

The flavonoids were extracted with ethanol from the flowers and leaves of *Symphandra pendula* (M.B.) A.D.S. collected in the Pyatigorsk region at Razvalka. According to paper chromatography, the flavonoid fraction consists of four substances. By partition chromatography on a column of (+)-D-lactose and fractional crystallization, two individual flavonoids were isolated. Substance (I) formed small light yellow plates with the composition $C_{20}H_{20}O_{11}$, mp 289°C (ethanol), $[\alpha]_D^{22} -58^\circ$ [c 0.529; in methanol-pyridine (3:2)]. UV spectrum: λ_{max} 352, 255 nm (ethanol). Acetate with mp 230-234°C [petroleum ether-chloroform (4:1)] [2].

Acid hydrolysis gave the aglycone (yield 63%), with the composition $C_{15}H_{10}O_6$, mp 328-330°C, giving no depression of the melting point in admixture with authentic luteolin. The acetyl derivative had mp 225-230°C. The aglycone was also characterized as luteolin from its UV and IR spectra and the products of its alkaline degradation (phloroglucinol and protocatechuic acid). The absence of a bathochromic shift of the absorption band of (I) on the addition of CH_3COONa shows that position 7 in the aglycone is occupied by the carbohydrate component, which was identified by paper chromatography as D-glucose. The osazone has mp 201-202°C. On hydrolysis with an enzyme preparation from *Aspergillus oryzae* the glycoside was cleaved, which shows the presence of a β -glycosidic bond. The results of differential IR spectroscopy show the pyranose form of the ring of the β -D-glucose.

Mixtures of the glycoside with luteolin 7-glycoside isolated from *Campanula lactiflora* [1] gave no depression of the melting point. Consequently, the substance is luteolin 7-O- β -D-glucopyranoside. Substance (II), with the composition $C_{15}H_{10}O_6$, has mp 330-332°C and the acetyl derivative mp 226-231°C. Alkaline cleavage led to the formation of phloroglucinol and protocatechuic acid. By IR spectroscopy with ionizing and complex-forming additives, and also from the absence of a depression of the melting point of mixed samples with authentic luteolin [2], the flavonoid was characterized as 3',4',5,7-tetrahydroxyflavone (luteolin).

LITERATURE CITED

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