PHENOLIC COMPOUNDS OF THE EPIGEAL PART OF VALERIAN.

V. COMPOSITION OF THE PHENOLIC COMPOUNDS OF *Valeriana fasciculata*

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UDC 547.972

In the epigeal part of *Valeriana fasciculata* Worosch. et Gorovoi [1], collected on the rocky banks of the R. Selimzhi in the environs of the village of Ekimchan, Amur province, in July 1981, about 20 phenolic compounds consisting of cinnamic acids and flavonoid glycosides have been detected by two-dimensional PC in the solvent systems, 1) BAW (4:1:2) (first direction) and 2) 15% CH_3COOH (second direction). When the ethereal fraction was studied by PC in the solvent systems 1) 40% CH_3COOH (first direction) and 2) BAW (10:3:7) (second direction) using direct comparison with authentic samples, luteolin, spigenin, diosmetin, and caffeic and chlorogenic acids were identified. Chromatography on Kapron [nylon-6] of a purified aqueous extract obtained as described previously [2] yielded in the individual state a substance with the composition $C_{28}H_{32}O_{14}$, mp 266-270°C, which was assigned to the flavonoids on the basis of positive color reactions. On paper chromatograms, the substance under investigation was detected from the appearance of a dark brown fluorescence in UV light while after treatment with a 3% methanolic solution of zirconyl chloride the fluorescence changed to yellowish-green. A spectral investigation in the UV region using ionizing and complex-forming reagents showed that the carbohydrate component was present in position 7. The $E_1^{1\%}{}_{cm}$ value was 329 and, consequently, the substance isolated was a bioside. According to PC, the products of the acid hydrolysis of this substance with a mixture of equal amounts of 10% H_2SO_4 and 10% CH_3COOH in 50% ethanol contained L-rhamnose, G-glucose, and acacetin. The bioside under investigation was subjected to enzymatic hydrolysis with rhamnodiastase, and in the resulting products rutinose and acacetin were found by PC, which permits the substance isolated to be characterized as acacetin 7-O-rutinoside.

In the epigeal organs of *Valeriana fasciculata* with the aid of TLC we detected an essential oil and a very small amount of valepotriates consisting mainly of polar substances, but we did not observe the presence of valtrate, which is the main component among the valepotriates of *Valeriana nitida* Kreyer., *V. stolonifera* Czern., and *V. exaltata* Mikan. growing in the Ukraine.

LITERATURE CITED

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M. Gork'ii Zaporozh'e Institute for the Advanced Training of Doctors. Translated from Khimiya Prirodnykh Soedinenii, No. 2, pp. 236-237, March-April, 1983. Original article submitted November 15, 1982.

0009-3130/83/1902-0231$07.50