

The sample of holothurin was given to us by Prof. J. Chanley (New York, USA).

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AN ISORHAMNETIN GLYCOSIDE FROM THE FLOWERS OF ASTRAGALUS NOVOASCANICUS

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Continuing our investigation of the flavonoid composition of Astragalus novoascanicus Klok. [1], we have isolated a pure flavonol glycoside with a yield of 4.9%. The products of acid and enzymatic hydrolysis and of peroxide oxidation were studied by paper chromatography. It was found that the aglycone of this glycoside is identical with isorhamnetin. The sugars were compared with authentic samples of bioses and monoses, the spots being revealed with diphenylamine reagents [2]. From the colors of the spots on the chromatogram and from the R_f value it was shown that the sugar is a biose consisting of two molecules of glucose connected to one another in the 1-6 arrangement. The biose is, therefore, gentiobiose (O-6- β -D-glucosyl-D-glucose).

The position of the attachment of the gentiobiose to C-3 of the isorhamnetin was determined by UV spectroscopy using ionizing and complex-forming reagents and also by qualitative reactions with zirconyl nitrate and citric acid carried out on the aglycone, the bioside, and its monoside. Oxidative degradation with hydrogen peroxide selectively cleaves only C-3 glycosides [3].

Consequently, the flavonol bioside that we isolated is isorhamnetin 3- β -D-glucosyl-6- β -D-glucoside, which we isolated for the first time from the flowers of Astragalus pubiflorus D.C. and called astragaloside [4].

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