FLAVONOIDS OF THE ROOTS OF Scutellaria squarrosa

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Scutellaria squarrosa Nevski is a perennial semifruiticose plant of the family Labiatae [1]. The chemical composition of this plant has not been studied previously.

We have investigated the phenolic compounds of the roots of this plant gathered in the flowering phase in June, 1987, on the western slopes of the Zarafshan range at the village of Zinak, Urgut region of Samarkand province. The species affinity was determined by M. M. Nabiev and M. N. Abdullaeva (Institute of Bontany, Academy of Sciences of the Uzbek SSR, Tashkent).

The phenolic compounds from the comminuted roots were extracted with aqueous acetone and were separated by a known method [2]. Six flavonoids (I-VI) were isolated and were identified with the aid of chemical and physicochemical methods: (I) – baicalein, mp 260-262°C, λ_{max}^{MeOH} 325, 275 nm; (II) – baicalin (baicalein 7-O-β-D-glucopyranoside), mp 226-228°C, $[\alpha]_D^{20}$ −145.0°, λ_{max}^{MeOH} 315, 280 nm; (III) – oroxylin, mp 195-197°C, λ_{max}^{MeOH} 315, 280 nm; (IV) – oroxyloside (oroxylin 7-O-β-D-glucopyranoside), amorphous compounds, $[\alpha]_D^{20}$ −15.0°, λ_{max}^{MeOH} 315, 280 nm; (V) – wogonin, mp 201-203°C, λ_{max}^{MeOH} 316, 275, 245 nm; (VI) – chrysin, mp 288-290°C, λ_{max}^{MeOH} 270, 310 nm.

The structures of (III) and (IV) were also confirmed by their formation on the methylation of baicalin [3]. This gave oroxyloside or 6-methoxybaicalin, from which oroxylin or 6-methoxybaicalein were isolated on hydrolysis.

LITERATURE CITED

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