

FLAVONOIDS FROM *ASTRAGALUS TRANSCASPICUS*

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In continuation of our studies on the chemistry of plant flavonoids, we began investigating *Astragalus transcaspicus* Freyn (Leguminosae). Botanical databases like World Flora Online classify *Astragalus transcaspicus* under the broader accepted species *Astragalus ammodendron*. The air-dried, powdered aerial parts (1.5 kg), collected during the fruiting stage in the Republic of Karakalpakstan (Beruniy District), were exhaustively extracted with methanol (8 L × 5). The methanolic extracts were concentrated to a syrup-like consistency, diluted with twice the volume of water, and the aqueous solution was successively treated with chloroform, ethyl acetate, and *n*-butanol. After evaporation of the solvents under vacuum, 38 g of the ethyl acetate extract and 74 g of the *n*-butanol extract were obtained. The ethyl acetate extract was chromatographed on a silica gel column, and the substances were eluted with a chloroform-methanol (6:1) mixture while increasing the methanol concentration. As a result of rechromatography of the flavonoid fractions, four individual substances were isolated. Compound **1**, C₂₂H₂₂O₁₀, m.p. 224–226°C, 154 mg (0.0102%; hereinafter, the yield is calculated based on the air-dried raw material), was identified as biochanin A 7-O-β-D-glucopyranoside. Compound **2**, C₂₂H₂₂O₁₁, m.p. 154–156°C, 158 mg (0.0105%), was identified as pratensein 7-O-β-D-glucopyranoside. Compound **3**, C₂₁H₂₀O₁₀, m.p. 226–258°C, 87 mg (0.0058%), was identified as genistein 7-O-β-D-glucopyranoside. Compound **4**, C₂₁H₂₀O₁₁, m.p. 221–222°C, 95 mg (0.0063%), was identified as orobol 7-O-β-D-glucopyranoside. Compound **5**, C₂₈H₃₂O₁₆, m.p. 175–177°C, 78 mg (0.0052%), was identified as isorhamnetin 3-O-rutinoside.

All isolated compounds were identified on the basis of their physicochemical constants, chemical transformations, ¹H and ¹³C NMR spectral data, as well as by direct comparison with authentic samples.

All the isolated compounds were found to be known compounds; however, they were isolated from *Astragalus transcaspicus* for the first time.

