BEL'KEVICH, P.I.; GAYDUK, K.A.

Thermal degradation of humic acids. Report No. 1: General aspect of the thermal degradation of humic acids. Trudy Inst. torfa AN BSSR 7:282-290 '59. (MIRA 14:1)
(Humic acid)

BEL'KEVICH, P.I.; GAYDUK, K.A.

Thermal degradation of humic acids. Report No. 2: Effect of the nature of peat on the Kinetics of thermal degradation of humic acids. Trudy Inst. torfa AN BSSR 7:291-303 '59. (MIRA 14:1)
(Humic acid)

BELKEVICH, P.L. [Bial'kevich, P.L.]; PIGULEVSKAYA, L.V. [Pihuleuskaia, L.V.]

Vladimir Evgen'evich Rakovskii; on his 60th birthday. Vestsi AN BSSR. Ser. Fiz.-tekh. nav. no. 4:141-144 '60. (MIRA 14:1)
(Rakovskii, Vladimir Evgen'evich)

BEL'KEVICH, P.I.; ZHUK, Yo.A.; SAPELKIN, M.V.

Some results of the work of the Peat Institute. Trudy Inst. torf. AN BSSR 9:3-18 '60. (MIRA 14:2)

(Peat)

BEL'KEVICH, P.I.

Production of wax from peat. Trudy Inst. torf. AN BSSR 9:19-29 '60. (MIRA 14:2)

1. Chlen-korrespondent AN BSSR.
(Waxes) (Peat)

BEL'KEVICH, P.I.; GAYDUK, K.A.

Thermal decomposition of humic acids. Trudy Inst. torf. AN BSSR 9: 267-273 '60. (MIRA 14:2)

(Humic acids)

BEL'KEVICH, P.I.; KAGANOVICH, F.L.; TRUBILKO, E.V.

Study of the composition of peat wax. Report No.3: Investigating the composition of the unsaponifiable part of peat wax by the fractional crystallization method. Trudy Inst. torf. AN BSSR 9:274-279 '60. (MIRA 14:2)

(Waxes) (Peat)

BEL'KEVICH, P.I.; KAGANOVICH, F.L.; TRUBILKO, E.V.

Study of the composition of peat. Report No.4: Investigating the composition of the unsaponifiable part of peat wax by adsorption chromatography. Trudy Inst. torf. AN BSSR 9:280-284 '60.

(Waxes) (Peat) (MIRA 14:2)

BEL'KEVICH, P.I.; TSYUBUL'KIN, V.N.; YURKEVICH, Ye.A.

Study of peat asphaltenes by infrared spectroscopy. Trudy Inst. torf. AN BSSR 9:296-300 '60. (MIRA 14:2)
(Peat) (Asphaltnes--Spectra)

SASIN, A.S.; BEL'KEVICH, P.I.; PIGULEVSKAYA, L.V.

Detarring raw peat wax by the crystallization method. Trudy Inst. torf. AN BSSR 9:301-306 '60. (MIRA 14:2)
(Waxes) (Peat)

SOKOLOV, A.A.; BEL'KEVICH, P.I.; CHULYUKOV, M.A.; NIKONOV, M.N.; OZOLINA, Z.D.; TIMOFEYEV, A.V.

Research and experimental designing and prospects for their further development. Torf. prom. 37 no.5:12-18 '60. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut torfyanoy promyshelnnosti (for Sokolov). 2. Institut torfa AN BSSR (for Bel'kevich). 3. Kalininskiy torfyanoy institut (for Chulyukov). 4. TSentral'naya torfo-bolotnaya opytnaya stantsiya (for Nikonov). 5. Vsesoyuznyy institut udobreniy i agropochvovedeniya (for Ozolina).

(Peat industry)

BEL'KEVICH, P.I., prof., red.; TKACHEVA, T., red.izd-va; ATLAS, A., tekhn. red.

[Chemistry and genesis of peat and sapropels]Khimiia i genezis torfa i sapropelei. Minsk, Izd-vo Akad. nauk BSSR, 1962. 318 p. (MIRA 15:11)

1. Akademiya navuk BSSR, Minsk. Instytut torfa.
(Peat--Analysis) (Sapropels--Analysis)

BEL'KEVICH, P.I.; GAYDUK, K.A.

Activation energy of the process of thermal decomposition of humic acids in peat. Vestsi AN BSSR. Ser. fiz.-tekh. nav. no.4:133-134 '62. (MIRA 18:4)

BEL'KEVICH, P.I.; NAUMOVICH, V.M.; LETSKO, A.P.

Piezothermal plastics from peat. Dokl.AN BSSR 6 no.4:240-242 Ap '62. (MIRA 15:4)

1. Institut torfa AN BSSR.
(Plastics) (Peat)

HELKEVICH, P. I.; CHISTOVA, L. R.

"On the ion-exchange of alkali and alkali-earth metals in peat."

Report submitted for the 2nd International Peat Congress, Leningrad, 15-22 Aug 63.

BEL'KEVICH, P. I.; VERKHOLETOVA, G. P.; KAGANOVICH, F. L.; TORGOV, I. V.

β-Sitosterol from peat wax. Izv. AN SSSR. Otd. khim. nauk no.1:112-115 '63. (MIRA 16:1)

1. Institut khimii prirodnykh soyedineniy AN SSSR i Institut torfa AN Belorusskoy SSR.

(Sitosterol) (Peat)

BEL'KEVICH, P.I., doktor khim. nauk; LETSKO, A.P., inzh.;
NAUMOVICH, V.M., doktor tekhn. nauk

Peat plastics as a new building material. Torf. prom. 39
no.3:17-19 '62. (MIRA 16:8)

1. Institut torfa AN BSSR.

TSIBUL'KIN, V.M. [TSybul'kin, V.M.]; BEL'KEVICH, P.I. [Bial'kevich, P.I.]

Comparative study of the bitumen formers of some plant species and the bitumens of an upland peat layer. Vestsi AN BSSR Ser. fiz.-tekh. nav. no.1:101-109 '64 (MIRA 17:7)

BEL'KEVICH, P.I.; GAYDUK, K.A.

Stepwise decomposition of humic acids. Dokl. AN BSSR 8 no.10:650-653 O '64. (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut torfa.

[illegible], P.L. [Dial'kevich, P.L.]; YAKOBSON, K.V. [illegible]; GAYDUK, K.A. [Gaiduk, K.A.]; SOKOLOV, A.D. [Sokolov, A.D.]

Peat as an active filler for molding powder plastics. Vestsi AN BSSR. Ser. khim. nav. no. 2:96-98 '65.

(illegible)

40467

13,2520

S/029/62/000/009/002/002
D037/D113

AUTHORS: Bel'kevich, V.; Vende, E.; Vil'-Vil'yams, I., Co-workers

TITLE: The engineering art of nature

PERIODICAL: Tekhnika molodezhi, no. 9, 1962, 37-38 , 30 -

TEXT: The application of knowledge of biological processes to the solution of engineering problems is described. A recently developed small highly sensitive accelerometer is cited as an example of applied bionics. This device, based on the action of the human vestibular apparatus, is important for measuring the acceleration of self-guiding missiles and consists of 2 glass vessels into each of which one electrode is soldered. The vessels are connected and filled with an electrolyte. The electrodes are connected to an a.c. bridge circuit. The slightest acceleration moves the electrolyte levels and unbalances the bridge. The signal thus obtained is used for correcting the flight of a rocket. There are 4 figures.

Card 1/2

The engineering art of nature

S/029/62/000/009/002/002
D037/D113

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskikh instrumentov i oborudovaniya (All-Union Scientific Research Institute of Medical Instruments and Equipment)

Card 2/2

BEL'KEVICH, V.; MIKHALEV, V.

Club of "Tekhnika-Molodezhi." Tekh. mol. 31 no.8:38 '63.
(MIRA 16:11)

1. Sotrudniki Vsesoyuznogo nauchno-issledovatel'skogo instituta meditsinskikh instrumentov i oborudovaniya.

BEL'KEVICH, V.I.; ALEKSEYEV, Ye.G.; IPATOV, G.M.

Method of destruction of erythrocytes for the purpose of automatic counting of the formed elements of the blood. Nov. med. tekh. no.2:25-30 '62. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskikh instrumentov i oborudovaniya.

ACCESSION NR: AP4034471 S/0243/64/000/004/0058/0061

AUTHOR: Vende, E. Yu.; Bel'kevich, V. I.; Zamriy, G. T.

TITLE: Autocomponsatory device for recording enterogastric pH

SOURCE: Meditsinskaya promy*shlennost' SSSR, no. 4, 1964, 58-61

TOPIC TAGS: pH recording device, continuous enterogastric pH recording, autocompensatory device/ 036M oxyhemograph

ABSTRACT: A device for continuous recording of pH in the stomach is based on a special attachment developed by the authors for the autocompensator amplifier circuit of a 036M oxyhemograph (see enclosures 01 and 02). The pH values are determined by the potential differences of the antimony and calomel electrodes in the animal stomach. The margin of error for pH readings in laboratory tests on experimental animals does not exceed 0.3 units for pH ranging from 1.0 to 9.0 and 0.5 units for pH ranging from 9.0 to 11.4. For more accurate readings, gastric lavage is recommended to prevent mucus envelopment of electrodes. Potential fluctuations caused by mechanical activity of the stomach can be reduced by the use of a ring-shaped

Card 1/4

ACCESSION NR: AP4034471

electrode to encircle the catheter. The advisability of eliminating potential fluctuations related to stomach motor activity requires further study. Though these latter fluctuations distort the pH curve, they provide certain additional data on functional activity of the stomach. In animals the catheter and pickup are introduced into the stomach through a fistula. In humans the possibility of introduction per os has been demonstrated by the work of Ye. Yu. Linar. The new method of continuous pH recording in the stomach is greatly superior to the old method of taking samples of gastric contents. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Institut pitaniya AMN SSSR, Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskikh instrumentov i oborudovaniya, Moscow (Nutrition Institute AMN SSR, All-Union Scientific-Research Institute of Medical Instruments and Equipment)

SUBMITTED: 07Jan64 ENCL: 02 SUB CODE: LS

NR REF SOV: 001 OTHER: 004

Card 2/4

ACCESSION NR: AP4034471

ENCLOSURE: 01

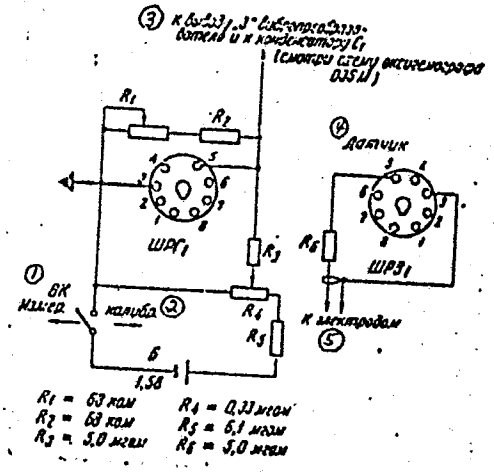

Fig. 1. Diagram of input circuit changes of 036M oxyhemograph when used to record enterogastric pH.

(1) Measurement, (2) Calibration, (3) To load "3" of vibrotransducor and condenser C_1 of 036M oxyhemograph, (4) Pickup, (5) To electrodes.

Card 3/4

ACCESSION NR: AP4034471

ENCLOSURE: 02

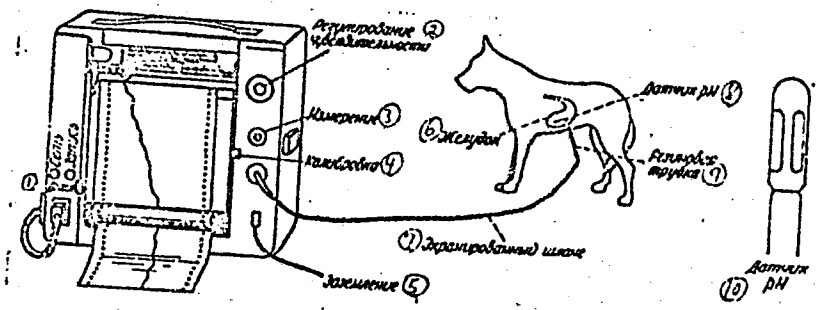

Fig. 2. General view of device, pickup, and system of connecting to dog through fistula.

(1) Switch, (2) Sensitivity control, (3) Measurement, (4) Calibration, (5) Ground wire, (6) Stomach, (7) Shielded hose, (8) pH pickup, (9) Rubber tube, (10) pH pickup.

Card 4/4

BEL'KEVICH, V.I.

New method of quantitative determination of fat in insect tissues. Zool.zhur. 33 no.3:709-713 My-Je '54. (MLRA 7:7)

1. Moskovskaya stantsiya zashchity rasteniy.
(Fat) (Insects--Physiology)

BEL'KEVICH, V. I.

"A Study of the Physiological Status of Eurygaster integriceps Put. During the Period of Preparation for Hibernation." Cand Biol Sci, All Union Sci Res Inst of Plant Protection, All Union Order of Lenin Acad Agricultural Sci imeni V. I. Lenin, Leningrad, 1955. (KL, No 9, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14).

BEL'KEVICH, V. I.

USSR / General and Specialized Zoology - Insects 0-7

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 23180

Author : Pokrovskiy, E.A., Bel'kevich, V.I.

Inst : Not Given

Title : Loss of Toxicity of DDT and BHC Preparations as Affected by Temperature and Light

Orig Pub : Sb. rabot Nauch. in-ta po udobreniyam i insectofungitsidam, 1955, No 156, 214-224

Abstract : Reports on laboratory experiments on total isomers of DDT and BHC of all forms (7.5 and 15 mg/m^2). The bioindicator -- rice weevil; the exposure -- 90 minutes. Petri dishes containing the preparations were held in the first series of experiments for 1, 4, 7, 10 and 15 days at 18-20° and were illuminated by diffused daylight; in the second series -- for the same period of time in a thermostat at 25, 30, 40 and 50° in darkness; and in the third series -- 3.5 and 10 hours irradiated by a mercury lamp at 23-24°. In the first series

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(7.5 mg/m^2) the DDT toxicity over 15 days scarcely changed when in powder and suspension form; it was decreased by 60% in an emulsion. The toxicity of BHC in 10 days decreased in powder form by 20%; in 15 days -- by 50%; in 4 days in suspension form by 20% and in 10 days by 100%; in emulsion form for 4 days by 50%. In the second series, (7.5 mg/m^2), the DDT powder showed no change in toxicity in 15 days at 25°, at 30 - 40° it decreased by 30 - 40%; at 50° for 4, 10 and 15 days it decreased correspondingly by 40, 70 and 100%; in suspension it decreased in 7 days at 25° by 60%, at 30° for 4 days, by 50%, and for 10 days by 100%; at 40° for 1 day, by 40%, and for 4 days by 100%; at 50° for less than 4 days, by 100%; in emulsion it decreased at 25-40° in 1 day by 30-50%, in 4 days, by 70% and in 7 days by 100%; at 50° in 1 day, by 100%. BHC toxicity in powder and suspension form decreased in 1 day at 25-30° by 50% and at 40-50° by 100%; in emulsion it lost potency in less than 24 hours even at 25°. In both series at 15 mg/m^2 the decomposition of the preparations was slower. In the third series (15 mg/m^2) the DDT toxicity decreased in powder form by 20% in 3 hours, by 50% in 5 hours and by

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000204320017-2"

USSR / General and Specialized Zoology - Insects

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 23180

0-7

80% in 10 hours; in suspension form correspondingly by 30, 70, and 90%; in emulsion, in 3 hours by 100%. BHC toxicity in powder, suspension and emulsion forms was decreased in 3 hours correspondingly by 70, 80, and 100%.

Card : 3/3

USSR / General and Specialized Zoology - Insects. P

Abs Jour : Ref Zhur - Biologiya, Nc 5, 1959, No. 20798

Author : Bel'kevich, V. I.
Inst : Not given
Title : Intensity of Feeding and Accumulation of Food Substances by Eurygaster integriceps Put.

Orig Pub : Zool. zh., 1957, 36, No 4, 515-520

Abstract : Studies of the variations of feeding of Eurygaster integriceps Put. during the course of the period preparatory to the diapause and the process of accumulation of nutritional substance reserves in the middle gut were made; the timings of the beginning and end of this period of accumulation and the character of changes which food reserves undergo in the middle gut were elucidated.

Card 1/2

BEL'KEVICH, V.I., kand. biol. nauk.

Studying the physiology of the shield bug Eurygaster integriceps Put. Trudy VIZR no.9:87-100 '58. (MIRA 12:1)
(Eurygasters)

BEL'KEVICH, V.I., kand. biol. nauk.

Observations on the shield bug Eurygaster integriceps Put. during the ripening and harvesting of 1955 crops in Kamensk Province. Trudy VIZR no.9:233-241 '58. (MIRA 12:1)
(Kamensk Province--Eurygasters)

SOKOLOVSKAYA, I.I., doktor biol. nauk; HEL'KEVICH, V.I., kand. biol. nauk; GOLYSHEVA, M.V., kand. biol. nauk; MOTUZOVA, I.A., kand. biol. nauk; KLYUCHEREVA, Z.S., kand. biol. nauk.

Effect of ultrasonic waves on the protective characteristics of the artificial media of the semen of farm animals. Dokl. Akad. sel'khoz. 24 no.3:30-35 '59. (MIRA 12:5)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnovodstva. Predstavlena akademikom V.K. Milovanovym.
(Semen--Preservation)
(Ultrasonic waves--Physiological effect)

BEL'KEVICH, V.I.

Physiology of the shield bug Eurygaster integriceps Put. during the preparatory period preceding the diapause. Vred. cherep. 4:58-97 '60. (MIRA 14:11)

(Eurygasters)
(Insects--Physiology)

BEL'KEVICH, V.I.; VENTE, E.Yu.; LAKHOVA, L.V.

Photoelectrical method to record the blood coagulation process. Nov. med. tekh. no.2:69-72 '64.

(MIRA 18:11)

BEL'KEVICH, V.I.; SVYATKOVSKAYA, N.F.; BELETSKIY, Ye.L.; DOBRINA, S.K.; KLYUCHAREVA, Z.S.

Effect of ultrasonic vibrations on biological microscopic preparations. Trudy VNIIMIO no.3:55-61 '63 (MIRA 18:2)

BELKEVICH, Viktor L'vovich, kandidat tekhnicheskikh nauk; AVETIKOV, V.G., kandidat tekhnicheskikh nauk, nauchnyy redaktor; CHERNYAK, Ya.N., redaktor; LYUDKOVSKAYA, N.I., tekhnicheskiy redaktor

[Insulators for internal combustion engine spark plugs] Izoliatory dlia zapal'nykh svechei dvigatelei vnutrennego sgoraniia. Moskva, Gos. izd-vo lit-ry po stroit. materialam, 1956. 95 p. (MLRA 9:8)
(Spark plugs) (Electric insulators and insulation)

BEL'KEVICH, V.N., kand.biol.nauk; LIKHACHEV, A.N., kand.sel'skokhoz.nauk

Synthetic polymeric materials for the insemination of animals. Zhivotnovodstvo 21 no.8:77-78 Ag '59. (MIRA 12:11)

1. Vsesoyuznyy institut zhivotnovodstva.
(Artificial insemination—Equipment and supplies) (Plastics)

BEL'KEVICH, V.S., Cand Med Sci—(diss) " Prophylaxis and treatment of panaritia." Krasnodar, "Soviet Kuban'", 1958. 13 pp (Khar'kov Med Inst), 200 copies (KL,25-58,118)

BEL'KEVICH, V.S.

BEL'KEVICH, V.S.

Prevention and treatment of acute suppurative diseases of the hands and fingers. Sov.med. 21 no.9:90-92 S '57. (MIRA 11:1)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. A.A. Kozyrev) Kubanskogo meditsinskogo instituta imeni Krasnoy Armii.
(HAND, dis.
prev. & ther. of suppurative dis. in indust.)
(INDUSTRIAL HYGIENE,
prev. & ther. of suppurative dis. of hands)

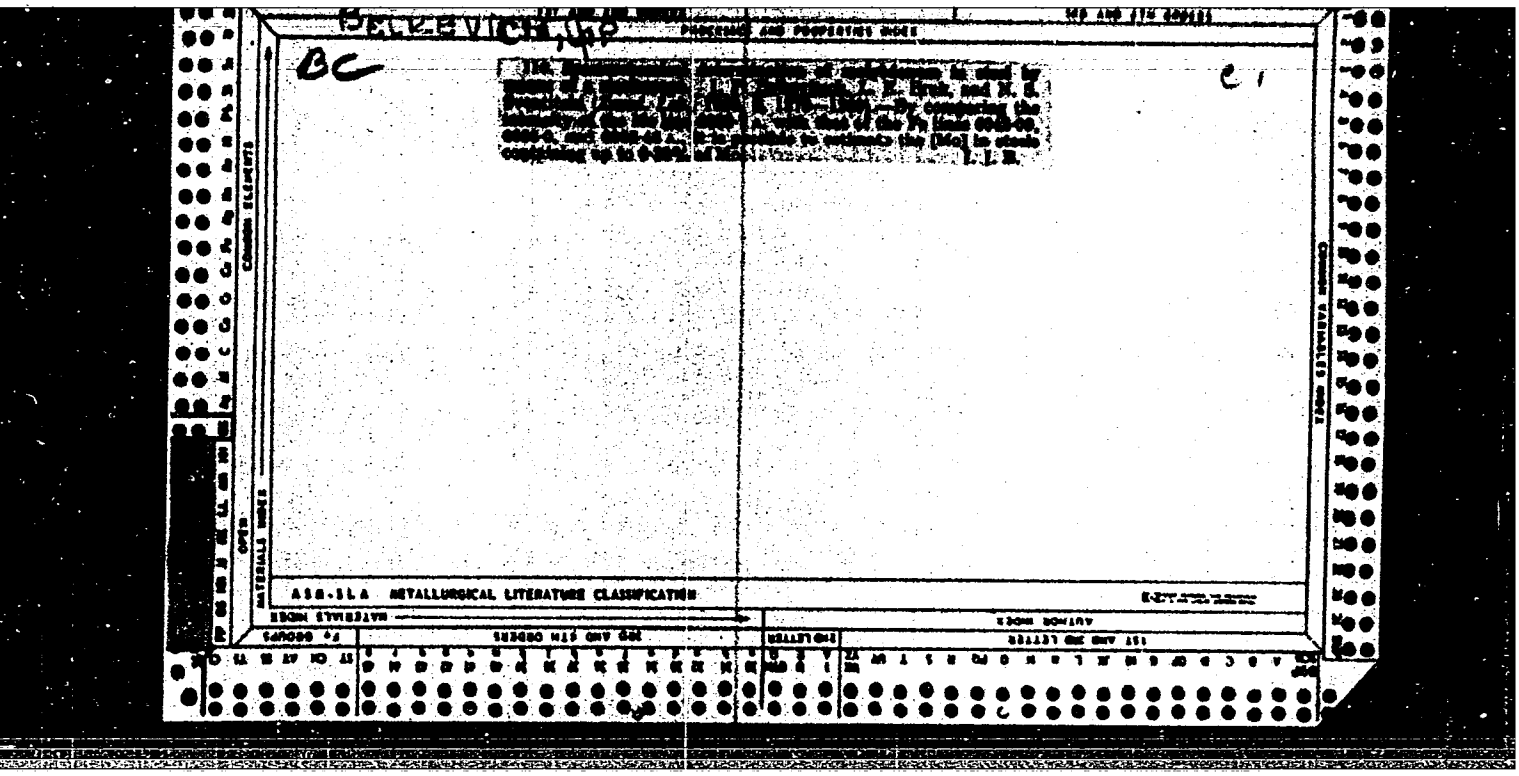
BEL'KEVICH, V.Ye., inzhener.

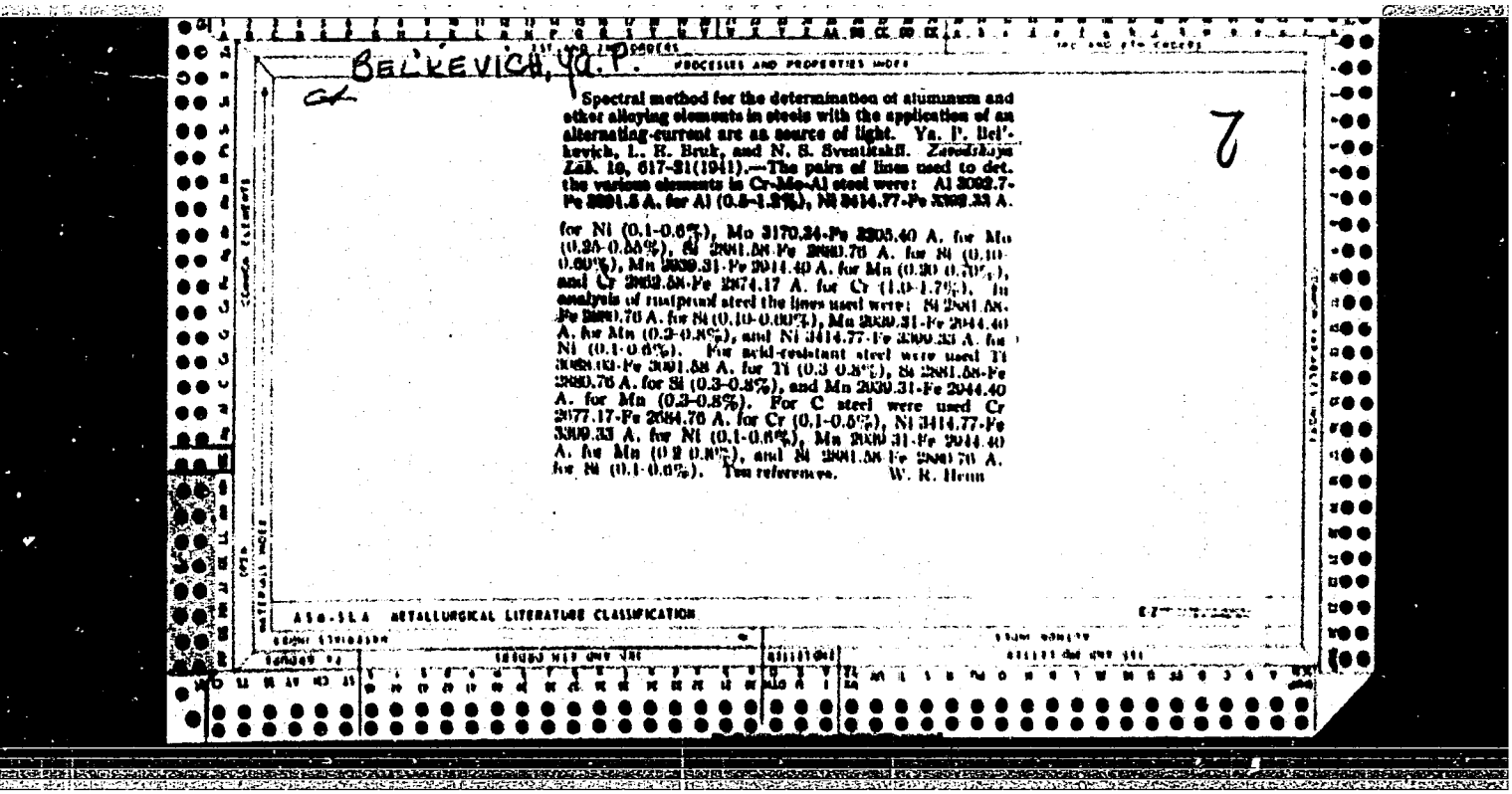
Devices for simultaneous coiling of the left and right spring branches. Mashinostroitel' no.8:32-33 Ag '57. (MLRA 10:8)
(Springs (Mechanism)) (Machine-shop practice)

BEL'KEVICH, V.Ye., inzh.; MILLER, D.S.

High-production automatic presses. Mashinostroitel' no.10:13-14 O '57. (MIRA 10:11)

(Punching machinery)





BELKEVICH, Ya. P.

7

Spectral method for the determination of aluminum and other alloying elements in steels with the application of an alternating-current arc as source of light. Ya. P. Bel'kevich, L. E. Bruk, and N. S. Sventitskii. Zavodskaya Lab. 10, 617-21(1941).—The pairs of lines used to det. the various elements in Cr-Mo-Al steel were: Al 3092.7-Fe 3091.5 A. for Al (0.5-1.2%), Ni 3414.77-Fe 3389.33 A. for Ni (0.1-0.6%), Mo 3170.34-Fe 3205.40 A. for Mo (0.25-0.55%), Si 2881.58-Fe 2880.76 A. for Si (0.10-0.60%), Mn 2939.31-Fe 2944.40 A. for Mn (0.30-0.70%), and Cr 2862.58-Fe 2874.17 A. for Cr (1.0-1.7%). In analysis of manganese steel the lines used were: Si 2881.58-Fe 2880.76 A. for Si (0.10-0.60%), Mn 2939.31-Fe 2944.40 A. for Mn (0.3-0.8%), and Ni 3414.77-Fe 3389.33 A. for Ni (0.1-0.6%). For acid-resistant steel were used Ti 3088.13-Fe 3091.58 A. for Ti (0.3-0.8%), Si 2881.58-Fe 2880.76 A. for Si (0.3-0.8%), and Mn 2939.31-Fe 2944.40 A. for Mn (0.3-0.8%). For C steel were used Cr 2877.17-Fe 2884.76 A. for Cr (0.1-0.6%), Ni 3414.77-Fe 3389.33 A. for Ni (0.1-0.6%), Mn 2939.31-Fe 2944.40 A. for Mn (0.3-0.8%), and Si 2881.58-Fe 2880.76 A. for Si (0.1-0.6%). Ten references. W. R. Heun

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BEL'KEVICH, Ya. P.

Rukocodstvo po spektral'nomu analizu metallov. (Leningrad), Gosudarstvennoe Izdatel'stvo. Sudostroitel'noy Literatury, 1950. pp. 163, photos, diags., tabs., bibliog.; 23 x 15; white wrappers.

BEL'KEVICH, YA. P.

USSR/Optics - Optical Methods of Analysis. Instruments. K-7

Abs Jour : Referat Zhur - Fizika, No 3, 1957, 7963

Author : Bel'kevich, Ya.P.
Title : Spectral Analysis of Lead Brass.

Orig Pub : Zavod. laboratoriya, 1956, 22, No 4, 435-438

Abstract : A procedure is described for the analysis of lead brass for zinc and lead. The source of excitation is an a-c arc. The upper electrode is a copper rod, the lower is the tested material. The spectrum is photographed with the ISP-22 spectrograph with a three-step attenuator. The analytic pairs of lines are Zn 3072.06 -- Cu 3073.80 and Pb 2878.31 -- Cu 2882.93. The photometry is carried out with the MF-2 microphotometer. The influence of zinc on the results of the determination of lead has been established. The calculation of this influence is carried out with the aid of the graph for the concentration of zinc vs. the increment of the relative intensity of the lead line.

Card 1/1

BEL'KEVICH, Ye.M., inzhener.

Device for sawing short blocks on leg frames. Der.prom.5 no.4:20 Ap '56. (MLRA 9:7)

1.Leningradskiy lesopil'no-tarnyy kombinat.
(Sawmills)

BEL'KEVICH, Ye.M., inzhener.

Pneumatic hammer for nailing crates. Der. prom. 5 no.10: 20-21 O '56. (MLRA 9:11)

1. Leningradskiy lesopil'no-tarnyy kombinat.
(Pneumatic tools) (containers)

BELKIN, A.

Unfortunate inaccuracies. Fin. SSSR 22 no.7:95 Jl '61.
(MIRA 14:7)

1. Starshiy inspektor Upravleniya Gosstrakha po Tambovskoy oblasti.

(Finance--Audio-visual aids)

BELKIN, A.; BORISOV, A.; GENIN, B.; GUSLITSER, I.; GRUZDEV, V.; DICH,S.; DUSEYEVA, Ye.; YEGOROVA, A.; ZAK, S.; KAZYMOV, A.; KRUPENNIKOVA,Ye.; KONKIN, A.; MOGILEVSKIY, Ye.; PAKSHVER, A.; SMELKOV, G.; CHICHKHIANI, A.; CHUGUNOV, K.; SHIFRIN, L.; YUNOVICH, E.

Sergei Alekseevich Tairov. Khim.volok. no.3:79 '62.
(MIRA 16:2)
(Tairov, Sergei Alekseevich)

BELKIN, A. A.

Belinskii, Vissarion Grigor'evich, 1811-1848.

Ideas of Belinskiy and Gogol'. Vest. Mosk. un. 7, no. 4, April, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August, 1952 1953. Unclassified.

AP6002470 (A) SOURCE CODE: UR/0191/66/000/001/0003/0006

AUTHORS: Berlin, A. A.; Kefeli, T. Ya.; Belkin, A. A.; Ragimov, A. V.; Liogon'kiy, B. I.; Brikenshteyn, Kh. A.

ORG: none

TITLE: On the catalytic and inhibiting influence of certain polysulfophenylquinones on the telomerization condensation reaction

SOURCE: Plasticheskiye massy, no. 1, 1966, 3-6

TOPIC TAGS: polymer, polymerization, catalytic polymerization, high polymer, polymerization kinetics, polymerization rate

ABSTRACT: The catalytic and inhibiting effects of polysulfophenylquinone (obtained by reacting p-benzoquinone with bis-diazotized benzidine-disulfo-2,2' acid (PSFKh-3) in the mole ratio of 1:3) on the condensation telomerization of digoesteracrylates, dimethylmethacrylate of diethylene glycol (MD) and dimethylmethacrylate-bis-diethyleneglycol)phthalate (MDF-1) were studied. The method used was that described by A. A. Berlin, T. Ya. Kefeli, and G. V. Korolev (Khim. prom., No. 12, 12, 1962). The kinetics of water elimination during the synthesis of MD in the presence of sulfuric acid and PSFKh-3, and the effect on PSFKh-3 of the ion exchange properties of synthesized esters were investigated. The experimental

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UDC: 678.764.43:678.044.1:547.567

Card 2/2

L 13812-66

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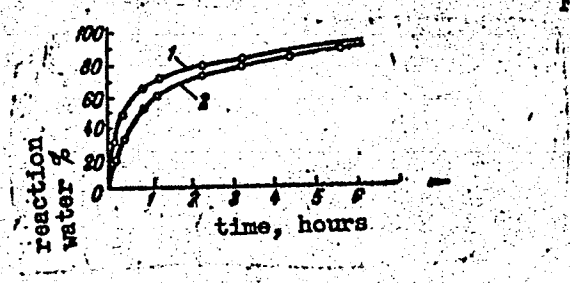

Fig. 1. Kinetics of elimination of water reaction during the synthesis of MD. 1 - in presence of sulfuric acid; 2 - in presence of PSFKh-3.

results are presented in tables and graphs (see Fig. 1). It was found that the highest yield of polymer was obtained for an initial catalyst concentration of 25 wt. % and for catalyst particle size < 0.25 mm. Orig. art. has: 1 table, 3 graphs, and 1 equation.

SUB CODE: 07,11/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 002

Card 2/2

BELKIN, A.F.

More about calculating labor productivity. Kons. i ov. prom. 13 no.11:41-42 N '58. (MIRA 11:11)

1. Bykhovskiy ovoshchesushil'nyy zavod.
(Canning industry--Labor productivity)

BELKIN, A.F.

Improve the accounting and production cost calculation in the canning and dry vegetables industry. Kons.i ov.prom. 17 no.7:33-34 Jl '62. (MIRA 15:6)

1. Upravleniye pishchevoy promyshlennosti sovnarkhoza Belorusskoy SSR.

(Canning industry—Accounting)

BELKIN, A. G.

Belkin, A. G. - "The separation of suspensions with a mutchfilter, with the speed of filtering less than that of the fall of the particles", Trudy Novocherkas. politekhn. in-ta im. Ordzhonikidze, Vol. XIX, 1948, p. 23-25.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

BELKIN, A. G.

Belkin, A. G. - "An investigation of a new system of filtration of suspensions with a constant gradient of pressure drop through the filtration medium", Trudy Novocherkas. politekhn. in-ta im. Ordzhonikidze, Vol. XIX, 1948, p. 27-30.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

25564
S/170/61/004/008/014/016
B125/B201

15.8600 2209 1372

AUTHORS: Belkin, A. G., Suloyev, Yu. N.

TITLE: Temperature field at the highest polymerization rate

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 8, 1961, 126 - 129

TEXT: The calculation of temperature in a polymerizing layer enables one to estimate in advance whether block polymerization is possible at a given temperature and concentration; experimental measurements are superfluous. The usual dilatometric curves make it possible to determine the specific heat liberated per unit time with sufficient accuracy, i. e., the specific power of the internal heat source can be established. Fig. 1 shows the dilatometric curve for methyl methacrylate at 58°C and at a benzoyl peroxide concentration of 0.12 %. The straight section of the curve corresponds to the constant power of the heat source, which can be calculated by the formula $W = Q \Delta p / \Delta \tau 100$. Here, Q denotes the Joule effect of the polymerization reaction in kcal/m^3; Δp is the change in monomer conversion in %; W is the power of the heat source

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Temperature field at...

in kcal/m^3.hr; τ is the time in hours. The thickness of the polymerizing layer being equivalent to the diameter of the dilatometer sphere results from the requirement that the mean temperature of the layer equals the mean temperature of the sphere. A formula for the mean temperature of a plate with a constant heat source has earlier been found by A. V. Lykov (Teoriya teploprovodnosti. M. 1952). For $t_c = t_o$ and $Fo < 20$, this expression assumes the form $\bar{t}_{(\tau)} - t_o = \frac{1}{3}\frac{WR^2}{\lambda}\left(1 + \frac{3}{Bi}\right)$ (2). The equation for the sphere is obtained similarly: $\bar{t}_{(\tau)} - t_o = \frac{1}{15}\frac{WR^2_{sphere}}{\lambda}\left(1 + \frac{5}{Bi_{sphere}}\right)$ (3). By approximation, $R_{sphere} = 2.4\ R_{layer}$ is valid, where R_{layer} denotes half the layer thickness. $R_{layer} = 0.0027$ m holds for the dilatometer used here. The temperature field in a polymerizing layer can be calculated using the thermal conduction equation for a plate with a constant inner heat source. Its solution reads, taking account of

Card 2/6

Temperature field at...

Fo > 20 and $t_c = t_o$: $t_{(x,\tau)} - t_o = \frac{1}{2}\frac{WR^2}{\lambda}\left(1 - \frac{x^2}{R^2} + \frac{2}{Bi}\right)$ (6). By determining W from the dilatometric curve, the temperature in differently thick layers may be calculated from (6). Table 1 gives results obtained for water cooling. The coefficient of thermal conductivity λ of the polymerizing mass was taken to be equal to 0.148 kcal/m.hr.°C. Under the same conditions, it is possible to calculate the temperature in the layers of polymerizing methyl methacrylate with air cooling (Table 2). The heat-exchange coefficient was calculated by means of the diagram $Nu/Pr^{0.4} = f(Re)$ (8), the velocity of air along the surface of the mold being put equal to 2 m/sec. The results calculated for R = 0.0027 must fit the experimental data precisely. Fig. 2 shows curves of the time dependence of $t_{(0,\tau)} - t_o$ for a polymerizing, 5.5 mm thick layer of methyl methacrylate with air and water cooling. According to experimental data, $t_{(0,\tau)} - t_o$ amounts to 2.1 to 2.5° in case of water cooling, and to 15° with air cooling. Polymerization took place in a

Card 3/6

Temperature field at...

mold made of two plates of stainless steel and of a 5.5 mm thick polyethylene frame. At lower temperatures and lower concentrations of benzoyl peroxide than those applied here, calculations must be more accurate. With water cooling, polymerization always takes place at a lower temperature, and heat exchange at a lesser temperature gradient $t_{(R,\tau)} - t_o$ between wall and medium. Inconsiderable variations of water velocity do not cause any appreciable fluctuations of $t_{(R,\tau)} - t_o$ and of temperature in the layer. If the temperature is maintained constant by air, the air velocity has a considerable influence upon the amount of $t_{(R,\tau)} - t_o$. Under industrial conditions, the inconstancy air velocity is evidently one of the causes of the flaws of organic glass due to thermal instability. Experiment and calculation have shown the following: During polymerization in layers of a maximum thickness of 20 mm at 58°C and at a benzoyl-peroxide concentration of 0.12 %, temperature will not exceed 100°C with water cooling. An obstacle confronting glassmaking under these conditions is the high sedimentation rate of the material. There are 2 figures, 2 tables, and 3 Soviet-bloc references.

Card 4/6

25564
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B125/B201

Temperature field at..

ASSOCIATION: Politekhnicheskiy institut im. A. A. Zhdanova, g.Gor'kiy
(Polytechnic Institute imeni A. A. Zhdanov, Gor'kiy)

SUBMITTED: March 15, 1961

Fig. 1: Conversion p (%) of methyl methacrylate as a function of time τ, hours.

Fig 2

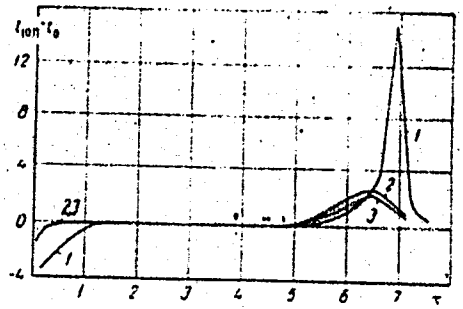
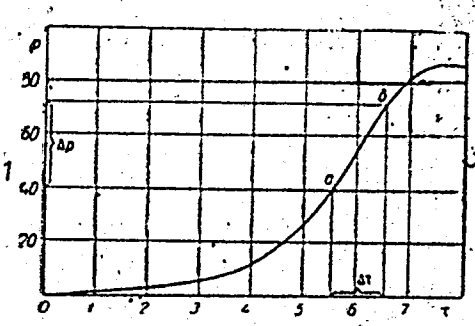


Fig. 1



Card 5/6

S/081/62/000/003/079/090
B160/B101

AUTHORS: Suloyev, Yu. N., Belkin, A. G.

TITLE: Intensifying the mass polymerization process

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 563, abstract 3P34 (Tr. po khimii i khim. tekhnol. (Gor'kiy), no. 2, 1961 386 - 389.)

TEXT: Existing and possible ways of intensifying the mass polymerization process are described. The possibility is studied of intensifying the mass polymerization process by using low-temperature initiators. Taking methylmethacrylate and styrene as an example it is shown that the reduction in the polymerization time when the temperature is reduced from 45 to 15°C is 11% for methylmethacrylate, the thermal effect decreases by 3% and the decrease in the thermal effect during the styrene polymerization reaction is also $\leqslant 3\%$. An equation for calculating the polymerization time and estimating the reduction in polymerization time as the value of the thermal effect decreases is given together with the curves for the specific heat of styrene and polystyrene as a function of the temperature. [Abstracter's note: Complete translation.]

Card 1/1

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S/081/62/000/003/080/090
B160/B101

AUTHORS: Suloyev, Yu. N, Belkin, A. G.

TITLE: Influence of electrical conductivity current on the heat exchange rate during polymerization of methyl methacrylate

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 563, abstract 3P36 (Tr. po khimii i khim. tekhnol. (Gor'kiy), no. 2, 1961, 390 - 393)

TEXT: 0.12% benzoyl peroxide was added to methyl methacrylate (I) to study the influence of a high-voltage direct current on reducing the polymerization time for I and preventing convection during the polymerization; a sodium silicate solution with 28 - 32% SiO_2 and 10 - 12% Na_2O was used as an ion source. After generating a direct conductivity current in a layer of I the mould was placed in a cupboard and held at a constant temperature while the relationship of the temperature gradient and the value of the conductivity current to time was determined. It was established that an ion conductivity current appears in the layer of I when there is an ion source and a high-voltage current is applied to the plate of the polymerization mould; the

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conductivity current can be used to increase the layer's rate of heating and eliminate convective mixing right at the beginning of the induction period; the viscosity in the layer being polymerized can be measured from the change in the value of the conductivity current; the direct current field has no noticeable influence on the elimination of heat from the mass being polymerized. A description is given of equipment which will produce a 4 kv-high-voltage d.c. voltage of negative polarity, measured ion conductivity currents from 0.01 to 1.00 ma and maintain the temperature at 58°C with an accuracy of ± 0.1°C. [Abstracter's note: Complete translation.]

Card 2/2

BELKIN, A.G.; SULOYEV, Yu.N.

Temperature field at the maximum rate of polymerization. Inzh.-fiz.zhur. 4 no.8:126-129 Ag '61. (MIRA 14:8)

1. Politekhnicheskiy institut imeni A.A.Zhdanova, Gor'kiy.
(Polymerization) (Heat--Conduction)

BELKIN, A.I.

"Endocrinological psychiatry" [in German] by Manfred Bleuler, with a contribution by R.Hess. Reviewed by A.I.Belkin. Zhur.nevr. i psikh. 57 no.2:271-282 '57. (MIRA 10:6)
(PSYCHOLOGY, PATHOLOGICAL)
(ENDOCRINE GLANDS--DISEASES)
(BLEULER, MANFRED)

BELKIN, A. I., SHUMILOVA, N. V.

"The Mental Problem of Patients with Congenital Eunuchoidism."

Theses of the Proceedings of the Annual Scientific Sessions 23-26 March 1959 (All-Union Institute of Experimental Endocrinology)

From the State Scientific Research Instiute of Pediatrics (Director--Professor V. M. Baishchikov) of the Ministry of Health RSFSR and the All-Union Institute of Experimental Endocrinology of the Ministry of Health SSR SSSR (Director--Professor Ye. A. Vasyukova.)

80321
SOV/81-59-7-23685

24.5500
Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 7, p 291 (USSR)

AUTHOR: Belkin, A.I.

TITLE: The Measurement of Low Temperatures (up to +200°C) and the Calculation of the Circuit of Automatic Compensation

PERIODICAL: Yaroslavsk. prom-st' (Sovnarkhoz Yaroslavsk. ekon. adm. r-na), 1958, Nr 1, pp 20 - 23

ABSTRACT: An electrical circuit of a pyrometric installation for measuring low temperatures (from -100 to +200°C) in explosion-unsafe rooms is considered, which provides for automatic compensation when the temperature of the free terminals of the thermocouples changes. The temperature compensation is attained by introducing the corresponding potential difference into the measuring circuit from a dry cell of 3_S L-30 type (with a tension of 1.5 v and a capacity of 30 a-hour) through a compensation bridge (CB). The resistance coils of CB are manufactured of manganin wire of

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The Measurement of Low Temperatures (up to +200°C) and the Calculation of the Circuit of Automatic Compensation

0.3 - 0.4 mm in diameter and copper wire of 0.11 - 0.15 mm in diameter. The thermocouples are of the two-stage, Chromel-Copel type. The secondary device is a PP calibration galvanometer. The calculation of the compensation circuit is presented.

G. Lyudmirskaya

Card 2/2

NOSKOV, S.K., kand.tekhn.nauk. Prinimali uchastiye: BELKIN, A.I., inzh.; TIKHOMIROV, N.M., ODINOKOV, S.D., kand.tekhn.nauk, nauchnyy red.; AZRILYANT, Ya.M., red.izd-va; NAUMOVA, G.D., tekhn.red.

[Using rolled roofing materials in constructing roofs] Ustroistvo pokrytii s rulonnoi krovlei. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 180 p. (MIRA 13:6)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Instruktory peredovykh metodov truda instituta Orgstroy (for Belkin, Tikhomirov).
(Roofing)

BELKIN, A. I.

Cand Med Sci - (diss) "Clinical characteristics of schizophrenia in patients with altered functions of the thyroid gland." Moscow, 1961. 13 pp; (First Moscow Order of Lenin Medical Inst imeni I. M. Sechenov); 250 copies; price not given; (KL, 5-61 sup, 201)

BELKIN, A.I.

Mechanism of the functional disorder of the thyroid gland in schizophrenia. Trudy Gos.nauch.-issl.inst.psikh. 27:64-68 '61. (MIRA 15:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut psikhiatrii Ministerstva zdravookhraneniya RSFSR. Dir. - prof. V.M. Banshchikov. Klinika psikhozov pozdnego vozrasta. Zav. - prof. S.G.Zhislin.

(THYROID GLAND) (SCHIZOPHRENIA)

BELKIN, A.I.

Chlorpromazine treatment of schizophrenia patients with a functional change of the thyroid gland. Trudy Gos.nauch.-issl.inst.psikh. 35:119-132 '62. (MIRA 16:2)

1. Otdeleniye psikhozov pozdnego vozrasta (zav. otdeleniyem - prof. S.G. Zhislin) Gosudarstvennogo nauchno-issledovatel'skogo institutapsikhiatrii.
(CHLORPROMAZINE) (SCHIZOPHRENIA)
(THYROID GLAND)

BANSHCHIKOV, V.M., prof.; BELKIN, A.I.

Role of thyroid hypofunction in the development of atherosclerosis of the cerebral vessels. Probl. endokr. gormonoter. 9 no.4:82-88 Jl-Ag'63 (MIRA 17:1)

1. Iz kafedry psikhiatrii (zav. - prof. V.M.Banshchikov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova i Gosudarstvenno nauchno-issledovatel'skogo instituta psikhiatrii (dir. - prof. V.M.Banshchikov).

BELKIN, A.I. (Moskva)

Characteristics of the clinical aspects and course of schizophrenia following a subtotal resection of the thyroid gland. Trudy Gos. nauch.-issl. inst. psikh. 40:167-181 '63
(MIRA 17:7)

BELKIN, A.I.; AFANAS'YEVA, V.K. (Moskva)

Methodology of hypnotherapy in functional disorders of digestion. Trudy Gos. nauch.-issl. inst. psikh. 4:281-283'63
(MIRA 17:7)

BELKIN, A.I.; SACHKOVA, L.D. (Moskva)

Role of the psychogenic factor in the development of hyperthyroidism. Trudy Gos. nauch.-issl. inst. psikh. 40:304-309 '63 (MIRA 17:7)

FEDOTOV, D.D., prof., otv. red. SEGAL, B.M., zam. otv. red.; AVERBAKH, Ya.K., red.; AVRUTSKIY, G.Ya., red.; ALEKSANDROVSKIY, Yu.A., red.; BALASHOVA, L.N., red.; BELKIN, A.I., red.; GUROVICH, I.Ya., red.

[Problems of exogenous and organic neuropsychic disorders; materials of the scientific conference of the State Scientific Research Institute of Psychiatry of the Ministry of Public Health of the R.S.F.S.R. March 1964] Voprosy ekzogennykh i organicheskikh nervno-psikhicheskikh rasstroistv; materialy nauchnoi konferentsii Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii MZ RSFSR. Mart 1964. 164 p. No.2. 1964. 164 p. (MIRA 17:9)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy institut psikhiatrii. 2. Direktor Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR (for Fedotov). 3. Otdel psikhozov pozdnego vozrasta Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR (for Belkin). 4. Otdel ekzogennykh nervnopsikhicheskikh rasstroystv Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR (for Segal). 5. Gosudarstvennyy nauchno-issledovatel'skiy institut psikhiatrii Ministerstva zdravookhraneniya RSFSR (for Averbakh).

BELKIN, A.I.; LAKHONINA, M.V.

Effect of therapeutic doses of aminazine on the action of gonadotropic hormones; preliminary report. Vop.klin., patog. i lech. shiz. no.1:16-18 '64. (MIRA 18:5)

1. Otdel ekzogennykh nervno-psikhicheskikh rasstroystv (zav. otdelom - prof. D.D.Fedotov) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR.

BELKIN, A.M.

Characteristics of neural processes constituting the principle of the binaural effect. Probl.fiziol.akust., Moskva Vol.2:65-71 1950. (CLML 20:5)

1. Department of Physiology, Military Medical Academy imeni S.M. Kirov.

(Kafedra fiziologii)

BELKIN, A.M.

A marking device. Stan.i instr. 26 no.9:30 S '55. (MLRA 9:1)
(Marking devices)

SOV/28-58-5-19/37

AUTHOR: Belkin, A.N.; Musinyan, T.M.; Engineers

TITLE: Lifts (Lifty)

PERIODICAL: Standartizatsiya, 1958, Nr 5, pp 60 - 61 (USSR)

ABSTRACT: The article deals with the new approved standards relating to various categories of lifts (elevators) and devised by the Vsesoyuznyy nauchno-issledovatel'skiy institut pod'yëmno-transportnogo mashinostroyeniya (All-Union Scientific-Research Institute for Hoisting-Transport Machine Building) to replace the former GOST and OST standards.

ASSOCIATION: VNIIPTMASH

1. Hoists--Standards

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BELKIN, A.N.

Uterine molting of fur seal (Callorhinus ursinus L.). Soob. DVFAN SSSR no.17:101-105 '63. (MIRA 17:9)

1. Tikhookeanskiy nauchno-issledovatel'skiy institut rybnogo khozyaystva i okeanografii.

BELKIN, A.N.

A new species of seal, Phoca insularis sp. n., from the Kurile Islands. Dokl. AN SSSR 158 no.5:1217-1220 O '64. (MIRA 17:10)

1. Tikhookeanskiy nauchno-issledovatel'skiy institut rybnogo khozyaystva i okeanografii. Predstavleno akademikom Ye.N.Pavlovskim.

BELKIN, A.N.; VELIZHANIN, A.G.

Distribution of crested auklet in the Kurile Islands. Ornitologiia no.7:457 '65. (MIRA 18:10)

BELKIN, A. O., and SULOYEV, Y. N.

"On Heat Transfer Problem in Block Polymerization Processes."

Report submitted for the Conference on Heat and Mass Transfer, Minsk, BSSR, June 1961.

BELKIN, A.P., inzh.

Effect of automatic frequency control on the frequency characteristics of anf.m. receiver. Trudy MEI no.31:106-112 '56 (MIRA 13:3)
(Radio frequency modulation-- Receivers and reception)

9(9) SOV/162-58-3-16/26

AUTHOR: Belkin, A.P.

TITLE: The Influence of Noises on the Automatic Frequency Control System (Deystviye pomekh na sistemu avtomaticheskoy podstroyki chastoty)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1958, Nr 3, pp 120-128 (USSR)

ABSTRACT: The author investigates the influence of periodic and fluctuation noises on an automatic frequency control system (AFC), whereby an ideal limiter is installed before the discriminator. The author presents formulae for the deviation of the signal frequency at the input of the limiter from the rated intermediate frequency magnitude. The experimental investigations of the influence of periodic noise on the AFC system with a limiter confirmed the results of the theoretical investigations. Periodic noise will deteriorate the function of the AFC system. When $g < 1$, the deterioration has only a quantitative character, but at $g > 1$, the AFC system does not follow-up any longer

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signal frequency changes. With a strong signal, the influence of fluctuation noise will cause an inclusion of a fluctuation component in the signal frequency deviation from the rated intermediate frequency value. The author determined the spectrum and the effective values of the fluctuation components of the signal frequency deviation from the rated intermediate frequency value. The author expresses his gratitude to Professor L.S. Gutkin for his valuable advice during the performance of this work. There are 3 circuit diagrams, 4 graphs and 1 Soviet reference.

ASSOCIATION: Kafedra rascheta i konstruirovaniya radioapparatury Ryazanskogo radiotekhnicheskogo instituta
(Chair of Calculating and Designing Radio Equipment at the Ryazan' Institute of Radio Engineering)

SUBMITTED: March 6, 1958

AUTHOR: Belkin, A.P. SOV/106-58-10-3/13

TITLE: The Action of Periodic Interference on a Discriminator and on an Automatic Frequency Control System (Deystviye periodicheskoy pomekhi na diskriminator i sistemu avtomaticheskoy podstroyki chastoty)

PERIODICAL: Elektrosvyaz', 1958, Nr 10, pp 20 - 25 (USSR)

ABSTRACT: The author considers the passage of a signal

$$u_c = U_{cm} \cos\left[2\pi(f_o + \delta f_{n.p.c})\, t + \varphi_c\right] \quad (1)$$

and an interference signal

$$u_n = U_{nm} \cos\left[2\pi(f_o + \delta f_{n.p.n})\, t + \varphi_n\right] \quad (2)$$

through a discriminator. Here f_o is the frequency at which the output voltage in the absence of interference is zero, $\delta f_{n.p.c}$, $\delta f_{n.p.n}$ are the frequency deviations of the signal and of the interference from f_o. The block diagram of the system and the circuit diagram are given in Fig 1 and Fig 2 respectively. Formulae are produced for the constant component of the output voltage of the discriminator and graphs of the discriminator

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characteristic produced. The graphs show that the whole of the discriminator characteristic moves up or down the ordinate axis depending on the sign of the deviation of the interference frequency from the frequency f_o. The degree of displacement depends on the magnitude of the deviation. The shape of the characteristic is also distorted, the peaks of the characteristic being reduced. The action of the periodic interference on an a f c system is next considered. The block diagram of the system is given in Fig 7. It is assumed that all the stages are "without inertia" except the filter, which is assumed to be a perfect filter. The characteristic of the controlling circuit is considered linear with a slope S_y. The steady state condition of such an a f c circuit is defined by equations (17) to (19) where δf_a is the deviation of the local oscillator frequency from its nominal value and δf_c, $\delta f_п$ are the deviations of the signal and interference frequencies from the nominal tuned frequency of the receiver. A general solution to

The Action and Periodic Interference on a Discriminator and on an Automatic Frequency Control System

these equations is unobtainable, but a graphical method is described which is based on the fact that the solution can be represented geometrically by the points of intersection of the straight line given by the intersection of the planes defined by (18) and (19) with the surface given by (17). The dynamic characteristic for different values of δf_c is obtained by this method. Periodic interference is found to worsen the operation of the a f c. Professor L.S. Gutkin directed this investigation. There are 7 illustrations and 1 reference (Soviet)

SUBMITTED: November 10, 1957

Card 3/3

SOV/108-13-9-3/26

AUTHOR: Belkin, A. P.,

TITLE: Effect of Fluctuation Disturbances on Discriminators and Systems of Automatic Frequency Control (Deystviye fluktuatsionnoy pomekhi na diskriminator i sistemu avtomaticheskoy podstroyki chastoty)

PERIODICAL: Radiotekhnika, 1958, Vol. 13, Nr 9, pp. 18-24 (USSR)

ABSTRACT: This is a study of the passage of a signal and of fluctuation disturbances through a discriminator. A formula for the constant component of the output voltage of the discriminator is deduced. The influence of fluctuations on the characteristics of a discriminator with detuned circuits is investigated. An analysis is presented of the effects of the fluctuations on the automatic frequency control (henceforth referred to by AFC) if a signal and a fluctuation act upon the AFC. Summary: 1) If a fluctuation disturbance is present a fluctuation voltage appears at the discriminator output and the characteristic of the discriminator is modified. This modification leads to a reduction of the slope of the linear section of the characteristic, to a smoothing of the curves and to a shift

Card 1/2

of the characteristic curve along the ordinate axis, if an asymmetry is found in the discriminator. 2) The effects of a fluctuation disturbance upon an AFC-system was examined theoretically for an ideal filter. Experimental studies showed that this concept is an accurate presentation of the processes occurring in an AFC-system at $g < g_{kp}$ (where g_{kp} in systems which are practically applicable is of a digital order 1). This concept is specified by formula (16). If $g > g_{kp}$ the fact must be taken into account that the filter is not operating ideally. Professor L. S. Gutkin gave valuable suggestions.
There are 9 figures and 2 references, 2 of which are Soviet.

SUBMITTED: December 30, 1956 (initially) and January 15, 1958 (after revision)

BELKIN, Aleksandr Stepanovich, inzh.; SAZONOV, A.G., inzh., red.; KHITROV, P.A., tekhn.red.

[Reference manual on motor locomotives, railway motor cars, and motor-powered hand cars] Spravochnik po motovozam, avtodrezinam i motodrezinam. Moskva, Gos.transp.zhel-dor. izd-vo, 1959. 206 p. (MIRA 12:7)
(Railroads--Cars)