

FLAVONOIDS OF THE ROOTS OF *Scutellaria comosa*

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Scutellaria comosa Juz. is an annual suffruticose plant of the Labiatae family [1]. The flavonoids baicalein, baicalin, and wogonoside have previously been found in this plant gathered in the Alai range [2]. We have studied the flavonoids of the roots of *Scutellaria comosa* gathered in the village of Nani, Namangan province. Its species affiliation was determined by T. Khudaiberdiev and A. Inamov.

The phenolic compounds were extracted from the comminuted roots with aqueous acetone and were separated by a known method [3]. Six flavonoids (1-6) were isolated and identified by chemical and physicochemical methods: 1) baicalein, mp 260-262°C, λ_{\max} (MeOH) 325, 274 nm; 2) baicalin (baicalein 7-O- β -D-glucopyranoside), mp 226-228°C, $[\alpha]_D^{20} -145^\circ$, λ_{\max} (MeOH) 315, 280 nm; 3) wogonoside, mp 194-196°C, λ_{\max} (MeOH) 345, 275 nm; 4) norwogonin, mp 254-256°C, λ_{\max} (MeOH) 355, 275 nm; 5) chrysin 7-glucuronide, mp 228-230°C, λ_{\max} (MeOH) 305, 270 nm; 6) 2'-hydroxychrysin 7-glucuronide, mp 230-235°C, λ_{\max} (MeOH) 330, 270 nm.

This is the first time that substances (4-6) have been isolated from the roots of this plant. By a study of the recyclization isomerism of the 6- and 8-substituted flavones using a known procedure we have shown the irreversibility of the transition of the 8- isomers into the 6-hydroxyflavones. Methylation of the 8-hydroxy group suppressed isomerization practically completely.

The good tinctorial properties of extracts from *S. comosa* for dyeing various yarns has been shown.

REFERENCES

1. S. V. Yuzepchuv, Flora of the USSR [in Russian], Izd. Akad Nauk SSSR, Moscow—Leningrad, Vol. 20 (1954), p. 14.
2. Sh. V. Abdullaev, Isolation and Investigation of Natural Synthetic Substances, and also Some Problems of Science and Ecology [in Russian], Nauch. Tr. NamGU, Namangan (1993), p. 43.
3. T. P. Popova, V. I. Litvinenko, V. G. Gordienko, and D. A. Pakali, Khim. Prir. Soedin., 730 (1976).