KOVAR, J.

KOVAR, J. ; SKLENAR, I.

Welding metal valves. p. 393 (Slaboproudy Obzor. Praha. Vol. 15, no. 8, Aug. 1954)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, June 1955, Uncl.

CZECH

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Δ¹-Piperidines. I. Reduction of N-methylpiperidone. Rudolf Lukeš and Jan Kovář (Vysoká škola chem., Praha, Czech.). Chem. Listy 48, 304-18(1954).—The reduction of N-methyl-2-piperidone (I) with Na in BuOH gave, besides 4-8% N-methylpiperidine (II), 18-23% N-methyl-2-(N-methyl-Δ¹-piperid-3-yl)piperidine (III), 30-45% 1-(N-methylamino)-5-(N-methyl-Δ²-piperid-3-yl)pent-4-ene (IV) and 8-13% MeNH(CH₂)₄CH₂OH (V). Similar mixt. of bases was obtained by electroreduction of N-methylglutarimide (VI) which yielded, besides 40% I, 15% of the lower boiling bases, mostly MeNH₂ and II, and only 1.5% of the higher boiling bases consisting of III and IV. No V was found in the product of electroreduction of VI. I, b₁₄ 99°, 85 g., p-MeC₆H₄SO₂Cl. Steam distn. of the mixt. yielded 34.1% N-methyl-2-(N-methyl-3-piperidyl)piperidine (VIII), b₁₄ 122-3°; picrate, m. 202-4° (from H₂O). The residue after the steam distn. gave 48.9% of the tosyl deriv. of VII, b₁.₅ 214-17°; m. 72-3° (from Et₂O). The tosyl deriv. of VII (1 g.) refluxed 8 hrs. with 0.8 g. 70% LiAlH₄ in 100 ml. Et₂O gave 91.6% VII. The MeOH fraction of the chromatography of the crude bases gave 2 g. V, b₁₄ 114°. In other expts., the HCl salts obtained by the steam distn. were hydrogenated over Raney Ni; the product chromatographed, and the C₆H₆ fraction sepd. by means of benzoylation into [illegible] Bz deriv. of VII, b₁.₅ 203°. The

obtained by the steam distn. of the [illegible] with 22 g. I were chromatographed, the C_6H_9 fraction distd. (0.8 g., b. 140°), hydrogenated over PtO_2, and treated with

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[illegible] Δ²-Piperideines. II. Formation of N-methyl-Δ²-piperideine (δ-methylaminovaleraldehyde). Rudolf Lukeš and Jan Kovář (Vysoká škola chem., Prague). Chem. Listy 48, 883-4; Collection Czechoslov. Chem. Commun. 19, 1227-30.

(NEW)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825620011-6"

Rudolf Kuder

in 200 ml. of the same buffer, bringing the pH to 7.2, and allowing the mixt. to stand 144 hrs. at 21°, gave, after acidification with 100 ml. concd. HCl, heating 4 hrs. on the steam bath, and evapg. in vacuo, a partly cryst. residue. Ether extn. yielded 1 g. unidentified oily residue, aq. layer was extd. with $CHCl_3$, the ext. evapd., the residue alkalized with 50% NaOH, and extd. with Et_2O to give *N*-methylpiperidine (VI) (*picrate*, m. 218–19°), II, b_{10} 101–3°, b_{11} 100.5–1°, and V (2.7%) (*HCl salt*, m. 167–7.5°; *picrate*, m. 155.2–5.8°; *semicarbazone hydrochloride*, m. 200–1°). The alkalized residue after the $CHCl_3$ extn. contained VI; *picrate*, m. 222–3°. Better yield (52%) of V was obtained by the reduction of 5 g. II in 60 ml. abs. EtOH with 4 g. Na. The product was acidified with HCl in MeOH, and the mixt. titrated with NaOH to Me orange. The mixt. treated with IV in a similar manner as described gave by $CHCl_3$ extn. 1.5 g. V, b_{11} 103–4°; *HCl salt*, m. 158–9°; *picrate*, m. 153–5°; *semicarbazone hydrochloride*, m. 204–4.5° (from EtOH); *semicarbazone*, m. 163–4.5° (from EtOH). The aq. layer probably contained $MeNH(CH_2)_3OH$.

M. Hudlicky

Kovar, J.

"Correlation.

p. 656 (Chemie, Vol. 9, no. 5, Nov. 1957)

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

KOVAR, J.

Nomenclatu e andsymobols in sterochemistry.

P. 104. (Chemie, Vol. 9, no. 1, Apr. 1957, Praha, Chexechoslovakia)

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

CZECHOSLOVAKIA / Organic Chemistry. Natural Substar G
and Their Synethetic Analogues.

Abs Jour : Ref. Zhur. - Khimiya, No. 15, 1958, No. 50499

Author : Lukes, R; Blaha, K.; Kovar, J.
Inst : -
Title : Structure of Nitrogen-containing Substances. III. Structure of Sedamine.

Orig Pub : Chem. Listy, 1957, 51, #5, 927-936 (Czech); Collect czechosl. chem. commun., 1958, 23, #2, 306-316 (Ger).

Abstract : Stereoisomers of 2-(β-phenyl-β-oxyethyl)-piperididine-nor-sedamine (I) and nor-allo-sedamine (II) form stereoisomeric 3,4-tetra-methylene-6-phenyl-tetrahydro-1,3-oxazine (III) and allo-3,4-tetramethylene-6-phenyl-tetrahydro-

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

Abs Jour : Ref. Zhur. - Khimiya, No. 15, 1958, No. 50499

1,3-oxazine (IV), upon reaction with HCOH. In a similar manner I and n-NO_2. C_6H_4, CHO (V) gave ~80% 2-n-nitrophenyl-3,4-tetramethylene-6-phenyltetrahydro-1,3-Oxazine (VI). At the same conditions II and V gave only ~ 20% of stereo-isomeric allo-2-n-nitrophenyl-,3-4-tetramethylene-6-phenyltetrahydro-1,3-oxazine (VII). Mixture of I and II (1:1) with a mole of V yielded only VI. Compound VII may be hydrolized 60 times faster than VI. Only I led to the corresponding tetrahydrooxazine derivative, with piperonal (VIII), while II didn't react with VIII at all. Compounds derived from I were therefore most stable. Based on structure analysis, I had an erithro, and II threo structure. Therefore,

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CZECHOSLOVAKIA / Organic Chemistry. Natural Substan G
and Their Synethetic Analogues.

Abs Jour : Ref. Zhur. - Khimiya, No. 15, 1958, No. 50499

upon methylation of I with CH_2O and HCOOH sedamine (IX) (erithro) was formed while methylation of II yielded allo-sedamine (X) which is threo-1-methyl-2-(B-phenyl-B-oxyethyl)-piperidine. Reactions of tetrahydro derivatives described above permit determination of the general structure of corresponding B-aminoalcohols. Upon reduction of 2-phenacylpiperidine (XI) with $LiAlH_4$ I and II (ratio 1:4) were formed. Upon reduction of XI-hydrochloride with Pt (from PtO_2 in CH_3OH) (20°) were obtained: I (30% yield), II (25% yield). Methylation of I + II mixture with 37% HCOH and 95% HCOOH (12 hours 110°) led to the formation of a 75% mixture of

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

Abs Jour : Ref. Zhur. - Khimiya, No. 15, 1958, No. 50499

IX and X. Reduction of XI (after Methylation of I and II with a general yield of 42%) with $LiAlH_4$ yielded a mixture of IX and X (1:5.5) I m.p. 98-99° (from benzene petr. ether); (I) hydrochloride m.p. 158-159. (from acetone CH_3OH) M.P. of: II-112-113° (fr. benzene-betr.-ether), II chloride 153-154° (fr. acetone). From I, 37% aq. HCOH and 95% HCOOH (12 hours, 110°) IX could be prepared, 75% yield, m.p. 89-90° (from pet.-ether). By analogy II yielded X, 82% yield, m.p. 67-68°. 0.3 g II in 4 ml glacial CH_3COOH, 85 mg CrO_3 in 3 ml CH_3COOH and 0.5 ml H_2O (50-60°, ~50 min) gave XI, 34% yield. Melting points of XI and derivatives

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

Abs Jour : Ref. Zhur. - Khimiya, No. 15, 1958, No. 50499

were; XI, B.P. 165°/8mm; picrate, 161-162°, bromide 182-182.5° (from acetone-CH_3OH). From 0.5 g I and 0.375 g V in C_6H_6 (3 hours of azeotropic distillation of water) VI was prepared (85% yield). M.P. of VI and derivatives; VI 118-119° (fr. ether-pet. ether), VI-picrate 208-209°, VI-chlorohydrate 212-213 (from acetone-CH_3OH). From a mixture of 250 mg I and 250 mg II with 190 mg V were obtained 250 mg VI and 180 mg of regenerated II. 200 mg VI in -0.5 n HCl (48 hours, 20°) yielded 165 mg VI. At 100° VI was hydrolyzed to I and V in 1 hour. As decribed earlier II and V (upon chromatography) gave VII, 12.1% yield, m.p. of derivatives: VII -

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

Abs Jour : Ref. Zhur. - Khimiya, No. 15, 1958, No. 50499

125-126° (fr. benzene pet. ether); picrate - 177.5-178.5°. Boiling II and V in chlorobenzene for 6 hours, led to the formation of 42.5% VII, which can be hydrolyzed in 3 hours to II and V (90%) by 0.5 n HCl, at ~20°. From 0.25 g I and 0.15 g VIII, in boiling chlorobenzene, 2-(3,4-methylene-dioxyphenyl)-3,4-tetramethylene-6-phenyltetrahydro-1,3-Oxazine, 0.205 g yield, m.p. 117-118° (fr. pet. ether); picrate m.p. 209° (fr. acetone - CH_3OH) was prepared. In benzene this reaction could not be achieved. II didn't react with VIII, even in chlorobenzene. upon reaction of I with an aq. solution of HCOH in presence of K_2CO_3 (10 hours, ~20°) III was formed, 90% yield, B.P. 175°/12 mm or 165°/8mm,

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

Abs Jour : Ref. Zhur. - Khimiya, No. 15, 1958, No. 50499

m.p. 39-40°, chlorohydrate's m.p. 184-186° (fr. acetone), picrate's m.p. 140°, chlorohydrate's m.p. 184-186° (fr. acetone), picrate's m.p. 140° (from alc). III could not be hydrolyzed appreciably upon boiling with an aqueous-alcoholic sol. of HCl. Upon reduction of III by $LiAlH_4$ in ether (1.5 hour boiling) IX was formed, 87% yield. A similar reaction of 0.5 g II and CH_2O yielded 46 mg of IV, b.p. 160-165°/8 mm, picrates m.p. 155° (from water). Upon slow distillation of 130 mg IV with 10 ml alcohol and 1 ml 1n HCL, 95 mg II were prepared. CH_2O was also formed. Upon reduction of IV by $LiAlH_4$ in ether X was obtained with a 66% yield. Article II, see R. Z. Khim, 1957, 51108. -- J. Plesek.

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KOVAR, J

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CZECHOSLOVAKIA / Organic Chemistry. General and Theoretical Topics of Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Author : Rudolf Lukes, Jan Kovar, Jan Kloubek, Karel Blaha.
Inst : -
Title : Configuration of Nitrogen Containing Substances. IV. Absolute Configuration of Optically Active β-Amino-β-Phenylpropionic Acid.

Orig Pub: Chem. listy, 1957, 51, No 8, 1501-1509.

Abstract: The absolute configuration of optically active substituted β-amino-β-phenylpropionic acids was established by the correlation with α-aminophenylacetic acids, the configuration of which is known.

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CZECHOSLOVAKIA / Organic Chemistry. General and Theoretical Topics of Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: The lengthening of the racemate chain or of the optically active α-aminophenylacetic acid according to Arndt-Eistert reaction did not succeed, because chlorides of corresponding N-formyl- or N-tosylsubstituted acids did not produce diazoketones. 3.2 g of α-phthalimidophenylacetic acid (I) chloride, melting point 143 to 144° (from benzene) is obtained of 4 g of I and 10 ml of $SOCl_2$ (1 hour boiling), that acid chloride, interacting with ether solution of CH_2N_2, produces α-phthalimidophenylacetyldiazomethane (II), yield 88%, melting point 135.5 to 136.5° (from CH_3OH). Only resin-like products are obtained by boiling II with Ag_2O

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CZECHOSLOVAKIA / Organic Chemistry. General and Theoretical Topics of Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: in CH_3OH, with aniline in the presence of $AgNO_3$, with collidine in benzyl alcohol, and by ultraviolet irradiation of the methanol solution. The solution of 1.6 g of 2-amino-2-phenylethanol (III) in 5 ml of C_5H_5N is added at 0° to the solution of 4.3 g of n-toluenesulfochloride (IV) in 8 ml of C_5H_5N, heated 1 hour in a water bath, and 0.8 g of 2-tosylamino-2-phenyl-1-chlorethane (V) is obtained, melting point 167 to 167.5° (from alcohol). After the addition (at below 0°) of the solution of 1.75 g of IV in 5 ml of C_5H_5N to 0.8 g of III in 10 ml of pyridine (2.5 hours of aging

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CZECHOSLOVAKIA / Organic Chemistry. General and Theoretical Topics of Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: at below 0° and 2.5 hours of aging at 20°) the mass is cooled again, 1.75 g of IV in 5 ml of C_5H_5N is added, and after aging (3 hours at 0° and 20 hours at 20°), 2.5 g of a mixture of V and 2-tosyl-amino-2-phenyl-1-tosyloxyethane (VI) was obtained; the melting point of the mixture is 95 to 97° (from aqueous alcohol). The solution of 2 g of V + VI in 10 ml of dioxane is heated 20 min. with the solution of KCN in 10 ml of ethyleneglycol, and 1.36 g of β-tosylamino-β-phenylpropionitryl (VII) is obtained, melting point 145 to 145.5°. At the heating (90 min. at 55 to 57°) of III solution in mixed dioxane and alcohol (2 : 1) with 10%-ual H_2O_2, β-tosylamino- β-phenylpropionamide (VIII) is produced, yield 82%, melting point 214 to 215°

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CZECHOSLOVAKIA / Organic Chemistry. General and Theoretical Topics of Organic Chemistry. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: (from acetone). VIII is not reduced by $LiAlH_4$, it does not react with NaOBr solution at heating, and is not saponified. D-(-)-2-amino-2-phenylethanol, melting point 74 to 76°, $[\alpha]^{18}_D = -24.5°$ (c = 4.90, CH_3OH), and L-(+)-2-amino-2-phenylethanol (XI) are produced correspondingly by reducing D-(-)- and L-(+)-α-aminophenylacetic acids (IX acid, X acid) with $LiAlH_4$ (RZhKhim, 1955, 28771). A mixture of ditosyl- and chloroderivatives (melting point of the mixture 85 to 101°, $[\alpha]^{16}_D = 28.4°$) is obtained of X and IV similarly as in the case of mixed V and VI; the derivative mixture

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CZECHOSLOVAKIA / Organic Chemistry. General and Theoretical Topics of Organic Chemistry. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: is converted into D-(-)-β-tosylamino-β-phenylpropionitryl [D-(-)-XII], yield 17%, melting point 143 to 144°, $[\alpha]^{18}_D = -31.6°$ (c = 1.17, alcohol). Similarly to VIII, D-(-)-β-tosylamino-β-phenylpropionamide [D-(-)-XIII] is obtained from XII, yield 62%, melting point 238 to 240° (from acetone-alcohol, 5 : 1), $[\alpha]^{19}_D = -62.3°$ (c = 1.47, C_5H_5N). Similarly to XII, L-(+)-XII, melting point 143 to 145° (from benzene), $[\alpha]^{20}_D = +29.9°$ (c = 1.77, alcohol), is synthetized of impure XI via a mixture of tosyl derivatives with a yield of 27%; L-(+)-XIII (XIV) is obtained from L-(+)-XII similarly to VIII, yield 49%, melting point 239 to 241° (from acetone), $[\alpha]^{20}_D = +67.4°$ (c = = 1.81, C_5H_5N). Ethyl ester of β-amino-β-

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CZECHOSLOVAKIA / Organic Chemistry. General and Theoretical Topics of Organic Chemistry. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: and others, Ber., 1910, 43, 2020), D-(-)-β-formylamino-β-phenylpropionic acid is produced, melting point 134 to 135° (from water), $[\alpha]^{22}_D = -118.2°$ (c = 1.2, alcohol), it is converted with HCl in alcohol into D-(-)-XV (XVII), yield 71%, boiling point 107°/1.8 mm, $[\alpha]^{18}_D = -13.2°$, $n^{20}_D = 1.5130$, $d_4^{18} = 1.0659$. Ethyl ester of β-tosylamino-β-phenylpropionic acid (XVIII) is prepared of XV and IV by heating 1 hour in C_5H_5N in a water bath, yield 53%, melting point 79° (from benzene - petroleum ether). After having been heated 15 hours with 8 n. NH_3 in alcohol in a sealed tube, XVIII produces VIII (95%). Similarly to XVIII, D-(-)-XVIII (XIX) is produced of XVII and IV; XIX

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CZECHOSLOVAKIA / Organic Chemistry. General and Theoretical Topics of Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 18, 60814.

Abstract: is an oil, $[\alpha]^{18}_D = -30^\circ$ (c = 3.5, alcohol). XIII is produced at the interaction of XIX with NH_3 in alcohol. It is proved by the above that the configuration of (-)-XVI at the asymmetric C is the same as that of IX (compare with RZhKhim, 1957, 22890). C_6H_5COCl and XV produce ethyl ester of β-benzoylamino-β-phenylpropionic acid (XX), yield 80%, melting point 111 to 112° (from 50%-ual alcohol). D-(+)-XX (XXI) was similarly prepared of XVII, melting point 119°, $[\alpha]^{19}_D = +31.6^\circ$ (c = 1.1, $CHCl_3$), $[\alpha]^{21}_D = -2.6^\circ$ (c = 1.2, alcohol). β-benzoylamino-β-phenylpropionamide, yield 65%,

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Distr: 4E2c(j)

Absolute configuration of β-hydroxy-β-phenylpropionic acid. R. Lukeš, K. Blaha, and J. Kovář (Czechoslovak Acad. Sci., Prague). *Chem. & Ind.* (London) 1958, 627-8.—From β-PhCH(OH)CH$_2$CO$_2$R (I) (R = OH) (II), obtained from the racemate by resolution with brucine, was prepd. I (R = OEt) and from this I (R = NH$_2$) (III), m. 105°, $[\alpha]^{22}$ 20°. III kept 0.5 hr. with NaOBr soln. (ice cooling) followed by addn. of excess NaOH and stirring 1 hr. at 40° gave *PhCH(OH)CH$_2$NH$_2$* (IV); *hydrochloride* (V), m. 206° (Et$_2$O-EtOH), $[\alpha]^{22}$ 35° (c 2.0, H$_2$O). V also was prepd. by reduction of L(+)-mandelamide; thus II belongs to the L-series.

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Country : Czechoslovakia
Category : Organic Chemistry - Theoretical Organic Chemistry.

19284

Abs. Jour. :

Author : Likes, R.; Kovar, J.; Kloubek, J.; Blaha, K.
Institut. :
Title : Configuration of Nitrogen-Containing Substances. IV. Absolute Configuration of Optically Active Beta-Amino-Beta-Phenyl-Propionic Acid.
Orig. Pub. : Collect. czechosl. chem. commun., 1958, 23, No 7, 1367-1376

Abstract : See RZhKhim, 1958, 60814.

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F-3. - G-1

Card : 1/7

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

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81559.

of 37% formaldehyde and 2 grams of potassium carbonate in 15 ml of alcohol (for 48 hours), trans-3-methyl-4,5-tetramethylene oxazolidine (trans II) is formed (yield 1.3 grams, b.p. 80-85° C./13 mm., n^{20}_{D} 1.4737, d 0.9965), the reduction of which with lithium aluminum hydride (0.3 gm) leads to trans-2-dimethylamino cyclohexanol (trans III) [yield 0.15 grams, b.p. 85-90° C./13 mm.; hydrochloride (HC), m.p. 183-184° C. (from alcohol-ether); hydrobromide (HB) m.p. 169° C. (from alcohol-ether)], identical to the compound that was obtained in a 60% yield from trans-2-chloro cyclohexanol (IV) and 30% $(CH_3)_2NH$. In the same way from HC cis-I and formaldehyde (5 days at -20° C.) was obtained cis-II (yield 63%, b.p. 67° C./

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CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81559.

13 mm., $n^{20}D$ 1.4730, d^{20}_4 0.9978), which was reduced with $LiAlH_4$ to cis-III [yield 0.136 grams (from 0.14 grams of cis-II), m.p. 43-46°C.; HC m.p. 179-180°C. (from acetone containing 4% methanol); picrate (PC) m.p. 165.5 - 166.5°C. (from water)], was identical with the sample obtained by boiling (30 hours) cis-2-aminocyclohexanol (cis-V) with 37% CH_2O and 95% HCOOH. In the same way from one gram of trans-2-benzylamino cyclohexanol (trans-VI) was synthesized trans-3-benzyl-4,5-tetramethylene oxazolidine (trans-VII) (yield 0.9 grams, b.p. 165-170°C./9 mm., which by the reduction with $LiAlH_4$ is converted into trans-2-methyl benzylamino cyclohexanol (trans VIII) [quantitative yield, b.p. 165-170°C./12 mm., 130°C./2 mm.,

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

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81559.

148-150°C. (from petroleum ether), it is not reduced with $LiAlH_4$ and upon heating with aqueous - alcoholic HCl, formaldehyde is split off. From the nature of the reaction with C_6H_5MgBr, it is possible to distinguish the condensation products of aminoalcohols with aldehydes from the isomeric methylamino ketones. By the reaction of C_6H_5MgBr on 1-methyl-2-phenazyl piperidine (or on its HB) in ether (12 hours boiling), 1-methyl-2 (β -oxy- β, β -diphenyl ethyl)-piperidine is formed, m.p. 118-119°C. (from petroleum ether), which by the oxidation with CrO_3 in acetic acid forms benzophenone. In contrast to this from the action of C_6H_5-MgBr on 3,4-tetramethylene-6-phenyl tetrahydroxazine (X), there is formed 1-benzyl-2-(β -oxy- β -phenylethyl)-pi-

Card : 6/7

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

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81560.

Author : Kovar J., Blaha K.
Inst :
Title : The Configuration of Nitrogen-Containing Compounds. VI. The Configuration of the Substituted 2-Amino Cyclohexanols.

Orig Pub: Chem. listy, 1958, 52, No 2, 283-289.

Abstract: The splitting rate of substituted cis-4,5-tetramethylene oxazolidines (TMO) under the action of 2,4-dinitrophenyl hydrazine in water - alcoholic H_2SO_4 is about ten times less than the corresponding trans compounds. This difference in the speed of splitting can be used to establish the configura-

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

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81560.

tion of the cis- and the trans-aminocyclohexanols, and the N-substituted aminocyclohexanols, which by the condensation with p-$NO_2C_6H_4CHO$ (I) formed TMO of the same configuration. The hydrogenation of o-acetamid phenol on Raney Co in alcohol (150-160°C., 100 atm.), leads to the cis-2-acetamido cyclohexanol (II), yield 20.3%, m.p. 143-144°C. (from acetone); the hydrochloride (HC) m.p. 186-186.5°C. Cis-2-aminocyclohexanol (cis-III) is obtained in a 89% yield from the HC of II by the conventional method, m.p. 73-75°C. The trans-N-benzoyl-2-methylamino cyclohexanol is permitted to react with $SOCl_2$ (2.5 hours at 60°C.), poured into ether, cooled off, the separated product is boiled with 10% HCl (5 hours), and cis-2-methylamino cyclohexanol (cis-IV) is obtained in the form of HC, m.p. 205-206°C.

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

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81560.

(from alcohol - acetone); cis-IV, boiling point 100-110 C. (on a water bath/8mm.), m.p. 38-40°C.; the picrate (PC), m.p. 141-142°C. (from water). Upon shaking trans-2-chloro-cyclohexanol with an aqueous solution of CH_3NH_2 (24 hours), trans-IV is obtained, yield 66%, b.p. 113°C./21 mm., HC m.p. 121°C. (from acetone containing 10% methanol). The heating of four grams of trans-III with 3.2 grams of $C_6H_5CH_2NH_2$ in alcohol (8 hours at 145-155°C.) leads to the formation of trans-2-benzylamino cyclohexanol (trans-V), [b.p. 125-127°C./0.6 mm., m.p. 73°C.; PC, m.p. 134-135°C (from 50% alcohol); HC, m.p. 204-205°C (from acetone containing 10% alcohol)], which forms trans-N-benzoyl-2-benzyl-

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amino cyclohexanol with C_6H_5COCl in benzene in the presence of NaOH, [yield 77%, m.p. 116.5-117.5°C. (from benzene - petroleum ether)], which is converted upon boiling with $SOCl_2$ to cis-V, m.p. 67°C. (from petroleum ether); HC m.p. 248-250°C. (from alcohol - acetone), ГС m.p. 157-158°C. (from water). Cis-V was also synthesized by the reduction of Shiff's base, which was obtained from cis-III and C_6H_5CHO in benzene with the help of lithium aluminum hydride, yield 74% (in the form of HC). Upon boiling equimolar amounts of aminocyclohexanols and I in C_6H_5Cl, with the simultaneous distillation of water azeotrope (7 hours), the corresponding TMO were obtained. Further are listed the starting aminocyclohexanol, the TMO obtained, yield in %, m.p. in °C. (from petroleum ether

KOVAR, J.

CZECH/8-52-11-9/30

AUTHORS: Lukeš, R., Kloubek, J., Kovář, J. and Bláha, K.

TITLE: A Note on the Hess Synthesis of Hygrine (K Hessově synthese hygrinu)

PERIODICAL: Chemické Listy, 1958, Vol 52, Nr 11, pp 2081 - 2089 (Czechoslovakia)

ABSTRACT: The authors state that they are able to show that the Hess (Ref 1) synthesis of hygrine (I) actually does not yield a product identical to the natural alkaloid but to the isomer tetrahydrooxazine (XII).
The general Hess reaction of formaldehyde with amino alcohols in the presence of hydrochloric acid at raised temperatures and pressure has been re-examined with the use of a number of examples and negative results have been obtained. In fact, Hess himself informed the editors of Beilstein's Handbook that the products of the majority of the alkaline oxidation reactions gave perhpas oxazolidines or tetrahydro-oxazines (Ref 10 - First Supplement, Vol 21, 4th edition, p 262, Springer, Berlin, 1935). The authors give extensive practical details not only of the reaction of formaldehyde with α and β isomers of 2-(β phenyl-β hydroxethyl) piperidine but of

Card1/2

4

the reactions of Hess's "Hygrine". They conclude that there is no evidence for the "Hess reaction" and that the first actual synthesis of hygrine is that of F. Šorm (Chem. Obzor, 1945, 20, 136; Collections of the Czechoslovak Chemical Society, 1947, 12, 245).
There are 26 references, 5 of which are Czech, 1 Soviet, 13 German and 7 English.

ASSOCIATION: Laboratoř heterocyklických sloučenin, Československá akademie věd, Praha (Laboratory for Heterocyclic Compounds, Czechoslovak Ac.Sc.Prague)

SUBMITTED: March 24, 1958

Card 2/2

3
2 may

Distr: 4E2c(j)/4E3d

The configuration of nitrogen-containing compounds. V. Synthesis of substituted 2-aminocyclohexanols. K. Bláha and J. Kovář. *Collection Czechoslov. Chem. Communs.* 24, 102-8(1959)(in English).—See *C.A.* 52, 12864f.
M. Hudlický

COUNTRY : CZECHOSLOVAKIA

CATEGORY : Organic Chemistry. General and Theoretical Problems of Organic Chemistry

ABS. JOUR. : RZKhim., No. 23 1959, No. 82170

AUTHOR : Kovar, J.; Blaha, K.

INST. : -

TITLE : The Configuration of Nitrogen-Containing Compounds. VI. The Configuration of Substituted 2-aminocyclohexanols

ORIG. PUB. : Collect. Czechosl. Chem. Communs, 1959, 24, No 3, 797-803

ABSTRACT : No abstract.
See RZhKhim., 1958, No 24, No 81560

CARD: 1/1

1

5

Reaction of D-sabinol with selenium dioxide. F. Petrů and J. Kovář (Vysoká škola chem. technol., Prague). *Collection Czechoslov. Chem. Communs.* 24, 2079–82(1959)(in Russian). —Some reactions were given of the *compd. A*, $C_{10}H_{16}O_2$, m. 138°, obtained (*C.A.* 46, 7545*d*) by oxidation of D-sabinol with SeO_2. The corresponding *oxime*, amorphous noncryst. powder [*p-nitrophenylhydrazone*, m. 151–6° (EtOH); *2,4-dinitrophenylhydrazone*, m. 196–8° (EtOH); and *semicarbazone*, m. 126° (aq. EtOH) (decompn.)], could not be obtained in anal. purity. By a Grignard reaction of *compd. A* with MeMgI and chromatography on Al_2O_3, needles, m. 48° (EtOH) (found C 79.46, H 10.25%), were obtained. Clemmensen reduction of *compd. A* and chromatography on Al_2O_3 gave the *compd. B*, $C_{10}H_{18}O$, b_1 142–5° (bath-temp.), d^{18} 0.973, n_D^{18} 1.5201. Reduction of *compd. B* with 57% aq. HI, chromatography on Al_2O_3 and fractionation gave two $C_{10}H_{18}$ compds.: the *compd. C*, b_1 138–45° (bath-temp.), d_{20}^{20} 0.9460, n_D^{20} 1.5250, and the *compd. D*, b_1 145–8° (bath-temp.), d_{20}^{20} 0.9595, n_D^{20} 1.5434. In the attempted reduction of the *compd. A* with NaHg, the starting material, m. 136–7°, was recovered. Dehydrogenation of the *compd. A* with Se yielded the *compd. E*, $C_{10}H_{14}O_2$, lustrous plates, m. 140–1° (aq. EtOH). The phenolic character of the *compd. E* was shown by the Liebermann reaction (the presence of 2 phenolic groups was then detd. by a conductometric titration). A discussion of the exptl. results obtained was presented. Jiří Plíml

1-RDW
2 QJ (AB)
4E 2c (j)

LUKES, R.; KOVAR, J.; BLAHA, K.

Configuration of nitrogen-containing compounds. X. Configuration of aliphatic β- and γ-amino alcohols. Coll Cz Chem 25 no.8:2179-2190 Ag '60. (EEAI 10:9)

1. Laboratorium fur heterocyclische Verbindungen, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Aliphatic compounds) (Nitrogen) (Amino alcohols) (Alcohols)

PITHA, J.; HORAK, M.; KOVAR, J.; BLAHA, K.

Configuration of nitrogens containing compounds. XI. The effect of configuration on the infrared spectra of some aminohydroxytetralins. Coll Cz Chem 25 no.11:2733-2745 N '60. (EEAI 10:6)

1. Laboratory of Heterocyclic compounds and Institute of Chemistry, Czechoslovak Academy of Science, Prague.
(Nitrogen) (Spectrum, Infrared) (Amino group)
(Hydroxy compounds) (Tetrahydronaphthalene)

LUKES, R.[deceased]; DIENSTBIEROVA, V.; KOVAR, J.; BLAHA, K.

Configuration of nitrogen-containing compounds. XII.Configuration of (-)-halostachine. Coll Cz chem 26 no.2:466-470 F '61.
(EEAI 10:9)

1. Laboratorium fur heterocyclische Verbindungen, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Methylaminomethylbenzyl alcohol)
(Nitrogen)

PITHA, J.; JONAS, J.; KOVAR, J.; BLAHA, K.

Configuration of nitrogen-containing compounds. XIII. Preparation and tautomerism of aminooxazoline. Coll Cz Chem 26 no.3:834-846 Mr '61. (EEAI 10:9)

1. Jetzige Adresse: Institut fur organische Chemie und Biochemie, Tschecloslowakische Akademie der Wissenschaften, Prag (for Pitha).
2. Laboratorium fur heterocyclische Verbindungen und Institut fur organische Chemie und Biochemie, Tschechoslovakische Akademie der Wissenschaften (for Jonas, Kovar and Blaha)

(Aminooxazoline) (Nitrogen)

CZECHOSLOVAKIA

JARY, J; CAPEK, K; KOVAR, J.

Laboratory for Monosaccharides of the Technical Higher School of Chemistry, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications, Vol 8, 1963, pp 2171-2180

"Synthesis of Derivates of 3,6-Didesoxy-3-Amin-L-Idose."

CZECHOSLOVAKIA

KOVAR, J; JARY J; Blaha, K.

Laboratory of Monosaccharides of the Technical Higher School of Chemistry (for all)

Prague, Collection of Czechoslovak Chemical Communications, Vol 8, 1963, pp 2199-2205

"On the Configuration of Nitrogenous Compounds XVI. On the Oxydation of Aminoalkohols with Periodic Acids."

JARY, J.; CAPEK, K.; KOVAR, J.

Amino sugar. Pt. 2. Coll Cz Chem 29 no.4:930-937 Ap '64.

1. Laboratory of Monosaccharides, Higher School of Chemical Technology, Prague.

SOBOTKOVA, H.; KOVAR, J.; BLAHA, K.

Data on the configuration of nitrogen containing compounds. Pt. 17: Coll Cz chem 29 no.8:1898-1903 Ag '64

1. Institut fur organische Chemie and Biochemie, Tschechoslowakische Akademie der Wissenschaften, Prague (for Blaha). 2. Spolana, Neratovice (for Sobotkova). 3. Laboratorium fur Monosacharide, Technische Hochschule fur Chemie, Prague (for Kovar).

BLAHA, K.; HRBEK, J. (Jr); KOVAR, J.; PIJEWSKA, L.; SANTAVY, F.

Data on the configuration of nitrogen containing compounds. Pt. 18.
Coll Cz Chem 29 no.10:2328-2340 O '64.

1. Laboratorium fur heterocyclische Verbindungen, Tschechoslowakische Akademie der Wissenschaften, Prague und Institut fur Chemie, Medizinische Fakultat, Palacky-Universitat, Olomouc.

CZECHOSLOVAKIA

JAHY, J; HERMANKOVA, V; KOVAR, J.

Mono-Saccharide Laboratory, Technical College of Chemistry, (Laboratorium für Monosaccharide, Technische Hochschule für Chemie), Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 5, May 1966, pp 2048-2058

"Aminosugar. Part 8: Preparation of derivatives of 3,6-diamino-3,6-dideoxy-D-allose."

KOVAR, Jiri; PROCHAZKA, Jaroslav

Late results of surgical treatment of lung cancer. Sborn. ved. prac. lek. fak. Karlov. Univ. 8 no.2:233-240 '65.

1. Chirurgicka klinika (prednosta - prof. MUDr. J. Prochazka, DrSc.), Lekarske Fakulty Harlovy University v Hradci Kralove.

KOVAR, Jiri

Pulmonary cancer. Some statistical data on 655 observed cases. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad Kral) 4 no.4:399-403 '61.

1. Chirurgicka klinika v Hradci Kralove; prednosta prof. MUDr. J. Prochazka.

(LUNG NEOPLASMS statist)

KOVAR, Jiri; SKRIVANEK, Otakar.

Endobronchial chondrohamartoma. Sborn.ved.prac.lek.fak.Karlov. Univ. (Hrad.Kral.) 6 no.3:259-268 '63.

1. Chirurgicka klinika (prednosta: prof., MUDr. J.Prochazka) a Radiologicka klinika (prednosta: DrSc, prof., MUDr.J.Bastecky), Universita Karlova.

PROCHAZKA, J.; KOVAR, J.

Experiences with surgical therapy of pulmonary cancer. Rozhl.chir. 40 no.2-3:171-178 Mr '61.

1. Chirurgicka klinika lek.fak.KU v Hradci Kralove, predn.prof. dr. Jaroslav Prochazka.
(LUNG NEOPLASMS surg)
(PNEUMONECTOMY)

SIMA, Vaclav; KOVAR, Lubos

Appendectomy in infiltrates. Cas.lek.cesk. 98 no.43:1355-1358 23 O '59.

1. Chirurgicke oddeleni KUNZ Karlovy Vary, prednosta primar MUDr. Viktor Wachtfeidl.
(APPENDECTOMY)

KOVAR, M.

Clinical symptomatology in typhoid fever. Voj.zdrav.listy 19 no.1-2:31-36 Ja-F '50. (CIML 19:2)

KLOBEC, K.; KOVAR, M.

Hyperthermic therapy in infectious hepatitis. Cas. lek. cesk. 93 no.46:1281-1282 12 Nov 54.

1. Voj. nemocnice Olomouc
(HEPATITIS, INFECTIOUS, therapy
fever ther.)
(FEVER THERAPY, in various diseases
hepatitis, infect.)

KLOBEC, K., Plk., MUDr.; KOVAR, M., mjr., MUDr.; RUZNAR, St., kpt., MUDr.; VRTILEK, M., kpt., MUDr.

Various data on so called sinobronchitis. Cas. lek. cesk. 95 no. 37:1008-1015 14 Sept 56.

1. Posadkova nemocnice Olomouc.
(SINUSITIS, compl.
bronchial dis., statist. (Cz))
(BRONCHI, dis.
with sinusitis, statist. (Cz))

PELIKAN, V.; KALAB, M.; KOVAR, M.

Studies on functions of the small intestine in infectious hepatitis with special reference to dietic therapy. Cas.lek.cesk 100 no.43: 1367-1369 27 O '61.

1. Gastroenterologicka laborator PU, Olomouc, prednosta doc. MUDr. V. Pelikan. Infekcni odd. OUNZ-Prostejov, prednosta MUDr. M. Kovar.

(HEPATITIS INFECTIOUS nutrition & diets)
(INTESTINE SMALL physiol)

BENES, Jiri; KOVAR, Milan; MIKULASEK, Jiri

Recording adapter to the ATIT automatic titration apparatus.
Chem listy 58 no. 7 819-822 Jl '64.

1. Antonin Zapotocky Military Academy, Brno.

KOVAR, Milan, As., Dr.

Speech neuroses in Plzen. Cesk. otolar. 5 no.5:307-312 Oct 56.

1. Z ORL kliniky KU, pobocky v Plzni, prednosta prof. Dr. F. Kotyza.
(SPEECH,
speech neuroses (Cz))
(NEUROSES,
same)

EXCERPTA MEDICA Sec.11 Vol.10/4 Oto-Rhino-Laryngo Apr57

KOVAR MILAN

792. KOVÁŘ M. Otorhinolaryngol. Klin. KU, Pobočky, Plzeň. O experimentální dočasné únavě sluchu. Experimental temporary fatigue of hearing PRACOVNÍ LÉKAŘSTVÍ (Praha) 1956, 8/3 (182-184) Graphs 4

Aural fatigue was studied in 220 volunteers, with normal hearing and impaired hearing, by exposing them to various intensities of sound or noise for 15 min. The fatigue test carried out in a suitable way, should be introduced as a preventive examination before admission to noisy occupations. Subjects with increased fatigue found experimentally will probably be affected with greater impairment of hearing than others on remaining in the noisy environment, and it would therefore be suitable to recommend them for occupations with quiet work. Increased aural fatigue was found after exposure to noise or sound in presbyacusia, heredodegenerative cochlear impairment of hearing, Ménière's disease and also in 10% of subjects with normal hearing, decreased fatigue was found in conductivity hearing impairments. Fatigue was induced by sound or noise from an earpiece for air-borne conduction.

(XI, 17)

KOVAR, Milan

Lipoidproteinosis Urbach-Wiethe (hyalinosis cutis et mucosae). Cesk. otolar. 8 no.1:15-17 Feb 59.

1. Klinika nemoci usnich nosnich a kronich fakulty vseobecneho lekarstvi KU v Praze, pobocka v Plzni, prednosta prof. dr. F. Kotyza. M. K., ORL klinika, Plzen.
(LIPOIDOSIS, case reports
(Cz))

KOVAR, Milan; POLAK, Otakar

Hearing disorders caused by diseases of the temporal lobe. Cesk. otolar. 9 no.4:212-217 Ag '60.

1. Klinika nemoci usnich, nosnich a krcnich lekarske fakulty KU, pobocka v Plzni, prednosta prof. dr. F. Kotyza; Klinika nemoci nervovych lekarske fakulty KU, pobocka v Plzni, prednosta prof. dr. V. Pitha.

(DEAFNESS etiol.)
(TEMPORAL LOBE dis.)

L 33695-66 T GG/DJ/WE/WW/JW

ACC NR: AP6024206 SOURCE CODE: CZ/0043/65/000/011/0833/0839

AUTHOR: Kovar, Milan (Engineer; Brno); Hynst, A.—Ginsht, A.; Koza, Frantisek (Brno)

ORG: Antonin Zapotocky Military Academy, Brno (Vojenska akademie)

45
B

TITLE: Determination of hydrogen content in hydrocarbons on the basis of an interaction of neutron radiation with the substance

14

SOURCE: Chemicke zvesti, no. 11, 1965, 833-839

TOPIC TAGS: analytic chemistry, hydrocarbon, neutron radiation, radiation chemistry

ABSTRACT: The method is based on the slowing down and dispersion of neutrons; in the experimental installation a Ra-Be (50 mg Ra) neutron source was used. The intensity of the secondary proton radiation leaving the investigated substance is measured; this radiation results from the interaction of the neutrons with hydrogen atoms. The intensity of the radiation is not influenced by the specific weight of the hydrocarbon. The accuracy of the method is within 2%; it may not be used when atoms other than C and H are present. The method is suitable for continuous analyzing of such hydrocarbons as fuels and lubricating oils. Orig. art. has: 3 figures, 5 formulas, and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 03May65 / ORIG REF: 003 / SOV REF: 002

Card 1/1 PB

0915 1857

SVOBODA, Milan; KOHLICEK, Jiri; KOVAR, Miroslav

The modern concept of a Bucky table. Cesk. rentg. 15 no.6:404-407 '61.

1. Ustav hematologie a krevni transfuze v Praze, reditel prof. J. Horejsi, Dr. Sc. Chirana, n.p., Praha, zavod m odrany u Prahy, reditel J. Jozifek.
(RADIOLOGY equip & supplies)

ACCESSION NR: AP4019097 Z/0038/64/000/003/0090/0092

AUTHOR: Vozenilek, Frantisek; Kovar, Pavel

TITLE: Measurement of corrosion losses in stainless austenite steels and aluminum by a sensitive element

SOURCE: Jaderna energie, no. 3, 1964, 90-92

TOPIC TAGS: steel corrosion, steel corrosion loss, steel corrosion loss measurement, stainless steel, austenite steel, stainless austenite steel, aluminum, IT-021-12 corrosion measuring instrument, reactor, VVR-S reactor

ABSTRACT: The VVR-S reactor in Rez is moderated and cooled with distilled water. The quality of this distilled water must be kept within specified limits, according to pH and conductivity values in many cases. One of the causes of a deterioration in the water's quality can be corrosion of the material out of which the reactor working circuit is made. This circuit is primarily made out of stainless and nonmagnetic materials and aluminum in part. Small quantities of material tear away from the walls of the water circuit piping and drop into the water. Chromium, coming from the stainless steel, is a frequent corrosion

ACCESSION NR: AP4019097

producer. Authors attempted to determine amount of corrosion in this particular reactor circuit by spectral analysis. The IT-021-12 instrument, developed and tested in Rez, was used for this. This instrument has a stethoscope-like sensitive element which is placed against the object to be tested. Readouts are on an indicator panel. Findings show that this instrument can measure a corrosion loss of about 10 micrometers with an error of ± 5 micrometers. Authors recommend that 5 to 10 measurements be always executed, and the average of these readings then taken. Orig. art. has: 6 figures.

ASSOCIATION: Ustav jaderneho vyzkumu CSAV, Rez (Institute of nuclear research)

SUBMITTED: 00	DATE ACQ: 23Mar64	ENCL: 00
SUB CODE: ML, NS	NO REF SOV: 001	OTHER: 005

Card 2/2

L 31594-66 EWP(h)/EWP(1) RO

ACC NR: AP6022961 SOURCE CODE: CZ/0008/65/000/009/1070/1073

AUTHOR: Kovar, Vitezslav; Horak, Oldrich; Hatousek, Jiri 30 B

ORG: Antonin Zapotocky Military Academy, Brno (Vojenska akademie Antonina Zapotockeho)

TITLE: Apparatus for continuous preparation of low phosgene concentrations in air

SOURCE: Chemicke listy, no. 9, 1965, 1070-1073

TOPIC TAGS: phosgene, safety engineering

ABSTRACT: The authors designed an apparatus for testing analytical devices that are used for industrial safety applications. It can be also used for biological experimentation. Carbon tetrachloride is oxidized in an electrically heated platinum probe by a stream of air. The concentration of phosgene in the stream of air is regulated by the temperature of the probe, while the amount of air remains constant. The concentration of phosgene can be regulated between 0.1 and 10 micrograms per liter of air. Orig. art. has: 2 figures. [JPRS]

SUB CODE: 13, 07 / SUBM DATE: 22Jul64 / ORIG REF: 001 / OTH REF: 001

Card 1/1 BLG

KOVAR, Vitezslav; HORAK, Oldrich; MATOUSEK, Jiri

Tube detectors of industrial polluting agents for the continued control of the atmosphere. Chem prum 14 no.12:663-665 D '64

1. Antonin Zapotocky Military Academy, Brno.

L 39695-66 GD-2/RO

ACC NR: AP6009357 (A) SOURCE CODE: CZ/0078/65/000/011/0021/0021

AUTHOR: Kovar, Vitezslav (Engineer); Horak, Oldrich (Engineer); Matousek, Jiri (Engineer; Candidate of Sciences); Hala, Slavomir (Brno)

ORG: none

TITLE: Production of phosgene from carbon tetrachloride. CZ Pat. No. PV 6709-62, Class 42

SOURCE: Vynalezy, no. 11, 1965, 21

TOPIC TAGS: phosgene, carbon compound, vaporization

ABSTRACT: An Author Certificate has been issued for a low-concentration phosgene-producing unit. It includes a drying tower with a two-branch outlet pipe. One branch is connected, via a flowmeter, to a vaporizer containing carbon tetrachloride; the vaporizer, in turn, is connected to an electrically heated retort where the phosgene is produced from the vapors of carbon tetrachloride and air oxygen. The other branch is connected, via another flowmeter, to a mixer, which in turn, is connected to the phosgene producing retort. [KP]

SUB CODE: 07 SUBM DATE: 29Nov62/

Card 1/1 gd

L 42279-66

ACC NR: AP6031475 SOURCE CODE: CZ/0008/66/000/003/0347/0349

AUTHOR: Kovar, Vitezslav; Horak, Oldrich; Matousek, Jiri

ORG: Antonin Zapotocky Military Academy, Brno (Vojenska akademie Antonina Zapotockeho)

TITLE: Apparatus for continuous preparation of low concentrations of hydrogen cyanide and cyanogen chloride in air

SOURCE: Chemicke listy, no. 3, 1966, 347-349

TOPIC TAGS: cyanide, cyanogen compound, chemical laboratory apparatus

ABSTRACT: The apparatus can be adjusted to produce desired concentrations of the substances in air. Hydrocyanic acid and cyanogen chloride are supplied from the decomposition of formamide vapors in a special electrically heated cell containing aluminum oxide. The concentrations can be adjusted within the limits of 1.10^{-3} and 5.10^{-2} mg of hydrocyanic acid or cyanogen tetrachloride in a liter of air. Cyanogen chloride is produced by hydrocyanic acid in a special chlorinating tube. Orig. art. has: 2 figures. [Based on authors' Eng. abst.] [JPRS: 36,002]

SUB CODE: 07 / SUBM DATE: 07May65 / ORIG REF: 001 / OTH REF: 001

Card 1/1

HALUZICKY, M.; KOVAR,Z.; NEMEC, M.

Bone marrow transplantation in bone tumors and similar diseases. Acta chir. orthop. traum. Cech. 32 no.1:69-73 F'65.

1. Ortopedicka klinika Lekarskej fakulty University P.J.Safarika v Kosiciach (prednosta: doc. dr. M. Haluzicky, CSc.).

NEMEC, M.; KOVAR, Z.; KACHNIC, M.

Roentgenological changes of the osteoarticular system in ulcus cruris. Acta chir. orthop. traum. Cech. 32 no.3:254-261 Je '65.

1. Ortopedicka klinika (prednosta doc. dr. M. Haluzicky) a kozna klinika (prednosta doc. dr. E. Maly) Lekarskej fakulty University P.J. Safarika v Kosiciach.

L 33543-66

ACC NR: AP6023475 SOURCE CODE: CZ/0038/66/000/004/0121/0126

AUTHOR: Kovar, Zdenek; Handl, Josef

ORG: Radiological Dosimetry, UJV, CSAV, Prague (Radiologicka dozimetrie UJV CSAV)

TITLE: Twin isothermal gamma calorimeter with thermistors

SOURCE: Jaderna energie, no. 4, 1966, 121-126

TOPIC TAGS: calorimeter, thermistor, gamma radiation, radioactivity measurement

ABSTRACT: The construction of a calorimetric assembly suitable as fundamental laboratory equipment for activity standardization measurements of γ sources is described. The twin isothermal calorimeter with lead absorbing bodies is suspended in a thermostating oil bath and continuously evacuated. Thermistors are used as temperature sensitive elements. A relatively simple method of measurement and results of electric power calibration are presented. The sensitivity of calorimeter is $7.42(10)^{-2}$ deg per milliwatt. The verification measurements of ^{60}Co sample activities have proved that the new reported modification of isothermal calorimeter allows measuring activities of ^{60}Co from 20 mC and with accuracy up to 1 per cent. This paper was presented by Fr. Behounek. Orig. art. has: 5 figures, 7 formulas, and 3 tables. [NA]

SUB CODE: 18,09/ SUBM DATE: none / ORIG REF: 004 / SOV REF: 003
OTH REF: 002

Card 1/1 UDC: 539.12.082.6; 536.6; 539.166

SULAN, Z.; SEDLAK, F.; HAROUT, V.; KOVAR, Z.; DOBIAS, V.

On the problem of chronic gastritis in soldiers. Voj. zdrav. listy 34 no.3:99-101 Je '65.

1. Interni oddeleni vojenske nemocnice v Jaromeri (naceln[illegible] pl. MUDr. Vaclav Dobias) a Patologicko-anatomicky ustav Lekarske fakulty v Hradci Kralove (prednosta prof. MUDr. A. Fingerland, DrSc.)

HALUZICKY, M.; NEMEC,M.; KOVAR, Z.

Transposition of the greater trochanter in the treatment of coxa vara in infants. Bratisl. lek. listy 45 no.2:76-80 31 Ja '65

1. Ortopedicka klinika Univerzity P.J.Safarika v Kosiciach (veduci doc. MUDr. M.Haluzicky, CSc.).

KOVAR, Z.

Adjustable support stand for welding. Zvaranie 13 no.11:335 N '64.

HALUZICKY, M.; KOVAR, Z.; NEMEC, M.

Comments on the surgical treatment of coxa vara in adolescence. Acta chir. orthop. traum. Cech. 31 no.4:348-351 Ag '64.

1. Ortopedicka klinika lekarskej fakulty v Kosiciach, (prednosta doc. dr. M. Haluzicky, CSc.).

KOVAR, Zdenek

Cutting the ends of beaded tubes. Energetika Cz 14 no. 3: 137 Mr '64.

Z/038/62/000/002/003/004
D286/D303

AUTHOR: Kovář, Zdenek

TITLE: Calorimetric methods in ionization-radiation dosimetry - I

PERIODICAL: Jaderná energie, no. 2, 1962, 51-56

TEXT: The article, mostly based on Western references, describes the design and application of typical calorimeters used in absolute dosimetry of natural and artificial radioisotopes, in calibration of radium standards, and in reactor dosimetry. Sources listing such calorimeters and measuring methods are referred to and compiled at the end of this article. After a general description of the principles of calibrating radioactive sources, the author lists calorimeters for absolute calibration of alpha, beta and gamma radiators, namely differential, aneroid and liquid-type, and low-temperature calorimeters, an adiabatic calorimeter for calibrating Fricke dosimeters, calorimeters used in gamma-ray defectoscopy, and

Card 1/2

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D291/D301

21.6000

AUTHOR: Kovář, Zdenek

TITLE: Calorimetric methods in ionization-radiation dosimetry - II

PERIODICAL: Jaderná energie, no. 3, 1962, 90-93

TEXT: This is the continuation of an article, predominantly based on Western sources, describing design and application of typical calorimeters used in absolute dosimetry of natural and artificial radioisotopes, in calibrating radium standards, and in reactor dosimetry. This continuation discusses namely measuring and comparison of radium standards, and measuring of radiation energy in reactor fields. The article includes information on an adiabatic calorimeter with automatic compensation as described by M. Lecoin and J. Roberts (Ref. 43: Compt. Rend. 242 (1956), p. 1718); (Ref. 44: J. Physique Rad. 17 (1956), p. 150 A); a 'radio-balance' calorimeter employing the Peltier effect, used by the U.S. National Bureau of

Card 1/4

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Z/038/62/000/003/004/004
D291/D301

Calorimetric methods...

Standards (a similar microcalorimeter was also used by G.B. Gorshkov and N.S. Shimanskaya of the Radiation Research Institute USSR AS for standardizing Ra preparations); and an adiabatic calorimeter used for measuring the field energy of BEPO, DIDO and PLUTO reactors in Harwell. Another less accurate, but much simpler calorimetric method for measuring radiation doses in reactor fields is described by M.B. Fiveyskiy, J.S. Lazurkin and M.A. Mokulskiy (Ref. 54: Atomnaya energiya 9 (1960), no. 4, p. 321). This method is based on knowledge that the temperature of a specimen, exposed to continuous and homogeneous radiation, increases linearly for a certain period t_o, independent of the ambient temperature. This means that during t_o, the rate of heating dT/dt is given by the output of the heat source (dose intensity) Q, and the specific heat (c) of the specimen material, i.e.

$$Q = 0.418\ c\ dT/dt \qquad (7)$$

where Q is given in Mrad/hr, c in cal/gm/degree, and dT/dt in degree/hr. The constant 0.418 expresses the numerical relation between

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D291/D301

Calorimetric methods...

units 'cal' and 'erg'. For the measuring, specimens of polyethylene, polystyrene, or quartz are used, and the junction of a thermocouple is embedded into the specimen. This device permits measuring the dose rates of 30-200 Mrad/hr when connected to a portable potentiometer, and 0.5 Mrad/hr when connected to a galvanometer. In conclusion, the author states that the Dosimetry Department of the ÚJV ČSAV (Nuclear Research Institute, Czechoslovak AS) also engages in research on calorimetric measuring methods. The author thanks Academician F. Běhounek for valuable cooperation. (Technical Editor: F. Běhounek). There are 4 figures and 13 references: 2 Soviet-bloc and 11 non-Soviet-bloc. The references to the 4 most recent English-language publications read as follows: T.P. Lofthus - W.B. Mann - I.F. Paolella - L.L. Stockmann - W.J. Yonden: Res. Natl. Bur. Stand. 58 (1957), p. 169; A.R. Anderson - R.J. Waite: J. Sci. Instr. 33 (1956), p. 46; A.R. Anderson - J.J. Waite: A.E.R.E. - C/R 2253, Harwell 1960; A.R. Anderson - J.K. Linacre: Symposium on selected topics in rad. dosimetry, Vienna 1960, rep. no. RD/26.

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Calorimetric methods... Z/038/62/000/003/004/004
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ASSOCIATION: Dozimetrické oddělení ÚJV ČSAV, Praha (Dosimetry Department, Nuclear Research Institute, Czechoslovak AS)

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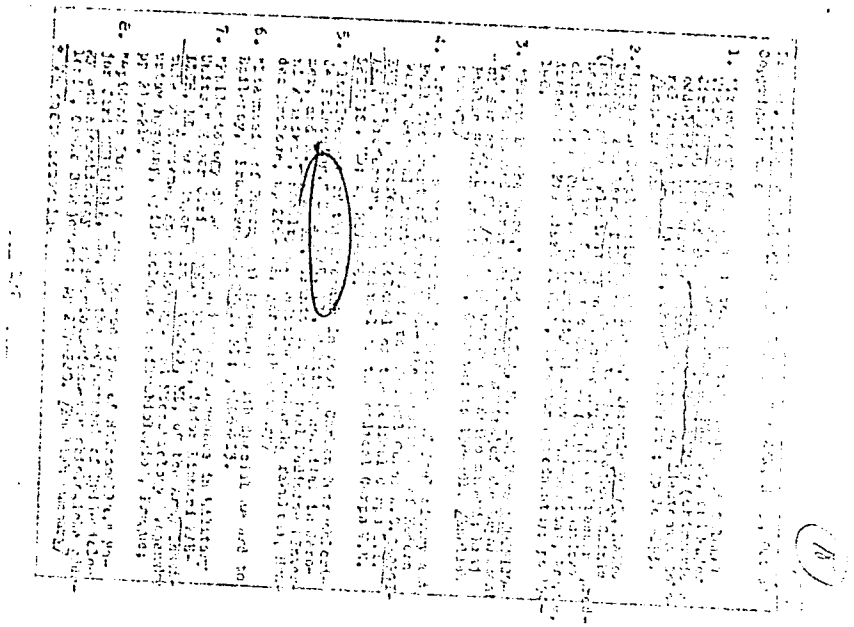
KOVAR, Z.



HALUZICKY, M.; CMELIK, M.; KOVAR, Z.; MATOSKA, J.

Effect of hydrocortisone on experimental fracture healing in mice. Acta chir. orthop. trauma. Cech. 28 no.6:499-503 D '61.

1. Ortopedicka klinika UPJS Kosice, prednosta doc. dr. M.Haluzicky, Ustav patologickej anatomie UPJS Kosice, prednosta doc. dr. I.Kutlik.
(FRACTURES exper) (HYDROCORTISONE pharmacol)

KOVAR, Zdenek

Simple calorimetric method of X-radiation dose measurements. Jaderna energie 9 no.10:319-323 O '63.

1. Radiologicka dozimetrie, Ustav jaderneho vyzkumu, Ceskoslovenska akademie ved, Praha.

KOVAR, Zdenek

Calometric methods in ionizing radiation dosimetry. Part 2.
Jaderna energie 8 no.3:90-93 Mr '62.

1. Dozimetricke oddeleni, Ustav jadernoho vyzkumu, Ceskoslovenska akademie ved, Praha.

KOVAR, Zdenek

Beading of tubes in tube plates of chemical apparatus, heat exchangers and steam boilers. Stroj vyr 10 no.11:550-554 '62.

1. Prvni brnenska strojirna, zavody Klementa Gottwalda, n.p., Brno.

CZECHOSLOVAKIA

NEMEC, M; KOVAR, Z; CMELIK, M.

Orthopedic Clinic UPJS (Ortopedicka klinika UPJS), Kosici

Bratislava, Lekarsky obzor, No 7, 1963, pp 423-426

"Congenital Scoliosis."

KOVAR, [illegible]

Tube beading into condenser tube faces of steam turbines and heat exchangers. Strojr vyr 12 no.7[illegible] 1964

1. Brnenska strojirna, zavody Klementa Gottwalda National Enterprise, Brno.

KOVARCEVIC, J.

Excavation of barley seed in Golubac Castle, p. 513,(GLASNIK, No. 5/6 1953, Belgrade, Yugoslavia)

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 1 Jan 1955, Uncl.

YAKHONTOVA, L.F.; SAVITSKAYA, Ye.M.; BRUNS, B.P.; KOVAHDYKOVA, S.N.

Sorption of erythromycin by ion-exchange resins. Med.prom. 13 no.11: 15-18 N '59. (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(SORPTION) (ERYTHROMYCIN) (ION EXCHANGE)

YAKHONTOVA, L.F.; BRUNS, B.P.; KOVARDYKOVA, S.N.

Sorption of polymyxin by synthetic carboxylic cation-exchange resins. Antibiotiki 5 no.2:5-9 Mr-Ap '60. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(POLYMYXIN) (ION-EXCHANGING SUBSTANCES)

YAKHONTOVA, L.F.; BRUNS, B.P.; CHEKULAYEVA, Yu.S.; SHELLENBERG, N.N.; VAKULENKO, N.A.; KOVARDYKOVA, S.N.

Choice of the optimal cationite in producing streptomycin by means of ion-exchange sorption. Med. prom. 15 no.1:21-29 Ja '61. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(STREPTOMYCIN) (ION EXCHANGE)

YAKHONTOVA, L.F.; BRUNS, B.P.; CHEKULAYEVA, Yu.S.; SHELLENBERG, N.N.; VAKULENKO, N.A.; KOVARDYKOVA, S.N.

Production of highly purified streptomycin sulfate by means of carboxycation exchange resins. Med. prom. 15 no.6:26-32 Je '61. (MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(STREPTOMYCIN)
(ION EXCHANGE RESINS)

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

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Effect of calcium chlorides and sodium oxalate on novocaine-adrenaline anæsthesia. B. Kolonits and F. Kövári (Magyar Orv. Arch., 1938, 39, 609—612).—In guinea-pigs $CaCl_2$ shortens, and Na oxalate prolongs, the anæsthesia. A. W. M.

COMMON ELEMENTS

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MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KOVARI, Ferenc, dr.

Mandibular ameloblastoma. Fogorv. szemle 58 no.7:205-209 Jl'65.

1. Budapesti Istvan Korhaz (igazgato: Katona, Istvan, dr.) szajsebeszeti osztalyanak (foorvos: Varga, Istvan, dr. egyetemi tanar) kozlemenye.

KOVARI, Ferenc, dr.

Recent trends in the diagnosis of actinomycosis. Orv.hetil. 102 no.32:1489-1493 6 Ag '61.

1. Istvan Korhaz Szajsebeszeti Osztaly.

(ACTINOMYCOSIS diag)

KOVARI, Gabor, foeloado

Uniform evaluation of the production machines of the construction industry and the new durability norms. Epites szemle 7 no.7:201-206 '63.

1. Epitesugyi Miniszterium Penzugyi Foosztalya.

KOVARI, Gyorgy

Modernization of the Southern railroad station of Budapest is in full swing. Vasut 12 no.5:21 31 My '62.

KOVARI, I.; FENYI, Sz.

Some experiences in the construction of gas chromatographs.
Acta phys chem Szeged 10 no.3/4:109-113 '64.

1. Institute of Organic Chemistry of Attila Jozsef University, Szeged.

KOVACS, Odon; KOVARI, Istvan

Chemistry of trimethylene-oxide derivatives.Pt.2. Magy kem folyoir 70 no.5:223-226 My '64.

1. Institute of Organic Chemistry, Attila Jozsef University, Szeged.

KOVARI, Lajos

Development of the area of the Lake Balaton. Musz elet 16 no.17:1,12 Ag '61.

(Balaton, Lake) (Hungary—Lakes)