ted with ethanol and were washed successively with ethanol/water, with ethanol and with ether.

The quantitative paper chromatography of the samples was carried out according to Saeman et al., using the solvent systems ethyl acetate-acetic acid-water (3:1:3) and, for the separation of glucose and galactose, ethyl acetate-pyridine-water (2:1:2).


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Preparation of Thiotaumorine
(Aminoethanethiosulfonic Acid)

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Recently an enzymatic transsulfuration product from β-mercapto-pyruvate and hypotaurine (2-aminoethanethiosulfonic acid) was identified as 2-aminoethanethiosulfonic acid, for which the shorter name thiotaumorine was suggested. Thiotaumorine has now been synthesized from taurine as starting material. Taurine was first transformed into phthalimidooethanesulfonyl chloride and the latter then converted to hypotaurine by a novel method. The sulfonyl chloride was first reacted with phenylhydrazine to give phthalimidooethanesulfonic phenylhydrazide which was not isolated but instead heated with an excess of phenylhydrazine and tri-n-butylamine in ethanol, in order to remove the phthaloyl group. During this treatment it was found that the sulfonylphenylhydrazide decomposed to the corresponding sulfonic acid. Hypotaurine was thus formed (yield 80%) and precipitated with methyl ethyl ketone. Thiotaumorine was then obtained from hypotaurine through treatment of the latter with ammonium polysulfide and crystallized from ethanol-water (yield 40%). Colourless crystals, m.p. about 213° (decomp.), were obtained and found to contain 22.5% cyanide labile sulfur (calc. for NH₂CH₂SH₂O₂H: 22.7%). Paper chromatography of the compound in 4 different solvent systems demonstrated only the presence of one single component. It was previously suggested that thiotaumorine might be identical with an unknown sulfur containing compound from human blood, first detected by Smith and Tuller by paper chromatography and reported to behave as taurine. This possibility could now be excluded, as the synthetic thiotaumorine was found to be clearly resolved from taurine in the solvent system used by Smith and Tuller.

Details of this work will be published later.

5. Limpricht, H. Ann. 278 (1894) 239.

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