

STEROID SAPOGENINS OF *Allium waldsteinii*

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The combined steroid sapogenins (10.0 g) have been isolated from 1.4 kg of the dry previously de-fatted epigeal parts of *Allium waldsteinii* Don. (family Alliaceae) collected at Tianeti (Georgian SSR) in the flowering phenophase by direct hydrolysis in the raw material [1]. This material was then separated chromatographically on alumina. Elution with benzene gave 0.19 g of a monohydroxysapogenin (I), $C_{27}H_{42}O_3$, mp 204-205°C, $[\alpha]_D^{20} - 116.8^\circ$ (c 1.64; chloroform). By a comparison of IR spectra and by chromatography in a thin layer of silica gel, compound (I) was identified as diosgenin.

Elution of the column with benzene-methanol (98 : 2) gave 5.4 g of a dihydroxysapogenin (II), $C_{27}H_{44}O_4$, mp 238-241°C, $[\alpha]_D^{22} - 72.8^\circ$ (c 1.18; chloroform). The diacetate of the sapogenin (II) had mp 180-182°C, $[\alpha]_D^{20} - 92.3^\circ$ (c 1.80; chloroform). Oxidation of (II) with chromium trioxide in glacial acetic acid gave (25R)-5 α -spirostan-3,6-dione [2] with mp 225-227°C, $[\alpha]_D^{20} - 72.2^\circ$ (c 1.66; chloroform). These results enable sapogenin (II) to be identified as β -chlorogenin [2, 3].

When the column was washed with benzene-methanol (95 : 5), a dihydroxysapogenin (III) and a trihydroxysapogenin (IV) were isolated; the structures of these substances are being established.

LITERATURE CITED

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