PABIJANEK, Hubert, inz.

Utilization of the working time of blast furnaces. Wiad hut 15 no.10:297-301 O '59.

PABIJANEK, Hubert, inz.

Utilization of the working time of open hearth furnaces.
Wiad hut 15 no.11/12:350-354 N-D '59.

PARIJANEK, Hubert, inz.

Utilization of the roller working time in the iron and steel metallurgy. Wiad hut 16 no.1:17-21 Ja '60.

PABIJANEK, Hubert, inz.

Utilization of time and shutdown of blast furnaces. Wiad hut 18 no.1:7-11 '62.

PABIJANEK, Hubert, inz.

The quality of technological and operational documentation. Przegl techn no. 28:4 15 Jl '62.

PABIJANEK, Hubert, inz.

Caring for durable means. Przegl techn no.32:1,5 12 Ag '62.

PABIJANEK, Hubert, inz.

Production capacity of repair enterprises. Przegl techn no.34:3,4 26 Ag '62.

PABIJANEK, Hubert, inz.

Lubrication management; lubrication, an important problem in the use of machinery and equipment. Przegl techn no.42:3,4 21 O '62.

PABIJANEK, Hubert

Development of specialized repair bases in industry. Przegl techn [84] no.11:4 17 Mr '63.

1. PISHCHEV, V. M.; YANSON, F. A.; KISELEV, K. N.; PABIN, A. M.

2. USSR (600)

4. Milling Machinery

7. Cast grinding balls, Lit. proizv. No. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

PABIN, N. V.

USSR/Nuclear Physics C-5

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11248

Author : Parfanovich, D.M., Pabin, N.V., Semchinova, A.M.

Inst : Not given

Title : Interaction of Nitrogen Nuclei With Photoemulsion Nuclei.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 31, No 2, 188-193

Abstract : A study was made of the interaction between nutrogen nuclei, accelerated in a cyclotron to 115 Mev, and the nuclei of the Ilford E1 photoemulsion. The dependence of the range on the energy, obtained experimentally for nitrogen nuclei, was used in the processing of the results. 25 square cm of the emulsion were scanned and 198 interactions with escape of charged particles were observed, of which 70 cases were attributed to the interaction between the nitrogen and the "heavy nuclei"

Card 1/3

PABIS, S., porucznik nawigator

Repeated landing approach in difficult atmospheric conditions with the use of RSL. Wojsk przegl 13 no.11:24-26 N '58.

PABIS, S.

Chaffcutter for cutting straw. p. 21. (PLON. Vol. 4, no. 11, Nov. 1953)

SO: Monthly List of East European Accessions, L.C., VOL. 3, No. 4, April, 1954

PARIS, S.

Researches on the drying of heaped grain by blowing unheated air through it, p. 61. (ROCZNIKI NAUK ROLNICZYCH, Warszawa, Vol. 66, no. 4, 1954.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 8, Jun. 1955, Uncl.

FAFARA, Roman; PABIS, Stanislaw

Development trends in the technology of grain drying and storing in Poland. Zesz probl post nauk roln no. 44:257-292 '64.

1. Institute of Mechanization and Electrification in Agriculture, Warsaw.

Distr: 4E2c(m)

4
+mgc(JD)

Vacuum crystallization of ammonium chloride. Jerzy Synowiec and Janina Pabis-Machaj (Inst. Inorg. Chem., Gliwice, Poland). *Przemysl Chem.* 39, No. 3, 161-7(1960). —The effect of several factors, such as intensity of stirring, cooling velocity, initial concn., and presence of NaCl, on the crystn. of NH_4Cl was investigated. A pilot 3-stage continuous vacuum crystallizer was constructed. Its production per unit vol. was 5 times that of batch crystallizers and amounted to 24–5 kg./cu. m. hr. B. Jóźwiakowski

PABISIAK, Antoni; IZBICKI, Lech; WARDYNSKI, Grzegorz

Surgical treatment of hallux with a modified method of Heuter-Mayo with evaluation of late results. Wiad. lek. 18 no. 21:Suppl.:31-33 15 N '65

1. Z I Oddziału Chirurgicznego Szpitala Miejskiego w Radomiu (Ordynator: dr. med. A. Pabisiak).

PABLAKS, R.; KOTANE, S., red.

[Nonutilized reserves in meat production] Neizmantotas rezerves gaļas razošana. Rīga, Latvijas lopkopības un veterinārijas zinātniski pētnieciskais institūts, 1961. 12 p.
(MIRA 15:3)

(Poultry)

PABLOV, SP.

BULGARIA/Synthetic Polymers, Plastics. H.

Abs Jour : Ref Zhur - Khimiya, No 19, 1958, 66029

Author : Pablov Sp.
Inst : -
Title : Use of Textolite in the Textile Industry.

Orig Pub : Leka promishlenost., 1957, 6, No 11, 34-36.

Abstract : In the BPR, a wide assortment of details for textile equipment is manufactured (transmission gears for machines, rollers for shock manhanisms and other) from phenol textolite and textofibers. Some detains usually manufactured from leather are also being repalced by textolites, which is allowing a reduction of their cost and an increase of their length of service by 5-7 times. In the dressing sections, it is proposed that the oak rolls be replaced with textolites, or with rollers lined with textolite, since under the action of hot water and alkali

Card 1/2

Kinetics of the oxidation of barium sulfate by oxygen

PABO, N. V.

PABO, N. V. and POKROVSKAYA, T. V., "Mechanization of the Handling of Hydrometeorological Materials in the USSR," No 5, pp 107-111.
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

USSR/Geophysics Mar/Apr 48
Weather

"Work on the Subject, 'Weather in Landscape,'" N. V. Pabo, 1 p

"Iz v-s Geog Obshch" Vol LXXX, No 2

PA5/49T51

Attempt to represent diversity of complex meteorological processes has led to idea of showing weather, not merely as dry figures and concepts, but in good pictures. In 1946 T. N. Alisovoy (Cen Sci Res Hydrometeorol Archives) completed his album of reproductions. In 1947, an exhibition of paintings showed "Moscow Weather in Contemporary Art." Gives

5/49T51

USSR/Geophysics (Contd) Mar/Apr 48

summary of B. P. Alison's speech, "The Significance of the Landscape Artist in Climatology."

5/49T51

PABO, N. V.

PABO, N.V.

POLYACHEK, Yakov Grigor'yevich; PABO, N.V., redaktor; SMIRNOV, G.I., tekhnicheskiy redaktor

[The composition of food products and their caloric content; tables for computation. Sostav pishchevykh produktov i ikh kaloriinost'; raschetnye tablitsy. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1956. 182 p. (MLRA 10:3)
(FOOD--TABLES, CALCULATIONS, ETC.)

PABOGIN, A.A.

USSR/ Miscellaneous

Card 1/1 : Pub. 128 - 12/31

Authors : Pabogin, A. A.

Title : Speeding-up the adaptation of automatic equipment

Periodical : Vest. mash. 10, 55 - 56, Oct 54

Abstract : The editorial gives some information concerning the evaluation of A. F. Zhukhovitskiy's article, "Speeding-up the Adaptation of Automatic Equipment", by the Technical Board of the Scientific-Investigational Institute for Metal Cutting Machines.

Institution : ....

Submitted : ....

BERLIAND. Abram: POPOVA, Galina Fedorovna; GUTAUSKAS, V. [translator]; PABREZIENE, A., red.; ANAITIS, J., tekhn. red.

[Care of the sick at home; for study circles on the care of the sick at home] Ligoniu slaugymas namie; skiriama besimokantiems ligoniu slaugymo namie rateliuose. Vilnius, Valstybine politines ir mokslines literaturos leidykla, 1961. 112 p. (MIRA 15:3)

(Home nursing)

AZUSIENIS, A.; JASEVICIUS, V.; JUODOKAS, A.; JUSKA, A.; MASNAUSKAS,J.: PUCINSKAS, A.; STRAIZYS, V.; ZDANAVICIUS, K.; ZITKEVICIUS, V.; SLAVENAS, P., prof., red.; PAEREZIENE, A., red.; CECYTE, V., tekhn. red.

[Stellar sky] Zvaigzdetasis dangus. Vilnius, Valstybine politines ir mokslines literaturos leidykla, 1961. 113 p. (MIRA 15:3)

(Constellations)

INDRASIUS, N., dots.; PAREZIENE, A., red.

[Nervous diseases and how to prevent them] Nervu ligos ir kaip ju saugotis. Vilnius, Valstybine politines ir mokslines lit-ros leidykla, 1963. 23 p. [In Lithuanian]
(MIRA 17:7)

KLUMBYS, Leonas; P/BREZIENE, A., red.

[Head injuries] Galvos traumos. Vilnius, Valstybine politines ir mokslines lit-ros leidykla, 1963. 30 p. [In Lithuanian] (MIRA 17:7)

PABAŽIENE, A., red.

[Let us protect children's health] Saugokime vaik sveikata. Vilnius, Valstybine politines ir mokslines lit-ros leid kla, 1964. 166 p. [In Lithuanian] (MIRA 17:7)

1. Lithuanian S.S.R. Sveikatos apsaugos ministerija. Respublikiniai sanitarinio svietimo namai.

IVANAUSKAS, Tadas; PAHREZIENE, A., red.

[Birds of Lithuania] Lietuvos pauksciai. Antrasis p
pildytas ir pataisytas leidimas. Vilnius, Leidykla
"Mintis." Vol.3. 1964. 443 p. [In Lithuanian]
(MIRA 17:11)

STEPON. ITIENE, Liudmila; BAUBLYS, Petras; PABREZIENE, A., red.

[The child grows] Vaikas auga. Vilnius, Leidykla "Mintis," 1965. 253 p. [In Lithuanian] (MIRA 18:6)

PABUKHIN, A.Ye.; IOFFE, R.A. (Moskva)

Influence of tuberculin on blood proteins in tuberculous and non-tuberculous patients. Klin.med. 37 no.12:70-75 D '59. (MIRA 13:4)

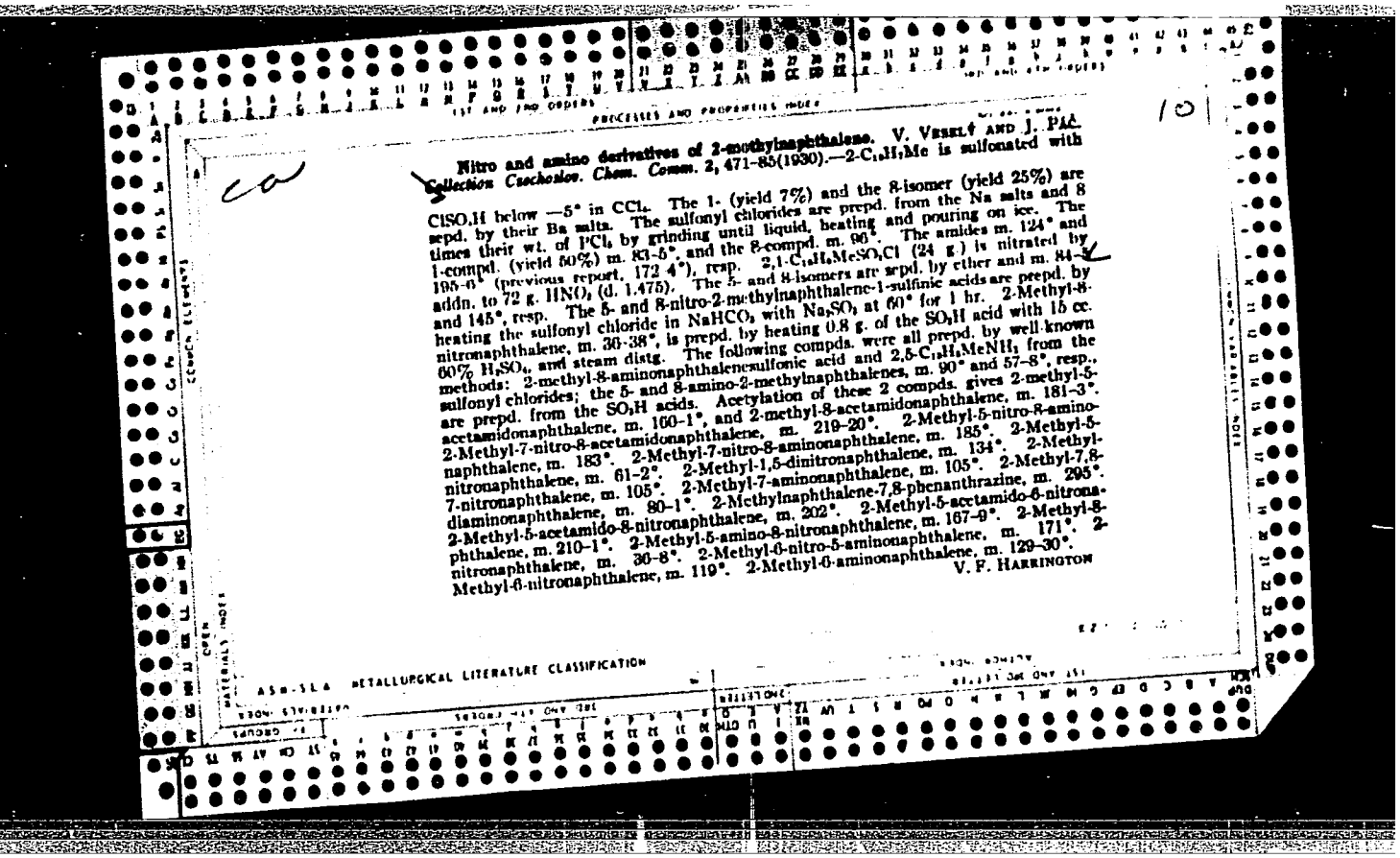
1. Iz kafedry tuberkuleza TSentral'nogo instituta usovershenstvovaniya vrachey (direktor M.D. Kvrigina) na baze TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshshceniya imeni Semashko (nachal'nik A.A. Potsubeyenko).

(TUBERCULIN)
(LUNGS--DISEASES)
(BLOOD PROTEINS)

WIELUSZ, Henryk, inz.; KORZENIOWSKI, Teofil, mgr inz.; OLSZEWSKI, Jerzy, inz.; PAC, Eugeniusz, inz.; DRABINSKI, Alfred, mgr inz.

Work and activities of the local branches of the scientific and technical associations. Przegl techn no.41:8 14 O '62.

1. Chairman of the Coordination Commission of Scientific and Technical Associations of the Central Technical Organization of the Stalowa Wola Steelworks, Stalowa Wola (for Wielusz). 2. Chairman of the Local Circle of the Association of Engineers and Technicians of the Metallurgical Industry, Katowice (for Korzeniowski). 3. Chairman of the Factory Circle of the Association of Polish Mechanical Engineers and Technicians, Warsaw (for Olszewski). 4. Chairman of the Circle of the Association of Polish Electrical Engineers of the Power Plants, Warsaw (for Pac). 5. Chairman of the Factory Circle of the Association of Engineers and Technicians of the Metallurgical Industry of the B.Bierut Iron works in Czestochowa (for Drabinski).



Nitro and amino derivatives of 2-methylnaphthalene. V. Vesely and J. Pác. *Collection Czechoslov. Chem. Commun.* 2, 471–85(1930).—2-$C_{10}H_7Me$ is sulfonated with ClSO$_3$H below —5° in CCl_4. The 1- (yield 7%) and the 8-isomer (yield 25%) are prepd. by their Ba salts. The sulfonyl chlorides are prepd. from the Na salts and 8 times their wt. of PCl_5 by grinding until liquid, heating and pouring on ice. The 1-compd. (yield 60%) m. 83–5°, and the 8-compd. m. 90°. The amides m. 124° and 195–6° (previous report, 172 4°), resp. 2,1-$C_{10}H_6MeSO_2Cl$ (24 g.) is nitrated by addn. to 72 g. HNO_3 (d. 1.475). The 5- and 8-isomers are prepd. by ether and m. 84–5° and 145°, resp. The 5- and 8-nitro-2-methylnaphthalene-1-sulfinic acids are prepd. by heating the sulfonyl chloride in $NaHCO_3$ with Na_2SO_3 at 60° for 1 hr. 2-Methyl-8-nitronaphthalene, m. 36–38°, is prepd. by heating 0.8 g. of the SO_2H acid with 15 cc. 60% H_2SO_4, and steam distg. The following compds. were all prepd. by well-known methods: 2-methyl-8-aminonaphthalenesulfonic acid and 2,5-$C_{10}H_5MeNH_2$ from the sulfonyl chlorides; the 5- and 8-amino-2-methylnaphthalenes, m. 90° and 57–8°, resp., are prepd. from the SO_2H acids. Acetylation of these 2 compds. gives 2-methyl-5-acetamidonaphthalene, m. 160–1°, and 2-methyl-8-acetamidonaphthalene, m. 219–20°. 2-Methyl-5-nitro-8-amino-2-Methyl-7-nitro-8-acetamidonaphthalene, m. 185°. 2-Methyl-5-naphthalene, m. 183°. 2-Methyl-7-nitro-8-aminonaphthalene, m. 134°. 2-Methyl-nitronaphthalene, m. 61–2°. 2-Methyl-1,5-dinitronaphthalene, m. 105°. 2-Methyl-7,8-7-nitronaphthalene, m. 105°. 2-Methyl-7-aminonaphthalene-7,8-phenanthrazine, m. 295°. diaminonaphthalene, m. 80–1°. 2-Methylnaphthalene-7,8-phenanthrazine, m. 295°. 2-Methyl-5-acetamido-8-nitronaphthalene, m. 202°. 2-Methyl-5-acetamido-6-nitronaphthalene, m. 210–1°. 2-Methyl-5-amino-8-nitronaphthalene, m. 167–9°. 2-Methyl-8-nitronaphthalene, m. 36–8°. 2-Methyl-6-nitro-5-aminonaphthalene, m. 171°. 2-Methyl-6-nitronaphthalene, m. 119°. 2-Methyl-6-aminonaphthalene, m. 129–30°.

V. F. Harrington

PAC, Jaroslav, inz.dr.

"Chemistry and biochemistry of food" by [inz] Libor Vozar.
Reviewed by Pac. Prum potravin 14 no.11:609 N'63.

PAC, Jiri; MEJZLIK, Jiri; VESELY, Karel

Anion depolymerization of polyformaldehyde. Chem prum 12 no.10:575-578 O '62.

1. Vyzkumny ustav makromolekularni chemie, Brno.

MEJZLIK, Jiri; PAC, Jiri; JANECKOVA, Ludmila

Thermooxidative stabilization of polyformaldehyde. Chem prum 13 no. 12: 658-662 D '63.

1. Vyzkumny ustav makromolekularni chemie, Brno.

PAC, R.

The cut cores made of anisotropic magnetic bands.

p. 522 (Tele-radio. Vol. 2, no. 11, Nov. 1957. Warszawa, Poland)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2, February 1958

Mechanical & electrical engg

P. T. A.

6

621.791 : 621.785 : 621.772.774

314

Pac W., Eng. **Annealing of Welded Boiler Tubes.**

„Wyżarzanie spawanych rur kotłowych". Przegląd Spawalnictwa. No 1—2, 1950, pp. 16—22, 8 figs.

The annealing of boiler tubes must, although it is difficult, often be carried out during assembly. Description of portable equipment used for this purpose and results obtained.

P. T. A.

Mech. & Elec. Engineering

621.791.052 : 658.562

532

Pac W. Modern Welding Control.

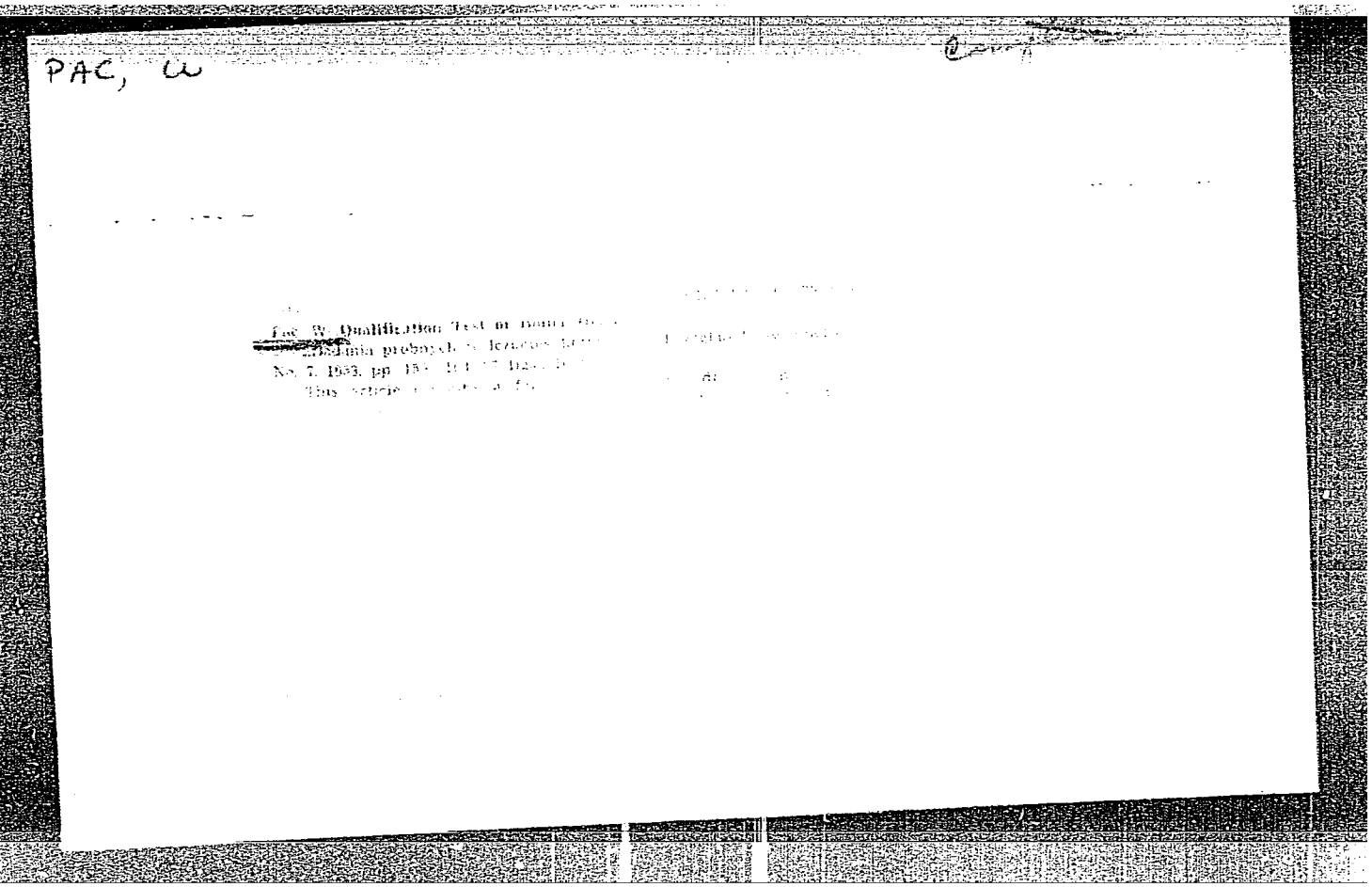
„Nowoczesna kontrola spawania". Przegląd Spawalnictwa No 11-12, 1950, pp 215-223, 7 figs.

Elements of welding tests. Filler metal tests. Inspection of welding procedure. Examination of welders. Control and reception of welded joints

PAC, W.

"Testing Boiler Drums." p.155
(PRZEGLAD SPAWALNICTWA Vol. 5, no. 7, July 1953 Warszawa, Poland)

SO: Monthly List of East European Accessions, LC, Vol. 3, no. 5, May 1954/Uncl.



PAC, W.

"Characterization of Strength Tests of Simple Welded Joints", p. 194, (PRZEGLAD SPAWALNICTWA, Vol. 6, No. 9, Sept. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5, May 1955, Uncl.

IAS, W.

A new Soviet standard for the mechanical testing of vehicles. . 12

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Poland

SO. EAST EUROPEAN ACCESSIONS LIST. vol. 5, no. 10 Oct. 1956

PAC, W.

Training of welders for the tasks of the new Five-Year Plan. p.69

PRZEGLAD SPAWALNICTWA. (Stowarzyszenie Inzynierow i Technikow Mechanikow Polskich i Instytut Spawalnictwa) Warszawa, Poland. Vol.11, no.3, Mar. 1959

Monthly List of East European Accessions Index, (EEAI) LC, Vol.8, no.6, June 1959
Uncl.

PAC, Wladyslaw, mgr inz.

Work testing of high-pressure steam pipelines. Przegl mech 23
no.8:236-239 25 Ap'64

1. Instytut Energetyki, Warszawa.

PAC, Y.

PHASE I BOOK EXPLOITATION SOV/4983

International symposium on macromolecular chemistry. Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii, SSSR, Moskva, 14-18 iyunya 1960 g.; doklady i avtoreferaty. Sektsiya II. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18; Papers and Summaries) Section II. [Moscow, Izd-vo AN SSSR, 1960] 559 p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Tech. Ed.: T.A. Prusakova.

PURPOSE: This book is intended for chemists interested in polymerization reactions and the synthesis of high-molecular compounds.

COVERAGE: This is Section II of a multivolume work containing papers on macromolecular chemistry. The papers in this volume treat mainly the kinetics of various polymerization reactions initiated by different catalysts or induced by radiation. Among the research techniques discussed are electron paramagnetic resonance spectroscopy and light-scattering interpolation. There are summaries in English, French and Russian. No personalities are mentioned. References follow each article.

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PAC, Y.

PART I BOOK EXPLOITATION SOV/4985

International symposium on macromolecular chemistry. Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii, SSSR, Moskva, 14-18 iyunya 1960 g; doklady i avtoreferaty. Sektsiya II. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18; Papers and Summaries) Section II. [Moscow, Izd-vo AN SSSR, 1960] 559 p. 5,500 copies printed.

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AVAILABLE: Library of Congress

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LEDOCHOWSKI, Andrzej; LEDOCHOWSKI, Zygmunt; RADZIKOWSKI, Czeslaw; WYSOCKA-SKRZELA, Barbara; KOZINSKA, Barbara; CZECHLOWSKA, Teresa; MICKIEWICZ, Olcha; PAC-POMARNACKA, Elzbieta

Research on tumor inhibiting compounds. XI. Rocz chemii 36 no.5:827-833 '62.

1. Department of Technology of Medicaments, Technical University, Gdansk, Laboratory No.8. Institute of Organic Synthesis, Polish Academy of Sciences, Gdansk, Department of Pathological Anatomy, Medical Academy, Gdansk.

PACAK, J.; SALAK, J.

Better control instruments for our glassworks. p. 201.

SKLAR A KERAMIK. (Ministerstvo spotrebhino prumyslu) Praha, Czechoslovakia, Vol. 9, No. 7, July 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11, November, 1959.

Uncl.

PACAK, J.
HORAK, V.

"Thiophane Derivatives. II. The Synthesis and Spontaneous Decomposition of 2, 5-Bis-Bromacetylthiophane" P 384
(COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT Vol. 18, No. 3, June 1953 - Praha, Czech.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, April 1955, Uncl.

PACAK, J.

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and Their Synthetic Analogues. G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74123.

Author : J. Pacák, M. Cerny.
Inst : [redacted]
Title : Application of Ethyl Ester of Metaphosphoric Acid to Preparation of Isopropylidene Derivatives of Non-Substituted Monosaccharides.

Orig Pub: Collect. Czechosl. chem. communs, 1958, 23, No 3, 490-496.

Abstract: See RZhKhim, 1958, 43464.

Card : 1/1

PACAK, J.

AUTHORS: Cerný, M. and Pacák, J. CZECH/8-52-11-10/30

TITLE: A New Method for the Preparation of Acetyl Derivatives of β-D-Thioglucopyranosides (Nová metoda pro přípravu acetylovaných β-D-thioglukopyranosidů)

PERIODICAL: Chemické Listy, 1958, Vol 52, Nr 11, pp 2090 - 2093 (Czechoslovakia)

ABSTRACT: The authors state that they have prepared certain acetylated β-D-thioglucopyranosides and β, β'-thiotrehalose by the alkylation of 2, 3, 4, 6-tetra-O-acetyl-β-D-glucosylmercaptan in alkaline media.

Introduction: The most common preparation of thioglycosides, so far, has been the reaction of acetylated glycosyl halides with the sodium or potassium salts of the respective mercaptans. The obvious drawback of this method is the necessity of preparing the required mercaptan, which has not only a markedly unpleasant smell but frequently suffers partial deacetylation during the reaction resulting in a reduced yield and enhanced difficulties in the isolation of the thioglycoside so obtained. The authors state that, as a result, they have worked out a new method which obviates the preparation

Card1/6

β-D-Thioglucopy...

of the mercaptans. It depends upon the alkylation of 2,3,4,6-tetra-O-acetyl-β-D-glucosylmercaptan with a suitable halide in an alkaline, preferably a carbonate medium. The preparation of 2,3,4,6-tetra-O-acetyl-β-D-glucosylmercaptan from 2,3,4,6-tetra-O-acetyl-α-D-glucosyl-bromide and thiourea has been previously described (Ref 5). Glucosylmercaptan is fairly stable (does not change on keeping for several months) and does not smell in alkylating media and is easily soluble in aqueous acetone solutions. Bromides and iodides proved especially suitable as aklylating reagents and cyanoethylation with acrylonitrile proceeded easily. Aqueous acetone solutions of potassium carbonate were the most suitable and the alkylation proceeds at normal temperatures in a short time. The reaction is exothermic, especially in the presence of sodium hydroxide. Since there is no deacetylation occurring during the acetylation, the thioglucosides so produced are normally very pure and the yields are good (about 80%). The alkylation of glucosylmercaptan with ethylene dibromide yield, according to

Card2/6

molar ratios, either β-bromoethyl-2,3,4,6-tetra-O-acetyl-β-D thioglucoside or, as the elementary analysis suggests, 1,2-bis(2,3,4,6-tetra-O-acetyl-β-D-thioglucosyl) ethane. The alkylation of glucosyl-mercaptan with 2,3,4,6-tetra-O-acetyl-α-D-glucosylbromide yielded the acetylated sulphur analogue of isotrehalose. The method of preparation and optical rotation is evidence for β, β'-thiotrehalose. It is possible to replace glucosylmercaptan directly with 2,3,4,6-tetra-O-acetyl-β-D-glucosyl isothiouronyl bromide but the yields of the thioglucosides are lower. The authors claim that the method enables the rapid preparation of a series of thioglucosides which were not previously obtainable because of the instability of the respective mercaptan, e.g. p-nitrobenzyl mercaptan.

Experimental: Preparation of 2,3,4,6-tetra-O-acetyl-β-D-Thioglucoside From Glucosyl Mercaptan. A. In the Presence of Potassium Carbonate. To 2,3,4,6-tetra-O-acetyl-β-D glucosyl mercaptan solution (3.6 g, 0.01 mole) in acetone (10 ml.) was added an excess of the halide (0.02 to 0.03 mole of volatile halides but only 0.011 mole in the

Card3/6

CZECH/3-52-11-10/30

A New Method for the Preparation of Acetyl Derivatives of β-D-Thioglucopyranosides

case of the non-volatile ones) followed by aqueous solution (10 ml.) of potassium carbonate (1.38 g). The mixture was thoroughly shaken for 30 min in a stoppered vessel; small quantities of liberated CO_2 formed were released from time to time. On completion of the reaction, the reaction mixture was poured, with stirring, into ice-cold water (80 ml.). The syrup which separated out occasionally solidified to a crystal mass immediately but it usually did so after allowing to stand for several hours in the refrigerator. This solid was filtered off, where necessary washed with a little petrol ether and then dried in vacuo. If the syrup failed to solidify even on lengthy standing in the refrigerator it was dissolved in ether, the ether solution shaken successively with dilute KOH, dilute H_2SO_4 and, finally, water. The ether layer was, after separation, dried over anhydrous calcium chloride or magnesium sulphate and, after filtration through a thin layer of granular charcoal, the ether was distilled off

Card4/6

and the residual syrup crystallized from a suitable solvent. β-Cyanoethyl-2,3,4,6-tetra-O-acetyl-β-D thioglucoside was prepared in a similar fashion except acrylonitrile was used in place of the halide. Details of twelve acetylated thioglucosides prepared by this method are given in Table 1.

B. In the Presence of Sodium Hydroxide. Benzyl-2,3,4,6-tetra-O-acetyl-β-D-thioglucoside. Benzylchloride (2 ml.) was added to a solution of mercaptan (3.6 g; 0.01 mol) in acetone (10 ml.) followed by 5% sodium hydroxide solution (10 ml.). The mixture was shaken for 20 min until it warmed to 40° C. It was then poured into ice-water (80 ml.) and the thioglucoside isolated as above. Yield: 3.2 g. (72%) MPt. 98-100° C.

Preparation of β-Alkyl Thioglucosides from 2,3,4,6-tetra-O-acetyl-β-D-thiosyl bromide. Ethyl Iodide (1.8 ml; 0.029 mole) was added to a solution of 2,3,4,6-tetra-O-acetyl-β-D-thiosyl bromide (4.87 g; 0.01 mole) in acetone (10 ml.) followed by a solution of potassium carbonate (1.6 g) and sodium bisulphite (2.0 g) in water (10 ml.). The mixture was shaken for 30 min. Yield of 1.8 g (48%) of the respective acetylated thioglucoside (β-methyl) was obtained by the above described isolation method.

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In the Presence of Sodium Hydroxide. The method was as in (A) except a solution of sodium hydroxide (0.9 g) in water (10 ml.) was used in place of the potassium carbonate solution. The mixture heated to 50° C on shaking. On working up the yield: 1.5 g (40%) of the same thioglucoside. There are 1 table and 7 references, 2 of which are Czech and 5 German.

ASSOCIATION: Katedra organické chemie, Matematicko-fysikální fakulta, Karlova University, Matematicko-fysikální/ Organic Chemistry, Faculty of Mathematics and Physics, Charles University, Prague)

SUBMITTED: January 31, 1958

Card 6/6

CERNY, M.; PACAK, J.

Production of 2,3,4,6-tetra-O-acetyl-β-D-glucopyranosylmercaptan and of sodium and gold-β-D-glucopyranosylmercaptide.
Coll Cz Chem 26 no.8:2084-2086 '61.

1. Institut fur organische Chemie, Karlsuniversitat, Prag.

PACAK, J.; CERNY, M.

1,2:3,4-di-O-benzyl-D-galactopyranose. Coll Cz Chem 26 no.9:2212-2216 '61.

1. Institut fur organische Chemie, Karlsuniversitat, Prag.

(Galactopyranose)

PACAK, J.; CERNY, M.

Preparation and structural test of the 4,6-O-benzylidene-D-galactopyranose. Coll Cz Chem 28 no.2:541-544 F '63.

1. Institut fur organische Chemie, Karlsuniversitat, Prag.

CERNY, M; BUBEN, I.; PACAK, J.

Syntheses with anhydro sugars. Pt.3. Coll Cz Chem 28 no.6: 1569-1578 Je '63.

1. Institut fur organische Chemie, Karlsuniversitat, Prag.

PACAK, JOSEF

Kvalitativni organicka analysa. [Vyd. 1.] Praha, Statni pedagogicke nakl., 1953.
217 p. (Ucebni texty vysokych skol) [Qualitative organic analysis. bibl., diagrs.]

SO: Monthly List of East European Accessions, Vol. 3, No. 3, Library of Congress, March 1954, Uncl.

lesser extent than H_2SO_4. The reaction can be effected at elevated temperature (on a water bath, until the sugar is completely dissolved) or at about 20°, with a higher concentration of the condensing agent and longer duration of the reaction. Isolation of the product is effected by salting out of the reaction mixture with a concentrated aqueous solution of K_2CO_3 and treatment of the acetone layer. Formation of by-products from I and II, which depends on concentration of I and II, has been investigated. A study was made of the effect of different conditions of the reaction on the yield of 1,2; 5,6-di-isopropylidene-D-glucofuranose (III). The new method is faster and of better reproducibility than the previously

described. Synthesis of I: a) a mixture of 4500 ml ether and 600 g P_2O_5 is heated to a boil for approximately 45 hours. Then, the ether layer is removed and 1200 ml $CHCl_3$ are added to the residue. After boiling for 5 hours the solution is filtered and precipitated with 2400 ml of ether. The sirup that separates is drawn off and heated on a water bath, in vacuum, to 60° in order to remove the remaining solvents. Yield 330 g, $n^{20}D$ 1.442; b) 2000 ml ether and 500 g P_2O_5 are kept at about 20° for 5 weeks, with shaking at regular intervals of time. The ether layer is then removed and the crude I is heated to boiling with 500 ml $CHCl_3$. The resulting solution is filtered and precipitated with

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43464.

with 1500 ml ether. The re-precipitated I (420 g) is stored in a desiccator over H_2SO_4. Procedures a and b were carried out using ether and $CHCl_3$ that were not dried. c) see Steinkopf W., Schubart I., Liebigs Ann. Chem., 1921, 424, 1. General method for the preparation of di-isopropylidene derivatives: The reaction was effected using a vigorously agitated mixture of I, anhydrous II and finely powdered sugar. To isolate the product formed on boiling, or by shaking at about 20°, in approximately 300 ml acetone solution containing a maximum amount of 50 g I, there were added 100 ml of aqueous solution of K_2CO_3 (150 g K_2CO_3 in 350 ml water) and after a thorough agitation the separated salts were filtered off, the aqueous

CZECHOSLOVAKIA/Organic Chemistry. Naturally Occurring Substances and Their Synthetic Analogs. G-3

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43464.

layer was drawn off and extracted three times with $CHCl_3$ using 30 ml $CHCl_3$ for each extraction. The acetone layer was shaken with activated charcoal, filtered, approximately 0.5 g $BaCO_3$ were added to the filtrate, and II was distilled off. The residue was combined with the CHCl -extract of the aqueous layer. The Ba-salts were filtered off, the CHCl layer was separated and the remaining aqueous layer was extracted with 30 ml $CHCl_3$. The crude product was recovered from the combined $CHCl_3$-extracts. Synthesis of III: 30 g I were shaken with 300 ml dry II, 10 g anhydrous D-glucose were added, and the mixture was heated on a water bath, with shaking from time to time, until the glucose was completely dissolved

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43464.

(3-4 hours). The resulting solution was treated as described above. III was obtained with a yield of 56%, MP 106-109° (from ether-petroleum ether), no MP depression with an authentic sample. Synthesis of III from 1,2-iso-propylidene-D-glucofuranose (IV): to 1.5 g I and 30 ml II was added, after shaking, 1 g IV. After boiling (1 hour) the above-described procedure was used to isolate III, yield 70%. 1,2:3,4-di-isopropylidene-D-galactopyranose (V): a mixture of 40 g I, 300 ml dry II, and 10 g D-galactose, was shaken for 4 hours at about 20°, to get V, yield 49%, BP 155°/10 mm, $[\alpha]_D^{15}$ -65.6° (c 1.28; pyridine). 1,2;4,5-di-isopropylidene-D-fructopyranose (VI): 12 g I, 300 ml dry II and 10 g

CZECH

621.316.721 : 621.375.2.024 : 621.3.016.35

2735. A balancing heater circuit for improving the stability of direct-current amplifiers. M. PACÁK, *Slaboproudý Obzor*, 15, No. 12, 558–61 (1954) in Czech.

The circuit described is a bridge-type network consisting of a transformer and a resistor, R, connected in series with the heater, the point between the heater and R being connected to a tapping on the transformer through a resistor P. The operation of the circuit is analysed in detail and its performance is illustrated by a number of experimental curves. The circuit can be used to stabilize heater voltages in symmetrical amplifiers or, alternatively, to compensate for the instability caused by the changes of supply voltage by allowing the heater voltages to vary appropriately.

R. S. SIDOROWICZ.

PACAK, M.

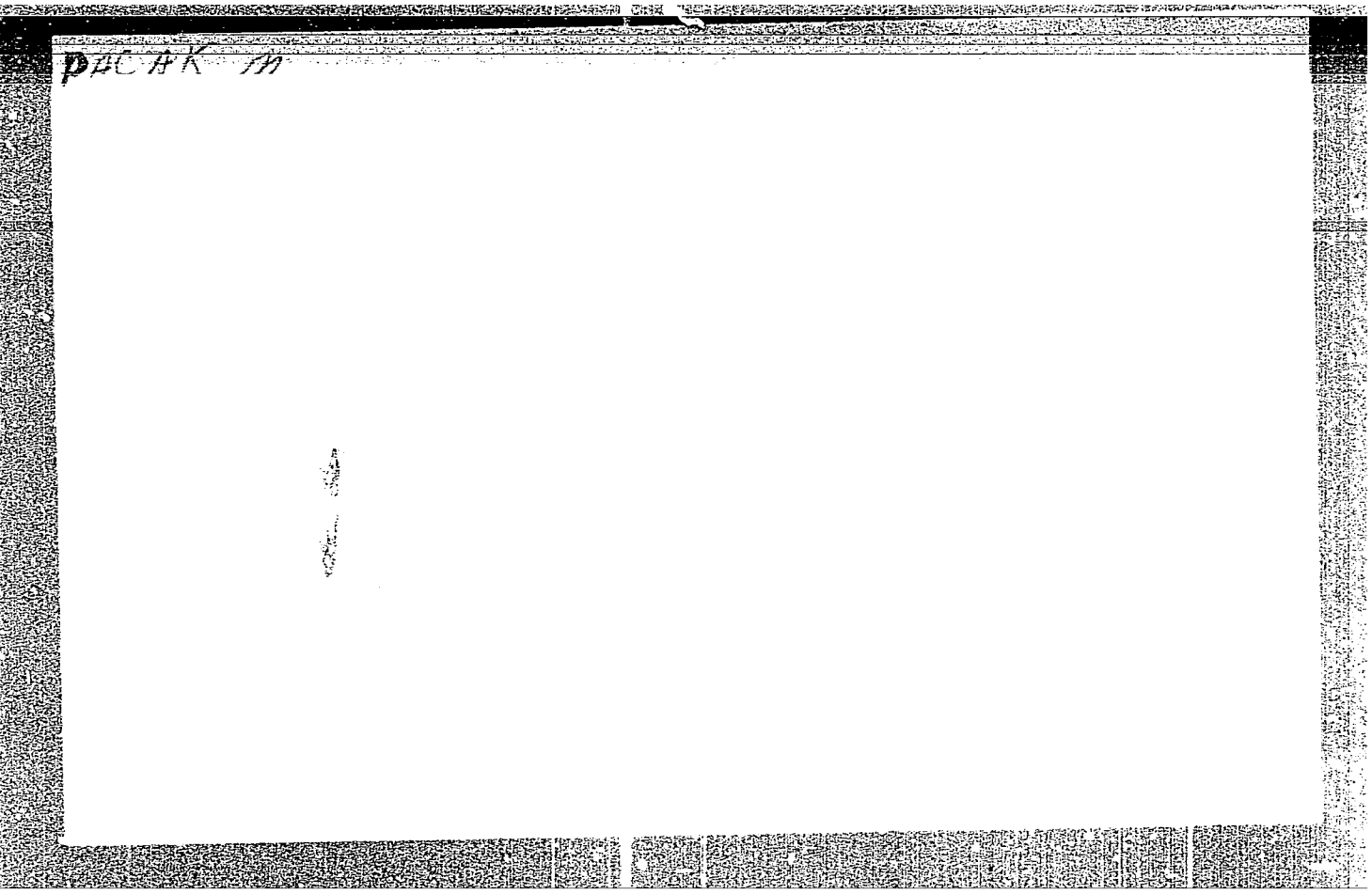
Pacak, M; Hamus, V. Feedback stabilizer with the possibilty of over-compensation. p75.

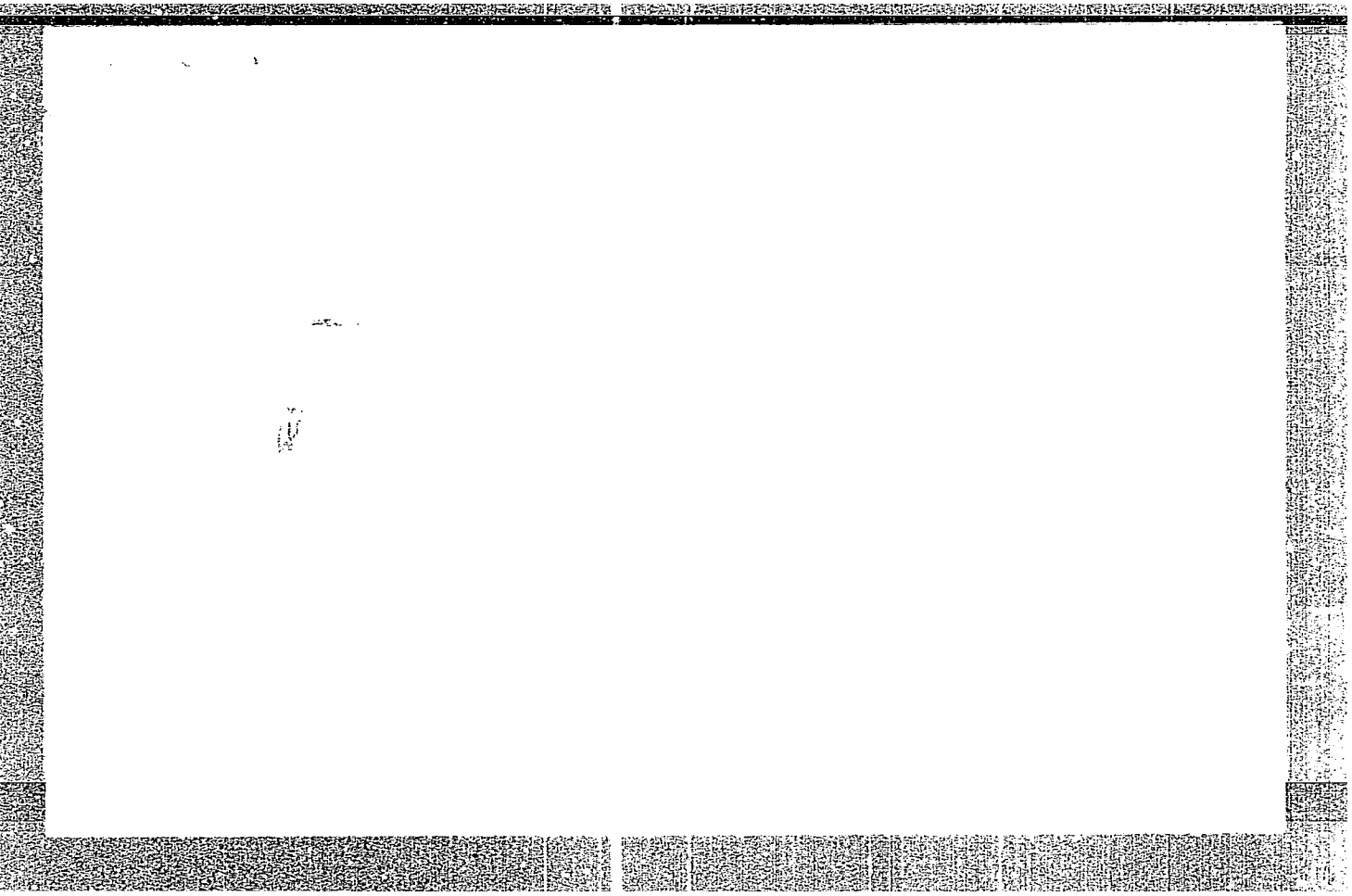
SO: Monthly List of the East European Accession, (EEAL), LC. Vol. 4, no. 10, Oct. 1955. Uncl.

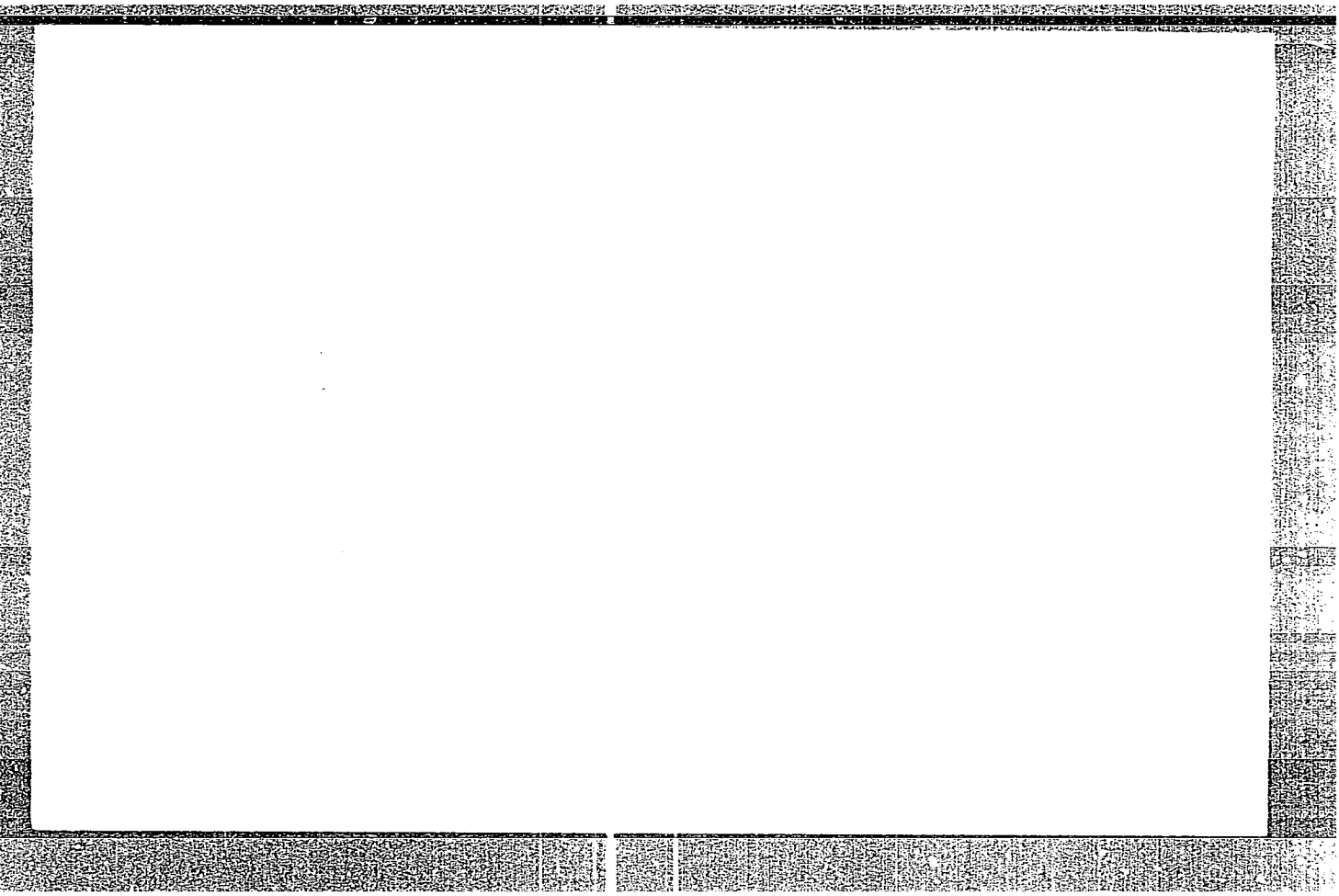
CZECH

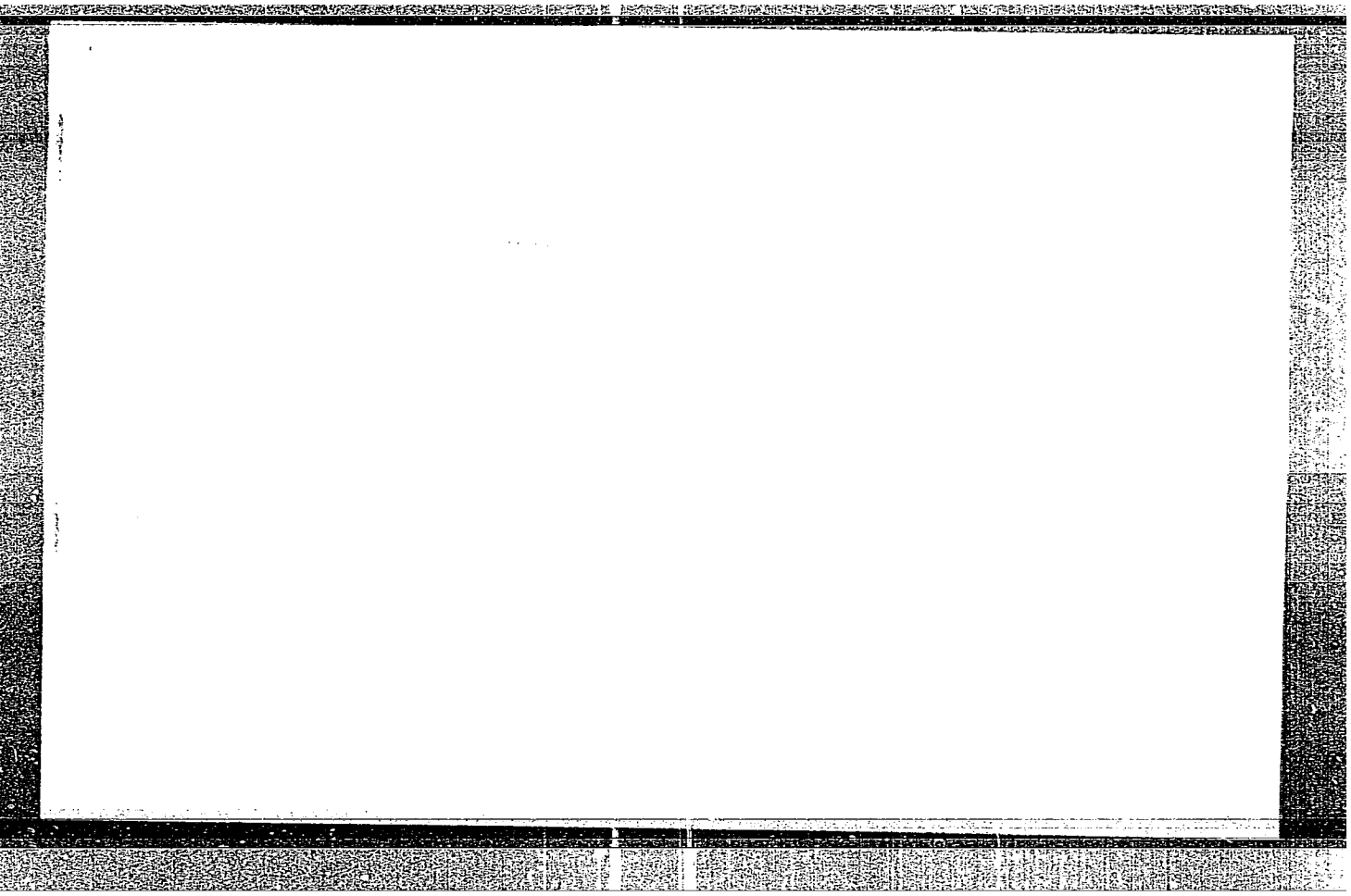
[illegible] voltage stabilizer with a possibility of overcompensation. M. Pacák and V. Hanuš. *Slaboproudý Obzor*, 15, No. 2, 75–82 (1955) In Czech.

The system is particularly suitable for stabilization of voltages of the order of several kV, since its d.c. amplifier consists of two valves operating with a common cathode resistance. A source of reference voltage can be connected into the [illegible] of one of the amplifying valves. Operation of the circuit and its stability are analysed in detail. Two practical stabilizers (2·0 kV and 200 V) are described in detail, their performance being illustrated by a number of experimental [illegible]. The system is compared with [illegible]









621.316.722.1

5748. CONTROL OF ELECTRONIC VALVES BY CURRENT SIGNALS. M.Pzcák.
Slaboproudý Obzor, Vol. 19, No. 7, 419-23 (1958). In Czech.

The principle of the current control in a simple magnetron by means of magnetic field (or magnetizing current) was applied to a standard miniature output pentode (type 6L43). It was found that by placing the pentode inside an inductance coil of 13200 turns, the anode current could be almost cut-off, if the magnetizing current was about 45 mA. The control principle was employed to design a current stabilizer. This consisted of a control pentode placed inside a permanent (biasing) magnet and a inductance coil, and of a power pentode connected in series with the coil. The input of the stabilizer was connected across an unstabilized voltage supply. The device produced a 30:1 improvement in the current stability. It is thought that by designing a special current-control valve, the performance of the stabilizer could further be increased by an order.

R.S.Sidorowicz

PACAK, M.

"Z. Trnka and M. Dufek's Elektricke merici pristroje (Electric Measuring Instruments); a book review. (Supplement) " p. L3.

SLABOPROUDY OBZOR. (MINISTERSTVO PRESNEHO STROJIRENSTVI, MINISTERSTVO SPOJU A VEDECKA TECHNICKA SPOLECNOST PRO ELEKTROTECHNIKU PRI CSAV.) Praha, Czechoslovakia, Vol. 20, no. 1, Jan. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959. Uncl.

PACAK, M.; HLADEK, L.

DC amplifier with negative feedback for electrometric purposes. p. 423.

SLABOPROUDY OBZOR. (Ministerstvo vseobecniho strojirenstvi, Ministerstvo, spoju a Ceskoslovenska vedecko-technicka spolecnost, sekce elektrotechnika) Praha, Czechoslovakia, Vol. 20, No. 7, July 1959.

Monthly List of East European Accessions (EEAI) LC, VOL. 8, No. 11, Novmeber, 1959.

Uncl.

CERMAK, V.; HANUS, V.; HLADEK, L.; HERMAN, Z.; PACAK, M.; SCHULZ, L.

A mass spectrometer for precise determination of the ratio of deuterium to hydrogen in hydrogen gas in the region of natural deuterium concentrations. Coll Cz Chem 27 no.7:1633-1638 Jl '62.

1. Institute of Physical chemistry, Czechoslovak Academy of Sciences, Prague.

L [illegible]-65 [illegible] Z/0030/[illegible]/02[illegible]/010/0[illegible]/0[illegible]

ACCESSION NR: AP40[illegible]

AUTHOR: Pacak, M. (Engineer, Candidate of sciences)

TITLE: An electronic microvoltmeter with a contact modulator

SOURCE: Slaboproudy obzor, v. 2[illegible], no. 10, 196[illegible], [illegible]

TOPIC TAGS: sensitive modulator, electronic microvoltmeter, low noise, feedback adjustment

ABSTRACT: A relatively simple and sensitive microvoltmeter has been realized using a special circuit with a switching contact, working as a modulator and demodulator with corresponding action. The basic range for full deflection of the connected meter is 50 microvolts approximately, the time constant of the amplifier is 0.2 secs, noise and reading shift is less than 1 microvolt per hour, input impedance is 15 kΩ to 1 MΩ per millivolt according to sensitivity adjustment by feedback.

Card 1/2

L 6685-65
ACCESSION NR: AP4046143

ASSOCIATION: Ustav fyzikalni chemie CSAV, Praha (Institute of Physical Chemistry of the Academy of Sciences, Czechoslovakia)

SUBMITTED: 14Feb64 ENCL: 0 SUB CODE:

NO REF SOV: 000 OTHER:

CZECHOSLOVAKIA/Electronics - The Application of Electronics and Vacuum Techniques H

Abs Jour : Ref Zhur Fizika, No 4, 1960, 9326

Author : Pacak Miroslav

Inst : Institute of Physical Chemistry, Czechoslovak Academy of Sciences.

Title : Method of Regulating the Voltage of an Electronic Stabilizer

Orig Pub : Slaboproudy obzor., 1959, 20, No 5, 306-310

Abstract : An exposition is given of the principle of regulating the voltage at the output of an electronic stabilizer and an experimental verification of the properties of the circuits of such a stabilizer, which permits regulation of the output voltage over a wide range with the aid of a simple rheostat, is described. With this, the

Card 1/2

PACAK, Miroslav, inz.

Mathematical design of linear pentode circuits. Slaboproudy obzor 21 no.4:219-225 Ap '60. (EEAI 9:8)

1. Ustav fyzikalni chemie Ceskoslovenske akademie ved.
(Electronic circuits) (Pentodes)

23073
Z/039/60/021/011/001/003
E024/E335

9,3280 (1147, 1159)

AUTHORS: Pacák, Miroslav, Engineer

TITLE: A Thermionic Tube Indicator of Magnetic Induction

PERIODICAL: Slaboproudý obzor, 1960, Vol. 21, No. 11, pp. 641 - 645

TEXT: If a pentode is placed in a magnetic field prallel to the axis of its electrode system (such as in a magnetron), the anode current I_a decreases while the grid current I_{g2} increases. The theory of this process has been described in Ref. 1 (the author - Slaboproudý obzor, 1958, Vol. 19, No. 7, pp. 419-423), while Ref. 2 (Hládek, L and Rálek, M. - Slaboproudý obzor, 1960, Vol. 21, No. 7, pp. 418-421) describes some current-stabilizers based on this principle. The present paper describes the use of such a magnetically modulated thermionic tube for the measurement and indication of magnetic induction. In particular, the arrangement was used for the measurement and control of the magnetic field in a mass-spectrometer. It proved accurate to 0.01%, simple, reliable and rugged. The linear range of the magnetically modulated

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23073
Z/039/60/021/011/001/003
A Thermionic Tube Indicator ... E024/E335

pentode is within the range of magnetic fields of 200 to 300 gauss. The pentode is placed in the stray field of the mass-spectrometer magnet because the field between the pole pieces is too high. The distance between the gap of the magnet and the pentode is adjusted with a micrometer screw. The measurement consists of measuring $I_{g2} - I_a$ by a bridge method. The authors suggest that the measured current could be used to drive a servo-mechanism which would move the pentode into such a position as to achieve a predetermined value of the measured current within the linear range of the pentode. The intensity of the measured magnetic field could then be read off a scale attached to the movement of the pentode. The same principle could be applied to the stabilization of a magnetic field. The method could be further improved by using a specially constructed thermionic tube instead of an ordinary one.

Card 2/3

23073
Z/039/60/021/011/001/003
E024/E335

A Thermionic Tube Indicator ....

There are 6 figures and 3 Czech references.

ASSOCIATION: Ústav fyzikální chemie ČSAV, Praha
(Institute of Physical Chemistry of the ČSAV, Prague)

SUBMITTED: June 20, 1960

Card 3/3

PACAK, Miroslav, inz.

A contribution toward designing networks with a single reactivity. (EEAI 10:9)
Slaboproudy obzor 22 no.6:334-337 Je '61.

1. Ustav fyzikalni chemie Ceskoslovenske akademie ved, Praha.

(Electric circuits) (Reactance(Electricity))

23985
Z/039/61/022/009/001/005
D254/D303

24.6800 9.2540

AUTHOR: Pacák, Miroslav, Engineer

TITLE: Electron-tube current regulator

PERIODICAL: Slaboproudový obzor, v. 22, no. 9, 1961, 532 -538

TEXT: The author describes the design, wiring and functions of an electron-tube current regulator, intended to supply the magnet of a mass spectrograph. It was required that the magnet current be either manually adjusted, or gradually increased by program control, within a range of 10 mA to 160 mA and with a stability in the order of 10^{-4}. Since the stability requirement is greater for high than for low currents, the program control can be performed by changing the reference voltage. This program circuit can easily be automated and contains a resistor-charged capacitor which effects a gradual increase or decrease of the reference voltage and a corresponding change of the regulated current. The principle wiring of the regulator which employs rapid positive feedback and compensation of auxiliary-voltage changes, is shown in Fig. 2. The working cur-

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Z/039/61/022/009/001/005
D254/D303

Electron-tube current...

rent (I) supplied by the main source (U_1) flows through the load (R_M), the regulator tube (E_6) and the reference resistor (R_N), and a loss ($R_N \cdot I$) originates which is compared with the reference voltage $U_R(t)$. This difference voltage is amplified and actuates between the grid and the cathode of the regulator tube with a polarity so that the relation $IR_N \doteq U_R(t)$ is always maintained. In case the reference resistor (R_N) is constant, the working current (I) can be manually adjusted or program controlled by changing the reference voltage $U_R(t)$. For manual adjustment of the output current, the switch (S_3) is in the position as indicated in Fig. 2. The reference voltage (U_R) adjusts then to the value U_{R1} which can gradually be changed by operating the switch (P_4) and the potentiometer (P_6). For program-controlled adjustment, the switch (S_3) is turned into position (d). The charge of the capacitor (C) changes then from the value U_{R1} to U_{R2} with the time constant (τ) adjustable by the variable resistor (R). The rate of this change can also be varied while the program is in progress by changing either the resistance (R), or the set difference $U_{R2} - U_{R1}$. The

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Z/039/61/022/009/001/005
D254/D303

Electron tube current...

put current (I). The same compensator arrangement can also be used for precise adjustment of individual compensations. In conclusion, the author states that the prototype of the described current regulator fulfilled all the imposed requirements. Slow changes of the regulated current did not exceed 100 μA, rapid changes did not exceed 10 μA. This means that the relative stability of a 100 mA current was better than 10^{-3} during a period of one hour and better than 10^{-4} for short changes. Also, deviations in the time constant of the program control are negligible, but could still be improved by using a larger capacitance (grid current). The only factor limiting the long-time stability of the regulator is the temperature change caused by batteries or temperature-dependent resistors. There are 7 figures, 1 table and 6 reference: 4 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publications reads as follows: W.R. Hill, Jr. : Analysis of Voltage-Regulator Operation. Proc. IRE 38 (1945), no. 1, p. 38; M. Pacak: Stabilized and Programme-Controlled Supply Using Positive Feedback. Electronic Engineering 32 (1960), no.6,

Card 4/ 7

23985
Z/039/61/022/009/001/005
D254/D303

Electron-tube current...

p. 372-342.

ASSOCIATION: Ústav fyzikální chemie ČSAV, Praha (Physical Chemical Institute, Czechoslovak AS, Prague).

SUBMITTED: April 26, 1961

41

Card 5/ 7

Z/039/62/023/007/004/005
D409/D301

9,2540

AUTHOR: Packk, Miroslav, Engineer

TITLE: Voltage regulator with a controlled oscillator

PERIODICAL: Slaboproudý obzor, v. 23, no. 7, 1962, 397 - 401

TEXT: The article describes a voltage-regulated power supply using a controlled 100 kc oscillator, where the deviation of the regulated quantity is amplified and fed to the screen grid of the self-excited oscillator. This regulator, described in two Czechoslovak dissertations, was originally developed for the high-voltage supply of the ion-optical system of a mass spectrometer built by the Ústav fyzikální chemie ČSAV (Physical Chemistry Institute, Czechoslovak AS). The author describes in detail the circuitry of the voltage regulator, namely the feedback circuit, the controlled oscillator (feedback oscillator with a resonance circuit in the anode loop), the reference circuit, and the amplification of the voltage deviation which is finally used to control the oscillator output. The performance of the controlled-oscillator vol-

Card 1/3

Voltage regulator with ...

tage regulator is characterized as follows: The device is very reliable, has only few highly-loaded parts, and permits continuous and precise high-voltage regulation and adjustment over a wide range (practically zero to 4,200 v) while short-time fluctuations do not exceed 0.01 % and the overall shift does not exceed 0.1 % per hour. Another advantage is that both amplifier and oscillator can operate on zero potential, irrespective which of the output-voltage poles is zero. All other performance data are comparable with those of a direct regulator using a 10 v reference battery. Of certain disadvantage is the limited output of the r-f oscillator (maximum 100 W) and the rather high internal impedance (1MΩ) which, however, can be reduced by suitable rectifier design and positive feedback. Generally, it can be said that, even if an oscillator in a power source complicates the circuitry, such a voltage regulator is of advantage in devices requiring high-voltage regulation and precise adjustment within a wide range, e.g. material-testing instruments, ion sources, etc. There are 7 figures. The English-language reference is: R.S. Mautner - O.H. Schade: Television High Voltage R-F Supply RCA Review 8(1947) no. 1, pp 43 - 81."

Card 2/3

45695

Z/039/63/024/001/002/006
E192/E382

9.6000

AUTHOR: Pacák, Miroslav, Engineer

TITLE: A new design for a directly-coupled electron-tube electrometer

PERIODICAL: Slaboproudý obzor, v. 24, no. 1, 1963, 8 - 13

TEXT: The instrument has a maximum sensitivity of 5×10^{-16} A or 5×10^{-4} V. Its detailed circuit diagram is shown in Fig. 2. The power supply is based on a simple ferroresonant stabilizer, comprising a special transformer T and a series capacitor of 4.5 μF. This reduces the mains variations of 170-250 V to 210-220 V. The anode voltages for the tubes of the instrument are additionally stabilized by two gas-discharge tubes, type TESLA 11TA31 and the heater current of the first two stages is stabilized by a Zener diode, TESLA 5NZ70. This arrangement results in an overall stabilization factor of 100. The probe of the instrument consists of an electrometric double triode and an amplifier tube. These are arranged symmetrically and are heated from a separate source so that their zero stability is

Card 1/4

A new design ....

high for such an unsophisticated circuit. The anode resistances of 100 MΩ each in the electrometer tube are thermally equalized and have a tolerance of 2%. The gain of the electrometer stage is, therefore, 1.2 and the combined gain of the first and second stage of the probe is 30. The sensitivity of the probe output to the interference signal is therefore 30 times less than at its input so that the following stages of the instrument can be non-symmetrical. Thus, the third stage is based on a pentode and has an amplification of 500. Its output is directly coupled to the final cathode-follower stage based on two halves of ECC82. The input resistance of the electrometer is $R_e = 10^9$ ohm. The system is terminated with either a standard pointer meter or a recording device. For measuring currents of the order of 10^{-14} A or less, the resistance of the electrometer tube should be increased and the output of the instrument should be terminated with an RC integrating network which suppresses the output noise and limits the operating bandwidth of the amplifier. The highest value of R_e employed was 3×10^{12} ohm. When an integrator of 15 sec time constant was used in conjunction with this resistance it was possible to

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A new design ....

Z/039/63/024/001/002/006
E192/E382

distinguish current signals of 5×10^{-16} A.
There are 4 figures.

ASSOCIATION: Ústav fyzikální chemie ČSAV, Praha
(Institute of Physical Chemistry, ČSAV, Prague)

SUBMITTED: September 7, 1962

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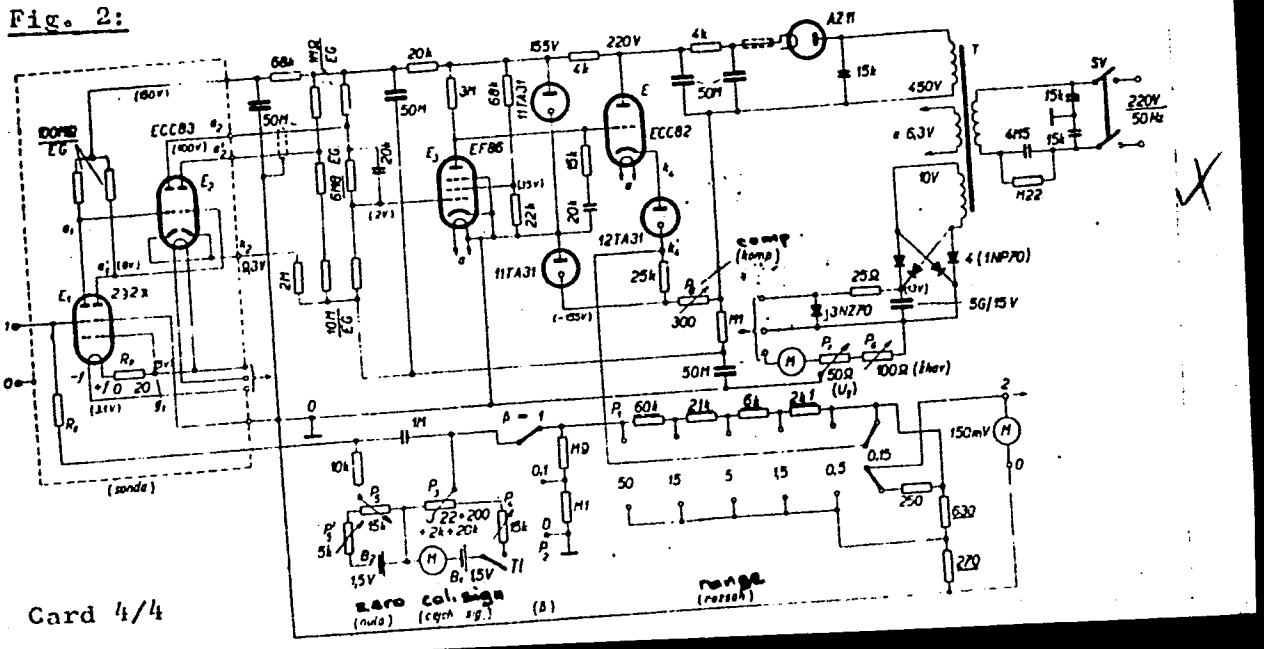
Z/039/63/024/001/002/006
E192/E382

A new design ....

Fig. 2:



Card 4/4

L 763-64

ACCESSION NR: AP3006229 Z/0039/63/024/009/0532/0533

AUTHOR: Pacak, Miroslav (Engineer, Candidate of Sciences)

TITLE: A ferroresonance voltage stabilizer improvised from a normal mains transformer

SOURCE: Slaboproudy obzor, v. 24, no. 9, 1963, 532-533

TOPIC TAGS: ferroresonance, voltage stabilizer, transformer

ABSTRACT: If a normal mains transformer is supplemented by a suitably adjusted autotransformer and capacitor of adequate value, an efficient ferroresonance system may be obtained with relative ease. Fig. 1 of Enclosure 1 shows a simple choke or an autotransformer T_p adjusted for a magnetization current and performance with an oversaturated core while the original transformer T is connected either to the whole winding or to a suitable tap to supply the required voltage (1b). This method is more simple than the setting of the required input voltage as shown in 1a, in which it is usually necessary to select and set even an exact capacity volume beside the taps of the primary winding. The simple arrangement limits the relative variations of the median and effective values to one seventh. It works from 100 to 250 volts input voltage with a power of up to 50 watts. Fig. 2 of Enclosure 2

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L 763-64

ACCESSION NR: AP3006229

shows a diagram showing an example of the attainable stabilization by means of this arrangement. The system is well suited for supplying mains current to delicate electronic laboratory instruments. The orig. art. has: 2 figures and 4 formulas.

ASSOCIATION: Ustav fyzikalni chemie (Institute of Physical Chemistry) Prague, CSAV

SUBMITTED: 05May63 DATE ACQ: 23Sep63 ENCL: 02

SUB CODE: GE NO REF SOV: 000 OTHER: 000

Card 2/2

PACAK, Miroslav, inz., CSc.

Graphic solution of simple RC and RL voltage dividers. Sdel tech 11 no.8:320, 3 of cover Ag '63.

L 15285-65 AFETR
ACCESSION NR: AP4041663

Z/0039/64/025/007/0403/0409

AUTHOR: Pacak, Miroslav (Pacak, ... Engineer, candidate of sciences)

TITLE: Electronic voltage or direct current secondary standard

SOURCE: Slaboproudy obzor, v. 25, no. 7, 1964, 403-409

TOPIC TAGS: reference element, voltage reference element, current reference element, voltage stabilizer

ABSTRACT: The electronic direct-current or voltage stabilizers in current use ... by selection, by trial and error, within a narrow ... property, ... of [illegible] ... secondary standard for voltages ...

Card 1/2

ACCESSION NR: AP4041663

a short-time relative stability better than [illegible] is attained using a reference battery of 4.5 volts. Orig. art. has [illegible] and 2 formulas.

ASSOCIATION: Ustav fyzikalni chemie CSAV, Prague (Institute of Physical Chemistry, CSAV)

SUBMITTED: 01Aug63

NO REF SOV: 000

OTHER: 007

Card 2/2

PACAK, Miroslav, inz. CSc.

Automatic selector of recording range. Automatizace 7 no. 3:65-68 Mr '64.

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences.

L 51799-65 EWA(h) Peb
ACCESSION NR: AP5016857 CZ/0014/64/000/009/0332/0335

AUTHOR: Pacak, Miroslav (Engineer, Candidate of sciences)

TITLE: Proposed design and calculation for a voltage regulator

SOURCE: Sdelovaci technika, no. 9, 1964, 332-335

TOPIC TAGS: voltage stabilizer

ABSTRACT: The article deals with the design, calculations, and construction of a simple D. C. voltage regulator with the stability of approximately 10^{-3}, plate resistance of the order of 10 ohms, and the range of the adjustable [illegible]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EE

NO REF SOV: 000 OTHER: 00 [illegible]PRS

Card 1/1 CC

PACAK, Miroslav, inz. CSc.

Electronic microvoltmeter with a contact modulator. Slaboproudy obzor 25 no.25:571-576 O '64.

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague.

PACAK, Miroslav, inz. CSc.

Voltage stabilization by the Zener diode with compensation. Automatizace 8 no.1:7-9 Ja '65.

1. Institute of Physical Chemistry of the Czechoslovak Academy of Sciences, Prague.