HAJOS, E.

Poststenotic ureteral stasis. Acta chir. Acad. Sci. Hung. 3 no.2/3: 153-156 '62.

1. Urologische Klinik (Direktor: Prof. Dr. A. Babics) der Medizinischen Universitat Budapest.

(URETER diseases)

BALOGH, Ferenc, dr.; HAJOS, Endre, dr.

Bilateral solitary renal cyst. The problem of differential diagnosis.
Orv. hetil. 102 no.15:705-707 9 Ap '61.

1. Budapesti Orvostudomanyi Egyetem, Urologiai Klinika.

(KIDNEY DISEASES diag)

MAGASI, Peter, dr.; HAJOS, Endre, dr.; ROSDY, Erno, dr.

Cysto-urethrography in diseases of the urinary bladder. Magy sebesz. 14 no.5:323-328 O '61.

1. Budapesti Orvostudomanyi Egyetem Urologiai klinikajanak (Igazgato: Babics Antal dr. egyet. tanar, akademikus) kozlemenye.

(BLADDER radiog) (URETHRA radiog)

HAJOS, Endre, dr.; MAGASI, Peter, dr.

Roentgenographic picture of the operated kidney. Magy radiol. 13 no.2:85-93 Mr '61.

1. A Budapesti Orvostudomanyi Egyetem Urologiai Klinikajanak kozlemenye (Igazgato: Babics Antal dr., egyetemi tanar).
(KIDNEY surg)
(KIDNEY radiog)

HAJOS, Endre, dr.

"Deep unilateral deviation" of the ureter. Magy radiol. 12 no.4: 225-230 N'60.

1. A Budapesti Orvostudomanyi Egyetem Urologiai Klinikajanak (igazgato: Babics Antal dr. egyetemi tanar) kozlemenye.
(URETERS abnorm)

HAJOS, Endre, Dr.; BALOGH, Ferenc, Dr.

Diverticulum of the calyx. Magy. radiol. 11 no.3:164-168 Aug 59

1. A Budapesti Orvostudomanyi Egyetem Urologiai Klinikajanak kozlemenye. (Igazgato: Babics Antal dr. egyetemi tanar)
(KIDNEY PELVIS, dis)
(DIVERTICULOSIS, radiogr)

3386. EXAMINATION OF URETERAL STONES BY BODY-SECTION RADIOGRAPHY - Untersuchung von Uretersteinen durch Schichtaufnahmen - Hajós E. Urol. Klin. der Med. Univ., Budapest - Z. UROL. 1958, 51/4 (193-200) Illus. 7

It is recalled that in radiographical pictures it is difficult to detect small stones, especially if they are localized on bone, and also transparent stones. In a series of clinical cases the value of tomography or body-section radiography is shown. This method sharpens the outline of the shadow of the object at the level where it is situated and blurs those of the other planes. Serallach - Barcelona (IX, 14)

HAJOS Endre

SZENDROI, Zoltan, dr.; HAJOS, Endre, dr.

Isotope therapy in urological surgery. Orv. hetil. 98 no.18:459-463 4 May 57.

1. A Budapesti Orvostudomanyi Egyetem Urologiai klinikajanak (igazgato: Babics. Antal, dr. akademikus) kozlemenye.

(UROGENITAL SYSTEM, neoplasms
ther., radioisotopes (Hun))
(ISOTOPES, ther. use
cancers of urogenital system (Hun))

FARAGO, Katlin, dr.; HAJOS, Endre, dr.

Simultaneous tomography. Magy. radiol. 8 no.2:104-106 May 56.

1. A Budapesti Orvostudomanyi Egyetem Rontgenklinikajanak (Igazgato: Ratkoczy, Nandor, dr. egyet. tanar) kozlemenye.
(ROENTGENOGRAPHY
tomography, simultaneous of several layers, new technic (Hun))

HAJOS, Endre, dr.

Ulcer activity and x-ray examinations. Orv. hetil. 96 no.33: 897-902 14 Aug 55.

1. A Budapesti Orvostudomanyi Egyetem Rontgenklinikajanak (igazgato: Ratkoczy Nandor dr. egyet. tanar) kozlemenye.

(PEPTIC ULCER, diag.
x-rays (Hun))
(ROENTGEN RAYS,
in diag. of peptic ulcer (Hun))

HAJOS, Endre, dr.; LELEK, Imre, dr.

Osseous metastases in uterine cancer. Magy. radiol. 7 no.1: 51-54 Jan 55.

1. A Budapesti Orvostudomanyi Egyetem Rontgenklinikajanak kozlemenye (Igazgato: Ratkoczy, Nando dr. egyet. tanar).

(UTERUS, neoplasms,
metastases to bones.)
(BONES, neoplasms,
metastases from uterus.)

HAJOS, Endre, dr.

Dilated and enlarged aorta. Magy. radiol. 7 no.1:48-50 Jan 55.

1. A Budapesti Orvostudomanyi Egyetem Rontgenklinikajanak kozlemenye (Igazgato: Ratkoczy, Nandor dr. egyet. tanar).

(ARTERIOSCLEROSIS, pathology,
aortic dilat. & enlargement.)
(AORTA, diseases,
arteriosclerosic dilat. & enlargement.)

GIMES, B.; LELEK, I.; HAJOS, E.

Value of the white blood cell count in ulcer diseases. Orv. hetil. 93 no. 40:1143-1145 5 Oct 1952. (CLML 23:5)

1. Doctors. 2. Roentgen Clinic (Director -- Prof. Dr. Nandor Ratkoczy), Budapest Medical University.

HAJOS, Erno

Report on the 1st Conference on Housing. Epitoanyag 12 no.7:265-269 Jl '60.

HAJOS, E.; YADAR, I.

Some mathematical methods used in testing the efficiency of investments in the building materials industry. p.380

EPITOANYAG, (Epitoanyagipari Tudomanyos Egyesulet)
Budapest, Hungary
Vol. 11, no.10, Oct. 1959

Monthly List of East European Accessions (EEAI) LC., Vol. 8, no.12, Dec. 1959
Uncl.

HAJOS, Andor (Budapest VII Rottenbiller u.26); FUCHS, Oszkar (Budapest VII, Rottenbiller u.26)

Studies in the field of chloramphenicol. X. Production of chloramphenicol from $L_s(+)$-threo-β-p-nitrophenilserine-n-butylester. Acta chimica Hung 24 no.4:411-419 '60. (EEAI 10:4)

1. Research Institute of the Pharmaceutical Industry, Budapest.
(Chloramphenicol) (Nitrophenylserine) (Butyl group)
(Esters) (Calcium borohydrides) (Sodium cyanide)
(Hydrolysis)

HAJOS, Andor (Budapest); FUCHS, Oszkar (Budapest)

Application of metal hydride in pharmaceutical chemistry. I. Selective reduction of steroid ketones with calcium boron hydride. In German. Acta chimica Hung. 21 no.2:137-142 '59. (REAI 9:4)

1. Research Institute of Pharmaceutical Industry, Budapest.
(Metals) (Hydrides) (Complex compounds) (Chemistry, Medical and pharmaceutical) (Reduction) (Calcium borohydrides) (Ketones) (Steroids)

HAJOS, Andor (Budapest)

Synthetic examinations in connection with chloramphenicol. IX. Experiments in the O-methyl-β-p-nitrophenyl serine series. Kem. tud.kozl.MTA 12 no.4:383-393 '59. (EEAI 9:4)

1. Gyogyszeripari Kutato Intezet, Budapest.
(Chloramphenicol) (Methyl group) (Nitrophenylserine)

HAJOS, Andor (Budapest); FUCHS, Oszkar (Budapest)

Application of complexes of metal hydrides in pharmaceutical chemistry. I. Selective reduction of steroid ketones by calcium boron hydride. Kem.tud.kozl.MTA 12 no.3:279-283 '59. (KEAI 9:4)

1. Gyogyszeripari Kutato Intezet, Budapest.
(Chemistry, Medical and Pharmaceutical) (Complex compounds)
(Steroids) (Ketones) (Calcium borohydrides)
(Metals) (Hydrides)

HAJOS, Andor (Budapest VII, Rottenbiller u.26)

Studies in the field of chloramphenicol. IX. Experiments in O-methyl--p-nitrophenylserine series. In German. Acta chimica Hung. 21 no.3: 255-267 '59. (EEAI 9:5)

1. Research Institute of Pharmaceutical Industry, Budapest.
(Chloromycetin) (Nitrophenylserine) (Methyl group)

HAJOS, Andor (Budapest)

Studies in the field of chloramphenicol. VIII. Preparation of p-nitroacetophenone, p-nitrobenzaldehyde and related compounds through oxidative oxine fission. In German. Acta chimica Hung. 21 no.2: 131-136 '59. (EEAI 9:4)

1. Research Institute of the Pharmaceutical Industry, Budapest.
(Chloramphenicol) (Nitrobenzaldehyde)
(Nitroacetophone) (Oxines)

[illegible], A.

Synthetic examination of connection with chloram[illegible]. [illegible]. Preparation of o-nitroacetophenone, o-nitrobenzaldehyde, and analogous compounds by oxidative oxime splitting. p. [illegible]

[illegible]. Magyar Kemikusok Lapja. [illegible]. Budapest, Hungary. Vol. 12 No. [illegible], 19[illegible].

Monthly list of East European Accession ([illegible]) [illegible], [illegible], XXXXXXXXXXXXXXXXXXXX. 9, no. 2, Feb. 1960

Uncl.

20°) gives 1-(p-nitrophenyl)-2-acetamido-3

Card 3/4

124

HUNGARY / Organic Chemistry--Natural compounds and their synthetic analogs G-3

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27628

Abstract: (triphenylmethyloxy)-1-propanone, yield 82%, mp 205-206°; the reaction with II gives erythro-1-(p-nitrophenyl)-2-acetamido-3-(triphenylmethyloxy)-1-propanol, yield 90%, mp 203°; the following products have been obtained from the latter: (a) refluxing for 2 hrs with 5% HCl gives erythro-1-(p-nitrophenyl)-2-amino-1,3-propanediol, yield 58.5%; (b) treatment with $SOCl_2$ followed by hydrolysis of the oxazoline formed gives threo-1-(p-nitrophenyl)-2-amino-1,3-propanediol, yield 65%. For Communication V see RZhKhim, 1959, 15545. -- L. Shakhnovskiy

Card 4/4

HUNGARY / Organic Chemistry--Natural compounds and their synthetic analogs G-3

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27628

Abstract: (L. M. Long and H. D. Troutmann, J Amer Chem Soc, 71, 2475 (1949)), in addition to threo- (III) and erythro-1-(p-nitrophenyl)-2-acetamide-1,3-propanediol (IV), gives 2,4-dimethyl-5-(p-nitrophenyl)-oxazole (V). The following reaction scheme is proposed: I(aq) →1-(p-nitrophenyl)-2-acetamido-2-propene-1-one (VI) (rearrangement) →1-(-nitrophenyl)-2-acetamido-1-propanone (reduction) →1-(p-nitrophenyl)-2-acetamido [sic]-1-hydroxypropane (cyclization)→ V. The above reaction scheme is confirmed by the synthesis of V from VI (see also RZhKhim, 1957, 63651). The mother liquor remaining after the separation of III and IV (from 200 gms I) is evaporated to dryness, the residue is re-

Card 2/4

HUNGARY / Organic Chemistry--Natural compounds and their synthetic analogs G-3

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27628

Author : Hajos, A. and Kollonitsch, J.
Inst : Hungarian Academy of Sciences
Title : Investigation of the Chemistry of Chloramphenicol. VI. Side Reactions During the Meerwein [-Ponndorf] Reduction of 1-p-Nitrophenyl-2-Acetamido-3-Hydroxy-1-Propanone

Orig Pub: Acta Chim Acad Sci Hung, 16. No 4, 461-466 (1958) (in German with English and Russian summaries)

Abstract: The reduction of 1-(p-nitrophenyl)-2-acetamido-3-hydroxy-1-propanone (I) by the action of $(iso\text{-}C_3H_7)_3Al$ (II) by the Meerwein [Ponndorf] method

Card 1/4

/23

Country :
Category : G

Abs. Jour : Ref Zhur - Khim., No 9, 1959, No. 15945

Author :
Institut. :
Title :

Orig Pub. :

Abstract : of 50%, m.p. 76-79° (from benzene); benzoate, m.p. 95-96°. Report IV, see Ref Zhur-Khim, 1957, 63652.-- L. Neyman

Card : 11/11

Country :
Category :

Jour. Zhur : Ref Zhur - Khim., No 5, 1959, No. 15545

Author :
Institut. :
Title :

Orig. Pub. :

Abstract : at about 0°, and II is separated out, with
cont'd. yield of 33%, m.p. 162-163° (from ethyl acetate), $[\alpha]D$ -28° (c 1; 1 n. HCl). 4 g. of XII in 16 ml. of absolute pyridine and 4.8 ml. of $(CH_3CO)_2O$ are left standing for about 12 hours at about 0°, with 85% yield of XIII, m.p. 125-126°. Nitration of XIII (analogously to IX, temperature 0°) leads to XIV, with yield 78%, m.p. 135-137° (from alcohol). XIV is reduced by $LiBH_4$ (see VII) into XV, with yield

Card: 10/11

Country : G
Category :

Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15545

Author :
Institut. :
Title :

Orig Pub. :

Abstract : (Ref Zhur-Khim, 1957, 57648), XII was obtained
cont'd. [HC, yield 57%, m.p. 178-180° (decomposition; from alcohol-ether)], and from L_s-VI, VII was obtained, with yield of 92%, m.p. 142-143° (decomposition), $[\alpha]D$ +35° (c 2; dioxane); HC, yield 89%, m.p. 174-175° (decomposition; from alcohol-ether), $[\alpha]D$ -18° (c 2; 1 n. HCl). 0.58 g. of VII in 10 ml. of absolute tetrahydrofuran is mixed for four hours at about 20° with 0.33 g. of anhydrous LiI and 0.09 g. of 95% $NaBH_4$, left standing for about 12 hours

Card : 9/11

Country :

Category :

Jour. Zhur : Ref Zhur - Khim., No 9, 1959, No. 15545

Author :
Institut. :
Title :

Orig Pub. :

Abstract : L_g-I is heated for one hour with 5 ml. of 2 n. HCl (about 100°), and L_g-VI is separated out with the acetate of sodium, with yield of 56%, m.p. 203-204° (decomposition), $[\alpha]D$ -38° (c 1; 1 n. HCl). HCl gas (-10°, one hour) is passed through a solution of 1.24 g. of L_g-I in 30 ml. of absolute alcohol, saturated with HCl, and L_g-V is separated out, with yield of 83%, m.p. 124-125° (from water), $[\alpha]D$ +28° (c 1; alcohol). Analogously, from O-methyl-threo-β-phenylserine

cont'd.

Card: 8/11

G - 8%

Country :
Category :

G

Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15545

Author :
Institut. :
Title :

Orig Pub. :

Abstract cont'd. : 235-236° (decomposition), [α]D +8° (c 1; 80% CH_3OH); from the mother liquor, the salt of D_g-I is separated out, with yield of 76%, m.p. 126-127° (decomposition; from aqueous CH_3OH), [α]D +26° (c 1; 80% CH_3OH). By mixing with 0.5 NaOH at about 20°, the salts are transformed, respectively, into L_s-I, with yield of 84%, m.p. 191-192° (decomposition), [α]D +43° (c 2; 0.1 n. NaOH) and D_g-I, m.p. 190-191° (decomposition), [α]D -43° (c 2; 0.1 n. NaOH). 1 g. of

Card: 7/11

Country : G
Category :

Jr. Zhur - Khim., No 9, 1954, No. 15545

Author :
Institution. :
Title :

Orig. Pub. :

Abstract : of XI (8 hours with 2 n. HCl at about 100°), VI is obtained, with yield of 62%, m.p. 184-185° (decomposition). A solution of 0.38 g. of VI in 1.9 ml. of 1 n. NaOH is agitated for 15 minutes at about 0° with 0.38 ml. of $(CH_3CO)_2O$; by acidification with HCl, I is precipitated, with yield of 66.5%. 8.48 g. of I and 12.4 g. of anhydrous IV are dissolved in 216 ml. of boiling CH_3OH; after chilling, brucine salt of L_g-I is precipitated, with yield of 87.5%, m.p.

Card: 6/11

G

Country :
Category :

Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15545

Author :
Institut. :
Title :

Orig Pub. :

Abstract cont'd. : into 300 g. of ice, and 75 g. of $NaHCO_3$ are added, with yield of V of 11.33 g., m.p. 181-182° (from alcohol). Analogously, by nitration of X, XI is obtained, with yield of 83.5%, m.p. 121-123° (from aqueous alcohol). 5 g. of V and 19 ml. of 1 n. NaOH are heated for 15 minutes at about 100° and by acidification with concentrated HCl, I is precipitated, with yield of 87.5%, m.p. 209-210° (reprecipitation from 10% $NaHCO_3$ with 1 n. HCl). By saponification

Card: 5/11

G

Country :
Category :

Jour : Ref Zhur - Khim., No 5, 1959, No. 15545

Author :
Institut. :
Title :

Orig Pub. :

Abstract cont'd. : acids. 20 g. of hydrochloride (HC) of VIII, 50 ml. of CH_3COOH and 30 ml. of CH_3COCl are heated for one hour at 50°, with 78% yield of HC of IX, m.p. 168-170° (decomposition). 50 g. of HC of VIII are boiled for one hour with 200 ml. of $(CH_3CO)_2O$ and poured into water, with yield of 44.13 g. of X, m.p. 173-174° (from alcohol). 12 g. of HC of IX are added to 48 ml. of concentrated HNO_3 (for 15 minutes, -15°), mixed for 30 minutes at -10°, poured

Card: 4/11

Country : G
Category :

Abs. Jour : Ref Zhur - Khim., No 5, 1959. No. 15545

Author :
Institut. :
Title :

Orig Pub. :

Abstract : tc I. By an analogous method, EE of O-methyl-
cont'd. threo-β-phenylserine (XII), through O-methyl derivatives of I and VII (XIII and XIV), is transformed into threo-1-p-nitrophenyl-1-methoxy-2-aminopropanol-3 (XV) Since the configurations of L_s-VIII and of L_s-(—)-threonine are identical (Vogler, K., Helv. chim. acta, 1950, 33, 2111), the transformations described present a new confirmation of the stereochemical bond between III and the natural amino

Card: 3/11

Country :
Category :

Jour. Publ. : Ref Zhur - Khim., No 2, 1959. No. 15545

Author :
Institut. :
Title :

Orig. Pub. :

Abstract cont'd. : and EE of L_s-VI (VII). I is synthesized from EE of threo-β-phenylserine (VIII) by acetylation to O-acetyl derivative (IX), which after nitration is rearranged in an alkaline medium in V and is then oxidized to I. Another method of synthesizing I consists in the transformation of VIII into O,N-diacetyl derivative (X), nitration of X to EE of O,N-diacetyl-threo-β-p-nitrophenylserine (XI), saponification of the latter to VI and acetylation of VI

Card: 2/11

G

Country : HUNGARY
Category : Organic Chemistry. Natural Substances and Their Synthetic Analogs
Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15545

Author : Hajos, A.; Kollonitsch, J.
Institut. : Hungarian AS
Title : Investigations Concerning Chloramphenicol. V. On Threo-β-p-Nitrophenylserine

Orig Pub. : Acta chim. Acad. scient. hung., 1958, 15, No 2, 175-181

Abstract : A transformation of N-acetyl-threo-β-p-nitrophenylserine (I) into Dg-(—)-threo-1-p-nitrophenyl-2-aminopropanediol-1,3 (II), which is the basis corresponding to chloramphenicol (III), was accomplished. By means of brucine (IV), I is cleaved into optical antipodes and L_s-I is converted into ethyl ether (EE) of L_s-I (L_s-V), the latter is reduced to II by $NaBH_4$. II is obtained from L_s-I also through L_s-(±)-threo-β-p-nitrophenylserine (L_s-VI)

Card: 1/11

Hajos, A.; Pollonitsch, J.

Synthetic examinations in connection with chloramphenicol. VII. Retrograde aldol condensation in the treo-3-(p-nitrophenylserine-ester series. p. 445.

Magyar Tudomanyos Akademis . Kemiai Tudomanyok Osztalya. Budapest, Hungary, Vol. 10, No. 4, 1959

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

Uncl.

COUNTRY : Hungary
CATEGORY : G-5

ABS. JOUR. : RZKhim., No. 21 1959, No. 75066

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : (8 : 1 : [illegible]) led to the separation of erythro- from threo-β-p-nitrophenylserine; R_f for the former is 0.410 and for the latter, 0.515. It is of interest to note that the effectiveness of mixtures of phenol-water and butanol-CH_3COOH-water in the separation of ordinary amino acids was not found to hold true for the studies described above. For Communication VI see RZhKhim, 1959, No 4, 77[illegible]; No [illegible], [illegible].

S. Rosenfel'd

CARD: 2/2

: Hungary

: RZKhim., No. 21 1959, No. 75066

PUB. :

ABSTRACT : derivative, yield 1.02 gm, mp 194-196° (decomp). The addition of 0.9 gm of the ME of DL-erythro-β-p-nitrophenylserine to a solution of 0.96 gmm D-tartaric acid in 4.5 ml CH_3OH at 50° gives the racemic tartrate, yield 1.14 gm, mp 144-145°, [α]D +12° (c = 2; water). The same sterting material with a solution of 0.8 gmm D-tartaric acid in 100 ml CH_3OH (2 hrs, 60°) gives a Schaff base, mp 163-164°. Paper chromatography using a mixture of N-butanol-acetone-conc NH_4OH-water

G-3

COUNTRY : Hungary
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No. 75066

AUTHOR :
[illegible] :
[illegible] :

ORIG. PUB. :

ABSTRACT : [illegible] with 4 ml $(CH_3CO)_2O$ (70°, 30 min) gives [illegible] gm N-acetyl-DL-(+)-threo-β-p-nitrophenylserine, mp 182-90° (decomp), [α]D +4° (c [illegible] 0.1 N NaOH). A suspension of [illegible] gm V in 50 ml water on treatment with 0.8 gm $NaHCO_3$ (2 hrs, 20°) gives the ME of DL-erythro-β-p-nitrophenylserine, yield 1.16 gms, mp 133-36° (decomp; from ale and petroleum ether). Refluxing 1 gm DL-threo-β-p-nitrophenylserine with 5 ml 48% HBr (1 hr) in the cold gives the hydrobromide

CARD: 1/16

: Hungary

: RZhKhim., No. 21 1969, No. 21

ABSTRACT : NaOH to pH 4; mp 208-209° (decomp), [α]D -28° (c = 1.1; 1 N HCl). A solution of 50 gms L-(+)-I in 50 ml CH_3COOH is treated dropwise with 75 ml $(CH_3CO)_2O$; after 30 min, 46.9 gms of N-acetyl-L-(+)-I are obtained, mp 172-173°, [α]D +5° (c = 1; CH_3Cl). A solution of 10 gms VIII in 15 ml pyridine on standing after addition of $(CH_3CO)_2O$ gives 7.5 gms 3-methyl-4-p-nitrobenzal-Δ^2-oxazolinone-5, mp 186-187° (from $CHCl_3$). A solution of 4 gms VIII in 25 ml 1 N NaOH on

CARD: 13/16

COUNTRY : Hungary
CATEGORY : G-5

ABS. JOUR. : RZKhim., no. 21 (OT), No. 750[illegible]

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : Neutralization with 0.6 ml glacial CH_3COOH; mp 170-175° (decomp). 2 gms of the MS L (+)- β-(p-nitrophenyl)serine are stirred with 7 ml 2 N NaOH (30 min, 20°); neutralization with 0.6 ml glacial CH_3COOH gives 1.4 gm L (-)-threo- β-(p-nitrophenyl)serine (VII), mp 204-206° (decomp), $[\alpha]_D^{20}$ -38° (c = 2; 1 N HCl). The same product is obtained (19.15 gms) by the hydrolysis of 22 gms L (+)-I in 100 ml 5 % HCl by refluxing for 6 hrs followed by neutralization with 10 %

CARD: 1/2 6

AUTHOR : Hungary G-3
COUNTRY :

SOURCE : RZKhim., No. 2, 1959, No. 7356

TITLE :
TRANS. :
ABSTR. :

ORIG. PUB. :

ABSTRACT : mixture of 2 gms V, 20 ml water, and 1 ml 10 N NaOH is shaken at 0° (10 min); following the addition of 0.5 ml glacial CH_3COOH (to pH 6), 1.17 gms of DL-erythro-β-p-nitrophenylserine is obtained, mp 175-177° (decomp). Heating 2 gms VII with 20 ml 5 N HCl (4.5 hrs) over a water bath at pH 6 (10 ml 10 N NaOH) gives 1.43 gms DL-threo-β-p-nitrophenylserine, mp 187-188° (decomp). The same product is obtained by stirring 2 gms DL-I (30 min) with 15 ml 1 N NaOH, followed by

CARD: 11/16

COUNTRY : Hungary G-3
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No. 75066

AUTHOR :
:
TITLE :

ORIG. PUB. :

ABSTRACT : is stirred with 3 ml $SOCl_2$ (30 min, 0°) and 6 ml 5% $NaHCO_3$ are added dropwise; after standing for 30 min at 0°, the solution is treated with an additional 25 ml 10% $NaHCO_3$ to pH 9; 0.95 gms N-acetyl-DL-I (VII) is obtained, mp 197-198°. 9.7 gms IV are added to 30 ml $SOCl_2$ at 0°; the solution freezes at first and on addition of 30 ml ether gives 6.39 gms of the HCl of 1-p-nitrobenzal- α-amino-β-p-nitrophenyl-β-chloropropionic acid, mp 170-173° (decomp). A

CARD: 10/16

[illegible] : Hungary

[illegible] :

[illegible] : [illegible]

[illegible] :
[illegible] :
[illegible] :

[illegible] :

ABSTRACT : conditions gives the corresponding ethyl ester, mp 200-202° (decomp). Refluxing of 1 gm of the latter product with 5 ml $(CH_3CO)_2O$ at 140° for 1 hr gives 0.97 gm N-O-diacetyl derivative, mp 159-161° (from alc). A suspension of 5.65 gms V in 100 ml water is treated at 10° with 5 ml $(CH_3CO)_2O$ and 50 ml 10% $NaHCO_3$ (15 min, vigorous stirring); after 30 min, 3.25 gms of the HCl of N- acetyl-DL-erythro- β -p-nitrophenylserine (VI) are obtained, mp 178-179° (from alc). 1 gm VI

CARD: 9/16

G-3

COUNTRY : Hungary
CATEGORY :

ABS. JOUR. : RZhKhim., No. 21 1959, No. 75066

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : p-nitrobenzo[illegible]-L-(-)-I are obtained, mp [illegible]-127° (from ether, chloroform), [α]D -[illegible]° (c = [illegible]; chloroform). [illegible] gms IV are refluxed [illegible] hrs with 40 ml 20% HCl in CH_3OH; on cooling, [illegible] gms of the hydrochloride of the ME of DL-erythro-β-p-nitrophenylserine (V) are obtained, mp 207-208° (from water); refluxing of the residue obtained by evaporating to dryness the mother liquor in 15 ml 2N HCl ([illegible] hr) gives [illegible] gm [illegible] C_6H_4CHO; the use of alcoholic HCl under similar

CARD: 3/5

JOURN. : Hungary

CARD : 3-3

AUTH. : [illegible]

ABSTR. JOURN. : RZKhim., No. 21 1959, No. 75066

AUTHOR :

INST. :

TITLE :

ORIG. PUB. :

ABSTRACT : Note: distillation at pH 8 (15 additional ml H_2O) gives 5.40 gms racemic I, mp 133-134° (dec-comp). The base IV has also been prepared (24.1 gms) by the addition of 10.72 gms of the HBr of glycane to a solution of 26.5 gms of p-$NO_2C_6H_4CHO$ in 100 ml CH_3OH. A solution of 8 gms I (+)-I in 450 ml $CHCl_3$ is treated with vigorous shaking with 5.5 gms p-$NO_2C_6H_4CHO$ and 4.5 gms Na_2SO_4; after standing for 3 days, filtering, and distillation of the $CHCl_3$ under vacuum, 8.36 gms

CARD: 7/16

COUNTRY : Hungary
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No. 75066

AUTHOR :
:
TITLE :

ORIG. PUB. :

ABSTRACT : [illegible] mp 180-181° (decomp.). A solution of [illegible] in 50 ml C6H6 + 500 ml water is stirred for 5 hrs at 50°; 1.5 g of a mixture of sparingly soluble NS of 3-p-nitrophenyl-3-oxytetro-β-p-nitrophenylserine (IV), mp 160-161° (from chloroform-ether), are obtained. Addition of 40 ml conc HCl to the mother liquor from the separation of IV followed by distillation of the C6H6 at pH 5 (vacuum, 40°) after addition of 2 ml conc NaOH gives racemic pro-

CARD: 4/16

G-5

COUNTRY : Hungary
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : following the addition of 500 ml ice water and stirring for 1 hr at 10°, 54.52 gms of crystals are obtained at 40°, mp 97-112°; the mother liquor on addition of 25 ml conc NH_4OH gives 25 gms of racemic I, mp 125-12[illegible]° (decomp). The initial crop of crystals on dissolution in 100 ml water and treatment with 2.5 ml conc H_2SO_4 followed by steam distillation gives 25 gms $NO_2C_6H_4CHO$; acidification of the residue from the distillation to pH 6 gives 9.5 gms erythro-β-p-nitrophenylser-

CARD: 5/16

COUNTRY : Hungary G-3

CATEGORY :

ABS. JOUR. : RZhKhim., No. 21 [illegible]), No. 75[illegible]

AUTHOR : [illegible]

INST. : [illegible]

TITLE :

ORIG. PUB. :

ABSTRACT : [illegible] ml [illegible] Na_2CO_3 solution with cooling from [illegible] to [illegible]°, the products are [illegible] (from II), mp 134-135° (decomp), [α]D +[illegible]° (c = [illegible]; dioxane), and [illegible] (from III), mp [illegible]-[illegible]° (decomp), [α]D -[illegible]° (c = 2; dioxane) and +22° (c = 2; 1 N HCl). [illegible] gms of optically active I are added to a mixture of [illegible] ml alcohol and 150 ml water at [illegible]° ([illegible] min, vigorous [illegible]) the mixture is stirred some more ([illegible]°, [illegible] min), and [illegible] ml [illegible] H_2SO_4 are added with cooling (ice):

CARD: [illegible]/15

[illegible] : Hungary G-5
[illegible] :

A-C. JOUR. : RZKhim., No. 21 1959, No. 75062

[illegible] :
[illegible] :
[illegible] :

[illegible]. [illegible] :

ABSTRACT : added to a solution of 200 gms tartaric acid in 1000 ml CH_3OH at 50°, and the solution is heated for 1 hr; the crystals forming at 20° (246.5 gms) were found to be the D-tartrate of L_s(-)-I (II), mp 163-165° (decomp), $[\alpha]_D^{20}$ -5° (c = 2; water). The mother liquor from the last step gives 169 gms of the tartrate of L_s(+)-I (III), mp 169-170° (from water), $[\alpha]_D^{20}$ +25° (c = 2; water). When a solution of 299.4 gms II (or III) in 1500 ml water (60°) is treated with

CARD: 5/16

COUNTRY : Hungary G-3
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No. 75066

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : active I is also given. 350 gms DL-threo-β-p-nitrophenylserine and 1900 ml of 3% methanolic HCl are mixed for 10 min and refluxed for 2 hrs at 30°; after 24 hrs, 327 gms of the hydrochloride of DL-I, mp 198-200°, are obtained. Purification of 410 gms of the product obtained in 2300 ml water at 50° with active charcoal and by the addition of 122 ml of conc NH_4OH + 400 ml water at 10° gives a precipitate of 320.1 gms DL-I, mp 140-141° (decomp). 350 gms DL-I are

CARD: 1/2

G-3

COUNTRY : Hungary
CATEGORY :

ABS. JOUR. : RZhKhim., No. 21 1959, No. 75006

AUTHOR : Bo[illegible]os, A. and Kollonitsch, J.
INST. : Hungarian Academy of Sciences
TITLE : Chloramphenicol Studies. VII. Reverse Aldol Condensation of Esters of Threo-β-p-nitrophenyl-serines

ORIG. PUB. : Magyar Tud Akad Kem Tud Oszt Koezl, 10, No 4, 45[illegible]-466 (1958); Acta Chim Acad Sci Hung. 1[illegible],*

ABSTRACT : The authors have shown that the optically active methyl ester (ME) of threo-β-p-nitrophenylserine (I) rearranges in aqueous alcohol to give the ME of racemic DL-erythro- and DL-threo-N-p-nitrobenzal-β-p-nitrophenyl-serene and glycine. The course of the reaction leads the authors to conclude that an initial reverse aldol condensation is followed by the recombination of the products. A simple procedure for the preparation (in good yields) of optically

CARD: 1/16 * No 4, 449-462 (1958)

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HAJOS, A.; KOLLONITSCH, J.

Synthetic examinations in connection with chloramphenicol. VI. Side reaction at the Meerwein reduction of 1-p-nitrophenyl-2-acetamido-3-oxypropanone-1. p. 403.

Magyar Tudomanyos Akademia. Kemiai Tudomanyok Osztalya. KOZLEMENYEI. Budapest, Hungary, Vol. 10, No. 4, 1958.

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

Country : Hungary
Category :

Abs. Jour :

Author : [illegible], A. and Kollonitsch, J.
Institut. : Hungarian Academy of Sciences
Title : Investigations in the Field of Chloramphenicol. V. D-Threo-β-p-nitrophenylserine

Orig Pub. : Magyar Tud Akad Kem Tud Oszt Kozl, 10, No 2, 157-162 (1958)
Abstract : See RZhKhim, No 5, 1959, 15565.

Card: 1/1

HUNGARY/Organic Chemis try - Natural Compounds and Their Synthetic Analogs. G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54116

Similiarly, the D-(-)-threo-isomer is obtained with dibenzoyl- -tarteric acid. Upon saponification with 50% HBr, both compounds are converted to D-(-) or L-(+)-1-(p-nitrophenyl)-2-amino-1,3-dihydroxypropane (III) respectively. Chloroamphenicol was formed from the acylation of III with 1,1-dichloro- or 1,1,3,3-tetrachloroacetoacetic ester (after boiling in dioxane for 2.5 hours), m. p. 150°C.

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HUNGARY/Organic Chemistry - Natural Compounds and Their Synthetic Analogs; G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54116

Two grams of Ia is added to a mixture of 60 ml of fuming nitric acid plus 3.4 ml of acetic anhydride, at -2 °C. to +2°C., and after 15 minutes, the contents are poured on ice (plus $NaHCO_3$), and extracted with chloroform. 2.02 grams of threo-1-p-nitrophenyl-2-amino-1,3-dimethoxypropane (IIa), was obtained, m. p. 129-130°C. (from alcohol). The deacylation of 5.1 grams of IIa (50 ml of 5 N HCl) produced 3.9 grams of threo-1-p-nitrophenyl-2-amino-1,3-dimethoxypropane (II). Demethylation (with 50% HBr) of II produced threo-1-p-nitrophenyl-2-amino-1,3-dihydroxypropane. When 3.9 grams of II is heated with 6.1 grams of dibenzoyl-d-tarteric acid in 150 ml of absolute alcohol, the dibenzoyl-d-tartrate of optically pure L-(+)-threo-1-p-nitrophenyl-2-amino-1,3-dimethoxypropane is obtained, m. p. 194-195°C., $[\alpha]_D$ -60°(c 1, 30% alcohol).

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at 180-190°C. The residue obtained after evaporation was acidified and extracted with chloroform. Thus, threo-1-phenyl-2-amino-1,3-dimethoxypropane (I) was obtained, b. p. 109-110°C./3 mm.; N-p-nitrobenzoate, m. p. 129-130°C. Five grams of (I) was dissolved in 10 ml of acetic anhydride and was evaporated. The residue was heated for 1.5 hours at 50°C. The remainder was vacuum dried followed by boiling in ethyl acetate. Thus, 3.12 grams of crude threo-1-phenyl-2-acetamino-1, 3-dimethoxypropane (Ia) was obtained, m. p. 97-98°C. (from ethyl acetate). To confirm the threo-configuration by some other method, the threo-1-phenyl-2-acetamino-1,3-dihydroxypropane was repeatedly methylated with methyl iodide in the presence of Ag_2O. The product obtained, m. p. 90-92°C, (from ether), did not produce a melting point depression when mixed with Ia.

HUNGARY/Organic Chemistry - Natural Compounds and Their Synthetic Analogs. G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54116

by esterification with a trityl group, dehydrohalogenation instead of ammonolysis takes place, and the derivatives of 1-phenyl-1-methoxy-3-trityl hydroxy--1,2-propene are formed. In the synthesis described below, the hydroxyl group was protected with a CH_3 group. The ethers of cinnamic alcohol were used as starting materials. 108 grams of bromine was added over a period of two hours to 100 grams of $C_6H_5CH{=}CHCH_2OCH_3$ in 800 ml of methanol containing 81 grams of PbO. After removing Pb^{2+} with hydrogen sulfide, 132.5 grams of erythro-1-phenyl-2-bromo-1,3-dimethoxypropane was obtained, m. p. 122-124°C./3 mm. A mixture of 40 grams of this product in 80 ml of absolute alcohol plus 60 ml of liquid ammonia and a few crystals of potassium iodide were heated in a bomb for 35 hours

Card 2/5

HAJOS

HUNGARY/Organic Chemistry - Natural Compounds and Their Synthetic Analogs. G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54116

Author : Gabor, Kollonich, Khayosh

Inst : Academy Kem.

Title : A Study of the Preparation of Chloramphenicol. IV. A New Synthesis of Chloramphenicol.

Orig Pub : Magyar tud. akad. Kem. tud. oszt. kozl., 1957, 8, No 2-3, 241-245

Abstract : The reaction of 1-phenyl-1-methoxy-2-halogen-3-hydroxy-propane or its acyl derivatives with ammonia or potassium phthalimide (see R. Zh. Khim. 1957, 63650), leads to the formation of derivatives of 1-phenyl-1-methoxy--2-hydroxy-3-aminopropane (probably through 2-3 eposides) When the hydroxyl group in the 3-position is protected

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HUNGARY/Organic Chemistry - Natural Compounds and Their Synthetic Analogs. G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54115

Upon reducing six grams of IV, according to Meerwein's technique, 4.5 grams of oily crystals were obtained, and after a purification - 1.5 grams of D_g-(+)-erythro--1-p-nitrophenyl-2-acetamido-1,3-dihydroxypropan (VIII), was obtained, m. p. 190-192°C. (from alcohol), $[\alpha]_D$ + 9° (c 1; dioxane). In a similiar way, one gram of IVa formed 0.26 grams of D_g-(+)-erythro-1-p-nitrophenyl-2-benzamido-3-benzohydroxy-1-hydroxypropane, m. p. 188-189°C. (from alcohol), $[\alpha]_D$ + 38° (c 1; pyridine). The treatment of one gram of VIII with $SOCl_2$ produced 0.4 grams of the d-base of starting material I, m. p. 162-163°C., $[\alpha]_D$ + 28° (c 1; HCl).
Communication II, see Ref. Zh. Khim., 1957, 63650.

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HUNGARY/Organic Chemistry - Natural Compounds and Their Synthetic Analogs. G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54115

Upon treatment with sodium acetate in methanol, 0.42 grams of IVa produced 0.22 grams of a product melting at 139-141°C. (from alcohol); 0.5 grams of IVa in pyridine gave 0.28 grams of a product melting at 138-140°C. They were both indentical with the 1-p-nitrophenyl-2-benzamidopropen-2-on-1. The same product (0.34 grams) was obtained when 0.5 grams of 1-p-nitrophenyl-2-benzamido-3-hydroxypropanone-1 was treated with a mixture of pyridine and acetic anhydride, m. p. 138-140°C. (from alcohol). Similiarly, 0.37 grams of product was obtained from 0.6 grams of IV in pyridine, and 0.51 grams of 1-p-nitrophenyl-2-acetamidopropene-2--on-1 was formed when 1 gram of IV was reacted with sodium acetate in glacial acetic acid, m. p. 120-123°C. and 124-126°C. (both from alcohol).

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HUNGARY/Organic Chemistry - Natural Compounds and Their Synthetic Analogs. G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54115

Meerwein's technique), racemization also occured with the formation of 1.4 grams of threo-1-p-nitrophenyl-2--acetamido-1,3-dihydroxypropane, m. p. 164-166°C. (from ethyl acetate). The reaction of 5 grams of I with C_6H_5COCl gave 4.1 grams of L-(+)-threo-1-p-nitrophenyl-1-hydroxy-2-benzamido-3-benzohydroxypropane (IIIa), m. p. 175-176°C., $[\alpha]_D$ +24° (c 2; chloroform). The reaction of 12.6 grams of IIIa with $Na_2Cr_2O_7$ gave 10.2 grams of crude Ds-(+)-1-p-nitrophenyl-2-benzamido--3-benzohydroxypropanone-1 (IVa).
The purified product (4.76 grams) melted at 142-143°C. (from alcohol), $[\alpha]_D$ +16° (c 2; chloroform). When an attempt was made to racemize 0.5 grams of IV with sodium acetate in glacial acetic acid, only 0.28 grams of an optically inactive product (m. p. 141-142°C. (from alcohol)), was obtained instead of the racemic compound.

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Abs Jour : Ref Zhur - Khimiya, No 16, 1958. 54115

5N NCl on a water bath. In both instances the reaction probably proceeds thru a ketimide from a resulting enamine: $-C(NH_2)=CH_2 \rightarrow -C(=NH)CH_3$ $C(=O)-OH_3$.

The acetylation of V with acetic anhydride in the presence of sodium acetate (when V is prepared from IV and not isolated), gave Ds-(-)-1p-nitrophenyl-2-acetamido--3-hydroxypropanone-1 (VI) (1.79 grams of VI from 3 grams of IV), m. p. 149-151°C., $[\alpha]_D$ -18° (c 2; alcohol). This compound is easily racemized, even at 20°C., by the action of sodium acetate in acetic acid, and thus, from 1.62 grams of VI, 1.5 grams of threo-1-p-nitrophenyl-2--acetamido-3-dihydroxypropane (VII) was prepared, m. p. 148-149°C. One gram of VI in pyridine gave 0.6 grams of VII, m. p. 167-168°C. (decomposes).
When 4.7 grams of VI was reduced (according to the

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Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54115

-hydroxy-2-amido-3-acetohydroxypropane (III), m. p. 104-108°C., $[\alpha]_D$ -7°(c 5, 50% alcohol). After this product was heated on a water bath, a melting point of 132-134°C. was obtained.

The oxidation of 58.7 grams of III with $Na_2Cr_2O_7$ resulted in the formation of 38.9 grams of Ds-(±)-1-p-nitrophenyl-2-acetoamido-3-aceto-hydroxypropanone-1 (IV), m. p. 147-148°C., $[\alpha]_D$ + 21°(c 2; chloroform).

The hydrolysis of 27.2 grams of IV (with 5 N HCl) gave 9.5 grams of Ds-(-)-1-p-nitrophenyl-2-amino-3-hydroxy-propanone-1-hydrochloride, (V) m. p. 203-204°C. (decomposes; from alcohol), $[\alpha]_D$ -59°(c 2; 1N HCl). 1.84 grams of $p\text{-}NO_2C_6H_4COCOCH_3$ (Va) was formed as the side

product in this reaction m. p. 90-92°C. Va is also formed when V (0.7 grams) is heated for two hours with

HUNGARY/Organic Chemistry - Natural Compounds and Their Synthetic Analogs. G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54115

racemization, to prepare chloramphenicol (see, R. Zh. Khim., 1955, 37422). The substance decomposed with the evolution of ammonia when racemization of I was attempted (a) with basic alcoholates and sodamide similiar to the racemization of ephedrine, or, (b) with basic alcoholates in the presence of catalysts (ketones), similiar to the racemization of quinine. All subsequent experiments were carried out with a preliminary destruction of one of the aasymetric centers by oxidizing the secondary hydroxyl group to a keto group. The action of CH_3COOCl upon 10.6 grams of I produced 15.5 grams of L_g-(+)-threo-1-p-nitrophenyl-1,3-diacetohydroxy-2-aminopropane hydrochloride, (II), m. p. 195-196°C. (decomp.), $[\alpha]_D$ + 18°(c 2, water). The rearrangement of 14.75 grams of II in the presence of sodium bicarbonate produced 12.4 grams of L_g-(-)-threo-1-p-nitrophenyl-1-

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HAJOS

HUNGARY/Organic Chemistry - Natural Compounds and Their Synthetic Analogs. G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54115

Author : Kollonich, Khayosh

Inst : Academy Kem.

Title : Investigation of the Synthesis of Chloramphenicol. III. Racemization of L_g-(+)-threo-1-paranitrophenyl-2-amino-1,3-dihydroxypropane.

Orig Pub : Magyar tud. akad. kem. tud. oszt. kozl., 1957, 8, No 2-3, 233-239

Abstract : L_g-threo-p-nitrophenyl-2-amino-1,3-dihydroxypropane (L_g-base of I) was formed as the side product from the splitting of DL-threo-1-p-nitrophenyl-2-amino-1,3-dihydroxypropane. This product can be used, after

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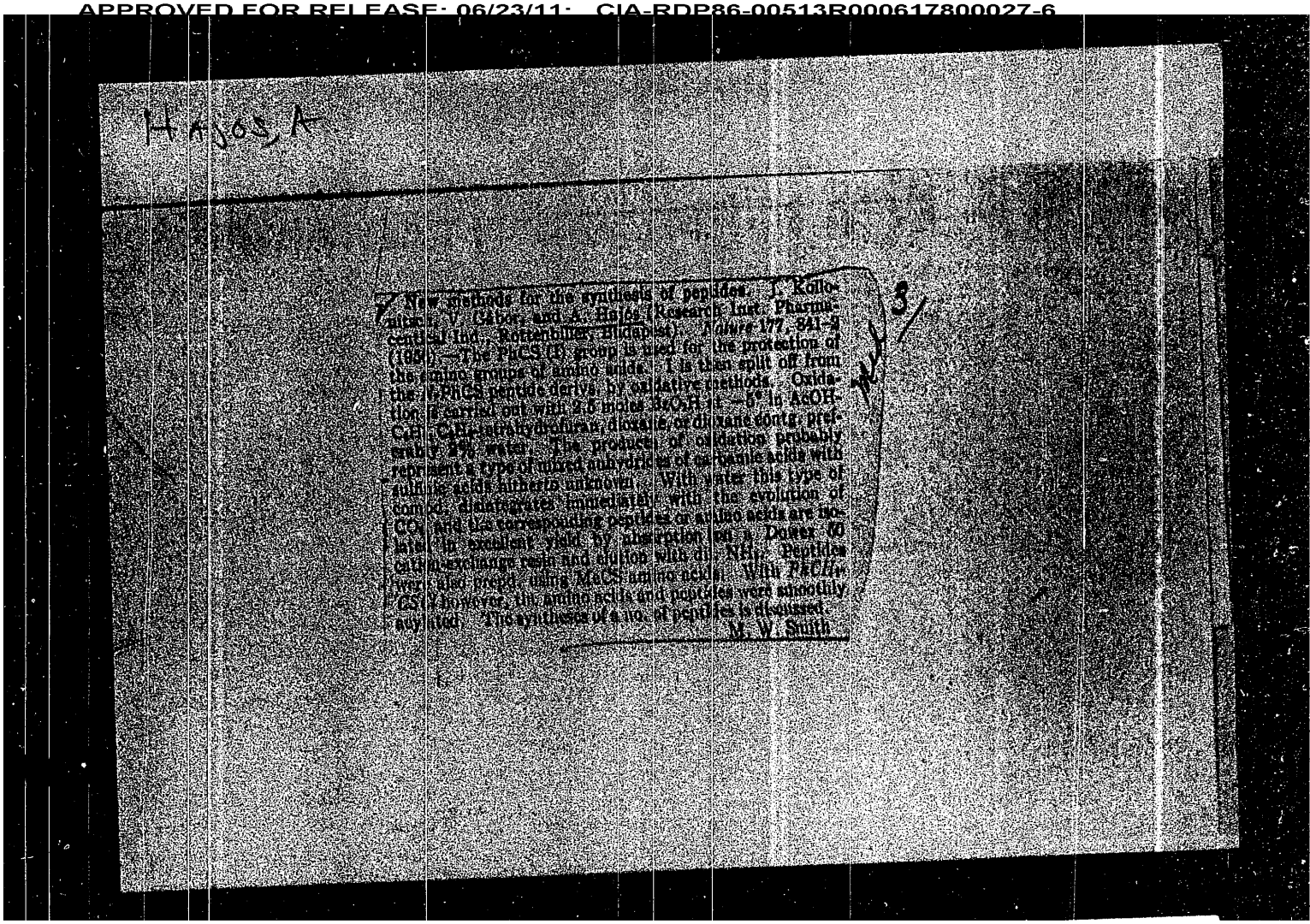

HAJOS, A.

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New methods for the synthesis of peptides. J. Rollo-nitsch, V. Gábor and A. Hajós (Research Inst. Pharmaceutical Ind., Rottenbiller, Budapest). *Nature* 177, 841–2 (1956).—The PhCS(O) group is used for the protection of the amino groups of amino acids. It is then split off from the PhCS peptide derivs. by oxidative methods. Oxidation is carried out with 2.5 moles AcO$_2$H at −5° in AcOH-C$_6$H$_6$-C$_4$H$_8$O, tetrahydrofuran, dioxane or dimethoxyethane contg. preferably 3% water. The products of oxidation probably represent a type of mixed anhydrides of organic acids with sulfinic acids hitherto unknown. With water this type of compd. disintegrates immediately with the evolution of CO$_2$ and the corresponding peptides or amino acids are obtained in excellent yield, by absorption on a Dowex 50 cation-exchange resin and elution with di-NH$_4$. Peptides were also prepd. using MeOS amino acids. With PhCH$_2$OCS(O) however, the amino acids and peptides were smoothly acylated. The synthesis of a no. of peptides is discussed.

M. W. Smith

HAJÓS, A.

[illegible] IV. New synthesis of chloramphenicol. V. [illegible] and A. Hajós. *Acta chim. Hung.*, 1956, 10, [illegible].—*trans*-Cinnamic [illegible] methyl ether is treated in methanol with HgO and Br to give *erythro*-2-bromo-1 : 3-dimethoxy-1-phenylpropane. Ammonolysis gives *threo*-2-amino-1 : 3-dimethoxy-1-phenylpropane, whose structure is confirmed by its identity with the product obtained by methylating the corresponding dihydroxy compound. Acetylation, nitration and deacetylation give the *p*-nitro derivative, which can be resolved into optical isomers with dibenzoyltartaric acid. Demethylation of the base with HBr gives *threo*-2-amino-1 : 3-dihydroxy-1-*p*-nitrophenylpropane which can be dichloroacetylated with Et 1 : 1-dichloro- or 1 : 1 : 3 : 3-tetrachloro-acetoacetate to give chloramphenicol.

A. R. DENHAM

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HAJOS, A.

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Chloramphenicol. III. Racemisation of L$_R$-(+)-*threo*-2-amino-1-*p*-nitrophenylpropane-1 : 3-diol. J. Rollonitsch and A. Hajós (*Acta chim. hung.*, 1955, 8, 271—282).—A full description of the six-stage procedure for the racemisation of L$_R$-(+)-*threo*-2-amino-1-*p*-nitrophenylpropane-1 : 3-diol (I), the valueless by-product of the resolution of DL-*threo*-2-amino-1-*p*-nitrophenylpropane-1 : 3-diol, the racemic base of chloramphenicol. Treatment of I with AcCl and rearrangement of the resulting diacetate hydrochloride by Na_2CO_3 yields the *N*-acetyl 3-acetate (m.p. 102—104° from water, 132—135° from EtOH–light petroleum). Either dimorph of this is then oxidised with CrO_3 in acetone solution to D$_S$-(+)-2-acetamido-3-acetoxy-1-*p*-nitrophenylpropan-1-one (II), m.p. 147—148°, which is then hydrolysed with 5N-HCl to the amino-ketone hydrochloride, m.p. 204° (decomp.). This is acetylated *in situ* with NaOAc and Ac_2O to yield D$_S$-(−)-2-acetamido-3-hydroxy-1-*p*-nitrophenylpropan-1-one, m.p. 150—151°, which can be racemised easily in C_5H_5N solution at 20°. This ketone reduced by the Meerwein method yields DL-*threo*-2-acetamido-1-*p*-nitrophenylpropane-1 : 3-diol (30% yield), from which the DL form of I is obtained easily. On Meerwein reduction of II there is no racemization, only the optically active *erythro*-compound being formed. The reaction mechanisms are discussed. (Cf. J.A.C. Abstr., 1955, i, 775).

W. J. BAKER.

PM

HAJOS, A.

18. **Studies on chloramphenicol. II. Synthesis of 1-phenyl-3-aminopropane-1,2-diol derivatives.** (In German) J. Kolonyson, A. Hajos, M. Kraut, V. Gabor. *Acta Chimica Academiae Scientiarum Hungaricae.* Vol. 6, 1955, No. 3—4, pp. 381—395, 2 figs.

Chem

The attempted synthesis of chloramphenicol starting from cinnamic alcohol and its derivatives led to the isomeric 1-*p*-nitrophenyl-3-dichloroacetamidopropane-1,2-diol compound instead. To obtain the suitable bromomethylates the dibromo derivatives of *p*-nitro-cinnamic alcohol and its trityl ether were prepared as the first stage however upon treatment with sodium methoxide these compounds yielded unsaturated bromine derivatives instead of the desired compounds. Therefore a new method was elaborated which essentially consists in the addition of the elements of methyl hypobromite to the reaction mixture in the presence of yellow lead oxide. Ammonolysis of the trityl derivatives of the bromomethylates obtained in this way yielded only the corresponding enol-ethers. The 3-phthalimido derivatives were produced by fusing the bromo-methylate derivatives containing a free hydroxyl group with phthalimide potassium. Similar results were attained by treating the acyl derivatives in the same way. The compound 1-*p*-nitrophenyl-3-amino-propane-1,2-diol was prepared by way of demethylation of the corresponding deacylated compound. The structure of this aminopropane-diol derivative was proved by the periodate oxidation of its N-*p*-nitrobenzonte derivative. The chloramphenicol isomeride obtained by the dichloroacetylation of the 1-*p*-nitrophenyl-3-aminopropane-1,2-diol compound showed no bacteriostatic activity.

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Meerwein reduction of II there is no racemization but the ester is hydrolyzed and gives the active *erythro*-monoacetate. I can be hydrolyzed with 5*N* HCl to D-(−)-*p*-$NO_2C_6H_4COCH(NH_2Cl)CH_2OH$ (IV), m. 200–4° (decompn.), $[\alpha]_D$ −60° (*c* 2%, *N* HCl), *p*-$O_2NC_6H_4COAc$ (V) is formed as a by-product in 10% yield, m. 90–2°. V can be prepd. from III and IV with concd. HCl. IV must not be isolated but is acetylated *in situ* with Ac_2O-AcONa giving D-(−)-*p*-$O_2NC_6H_4COCH(NHAc)CH_2OH$ (VI), m. 160–1°, $[\alpha]_D$ −20° (*c* 2%, EtOH). VI racemizes in C_5H_5N at room temp. In 60–70% yield, the by-product being III. VI yields DL-*threo*-*p*-$O_2NC_6H_4CH(OH)CH(NHAc)CH_2OH$ by Meerwein reduction in 30% yield. The configuration of the compds. with 2 asym. C atoms is referred to the C atom bearing the OH group (g); the configuration of the compds. with 1 asym. C atom is referred to the C atom bearing the NH_2 group (s).

W. M. Potts

HAJÓS, A.

HUNG $

Racemization of l- or d-(+)-*threo*-2-amino-1-*p*-nitrophenylpropane-1,3-diol. J. Kollonitsch, A. Hajós, and V. Gábor. (Research Inst. Pharm. Ind., Budapest). *Chemistry & Industry* 1955, 38-40.—L- or d-(+)-*threo*-*p*-$O_2NC_6H_4CH(OH)$-$CH(NH_2)CH_2OH$ with AcCl gives *p*-$O_2NC_6H_4CHAcCH$-$(NH_2Cl)CH_2OAc$, m. 194-6° (decompn.), $[\alpha]_D$ 18° (c 2%, water). Na_2CO_3 rearranges it to *p*-$O_2NC_6H_4CH(OH)CH$-$(NHAc)CH_2OAc$ (I) in 80% yield in 3 steps. I is dimorphic: m. 102-4° from water, 132-5° from alc.-light petr. The lower-melting form is converted into the higher-melting form by warming on the water bath. Both forms can be used in the next step. I with CrO_3 in Me_2CO gives d- or l-(+)-*p*-$O_2NC_6H_4COCH(NHAc)CH_2OAc$ (II), m. 147-8°, $[\alpha]_D$ 21° (c 2%, $CHCl_3$), yield 70%. *p*-$O_2NC_6H_4CO_2H$ is the by-product. Attempts to racemize II were unsuccessful. In C_5H_5N or AcOH-AcONa, AcOH splits off and *p*-O_2N-$C_6H_4COC(NHAc):CH_2$ (III) is formed, m. 125-6°. On

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HAJOS, A.

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New syntheses of chloramphenicol and its stereochemical relationships. L. Kollonitsch, A. Haász, V. Gábor, and M. Kraut (Forschungsinst. pharm. Chem., Budapest). *Experientia* 10, 488–9(1954)(in German); cf. preceding abstr.—The *threo* form of β-phenylserinol 8-Me ether (I) (*N*-*p*-nitrobenzoyl deriv., m. 170–81°) was obtained by $LiAlH_4$ reduction of the Et ester of the diastereoisomer of β-phenylserine Me ether (II) with the lower m.p. and by reduction of the phthalyl deriv. of II to 8-phenyl-3-methoxy-2-phthalimidopropionaldehyde, followed by reduction with (iso-PrO)$_3$Al and dephthalation with N_2H_4. From the *O*,*N*-di-Ac deriv. of I was derived β-*p*-nitrophenylserinol 8-Me ether (III), m. 82–4°, which was demethylated to *threo*-1-(*p*-nitrophenyl)-2-amino-1,3-dihydroxypropane (IV). Treatment of III with tartaric acid or dibenzoyltartaric acid produced the optical antipodes. The *l*-isomer of III, m. 105–7°, $[\alpha]_D$ −74° (1% in *N* HCl), was converted by demethylation to a compd. (V) apparently identical with the hydrolyzate of natural chloramphenicol (VI). Treatment of V with $CHCl_2COCCl_3$ gave a good yield of VI. The diastereoisomer of II with the higher m.p. was similarly reduced to obtain *erythro*-β-phenylserinol 8-Me ether (VII) (*N*-*p*-nitrobenzoyl deriv., m. 163–4°), which was converted to *erythro*-1-*p*-nitrophenylserinol 3-Me ether, m. 110–11°. Demethylation of VII with aq. HBr resulted primarily in *erythro*-β-phenylserinol (VIII), with some *threo*-β-phenylserinol (IX). It was found that the conversion of VIII to IX could be effected under the conditions of methylation; however IX, *erythro*-β-*p*-nitrophenylserinol (X) and *threo*-β-*p*-nitrophenylserinol (X) remained unchanged under these conditions. *trans*-Cinnamyl alc. Me ether was treated in EtOH with Br in the presence of PbO, yielding 1-phenyl-2-bromo-1,3-dimethoxypropane (XI), which was converted by ammonolysis to β-phenylserinol di-Me ether (XII) (*N*-*p*-nitrobenzoyl deriv., m. 129–30°). The *N*-Ac deriv. (XIII) was identical with the compd. obtained from the *N*-Ac deriv. of *threo*-β-phenylserinol by methylation with MeI and Ag_2O. XIII was nitrated, deacetylated, and demethylated to give X. From the results it is evident that ammonolysis of 3-phenyl-3-methoxy-2-bromopropionic acid (XIV) as well as XI gives diastereoisomeric amino derivs. although XI and XIV probably have the same configuration. It is suggested that this apparent contradiction can be explained by the "neighboring group effect."

D. S. Farner

(3)

JANOS ADLANISH

in 20 ml. H_2O treated with 5 ml. 2*N* NaOH gives 0.78 g. d(+)-*threo*-1-*p*-*nitrophenyl*-1-*methoxy*-2-*amino*-3-*hydroxypropane* (XXXIII), m. 99° (from C_6H_6), $[\alpha]_D$ 68 (1% soln. in *N* HCl). In a similar manner d(−)-*threo*-1-*p*-*nitrophenyl*-1-*methoxy*-2-*amino*-3-*hydroxypropane* (XXXIV) is prepd., m. 105–7° (from C_6H_6 and H_2O), $[\alpha]_D$ −74° (1% soln. *N* HCl). Heating 0.49 g. XXXIV with 5 ml. 53.8% HBr for 1 hr. followed by addn. of 10 ml. H_2O and further heating under N gives 0.06 g. d(−)-*threo*-1-*p*-*nitrophenyl*-2-*amino*-1,3-*dihydroxypropane* (XXXV), m. and mixed m.p. 164–5° $[\alpha]_D$ −21° (2% soln. *N* HCl). Heating 0.6 g. XXXIII with 6 ml. 50% HBr followed by addn. of 12 ml. H_2O and further heating under N gives 0.07 g. l(+)-*threo*-1-*p*-*nitrophenyl*-2-*amino*-1,3-*dihydroxypropane* (XXXVI), m. and mixed m.p. 163–5° (from H_2O), $[\alpha]_D$ 29° (2% soln., *N* HCl). Heating a soln. of 2.12 g. XXXV in 10 ml. abs. dioxane with 1.36 ml. $Cl_2CCOCHCl_2$ gives good yield of chloramphenicol, m. and mixed m.p. 151–2°, $[\alpha]_D$ 19° (4.9% soln., alc.).

Henry B. Hastie

JANOS

ml. Ac_2O gives 12.6 g. (100%) *XI acetate* (XVII), m. 107–10°. Treatment of 32.5 ml. concd. HNO_3 (decolorized with NH_2SO_3H) with 12.91 g. XVII, added in small portions, gives 5.19 g. *erythro-1-p-nitrophenyl-1-methoxy-2-phthalimido-3-aceloxypropane* (XVIII), m. 143–4° (from abs. alc.). Heating 1.4 g. XVIII 12 hrs. with 28 ml. 5*N* HCl gives 0.64 g. *erythro-1-p-nitrophenyl-1-methoxy-2-amino-3-hydroxypropane* (XIX), rose-red crystals, m. 110° (from C_6H_6). Treatment of 0.2 g. XIX with 2 ml. 50% HBr and 5 ml. H_2O followed by extn. with EtOAc and treatment of the ext. with 1 ml. Ac_2O and 1 ml. pyridine gives 0.14 g. *erythro-1-p-nitrophenyl-2-acetamido-1,3-dihydroxypropane diacetate* (XX), m. and mixed m.p. 184–5° (from Et_2O). Refluxing 1200 ml. of satd. alc. HCl with 47.87 g. III and continued addn. of HCl gas gives 40.25 g. *Et threo-2-amino-3-phenyl-3-methoxypropionate-HCl* (XXI), m. 183–4°. A soln. of 40.25 g. XXI in 150 ml. abs. MeOH treated with a soln. of 3.56 g. Na in 80 ml. MeOH gives 32 g. *Et threo-2-amino-3-phenyl-3-methoxypropionate* (XXII). A soln. of 32 g. XXII in 100 cc. abs. Et_2O treated with 8 g. $LiAlH_4$ in 300 ml. abs. Et_2O gives 25.76 g. *threo-1-phenyl-1-methoxy-2-amino-3-hydroxypropane* (XXIII) as an oil; *N-p-nitrobenzoyl deriv.*, m. 179–81°. Treatment of 0.08 g. XXIII with 0.8 ml. 50% aq. HBr followed by 0.03 g. p-$O_2NC_6H_4COCl$ gives 0.02 g. *"threo-1-phenyl-2-amino-1,3-dihydroxypropane bis-p-nitrobenzoate"* (XXIV), m. and mixed m.p. 196–8°. A soln. of 19.39 g. XXIII in 35 ml. abs. pyridine treated with 90 ml. Ac_2O gives 23.38 g. *threo-1-phenyl-1-methoxy-2-acetamido-3-aceloxypropane* (XXV), m. 122–3°. To a mixt. of 4.3 ml. concd. HNO_3 and 40 ml. concd. H_2SO_4 at −10 is added a soln. of 23.38 g. XXV in 75 ml. $CHCl_3$, giving 30.59 g. of oil which heated 2 hrs. with 250 ml. 5% HCl, extd. with $CHCl_3$, the solvent removed, and the residue treated with 10.1 g. BzOH gives 17.03 g. *benzoic acid salt of threo-1-p-nitrophenyl-1-methoxy-2-amino-3-hydroxypropane* (XXVI), m. 94–7° (from abs. alc.). Treating 12.5 g. XXVI with 75 ml. *N* NaOH gives 6.02 g. of the free base (XXVII), m. 83–4° (from H_2O). Heating 0.52 g. XXVII with 5.2 ml. 54% HBr gives, on addn. of 10*N* NaOH, a good yield of *threo-1-p-nitrophenyl-2-amino-1,3-dihydroxypropane* (XXVIII), m. and mixed m.p. 141–2°. Heating 2.03 g. XII with 11 ml. 54% HBr and heating the resulting hydrobromide with 60 ml. H_2O gives 1.12 g. of the demethylated base. A soln. of 0.08 g. of this base in 3 ml. abs. alc. treated with 0.46 g. BzOH gives 0.35 g. of mixed salts. Recrystn. of 0.3 g. of this product from 10 ml. abs. alc. gives 0.09 g. of XVI *benzoic acid salt*, m. 159–61°, and 0.14 g. of *erythro-1-phenyl-2-amino-1,3-dihydroxypropane* (XXIX) *benzoic acid salt*, m. 206–8°. Heating XXVIII or *erythro-1-p-nitrophenyl-2-amino-1,3-dihydroxypropane* (XXX) with HBr produces no change in configuration. Heating 0.5 g. XXIX.HCl with 5 ml. concd. HCl in a sealed tube at 100° gives 0.37 g. of oil which, dissolved in 1 ml. abs. alc. and treated with 0.27 g. BzOH, gives 0.39 g. of XVI benzoic acid salt, m. 162–3°. Heating XVI with HBr produces no change in configuration. A soln. of 1.4 g. *threo-1-phenyl-1-hydroxy-2-acetamido-3-aceloxypropane* (XXXI) in 70 ml. dry Me_2CO treated with 14 g. Ag_2O and 14 ml. MeI gives, when the process is repeated, 0.35 g. XXV, m. 118–20°, b$_{0.05}$ 140–50°. Boiling 4.52 g. XXVII with 7.52 g. D-$[CH(OBz)CO_2H]_2$ in 20 ml. abs. alc. gives, on fractional crystn. from abs. alc. 2.4 g. *L(+)-threo-1-p-nitrophenyl-1-methoxy-2-amino-3-hydroxypropane dibenzoyl-D-tartrate*, $C_{36}H_{33}N_3O_{12}$ (XXXII), m. 194–6°, $[\alpha]_D$ −44° (1% soln. in 50% alc.). A soln. of 2.25 g. XXXII

HAJOS, A

Chloramphenicol series. I. A new synthesis of chloramphenicol. János Kolkenitsch, A. Hajós, V. Gábor, and M. Kraut (Research Inst. Pharm., Budapest). *Acta Chim. Acad. Sci. Hung.* 5, 13–32(1954)(in German)(Engl. summary).—A new method is reported for the PbO-catalyzed addn. of alkyl hypobromites to a double bond. To a suspension of 12 g. PbO in 100 ml. MeOH is added, alternately and in small portions, 5.2 ml. Br and a soln. of 14.8 g. PhCH:CHCO$_2$H in 250 ml. MeOH, the mixt. cooled, stirred 1.5 hrs., and filtered. Removal of Pb salts with H$_2$S and concn. in vacuum gives 24.9 g. *erythro-2-bromo-3-phenyl-3-methoxypropionic acid* (I), m. 179–82°. A suspension of 24 g. PbO in 200 ml. MeOH treated similarly with 10.4 ml. Br and with a soln. of 32.4 g. PhCH:CHCO$_2$Me gives, after removal of Pb salts and vacuum concn., 41 g. *Me erythro-2-bromo-3-phenyl-3-methoxypropionate* (II), m. 74–6°. Heating 82 g. *threo*-MeOCHPhCHBrCO$_2$H in a sealed tube at 80° for 12 hrs. with 800 ml. concd. NH$_4$OH gives 42.18 g. *threo-2-amino-3-phenyl-3-methoxypropionic acid* (III), m. 228–30° (from alc.). Heating 20 g. I with 170 ml. concd. NH$_4$OH for 18 hrs. at 80° in a sealed tube gives 17.46 g. *erythro-2-amino-3-phenyl-3-methoxypropionic acid* (IV), m. 248–50° (from alc.). Heating 78.6 g. IV with 78.6 g. *o*-C$_6$H$_4$(CO$_2$H)$_2$ 15 min. at 160° gives 78 g. *erythro-2-phthalimido-3-phenyl-3-methoxypropionic acid* (V), m. 200–3° (from alc.). Heating 78 g. V with 70 g. PCl$_5$ in 800 ml. abs. C$_6$H$_6$ gives 73.0 g. *erythro-2-phthalimido-3-phenyl-3-methoxypropionyl chloride* (VI), m. 195–6° (decompn.). Heating 5 g. VI with 5 ml. abs. pyridine and MeSH [from 20 g. MeSC(:NH)NH$_2$ and 30 ml. 5*N* NaOH] in a sealed tube gives 2.58 g. *erythro-2-phthalimido-3-phenyl-3-methoxypropionic acid methylthiol ester* (VII), m. 147–50° (from alc.). Heating a soln. of 0.45 g. VII in 50 ml. abs. alc. with 4 g. Raney Ni under N gives 0.08 g. product, C$_{15}$H$_{13}$O$_4$N (VIII), m. 165–70° (from alc.). To a suspension of 19.45 g. Pd-BaSO$_4$ in 400 ml. xylene is added 23.9 g. VI and 0.08 g. NH$_2$CSNH$_2$ and the mixt. treated with H at 150°, giving *erythro-2-phthalimido-3-phenyl-3-methoxypropionaldehyde* (IX), m. 140–42°; *p-nitrophenylhydrazone* (X), m. 202–4°. A soln. of 25 g. IX in 250 ml. iso-PrOH heated with 13.1 g. Al(iso-PrO)$_3$ gives 20.18 g. *erythro-1-phenyl-1-methoxy-2-phthalimido-3-hydroxypropane* (XI), white crystals, m. 104–8° (from Et$_2$O). A soln. of 5 g. XI in 20 ml. abs. alc. treated with 30 cc. *N* alc. soln. N$_2$H$_4$.H$_2$O gives 2.9 g. *erythro-1-phenyl-1-methoxy-2-amino-3-hydroxypropane* (XII), green oil; *p-nitrobenzoate* (*vide infra*), m. 163–4°. Refluxing 3.35 g. IV with 80 ml. abs. alc. gives 4 g. *Et erythro-2-amino-3-phenyl-3-methoxypropionate-HCl* (XIII), m. 168° (decompn.). A soln. of 2.63 g. XIII in 7 ml. MeOH treated with a soln. of 0.25 g. Na in 5 ml. MeOH gives 2.31 g. *Et erythro-3-amino-3-phenyl-3-methoxypropionate* (XIV), as an oil. A soln. of 9.3 g. XIV in 100 ml. dry Et$_2$O treated with 1.87 g. LiAlH$_4$ in 87 ml. dry Et$_2$O gives 5.85 g. *erythro-1-phenyl-1-methoxy-2-amino-3-hydroxypropane* (XV) as an oil. A soln. of 0.2 g. XV in 10 ml. H$_2$O treated with 0.22 g. *p*-O$_2$NC$_6$H$_4$COCl in 10 ml. dry Et$_2$O and 4 ml. *N* NaOH gives 0.13 g. product which recrystd. from 60% alc. gives 0.09 g. *N-p-nitrobenzoyl deriv.* of XV, m. 163–4°. Heating 0.84 g. XV with 5 ml. 60% HBr gives 1.13 g. of oil *threo-1-phenyl-2-amino-1,3-dihydroxypropane* (XVI). A soln. of 0.2 g. of XVI in 0 ml. H$_2$O treated with a soln. of 0.11 g. *p*-O$_2$NC$_6$H$_4$COCl in 10 ml. Et$_2$O and with 4 ml. *N* NaOH gives 0.05 g. *N-p*-nitrobenzoyl deriv. of XVI, m. and mixed m.p. 194° (from abs. alc.). A soln. of 11.3 g. XI in 20 ml. abs. pyridine treated with 11

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S/123/62/000/008/012/016
A004/A101

Method of producing ceramics ...

crushed at 5 - 50 ton/cm^2 pressure and then roasted in a shielded atmosphere, while the temperature is gradually increased.

A. Mazurkevich

[Abstracter's note: Complete translation]

Card 2/2

S/123/62/000/008/012/016
A004/A101

AUTHORS: Wrzosek, P., Michalik, N., Hajok, G.

TITLE: Method of producing ceramics for cutting-tool bits and other parts

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 8, 1962, 14, abstract 8B93 P (Zakłady Mechaniczne w Łabędach. Pol'sk. pat. kl. 40 b, 2, no. 44249, 5.04.61)

TEXT: The method of producing ceramics for tool bits consists in that aluminum oxide powder is mixed with water, binders are added in the form of nitrates of silver, magnesium, cobalt, copper and others dissolved in water, and also molybdic and tungstic acid dissolved in ammonia, and silicic acid in the form of ordinary or colloidal solutions prepared in water or in other liquids in quantities up to 50% of the dry aluminum oxide powder weight. The solution obtained is dried while it is continuously stirred to ensure the crystallization of the finest particles of the binding additives. To precipitate the metal and the silicon carbides, the obtained product is roasted at 300 - 1,500°C. For final drying of the product and removal of the chemically bound water and gases (e.g. NO_2, SO_2, SO_3, Cl_2) it is, after a preliminary grinding and screening,

Card 1/2

FAFLOVA-CHALUPOVA, E.; HAJNY, J.

Result of local application of antibiotics on secondary flora in empyemas due to mixed infection. Bratisl. lek. listy 34 no.1: 29-34 Ja '54.

1. Z II Interneho oddelenia (prim. dr. P. Eichler) a z laboratorneho oddelenia (prim. dr. V.P.Kurti) liecebne pre tbc, Vysne Hagy)
(ANTIBIOTICS, therapeutic use,
*empyema, pleural, eff. of local admin. on secondary flora)
(EMPYEMA, PLEURAL, therapy,
*antibiotics, eff. of local admin. on secondary flora)

HAJNSEK, Franjo, dr.

Nocturnal non-convulsive epileptic seizures. (Clinical and electroencephalographic studies. Lijecn. vjesn. 86 no.10: 1175-1194 O '64.

1. Iz Neuropsihijatrijske klinike Medicinskog fakulteta u Zagrebu.

HAJNSEK,F.; ZESKOV,P.; HRCKO,N.

Electroencephalographic changes in hydrocephalus of non-neoplastic origin. Neuropsihijatrija 11 no.1:39-47 '63

1. Iz Neurologko-psihijatrijske klinike (predstojnik:prof.dr. R.Lopasic) i Klinike za djecje bolesti Med. fakulteta u Zagrebu (predstojnik: prof.dr.P.Erak).

HAJNSEK, Franjo, dr.

Current status of the treatment of epilepsy. Lijecn. vjesn. 83 no.8:801-806 '61.

1. Iz Neurolosko-psihijatrijske klinike Medicinskog fakulteta u Zagrebu.

(EPILEPSY ther)

HAJNSEK, F.; BOHACEK, N.

Our experience with therapy of some refractory forms of epilepsy with Ospolot. Neuropsihijatrija 9 no.4:316-324 '61.

1. Iz Neurolosko-psihijatrijske klinike Medicinskog fakulteta u Zagrebu (Predstojnik: Prof. dr R. Lopasic)

(EPILEPSY ther)
(HETEROCYCLIC COMPOUNDS ther)
(MUSCLE RELAXANTS ther)

ZESKOV, P.; HAJNSEK, F.

Abdominal epilepsy. Neuropsihijatrija 8 no.4:317-324 '60.

1. Iz Klinike za djecje bolesti (Predstojnik: Prof. dr. N. Skrivaneli) i Neurolosko-psihijatrijske klinike Med. fakulteta u Zagrebu (Predstojnik: Prof. dr. R. Lopasic)

(EPILEPSY diag) (ABDOMEN ACUTE diag)

HAJNSEK,F.; GRAUER,H.; SARWER-FONER,G.J.

Review of new drugs used in psychiatry. Neuropsihijatrija 7 no.3:196-210 '59.

1. Iz psihijatrijskog odjela Queen Mary Veterans Hospital, Montreal, Kanada, sef: T.E. Dancey.
(TRANQUILIZING AGENTS)

HAJNSEK, Franjo, Dr.

Electroencephalography and its possibilities in the diagnosis of neurologic diseases. Lijec. vjes. 77 no.5-7:286-299 May-July 55.

1. Iz Neurolosko-psihijatrijske klinike Medicinskog fakulteta u Zagrebu. From Neurological Dept. University of Zagreb.

(ELECTROENCEPHALOGRAPHY, in various dis.
epilepsy & brain cancer, technic & methods (Ser))
(EPILEPSY, diag.
EEG, technic & methods (Ser))
(BRAIN, neoplasms
diag., EEG, technic & methods (Ser))

HAJNSEK, F.

Psychosis with myxedema, case report. Neuropsihijatrija 3 no.3-4:264-267 1955.

1. Dept. of Neurology and Psychiatry, Faculty of Medicine, Zagreb.

(PSYCHOSES, compl.
myxedema, ther., thyroid gland extract. (Ser))
(MYXEDEMA, compl.
psychoses, ther., thyroid gland extract. (Ser))
(THYROID GLAND,
extract, ther. of psychoses with myxedema. (Ser))
(TISSUE EXTRACTS, therapeutic use,
thyroid extracts in myxedema with psychoses. (Ser))

HAJNIS, Karel

Examination of the methods of calculating the skull capacity from linear dimensions. Cs morfologie 10 no.2:220-233 '62.

1. Antropologicky ustav Karlovy university, Praha.

*

FETTER, Vojtech; HAJNIS, Karel

Basic body dimensions of adults of the 2nd Spartakiade. Acta univ. carol. [med.] 8 no.1:13-31 '62.

1. Katedra antropologie prirodovedecke fakulty University Karlovy v Praze.

(ANTHROPOMETRY) (SPORTS)

HAJNI, Istvan

Homemade magnetophone with the quality of a studio magnetophone. Radiotechnika 13 no.11:428-430 N '63.

HAJNI, Ianvan

Homemade studio quality [illegible]. Radiotekhnika 17 no.3
368-369 O '63.

VAJDA, Zoltan; HAJNI, Istvan

Supersonic frequency distortion meter. Radiotechnika 13 no.9: 322-324 S '63.

VAJDA, Zoltan; HAJNI, Istvan

Remark about the article by H.L. entitled "Automatic battery charger," published in "Radiotechnika," no.2, 1963. Radiotechnika 13 no.6:233 Je '63.

HUNGARY

[redacted], Antal, HAJNAL-PAPP, Maria; Medical University of Pecs, Biophysical Institute (Pecsi Orvostudomanyi Egyetem, Biofizikai Intezet).

"The Effect of Radioactive Radiation on Cardiac Activity."

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol XXIII, No 4, 1963, pages 315-321.

Abstract: [English article, authors' English summary modified] The effect of radioactive radiation on cardiac activity still presents an unsolved problem. Experimental results described in a previous paper and in this article indicate that such effects should be taken into consideration. The results also suggest that some trace elements play a role in the effect. In these experiments the effect of β-radiation was dealt with but it is likely that contaminants emitting α-rays may also have been involved. The problem can not be considered solved because earlier results could not, thus far, be reproduced. Other factors may also play a role and these should be examined in future experiments. The decisive role in the effect is thought to be played by radiation. 3 Eastern European, 4 Western references.

1/1

HAJNAL, Tibor, Dr.

Quantitative data for the evaluation of searching activities in tuberculosis clinics. Tuberkulozis 12 no.7:164-165 July 59

1. A Budapesti fovarosi III. ker. TBC-s Gondozo Intezet (kozponti igazgato: Szakkay Antal dr. vezeto-foorvos: Hajnal Tibor dr.) kozlemenye.
(TUBERCULOSIS, statist.)

KERTAY, Nandor; FERENCZI, Gyorgy; HAJNAL, Tibor; FODOR, Tamas

Resistance studies with the tuberculosis bacteria of new patients in Budapest. Tuberkulozis 12 no.2:40-43 Feb 59.

1. Az Orszagos Koranyi Tbc. Intezet (Igazgato-foorvos: Boszormenyi Miklos dr. Kandidatus, tumomanyos vezeto: Foldes Istvan dr. kandidatus) mikrobiologiai osztalyanak (osztalyvezeto: Kertay Nandor dr. kandidatus) es a Budapesti Tbc. Gondozointezetek (igazgato: Szakkay Antal dr.) munkakozossegenek kozlemenye.

(MYCOBACTERIUM TUBERCULOSIS, eff. of drugs on antituberculotic drugs, isolation of resistant strains from new patients (Hun))

HAJNAL, Tibor, Dr.

Scientific research work in institutions for tuberculosis care.
Tuberkulozis 11 no.3-5:84-87 Mar-May 58.

1. A Budapesti fovarosi III. ker. TBC. Gondozo Intezet (kozponti igazgato: Szakkay Antal dr., vezeto foorvos: Hajnal Tibor dr.) kozlemenye.
(TUBERCULOSIS
med. research in outpatient tuberc. clinics in Hungary (Hun))
(OUTPATIENT SERVICES
tuberc. clinics in Hungary. med. research in (Hun))
(RESEARCH
med., in tuberc. outpatient clinics in Hungary (Hun))

HAJNAL T.

EXCERPTA MEDICA Sec 17 Vol 5/5 Public Health May 59

1445. THE EPIDEMIOLOGICAL SIGNIFICANCE OF UNKNOWN SOURCES OF INFECTION AND THE RATIONAL WAY OF THEIR DETECTION - Az ismeretlen fertözöforrás járványtani jelentösége és feltárásának racionalis módja - Hajnal T. Budapesti III. ker. TBC. Gondozóint. Budapest - TUBERK.KÉRD. (Budapest) 1957, 10/12 (233-238)

As long as serial examination of the total population is impossible examination of contact persons is recommended as the most rational system for the detection of sources of infection.