BRIEF COMMUNICATIONS

L-INOSITOL FROM Campanula oblongifolia

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From an ethanolic extract (1.5 kg) of the leaves of Campanula oblongifolia (C. Koch) Charadzie by fractional crystallization we have isolated a substance with the composition $C_6H_{12}O_6$, mp 230-235°C, $[\alpha]_D^{22}$ 68°. The reactions of the substance for an aldose with Fehling's and Trommer's reagents and also for aliphatic hexitols with Bromphenol Blue in borate buffer were negative.

Paper chromatography in the BAW (4:1:5) and water-saturated phenol systems showed the individuality of the substance, with R_f 0.12 and 0.21, respectively [1]. Treatment of the chromatograms with benzene-potassium periodate solution and Tollen's reagent gave positive reactions for cyclic hexitols [2].

The IR spectrum had maxima at 740 and 905 cm^{-1} characterizing typical ring frequencies; at 3230-3560 cm^{-1} for stretching vibrations of OH groups; and at 1123 and 1385-1260 cm^{-1} for deformation vibrations of secondary OH groups. The lack of absorption at 853 cm^{-1} showed the absence of a free CH_2 group [3]

The hexaacetate was a compound with mp 215-220°C (ethanol); the hexabenzoate had mp 263°C (from acetone) and 252°C (from absolute ethanol) [4].

Acetonation with conc. sulfuric acid took place with the formation of a triacetone derivative with mp 212°C [5]. The substance gave no depression of the melting point with an authentic sample of L-inositol.

Thus, on the basis of the investigation performed, the substance has been identified as cyclohexane-1,2,4/3,5,6-hexaol [6], or L-inositol.

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