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β-SITOSTEROL AND ITS GLUCOSIDE FROM THE ROOTS OF POLYGONUM CORIARIUM

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The comminuted roots of Polygonum coriarium Grig. collected in the autumn, 1966, at the Talgar Peak, Alma-Ata Region, were successively extracted with benzene and ether. After the evaporation of the benzene extract, an oily product remained with a yield of 1.3% (of the weight of the absolutely dry roots). By chromatographing it on alumina with subsequent elution with methanol, β-sitosterol with mp 136°–137° C (from ethanol) was obtained. The acetate had mp 122°–124° C, $[\alpha]_D^{20}$ −40° C (c 0.23; chloroform), $[\alpha]_D^{20}$ −39° C (c 0.23, chloroform). Yield 0.11% of the weight of the roots.

When the ethereal extract of the roots was evaporated to small bulk, with subsequent storage at −5° C, β-sitosterol monoglucoside was obtained with mp 294°–296° C (from ethanol). The acetate of the glucoside had mp 169°–170° C, $[\alpha]_D^{20}$ −32.3° C (c 0.30; pyridine). Yield 0.004%.

The substances were identified by elemental analysis, IR spectra, and the products of acid hydrolysis.

β-Sitosterol and its monoglucoside have been isolated previously from the seeds of jute and the roots of Delphinium dehudatum [1, 2].

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AN INVESTIGATION OF THE ALKALOIDS OF SENECIO FRANCHETI, TRACHELANTHUS HISSORICUS, AND T. KOROLKOVII

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S. francheti C. Winkl. The raw material was collected in the flowering stage (15 June 1966) at Sary-Dashte, TadzhSSR. Four hundred grams of the epigeal part of the plant was extracted with isopropanol acidified with acetic acid. This gave 1.23 g of ether alkaloids and 3.2 g of chloroform alkaloids (1.1% of the weight of the dry raw material).

By treatment with acetone, the chloroform fraction of the combined alkaloids (3.2 g) yielded 1.74 g of the N-oxide of sarracine [1]. The combined ether alkaloids (1.23 g) were separated by the polybuffer method. At pH 7 and 8, the fraction deposited 70 mg of crystals with mp 124°–125° C (from ether) giving a depression of the melting point with the N-oxide of sarracine and with heliotrine. The properties of this base distinguished it from known alkaloids, and we have therefore called it franchetine.