV, V.M.;
SHURYGIN, G.D.; SIVKOV, S.S.; FEDAN, A.T.; Primali uchastiye: PETROV,
B.S.; KUL'KOVA, M.N.; PONOMAREV, Ye.N.; PONOMAREVA, Yu.I.; ZIMINA, R.M.;
FEDOROV, V.I.; BELYAKOVA, K.V.

Results of vacuuming ball-bearing steel by various methods. Stal'
24 no.9:805-808 S '64. (MIRA 17:10)

BELYAKOVA, L.

In technical committees of the International Standards
Organization. Standartizatsiia 24 no.3:62 Mr '60.
(MIRA 13:6)
(Standards, Engineering)

BEIYAKOVA, L. [Bieliakova, L.]; KAPUSTINA, Z.

With the students of the Kherkov Technical Institute. Znan.
ta pratsia no.5:15 My '63. (MIRA 16:6)

(Technical education)

BELIAKOVA, L. A.

Publichnaia biblioteka. Otdel gigeny i restavratsii knig. The preservation of book resources; manual for libraries. Moskva, 1954. 72 p. (55-35659)

Z70G.M87

1. Books - Conservation and restoration. I. Beliakova, L. A.

~~BELYAKOVA, I. A.~~

New species of the genus *Chaetomium*. *Biul.MOIP,Otd.biol.* 59
no.6:85-86 N-D '54. (MIRA 8:2)
(Fungi)

BELYAKOVA, L. A.

BELYAKOVA, L. A.: "Mold fungi on books and the testing of chemicals to combat them." Moscow Order of Lenin and Order of Labor Red Banner State U imeni A. A. Zhdanov. Leningrad, 1956. (Dissertation for the Degree of Candidate Biological Sciences).

Knizhnaya letopis', No 39, 1956, Moscow.

HELyakova, L.A.

Sodium pentachlorophenolate as an antiseptic preventing mold on
glue. Mikrobiologiya 25 no.6:713-717 N-D '56. (MLRA 10:1)

1. Gosudarstvennaya biblioteka SSSR im V.I.Lenina.

(PHENOLS, eff.

pentachlorophenoxy sodium, antiseptic eff. on fungi)

(FUNGI, eff. of drugs on

pentachlorophenoxy sodium, antiseptic eff.)

BELIAKOVA, L.A.

γ -irradiation as a method of disinfecting books contaminated by mold spores. Mikrobiologiya 29 no.5:762-765 S-O '60. (MIRA 13:11)

1. Gosudarstvennaya biblioteka SSSR imeni V.I.Lenina.
(BOOKS—DISINFECTION) (MOLDS (BOTANY))
(RADIATION STERILIZATION)

GUDIN, N.V., kand. khim. nauk; BELYAKOVA, L.A., inzh.;
SHAPNIK, M.S., inzh.

Zinc and cadmium plating in electrolytes based on ethanalamine
complexes of metals. Mashinostroenie no.3:66-67 My-Je '63.

(MIRA 16:7)

1. Kazanskiy khimiko-tekhnologicheskii institut.
(Zinc plating) (Cadmium plating)
(Ammines)

11 63020-55 ENT(m)/EXP(i)/EXP(j)/T/EXP(t)/EXP(o) Pc-b JD/JAJ/RM

ACCESSION NR: AR5012748

UR/0276/65/000/003/B076/B076
621.357.7:669.58

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya. Svodnyy tom, Abs. 3B571

AUTHORS: Belyakova, L. A.; Gudin, N. V.

TITLE: Addition of complex zinc and cadmium compounds and the importance of the nature of the anions for nickel-, copper-, and zinc-plating in electrolytes with aminocomplexes

CITED SOURCE: Sb. Nekotoryye vopr. teorii i praktiki ispol'z. v gal'vanotekhn. neyadovit. elektrolitov, Kazan', 1964, 45-50

TOPIC TAGS: plating, nickel cladding, copper cladding, zinc plating, electroplating, electroplating solution, anodic protection

TRANSLATION: The influence of additions of various cations on the composition of electrolytic depositions obtained from complex solutions was investigated. It was established that the introduction of cadmium salts into a nickel-plating ammonium electrolyte leads to increased brightness and improved structure of the formed deposits. It is assumed that the improved quality of the coating is

Card 1/2

L 63020-65

ACCESSION NR: AR5012748

connected with the formation of cadmium hydroxide close to the electrode with a decrease of solution acidity in the electrolysis process. For electrodeposition of copper from ethylenediamine electrolyte, improvement of the anode process can be obtained by introducing Zn ions into the solution; then passivation of the anodes is completely eliminated. Improvement of the structure of zinc deposits is also observed with the introduction of cadmium salts into the ethylenediamine complex. Yu. Polekarov

SUB CODE: NM, GC

ENCL: 00

Card 2/2

ACCESSION NR: AR4023359

s/0284/64/000/002/0029/0029

SOURCE: VZh. Voprosy* tekhnicheskogo progressa i organizatsii proizvodstva v mashinostroyeni, Abs. 2.35.169

AUTHOR: Belyakova, L. B.

TITLE: Certain problems of blueprint data of parts

CITED SOURCE: Tr. Proyekt., tekhnol. i n.-i. in-ta. Volgo-Vyatsk. sovnarkhoz, vy*p. 2, 1963, 29-50

TOPIC TAGS: coding, coding blueprint data, stamped-sheet parts coding, technological process automation, computer-controlled machine tools

TRANSLATION: The coding of information from blueprints of parts that are stamped from metal sheets and strips of constant thickness has been investigated. In planning the technological processes of such parts with the aid of an electronic computer (EC), the original information from the blueprints is coded and recorded in the form of a definite system of digits. Before such a blueprint is coded, one has to determine whether it is actually necessary to feed into the EC all the

Card 1/3

ACCESSION NR: AR4023359

information contained in the blueprints. The solution of this problem depends on the structure of the algorithm and on the class of the parts under consideration. The recommended coding method is applicable to any stamped part. The lines of the part's blueprint are coded directly and not its three-dimensional shape. By means of a pencil and ruler the coder draws 4 mutually perpendicular straight lines which separate the projections of the part (coordinate axes) on the blueprint and he marks off the junction points and the given centers of circular arcs. The marked-off points are projected on the coordinate axes and their projections are then numbered in a fixed order. The coding sheets are then filled following a prescribed order. The information from the blueprint is divided into three groups: the configuration of the part and the smoothness of its surfaces; the dimensions of the part; and the openings in the coded part. While filling coding sheets, one finds first on each projection the lower left marked-off point of the contour and then proceeds "around" the contour of the projection counterclockwise, recording into the separate column of the coding sheet the information about each line between two adjacent junction points. This is followed by data about each line within the contour of the projection. The article presents the form of the coding sheet and the order in which it is completed; it presents also the procedure for compiling the algorithms. There are 3 figures and 5 tables.

Card 2/3

ACCESSION NR: AR4023359

DATE ACQ: 06Mar64

SUB CODE: IE, CP

ENCL: 00

Card 3/3

BE LYAKOVA, L. O.

Distr: *hEdj*

Adsorption of water vapors on a hydrated silica gel surface
of different structure
and S. V. Kiselev, M. I. Gusev, *Zh. fiz. khim.*, 1957, 31, 10, 2014-2017.
Zh. fiz. khim. 31, 10, 2014-2017. (Russian)
The abs. reversible isotherms of H₂O adsorption, the relation
between the no. of mols. in a single layer of gel and the
max. content of the H₂O groups on the gel surface, and
finally, the effects of pore-size reduction on the water vapor

adsorption by SiO₂ gels of known surface were detd. The
standard SiO₂ samples (Drlugit, *et al.*, *Col.*, 49, 3019) had a
graded series of gels with a total pore vol. of 0.25-0.94 cc/g,
and 4 industrial samples, pore vol. 0.35-0.93 cc/g, were
purified as before but dried at 200°, and the pore diam.
varied between 104 and 21 Å. The 1st adsorption isotherm
obtained was not reversible, owing to the surface hydration,
but the succeeding adsorption-desorption cycles were re-
versible. The adsorption isotherms of the coarse- and fine-
-grain gels with hydrated surfaces were functions of the no. of
hydrated SiO₂ mols. on the gel surface; this showed that the
adsorption resulted from the formation of H-bonds between
the H₂O mols. and the OH⁻ on the gel surface. The thermal
history of the gels and their pore diams. affected very
little the reversible adsorption of water vapors. The area
of the gel surface occupied by 1 mol. of water was 25 sq. Å.

W. M. Sternberg

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for [unclear]

AUTHORS: Belyakova, L. D., Kiselev, A. V. 20-119-2-30/60

TITLE: ~~Vliyanie~~
The Influence of Silicagel Surface Dehydration on the
Adsorption of Benzene and Hexane Vapors (Vliyanie
degidratatsii poverkhnosti silikagelya na adsorbtsiyu
parov benzola i gekšana)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 2,
pp. 298-301 (USSR)

ABSTRACT: First the authors point to some previous works dealing
with the same subject. The present paper investigates
the dependence of the adsorption of benzene and hexane
vapors on the concentration of the hydroxyl groups on
the surface of macroporous silicagel KCK-2. The surface
of this silicagel was changed by thermal dehydration in
a vacuum. For this purpose the sample (~3g) was placed
into the quartzshell of a vacuum apparatus and was
annealed at 200, 400, 500, 650, 950 and 1020°C. After
dehydration at each of these temperatures the isothermal
lines of adsorption of the nitrogen vapors at -195°C

Card 1/4

The Influence of Silicagel Surface Dehydration
on the Adsorption of Benzene and Hexane Vapors

20-119-2-30/60

(for the determination of the specific surface of the sample) as well as the isothermal lines of the adsorption of the vapors of benzene and hexane at 20°C were investigated. A diagram shows the isothermal lines of the adsorption and desorption of benzene vapors. The adsorption of benzene vapors decreases strongly within the range of monomolecular filling with rising annealing temperature of the silicagel, the convex isothermal line passing over into a concave one. In the annealing of macroporous silicagel in vacuum its structure does not noticeably change and in the heating up to 900°C also the surface changes only insignificantly. The concentration of hydroxyl groups on the surface of the silicagel decreased in the annealing up to 950°C more than 10-fold. In the investigation of the adsorption of hydrocarbons on wide-porous samples annealed at temperatures of from 200 to 950°C silicagels with the

Card 2/4

The Influence of Silicagel Surface Dehydration
on the Adsorption of Benzene and Hexane Vapors

20-119-2-30/60

same structure of the samples are presented, with a different degree of hydration of the surface, however. The isothermal line of the absorption of hexane vapors on the hydrated surface of a silicagel is almost linear. In the adsorption of hexane on silicagel a Van der Waals interaction occurs; not only the atoms of the surface of the adsorbent but also the atoms existing within the particles of its skeleton take part in it. There are 4 figures and 18 references, 15 of which are Soviet.

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

PRESENTED: August 10, 1957, by M. M. Dubinin, Member, Academy of
Sciences USSR

SUBMITTED: June 26, 1957

Card 3/4

The Influence of Silicagel Surface Dehydration
on the Adsorption of Benzene and Hexane Vapors

20-119-2-30/60

Card 4/4

BELYAKOVA, L. D.: Master Chem Sci (diss) -- "The physical and chemical adsorption of various substances on silica gel with various degrees of surface hydration". Moscow, 1959. 15 pp (Moscow State U im M. V. Lomonosov), 150 copies (KL, No 13, 1959, 100)

5 (4)

AUTHORS: Belyakova, L. D., Kiselev, A. V. SCV/76-33-7-14/40

TITLE: Adsorption and Chemisorption of Methanol by Silica Gels With Different Degrees of Surface Hydration

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 7, pp 1534 - 1543 (USSR)

ABSTRACT: It was already found in previous papers (Refs 1-4) that the adsorption (A) of methanol (I) by silica gel (II) depends largely on the degree of surface hydration, and that chemisorption takes place. In the present paper, the authors investigated a variation in the adsorption and chemisorption properties of coarse-pored silica gels (KSK-2) (with respect to (I)) which was due to great changes in the α_{OH} (α_{OH} = concentration of OH on the silica-gel surface) in the case of small structural changes of the pores. Experiments were made in a vacuum apparatus (Fig 1) consisting of three separate measuring arrangements. The samples were annealed at various temperatures (200 - 1020°). The specific surface s of the sample was determined from the (A) of nitrogen, and on the basis of these data and the content of structure water the authors

Card 1/3

Adsorption and Chemisorption of Methanol by Silica
Gels With Different Degrees of Surface Hydration

SOV/76-33-7-14/40

calculated the values of α_{OH} (Fig 2). Within the range $200 - 800^{\circ}$ α_{OH} falls practically in a linear manner. Heating up to 950° reduces s and v_g (total volume of the pores) only by 20%, while the size of the pores ($d \approx 100 \text{ \AA}$) does not vary. Heating up to 1020°C , however, decreases s and v_g by about 75%, and d drops to $55 - 70 \text{ \AA}$. A comparison (Table 1) of the quantity of irreversibly chemisorbed (I) α_{OCH_3} with α_{OH} indicates that, contrary to the rapid physical adsorption, α_{OCH_3} increases with decreasing α_{OH} . The primary (A) of (I) from KSK-2 (at 200°) proceeds much faster than on KSK-2 (at 650°) or KSK-2 (at 1020°). Kinetic curves indicate that the chemisorption of (I) on the hydrated surface of (II) differs greatly from that on dehydrated surfaces. Experiments on thermal decomposition of the surface compound of (I) with (II) showed (Table 2) that only

Card 2/3

Adsorption and Chemisorption of Methanol by Silica
Gels With Different Degrees of Surface Hydration

SOV/76-33-7-14/40

7% of the irreversibly adsorbed substance are removed by heating to 200° approximately. Methoxylation of the (II)-surface reduces the (A) of (I)-vapors, i.e. the reaction of (I) with the OH-groups of the (II)-surface is greater than the one with the OCH₃ groups. The chemisorption of (I) on (II) increases with decreasing concentration of the OH-groups on the (II)-surface. This is due to the surface methoxylation. In this process, a reaction takes place between the OH-group of silicic acid, and the bond Si - O - Si decomposes to form Si-OH and Si-OCH₃-groups. The adsorption of (I), water, and benzene decreases particularly strongly (4 times approximately) within the range $\alpha_{OH} = 7 - 4 \mu\text{mol}/\text{m}^2$. In conclusion, the authors thank V. S. Bronshvager and G. G. Muttik for their assistance. There are 8 figures, 2 tables, and 27 references, 24 of which are Soviet.

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

SUBMITTED: December 30, 1957
Card 3/3

BELYAKOVA, L.D.; GROMOV, V.V.; KISELEV, A.V.; SPITSYN, Vikt.I., akademik .

Adsorption of hexane and benzene vapors on nonradioactive and radioactive barium sulfate samples. Dokl.AN SSSR 138 no.5:1139-1142 Je '61. (MIRA 14:6)

1. Institut fizicheskoy khimii AN SSSR i Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Barium sulfate) (Sulfur--Isotopes) (Adsorption)

HELYAKOVA, L.D.; KISELEV, A.V.

Adsorption of nonpolar molecules having different electronic shell structure on the adsorbents of different nature. Report No.1: Adsorption of benzene and n.hexane on barium sulfate. Izv.AN SSSR.Otd.khim.nauk no.6:969-974 '62. (MIRA 15:8)

1. Institut fizicheskoy khimii AN SSSR i Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Benzene) (Hexane) (Adsorption)

BELIAKOVA, L.D.; KISELEV, A.V.

Adsorption of nonpolar molecules having a different structure of electronic shells on adsorbents of different nature. Report No.2: Adsorption of argon and nitrogen on barium sulfate. Izv.AN SSSR. Otd.khim.nauk no.7:1185-1189 J1 '62. (MIRA 15:7)

1. Institut fizicheskoy khimii AN SSSR i Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Argon) (Nitrogen) (Adsorption)

BELYAKOVA, L.D.; GROMOV, V.V.; KISELEV, A.V.; SPITSYN, Vikt.I.

Adsorption of various substances on radioactive samples
of barium sulfate. Radiokhimiya 4 no.4:410-421 '62.

(MIRA 15:11)

(Barium sulfate)

(Sulfur--Isotopes)

(Adsorption)

BELYAKOVA, L.D.; KISELEV, A.V.; KOVALEVA, N.V.

Gas chromatographic determination of hydrogen bonding energy
in adsorption layers. Dokl. AN SSSR 157 no.3:646-649 J1 '64.
(MIRA 17:7)

1. Institut fizicheskoy khimii AN SSSR. Predstavleno akademikom
A.N. Frumkinym.

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ACC NR: AP6014406

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AUTHOR: Belyakova, L. D.; Kiselev, A. V.

ORG: Institute of Physical Chemistry, Academy of Sciences SSSR Moscow State University im. M. V. Lomonosov (Institut fizicheskoy khimii, Akademii nauk SSSR) (Moskovskiy gosudarstvennyy universitet)

TITLE: Adsorption of argon, nitrogen, n-hexane and benzene vapors on boron nitride and molybdenum sulfide

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 4, 1966, 638-642

TOPIC TAGS: adsorption, gas adsorption, argon, nitrogen, benzene, hexane

ABSTRACT: Isotherms for the adsorption of argon, nitrogen, n-hexane and benzene on ^{BN} and ^{MoS₂} were constructed and compared with data for hydroxylated and dehydroxylated silica gel, barium sulfate, carbon black, magnesium oxide and hydroxide and Aerosil as adsorbents. The adsorption of argon per unit surface of adsorbent varies greatly according to the adsorbent since the occurring electrokinetic reactions depend on concentration, dimensions and polarizability of atoms on the

Card 1/2

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adsorbent surface. Adsorption of nitrogen, n-hexane and benzene on the different adsorbents is more nearly similar. This is because in the adsorption of these molecules having π -bonds with peripheral electron density concentration there occurs an additional more specific reaction between the protonized hydrosyl groups and the surface cations with the π -bonds of the adsorbed molecules. The adsorption of n-hexane vapor on nonpolar surfaces of BN and MoS₂ is significantly greater than the adsorption of benzene vapor in almost all relative pressure ranges. The adsorbability of BN and MoS₂ with respect to n-hexane is intermediate to that of carbon black and magnesium oxide. BN samples were supplied by R. M. Matveyevsk, and MoS₂ samples, by coworkers L. N. Sinyurikhin and Z. S. Rubtsov of the VNIINP Institute. The authors express their appreciation. Orig. art. has: 5 figures, and 1 table.

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