FLAVONOID GLYCOSIDES OF THE EDELWEISS *Leontopodium ochroleucum*

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The flowering epigeal parts of *Leontopodium ochroleucum* Beauv. (pale yellow edelweiss), family Asteraceae, collected in the environs of Ulan-Bator (Mongolian Peoples' Republic) were extracted with 50% ethanol twice in a ratio of 1:10 with heating on the water bath.

The flavonoids were dissolved out from the extracts from butanol. The butanolic extracts were evaporated, and the precipitate of flavonoids was filtered off and chromatographed on polyamide sorbent. Elution of the substance was performed with aqueous ethanol. The individual fractions were rechromatographed on silica gel. This gave two individual glycosides.

The first substance has the composition $C_{21}H_{20}O_{10}\cdot H_2O$, mp 171-172°C $\lambda_{max}^{CH_3OH}$ 270, 337 nm, $\lambda_{max}^{AlCl_3}$ 280, 290, $\lambda_{max}^{CH_3ONa}$ 270, 395 nm.

The acid hydrolysis of the substance gave an aglycone identical with apigenin. The NMR spectrum of the TMS ether had, in addition to the signals of aromatic protons corresponding to apigenin, a doublet at 5.00 ppm, J = 7 Hz representing the signal of the glycosidic center of β-D-glucose and the signals of the protons of a glucose residue (6 H) in the 3.2-3.8 ppm region.

The substance was identified as cosmosiin on the basis of the UV, IR, and NMR spectra and a direct comparison with an authentic sample [1, 2].

The second substance had the composition $C_{21}H_{20}O_{12}\cdot 1.5H_2O$, mp 191-192°C, $\lambda_{max}^{CH_3OH}$ 218, 287, 348 nm, $\lambda_{max}^{H_3BO_3+NaAc}$ 293, 367 nm, $\lambda_{max}^{AlCl_3}$ 276, 310, 420 nm. Acid hydrolysis gave an aglycone which was identified as 6-hydroxyluteolin by direct comparison with an authentic sample. The NMR spectrum of this glycoside had the signals of β-D-glucose, as in the case of substance (I), in addition to those of aromatic protons.

A direct comparison of the substance isolated with palustrin showed their identity [3].

The individual fractions contained another glycoside derived from luteolin but it was impossible to isolate it in the pure form. Chromatographically, it was identified as a luteolin 7-β-D-glycoside.

LITERATURE CITED

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