FARKAS, Istvan, dr.; DUBECZ, Sandor, dr.; KANTOR, Elemer, dr.

Neurinoma in the stomach. Magy. onkol. 7 no. 2:102-106 Je '63.

1. Budapesti Orvostudomanyi Egyetem, II. sz. Sebeszeti Klinika.
(STOMACH NEOPLASMS) (NEURILEMOMA)

HUNGARY

DUBECZ, Sandor, Dr, FARKAS, Istvan, Dr, MESZOLY, Istvan, Dr; Medical University of Budapest, III. Surgical Clinic (Budapesti Orvostudomanyi Egyetem, III. sz. Sebeszeti Klinika), (department chairman: STEFANICS, Janos, Dr, docent).

"Insufficiency of the Anal Sphincter and the Problems of Surgical Correction."

Budapest, Magyar Sebeszet, Vol XVI, No 3, June 1963, pages 152-156.

Abstract: [Authors' German summary]In the evaluation of the surgical procedures for the correction of incontinence of the sphincter, literature data and the authors' experiences are presented. The surgical problems and future expectations are analyzed. Based on the evaluation of the 13 cases reported by the authors, it is concluded that many cases of incontinence of the sphincter could be avoided if the Whitehead operation would be replaced by the more timely fistula operation. 4 Eastern European, 27 Western references.

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FARKAS, Istvan; GELENCSER, Ferenc, IHASZ, Mihaly

Intestino-intestinal reflex and micromotility of the intestines.
Kiserl. orvostud. 16 no.1:62-64 Ja'64.

1. Budapesti Orvostudonamyi Egyetem III. es II. sz. Sebeszeti
Klinikaja es a Magyar Nephadsereg Egeszsegugyi Szolgalata.

FARKAS, J.

Distr: 4E2b(e)

4/1

4937. Farkas, J., Calculation of eccentrically loaded riveted or bolted joints in case of irregular arrangement (in Hungarian), *Mélyépitéstudományi Szemle 7*, 11/12, 369–371, Nov./Dec. 1957.

Author assumes elastic rivet resistance, proportional to displacement. Deformation in plates is disregarded. Method is based on determination of center of rotation of joint, instead of the customary center of gravity of rivet cross sections. Advantage is immediate location of most severely loaded rivet. This is illustrated by numerical examples. Procedure is equally applicable if rivets are not all of the same size.

M. Hetenyi, USA

OC

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FARKAS, J.; ALADICS, A.

Condensate drain tap based on heat expansion. p.765

ENERGIA ES ATOMTECHNIKA. (Energiagazdalkodasi Tudomanyos Egyesulet)
Budapest, Hungary
Vol. 11, no.11/12, Nov./Dec. 1958

Monthly List of East European Accessions (EEAI) LC., Vol. 8, no.7, July 1959
Uncl.

FARKAS, J

CZECHOSLOVAKIA
CSSR

SMEJKAL, J.; FARKAS, J.

Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague (for both)

Prague, Collection of Czechoslovak Chemical Communications, No 2, 1963, pp 404-409

"Anomalous Course of Elimination Reactions in the Series of Phenocyclopropane Derivatives"

Country : HUNGARY
Category : Cultivated Plants. Potatoes. Vegetables. Melons. M

Abs Jour : RZhBiol., No 6, 1959, No 24903

Author : Farkas, J.
Inst : -
Title : Growing Carrots on Irrigated Soils.

Orig Pub : Kerteszet es szoleszet, 1958, 7, No. 6, 10

Abstract : No abstract.

Card : 1/1

CZECHOSLOVAKIA

FILIP, J; FARKAS, J

1. Institute for Research Production and Utilisation of Radioisotopes - (for ?); 2. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague - (for ?)

Prague, Collection of Czechoslovak Chemical Communications, No 1, January 1967, pp 462-466

"Nucleic acid components and their analogues. Part 87: Preparation of 5-bis(2-chloroethyl-/_1,2-^{5}H_7 aminomethyluracil hydrochloride."

FARKAS, J.; FIALA, E.

FARKAS, J. ; FIALA, E. Preventing the turbidity of wine caused by iron and other metals. p. 157

Vol. 2, no. 7, July 1956
KVASNY PRUMYSL
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

FARKAS, JAN

CZECHOSLOVAKIA/Chemical Technology, Chemical Products and Their Application, Part 3. - Fermentation Industry.

H-27

Abs Jour: Referat. Zhurnal Khimiya, No 10, 1958, 34157.

Author : Ján Farkaš.
Inst : ~~Not given.~~
Title : Importance of A New Method of Adding Gaseous SO_2 to Wine.

Orig Pub: Kvasný průmysl, 1957, 3, No 7, 155-158.

Abstract: The importance of SO_2 in viniculture, the doses of SO_2 for the wine and must sulfitization (15 mg per liter, if very sweet; 30 mg, if sweet; 50 mg, if medium; 75 mg, if dry, and 100 mg, if very dry) and the sulfitization methods (with a sulfur fuse, with SO_2 solution, and with gaseous SO_2 from cylinders and ampoules) are discussed. A device for measuring doses of SO_2

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FARKAS, JAN

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application, Part 3. - Fermentation Industry. H-26

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 23003

Author : Jan Farkas
Inst : -
Title : Influence of Grapes Treatment Conditions on Wine Quality.

Orig Pub : Vinarstvi, 1957, 50, No 10, 146-147

Abstract : No abstract.

Card 1/1

FARKAS, J.

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Fermentation Industry. H

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 21224

Author : Farkas, Jan

Inst : -

Title : Use of Ion Exchange for Stabilization of Wine.

Orig Pub : Kvasny prumysl, 1953, 4, No 7, 156-160

Abstract : A method for the use of a cation exchanger (CE) for treatment of wine is described. With passage of the wine through a CE, cations of Fe, K, Ca, Mg and part of the nitrogen-containing substances are removed from the wine. The necessity for treatment

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H-115

FARKAS, J.

Application of complexon III in wine making. p. 323.

PRUMYSL POTRAVIN. (Ministerstvo potravinarskeho prumyslu) Prava, Czechoslovakia, Vol. 10, no. 6, June 1959.

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

uncl.

FARKAS, J.

Use of cation exchangers in wine making, p. 949.

Technicka Praca. (Rada vedeckych technickych spolocnosti pri Slovenskej akademii vied) Bratislava, Czechoslovakia, Vol. 11, no. 11, Nov. 1959.

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

Uncl.

FARKAS, Janos, adjunktus

Newer method for correcting the profile of the racking hobbing cutters with positive face angle. Gep 14 no.2:47-50 F '62.

1. Budapesti Muszaki Egyetem Gepgyartastechnologiai Tanszek.

FARKAS, Jan

Curing of wines affected by mousy smell. Prum potravin
14 no. 12:649-652 D '63.

b
1. Vinarske zavody, n.p., Vyskumne pracovisko, Modra.

FARKAS, J.; KISS, I.

Observations on biochemical changes in irradiated spores of Bacillus cereus. Acta mikrobiol. acad. sci. Hung. 12 no.1: 15-18 '65.

1. Central Food Research Institute (Director: G. Torok), Budapest.

FAJKAS, J.an

[redacted]

Experiences with the treatment of rosacea with riboflavin. Cesk. derm. 28 no. 2:57-64 Feb 1953. (CLML 24:2)

1. Of the Dermatological Clinic of Slovak University, Bratislava.

HEGYI, Eugen; FARKAS, Jan

Problems of occupational dermatoses from viewpoint of the work of the ambulatorium for industrial dermatoses. Cesk. derm. 24 no.5:278-283 Oct 54.

1. Z poradne KUNZ pre kosne choroby z povolania v Bratislave
   (SKIN, diseases
      occup., prev. & control, role of ambulatorium for indust. dermatoses)
   (OCCUPATIONAL DISEASES
      dermatoses, prev. & control, role of ambulatorium for indust. dermatoses)

FARKAS, Jan, MUDr., asistent kliniky

[redacted]

Cutaneous forms of periarteritis nodosa. Cesk. derm. 30 no.6: 352-357 Dec 55.

1. Z Dermato-venerologickej katedry LFUK v Bratislave.
(PERIARTERITIS NODOSA,
skin)
(SKIN, blood supply,
periarteritis nodosa)

FARKAS, J.

Dermatological aspect of periarteritis nodosa. Bratisl. lek. listy 35 no.2:86-95 31 Jan 55.

1. A dermato-venerol. katedry LFUK v Bratislave; veduci katedry doc. dr. L.Chmel.

(PERIARTERITIS NODOSA, manifestations
skin)
(SKIN, in various diseases
periarteritis nodosa)

FARKAS, Janos, adjunktus

Calculation of the co-ordinates of bore systems by means of vectors.
Gep 14 no.12:475-479 D '62.

1. Budapesti Muszaki Egyetem Gepgyartastechnologiai Tanszek.

FARKAS, Janos, adjunktus

Some never method for determining coordinate allowances. Gep 15 no.4:137-139 Ap '63.

1. [illegible]dapesti Muszaki Egyetem Gepgyartastechnologiai Tanszeke.

FARKAS, Janos

New processes in the spice paprika industry. V. Changes during storing spice paprika milling products conditioned to various degrees of moisture content. Konzerv paprika no.4:127-130 Jl-Ag '62.

1. Szegedi Paprikafeldolgozo Vallalat laboratoriuma.

FARKAS, Janos, egyetemi adjunktus

Systematization problems of science. Magy tud 72 no.1:1-11 Ja '65.

1. Chemical Industry University, Veszprem.

L 13517-66 JT

ACC NR: AP6006882 SOURCE CODE: HU/0036/65/072/001/0001/0011

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B

AUTHOR: Farkas, Janos--Farkash, Ya.

ORG: University of the Chemical Industry, Veszprem (Vegyipari Egyetem)

TITLE: Problems of the systematization of science

SOURCE: Magyar tudomany, v. 72, no. 1, 1965, 1-11

TOPIC TAGS: scientific program, scientific information, scientific policy

ABSTRACT: The article presents new possibilities of systematization and defines the concept of science. The principles which can be used as starting points of systematization are described and reference is made to various trends in philosophy on the subject. The problems of documentation are also presented briefly. The proposals made by Kedrov, Strumilin, the Auger report, the works of Uyomov, Szalai and Bukavoskiy are described and evaluated in some detail. [JPRS]

SUB CODE: 05 / SUBM DATE: none / ORIG REF: 005 / OTH REF: 002
SOV REF: 003

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GANCS, Elemer; FARLY, [illegible]

Grain set designation with special regard to the selection of grains. Gep 16 no.9:350-351 '64

1. General Machine Designing Office, Corrosion Standardization Center, Ministry of Metallurgy and Machine Industry, Budapest.

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SICHER, J.; FARKAS, J.; SORM, F.

Studies in the chloramphenicol series. Part 4. Synthesis of 1-(p-nitrophenyl)-2-hydroxymethyl-2-dichloro-acetamido-1,3-propandiol and a correction [in English with summary in Russian]. Sbor.Chekh.khim.rab. 18 no.1:102-105 F '53. (MLRA 7:6)

1. Chentral Chemical Research Institute, Prague.
(Chloramphenicol)

FARKAS, J.; SICHER, J.

"Studies in the Chloramphenicol Series. V. Side-chain Chlorinated Analogues and Oxazolines. In English." p. 469
(COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT. Vol 18, no. 4, Aug. 1953; Praha, Czech.)

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

FARKAS, J.

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The chloramphenicol series. V. Analogs containing chlorine in the side chain and oxazolines. Jiří Farkaš and Jiří Sicher (Czech. Akad. Věd, Prague, Czech.). *Chem. Listy* 47, 552-64(1953); cf. *C.A.* 47, 6902*c*.—Syntheses are described of all 4 mono-Cl derivs. from replacing the OH groups in chloramphenicol by Cl, of the *threo*- and *erythro*-di-Cl derivs., and of 3 of the 4 possible oxazolines formed by intramol. cyclization of the Cl derivs. *threo-p*-$O_2NC_6H_4$-$CH(OH)CH(NHCOCHCl_2)CH_2OH$ (Ia) (32.3 g.) and 28 g. Ph_3CCl in 200 ml. C_5H_5N heated 1 hr. on the steam bath yielded 31.8 g. (56%) *threo-p*-$NO_2C_6H_4CH(OH)CH(NH$-$COCHCl_2)CH_2OCPh_3$ (IIa), m. 182-2.5° (from EtOH). Benzoylation of IIa in C_5H_5N gave 60% *threo-p*-$O_2NC_6H_4$-$CH(OBz)CH(NHCOCHCl_2)CH_2OCPh_3$ (IIIa), m. 218-19° (from C_6H_6). The *erythro-isomer* (IIIb) of IIIa, m. 210° (from AcOEt), was prepd. analogously in 47.5% yield. IIIa (4.61 g.) heated 20 min. at 120° with 1.40 g. PCl_5 in 15 ml. xylene and dild. with 50 ml. petr. ether gave 2.15 g. (70%) *threo-p*-$O_2NC_6H_4CH(OBz)CH(NHCOCHCl_2)CH_2Cl$ (IVa), m. 131° (from EtOH); *erythro-isomer* (IVb), m. 172° (yield 63.9%). IVa (1.82 g.) in 10 ml. EtOH treated 4 hrs. at 0° with 100 ml. 0.1*N* NaOH in EtOH gave, after neutralization with HCl, distn. of the EtOH, and diln. with 10 ml. H_2O, 0.56 g. (45%) *threo-p*-$O_2NC_6H_4CH(OH)\underbrace{CH.N:C(CHCl_2).O.CH_2}$ (Va), m. 160° (from EtOH), also obtained from *p*-MeC_6-H_4SO_2Cl with Ia when the mixt. was decompd. with KOH in EtOH (decompn. with aq. KOH gave *threo-2-dichloromethyl-4-(p-nitro-α-tosyloxybenzyl)-2-oxazoline*). The corresponding *erythro compd.* (Vb), m. 168°, (from EtOH), was obtained in 84.2% yield by heating *erythro-p*-$O_2NC_6H_4CH$-$(OH)CH(NHCOCHCl_2)CH_2Cl$ (VIa) (1.36 g.) in 4 ml. EtOH with 4 ml. 5% KOH in EtOH 1 min. on the steam bath and dilg. with 100 ml. H_2O; it was also obtained (59% yield) by similar cyclization of IVb, and (45.9% yield) by heating 2 min. at 110° 0.85 g. *erythro-p*-$O_2NC_6H_4CH$-$(OH)CH(NH_2)CH_2OH$ with 0.85 g. $CHCl_2C(OEt):NH.HCl$ in 5 ml. C_5H_5N. Va, heated with HCl in dioxane, gave 71.8% VIa, m. 138°. Vb similarly yielded VIb, m. 133° (from EtOH). Short boiling of Va and Vb with concd. aq. HCl gave Ia and Ib, resp., which, by benzoylation in C_5H_5N, yielded 68.4% and 54.5% *p*-$O_2NC_6H_4CH(OH)CH$-$(NHCOCHCl_2)CH_2OBz$ (VIIa and b), m. 134.5° and 176° (from EtOH), resp. *erythro-p*-$O_2NC_6H_4CH(OBz)CH$-$(NHCOCHCl_2)CH_2OBz$ (VIIIa), m. 164° (from EtOH), was isolated as a by-product. Both VIIa and VIIb gave with PCl_5 or $SOCl_2$ the same product, *erythro-p*-$O_2NC_6H_4CHCl$-$CH(NHCOCHCl_2)CH_2OBz$ (IX), m. 147.5° (from EtOH). Treating 8.91 g. IX in 20 ml. Me_2CO with 250 ml. 0.1*N*

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NaOH in MeOH neutralizing with 0.1*N* HCl in MeOH, and dilg. with H_2O gave 3.8 g. (62.3%) *trans*-$O_2NC_6H_4$-CH.O.C($CHCl_2$):N.$CHCH_2OH$ (X), m. 128° (from C_6H_6), hydrolyzed (HCl in EtOH) to Ia. Treatment of 1.52 g. X with 15 ml. dioxane satd. with HCl gave 0.33 g. (19.4%) *erythro*-*p*-$O_2NC_6H_4CHClCH(NHCOCHCl_2)CH_2OH$ (XIa), m. 131.5° (from C_6H_6), also obtained from Va with PCl_5 in xylene after hydrolysis; the 0.79 g. (31.5%) XIa thus obtained gave IXb on benzoylation. Vb (0.61 g.) with 0.46 g. PCl_5 in 5 ml. C_6H_6 gave 0.27 g. (37.5%) *threo*-*p*-$O_2NC_6H_4$-$CHClCH(NHCOCHCl_2)CH_2Cl$ (XIIa), m. 135° (from EtOH). Similar reaction with Va gave 29.6% XIIa, m. 134°, also obtained in 47% yield from XIb with PCl_5. The cyclization of XIIb with KOH in EtOH gave 48.8% *threo*-*p*-$O_2NC_6H_4CHClCH.N:C(CHCl_2).O.CH_2$ (XIIIa), m. 129° (from EtOH), also prepd. in 10% yield from Vb with $POCl_3$ in C_5H_5N. Va with PCl_5 in PhMe yielded 5-10% XIIIb, m. 92-5° (from CCl_4 or C_6H_6). Boiling XIIIa 5 min. in 50% AcOH gave 44.7% XIa, m. 109°. Cyclization of XIIb with alc. KOH gave 60% *trans*-*p*-$O_2NC_6H_4CH.O.C$-($CHCl_2$):N.$CHCH_2Cl$ (XIV), m. 98.5° (from EtOH), hydrolyzed (50% AcOH) to 41% VIa, m. 138°. $SOCl_2$ in dioxane with Ia and Ib gave 42.2% and 47% *p*-$O_2NC_6H_4$-CH.O.SO.O.CH_2.$CHNHCOCHCl_2$ [*threo*, m. [illegible]; *erythro*, m. 189.5° (from EtOH)]. VI. **Steric course of the reduction of dehydrochloramphenicol and related compounds.** Jiří Sicher, Miroslav Svoboda, Magdalena Hrdá, Josef Rudinger, and František Šorm. *Ibid.* 565-74.—Reduction of dehydrochloramphenicol type compds. by the Meerwein-Ponndorf method is stereospecific. Those compds. which have a free primary OH give *threo*-compds., those in which the OH group is esterified, etherified, or replaced by Cl or H, give *erythro*-compds. *p*-$O_2NC_6H_4COCHNHBzCH_2OH$ (4.71 g.) reduced with 4.6 g. (iso-PrO)$_3$Al (I) in 150 ml. iso-PrOH gave 1.33 g. (28%) *threo*-*p*-$O_2NC_6H_4CH(OH)CH(NHBz)$-CH_2OH, m. 152-3° (from EtOH). *p*-$O_2NC_6H_4COCH$-(NH_2)CH_2OH.HCl (24.6 g.) in 600 ml. ice and water was treated simultaneously with a soln. of NaOAc (50 g. in 60 ml. H_2O) and 68 g. $PhCH_2OCOCl$ (II) with cooling; the oil which sepd. crystd. on standing and gave, after recrystn. from C_6H_6 and then from (iso-Pr)$_2$O-petr. ether, 21.1 g. (61.3%) *p*-$O_2NC_6H_4COCH(NHCO_2CH_2Ph)CH_2OH$ (III), m. 93-5°. III (17.2 g.) in 200 ml. iso-PrOH added gradually to 15.3 g. I in 100 ml. iso-PrOH while the Me_2CO and iso-PrOH distd. off, gave, after decompn. with 10 g. tartaric

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acid in 200 ml. H_2O, 5 g. (34%) *threo*-p-$O_2NC_6H_4CH(OH)CH(NHCO_2CH_2Ph)CH_2OH$ (IV), m. 115-18°. As by-products were isolated 0.73 g. p-$O_2NC_6H_4COCH(NHCO_2CH_2Ph)Me$, m. 142-3° (from EtOH), and a *compd.*, $C_{10}H_{16}N_4O_4$, m. 275-7° (from EtOH). IV was also obtained in 11.5% yield by treating *threo*-p-$O_2NC_6H_4CH(OH)CH(NH_2)CH_2OH$ (prepd. from 2.48 g. of the corresponding HCl salt and 5 g. $NaHCO_3$ in 8 ml. H_2O) with 1.9 ml. II in 25 ml. Me_2CO, evapg. at room temp., dilg. with H_2O, filtering, and washing with dil. HCl. p-$O_2NC_6H_4COCH(NHCOCHCl_2)CH_2OH$ (V) (14.5 g.) heated with 25 g. $Al(OC_5H_{11})_3$ in 120 ml. $C_5H_{11}OH$ 3.5 hrs. at 90-5° under N gave, after decompn. with 25 g. tartaric acid in 100 ml. H_2O, 4.11 g. (28.2%) *threo*-p-$O_2NC_6H_4CH(OH)CH(NHCOCHCl_2)CH_2OH$ (VIa), m. 149-50°, and a small amt. of the *erythro-form* (VIb), m. 172-3°. p-$O_2NC_6H_4COCH(NHCOCHCl_2)CH_2OAc$ (VII) (8.15 g.) in 300 ml. C_6H_6 reduced with 15.35 g. I in 50 ml. C_6H_6 (60°, 7 hrs.) gave 3.7 g. (20.2%) *erythro*-p-$O_2NC_6H_4CH(OH)CH(NHCOCHCl_2)CH_2OAc$, m. 118-20° (from C_6H_6 and from $CHCl_3$). Sapon. gave *erythro*-p-$O_2NC_6H_4CH(OH)CH(NH_2)CH_2OH$, m. 210-12°. Reduction of VII with I in iso-PrOH and decompn. with tartaric acid gave VIb. V (120 g.) and 114 g. Ph_3CCl in 170 ml. C_5H_5N heated 20 min. on the steam bath, gave, after diln. with H_2O 112.2 g. (60%) p-$O_2NC_6H_4COCH(NHCHCl_2)CH_2OCPh_3$ (VIII), m. 212-13°. Reduction of 5.65 g. VIII with 4.12 g. I in 50 ml. C_6H_6 gave, after refluxing 3 hrs. on the steam-bath, 3.5 g. (64%) *erythro*-p-$O_2NC_6H_4CH(OH)CH(NHCOCHCl_2)CH_2OCPh_3$, m. 167-8°. Refluxing 150 g. V and 150 ml. $SOCl_2$ in 500 ml. dioxane 25 min. gave 97.5 (58.4%) p-$O_2NC_6H_4COCH(NHCOCHCl_2)CH_2Cl$ (IX), m. 141° (from EtOH), and a small amt. of *2-dichloromethyl-4-(p-nitrobenzyl)-2-oxazoline*, m. 115-16°. Reduction of 50.8 g. IX with 61.2 g. I in 500 ml. iso-PrOH gave in the usual way 25.6 g. (55.6%) *erythro*-p-$O_2NC_6H_4CH(OH)CH(NHCOCHCl_2)CH_2Cl$, m. 133° (from EtOH). Heating 8 g. $BzCH(NH_2)Me.HCl$, dried azeotropically in C_6H_6, with 10 g. $CHCl_2COCl$ in 200 ml. C_6H_6 14 hrs. under reflux and, evapg. the soln., gave 8 g. (76%) $BzCH(NHCOCHCl_2)Me$ (X), the reduction of which with I and iso-PrOH gave 90% *erythro*-$PhCH(OH)CH(NHCOCHCl_2)Me$ (XI), m. 96-7° (from C_6H_6); it was also prepd. in 9.3-g. (72%) yield by refluxing 7 g. norephedrine (XII) 3 hrs. with 9.5 g. $CHCl_2CO_2Et$ in 30 ml. EtOH. Sapon. of XI with 10% HCl 6 hrs. gave XII.HCl, m. 190-2°. VII. Side reactions in the reduction of dehydrochloramphenicol. Jiří Sicher, Miroslav Svoboda, Jiří Farkaš, and František Šorm. *Ibid.* 1819-30; *Collection Czechoslov. Chem. Communs.* 19, 317-29(1954)(in English).—The reduction of the p-$O_2NC_6H_4COCH(NHCOCHCl_2)CH_2OH$ (I) by the Meerwein-Ponndorf method was studied. In addn. to the reduction of the CO group, dehydration occurred yielding p-$O_2NC_6H_4COC(NHCOCHCl_2):CH_2$ (II) which formed cryst. *2-dichloromethyl-4-methyl-5-(p-nitrophenyl)oxazole* (III) and was responsible for polymeric by-products. I (m. 123-4°) (100 g.) in 100 ml. iso-PrOH was dropped during 5 hrs. into a soln. of 120 g. $(iso\text{-}PrO)_3Al$ in 250 ml. iso-PrOH, and the mixt. was heated at

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60-5° while Me_2CO-iso-PrOH was distd. over. After cooling
to 40°, 500 ml. 20% tartaric acid was added to the residue,
the iso-PrOH distd. off at 45°, and the sepd. crystals
extd. with C_6H_6 and crystd. from H_2O to give 51.5 g. (51.6%)
(±)-*chloramphenicol*. Evapn. of the C_6H_6 ext. and chroma-
tography yielded 1.5 g. III (ligroine fraction) (m. 107-8°),
a *compd.*, $C_{11}H_9N_2O_3Cl$ (IV), m. 117-18° (C_6H_6 fraction),
and a *compd.*, $C_{11}H_{10}N_2O_4$ (V), m. 199-200° (EtOH frac-
tion). III was also obtained by the Meerwein-Ponndorf re-
duction of II under similar conditions as described above.
Chromatography yielded 11.5% III and compds. IV and V.
Boiling IV in aq. EtOH gave V. III was also prepd. by
mixing 0.5 g. $BzCHMeNHCOCHCl_2$ with 2.5 ml. Ac_2O
and 2.5 ml. H_2SO_4 gave 0.37 g. (79.5%) *2-dichloromethyl-4-*
methyl-5-phenyloxazole, m. 71-3° (from petr. ether), which
(200 mg.) yielded, by nitration at −30° with 0.25 ml.
HNO_3 (d. 1.45) and 0.25 ml. H_2SO_4, III. Refluxing 400
mg. I with 270 mg. (*tert*-BuO)$_3$Al in 5 ml. *tert*-BuOH 3 hrs.
gave, after crystn., 70 mg. II, m. 115-16°. II was also ob-
tained by heating to the boiling point an aq. soln.
of [p-$O_2NC_6H_4COCH(NHCOCHCl_2)CH_2\underline{N:CH.CH:CH.}$-
$\underline{CH:CH}$]$^+$[$OSO_2C_6H_4Me$-p]$^-$, m. 148-9.5° (from MeCOEt),
prepd. by mixing 5 g. I with 3.3 g. p-$MeC_6H_4SO_2Cl$ (VI) in 3
ml. C_5H_5N (yield 88%). Similar treatment of 5.08 g. p-
$O_2NC_6H_4COCHNHBzCH_2OH$ (VII) with 3.4 g. VI in 30
ml. C_5H_5N, heating the mixt. 1 hr. on the steam bath,

dilg. with 300 ml. H_2O gave 3.5 g. (74.1%) p-$O_2NC_6H_4COC$-
$(NHBz):CH_2$ (VIII), m. 137-8° and solidifying at about
145° to $(C_{16}H_{12}N_2O_4)_4$ (IX) which m. 196-7° (from EtOH).
VIII could also be converted to IX by heating a few min. at
150-70°. Heating VII with Ac_2O gave VIII and IX whereas
the reaction of VII with Ac_2O in the cold yielded p-NO_2-
$C_6H_4COCHNHBzCH_2OAc$. Boiling 2.87 g. VIII with 3 g.
(iso-PrO)$_3$Al in 50 ml. iso-PrOH 3.5 hrs. gave, after extn. of
the resinous material with ligroine, 15% *2-phenyl-4-methyl-5-*
(p-nitrophenyl)oxazole, m. 103-4° (from iso-PrOH). Heat-
ing 7 hrs. at 70° 80 g. I in 400 ml. HCl and 320 ml. H_2O gave
39.4 g. (60.6%) p-$O_2NC_6H_4COCH(CH_2OH)NH_2.HCl$ (X),
m. 180-1°, and 5.5 g. p-$O_2NC_6H_4COAc$ (XI), m. 87-9° (by
C_6H_6 extn. of the reaction mixt.). The o-$C_6H_4(NH_2)_2$ *deriv.*
of XI, $C_{14}H_{11}N_3O_2$, m. 130°. X (12.3 g.) in AcOH treated
with 10.2 g. p-$NO_2C_6H_4COCl$ in Et_2O and with a soln. of
8.4 g. NaOAc gave 10.9 g. (60.8%) p-$O_2NC_6H_4COCH(C_6H_4$-
NO_2-$p)CH_2OH$ (XII), m. 194-6° (from AmOH). Heating
5.77 g. XII with 3.3 g. VI in 50 ml. C_5H_5N 90 min. on the
steam bath gave p-$O_2NC_6H_4COC(C_6H_4NO_2$-$p):CH_2$, m. 159-
60° (from dioxane). Adding 25 ml. H_2SO_4 to a soln. of 5 g.
I in 25 ml. Ac_2O at 50-60° and dilg. the mixt. with 300 ml.
H_2O yielded 3.8 g. (70%) *2-dichloromethyl-4-acetoxymethyl-5-*
(p-nitrophenyl)oxazole (XIII), m. 112-13° (from iso-PrOH).
Boiling 1 g. XIII with 50 ml. 1.5% soln. of Al(OEt)$_3$, and
treating the residue from evapn. with 50 ml. 2% tartaric acid
gave 600 mg. (68.2%) *2-dichloromethyl-4-hydroxymethyl-5-*
(p-nitrophenyl)oxazole, m. 128-30° (from C_6H_6). VIII. Un-

(Cont)

Jiri Farkas

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saturated derivatives. *Miroslav Svoboda, Jiří Farkaš, and Jiří Sicher.* *Chem. Listy* **47**, 1831-5.—The Meerwein-Ponndorf reduction of p-$O_2NC_6H_4CH{:}C(NHCOCHCl_2)CHO$ (3.03 g.) with 150 ml. iso-PrOH and 10.2 g. $(iso\text{-}PrO)_3Al$ gave, after ether extn., 0.85 g. (28%) p-$O_2NC_6H_4CH{:}C(NHCOCHCl_2)CH_2OH$, m. 148-9° (from aq. EtOH). This compd. (400 mg.) treated in 10 ml. dioxane with HCl gave 160 mg. (40%) p-$O_2NC_6H_4CH_2COCH_2OCOCHCl_2$ (I), m. 85-6° (from EtOH). The same product (1 g.) was obtained by heating 0.4 g. p-$O_2NC_6H_4CH_2COCHN_2$ at 50° with 1 ml. Cl_2CHCO_2H in 10 ml. C_6H_6. *Erythro-2-dichloromethyl-5-(α-chloro-p-nitrobenzyl)-2-oxazoline* (200 mg.) boiled with 1 ml. sym. collidine 1.5 hrs. gave 40% *trans-2-dichloromethyl-4-chloromethyl-5-(p-nitrophenyl)-2-oxazoline*, m. 92-3°. The *threo*-deriv. did not react under the same conditions. Heating 250 mg. *erythro*-p-$O_2NC_6H_4CHClCH(NHCOCHCl_2)CH_2Cl$ 30 min. at 130° with 1 ml. collidine gave 200 mg. *trans-2-dichloromethyl-4-chloromethyl-5-(p-nitrophenyl)-2-oxazoline*, m. 98°. Treating 2.2 g. *threo-2-dichloromethyl-5-(p-nitro-α-hydroxybenzyl)-2-oxazoline* in 6.6 ml. C_5H_5N with 2.2 g. PBr_3 in 10 ml. C_5H_5N below 15° 10 min. gave 55 mg. *2-dichloromethyl-4-(p-nitrobenzylidene)-2-oxazoline*, m. 178° (from C_6H_6), which yielded I on heating 5 min. on the steam bath with 5 ml. EtOH and 0.1 ml. HCl. M. Hudlický

FARKAS, J.

SICHER, J.; SVOBODA, M.; FARKAS, J.; SORM, F.

Studies in the chloramphenicol series. Part 7. The side reactions in the reduction of dehydrochloramphenicol [in English with summary in Russian]. Sbor.Chekh.khim.rab. 19 no.2:317-329 Ap '54. (MLRA 7:6)

1. Department of Organic Synthesis, Institute of Organic Chemistry, Czechoslovak Akademy of Science, Prague. (Chloromycetin)

FARKAS, J.; SICHER, J.; SVOBODA, K.

"Studies on the Chloramphenicol Series. VIII. Some Unsaturated Derivatives. In English." p. 545,
(COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT, Vol. 19, No. 3, June 1954, Praha, Czechoslovakia)

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

FARKAS, JiRi

CZECH

Studies in the chloramphenicol series. IX. Side-chain
mercapto analogs and thiazolines. Jiří Farkaš and Jiří [illegible] 48, 695-
Sicher (Czech. Akad. Věd, Prague). *Collection Czechoslov. Chem. Communs.* 19, 701-
70?(1954); *C.A.* 44, 5101h.—The prepn. of
65(1954)(in English); cf. threo- (I) and *erythro*-
the *mercapto analogs of chloramphenicol*, CH_2SH (II), is de-
p-$O_2NC_6H_4CH(OH)CH(NHCOCHCl_2)$ tests of the chloro and
scribed and the results of pharmacol. tests of the chloro and
mercapto analogs of chloramphenicol given. Adding
$AcSH$ (8.03 g.) to a soln. of 12.12 g. p-$O_2NC_6H_4COC(NH$-
$COCHCl_2):CH_2$ (III) in 20 ml. C_6H_6, filtering the crystals,
washing with ether, and crystg. from C_6H_6 gave 13.9 g.
p-$O_2NC_6H_4COCH(NHCOCHCl_2)CH_2SAc$ (IV), m. 132°
(from C_6H_6). Similarly, 1.21 g. III in 2 ml. dioxane treated
with 0.8 g. BzSH at 50° gave 1.4 g. p-$O_2NC_6H_4COCH$-
$(NHCOCHCl_2)CH_2SBz$ (V), m. 184° (from dioxane). In
the same manner was prepd. p-$O_2NC_6H_4COCH(NHAc)$-
CH_2SAc, m. 140-1° (from EtOH), in 72% yield. Distg.
the mixt. of 3.70 g. IV, 70 ml. iso-PrOH, and 4.08 g. Al
(iso-PrO)$_3$ 3 hrs. under CO_2, decompg. the residue with H_2O
5 min. at 80°, extg. with Et_2O, distg. off the solvent, and
crystg. the residue from EtOH yielded 2.03 g. (64%)
erythro-p-$O_2NC_6H_4CH(OH)CH.N:C(CHCl_2).S.CH_2$ (VI), m.
132°. The same compd. was obtained in 19% yield by the
Meerwein-Ponndorf reduction of V. Refluxing VI (1.28 g.)
in C_6H_6 (5 ml.) with 1.52 g. p-$MeC_6H_4SO_2Cl$ and 2 ml.
Me_3N 2 hrs., dilg. the mixt. with 20 ml. Et_2O, filtering off
the salt, evapg. the solvents, and adding petr. ether to the
residue gave 0.55 cryst. *erythro*-p-$O_2NC_6H_4CH(OSO_2C_6$-
$H_4Me)CH.N:C(CHCl_2).S.CH_2$, m. 138° (from EtOH).
Heating 35.7 g. V with 33 g. Al (iso-PrO)$_3$ 2 hrs. with 480
ml. C_6H_6, decompg. the residue after distg. off the solvent
with a soln. of 40 g. tartaric acid in 100 ml. H_2O, heating the

mixt. 10 min. at 50°, dilg. with 200 ml. H_2O, extg. with AcOEt, and distg. off the AcOEt gave 8.07 g. (22%) *erythro-p*-$O_2NC_6H_4CH(OH)CH(NHCOCHCl_2)CH_2SBz$ (VII), m. 207° (from EtOH). Using fresh liquid Al(iso-PrO)$_3$ increased the yield to 40%. VI (1.0 g.) refluxed 15 min. with 200 ml. 10% AcOH yielded 1.38 g. (1.06 g. after crystn. from H_2O) II, m. 136-7° (from PhMe). II was recyclized to VI by heating with Al(iso-PrO)$_3$ in iso-PrOH (34 mg. out of 50 mg.). Treating 0.31 g. II in 30 ml. Et_2O contg. 1 ml. C_5H_5N with 0.15 g. BzCl dissolved in 20 ml. Et_2O 30 min. at 15° gave 0.17 g. VII, m. 207°. *threo-p*-$O_2NC_6H_4CH(OH)$-$CH.N:C(CHCl_2).O.CH_2$ (*C.A.* 43, 8014*c*) (VIII) (1.52 g.) in 5 ml. dioxane added to Et_2O satd. with HBr at −15°, dild. after 5 min. with 15 ml. AcOH, the soln. washed with three 30-ml. portions H_2O, dried, and evapd. yielded 0.82 g. *threo-p*-$O_2NC_6H_4CH(OH)CH(NHCOCHCl_2)CH_2Br$ (IX), m. 140° (from 50% EtOH). Treating a soln. of 0.75 g. IX in 10 ml. Me_2CO with a soln. contg. 0.36 g. BzSK in 10 ml. Me_2CO yielded 0.21 g. *threo-p*-$O_2NC_6H_4CH(OH)CH(NHCOCHCl_2)CH_2SBz$, m. 164° (from EtOH). Acetylation of IX with Ac_2O and H_2SO_4 gave 87% *threo-p*-$O_2NC_6H_4CHOAcCH(NHCOCHCl_2)CH_2Br$ (X), m. 178-9° (from PhMe). Refluxing 8 g. X in C_6H_6 300 ml. with 4.5 g. P_2S_5 3 hrs. gave, after chromatographic purification, 1.84 g. (27%) *threo-p*-$O_2NC_6H_4CH(OAc)CH.N:C(CHCl_2).S.CH_2$ (XI), m. 102-3° (from EtOH). Refluxing XI (0.51 g.) in 30 ml. EtOH with 1.21 g. Al(iso-PrO)$_3$ 3 hrs., distg. off the EtOH, heating the residue with 5 ml. 10 min. at 90°, distg. off the H_2O and extg. the residue with Et_2O yielded [illegible] g. *threo-p*-$O_2NC_6H_4$-

[illegible]

$\mathrm{CH(OH)CH.N{:}C(CHCl_2).S.CH_2}$ (XII), m. 131° (from
$\mathrm{C_6H_6}$). Heating the mixt. of 0.32 g. XII, 10 ml. AcOH,
and 18 ml. $\mathrm{H_2O}$ 30 min. on the steam bath under N, dilg.
the soln. with 20 ml. $\mathrm{H_2O}$, filtering the turbid soln. with C,
and evapg. the filtrate *in vacuo* gave 0.08 g. I, m. 108°.
Heating 0.36 g. XI 5 min. at 100° in 15 ml. 50% $\mathrm{HCO_2H}$
and dilg. the mixt. with $\mathrm{H_2O}$ gave 0.25 g. (0.16 g. after
crystn.) *threo-p*-$\mathrm{O_2NC_6H_4CH(OAc)CH(NHCOCHCl_2)CH_2}$-
SH, m. 155-6° (from $\mathrm{C_6H_6}$). Refluxing 8.07 g. VII with
35 ml. $\mathrm{SOCl_2}$ 1.5 hrs., distg. off the $\mathrm{SOCl_2}$ *in vacuo*, and
crystg. the residue from $\mathrm{C_6H_6}$ gave 5.63 g. *erythro-p*-$\mathrm{O_2NC_6}$-
$\mathrm{H_4CHClCH(NHCOCHCl_2)CH_2SBz}$, (XIII), m. 132°. Re-
fluxing 5.35 g. XIII with 50 ml. BuOH 4 hrs. and distg. off
the BuOH yielded 1.25 g. *threo-p*-$\mathrm{O_2NC_6H_4CH(OH)CH}$-
$\mathrm{(NHCOCHCl_2)CH_2SBz}$, m. 104° (from EtOH). Re-
fluxing 4.45 g. *erythro-p*-$\mathrm{O_2NC_6H_4CHClCH(NHCOCHCl_2)}$-
$\mathrm{CH_2OBz}$ (XIV) 30 min. in 20 ml. dry collidine (170°) and
filtering off the collidine hydrochloride deposited after the
addn. of $\mathrm{Et_2O}$ yielded 2.9 g. *trans-p*-$\mathrm{O_2NC_6H_4CH.O.C}$-
$\mathrm{(CHCl_2){:}N.CHCH_2OBz}$, m. 122-4° (from EtOH). Re-

Jiří Fuchs

fluxing 5 g. **XIV** in 50 ml. C_6H_6-PhMe mixt. 10 hrs. with 2.5 g. P_2S_5 gave 2.70 g. p-$O_2NC_6H_4CH.S.C(CHCl_2):N.CHCH_2OBz$ (**XV**), m. 123-4° (from EtOH). Refluxing 2.79 g. **XV** with 4.22 g. Al(iso-PrO)$_3$ in 80 ml. BuOH 3 hrs., distg. off BuOH *in vacuo*, decompg. the residue with H_2O, extg. the soln. with Et_2O, and evapg. the solvent gave 1.12 g. p-$O_2NC_6H_4CH.S.C(CHCl_2):N.CHCH_2OH$, m. 131° (from EtOH). $CHCl_2CONH_2$ (1.28 g.) and 0.88 g. BzSK in 20 ml. Me_2CO gave 0.44 g. $(BzS)_2CHCONH_2$, m. 178-9° (from PhMe). Refluxing **IV** (10.89 g.) with 1% alc. HCl (250 ml.) 7 hrs. under CO_2 gave 3.41 g. compd. $C_{11}H_7ClN_2O_3S$ (**XVI**), m. 133° (from EtOH), the reduction of which yielded 60% of a compd. $C_{11}H_9ClN_2O_3S$, m. 112-13°. **XVI** is either $S.CHCl.CH:N.C(COC_6H_4NO_2\text{-}p):CH$ or $S.CCl:CH.N:C(COC_6H_4NO_2\text{-}p).CH_2$. M. Hudlický

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Farkas, J.

"Progress in organic synthesis. DLC

p. 698 (Chemie, Vol. 9, no. 5, Nov. 1957)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 6, June 1958

FARKAS, JIRI

G

Country :CZECHOSLOVAKIA
Category :Organic Chemistry. Synthetic Organic Chemistry

Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15335

Author :Komrsova, H.; Farkas, Jiri
Institut. :-
Title :Anomalous Reactions of Di-p-Chlorophenylacetamide and Di-p-Chlorophenylacetonitrile with Lithium Aluminohydride

Orig Pub. :Chem. listy, 1958, 52, No 3, 454-457; Collect. czechosl. chem. commun., 1958, 23, No 6, 1121-*

Abstract :It was established that di-p-chlorophenylacetamide (I) and di-p-chlorophenylacetonitrile (II) do not produce reduction of the proposed di-2,2-p-chlorophenylethylamine under usual conditions. The latter was obtained only in the presence of $AlCl_3$, or even better, in that of BF_3. I, m.p. 154° (from alcohol), was obtained with a yield of 95% from the corres-

* 1125

Card: 1/4

G

Country :
Category :

Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15335

Author :
Institut. :
Title :

Orig Pub. :

Abstract cont'd. : ponding chloranhydride and ammonia in $CHCl_3$, as well as with a yield of 60% from acid and urea. By the action of $POCl_3$ on I, II was synthesized, m.p. 89° (from alcohol). Reduction of I and II was effected through boiling for six hours with 1.5 mole of $LiAlH_4$ in tetrahydrofuran. From 1 g. of I, 0.3 g. of II, 0.1 g. of di-p-chlorobenzophenone (III), m.p. 145°, 0.1 g. of tetrachlorophenylsuccinic acid nitrile, m.p. 186°, and 0.4 g. of di-p-chloro-

Card: 2/4

G

Country :
Category :

Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15335

Author :
Institut. :
Title :

Orig Pub. :

Abstract cont'd. : phenylcarbinol, m.p. 92-93°, were obtained. From 1 g. of II, only 0.3 g. of regenerated II and 0.1 g. of III were successfully isolated. The products were separated by means of chromatography on Al_2O_3. Di-2,2-p-chlorophenylethylamine, b.p. 160°/0.15 mm., was synthesized by two methods: A. by four-hour boiling of II (0.01 mole) with a solution of 0.01 mole of $LiAlH_4$ and 0.01 mole of $AlCl_3$ in ether, yield 34% (with decrease in duration of heating

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Country :
Category : G

Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15335

Author :
Institut. :
Title :

Orig. Pub. :

Abstract cont'd. : the yield strongly decreases, and with an increase it does not rise). B. by boiling for three hours 7.6 mM of II with a solution of 8.3 mM of $LiAlH_4$ in tetrahydrofuran and 8.3 mM of an ether solution of BF_3, yield 98% (without heating, yield 34%); chlorhydrate, m.p. 229° (from water); picrate, m.p. 224-225° (from alcohol); ethyl urethane, m.p. 92-93° (from petroleum ether).-- J. Kovar

Card: 4/4

CZECHOSLOVAKIA/Chemical Technology. Chemical H-18
Products and Their Applications.
Pesticides.

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24569

Author : Farkas, J., Kourim, P., Sorm, F.
Inst : -
Title : The Relationship between Chemical Structure and Insecticidal Activity of Pyrethroid Compounds. II. Analogues of Chrysanthemic Acid Containing Atoms of Chlorine in the Side Chain.

Orig Pub : Chem. listy, 1958, 52, No 4, 688-694

Abstract : For the purpose of investigating the relationship between the insecticidal activity and structure, cis-(Ia) and trans-2-(ββ -

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24569

dichlorvinyl)-3,3-dimethylcyclopropane carbonic acids (Ib), and also ester of Ib and 2-allyl-3-methyl-4-oxy-2-cyclopentenone (allylretrolon) (II) were synthesized. By the addition of CCl_4 to 3-methylbutane-1 in the presence of benzoyl peroxide (23 hours in an autoclave at 90-95°) a 38 percent yield of 1,1,1,3-tetrachlor-4-methylpentane (III) of 80-82°/10 mm boiling point and 1.4860 $n^{20}D$ was obtained. In the dehydrochlorination of alcohol solution of III with 1 mol of KOH (48 hours at 0°), 1,1,1-trichlor-4-methyl-

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24569

pentene-2 (IV) of 78-83°/30 mm and of 1.4800 $n^{20}D$ is being formed. In the presence of 2 mols of KOH (48 hours at 20°) III yields a mixture containing 90 percent of IV (or also 1,1,3-trichlor-4-methylpentene-1) and 10 percent of 1,1-dichlor-3-ethoxy-4-methylpentene-1. The acetylation of 1,1,1-trichlor-2-oxy-4-methylpentene 3 (Ref Zhur-Khimiya, 1957, 37259) while heating with acetic anhydride in C_5H_5N (3 hours up to 100°) results in the 86 percent yield of 1,1,1-trichlor-2 acetoxy-4-methylpentene-3 (V) of 98°/10 mm boiling

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24569

point and 1,4795 $n^{20}D$. Analogically, from a mixture of 1,1,1-trichlor-2-oxy-4-methylpentene-3 and -pentene-4, obtained through condensation of chloral and iso-butylene in accordance with Callonge and Perro (Ref Zhur-Khimiya, 1955, 26089; 1957, 54285) forms a mixture of V and 1,1,1-trichlor-2--acetoxy-4-methylpentene-4 (VI) with 89 percent yield. By introducing an ether solution of V drop by drop (in the course of 3 hours) to the suspension of Zn dust in the boiling mixture of ether and CH_3COOH, 76 percent yield of 1,1-dichlor-4-methylpenta-

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. **Herbicides.** H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24569

diene-1,3 (VII) of 165-170°/720 mm boiling point, 1.5199 $n^{20}D$, lg ε_{max} of 4.87 at 253 mμ is derived. Analogically, by conducting the reduction of a mixture of V and VI, 62 percent yield of a mixture containing VII and its unconjugated isomer (of 145-150°/720 mm boiling point of a mixture 1.4798 $n^{20}D$) is obtained, which, isomerized by heating for 1 hour with n-toluene sulfonic acid up to 150°, results in 81 percent yield of VII. When mixture of 0.3 mols of VII and 0.2 mols of diazoacetic ester are added drop by drop in the

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24569

course of 4 hours to 0.5 g of Cu-dust, heated to 110°, followed by filtering-out the catalyst and subjecting the filtrate to fractional distillation, 17.52 g of a mixture containing ethyl esters of Ia and Ib acids is obtained, having 119-120°/15 mm boiling point and 1.4883 $n^{20}D$. Purest sample of the mixture [with 130-135°/15 mm boiling point (bath temperature) and 1.4907 $n^{20}D$] is obtained after hydrolysis and esterification of the Ia and Ib mixtures (La Forge, F. B., Berthl, W. F., J. org. Chem., 1947, 12, 199). The purified mixture of esters (15.16 g) is

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24569

heated for 4 hours at 100° in 80 ml CH_3COOH and 15 ml of 20 percent HCl (acid), followed by pouring into water, extraction with petroleum ether, fractionation, yielding 10.5 g of viscous oil that has 100-110° /0.2 boiling point, which after mixing with 10 ml of n-hexane produces 7.46 g of Ia and Ib mixture of 60-65° melting point. By agitating 2.8 g of the preceeding mixture in 20 ml of hexane, 0.85 g of Ib having 95-96.5° melting point (from hexane) are obtained. From mother liquors obtained after the separation of Ib, upon extended standing at -30°, 0.15 g

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24569

of Ia having 88-89° melting point (from Hexane) are derived. By heating 0.277 g Ib with 1 ml $SOCl_2$ in 3 ml of n-hexane (1 hour on a steam bath), followed by dissolving of raw chloranhydride in 5 ml C_6H_6, addition of 0.2 g II, and 12 hours standing of the mixture, 0.2 g of a complex ester of Ib acid with II are obtained with the boiling point of 140-150/0.2 mm and $n^{20}D$ of 1.5274. In conducting comparison tests of insecticidal activities of Ib ester and II as against that of alletrine (on ordinary house flies), it has been established that substitution of methyl

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24569

groups in the side chain of the chrysanthemic acid with chlorine atoms does not lead to changes in the insecticidal activity of a compound.

Card : 9/9

H-94

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24570

Author : Farkas, J., Kourim, P., Sorm, F.
Inst : -
Title : The Relationship between Chemical Structure and Industrial Activity of the Pyrethroid Compounds. II. Analogues of Chrysanthemic Acid Containing Aryl Group.

Orig Pub : Chem. listy, 1958, 52, No 4, 695-706

Abstract : By the condensation of diazoacetic ester with the substituted derivation of styrol, 2-arylcyclopropane carbonic acids and the esters with alletrolon (I) are obtained.

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24570

In the comparison of insecticidal activities of these esters with those of alletrene, it was established that the substitution of iso-butylene in the chrysanthemic acid (II) for a phenyl group does not lead to the lowering of its activity, However, its activity is lowered when the phenyl group is being substituted. The presence of hemin CH_3-groups in the cyclopropane ring of II is essential from the standpoint of insecticidal activity. The most effective of all the esters obtained are (±)-trans-2-phenyl-33-dimethylcyclopropanecarbonic acid

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CZECHOSLOVAKIA/Chemical Technology. Chemical
Products and Their Applications.
Pesticides.

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Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24570

ester (trans-III) or its pravoratory antipodes (trans- (+) -III) with I. The absolute configuration of trans-III has been proved. The following aromatic carbinols $R_1R_2R_3 \cdot COH$ are obtained (using usual methods) from an aldehyde, ketone, or compound ester and aryl, or alkyl-MgBr, or the corresponding MgCl derivatives. Presented are: R_1, R_2, R_3, boiling point in °C/mm, $n^{20}D$, yield in percent. They are: H, C_2H_5, C_6H_6 (IV), 110/15, 1.5262, 66; CH_3, CH_3, benzyl, 95/8, 1.5169, 74; C_2H_5, C_2H_5, benzyl, 125/15, 1.5165, 64; CH_3, CH_3, o-xylyl;

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113/8, 1.5186, 71; CH_3CH_3, m-xylyl, 119/20, 1.5144, 71; CH_3, CH_3, n-xylyl IV, 102/8 (melting point 90-41° [sic]), 1.5129, 73 3,5-dinitrobenzoate IV, melting point of 133-134°); CH_3, CH_3, n-chlorbenzyl (V), 129/11 (34° melting point), -, 73 (3,5--dinitrobenzoate V, melting point 126-127°); CH_3, CH_3, 2,4-dichlorobenzyl, 135/10, 1.5451, 71 (3,5-dinitrobenzoate, melting point 116°). The following derivatives of styrol $R_1 \cdot C_6H_4 \cdot CH = C(R_2)(R_3)$ were obtained in the 3 hours of boiling of the corresponding alcohol with 30 percent excess of acetic anhydride and 1

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percent H_2SO_4 (Method A), or from the corresponding alcohol in the contact with Al_2O_3 at 300-320° (Method B). Presented below are R_1, R_2, R_3, boiling point in °C/ /mm, $n^{20}D$, synthesis method, yield in percent. They are: H, H, CH_3 (VI), 71/15, 1.5485, A. 52; H, CH_3, CH_3, 78/16, 1.5387, A, 82; H, C_2H_5, C_2H_5 (VII) 101/15, 1.5189, A, 86; o-CH_3, CH_3, CH_3, 87/18, 1.5283, A, 84; m-CH_3, CH_3, CH_3, 92/17, 1.5312, A, 84; n-CH_3, CH_3, CH_3, 97/22, 1.5332, A, 88 (B, 66); n-Cl, CH_3, CH_3, 102/11, 1.5521, A, 74; 2,4-Cl_2, CH_3, CH_3, 123/15, 1.5593, A, 89.

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Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24570

VI ($n^{20}D$ = 1.5490) also obtained with 80 percent yield from allylbenzene by heating it with 1 percent tert-butylate K up to 150°, but VII ($n^{20}D$ = 1.5314) with 55 percent yield by heating (1 hour) 1-methyl-3-methallylbenzene with 1 percent n-toluenesulfonic acid at 160° temperature. 2-arylcyclopropanecarbonic acids $R_1C_6H_4CHC(R_2)(R_3)CHCOOH$ were synthesized when a mixture of 0.2-0.3 mols of corresponding styrol derivative and 0.1 mols of diazoacetic ester were added drop by drop to 0.1 mols of styrol derivative and 1 g Cu dust in the course of 6 hours at 120-125°

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Pesticides. H-18

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24570

with the subsequent heating for 1/2 hour at 150°. The mixture of corresponding ethyl esters, isolated by vacuum distillation, is saponified by boiling for 3 hours with 20 percent water-alcohol solution of KOH (50 percent excess). From the mixture of stereoisomeric acids, after the addition of petroleum ether, the corresponding cis-acid in crystalline form (notations of cis- and trans- refer to corresponding positions of $R_1 \cdot C_6H_4$ and COOH groups) is usually separated. The non-crystallizing mixtures are converted (by means of 3 hour heating with $SOCl_2$) into C_6H_6

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with the corresponding chloranhydrides, or else by the interaction of these chloranhydrides with NH_3 solution in $CHCl_3$ at 0°, into the corresponding amides. All the cis-acids were recrystallized from C_6H_6 + petroleum ether, all the trans-acids from petroleum ether. The following arylcyclopropane acids were obtained (given below are R_1, R_2, R_3, yield in percent of the isomeric acids, melting point in °C of trans- and cis-isomers, boiling point in °C/mm of chloranhydrides of cis- and trans- acids): H, H, H VIII, 59, 104, 92, -, -, (melting points of amides cis-VIII

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and trans-VIII are 88-89° and 189°, melting point of toluidide cis-VIII is 174°); H, H, CH_3 (IX), 50, 114, 77.5, -, -; H, CH_3, CH_3 (III), 63, 134, 102, -, 122/11 (melting points of amides cis- and trans-III are 98-99° and 141°); 2-CH_3, CH_3, CH_3(X), 40, -, 126, -, 144/16; 3-CH_3, CH_3 (XI), 62, -, boiling point 135°/0.1 mm, -, 122/5 (melting point of toluidide trans-XI is 145-147°); 4-CH_3, CH_3, CH_3 (XII), 62, 142, 134, -, 105/0.4; 4-Cl, CH_3, CH_3 (XIII), 46, -, 140-141, -, 120/0.2; 2,4-Cl_2, CH_3, CH_3, 46, 174 (?), 96 (?), -, -; H, C_2H_5, C_2H_5 (XIV),

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Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24570

58, -, 98, -, -. When a mixture of solutions of 9.5 g of trans-III in 50 ml of ether and 4.2 g (-) ephedrin in 10 ml of ether are kept at 0° for 3 hours, 5.85 g (-)-ephedrin salt of trans-(+)-III of 169° melting point (from ethylacetate), $[\alpha]^{20}D$ of +0.51° (with 3.13, in C_2H_5OH) are derived. From mother liquors after addition of 4.9 g (-)-ephedrin and after keeping at 0° for 5 hours, (-)-ephedrin salt of trans-(-)-III of 130-131° melting point (from ethylacetate), $[\alpha]^{20}D$ - 38.8° (with 2.64 in C_2H_5OH) is obtained. And from the decom-

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position of salts with 4 percent HCl (acid), were obtained free trans-(+)-III of 84-85° melting point, $[\alpha]^{20}_D + 31.9^\circ$ (with 4.93 in C_2H_5OH) and trans-(-)-III of 84-85.5° melting point, $[\alpha]^{20}_D - 32.2^\circ$ (with 4.85, in C_2H_5OH). Esters of the preceeding acids and I are obtained with yields of approximately 50 percent in a mixture of $C_6H_6 + C_5H_5N$ from I and chloranhydride of corresponding acid when keeping a mixture for 1 hour at 0° and 12 hours at approximately 20°. After the usual treatment of a solution in C_6H_6, the raw ester is purified

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with Al_2O_3 and volatile fractions are removed by heating to 78°/0/1 mm for 8 hours, or by fractionation at 180-190°/0/1 mm. The following esters were synthesized (given below are initial acid and $n^{20}D$ of ester): trans-VIII, 1.5517; trans-IX, 1.5450; trans-III, 1.5382; trans-(+)-III, 1.5371; trans-(-)-III, 1.5378; cis-III, 1.5401; X, 1.5369; XI, 1.5362; trans-XII, 1.5365; XIII, 1.5452; XIV, 1.5355. For Part I, see preceeding abstract.

Card : 12/12

H-100

FARKAS, J.

Sulfate lignin. III. Elementary composition of functional groups. p. 464.

CHEMICKE ZVESTI. (Journal on applied chemistry issued by the Slovak Academy of Sciences and the Slovak Chemical Society. Monthly).
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Uncl.

SMEJKAL, J.; JONAS, J.; FARKAS, J.

Dissociation constants of stereoisomers of cyclopropanehydroxylic-acid pairs. Coll Cz Chem 25 no.7:1746-1750 Jl '60.
(EEAI 10:9)

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(Dissociation) (Cyclopropanecarboxylic acid)

FARKAS, J.; NOVAK, J.J.K.

Relation between the chemical structure and insecticidal activity in pyrethroid compounds. III.Analogue of allethrin with the modified acid portion of the molecule. Coll Cz Chem 25 no.7:1815-1823 Jl '60. (EEAI 10:9)

1. Abteilung fur organische Synthesen, Chemisches Institut, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Pyrethroids) (Allethrin)

FARKAS, J.; KOMRSOVA, H.; KRUPICKA, J.; NOVAK, J.J.K.

Relation between the chemical structure and insecticidal activity in pyrethroid compounds. IV.Effect of the substituent of the side chain in the process of the Laforge cyclization. Coll Cz Chem 25 no.7:1824-1836 Jl '60. (EEAI 10:9)

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1. Institut of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

FARKAS, Jozsef; KISS, Istvan

Technical and economic aspects of food preservation by radiation.
Elelm ipar 16 no.1:1-8 Ja '62.

1. Kozponti Elelmiszeripari Kutato Intezet.

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"Derivatives of 1-desoxy-D-Psicose."

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No 6, 1963, pp 1557-1567

"Hydrogenolytic Cleavage of Cyclopropane Ring in the Series
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Czechoslovakia

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Vol. 28 No 4, 1963, pp 882-886

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Synthesis of Psicofuranine."

2

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Infrared spectra of compounds containing a cyclopropane ring. Coll Cz Chem 28 no.9:2280-2294 S '63.

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The Hammett σ constants for the cyclopropyl group; p- and m-cyclopropylbenzoic acids. Coll Cz Chem 29 no.12:2950-2955 D '64.

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"Nucleic acids components and their analogues. Part 74: Use of 2-deoxy-D-ribose-o-benzyl derivatives in the synthesis of nucleosides."

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Prague, Collection of Czechoslovak Chemical Communications, No 3, March 1966, pp 1413-1414

"Nucleic acid components and their analogues. Part 78: Synthesis of 5-(2'-chloro-2"-fluorodiethylaminomethyl) uracil."

CZECHOSLOVAKIA

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"Cyclisations of hexulosonic acid thiosemicarbazones to 5-substituted 6-azauracil derivatives."

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Time and temperature in sulfate cooking. Sbor cel pap
6:177-196 '61

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Papir a celulosa 18 no.7:137-140 Jl '63.

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Preimpregnation of wood ships as a component of the high-yield sulfate pulping process. Papir a celulosa 18 no.8:156-160 Ag'63.

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L 00703-67 T JK

ACC NR: AP6035480 SOURCE CODE: HU/0028/66/013/001/0035/0046

FARKAS, Jozsef, KISS, Istvan, and ANDRASSY, Eva, Central Food Research Institute /original-language version not given/ in Budapest (Director: TOROK, G.).

30

B

"Reduction of Heat and Radiation Resistance 19 of Bacillus Cereus 6 Spores by Initiating Germination"

Budapest, Acta Microbiologica Academiae Scientiarum Hungaricae, Vol 13, No 1, 2 Jun 1966, pp 35-46.

Abstract: [English article] The effect and practical applicability of known germination-initiating agents, such as d-glucose, l-alanine, adenosine, combinations of these, and mild heating, to reduce the resistance of Bacillus cereus, spores to heat and radiation has been investigated. Best results were achieved if the additive and heating (30°C) were employed in conjunction. The technique causes relatively little damage to foodstuffs. The spores that were induced to germinate become less resistant even when they are present in high counts. Orig. art. has: 8 figures, 2 formulas and 1 table. [JPRS: 36,834]

TOPIC TAGS: bacteria, radiation biologic effect, food technology, heat biologic effect

SUB CODE: 06 / SUBM DATE: 27Oct65 / ORIG REF: 005 / OTH REF: 033

Card 1/1 mjs

0921 2179

Hungary/Analytical Chemistry - Analysis of Inorganic Substances, G-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61871

Author: Farkas, Joszef

Institution: None

Title: Rapid Analysis Method for Limestone and Dolomite

Original Periodical: Meszko es dolomit gyorselemzese. kohasz. lapok, 1956, 11, No 1, 11-13; Hungarian; German resumé

Abstract: CaO and MgO content of limestones and dolomites is determined by titration with Complexon III. Iron is determined by photometry of the salicylate at pH 2.5.

Card 1/1

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Research on rapid determination of the basicity of Martin slag in an aqueous slag suspension. p. 254 (Kohaszati Lapok. Budapest Vol. 11, no. 6, June 1956 Kohaszati Lapok. Vol. 9 (i.e. 11) no. 6)

SO: Monthly List of East European Accessions (EEAL) LC., Vol. 6, no. 7, July 1957 Uncl.

FARKAS, Jozsef, adjunktus

A new method for determining the fatigue limit of welded joints. Gep 12 no.1:35-36 Ja '60.

1. Nehezipari Muszaki Egyetem Szallitoberendezesek Transzeke, Miskolc.

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Complexometric determination of copper and zinc. Koh lap 93 no.9: 427-429 S '60.

1. Dunai Vasmu Kozponti Laboratorium.

FARKAS, Jozef, inz.

Elastic and plastic loading limit of a welded joint under general load. Zvar sbor 10 no.2:229-234 '61.

1. Odborny asistent, Vysoka skola tazkeho priemyslu, Miskolc.

PIRISI, Ferenc; FARKAS, Jozsef

Maintenance of norms at the enterprises of the Csepel Iron and Metal Works. Munka szemle 6 no.12:18-19 D '62.

35816
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D249/D301

17,3100

AUTHOR: Farkas, József

TITLE: Novel welded vertical cylindrical underground containers for liquid

PERIODICAL: Gép, no. 4, 1962, 139 - 142

TEXT: The containers described have flat polygonal pyramidal roof structure. They are built of trapezoidal sheets (3 - 5 mm thick) supported by ribs extending into two directions. The end segments were bent cold. The modules can be welded in the factory and assembled on site. The amount of materials used in construction relative to the load (which is a cover of earth and snow 15 cm thick) is less than that of the previous designs. The experiences gained during manufacturing and results of the tension measurements were favorable. The new design is compared with the previous one. The bottom plates of the previous construction, welded overlappingly, formed a continuous entity. This allowed movements in the layer of sand under the bottom plate to cause cracking of the joints of the edge seg-

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Novel welded vertical cylindrical ... D249/D301

ments. These movements occurred frequently due to changes of temperature and pressure of the liquid. In the new design a flat steel mesh (80 mm x 8 mm) is laid on a concrete base plate. Sheet plates (6 m x 3 m) are welded to the mesh. Construction of the sides is identical in the old and new designs. Due to the danger of corrosion, roof plates of 4 mm thickness were used. As a result of the roof design these plates take a considerable part in carrying the load. The design and construction of the roof, and experiences in the production are described. The boundary tension $\sigma_H = 1950$ kp./cm^2, safety factor for the load of snow and earth, $n = 1.1$. The value taken for the load of snow is 80 kp/m^2. Apart from the load symmetrical to the axis, an asymmetric load of snow was considered, with a peak value of 100 kp/m^2. The considered value for the load of earth, assuming damp loose sand was 15 cm. 1.7 Mp/m^3 = 225 kp/m^2. Tensions on the roof construction were calculated only by the use of approximations. The nominal volumes of the containers designed are 100, 200, 300, 500, 1000, 2000 m^3. There are 7 figures, 1 table and 6 references: 1 Soviet-bloc and 5 non-Soviet-bloc.

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