β-SITOSTEROL AND OLEANOLIC ACID FROM *Scabiosa soongorica*

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We have continued a chemical study of the epigeal part of *Scabiosa soongorica* Schrenk. from which we previously isolated songorosides C, G, I, and M and O-derivatives of oleanolic acid [1, 2].

The raw material was extracted with petroleum ether and then with chloroform. The concentrated ethereal extract was subjected to preparative chromatography on plates (30 × 30 cm) with a fixed layer of silica gel in the chloroform–methanol (50 : 1) system. An individual compound was isolated with mp 141-144°C (ethanol), $[\alpha]_D^{20}$ −34+ 3° (chloroform) which was identified from its physicochemical properties and chromatographic behavior as β-sitosterol. Its mass spectrum also corresponded to the structure of β-sitosterol (M^+ 414).

The chloroform extract was chromatographed on a column of silica gel (1 : 200) in the chloroform–methanol (50 : 1) system. Elution yielded an individual substance with mp 307-309°C (ethanol), $[\alpha]_D^{20}$ −78.6 ± 2° (c 1.42; absolute ethanol). The melting point of the acetate was 230-233°C (ethanol). From the results of IR spectroscopy and a chromatographic comparison with known samples and a mixed melting point with an authentic sample, the substance was identified as oleanolic acid.

This is the first time that β-sitosterol and oleanolic acid in the free form have been isolated from *Scabiosa soongorica*.

LITERATURE CITED

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