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PHENOLIC COMPOUNDS OF THE EPIGEAL PART AND IRIDIDS OF THE  
HYPOGEAL PART OF VALERIAN.

VI. FLAVONOIDS AND VALEPOTRIATES OF *Valeriana eriophylla*  
AND *V. cardamines*

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We have previously reported a study of the qualitative composition of the phenolic compounds of the epigeal organs of *Valeriana eriophylla* Utk. and *V. cardamines* Bieb. [1]. Continuing a more profound investigation of these species, by two-dimensional paper chromatography we have detected in the epigeal organs more than twenty flavonoids, represented by flavonols and flavone aglycones, 7-monoglycosides, biosides, and other types of more complex compounds. In a comparison with samples of substances isolated from the epigeal parts of other species of valerian [2, 3], we have identified kaempferol, quercetin, apigenin, luteolin, diosmetin, and acacetin. Column chromatography on polyamide gave two individual substances which were characterized as the result of physicochemical investigations as apigenin and luteolin 7-O- $\beta$ -D-glucosides.

By chromatography on Silufol plates, in the epigeal organs of the plants under investigation we detected no fewer than ten substances of monoterpenoid nature. Three substances were isolated by adsorption-partition chromatography on various sorbents, and on the basis of physicochemical investigations and a comparison with literature information [4], they were identified as valtrate, dihydrovaltrate, and acevaltrate. The predominating component was valtrate, which shows the closeness of the species of valerian studied to common valerian. For the quantitative determination of valepotriates we plotted a calibration graph for valtrate. The spectrophotometric determination of these compounds showed that their amount in the epigeal organs of *V. eriophylla* was about 0.65% and in *V. cardamines* about twice as great.

Thus, it may be concluded that the vegetative and reproductive organs of *V. eriophylla* and *V. cardamines* have similar sets of valepotriates. Differences relate primarily to the amounts of the individual substances.

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