

BROUNSHTEYN, B.I.; GITMAN, I.R.; ZHELEZNYAK, A.S.

Mass transfer into spherical drops. Dokl. AN SSSR 162 no.6:1336-1338  
Je '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh  
protseessov. Submitted July 4, 1964.

ZHELEZNYAK, A.S.; BROUNSHTEYN, B.I.

Mutual solubility in the system water-acetic acid-ethyl acetate  
in the temperature range from 0 to 50°C. Zhur.prikl.khim. 38  
no.3:694-696 Mr '65. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimiche-  
skikh protsessov. Submitted Jan. 7, 1963.

KADENSKAYA, N.I.; ZHELEZNYAK, A.S.; BROUNSHTEYN, B.I.

Mass transfer in the extraction of acetic acid by single drops  
of ethyl acetate. Zhur. prikl. khim. 38 no.5:1156-1159 My '65.  
(MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh  
protseessov.

L 51836-65 EWT(d)/FSS-2/EEC-4/EEC(t) Pn-4/PP-4/Pac-4

ACCESSION NR: AP5016914

CZ/0014/64/000/010/0380/0381

AUTHOR: Brousek, Jan (Doctor) 25  
B

TITLE: Video quality deterioration in switching over to foreign TV transmissions

SOURCE: Sdelovaci technika, no. 10, 1964, 380-381

TOPIC TAGS: TV system, TV receiver

ABSTRACT: Reasons are given for the deterioration of the video quality caused by the penetration of the network frequency into the television picture because of defects in the television receiver. Types of this penetration and their causes are discussed. Orig. art. has: 1 figure, 1 table.

ASSOCIATION: none

SUBMITTED: OO

ENCL: OO

SUB CODE: EC

NO REF SOV: OOO

OTHER: OO4

JPRS

*gpl*  
*Card* 1/1

EROJSEK, K.

Practical experiences in constructing tailraces for water turbines. p .325

INZENRYŠKE STAVBY . (Ministerstvo stavebnictvi) Praha

Vol. 3, no. 8, Aug. 1955

East European Accessions List

Vol. 5 No. 1

Jan. 1956

BROUSEK, M.

Use of the <sup>b</sup> system for the construction of a reinforced-concrete tunnel.  
p.295.

INZENYRSKE STAVBY. Praha, Czechoslovakia. Vol. 3, no. 11, Nov. 1955.

Monthly list East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1960.  
Uncl.

BROUSEK, M., inz.

~~XXXXXXXXXXXXXXXXXXXX~~  
Earth compaction of the Moravka River dam at Moravka. Inz  
stavby ll no.5:182-185, 188 My '63.

1. Ingstav Brno, n.p.

BROUSEK, Milos, inz.

Weir construction from prefabricated materials. Inz stavby 10 no.2:  
47-48 F '62.

1. Ingstav Brno, n.p.



BROUSEK, Milos, inz.

Protection of the upstream side of the earth dam in Terlicko.  
Inz stavby 10 no.12:456-458 D '62.

1. Ingstav, n.p., Brno.

BRUNSEK, Melor, Inc.

BRUNSEK, Melor, Inc.

Compacting faces of earth dams. Inz stavby 12 no.10:Suppl:  
Mechanizace no.10:162-165 '64.

BROUSSER, Milos, inv.

Compacting banks and beds of streams by macadam cover.  
Vodni hosp 14 no.12:457-459 '64.

1. Ingstav National Enterprise, Brno.

GLAR, Miroslav; BROUSIL, Jindrich

Physical principles necessary for the understanding of the mechanism  
of effects of radiations on living organisms. Cas. lek. cesk. 96 no.29:  
25-28 12 July 57.

(RADIATIONS, eff.

on living organisms, phys. principles of mechanism (Cs))

DIENSTBIER, Zdenek;KOFRANEK, Vladimir;BROUSIL, Jindrich;ARIENT, Miroslav (Technicka spoluprace: J. Jasan, Statisticke stredisko MZd Praha)

Statistical studies on health and fertility of physicians working with ionizing radiations. Ces. rentg. 13 no.5:330-342 0 '59

(RADIATION EFFECTS)

(FERTILITY radiation effects)

(PHYSICIANS)

FRIEDMANN, B.; HERMANSKY, F.; BROUSIL, J.; VOPATWA, M.

Erythrocyte survival in leukemia, determined by radiochromium  $C R^{51}$ . Rev.Czech.M. 6 no.2:118-125 1960.

1. First Medical Clinic, Charles University, Prague. Director: Professor V. Hoenig, M.D. Laboratory for the Pathophysiology of Haemopoiesis and the Liver, at the First Medical Clinic, Charles University, Prague, Director: Professor V. Hoenig, M.D. Institute for Medical Physics, Prague, Director: Doc. Z. Dienstbier, M.D. Institute for Haematology and Blood Transfusion. Director: Professor J. Horejsi, M.D.  
(ERYTHROCYTES)  
(LEUKEMIA blood)  
(CHROMIUM radioactive)

FRIEDMANN, B.; HERMANŠKY, P.; BROUSIL, J.; VOPATOVA, M.

Survival of the erythrocytes in leukemia determined with radiochromium-Cr51. Cas.lek.cesk. 99 no.7/8:208-212 19 F '60.

1. I. interni klinika KU v Praze, prednosta prof.dr. M. Netousek, Laborator pro patofyziologii krvetvorby a jater pri I. interni klinice KU v Praze, reditel prof.dr. M. Netousek, Ustav pro lekarskou fyziku KU v Praze, prednosta doc.dr. Z. Dienstbier, Ustav hematologie a krevni transfuze v Praze, redited prof. dr.J. Horejsi.

(ERYTHROCYTES)

(LEUKEMIA blood)

(CHROMIUM radioactive)

FRIEDMANN, Bedrich; MENCIKOVA, Eva; BROUSIL, Jindrich

Experimental contribution to the problem of the aggressivity of auto-antibodies against red blood cells. Cas.lek.cesk 100 no.17:525-529  
28 Ap '61.

1. I interni klinika KU v Praze, prednosta prof. dr. V. Hoenig. Ustav pro lekarskou mikrobiologii a imunologii KU v Praze, prednosta prof. dr. F. Patocka. Biofyzikalni ustav lekarske fakulty KU v Praze, prednosta doc. dr. Z. Dienstbier.

(ANTIGEN-ANTIBODY REACTIONS) (ERYTHROCYTES)



BRABEC, V.; BROUSIL, J.; FRIEDMAN, B.

Evaluation of erythropoietic activity with the aid of radioisotopes.  
Cesk. rentgenol. 16 no.4:225-234 Ag '62.

1. Ustav hematologie a krevni transfuze v Praze, prednosta prof. dr  
J. Horejsi, DrSc. Biofyzikalni ustav fakulty vseobecneho lekarstvi  
University Karlovy v Praze, prednosta doc. dr Z. Dienstbier, CSc.  
I. interni klinika fakulty vseobecneho lekarstvi University Karlovy  
v Praze, prednosta prof. dr V. Honig, DrSc.  
(RADIOISOTOPES)      (ERYTHROCYTES)  
(HEMATOPOIETIC SYSTEM physiol)

BROUSIL, J.

2

CZECHOSLOVAKIA

BERMAN, J.; FRIEDMANN, B; BROUSIL, J.

1. First Internal Medicine Clinic of the Faculty of General Medicine KU (I. vnitřní klinika fak. všeobecného lékařství KU), Prague; 2. Biophysical Institute of the Faculty of General Medicine KU (Biofyzikální ústav fak. všeobecného lékařství KU), Prague. - (for all)

Prague, Vnitřní lékařství, No 4, 1963, pp 336-337

"Survival of Erythrocytes in Porphyria Cutanea Tarda."

VULTERINOVA, M.; SKALA, I.; BROUSIL, J.

Absorption of Co58-labelled vitamin B12 in patients after resection of the small intestine and stomach (Schilling's test). Cesk. gastroent. vyz. 17 no.4:249-253 Je '63.

1. Ustav pro vyzkum vyzivy lidu v Praze, reditel prof. dr. J. Masek, DrSc. Biofyzikalni ustav fakulty vseobecneho lekarstvi KU v Praze, prednosta doc. dr. Z. Dientsbier, CSc.  
(COBALT ISOTOPES) (INTESTINE, SMALL)  
(VITAMIN B12) (GASTRECTOMY) (SPRUE)  
(SURGERY, OPERATIVE)

BROUSIL, J., ENGELBERTH, O., SRANKOVA, J., and TALPOVA, H. [Biophysical Institute (Biofyzikalni ustav), Faculty of General Medicine (Fakulta vseobecneho lekarstvi), Charles University, Prague, Docent Dr. Z. DIENSTBLER, director, and Third Clinic of Internal Medicine (III. interni klinika), Faculty of General Medicine, Charles University, Prague, Academician J. CHARVAT, director.

"Influence of Sodium Salicylate on Antigen Excretion and Antibody Formation in Rabbits"

- Prague, Casopis Lekarů Ceských, Vol CII, No 34, 23 August 63, pp 925-927.
- Abstract [Authors' English summary]: Following an injection of human serum albumin labelled with  $I^{131}$  the authors investigated the influence of sodium salicylate on the antigen excretion from the blood circulation, formation of a soluble complex of antigen and antibodies, and formation of antibodies in rabbits. In a group receiving salicylate the authors found a lower activity in the alpha globulin fraction than in the control group on the 12th and 14th day. A possible interpretation of this phenomenon is presented. Six references.

1/1

1

BROUSIL, J.; ENGELBERTH, O.; SRAMKOVA, J.; TALPOVA, H.

Effect of sodium salicylate on antigen excretion and on antibody formation in rabbits. *Cas. lek. cesk.* 102 no.34:925-927  
23 Ag '63.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi KU v Praze,  
prednosta doc. dr. Z. Dienstbier III interni klinika fakulty  
vseobecneho lekarstvi KU v Praze, prednosta akademik J. Charvat.  
(SODIUM SALICYLATE) (ANTIBODY FORMATION)  
(SERUM ALBUMIN, RADIOIODINATES)  
(IMMUNE SERUMS) (ANTIGENS)

BROUSIL, J.; ERABEC, V.; TALPOVA, H.

Erythrokinetic examination with Fe<sup>59</sup>. Acta univ. Carol. [med]  
(Praha): Suppl. 18: 63-67 '64.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi University  
Karlovy v Praze (prednosta: doc. dr. Z. Dienstbier) a Ustav  
hematologie a krevni transfuse (reditel: prof. dr. J. Horejsi).

JIROUNEK, P.; RABAN, P.; BROUSIL, J.

Iodine 132 in nuclear medicine. I. Preparation and determination of the activity of iodine 132. Cesk. radiol. 18 no.5:318-326 S 64.

1. Katedra lekarske fyziky a nuklearni mediciny fskulty vseobecneho lekarstvi Karlovy University v Praze (vedouci doc. dr. Z. Dienstbier, DrSc.).

NEUMERIKOVA, R.; DONNER, L.; JANOTA, M.; BRUSIL, J.

Erythrocyte picture in chronic respiratory insufficiency in  
chronic inflammation of the bronchi and pulmonary emphysema.  
Vnitřní lek. 11 no.3:216-225 Mr '65

I. II. vnitřní klinika (pr. dnosta: prof. Dr. F. Herles) a  
Biofyzikální ústav (pr. dnosta: doc. Dr. Z. Dienstbier).



CZECHOSLOVAKIA UDC 612.111.3:(616.155.392:616-006.13)

FRIEDMANN, B.; BRABEC, V.; BROUSIL, J.; SEBESTIK, V.; 1st Internal Clinic, Fac. of Gen. Med., Charles Univ. (I. Int. Klinika Fak. Vseob. Lek. KU), Prague, Head (Prednosta) Prof Dr V. HOEMIG; Institute of Hematology and Blood Transfusions (Ustav Hematologie a Krevni Transfuzie) Prague, Director (Reditel) Prof Dr J. HOREJSI; Biophysical Institute Fac. of Gen. Med. Charles Univ. (Biofyzikalni Ustav Fak. Vseob. Lek. KU), Prague, Head (Prednosta) Docent Dr Z. DIENSTBIER.

"Erythropoiesis in Leukemia and Hemoblastoma of the Lympho reticular Line."

Prague, Casopis Lekarů Ceskych, Vol 105, No 29, 8 Jul 66, pp 766 - 770

Abstract [Authors' English summary modified]: In 30 patients suffering from leukemia and lympho reticular hemoblastoma erythropoiesis was decreased in 8, normal in 4, increased in 18. Neither the normal nor the increased erythropoiesis reached values where it could compensate anemia due to hyperhemolysis. Erythropoiesis remains insufficient and must be considered in the pathogenesis of the disease.  
1/1 3 Figures, 3 Tables, 10 Western, 3 Czech references.

FILIPCHUK, B.A.; BROVAR, I.M.; KOMAROVSKIY, M.V.; SERAVETS, A.B.

Raising the efficiency of geological and geophysical work in the region between the Volga and Ural Rivers. Geol. nefti i gaza 9 no.1:12-15 Ja '65. (MIRA 18:3)

1. Trud' Ural'skoneftegazovaya, Kazakhskiy politikhnicheskii institut i Mezhdunarodskaya geofizicheskaya ekspeditsiya.

BROVAR, I.M.

Methodology of studying the geological structure of salt domes  
in the Volga-Ural interfluve. Vest. AN Kazakh SSR 21 no.4:85-92  
Ap '65. (MIRA 18:5)

PHASE I BOOK EXPLOITATION

SOV/5528

Drabkin, G. S., I. P. Brovar, Ya. Ye. Gel'fand, and E. L. Itskovich

Avtomatizatsiya tsementnykh zavodov. (Automation of Cement Plants)  
Leningrad, Gosstroyizdat, 1961. 399 p. Errata slip inserted.  
4,000 copies printed.

Scientific Ed.: A. I. Leontenkov, Engineer; Ed. of Publishing  
House: A. S. Rotenberg; Tech. Ed.: L. V. Voronetskaya.

PURPOSE: This book is intended for technical personnel of cement  
plants and design and planning offices.

COVERAGE: Descriptions are given of the technical characteristics  
of instruments, devices, and circuits of automatic monitoring,  
control, and regulation systems used in manufacturing processes  
at cement plants. Prospects for the development of complex auto-  
mation of the main manufacturing processes in cement plants are  
reviewed. Chs. I, III, VI-IX, and XIV were written by I. P.  
Brovar and G. S. Drabkin; Chs. II, V, and X-XII, by Ya. Ye.  
Gel'fand; and Chs. IV, XIII, and Sec. 16 of Ch. V, by E. L.

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Automation of Cement Plants

SOV/5528

Tsikovich. There are 30 references: 27 Soviet (including 1 translation), 2 English, and 1 German.

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BROVAR, V. V.      Cand Tech Sci

Dissertation: "Requirements to the  
Universal Gravimetric Survey for its  
Utilization in Geodetic Works of the USSR."

28/4/50

Moscow Inst of Geology, Aerial Photography  
and Cartography.

**80 Vecheryaya Moskva**  
**Sum 71**

3(2)

PHASE I BOOK EXPLOITATION

SOV/2152

Moscow. Institut inzhenerov geodezii, aerofotos<sup>h</sup>yemki i kartografii Trudy, vyp. 33 (Transactions of the Moscow Institute of Engineering Geodesy, Aerial Photography, and Cartography, Nr 33) Moscow, Geodezizdat, 1958. 123 p. 1,000 copies printed.

Editorial Board: A.I. Mazmishvili (Resp. Ed.), V.I. Avgeevich (Deputy Resp. Ed.), G.V. Bagratuni, N.Ya. Bobir, N.M. Volkov, A.I. Durnev, S.V. Yeliseyev, P.S. Zakatov, G.P. Levchuk, N.I. Modrinskiy, M.D. Solov'yev, B.V. Fefilov, and P.F. Shokin; Ed. of Publishing House: A.I. Inozemtseva; Tech. Ed.: V.V. Romanova.

PURPOSE: This issue of the Institute's Transactions is intended for geodesists, photogrammetrists, and cartographers.

COVERAGE: This collection of articles covers a variety of problems and questions of interest to personnel in the mapping field. Several instruments employed in cartography are investigated and evaluated. These include a photocartograph, the Photo Reductor MIIGAik, and

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Transactions of the Moscow Institute (Cont.)

SOV/2152

marine chronometers. Other subjects treated include Stokes' formula, correction of instrumental errors, Dellen's Method, relief generalization, aerial camera orientation, and others. References accompany individual articles.

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SOV/2152

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AVAILABLE: Library of Congress

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MM/ad  
8-12-59

BROVAR, V.V., dots., kand. tekhn. nauk

Derivation and examination of stoke's formula. Trudy MIIGAİK  
no.33:15-18 '58. (MIRA 12:8)

1. Kafedra vysshey geodezii Moskovskogo instituta inzhenerov  
geodezii. (Geodesy)

BROVAR, Vsevolod Vladimirovich; MAGNITSKIY, Vladimir Aleksandrovich;  
SHIMBIREV, Boris Pavlovich; ~~YURKINA~~, M.I., retsenzent;  
MAKAROV, N.P., retsenzent; VIROVTS, A.M., retsenzent;  
· VASIL'YEVA, V.I., red. izd-va; SONGUROV, V.S., tekhn. red.

[Theory of the earth's figure] Teoriia figury Zemli. Pod  
obshchei red. V.A.Magnitskogo. Moskva, Izd-vo geodez. lit-ry,  
1961. 256 p. (MIRA 15:3)  
(Earth—Figure) (Gravity)

BROVAR, V.V., dotsent, kand.tekhn.nauk

Discussion of P.F.Shokin's textbook "Gravimetry." Izv. vys.  
ucheb. zav.; geod. i aerof. no.2:151-152 '61. (MIRA 14:6)

(Gravimetry) (Shokin, P.F.)

GRUSHINSKIY, Nikolay Panteleymonovich; MIKHAYLOV, A.A., retsenzent;  
BROVAR, V.V., nauchn. red.; FROLOV, A.I., red.;  
LIKHACHEVA, L.V., tekhn. red.

[Theory of the figure of the earth] Teoriia figury Zemli.  
Moskva, Fizmatgiz, 1963. 446 p. (MIRA 16:12)  
(Earth--Figure)

BROVAR, V.V., dotsent, kand. tekhn. nauk; PELLINEN, L.P., kand. tekhn. nauk;  
SHIMBEREV, B.P., dotsent, kand. tekhn. nauk

Mikhail Sergeevich Molodenskii, winner of the Lenin Prize.  
Izv. vys. ucheb. zav.; geod. i aerof. no.3:53-55 '63.  
(MIRA 17:1)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki  
i kartografii.

BROVAR, V.V., dotsent, kand. tekhn. nauk

Computation of the disturbing potential and its derivatives  
above the surface of the earth. Izv. vys. ucheb. zav.; geod.;  
i aerof. no.3:57-63 '63. (MIRA 17:1)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i  
kartofrafi.



EROVAR, V.V., kand. tekhn. nauk, dotsent

Solutions to Molodenskii's boundary value problem. Izv.  
vys. ucheb. zav.; geod. i aerof. no.4:129-137 '63.

(MIRA 17:9)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki  
i kartografii.

BROVAR, V.V.; YEREMEYEV, V.F.; MAKAROV, N.P.; PELLINEN, L.P.; SHIMBIREV, B.P.;  
YURKINA, M.I.

Determining the external gravitational field and the figure of the  
earth. Geod. i kart. no.10:74-76 0 '63. (MIRA 16:12)

BROVAR, V.V., dotsent, kand. tekhn. nauk

External generalized potentials. Izv.vys.ucheb.zav.: geod. i aerof.  
no.1:18 '64. (MIRA 17:12)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i  
kartografii.

BROVAR, V.V., dotsent, kand. tekhn. nauk

Fundamental harmonic functions with a singularity on a segment and the solution of external boundary problems. Izv. vys. ucheb. zav.; geod. i aerof. no.3:51-61 '64. (MIRA 18:3)

1. Moskovskiy institut inzhenerov geodezii, aerofots"yemki i kartografii.

BROVAR, V.V., kand. tekhn. nauk, dotsent

Formulas for calculating the disturbing potential and the components of the deflection of the vertical of the earth's surface. Izv. vys. ucheb. zav.; geod. i aerof. no.2:97-104 '65.

(MIRA 18:10)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii. Submitted September 13, 1964.

BROVAR, Vladimir Yakovlevich; KLEYNENBERG, S.Ye., prof., otv.red.;  
AKAYEVSKIY, A.I., prof., otv.red.; KOLPAKOVA, Ye.A., red.  
izd-va; VOLKOVA, V.V., tekhn.red.

[The forces of gravity and animal morphology] Sily tiazhesti  
i morfologiya zivotnykh. Moskva, Izd-vo Akad.nauk SSSR, 1960.  
238 p. (MIRA 13:5)  
(Morphology (Animals)) (Gravity)

BROVARNIK, B.I.

Healthier working conditions in the forge shop of the Minsk Automobile Works. Zdrav. Bel. 7 no.6:9-12 Jo '61. (MIRA 15:2)

1. Promyshlenno-sanitarnyy vrach medsanchnosti Minskogo avtomobil'nogo zavoda.

(MINSK: AUTOMOBILE INDUSTRY WORKERS' DISEASES AND HYGIENE)

BROVARNIK, Ye.G.; RYABININ, D.D.

Machines for the production of viscose. Khim. volok. no.2:60-62  
'59. (MIRA 12:9)

1.Zavod "Bol'shevik," Kiyev.  
(Viscose)



BROVARNIK, Yu.

Sound ranging. Voen. znan. 25 no.3:5-7 Mr '49. (MIRA 12:12)  
(Position finders) (Sound--Apparatus waves)

VOZNESENSKIY, Yevgeniy Pavlovich; BROVCHENKO, Ignatiy Savel'yevich;  
Prinimal uchastiye TIMONIN, M.G.; MARDER, I.M., retsenzent;  
RYZHOV, A.D., retsenzent; ABELTIN'SH, A.Ya., retsenzent;  
AKIMOVA, L.D., red.; PECHENKINA, O.P., tekhn. red.

[Accounting in food industry enterprises] Bukhgalterskii  
uchet na predpriatiakh pishchevoi promyshlennosti. Mo-  
skva, Pishchepromizdat, 1963. 342 p. (MIRA 17:2)

VYSMAN, Mikhail Iosifovich. kand. ekonom. nauk, dots. [deceased];  
BOGOYAVLENSKIY, Aleksandr Vasil'yevich; ASTASHKEVICH, Yekhiel'  
Timofeyevich; BROVCHENKO, Ignatiy Savel'yevich; MAKRUSHINA,  
A.N., red. izd-va; REMNEVA, T.T., tekhn. red.

[Accounting and the analysis of balances in river transporta-  
tion] Bukhgalterskii uchet i analiz balansa na rechnom transporte.  
Red. S.A. Makhlakh. Moskva, Izd-vo "Rechnoi transport," 1961.  
269 p. (MIRA 15:4)  
(Inland water transportation--Accounting)

BROVCHENKO, M., inzh.

Large-block construction in the mountains. Stroitel' no. 8:6  
Ag '58. (MIRA 11:8)

(Alushta--Concrete blocks)

POTAPENKO, V.D., kand.khim.nauk; BROVCHENKO, M.D., inzh.

Waterproofing tensiometer transmitting elements when  
studying reinforced concrete. Bst. i zhel.-det. 8  
no.11:521-522 N '62. (MIRA 15:11)

(Tensiometers)  
(Protective coatings)

11 D

CA BROVCHENKO, M. I.

Composition of tannic substances and quality of the tea leaf. A. L. Kurasov and M. I. Brovchenko. *Biokhimiya* (Chaloga) *Primenenie*, No. 6, 31-36 (1950). The tannin materials in a two-leaf sprout of Chinese tea plant undergo changes during growth. In August when highest quality tea is produced the tannin of such sprouts has 73-77% of low mol. wt. material which is the source of the valuable taste qualities of black tea after fermentation. This tannin is also rich in phloroglucinol and esters of gallic acid, so that in August some 50% of tannin consists of catechol gallates. Georgian tea plant (strain No. 1) at this time contains 87.7% of low mol. wt. material in its tannin, being comparable to best Indian teas; Georgian No. 2 strain has inferior quality (by its tannin compn.), but is still superior to Chinese and Japanese tea strains. G. M. Kasalafoff

CA

110

Tannins of various organs of the tea plant. A. L. Kurbanov and M. I. Bryuchenko. *Biokhimiya Chaiu* (Proceedings, Sbornik No. 6, 33-69 (1959)).--All parts of a tea plant contain tannins, the highest content being found in young shoots and the lowest in the flowers. Tannins from all organs contain catechols and esters of gallic acid. The root contains largely condensation products of these substances with mol. wt. over 1000, and little gallic acid (some 7% of the esters), the flowers contain low mol. wt. products (av. 370) and a high content of gallic acid deriva. (16.6%); and other parts of the plant show intermediate distribution. In all organs age leads to condensation of the low mol. wt. products. All organs of the tea plant contain enzymic systems capable of oxidizing the tannic matter (polyphenoloxidase and peroxidase) as well as hydrolytic enzymes ( $\beta$ -glucosidase and oxynitrilase), indicating possible enzymic reactions throughout the plant. Young organs contain largely polyphenoloxidase, the older ones have a predominance of peroxidase. Hydrolytic enzymes are most active in the aging parts of the plant (stems, bark, and roots) and least active in the younger parts. G. M. Kosolapoff

WUJIA, M. I.

WUJIA, M. I. -- "Composition of Tanning Substances in Various  
Orms and Varieties of the Tea Bush." Sub 24 Apr 52, Inst of  
Biochemistry imeni A. M. Bakh, Acad Sci USSR. (Dissertation for  
the Degree of Candidate in Biological Sciences).

So: Vechernaya Moskva January-December 1952



*ОКУРАТОРЫ*  
KURSANOV, A.L.; CHAYLAKHYAN, M.Kh.; PAVLINOVA, O.A.; TURKINA, M.V.;  
BROVCHENKO, M.I.

Translocation of sugars in grafted plants [with summary in English].  
Fiziol. rast. 5 no.1:3-15 Ja-F '58. (MIRA 11:1)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva AN SSSR, Moskva.  
(Plants, Motion of fluids in) (Grafting) (Sugars)

KURSANOV, A.L.; BROVCHENKO, M.I.; PARIYSKAYA, A.N.

Passage of assimilates into the conducting tissues of rhubarb leaves (*Rheum rhaponticum* L.). *Fiziol. rast.* 6 no.5:527-536 S-0 '59. (MIRA 13:2)

I.K.A. Timiryazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.

(Plants, Motion of fluids on)

BROVCHENKO, M.I.; BALUKOVA, A.A.

Processing the Krasnodar tea leaf into black tea. Biokhim. chain.  
proizv. no.7:52-61 '59. (MIRA 13:5)

1. Institut fiziologii rasteniy imeni K.A. Timiryazeva AN SSSR,  
Moskva.

(KRASNODAR TERRITORY--TEA)

KURSANOV, A.L.; BROVCHENKO, M.I.

Effect of adenosinetriphosphoric acid on the uptake of assimilates by the conducting system of the sugar beet. Fiziol.rast. 8 no.3:270-278 '61.  
(MIRA 14:5)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii nauk SSSR, Moskva.  
(Adenosinetriphosphoric acid) (Plants, Motion of fluids in)

BROVCHENKO, M.I.

Absorption of amino acids by conducting and assimilating  
tissues of leaves. Fiziol. rast. 10 no.4:416-425 JI-Ag '63.  
(MIRA 16:8)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy  
of Sciences, Moscow.

"The transport of amino acids from photosynthesizing tissues into conducting tissues."

report submitted for 10th Intl Botanical Cong, Edinburgh, 3-12 Aug 64.

AS USSR, Moscow.

BROVCHENKO, M. I.

Movement of sugars from the mesophyll to the conducting bundles  
of sugar beets leaves. Fiziol. rast. 12 no. 2: 270-279 Mr.-Ap '65.  
(MIRA 18:6)

3. Institut fiziologii rasteniy imeni Timiryazeva AN SSSR, Moskva.

BROVCHENKO, N. Inzhener.

Ways of measuring the toe-in of automobile front wheels. Avt.  
transp. 34 no.9:17-19 S '56. (MLBA 9:11)  
(Automobiles--Wheels)



✓  
BROVCHENKO, N., inzh.

Problems of operating automobiles in technical literature..

Avt.transp. 35 no.9:38-39 S '57.

(MIRA 10:10)

(Bibliography--Automobiles)

PARFENOV, N.P., dotsent, kand. tekhn. nauk; GOMONOV, V.K., aspirant;  
BROVCHENKO, R.A., student; KULIKOV, Yu.I., student; DOYKHER, Yu.M.,  
student

Fixed fastening of a unit in a plane under directionally variable  
loading. Sbor. trud. Khab. avt.-dor. inst. no.1:12-15 '62.  
(MIRA 18:1)

15-8070

26877

S/081/61/000/013/010/028  
B110/B205

**AUTHORS:** Kuliyeu, Al. M., Pinsker, B. A., Brovchenko, T. P.

**TITLE:** Decrease of the adsorptive capacity of activated carbon due to polymerization of acetylene on its surface

**PERIODICAL:** Referativnyy zhurnal. Khimiya, no. 13, 1961, 510, abstract 13M139 (Azerb. khim. zh., 1960, no. 3, 31-35)

**TEXT:** Laboratory tests have shown that at a contact time between  $C_2H_2$  and activated carbon of 25 sec and an operation time of 1-1.5 months, the activity of AP3(ARZ) carbon is reduced by 10%, and that of CKT(SKT) carbon by 20-25%. The decrease in activity can be reduced by 50-60% if  $C_2H_2$  and carbon are kept in contact only for 12 sec. [Abstracter's note: Complete translation.] X

Card 1/1

KULIYEV, A.M.; ALEKPEROV, G.Z.; PINSKER, B.A.; GRIGORYAN, E.V.; BROVCHENKO, T.P.

Separation of natural gas in a consolidated laboratory set-up.  
Gaz. prom. 9 no.1:51-54 '64. (MIRA 17:12)

KULIYEV, Al.M.; PINSKER, B.A.; BROVCHENKO, T.P.; AGAKISHIYEV, N.A.

Decline of the adsorptive capacity of silica gels caused by  
the polymerization of acetylene on its surface. Azerb.khim.zhur.  
no.6:105-108 '61. (MIRA 15:5)

(Silica) (Adsorption) (Acetylene)

S/081/62/000/023/017/120  
B156/B186

**AUTHORS:** Kuliyeu, Al. M., Pinsker, B. A., Brovchenko, T. P.,  
Agakishiyev, N. A.

**TITLE:** Adsorbing power of silica gel reduced by polymerization of  
acetylene at its surface

**PERIODICAL:** Referativnyy zhurnal. Khimiya, no. 23, 1962, 117, abstract  
23B856 (Azerb. khim. zh., no. 6, 1961, 105 - 108 [summary in  
Azerb.] )

**TEXT:** The decrease in the adsorbing activity of silica gel resulting  
from the polymerization of acetylene at its surface has been investigated.  
It is proved that an adsorbent of consistent activity can be produced by  
treating silica gel with HCl. [Abstracter's note: Complete translation.]

Card 1/1

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*BROVCHENKO, V. G.*

USSR/Physics - Ion accelerators

Card 1/1 Pub. 22 - 12/47

Authors : Brovchenko, V. G.; Gokhberg, B. M.; and Morozov, V. M.

Title : Stabilization of the energy of ions accelerated with a high voltage electrostatic generator

Periodical : Dok. AN SSSR 101/6, 1023 - 1025, Apr. 21, 1955

Abstract : A device and the method of its operation in stabilizing the energy of ions accelerated with a high voltage electrostatic generator are described. The energy stabilization is accomplished by the voltage stabilization of the device (ion accelerator). It was determined that the voltage of the accelerator deviates not more than 0.025%. One USSR reference (1955). Diagram.

Institution : Acad. of Sc., USSR, S. I. Vavilov Institute of Physical Problems

Presented by: Academician A. P. Aleksandrov, November 17, 1954



*Brovchenko, V. G.*

USSR/Electronics - General Problems

H-1

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12262

Author : Brovchenko, V.G.

Inst : -

Title : Integrator for Weak Currents.

Orig Pub : Pribory i tekhn. eksperimenta, 1956, No 1, 51-53

Abstract : The article describes a capacitive integrator of the relaxation type, made with ordinary vacuum tubes, and intended for operation with a beam of accelerated ions. Deviations from linearity of the scale of the integrator do not exceed 1% when integrating currents in the range from  $10^{-9}$  --  $6 \times 10^{-6}$  amp.

Card 1/1

AUTHOR: Brovchenko, V. G., and Molchanov, Yu. D. 120-2-19/37

TITLE: A low Noise Level Pre-amplifier. (Predusilitel' s Malym Urovnem Shumov.)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.2, pp. 67 - 70 (USSR).

ABSTRACT: A low noise pre-amplifier built for use with ionisation chambers and with proportional counters is described (Refs. 1 and 2). The first stage of the amplifier is a "cascade" using two grounded cathode 6Ж17 in parallel connection and a grounded grid parallel connected double triode 6H15П. The noise level of the pre-amplifier is determined mainly by the anode current fluctuations in the input stage and is 2μV for a pass band 50kc/s to 1.1Mc/s, input capacity of about 11pF and  $V_a$  of 75V. The pre-amplifier gain is 140 with the pass band 5Mc/s to 600cps.

A Low Noise Level Pre-amplifier.

120-2-19/37

very good service in high precision physical instrumentation for the last three years. The circuit diagram of the pre-amplifier is given. There are 2 references, 1 of which is Slavic.

SUBMITTED: August, 21, 1956.

AVAILABLE: Library of Congress.

Card 2/2

SOV/120-59-2-45/50

AUTHORS: Brovchenko, V.G., and Morozov, V.M.

TITLE: ~~Circuit for Protecting~~ against Electrical Noise (Skhema zashchity ot elektricheskikh pomekh)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 2, pp 145-146 (USSR)

ABSTRACT: In nuclear studies where pulses are to be counted at a very slow rate external interference can be troublesome. The present arrangement (Fig 1) blocks a number of channels when a false pulse is received. The action is reliable if: the sensitivity is greater to interference than of any controlled circuit; speed of response in blocking is greater than that during ordinary operations; the blocking time is such that interfering pulses both of greater amplitude and duration are frustrated. The main amplifier in Fig 1 has two sections each of three stages, the gain is 900, the passband 1 kc/s at 2.5 mc/s. The maximum output signal is 50 V and is positive. The output pulses are standardised in amplitude (120 V) and duration (0.6  $\mu$ ) by the blocking oscillator  $\Lambda_2$  in Fig 2. The pulse is stretched in the Schmidt trigger  $\Lambda_5$  and applied to the cathode follower  $\Lambda_8$  which drives all

Card 1/2

SOV/120-59-2-45/50

Circuit for Protecting against Electrical Noise

the gates (1-10). The portion of the circuit to the right of the dotted line in Fig 2 is a gate. The arrangement has worked reliably for a number of years. Card 2/2 There are 2 figures.

SUBMITTED: November 18, 1958

BROVCHENKO, V. G., and GORLOV, G. V.

"Scintillation Counter for Neutrons with Low Sensitivity to Gamma Rays"

report submitted for the IAEA conf. on Nuclear Electronics, Belgrade, Yugoslavia  
15-20 May 1961

BROVCHENKO, V. G. and MOLCHANOV, Yu. D.

"Time Analyzer for Fast Pulse Series"

report submitted for the IAEA conf. on Nuclear Electronics, Belgrade, Yugoslavia  
15-20 May 1961

*Inst. Atomic Energy in I. V. Kurchatov, Moscow*

29596

S/120/61/000/004/005/034  
E032/E514

21.6000

AUTHORS: Brovchenko, V.G. and Gorlov, G. V.

TITLE: Separation of neutrons and gamma-rays using the difference in the scintillation counter pulse shape

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.4, pp.49-52

TEXT: The aim of the present work was to develop a simple scintillation counter having a high neutron and a low  $\gamma$ -efficiency. The minimum energy of neutrons which can be separated from the  $\gamma$ -background is 80 keV. The method employed consists in the following. The scintillation pulse has a fast and a slow component. The fast component is due to phosphor molecules excited directly by charged particles, and the slow component is due to the recombination of ionized molecules with electrons. In many phosphors, e.g. stilbene, the ratio of the intensities of these two components is different for different particles, but remains constant for a given kind of particle in a certain energy range. By comparing the fast and slow components one can determine the nature of the incident particles. The present authors have used the circuit shown in Fig.1a. The stilbene crystal (diameter 34 mm, height 28 mm) has a fast component with a decay constant of Card 1/4

29596

Separation of neutrons and ...

S/120/61/000/004/005/034  
E032/E514

6 nanosec, while the form of the slow component can be represented by a combination of exponentials with  $\tau$  between 0.35 and 10  $\mu$ sec. With the same fast-component intensity, the intensity of the slow component for neutrons is greater by a factor of two as compared with  $\gamma$ -rays. Using integrating RC circuits with different time constants ( $5 \times 10^{-8}$  and  $5 \times 10^{-6}$  sec, respectively) the pulses produced at the anode and the last dynode of the photomultiplier are respectively determined by the fast and slow components. The diode  $\Delta$ -10 (D-10) stretches out the anode pulse. In the recording of the  $\gamma$ -rays the values of R and C in the integrating circuit of the dynode are adjusted so that the amplitude at the anode and the dynode is equal but the length of the former is somewhat larger. When these pulses are combined (across the 91 kOhm resistor), the positive pulses at the output represent the neutrons only. The apparatus is designed for neutron experiments with high-voltage electrostatic generators. Acknowledgments are expressed to P. Ye. Vorotnikov for assistance with the circuitry and to V. M. Morozov for discussions of the results obtained.

Card 2/4



29596

Separation of neutrons and ...

S/120/61/000/004/005/034  
EO32/E514

There are 5 figures and 4 references: 2 Soviet and 2 non-Soviet. The English-language references read as follows: Ref.3: M. Forte, International Conference on the Peaceful Uses of Atomic Energy (Geneva, 1958), v.14, p.300; Ref.4: F. D. Brooks, Nucl. Instrum. and Methods, 1959, 4, 151.

ASSOCIATION: Institut atomnoy energii AN SSSR  
(Atomic Energy Institute AS USSR)

SUBMITTED: September 23, 1960

Card 3/4

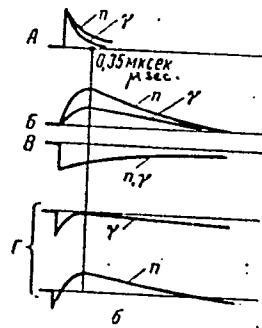
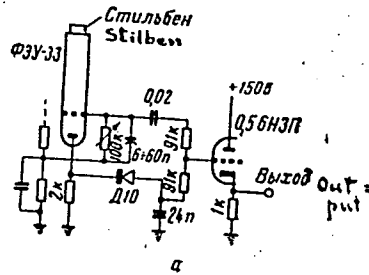
Separation of neutrons and ...

29596

S/120/61/000/004/005/034  
E032/E514

Fig.1. Legend.

- a - Basic circuit.
- b - Pulse shapes.
- A - Photomultiplier current pulse;
- B - dynode pulse;
- B - anode pulse;
- Γ - compensated (output) pulses.



Card 4/4

S/120/61/000/006/013/041  
E035/E414

AUTHORS: Brovchenko, V.G., Molchanov, Yu.D.

TITLE: A time selector for the analysis of a train of pulses

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1961, 74-77

TEXT: The selector was designed for the measurement of the time distribution of pulses in series of pulses. Its parameters are as follows: minimum channel width  $25 \mu\text{sec}$ ; gap between channels  $\sim 2.5 \mu\text{sec}$ ; resolving time  $\sim 3 \times 10^{-8} \mu\text{sec}$ . Fig.1 and 2 show a block diagram of the selector together with the corresponding voltage waveforms. The time distribution is measured with the aid of a differentiating capacitor storage system which is periodically discharged by pulses from the channel generator. The time between two discharges is equal to the width of the selector channel. The change in the potential across the capacitance in the time between two discharges is proportional to the number of pulses entering the device in this time. The curve connecting the maxima of the latter potential represents the desired distribution and is photographed from the oscilloscope screen. The statistical accuracy of the measured distribution curves is determined by the number of pulses recorded in the Card 1/2

A time selector ...

S/120/61/000/006/013/041  
E035/E414

selector channel, i.e. the rate of input pulses, the width of the channels and the speed of recording the pulses. The main advantage of the selector is the high speed of signal recording, and the simple circuitry employed. Detailed circuits are reproduced. There are 5 figures and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to an English language publication reads as follows: Ref.1: F.J.M. Farley. Rev. Scient. Instrum., v.29, 1958, 595. ✓

ASSOCIATION: Institut atomnoy energii AN SSSR  
(Institute of Atomic Energy AS USSR)

SUBMITTED: April 25, 1961

Card 2/3

S/120/61/000/006/014/041  
E032/E514

AUTHOR: Brovchenko, V.G.

TITLE: Linear capacitive storage devices

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1961, 77-80

TEXT: A capacitive storage device is defined as a circuit which produces an output signal whose amplitude is proportional to the number of signals fed into it. The present author is concerned with the linearity of information storage in such circuits. A description is given of two such circuits which are linear in a large range of input amplitudes. The first of these is very linear (to within a few hundredths of a percent) provided the magnitude of the output signal does not exceed the amplitude of the input signals. The second circuit is capable of recording signals with a high repetition frequency and may be triggered by nanosecond pulses. The two circuits are shown in Figs. 3 and 4. The storage capacity of these circuits is not discussed. There are 4 figures.

ASSOCIATION: Institut atomnoy energii AN SSSR  
(Institute of Atomic Energy AS USSR)

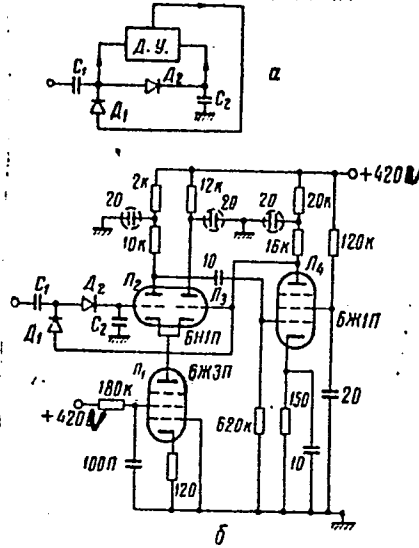
Card 1/2

Linear capacitive storage devices

S/120/61/000/006/014/041  
E032/E514

SUBMITTED: April 21, 1961

Fig. 3. Legend.  
Capacitive storage device with a high degree of linearity.  
a - block diagram,  
б - basic circuit.



Card 2/2

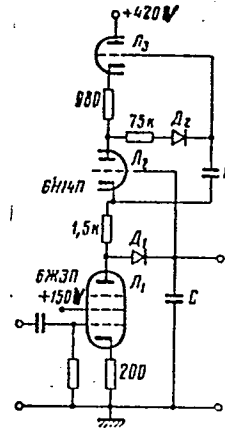


Fig. 4. Legend.  
Fast capacitive storage circuit.

BROVCHENKO, V.G.; ZABIYAKIN, G.I.

International conference on nuclear electronics in Belgrad in 1961;  
review of reports. Erib.i tekhn.eksp. 7 no.1:202-206 Ja-F '62.

(MIRA 15:3)

(Electronic apparatus and appliances)(Nuclear physics)

L 10619-65 EEO-2/ENT(1)/EEC-1/EEB-2/EWA(h) Pn-1/Peb/Pl-1 ASD(a)-5/RAEM(t)/  
ESD(dp)/AFMDC/RAEM(c)/ESD(c)/AFETR/ESD(gs)/ESD(t)

ACCESSION NR: AP4044662

S/0120/64/000/004/0005/0019

AUTHOR: Brovchenko, V. G.; Molchanov, Yu. D.

TITLE: Low-noise impulse amplifiers for spectrometry

SOURCE: Prilozheniya i tekhnika eksperimenta, no. 4, 1964, 5-19

TOPIC TAGS: amplifier, impulse amplifier, low noise amplifier, spectrometry, nuclear radiation detector

ABSTRACT: Based on modern Soviet and Western periodical sources, a review of low-noise amplifiers is presented which consists of these sections: terminology of noise; fundamental formulas for noise calculations; first-tube operating conditions (grid current, equivalent resistance, noise); first-tube type (Soviet 6N23P, 6S3P, 6S15P tubes); first stage of the preamplifier; negative feedback type (negative current-feedback, charge amplifier); passband (effect of integration and differentiation on the signal-to-noise ratio); input capacitance

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L 30619-65

ACCESSION NR: AP4044662

(dynamic capacitance depending on the feedback); stability of operation (gain in stability for 6S3P, 6Zh9P, 6Zh11P, 6S15P Soviet tubes); front rise time of a charge amplifier; electron-tube preamplifiers (H. J. Dubrau's floating-grid circuit, B. V. Fefilov's circuit with subminiature 6N16B tubes); transistorized preamplifiers; preamplifiers with field-effect transistors. The conclusion notes the desirability of further research in the stability of operation and design of electronic equipment. "The authors wish to thank G. A. Otrosenko for his/her help in the work, A. A. Markov for a useful discussion, and B. M. Gokhberg for his attention to the work." Orig. art. has: 14 figures.

ASSOCIATION: Institut atomnoy energii (Institute of Atomic Energy)

SUBMITTED: 25Apr64

ENGL: 00

SUB CODE: EC, NP

NO REF SOV: 023

OTHER: 016

Card 2/2

L 00018-66 EWT(d)

ACCESSION NR: AP5021371

UR/0120/65/000/004/0229/0230  
621.374.32

15  
B

AUTHOR: Brovchenko, V. G.; Kondrat'yev, L. G.

TITLE: Decatron scaler

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1965, 229-230

TOPIC TAGS: electronic circuit, clock

ABSTRACT: This note describes in some detail the triggering and operation of a decatron scaling section shown in Fig. 1 of the Enclosure. It discusses the time constant of the pulse front and shows the pulse shape in the case of presence and absence of the diode D<sub>1</sub>. The circuit is designed for use in electronic clocks. Orig. art. has: 2 figures.

ASSOCIATION: Institut atomnoy energii GKAE, Moscow (Institute of Atomic Energy, GKAE)

SUBMITTED: 06Jun 64

ENCL: 01

SUB CODE: EC

NO REF SOV: 001

OTHER: 000

Card 1/2

L 00018-66

ACCESSION NR: AP5021371

ENCLOSURE: 01

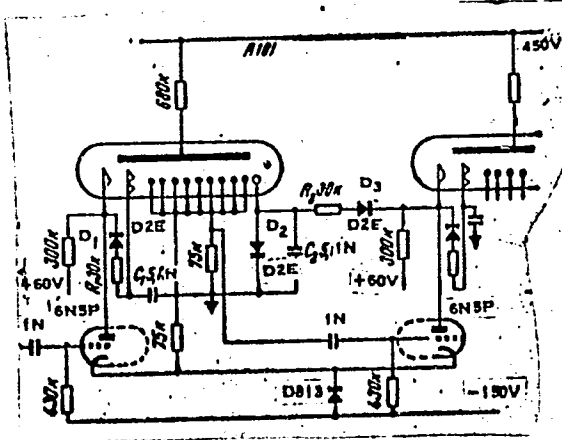


Fig. 1. Triggering section circuit of decatrons

Card 2/2

L 00017-66

ACCESSION NR: AP5021375

UR/0120/65/000/004/0236/0237  
621.317.31

34  
B

AUTHOR: Brovchenko, V. G.; Kondrat'yev, L. G.

TITLE: Ion current integrator

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1965, 236-237

TOPIC TAGS: integrator circuit, ion current, electronic circuit

ABSTRACT: This brief note describes the operation of the ion integrator shown in Fig. 1 of the Enclosure and of the integrator scaler shown in Fig. 2. Orig. art. has: 1 formula and 2 figures.

ASSOCIATION: Institut atomnoy energii GKAE, Moscow (Institute of Atomic Energy, GKAE)

SUBMITTED: 06Jun64

ENCL: 02

SUB CODE: EC, NP

NO REF SOV: 002

OTHER: 001

Card1/3

L 00017-66

ACCESSION NR: AP5021375

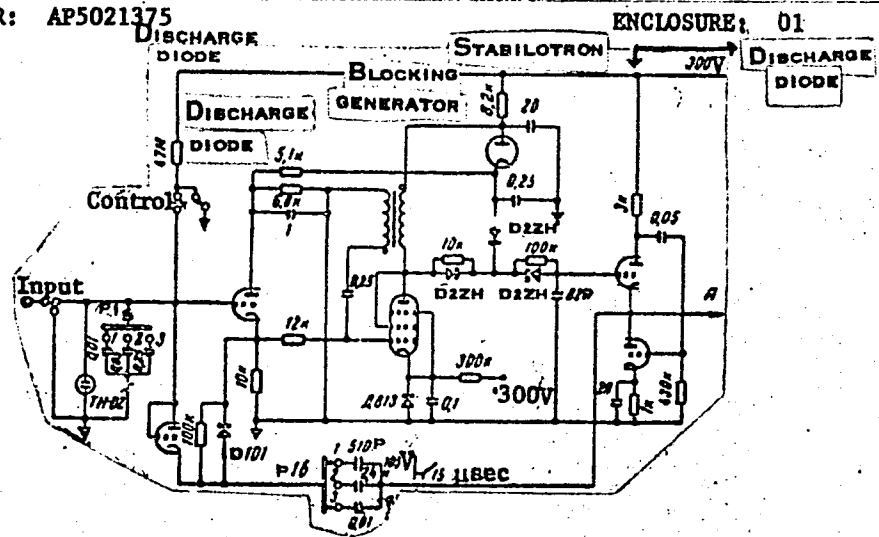


Fig. 1. Integrator circuit diagram.

Card 2/3

L 00017-56

ACCESSION NR: AP5021375

ENCLOSURE: 02

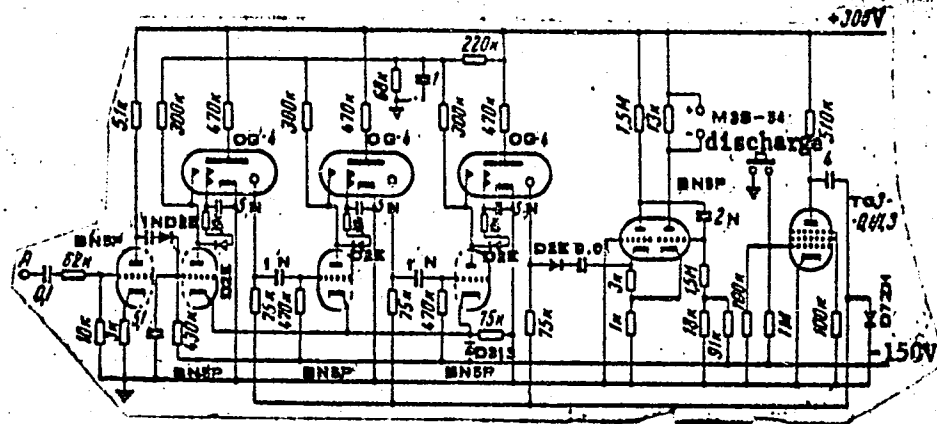


Fig. 2. Integrator scaler circuit diagram.

*mlr*  
Card 3/3

L 38204-66

ACC NR: AP6022007

SOURCE CODE: UR/0120/66/000/003/0121/0125

AUTHOR: Brovchenko, V. G.; Molchanov, Yu. D.; Stroganov, Ye. A. 30  
BORG: Institute of Atomic Energy, GKAE, Moscow (Institut atomnoy energii GKAE)TITLE: Measuring current impulses by magnetic belts

SOURCE: Pribery i tekhnika eksperimenta, no. 3, 1966, 121-125

TOPIC TAGS: electric measurement, electric pulse measurement, electric measuring instrument

ABSTRACT: Two "magnetic-belt" circuits are examined: (1) With an integrating belt and (2) With a differentiating belt and subsequent signal integration. The "magnetic-belt" is actually a type of current transformer that measures not only the value but also the shape of a current impulse by providing the output signal proportional to the emf integral. Formulas for sensitivities of both the circuits are set up; when the flat portion of a square signal is important, circuit 2 has the advantage because of its higher sensitivity threshold; with considerable external noise, both circuits are equal. Formulas were verified by some experiments carried out with a rectangular-cross-section ( $r = 1.35$  cm,  $S = 0.325$  cm<sup>2</sup>) ferrite torus ring having suitable windings. "In conclusion, the authors wish to thank G. A. Otroshchenko for a useful discussion and help in calculations." Orig. art. has: 3 figures and 24 formulas. [03]

SUB CODE: 09 / SUBM DATE: 12Apr65 / ORIG REF: 009 / OTH REF: 003/ ATD PRESS: 5044

Card 1/1 *lll*

UDC: 621.317.31.014.33

ACC NR: AP6022011

SOURCE CODE: UR/0120/66/000/003/0137/0138

AUTHOR: Brovchenko, V. G.; Molchanov, Yu. D.

ORG: Atomic Energy Institute, GKAE, Moscow (Institut atomnoy energii GKAE)

TITLE: A low noise preamplifier with a short signal rise time

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1966, 137-138

TOPIC TAGS: preamplifier, electronic circuit, spectroscopy

ABSTRACT: A fast, low-noise stable preamplifier circuit is presented which is intended for use in the spectroscopy of intensive, low-energy charged-particle fluxes and for counting the number of rare events in the background of weak but often interfering signals. The preamplifier consists of two sections with negative feedbacks. The first section is in the form of a charge amplifier circuit. The first section has a transmission coefficient of 1/5 pf, and the second section has a gain of 7. A dynamic capacitance of 900 pf is at the input of the preamplifier. The signal rise time at the output of the preamplifier depends on the capacitance of the detector at its input. The intrinsic rise time of the preamplifier is equal to 15 nsec at a signal amplitude level of 0.1 to 0.9, and the root-mean-square value of noise is 11 keV. Orig. art. has: 2 figures.

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BOVOCHENKO, YE. B.

24-11-2/31

**AUTHORS:** Bochvar, A. A. and Brovchenko, Ye. B. (Moscow)

**TITLE:** Effect of cyclic heat treatment in copper, nickel and some single-phase copper base solid solutions.  
(Effekt tsiklicheskoy termicheskoy obrabotki v medi, nikel i nekotorykh odnofaznykh tverdykh rastvorakh na mednoy osnove)

**PERIODICAL:** Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.11, pp.10-13 (USSR)

**ABSTRACT:** It has been pointed out in a number of papers (Refs.1-3) that cyclic heat treatment can change appreciably the dimensions and the shape of specimens of tested metals and finally lead to failure. The work described in this paper aimed at measuring the effects of cyclic heat treatment in certain pure metals with a cubic face centred lattice and of solid solutions of the substitution type of alloys based on such metals and having a crystal lattice of the same type. Pure copper and nickel and three types of copper base solid solutions were used in the experiments, namely, German silver MH-19, brass J1-68 and a ternary alloy (containing 64.6% C, 14.95% Ni, 20.2% Zn, 0.05% Fe and 0.03% Mn). The composition of the tested alloys is given in Table 1, p.11. The specimens were in

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Effect of cyclic heat treatment in copper, nickel and some single-phase copper base solid solutions. (Cont.)

the form of 5 mm thick sheet from which specimens of 100 x 25 mm were cut in the direction of rolling. The selection of the maximum temperatures of the cyclic heat treatment was based on the rule, which was confirmed, that an appreciable effect is obtained in the case of relatively small numbers (tens and hundreds) of cycles, only if an adequate mobility of the atoms is ensured by heating to temperatures of at least 0.5 times the absolute melting temperature for pure metals or the solidus temperature for alloys, i.e. a temperature which is considerably higher than the initial recrystallisation temperature. Typical curves of the changes in length, width and thickness are reproduced in Figs. 1 and 2, whilst Fig.3 shows the magnitude of the effect of cyclic heat treatment (100 cycles) on the change in length as a function of the maximum temperature for nickel, German silver (Cu-Ni) and the ternary copper-Ni-Zn alloy. There are 3 figures, 2 tables and 3 references, all of which are Slavic.

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*Brovchenko, Ye. B.*

AUTHORS: Bochvar, A. A., Academician 20-1-19/42  
Brovchenko, Ye. B.,

TITLE: Modification of the Dimensions of Copper-Zinc Alloy Plates Under Cyclic Thermal Treatment (Izmeneniye razmerov plastin iz mednotsinkovykh splavov pri tsiklicheskoj termicheskoj obrabotke)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 1, pp. 75-77 (USSR)

ABSTRACT: For the investigation of this modification the authors used foil from copper and its industrial alloys of brass type. The composition of these alloys are illustrated in a table; Out of the 5 mm thick foils samples were cut along the direction of rolling (100 mm X 25 mm). For a comparison some samples cut out vertically to the rolling were investigated. The results in these two cases were practically the same. The heat treatment consisted of a warming up of the samples up to a maximum temperature of 560° or 600° respectively lasting for 10 minutes. Then the samples were kept at a constant temperature for 2 minutes and then quickly cooled down in water of room temperature. The investigation of the microstructure and the examination of the mechanical properties gave evidence of the following: Already in the first warming up to the above given temperatures a recrystallization annealing of the rolled and previously not annealed

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Modification of the Dimensions of Copper-Zinc Alloy Plates Under Cyclic Thermal Treatment. 20-1-19/42

samples took place. Therefore in a remarkable number of cycles practically no differences in the behaviour of the cold-rolled samples were ascertained, which had been chosen before and after the preceding annealing. Measuring the dimensions of the samples after 25, 100, 150, 200 cycles showed that with increasing number of the cycles the dimensions are gradually and usually linearly modified. The results of the measurements carried out after 100 cycles at  $150 \rightarrow 560^\circ$  are illustrated in a graph for all materials here investigated. The samples of the monophase alloys with cubical face-centered lattices continuously grew longer and broader and became thinner at the same time. The influence of the cyclic heat treatment is intensified with increasing content of zinc in the alloy. Then the behaviour of the single alloys is discussed. The change of the sign of the effect of the cyclic heat treatment is obviously connected with the occurrence of the  $\beta$ -phase in the alloy. The causes for this change of signs might be found by investigating alloys that consist of a pure  $\beta$ -phase. There are 4 figures, 1 table, and 1 Slavicevic reference.

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