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A CHEMICAL STUDY OF THE BEANS OF

Albizzia julibrissin

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By treating glumes of the beans of *Albizzia julibrissin* Durazz. (silk-tree albizzia) with 70% ethanol we have obtained an extract containing, according to chromatography in a thin layer of silica gel in various solvent systems, a single substance of saponin nature. It was purified by extracting the aqueous solution with butanol and reprecipitation of the butanol extract from methanol with a 10-fold amount of diethyl ether. The saponin was also obtained with the aid of the cholesterol complex [1]. In both cases, a chromatographically homogeneous substance was isolated with mp 183-184°C, $[\alpha]_D^{20} -58.1^\circ$, which we have called albizide.

Acid hydrolysis of the saponin (1 N H₂SO₄, 100°C, 4 h) formed an aglycone the chromatographic mobility on silica gel in the chloroform-ethyl acetate (5:1) system and the constants of which coincided with those of echinocystic acid. Their acetates were also identical. In the hydrolyzate after neutralization, glucose, xylose, arabinose, fucose, and rhamnose (2:1:2:1:1) were identified by paper and gas-liquid chromatography.

The presence of an acyloside component was confirmed by the saponification of albizide with an alcoholic solution of caustic soda (100°C, 4 h). This gave a prosapogenin consisting of glucose, xylose, arabinose, and fucose. Rhamnose was found in the oligosaccharide.

The glycoside that we have isolated does not coincide with any of the known saponins of the family Leguminosae, and, in particular, of the genus *Albizzia* [2-7].

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