CZECHOSLOVAKIA

SOBOTKA, J.

Geological Institute (Geologicky pruzkum), Prague

Prague, Casopis pro mineralogii a geologii, No 1, 1965, pp 93-95

"The Find of Old Mines around Pribraz near Straze on the Nezarka River."

L 38319-66 EWT(v)/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) IJP(c) JD/BC

ACC NR: AP6028008 SOURCE CODE: CZ/0057/66/000/003/0109/0114

AUTHOR: Sobotka, Jaromir

ORG: College of Mining, Ostrava (Vysoka Skola Banska)

TITLE: Possibility of a mathematical and statistical determination of optimum conditions of slag forming in blast furnaces

SOURCE: Hutnik, no. 3, 1966, 109-114

TOPIC TAGS: blast furnace, slag, metallurgic process, metallurgic industry

ABSTRACT: The amount of the scrap and luppen in blast furnace charges will decrease in the future. It will be necessary to determine the minimum iron content required in a charge, the required amount of slag, and of coke. The charge will require agglomeration, and better grade ores will have to be imported. An amount of 200-300 kg of slag per ton of pig iron is enough. The content of S under these conditions should be between 0.025 and 0.035%. The content of Mn should also be reduced. 0.1-0.2% Mn at CaO/SiO_2 ratios of 0.95 to 1 is satisfactory. The content of Mn is a function of the S and C content in the pig iron. Orig. art. has: 5 figures, 6 formulas and 6 tables. [JPRS: 36,646]

SUB CODE: 13, 11, 05 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 003

Card 1/1 LC

SOBOTKA, Jiri, inz. (Pribram)

Shrinkage stoping by using a scraper. Rudy 10 no.6:197-199 Je '62.

SOUCEK, Jiri

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: /not given/

Source: Prague, Casopis pro Mineralogii a Geologii, Vol VI, No 2, 1961, p 207.

Data: "The Problem of "Stiblith" from Pricov Near Sedlcany."

GPO 981643

TESAR, J.; HADVORNIK, F.; PECH, Z.; REHANEK, L.; SOBOTKA, J.; VOREL, F.

Sudden death in ischemic disease of the heart. Acta univ. carol. [med.] Suppl. 14:501-511 '61.

1. Katedra soudniho lekarstvi fakulty vseobecneho lekarstvi University Karlovy v Praze, vedouci doc. dr. J. Tesar.
(CORONARY DISEASE) (DEATH SUDDEN)

SOBOTKA, J.

Chimneys and ventilation ducts from ceramic blocks. Poz stavby 11 no.3:156-157 '63.

1. KSSv Ceske Budejovice.

SOBOTKA, J.

6

CzECHOSLOVAKIA

TESAR, J., Docent Dr; PODDANY, V; NADVORNIK, F; PECH, Z; REHANEK, L; SOBOTKA, J; VIHAN, R.

1. Chair of the Judicial Faculty of General Medicine KU (Katedra soudniho lekarstvi fakulty vseobecneho lekarstvi KU), Prague (for Tesar); 2. Regional Hygienic-epidemiological Station of the Middle Bohemian Region, Microbiological Ward (Krajska hygienicko-epidemiologicka stanice Stredoceskeho kraje, mikrobiologicke oddeleni), Prague - (for all)

Prague, Rozhledy v tuberkulose, No 3, 1963, pp 153-156

"Undiagnosed Cases of Tuberculosis in Sudden and Forcible Deaths."

SOBOTKA, Jiri

Suicide in children. Cas. lek. cesk. 96 no.4:102-104
25 Jan 57.

1. Ustav pro soudni lekarstvi fakulty vseobecneho lekarstvi KU v Praze, prednosta prof. Dr. Frant. Hajek. J. S., Praha-Dejvice, Sadova 16.
(SUICIDE, in inf. & child
statist. (Cz))

SUBOTKA, Jaroslav; PRIB, Stanislav, inz.

Prefabricated parts for steam pipeline canals. Poz stavby 12 no.5: 199-203 '64.

1. Pozemni stavby, Ceske Budejovice.

CZECHOSLOVAKIA/General Problems of Pathology. Tumors. U-4

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 93925

Authors : Tobiska, Josef; Pelc, Jiri; Sobotka, Josef; Kapoun, Karel.
Inst : Not given
Title : The Presence of Antitumoral Substances in Euphorbia Amygdaloides. I. Investigations with Crocker's Tumor.

Orig Pub : Neoplasma, 1957, 4, No. 2, 125-131.

Abstract : Forty mice, inoculated with Crocker's sarcoma, were divided into 4 equal groups. Animals in group 1 received aqueous extract, the 2nd -- alcohol extract, and the 3rd -- ether extract, all of which were isolated from Euphorbia amygdaloides on an estimation of 40 mg of leaves to a mouse (the method of extraction is given). The 4th group was the control. Starting on the second day after inoculation the animals were treated for 24 days after inoculation the animals were treated for 24 days and then sacrificed. The most active group

Card 1/2

CZECHOSLOVAKIA/General Problems of Pathology. Tumors. Experimental Therapy.

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 93925

U-4

was the one receiving the water extract. The average weight of the tumor in the control was 2.27 G, 0.67 G in Group 1, 0.9 G in Group 2, and 1.56 in Group 3. Thus, the percent of inhibition resulting from the action of the water extract was 70.5, alcohol 61, and ether 31.5. Consequently, the active substance, the chemical composition of which has not been discovered as yet, was very soluble in water, less so in alcohol, and insignificant in ether. Histological studies showed a toxic (necrosis, fatty degeneration) effect of the water extract on the liver of mice, alcohol on the kidneys, and ether on the liver and kidneys. -- S. A. Syrkina-Kruglyak.

Card 2/2

PELC, Jiri; SOBOTKA, Josef; TOBISKA, Josef

Detection of tumoricidal substances in Euphorbia amygdaloides. II. Experimental studies with Walker rat tumor. Neoplasma, Bratisl. 5 no.2: 140-144 1958.

1. Institut fur Allgemeine und Experimentelle Pathologie der Medizinischen Fakultat der Masaryk-Universitat, Brno. Anschrift der Verfasser: Dr. J. Tobiska und Mitarb., Brno, Komenskeho nam. 2.

(NEOPLASMS, experimental,
Walker rat carcinoma, eff. of Euphorbia amygdaloides extract (Ger))
(CYTOTOXIC DRUGS, effects,
Euphorbia amygdaloides extract, on Walker rat carcinoma (Ger))

SOBOTKA, Josef, inz.

Problems in preparing the modernization of heavy machine production.
Podn org 18 no.9:404-407 S '64.

1. Ministry of Heavy Machine Industry, Prague.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application. Medicinals. Vitamins. Antibiotics. I-3

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2262

Author : Sobotka Lubomir, Polak Bohumil
Inst : -
Title : Preservation and Action of Emulsions for Injection.

Orig Pub : Scripta med., 1956, 29, No 3-4, 113-120

Abstract : It was found that the most effective means for sterilizing the injection emulsion of estradiol benzoate, stabilized with mucin (I) derived from flax seed, is merthiolate (II), at a concentration of 1 : 10 000. On the use of II the biological action of the preparation is somewhat slowed down. Combined use of antibiotics and gentian violet results in acceleration of biological action but is unsatisfactory from the bacteriological standpoint. Sterilization of the emulsion does not affect its stability and biological properties. It was confirmed that the use

Card 1/2

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application. Medicinals. Vitamins. Antibiotics. I-3

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2262

of I, as a stabilizing agent, prolonges the action of the emultion.

Card 2/2

SOBOTKA, L.

TECHNOLOGY

periodicals: JEMNA MECHANIKA A OPTIKA Vol. 3, no. 10, Oct. 1958

SOBOTKA, L. Arthroscope. p. 344.

Monthly List of East European Accessions (ELAI) LC Vol. 8, no. 5
May 1959, Unclass.

[redacted], L.; [redacted], T.

Apparatus for continous testing of strength of yarn. p. 370. TEXTIL. (Ministerstvo lehkeho prumyslu) Prahn. Vol. 9, no. 12, Dec. 1954.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

SOBOTKA, L.

"For Further Development of Collective Farms, For Further Development of Our Agriculture." p. 937 (ZA SOCIALISTICKE ZEMEDELSTIVI, Vol. 3, No. 9, Sept. 1953) Praha, Czechoslovakia

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4, April 1954. Unclassified.

SOBOTKA, L.

Research plan for agricultural economy in 1957. p. 533.

VESTNIK. Vol. 3, no. 10, 1956

Praha, Czechoslovakia

SOURCE: East European List (EEAL) Library of Congress, Vol. 6, No1 1, January 1957

SOBOTKA, L.

Soviet agriculture in the sixth Five-Year Plan. In English.

p. 321 (Za Sotsialisticheskuiu Selkohoziaistvennuiu Nauku. Seriia B: Ekonomicheskaia. For Socialist Agricultural Science. Series B: Economics. Vol. 5, No. 4, 1956, Praha, Czechoslovakia)

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

SOBOTKA, L.

Report on the activities of the Department of Agricultural Economics. p. 265. (VESTNIK, Vol. 4, No. 5/6, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

SOBOTKA, L.

"Basis and methods of the regional organization of agricultural production."

p. 441 (SBORNIK, RADA ZEMEDELSKA EKONOMIKA. -- Praha, Czechoslovaka.)
Vol. 30, No. 6, Dec. 1957

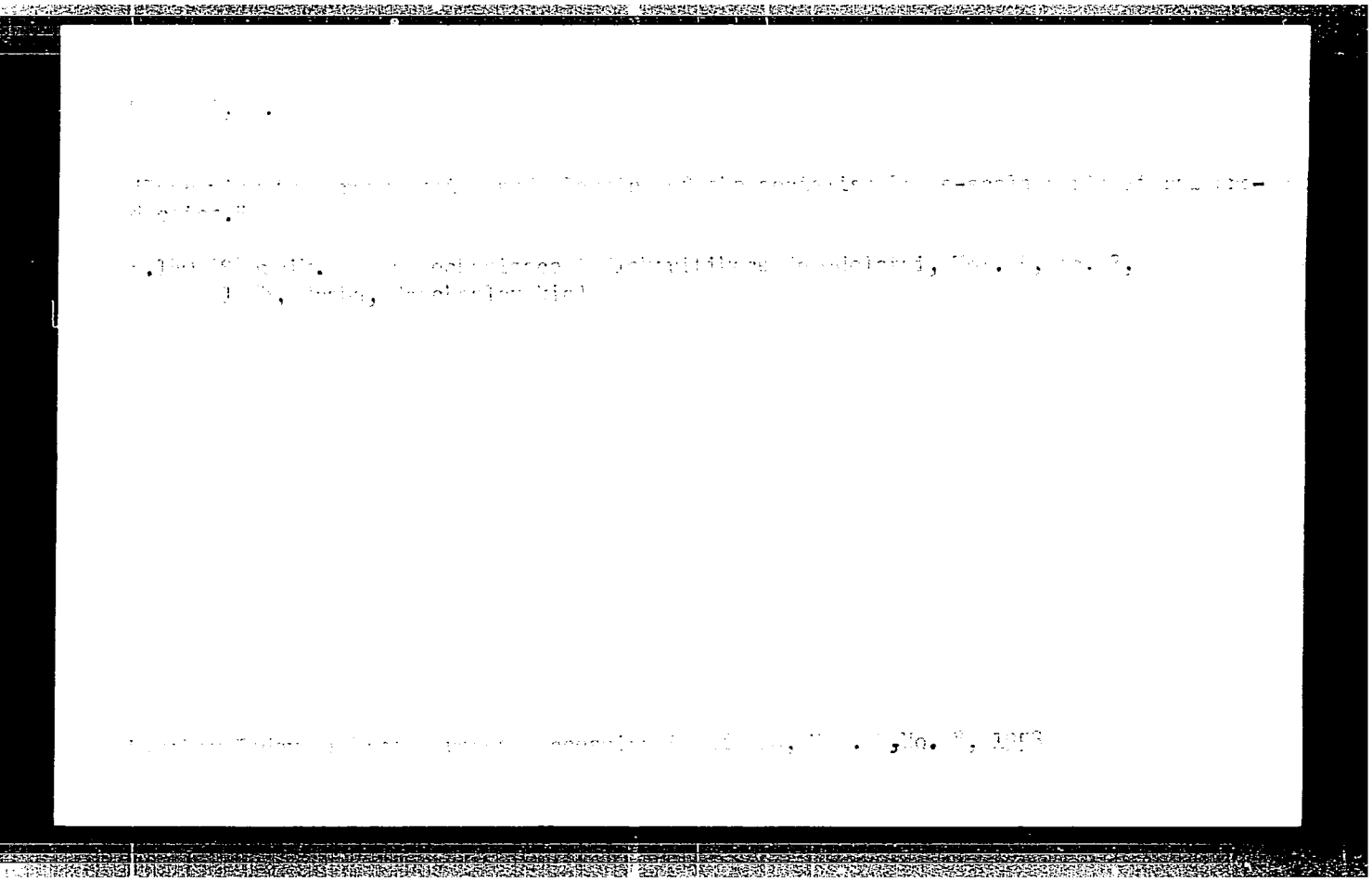
SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

SOBOTKA, L.

"Conclusions made at the meeting of the Department of Agricultural Economics"

Vestnik. Praha, Czechoslovakia. Vol. 5, special issue, 1958

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas



SOBOTKA, L.

"Experiences with the past work concerning the zoning of agricultural production in Czechoslovakia"

Sbornik. Rada Zemedelska Ekonomika. Praha, Czechoslovakia. Vol. 32, no. 1, Jan 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

SOBOTKA, Ladislav, Inz.

Session of the Committee on Agricultural Problems of the Economic Commission for Europe. Vestnik CSAZV 8 no. 1:27-29 '61.
(EEAI 10:5)

1. Dopisujici clen Ceskoslovenske akademie zemedelskych ved; predseda IV. odboru Ceskoslovenske akademie zemedelskych ved; clen redakcni rady Vestniku Ceskoslovenske akademie zemedelskych ved.

(Agriculture) (United Nations. Economic Commission for Europe)

SOBOTKA, Ladislav

5th National Congress on Collective Farms. Vestnik CSAZV 8 no.4: 182-183 '61. (EEAI 10:6)

1. Dopisujici clen Caskoslovenske akademie zemedelskych ved; zastupce vedeckeho sekretare Ceskoslovenske akademie zemedelskych ved; predseda IV. odboru Ceskoslovenske akademie zemedelskych ved; clen redakcni rady Vestniku Ceskoslovenske akademie zemedelskych ved. (Czechoslovakia--Collective farms)

SOBOTKA, Ladislav

After the termination of the 5th National Congress on Collective Farms. Vestnik CSAZV 8 no.5:262-263 '61. (EEAI 10:6)

1. Dopisujici clen Ceskoslovenske akademie zemedelskych ved; predseda odboru zemedelske ekonomiky a zestupce vedeckeho sekretare Ceskoslovenske akademie zemedelskych ved; chlen redakcni rady Vestniku Ceskoslovenske akademie zemedelskych ved.
(Czechoslovakia--Collective farms)

SOBOTKA, Ladislav

The tasks of agricultural science and research in 1962. Vestnik CSAZV 9 no.1:1-2 '62.

1. Dopisujici clen Ceskoslovenske akademie zemedelskych ved.

SOBOTKA, Ladislav, ing.

Meeting of the Agricultural Committee of the Economic Commission for Europe. Vest ust zemedel 10 no.6/7:213-217 '63.

1. Vyzkumny ustav zemedelske ekonomiky, Praha.

SOBOTKA, M.

Sobotka, M.; Posival, V. Efficiency tests of circuit breakers. p. 139. ELEKTROTECHNIK. Praha. Vol. 10, no. 5, May. 1955.

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

SCHREIBER, Vladimire, inz.; SOBOTKA, Miroslav, inz., C.Sc.

Static action of B system structures. Inz stavby 10 no.4: 121-126. Ap '62.

1. Technicky a zkusebni ustav stavebni, Praha (for Schreiber).
2. Ministerstvo vystavby, Praha (for Sobotka).

SOBOTKA, Miroslav, Ing., C.Sc.; [illegible]MEK, Jaroslav; SEDLACEK, Jiri

New building technique in reconstruction of industrial plants.
Poz stavby 1[illegible] no.3:135-139 '63.

1. Statni komise pro rozvoj a koordinaci vedy a techniky, Praha (for Sobotka). [illegible] Ustav projekt, Praha (for Trojanek).
3. Vitkovicke stavby, Ostrava (for Sedlacek).

SOBOTKA, Miroslav, inz., CSc.

New technique in concrete reinforcement. Poz stavby 11 no.11: 610-611 '63.

1. Statni komise pro rozvoj a koordinaci vedy a techniky, Praha.

L 3329-66 EWP(c)/EWP(v)/T/EWP(k)/EWP(l)/ETC(m) WW

ACC NR: AP5027878 CZ/0034/65/000/002/0128/0130

AUTHOR: Sobotka, Miroslav (Engineer)

44 55

36

B

TITLE: Ultrasonic depiction of the cross section of material

SOURCE: Hutnicke listy, no. 2, 1965, 128-130

TOPIC TAGS: crystal defect, ultrasonic flaw detector, ultrasonic inspection, lattice defect

44 53 14

ABSTRACT: The article gives a brief account of the method and results obtained in using an ultrasonic instrument of the Krautkramer type to detect defects in solids. Orig. art. has: 6 figures.

ASSOCIATION: Vitkovicke zelezarny KG, n. p., Ostrava (KG Iron Works in Vitkovice, n.p.)

44 55

SUBMITTED: 00 ENCL: 00 SUB CODE: GP

NR REF SOV: 000 OTHER: 000 JPRS

Card 1/1 GP

SOBOTKA, PAVEL

CZECHOSLOVAKIA / Human and Animal Morphology (Normal and Pathological). S
Skeleton.

Abs Jour : Ref Zhur - Biol., No 21, 1958, No 97149

Author : Sobotka, Pavel
Inst : Universitas Carolina
Title : Influence of the Compression of Posterior Roots of the Spinal Cord on the Intervertebral Disks of the Rabbit.

Orig Pub : Univ. carolina. Med., 1956, 2, No. 6, 603-620

Abstract : The changes after experimental compression of the posterior lumbar roots of the spinal cord in 24 rabbits are described. Histologically, changes of structure of nucleus pulposus, annulus fibrosus and cartilage lining, beginning from the second month after operation, were discovered in 16 vertebrae. The question of the possibilities of study of the discogenic syndrome in animals is discussed, and the processes leading to

Card 1/2

Abs Jour : Ref Zhur - Biol., No 21, 1958, No 97149

degeneration of intervertebral disks are investigated. [illegible] of the pathology of human intervertebral disks is broached.

Card 2/2

SOBOTKA, P.;VIK, J.

Acetylcholine in the brain in rats following section of the connection of the neopallium. Cesk. fysiol. 8 no.5:433-434 S '59.

1. Ustav patologicke fysiologie a Fysiologicky ustav Lek. fak. KU, Plzen.

(BRAIN metab.)
(ACETYLCHOLINE metab.)
(CEREBRAL CORTEX physiol.)

SOBOTKA, P.; REINIS, S.; ZAHLAVA, J.; MYSLIVECEK, J.

Development of indicators of the metabolic activity in lesions of the nervous system in early ontogenesis. Acta univ. carol. [Med] Suppl. 15:47-53 '61.

1. Ustav pro patologickou fysiologii lekarske fakulty University Karlovy se sidlem v Plzni, prednosta doc. dr. J. Myslivecek.
(NERVOUS SYSTEM physiol) (METABOLISM)

MYSLIVECEK, J.; KOTRBOVA, Z.; REINIS, S.; ROKYTA, R.; SOBOTKA, P.; ZAHLAVA, J.

Effect of exclusion of the cerebral cortex on somatic and vegetative functions of the organism in early postnatal period. Acta univ. carol. [Med] Suppl. 15:55-61 '61.

1. Ustav pro patologickou fysiologii lekarske University Karlovy se sidlem v Plzni, prednosta doc. dr. J. Myslivecek.
(CEREBRAL CORTEX physiol) (AUTONOMIC NERVOUS SYSTEM physiol)

SOBOTKA, P.

Effect of destruction of connections of the neopalium on the development of the cholinesterase activity in the rat brain. Activ. nerv. sup. 4 no.2:132-133 '62.

1. Ustav patologicke fyziologie lekarske fakulty Karlovy university v Plzni.

(CHOLINESTERASE metab) (BRAIN metab)
(CEREBRAL CORTEX physiol)

CZECHOSLOVAKIA

P. SCHOTTL, J. HYSLIVECEK, J. HASSMANNOVA and J. ZAHLAVA, Department of Pathological Physiology of Medical Faculty of Charles University (Ustav patologicke fysiologie lekarske fakulty Karlove University) Plzen.

"Effect of Some Pharmacologic and Physical Agents on Cerebral Electrical Activity During Development."

Prague, Activitas Nervosa Superior, Vol 5, No 2, May 63; pp 187-188.

Abstract : Effect of 1 and 10% acetylcholine applied directly to dura in rats onto EEG varied considerably according to their age and state of wakefulness or anesthesia; most prominent is activation of fast waves with 10 Ach in adult anesthetized rats. Local cooling generally depresses activity. Authors' previous studies in dogs yielded similar results. Graph; 5 Czech references.

1/1

SOBOTKA, Pavel; REINIS, Stanislav

The incorporation of P^{32} into the brain lesioned at an early postnatal period. Preliminary report. Plzen. lek. sborn. 24:15-17 '64.

1. Institute of Pathological Physiology, Medical Faculty of Charles University, Plzen (Head: prof. dr. J. Myslivecek, DrSc.).

L 12847-66 EWT(1)/EWA(j)/EWA(b)-2 RO

ACC NR: AP6005630 SOURCE CODE: CZ/0079/65/007/002/0129/0132

AUTHOR: Sobotka, P.; Myslivecek, J.; Zahlava, J.; Rokyta, R.; Hassmannova, J.

ORG: Institute of Pathological Physiology, Medical Faculty, Charles University, Plzen

TITLE: Age differences in the effect of drugs with synaptical activity on EEG and evoked potentials [This paper was presented at the Third Interdisciplinary Conference on Experimental and Clinical Study of Higher Nervous Functions held in Marianske Lazne from 19 to 23 October 1964.]

SOURCE: Activitas nervosa superior, v. 7, no. 2, 1965, 129-132

TOPIC TAGS: electroencephalography, drug effect, nervous system drug, dog, rat, cerebral cortex, nervous system drug

ABSTRACT: Local application of drugs influencing synaptic transmission was studied. Acetylcholine (ACH), gamma-aminobutyric acid (GABA), and strychnine (ST) were used in the experiments. EEG and activity of the medial geniculate body (GM) evoked by sound or electrical stimulation in rats and dogs were investigated. Cerebral cortex is very sensitive to ACH in the first postnatal period. GABA and ST show an opposite effect in this period, as compared to adult life, when it increases the amplitude of both components of EP (GABA) and potentiates both phases of EP (ST). In adult dogs and rats, ACH activates the negative phase of EP waves. This is probably due to activation of more superficially located cortical layers. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 1/1 HW

SOBOTKA, V., inz.

Paper electrophoresis diagram evaluation recorders. Jemna mech opt 6 no.1:2-6 Ja '61.

1. Fakulta elektrotechnicka, Praha.

SOBOTKA, V., Ing.

Recorders for evaluation of paper electrophoresis diagrams.
Jemna mech opt 6 no.2:40-45 F '61.

1. Fakulta elektrotechnicka, Praha.

HANCIL, Jan, inz.; SOBOTKA, Vaclav

Improvement of mechanical properties of photocardboard.
Papir a celulosa 18 no.9:192 S '63.

1. Krkonosske papirny.

HANCIL, Jan, inz.; SOBOTKA, Vaclav

Some causes of nonuniform gray staining of photographic paper and improvement of the production technology. Papir a celulosa 18 no.11:218-220 N'63.

1. Krkonosske papirny, Hostinne.

45694

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

G.3272

AUTHOR: Sobotka, Václav, Engineer

TITLE: Amplitude-modulator with three-phase compensation for single-sideband systems

PERIODICAL: Slaboproudý obzor, v. 24, no. 1, 1963, 2 - 7

TEXT: The system considered consists of a signal circuit and a carrier circuit such that the signal is split into three components shifted in phase by 120° with respect to each other (by means of wideband phase-shift networks) and the carrier is similarly split into three phase-shifted components by narrow-band networks. The components are combined by three amplitude-modulators and then added so that the output signal has a frequency $\Omega - \omega$, where Ω is the carrier-frequency and ω is the signal-frequency. If ideal phase-shift networks and amplitude-modulators were employed, the carrier frequency and the other sideband in the input signal would be entirely suppressed. However, due to the inaccuracies in the phase-shifters and modulators, only a finite suppression is achieved. The suppression of the undesirable sideband can be approximately expressed by:

Card 1/3

Amplitude-modulator with ....

$$b_p \doteq \frac{1}{2} \ln \frac{3}{S^2 + (\Delta\Phi + \Delta\varphi)^2} \qquad (42)$$

where S is the relative amplitude deviation of the wideband phase-shift network, $\Delta\Phi$ is the maximum phase error of the carrier phase-shift network and $\Delta\varphi$ is the maximum phase error of the signal phase-shift network. The suppression of the carrier frequency relative to the signal in the desired sideband is given by:

$$b_N \doteq \frac{1}{2} \ln \frac{0.75\ m^2}{N^2 + \Delta\Phi^2} \qquad (48)$$

where m is the modulation coefficient of the three modulators of the system and N is the relative amplitude-deviation of the narrow-band phase-shift network. The formulae give an estimate of the undesired signal suppression which can be achieved from the three phase-modulation method. However, in practice, the results are inferior to those calculated from the formulae due to the finite tolerances of the components and the temperature and

Amplitude-modulator with ....

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

long-term stability of the modulators. The suppression of the undesirable sideband and the carrier achieved by the three-phase method is generally one to two Np lower than that obtained with filter methods. There are 7 figures.

ASSOCIATION: ČVUT, Fakulta elektrotehnická, Praha
(ČVUT Electrical-engineering Department, Prague)

SUBMITTED: July 31, 1962

Card 3/3

KOLAR, Milan; PANEK, Vekoslav; SOBOTKA, Vladimir

Rupture of the pancreas as a cause of acute hemorrhage into the abdominal cavity in advanced pregnancy. Cas.lek.cesk. 98 no.43: 1358-1360 23 O '59.

1. Chir. odd. OUNZ v Rokycanech, prednosta MUDr. Richard Schmid. Cyn. porod. odd. OUNZ v Rokycanech, prednosta MUDr. Vekoslav Panek.
(PREGNANCY compl.)
(PANCREAS dis.)
(HEMORRHAGE in pregn.)

SOBOTKA, Z.

BTR, V. 3, Feb 1954 Chem Engng.

1614 Partial Replacement of Apatite With Polish Phosphorites in Production of Calcinated Peronhosphates. (Polish.) Z. Fokstein, A. Sacha, Zd. Dominiak, and Z. Sobotka. *Przemysl Chemiczny*, v. 32, no. 10, Oct. 1953, p. 530-535.

It has been found that reaction between hydroxylamine and methyl ester of 5-bromosalicylic acid can be applied as an industrial method. 6 ref.

[illegible], [illegible]

[illegible], [illegible]; [illegible], [illegible]. Aliphatic [illegible]. [illegible]. [illegible] of nitro-
[illegible] with isovaleraldehyde. p. 3[illegible].
[illegible], [illegible], Vol. [illegible], no. [illegible], 1955.

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

SOBOTKA W.

POLAND/Chemical Technology. Chemical Products and Their Application. Pesticides. H-18

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15574.

Author : Eckstein Z., M szcynski W., Sobotka W.
Inst :
Title : On the Preparation of Herbicides. II. Syntheses of 2,4,5-Trichloro-Phenoxyacetic Acid (2,4,5-T).

Orig Pub: Przem. chem., 1956, 12, No 3, 167-169.

Abstract: Two variants (A and B) are proposed for the synthesis of 2,4,5-trichloro-phenoxyacetic acid (I), which is a herbicide and a growth regulator for some vegetables. A. 2,5-dichloraniline (II) is converted by diazotization (action of solid $NaNO_2$ on sulphate of II at 0°), and subsequent decomposition with aqueous solution of H_2SO_4 during steam-distilling, to 2,5-dichlorophenol (III) (yield 86-91%). From III, by the method described in Communication I, is prepared

Card : 1/3

[illegible] in 12 ml water (60 minutes, stirring, temperature 65-75°). The resulting technical I is washed with water and purified by preparing the Na-salt. Yield of I 83%, MP 156-157°. B. Ethyl ester of 2,4-D is nitrated with a mixture of [illegible] and nitric acid to get the ethyl ester of 5-nitro-2,4-dichloro-phenoxyacetic acid (V); yield of V 94.3%, MP 156.5-159°. On reduction of V by action of $FeSO_4$ in aqueous solution of NH_3 there is obtained 5-amino-2,4-dichloro-phenoxyacetic acid (VI); yield 84.6%, MP 169-171°. VI is converted according to Sandmeyer (diazotization of HCl-salt of VI at a temperature from -2° to 0°, and action of $CuCl_2$ and Cu) to technical I which is purified

Card : 2/3

POLAND/Chemical Technology. Chemical Products and Their Application. Pesticides. H-18

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15574.

by preparing the Na-salt and three recrystallizations from glacial CH_3COOH. Yield of I 48.5%, MP 160-161°. Part I see RZhKhim, 1956, 61484.

SOBOTKA, W

61* (Polish.) Insecticides From Plants. **Środki owadobójcze pochodzenia roślinnego.** W. Sobótka. *Przemysł Chemiczny*, v. 12, no. 9, Sept. 1958, p. 498-502.

Chemical composition and properties of pesticides derived from nicotine, pyrethrin, allethrin, rotenone, and rotenoids. Other plant sources of insecticides.

[illegible] Wr., [illegible]

[illegible] Wiesław Sobótka and Tadeusz Urbański; "On Aliphatic Nitrocompounds, XX. Additions of Nitro-Olefins. III. On Derivatives of 3-Nitro-3-(1-Cyclohexenyl)-[illegible]-1,3-[illegible]," Rocznik Chemii, Vol 29, No 1, Warsaw, 1955. Published from the [illegible] Laboratory of Organic Synthesis of the Polish Academy of Sciences in Warsaw, and the Chair of Organic Technology II, Warsaw Polytechnic, 3 Dec 54.

SOBOTKA W.

POLAND/Optics - Spectroscopy K-7

Abs Jour : Ref Zhur - Fizika, No 2, 1958, No 4599

Author : Urbanski, T., Sobotka, W., Eskotein Z.
Inst : Institute of Organic Synthesis, Polish Academy of Sciences.
Title : On Ultraviolet Absorption Spectra of Some Nitro and Halogenonitrodiols.

Orig Pub : Bull. Acad. polon. sci., 1957, Cl. 3,5, No 2, 209-212

Abstract : A study was made of the influence of the length of the alkyl group (Rl) and halogens (X) on ultraviolet absorption spectra of nitrodiols with the general formula R -- CHOH -- CMO_2X -- CHOH -- R. It is shown that increasing the radical R(R = CH_3, n -- C_3H_7, $(CH_3)_2CHCH_2$) in the nitrodiols deepens the maximum of the band of the nitrogroup in the region of 270 -- 280 millimicrons. In chlornitrodiols these macima become weaker and in certain cases the curves have merely a point of inflection. In bromnitrodiols there are only points of inflection.

Card : 1/1

Title : On Ultraviolet Absorption Spectra of [illegible] tives of β-Nitroalcohols. II.

Orig Pub : Bull. Acad. polon. sci., 1957, Cl. 3, 5, No 6, 653-658

Abstract : A study was made of the ultraviolet absorption spectra of 1-nitromethyl-1-oxycyclohexane (I) and its mono-chloro- and bromo-derivatives (II, III). The spectrum of I contains only a weak maximum near 270 millimicrons characteristic of the nitro group. In the case of II, the maximum of approximately 285 millimicrons is reinforced, and in the case of III the maximum of approximately 285 millimicrons occupies an intermediate place as regards intensity. For a more detailed investigation of the influence of the halogen on the alcohols with a cyclohexane ring, 2-nitro-1-cyclohexylethanol (IV) and its chloro- and bromo-derivatives (V and VI) were produced. In the spectrum of IV the maximum of the nitro group

Card : 1/2

POLAND/Optics - Spectroscopy K-7

Abs Jour : Ref Zhur - Fizika, No 3, 1958, No 7059

is missing. In the spectra of V and VI a bend is seen near 270 -- 275 millimicrons. The weakening of the absoprtion band of the nitro group is due in all probability to the steric influcence of the cyclohexane ring on it, and in addition to the existence of a hydrogen bond between the nitro and hydroxyl groups. It is possible that the hydrogen bond is weakened by introducing the halogen into the molecule.

POLAND/Optics - Spectroscopy

Abs Jour : Ref Zhur - Fizika, No 5, 1958, No 11861

forms is possible, in which both hydroxyl groups are bond with the nitro group by means of a hydrogen bond. Three bands were found for the nitro group -- in the crystalline state 1587, 1568, and 1544 cm-1, and in solution in carbon tetrachloride 1568, 1562, and 1527 cm-1. Probably the first of these belongs to the free nitro group, and the second to the "semi-bound" nitro group, and the third to the "completely bound" nitro group.

Card : 2/2

SOBOTKA, W.

POLAND / Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour : RZhKhim, No 10, 1958, No 32402

~~Author~~ : Z. Eckstein, W. Ciopionko, E. Grochowski, W. Sobotka, B. Zaszczynska.

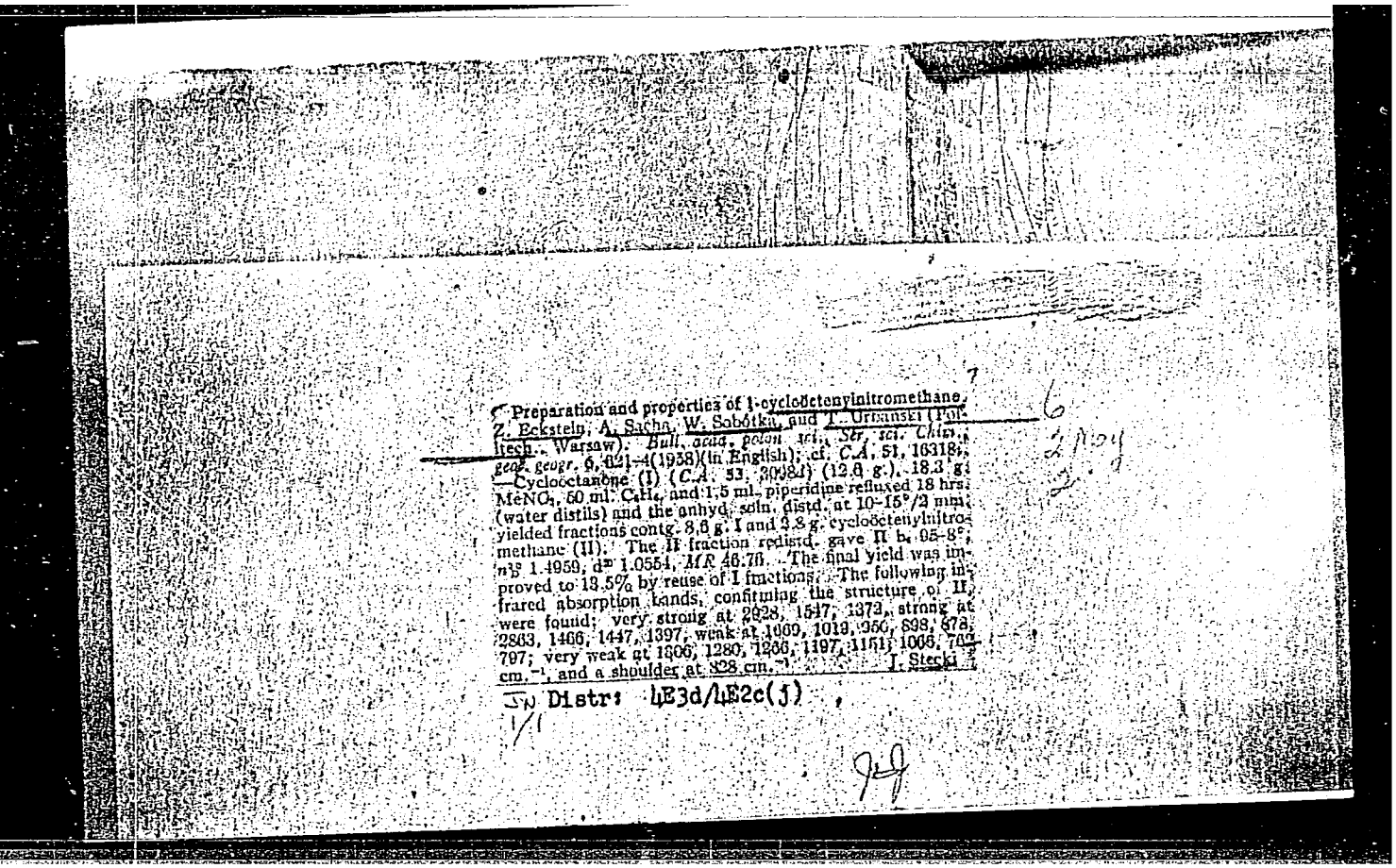
~~Inst~~ : ~~Not given~~

~~Title~~ : "To The Questi on of Herbicide Synthesis. V. Study of Condonsation Rate of Sodium Phonolates and Chlorophonolates with Sodium Chloroacetate in Aquoous Medium."

~~Orig Pub~~ : Przom. chom., 1957, 13, No 7, 390-393

Abstract : The reaction $ClCH_2COONa + NaOC_6CRCH=CR'CR''=CH \rightarrow CH=$ $=CR''CR'=CHCR=COCH_2COONa$ carried out in the aquoous medium was studied on examples with (the R-s, R'-s and R''-s are enumerated): H, H, H; CH_3, H, H; Cl, Cl, H; Cl, H, Cl; Cl, Cl, Cl; and CH_3, Cl, H. The reaction was checked by the determination of the Cl^- content in the mixture. It

Card 1/2



Preparation and properties of 1-cyclooctenylnitromethane. Z. Eckstein, A. Sachs, W. Sobótka, and T. Urbański (Polytech., Warsaw). *Bull. acad. polon. sci., Sér. sci. chim., géol. géogr.* 6, 621–4(1938)(In English); cf. *C.A.* 51, 16318i. Cyclooctanone (I) (*C.A.* 33, 3098d) (12.6 g.), 18.3 g. MeNO$_2$, 60 ml. C$_6$H$_6$, and 1.5 ml. piperidine refluxed 18 hrs.; (water distils) and the anhyd. soln. distd. at 10–15°/2 mm. yielded fractions contg. 3.6 g. I and 2.8 g. cyclooctenylnitromethane (II). The II fraction redistd. gave II b. 95–8°, n_D^{15} 1.4959, d_4^{20} 1.0554, *MR* 46.76. The final yield was improved to 18.5% by reuse of I fractions. The following infrared absorption bands, confirming the structure of II, were found; very strong at 2928, 1547, 1373, strong at 2863, 1466, 1447, 1397; weak at 1009, 1019, 956, 898, 878, 797; very weak at 1406, 1280, 1266, 1197, 1151, 1066, 703 cm.$^{-1}$, and a shoulder at 828 cm.$^{-1}$. I. Stecki

JN Distr: 4E3d/4E2c(j)

G

Country : Poland
Category : Organic Chemistry. Synthetic Organic Chemistry

Jour. Ref. : Ref Zhur-Khimiya, No.12, 1959, No.42379

Author : Sobótka, Mieczysław; Kordatin, Zygmunt; Urbański, T.

Institute. : Not given

Title : Contribution to the Problem of Synthesizing Herbicides. VII. Esters of Arylcxyacetic Acids with Aliphatic Nitroalcohols.

Orig. Pub. : Roczn. chem., 1958, 32, No.4, 963-970

Abstract : The following three groups of the esters of arylcxyacetic acids and aliphatic nitroalcohols were synthesized: (2, 4, 5-$Cl_3C_6H_2$-OCH_2COOCH_2)-$R^1C(NO_2)R^2$ (I), substitution 1,3-dioxane (II) and $R^1CH_2OCH(CCl_3)CH_2NO_2$ (III). (I) is obtained by the action of RCH_2COCl (IV), where R= 2,4,5-$Cl_3C_6H_2$(IVa), on $R^1C(NO_2)$ (V) in $CHCl_3$ in the presence of pyridine (method A). (II) is synthesized by the action of IV on the corresponding alcohols in pyridine (method B).

Card: 1/6

3/6

G

Country/ : Poland
Category : Organic Chemistry. Synthetic Organic Chemistry

Jour. : Ref Zhur-Khimiya, No.11, 1959, No.40379

Author :
Institute. :
Title :

Orig. Pub. :

Abstract : (The article cites R, yield in %, and the melting point in °C (from alcohol) as follows): 2,4,6-$Cl_3C_6H_2OCH_2$, 20, 108; Cl, 25, 113; Br, 22, 105; CH_3, 17, 132; C_2H_5, 17, 125. 0.03 mole IV is added to (.02 mole 5-nitro-5-oxymethyl-2,2-dimethyl (or 2-phenyl)-1,3-di-dioxane in 15 ml. of C_5H_5N at 0°. The mixture is heated for 30 minutes at 60-65°, then poured into 200ml. of water with ice; II is separated. (The article cites R,R', R", yield in % and the melting

Card: 3/6

C

Country : Poland
Category : Chemistry. Synthetic Organic Chemistry
Abs. Jour. : Ref Zhur-Khimiya, No.10, 1957, No. 32479
Author :
Institut. :
Title :

Orig. Pub. :

Abstract : removed in vacuum; the residue is extracted with ether; the extract is washed with water; III is separated. (The article cites R, yield in % and the melting point in C° (from petroleum ether-ethylacetate) as follows): 2,4-$Cl_2C_6H_3$, (IIIa), 88, 95 (2,4-$Cl_2C_6H_3OH_2COOC_6H_3Cl_2$-2',4', is obtained together with IIIa); 2,4,5-$Cl_3C_6H_2$, 80, 80. 14 moles of IIa in 30 ml. of alcoholic HCl are boiled for 5 minutes, then poured into 300 ml. of $NaHCO_3$; the yield is one g of VIII,

Card: 5/6

G-2

POLAND / Organic Chemistry--Synthetic organic chemistry.

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49477

Author : Echstein, Z.; Sobotka, W.
Inst : Not given
Title : On the Synthesis of Herbicides. XI. Synthesis of γ-(2,4-dichlorophenoxy)-butyric (2,4-DB) and γ-(2-methyl-4-chlorophenoxy)-butyric (MCPB) Acids

Orig Pub : Przemysl Chem, 37, No 8, 537-539 (1958)

Abstract : The action of Cl in statu nascendi on 2-RC_6H_4O-$(CH_2)_3COOH$ (Ia,b), where Ra = H, Rb = CH_3) results in the chlorination of the latter to 2-R-4-$ClC_6H_3O(CH_2)_3$ COOH (IIa,b where Ra = Cl, Rb = CH_3). A general procedure for the synthesis of II is proposed based on the reaction scheme: 2-R-4-R'$C_6H_3OCH_2CH_2Br$ (III) + CH_2 $(COOC_2H_5)_2$ (IV)→2-R-4-R'$C_6H_3OCH_2CH_2CH(COOC_2H_5)_2$ (V)→ 2-R-4-R'$C_6H_3OCH_2CH_2CH(COOH)_2$ (VI)→II (R' = Cl). The

Card 1/5

G-3

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49477

residue is diluted with water; ether extraction gives V (R = CH_3, R' = H) (Va), yield 52%, bp 150 - 152°/0.5 mm, $n^{20}D$ 1.4904, d_{20}^{20} 1.0856. Application of an analogous procedure gives the following V (R, R', the yield in %, bp in °C/mm, n^2 D, d_2^2 are given in that order): H, H, 50, 163/2, 1.4920, 1.1016; CH_3, Cl, 55, 212/3.5, 1.5669 1.1724; Cl, Cl, 58, 190 - 200/1, -, -,. 2.5 mols KOH in 150 ml water are added to one mol Va at a rate sufficient to keep the solution boiling, the solution is boiled for 1.5 hrs, 150 ml solvent are added, and VIb is obtained in 98.5% yield by the addition of 140 ml H_2SO_4 in 350 ml water, mp 127 - 128°. The following VI are obtained by an analogous procedure (R, R', the yield in %, and the mp in °C are given in that order): H, H, 75, 158 - 160; CH_3, Cl (VIc), 77, 140 - 142 (decomp);

Distr: 4E2c(j)/4E3d

Studies on by-products in the reaction of cyclic ketones with aliphatic nitro compounds. Z. Eckstein, A. Sachnil, and W. Sobótka (Inst. Synt. Org. P.A.N., Warsaw). *Bull. acad. polon. sci., Sér. sci. Chim., géol. et géograph.* 7, 295-306(1959)(in German); cf. *CA* 53, 9095f.—From a cyclic ketone and piperidine (I) were obtained in C_6H_6 soln. according to Hünig, *et al.* (*CA* 52, 18186b), the enamines (II), $CH_2(CH_2)_n.CH:CNC_5H_{10}$ (*n*, % yield, b.p., n^{19}_D, and d^{19}_4 given): *1*, 92, b_3 89–90°, 1.5129, 0.9426; *2*, 61, b_3 92°, 1.5138, 0.9462; *3*, 43.3, b_4 98.0–9.5°, 1.5120, 0.9442; *4*, 51, $b_{0.4}$ 97.9°, 1.5129, and 0.9503. Treated in dioxane with $CH_3:CHR$ and hydrolyzed they gave $CH_3.(CH_2)_n.CH_2.CO.CHCH_3CH_2R$ (III) (*n*, % yield, b.p., n^{19}_D, and d^{19}_4 given) for R = CO_2Me: *1*, 38.0, $b_{0.4}$ 103.5–4.0, 1.4592, 1.0741; *2*, 73.2, b_3 115.5–16.0°, 1.4642, 1.0638; *3*, 93.2, b_1 120–2°, 1.4682, 1.0557; *4*, 60.0, b_4 152°, 1.4754, 1.0519. The data for R = CN were: *1*, 36.5, b_3 124–5°, 1.4684, 1.0382; *2*, 36.5, b_3 118°, 1.4738, 1.0229; *3*, 48.0, b_4 140°, 1.4772, 1.0186; *4*, 21.0, b_4 146–7°, 1.4831, and 1.0161. II (*n* = 3 and 4) were identical with by-products of I-catalyzed reactions of $EtNO_2$ and $PrNO_2$ with cyclic ketones. II (*n* = 2), treated with $MeNO_2$ in dioxane and hydrolyzed, gave 1-cyclohexenylnitromethane and a compd., $C_{14}H_{28}N_2O_3$, m. 250–51°, identical with that prepd. by Nightingale, *et al.* (*CA* 52, 12779c), and giving a violet soln. with $FeCl_3$ in EtOH. Infrared absorption bands of all II and III were tabulated and shown in graphs. J. Stecki

6
1-BW(BW)
1-JAJ(NB)
2

C7K

[redacted], M.; [redacted], Z.; MIKULSKI, J.

On the Pirnbaum-Simonini reaction of some derivatives of phenoxyacetic acid. p.77.

ROCZNIKI CHEMII. Warszawa, Poland. Vol. 33, no. 1, 1959.

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

ECKSTEIN, Zygmunt; SACHA, Andrzej; SOBOTKA, Wieslaw

Side products of the reaction of nitromethane homologues with cyclic ketones. Rocz chemii 34 no.5:1329-1337 '60. (EEAI 10:9)

1. Zaklad Syntezy Organicznej Polskiej Akademii Nauk, Warszawa i Instytut Farmaceutyczny, Warszawa.

(Nitromethane) (Ketones) (Cyclic compounds)

ECKSTEIN, Zygmunt; EJMOCKI, Zdzislaw; POTOCKI, Jan; SOBOTKA, Wieslaw; ZUKOWSKI, Edward

Obtaining of 3,4-two-subatituted phenoxyalkanocarboxylic acids. Przem chem 39 no.5:275-279 My '60.

1. Katedra Technologii Organicznej II, Politechnika, Warszawa

BIALAS, Julian; ECKSTEIN, Zygmunt; EJMOCKI, Zdzislaw; HETNARSKI, Bogumil; SOBOTKA, Wieslaw; SZYMASZKIEWICZ, Jacek

On the properties and the fungicidal activity of N-alkylmercury derivatives of sulfonamides. Przem chem 40 no.10:567-570 O '61.

1. Katedra Technologii Organicznej II, Politechnika, Warszawa i Laboratorium Badawcze Zakladoe Chemicznych Azot, Jaworzno.

S/081/62/000/024/036/073
B101/B186

AUTHORS: Calus, H., Eckstein, Z., Sobótka, W., Urbański, T.

TITLE: Endoisomers and exoisomers of nitroolefins (1-cyclohexenyl nitromethane and cyclohexylidene nitromethane). III. Measurement of dipole moments

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 276, abstract 24Zh8 (Bull. Acad. polon. sci. Sér. sci. chim., v. 9, no. 11, 1961, 725-729 [Eng.; summary in Russ.])

TEXT: Dipole moments were compared to explain the composition of a mixture of cyclohexylidene nitromethane (I) and cyclohexene-1-yl nitromethane (II) forming when 1-nitromethyl-1-hydroxycyclohexane (III) is heated. Results: $(\overline{CH_2)_4C(CHRNO_2) = CH}$, (where R = H, CH_3, and C_2H_5), $(\overline{CH_2)_nC(CH_2NO_2) = CH}$ (where n = 5,6), nitrocyclohexane, cyclohexyl nitromethane, and 1-nitromethyl-4-methyl-cyclohexene-1 were found to have the same dipole moments of 3.6 (± 0.1D). The dipole moment (4.3D) of the

Card 1/2

Endoisomers and exoisomers ...

mixture obtained from III indicates the predominance of substance I with a higher dipole moment due to conjugation of the C=C bond with the nitro group. Determination of the dipole moments of mixtures produced by adding different amounts of II to the reaction mixture leads to the assumption that the content of the exoisomer I in the reaction mixture is 90% being consistent with the data of the IR spectra. Communication II see RZhKhim, 1958, no. 3, 7880. [Abstracter's note: Complete translation.]

Card 2/2

ARCT, J.; CZERWINSKA, E.; ECKSTEIN, Z.; EJMOCKI, Z.; KOWALIK, R.; SOBOTKA, W.; ZIKOWSKI, E.

Properties and fungicidal activity of aryloxyalkanehydroxamic acids. Pt.7. Bul chim PAN 12 no.7:465-470 '64.

1. Department of Organic Technology II of Warsaw Technical University and Mycological Laboratory of the Institute of Organic Industry, Warsaw. Submitted May 11, 1964.

SOBOTKA, Zdenek (Praha)

Axially symmetrical and three-dimensional limiting states of nonhomogeneous soils and other continuous media. Archiw mech 13 no.2:151-175 '61.

SOBOTKA, Z.

"RC oscillabor synchronized by automatic phase control." p. 239

SDELOVACI TECHNIKA. Praha, Czechoslovakia, Vol. 3, No. 8, August, 1955

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

SOBOTKA, Zdenek

Pruznost a pevnost. (Plasticity and Strength; a university textbook. 1st ed. illus.) For the student of the Faculty of Radio Engineering in Podebrady. Prague, SNTL, 1957. 374 p.

Bibliograficky katalog, CSR, Ceske knihy, No. 36, 19 Oct. 57, p. 763

I

CZECHOSLOVAKIA/Radio Physics - Generation and Conversion of Radio Frequency Oscillations

Abs Jour : Ref Zhur Fizika, No 8, 1959, 18538

Author : Sobotka, Zdenek
Inst : -
Title : Frequency Multiplier and Divider, Using Automatic Phase Tuning

Orig Pub : Slaboproudy obzor, 1958, 19, No 11, 749-755

Abstract : Design is given for frequency division of multiplication circuit employing phase self-tuning. The requirements that must be satisfied by the circuit in order to insure the proper phase relations between the input and output signals are formulated.

Card 1/1

CZECH/14-59-11-7/64

9(2)
AUTHOR: Sobotka, Zdeněk, Engineer

TITLE: Twin Systems of Automatic Phase Synchronization

PERIODICAL: Sdělovací technika, 1959, Nr 11, pp 409-411

ABSTRACT: In the introduction, the author describes the principle and practical application of automatic phase synchronization, which was already the subject of several articles in Czechoslovak literature. A schematic diagram of automatic phase synchronization is presented in Fig 1. The band of active synchronization is an important parameter of automatic phase synchronization. This is the frequency band in which automatic phase synchronization is capable of reaching synchronism. The second important parameter is the noise filtration which is, to a considerable extent, determined by the corrector circuit. Two kinds of processes take place in the automatic phase synchronization: the first stage in which the automatic synchronization reaches synchronism and the second stage is that of maintaining synchronism. Twin systems of

Card 1/4

Twin Systems of Automatic Phase Synchronization

automatic phase synchronization are those which operate in a certain way during the first stage and in another way during the second stage. The author proceeds, describing the classical automatic phase synchronization with a frequency detector, which is a possible method of achieving a twin system. This frequency detector, whose frequency characteristic is illustrated in Fig 2a, must distinguish between the two stages. One of its possible connections is shown in Fig 4. It is composed of 2 phase detectors fed by synchronizing voltage and by voltage from the controlled oscillator. The functioning of the frequency detector is presented in Fig 5, in which the voltage in the various points is given. The frequency detector can find an application for the recombiner of color reference signal in a color TV set (Fig 6). Further, the author deals with classical automatic phase synchronization with an oscillator. If the system does not reach synchronism, the oscillator is activated with the help of saw-tooth volt-

Twin Systems of Automatic Phase Synchronization

age brought to the grid of the reactance tube. Does the controlled oscillator reach the frequency of the synchronizing voltage, the classical automatic phase synchronization starts functioning and the auxiliary saw-tooth voltage switches off. An example of such a circuit is given in Fig 7. The next systems analyzed are twin systems of automatic phase synchronization with a switched over corrector circuit. With an adequate switching over of the corrector circuit, the builder can obtain in the automatic phase synchronization a wide band of active synchronization and a great resistance against noise (Fig 8). Finally, the author deals with a twin system of automatic phase synchronization with quadratic phase detector, whose circuit diagram is illustrated in Fig 9. The input synchronizing voltage is brought to two phase detectors F_1 and F_2. The phase detector F_1 is a part of the automatic phase synchronization while the quadratic phase detector F_2 determines the way

Twin Systems of Automatic Phase Synchronization

of functioning of the whole system. In his conclusion, the author stresses that twin systems are resistant to noise and make it possible in the same time to choose a more or less independent band of active synchronization. There are 3 circuit diagrams, 2 graphs, 4 diagrams and 14 references, 9 of which are Czech, 2 US and 3 Soviet.

CZECHOSLOVAKIA/Electronics - The Application of Electronics Vacuum Technique. H

Abs Jour : Ref Zhur Fizika, No 12, 1959, 27966

Author : Sobotka, Zdenek

Inst : Vyzkumny ustav pro sdelovoci techniku A.S. Popova

Title : Measurement of Short Periodic Pulses

Orig Pub : Slaboproudy obzor, 1959, 20, No 4, 243-247

Abstract : A survey is given of instruments, intended for measurement of amplitude, shape, and duration of short periodic pulses. Their advantages and shortcomings are noted here. A new type of such an instrument is described. Certain typical circuits for the measurements are described in greater detail. The period of time sweep (of the pulses) obtained is approximately the same as the attained limit when using

Card 1/2

CZECHOSLOVAKIA/Electronics - The Application of Electronics Vacuum Technique H

Abs Jour : Ref Zhur Fizika, No 12, 1959, 27966

ordinary vacuum tubes and a cathode ray tube.
Bibliography, 13 titles.

Card 2/2

S/271/63/000/002/020/030
A060/A126

AUTHOR: Sobotka, Zdeněk

TITLE: Automatic phase-synchronization circuit

PERIODICAL: Referativnyy zhurnal, Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, no. 2, 1963, 89, abstract 2A572 P (Czech. pat. cl. 21a[1], 35/12, no. 96901, October 15, 1960)

TEXT: Patented is a circuit for phase synchronization which differs from existing circuits by a considerable noise reduction. The system contains, connected into the circuit of the correcting element, an electronic switch controlled by the phase detector, in turn connected to the input of the comparison detector and the output of the synchronized oscillator.

V. Kh.

[Abstracter's note: Complete translation]

Card 1/1

Z/006/60/000/039/001/001
D006/D102

AUTHOR: Sobotka, Zdeněk

TITLE: A new tradition in the making. Turnov rubies

PERIODICAL: Technické noviny, no. 39, 1960, 3

TEXT: The Turnovské brusírny (Turnov Grinding Works) is the only Czechoslovak producer of watch jewels. The production of these jewels requires more than 40 machine operations. Split pear-shaped ruby boules are glued on boards and mechanically sliced. Slices are then cut into cubes which are glued onto small rollers to be rounded and provided with 0.07 mm holes. Subsequently, they are ground to the required diameter and provided with oil sinks. After final grinding and polishing the rubies are checked on measuring instruments and inspected under microscopes. Technologist Josef Janata, cutter Jan Resl and grinder Jana Chmelíková are mentioned in the article. There is 1 figure.

Card 1/1

21883
Z/014/61/000/001/003/009
A205/A126

9.2584 (1040, 1144)

AUTHOR: Sobotka, Zdeněk, Engineer

TITLE: A tunable crystal oscillator

PERIODICAL: Sdělovací technika, no. 1, 1961, 15 - 17

TEXT: The article presents the principles of a crystal oscillator and lists results obtained in experiments aimed at tuning such an oscillator using a capacitance, or an inductance, or a reactance tube, wired parallel to the crystal. In the experiment, a Colpitts oscillator (operating with parallel resonance of crystals) was used with the following elements: E_1 = "PCF 82", E_A = 150 v, C_{gk} = 5 pF, C_o = 300 pf, L_o = 32 μH, R_g = 160 kΩ, C_{V1} = 100 pF, working frequency = 4.43 mc, crystal AT cut. To decrease the oscillator frequency, a capacitance (C_r) was connected parallel to the crystal. However, the possibility to reduce the oscillator frequency by increasing the capacitance (C_r) is limited, since circuit attenuation is also increasing to a value, which cannot be compensated by tube transconductance and the oscillation stops. To increase the oscillator frequency, the capacitance, parallel to the crystal, is replaced by the inductance (L_r). To change the oscillator frequency in dependence of the input voltage (e_r), the capacitance (C_r) was

Card 1/4

21883
Z/014/61/000/001/003/009
A205/A126

A tunable crystal oscillator

replaced by a reactance tube which acts as variable capacitance. The tuning capacity of the reactance tube is rather limited, but can be increased, when the load resistance (R_3) of the tube is replaced by an inductance. The equivalent circuit of such an oscillator is shown in Figure 9, in which C_{RD} = variable capacitance of the reactance tube; R_{RE} = resistance effected by the reactance tube; C_{RS} = stable capacitance of the reactance tube plus mounting capacitance; L_{RO} = = tuning inductance; C_{v1}, C_{v2} = coupling capacitances; C_{OK} = stable capacitance of the crystal; and L_K, C_K, R_K = dynamic equivalents of the crystal. To make oscillation possible, the impedance on the left side of terminals (1 - 1) must have inductive character. The circuit on the left side of terminals (2 - 2) can be regarded as simple-tuned circuit. A decrease or increase of its resonance frequency effects also a decrease or increase of the oscillator frequency. In case the inductance (L_{RO}) is small, even little changes of the capacitance (C_{RD}) will effect a great change in oscillator frequency [i.e. the tuning transconductance (S_r) of the reactance tube in dependence of the input voltage (e_r) can be controlled by the inductance (L_{RO})]. However, a change of (L_{RO}) effects also a change of the oscillator frequency (at e_r = 0). The choice of the precise frequency of the crystal cut, allowing symmetrical tuning to both sides of the desired frequency, is rather complicated and must be made experimentally. Fine tuning of oscillator fre-

Card 2/4

21883

Z/014/61/000/001/003/009
A205/A126

A tunable crystal oscillator

quency can be provided by adjustment of the inductance (L_{RO}) or by changing the bias of the reactancetube. A 50% change of capacitances (C_{V1}) or (C_{V2}) effected a 250 cps frequency change (measured at $e_r = 0$). Changes of resistance (R_T) or capacitance (C_o) have negligible influence on the frequency. A 15% change of (C_o) effected a 40% change of output voltage. A temperature increase from 25 to 75°C and a tuning transconductance of S_R = 700 cps, effects a frequency increase of 130 cps. During 8 hours of operation, the frequency did not fluctuate more than ± 50 cps. Exchange of reactance tubes produced a large influence on oscillator frequency, due to varying attenuating capacities of different tubes, amounting to a deviation of +320 cps for 9 arbitrarily selected tubes. A change of the anode voltage from 240 to 360 v effected a frequency increase of 250 cps, a change of the filament voltage from 8.8 to 9.8 v effected an increase of 100 cps. There are 10 figures and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English language publication reads as follows: T. Buchanan, Handbook of Piezoelectric Crystals for Radio Equipment Designers; Philco Corporation, October 1956.

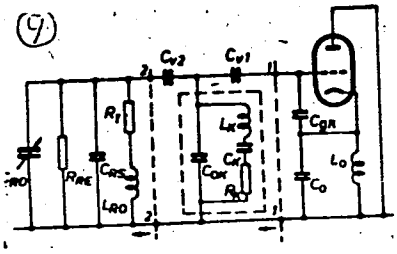
Card 3/4

21883

Z/014/61/000/001/003/009
A205/A126

A tunable crystal oscillator

Figure 9: Equivalent circuit of crystal oscillator



Card 4/4

SOBOTKA, Z.; MURZEWSKI, J.

Approximate calculations of the distribution of a function of random variables and their application to the yield condition. Bul Ac Pol tech 9 no.1:25-31 '61. (EEAI 10:9)

1. Department of Mechanics of Continuous Media, Institute of Fundamental Technical Problems, Polish Academy of Sciences. Presented by W. Olszak.

(Distribution(Probability theory))
(Load(Mechanics)) (Elasticity) (Plasticity)
(Strains and stresses)

SOBOTKA, Z.

SURNAME (in caps); Given Names

Country: Poland

Academic Degrees: Not stated

Affiliation: Not stated

Source: Warsaw, Bulletin de l'Académie Polonaise des Sciences, Série des Sciences Techniques, Vol 9, No 2, Feb 61, pp 85-93.

Data: "On a New Approach to the Analysis of Limit States in Soils and in Other Continuous Media."

SOBOTKA, Zdenek, (Praha, Czechoslovkia)

Axially symmetrical and three-dimensional limiting states of non-homogeneous soils and other continuous media. Archiw mech 13 no.2:151-175 '61.

SOBOTKA, Z.

The bending of anisotropic plates following the general law of deformation. Bul Ac Pol tech 10 no.8:487-496 '62.

1. Presented by W. Olszak.

SOBOTKA, Zdenek, doc., inz., Dr.Sc.

"Theory of linear reduction of plane constructions and its numerical application" by [prof.] Karol Havelka and [doc.] Jozef Zvara. Reviewed by Zdenek Sobotka. Stav casopis 10 no.10:611-612 O '62.

SOBOTKA, Zdenek, doc., inz., DrSc.

Equations of physically nonlinear bending of axially symmetric anisotropic plates. Stav cas 11 no.8:525-529 '63.

SOBOTKA, Zdenek, doc., inz., DrSc.

Carrying capacity of fixed orthotropic rectangular plates with evenly distributed load and single loads. Stav cas 11 no.10:589-607 '63.

1. Ustav teoreticke a aplikovane mechaniky, Ceskoslovenska akademie ved, Praha.

L 57418-65 EWT(d)/EWP(w)/EWA(d) EM

ACCESSION NR: AP5019315 CZ/0026/64/009/006/0467/0469

AUTHOR: Sobotka, Zdenek (Engineer, Docent, Doctor of sciences) 11 B

TITLE: General stress-strain relationships of anisotropic bodies and the concept of the transformed strain

SOURCE: Aplikace matematiky, v. 9, no. 6, 1964, 467-469

TOPIC TAGS: solid mechanics

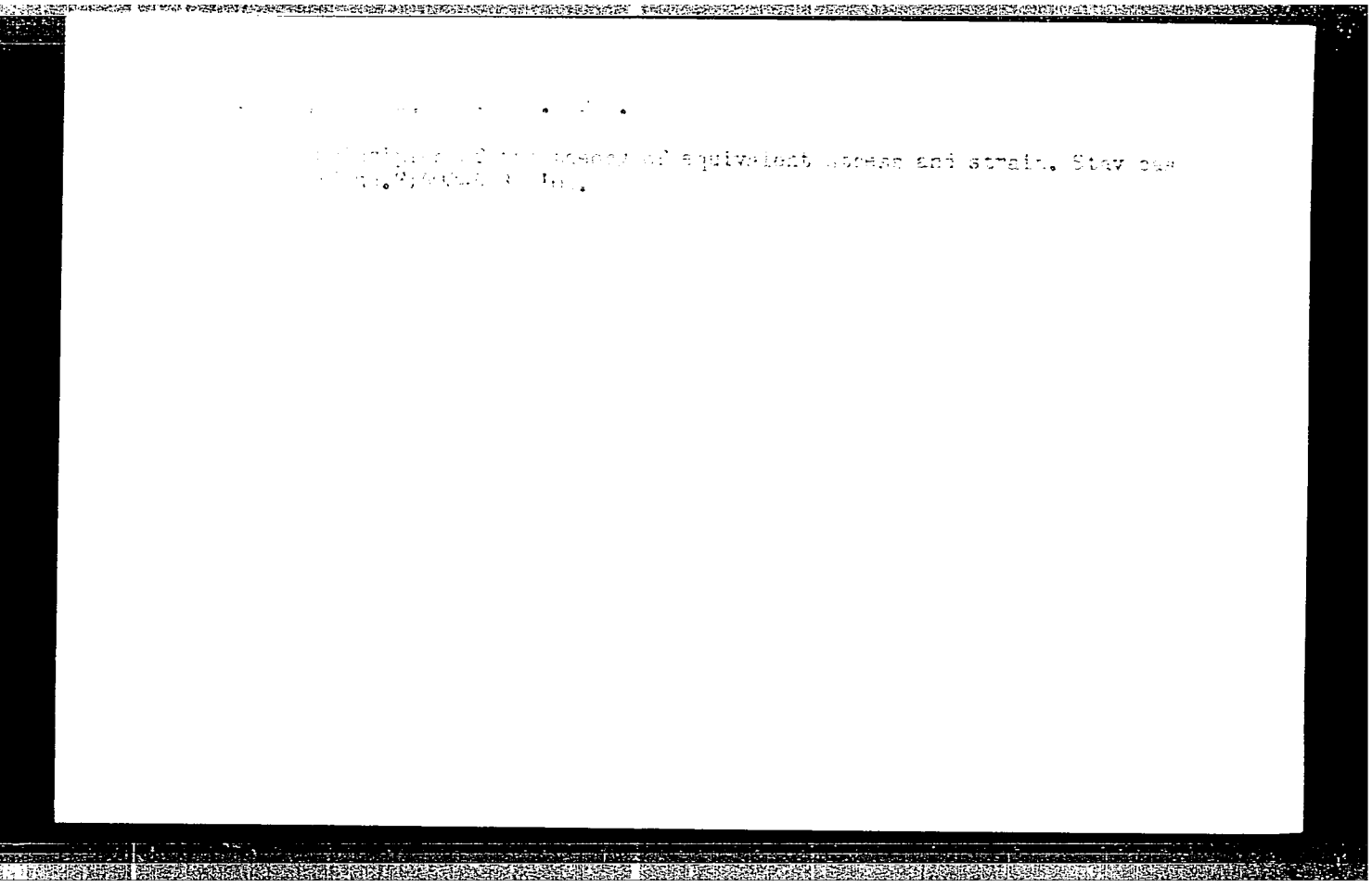
ABSTRACT: The article presents the general stress-strain relationships and the law of the deformation theory of plasticity of anisotropic bodies and shows that the concept of the transformed strain makes it possible to express the stress-strain relationships for anisotropic bodies in a manner analogous to that of the isotropic case. Orig. art. has: 17 formulas.

ASSOCIATION: Ustav teoreticke a aplikovane mechaniky CSAV, Prague (Institute of Theoretical and Applied Mechanics CSAV)

SUBMITTED 20Jul64 ENCL: 00 SUB CODE: ME

NR REF SOV, 000 OTHER: 000 JPRS

Card 1/1



SOBOTKA, Zdenek, doc. inz. DrSc.

Constitutive relations for the plane-strain problem of the deviation theory of plasticity. Aplikace mat 10 no.1: 72-75 '65.

1. Institute of Theoretical and Applied Mechanics of the Czechoslovak Academy of Sciences, Prague 2, Vysehradska 49. Submitted October 5, 1964.

POLAND

KAMINSKI, B., DYTKOWSKA, O., and SOBOTKA-WIERZBOWICZ, J.; Department of Galenic Preparations (Zaklad Lekow Galenowych), Drug Institute (Instytut Lekow) (Director: Dr. phar. H. LUDWICKI)

"Preliminary Results of Investigation on Effect of Storage on the Oil-Content of Some Plant Substances."

Warsaw, Farmacja Polska, Vol 19, No 11-12, 25 Jun 63, pp 231-233

Abstract: The authors studied the effect of storing on the oil content of a number of plant substances, which, according to Schou, is the measure of the active bodies in pharmaceutical preparations. They found that for substances where the oil is intracellular, oil content decreases, whereas for substances with extra-cellular oil, the content both increases and decreases. The show their findings in one table and 17 graphs. Comparison of their findings with those in the literature decided the authors on a more detailed study, to be reported later. There are 18 references: 6 Polish, one (1) Soviet, 3 Western, and 8 German.
1/1

POLAND

KAMINSKI, Boguslaw, DYTKOWSKA, Otylia, and SOBIAK-WIERZBICKA, Janina; Department of Galenicals (Zaklad Lekow Galenowych), Drug Institute (Instytut Lekow) [in Warsaw] (Director: Dr. pharm. H. LUDWICKI)

"Effect of Storage on Volatile-Oil Content of Some Herb Mixtures."

Warsaw, Farmacja Polska, Vol 19, No 15-16, 23 Aug 63, pp 332-334

Abstract: Authors studied volatile oil content for a period of one year following manufacture in six Polish (Herbapol) medicinal herb mextures, using compositions and methods (Doryng) called for by FP [Farmakopeia Polska, Polish Pharmacopeia] III (Supplement II). Findings varied for the individual mixtures, and authors present the findings in 3 tables and 6 graphs. They conclude that for herbs with extracellular oil, the amount of volatile oil is an indication of the medicinal worth of the mixture, that for herbs with intracellular oil, the determination is merely of orientational value, and that according to determinations, the mixtures do not constitute medicines of stable form. There are 9 refs: 6 Polish, 1 German, 2 Western.
1/1

SOBOTKIEWICZ, Vlado

Mechanized chill mold belt for roller casting. Livar vest 11 no. 1: 27 '64.