

STEROLS OF *HACQUETIA EPIPACTIS*

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In our chemical analyses of some Apiaceae, we examined sterols in *Hacquetia epipactis* (Scop.) DC., which is a common plant of southeastern Europe. Here we report the isolation of four sterols: α -spinasterol, stigmasterol, campesterol, and β -sitosterol. α -Spinasterol as the major component of the isolated sterol mixture (over 80%) already has been found to be a characteristic sterol of this family (1).

EXPERIMENTAL

GENERAL EXPERIMENTAL PROCEDURES.—Melting points were determined on a Kofler hot plate and are uncorrected. Spectra were recorded with the following instruments: ms, CEC 21-110 B (70 eV); cmr, JEOL model JNFX 90 Q FT (22.5 MHz). Gc was performed on Varian model 3700 GC (3% OV-17 on Chromosorb W/HP).

PLANT MATERIAL.—The aerial parts of *H. epipactis* were collected near Ljubljana, Slovenia, in May 1982. Vouchers of the plant are deposited in the Herbarium of the Botanical Institute (LJU) of the University E. Kardelj in Ljubljana.

ISOLATION AND IDENTIFICATION.—Sterols from air-dried aerial parts of the plant (1500 g) were isolated by the digitonin method (2). Digitonide (1.20 g) was obtained, which, on decomposition, gave 0.26 g of sterol mixture. This was separated on a silica gel column with light petroleum-Et₂O (1:1) into two substances. The first substance (18 mg) was characterized by ms and gc as a mixture of stigmasterol (87%), campesterol (5%), and β -sitosterol (8%). Because the configuration at C-24 for these sterols was not determined, the presence of their 24-epimers cannot be excluded. It was shown, for example, that in many other plants, campesterol is accompanied by its 24-epimer, 22-dihydrobrassicasterol (3,4). The second substance (204 mg) was identified as α -spinasterol, mp 168-170° [lit. (5) mp 168-169°]. The cmr spectrum of the acetate, mp 182-184°, resembles that in the literature for 24 α -ethyl-5 α -cholesta-7,*trans*-22-dien-3 β -yl acetate (6). It was further characterized by gc comparison with authentic α -spinasterol, isolated from spinach (*Spinacia oleracea*).

Full details of isolation and identification are available on request to the authors.

ACKNOWLEDGMENTS

We thank Prof. B. Stanovnik from the Department of Chemistry on our faculty for cmr spectrum and Dr. L. Vitez from the Chemical Institute Boris Kidrič, Ljubljana, for gc analyses.

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Received 1 February 1983