

In the course of a preliminary analysis, it was established that the epigeal organs of *Potentilla fruticosa* L. (bush cinquefoil) growing in Eastern Siberia contain flavonoids, catechins, phenolcarboxylic acids, and tanning substances. In an investigation of the flavonoids, the dried raw material was exhaustively extracted with 70% ethanol on the boiling water bath [1, 2]. The extract obtained was concentrated in vacuum and treated with chloroform to free it from pigments, resins, and other ballast substances. The extract obtained in this way, which contained flavonoids and phenolcarboxylic acids, was deposited on a column of polyamide sorbent. Elution was performed first with water and then with mixtures of water and ethanol with increasing concentrations of ethanol. The separation of the substances was monitored by paper chromatography. The fractions with the same compositions were combined and chromatography was repeated under the same conditions to obtain individual compounds.

Two substances of flavonoid nature were isolated, which were identified on the basis of the results of paper-chromatographic analysis [two-dimensional chromatography in the BAW (4:1:2) and 15% acetic acid systems], physicochemical constants, products of alkaline cleavage and of acid and enzymatic hydrolysis, and also IR and UV spectroscopy using ionizing and complex-forming agents [1-4].

Substance (I) with the composition $C_{15}H_{10}O_{17}$, mp 310-313°C, λ_{max} 365, 258 nm, was identified as quercetin (3,3',4',5,7-pentahydroxyflavone), and substance (II) with the composition $C_{21}H_{20}O_{11}$, mp 185-187°C, λ_{max} 355, 257 nm, as quercitrin (3,3',4',5,7-pentahydroxyflavone 3-O- α -L-rhamnopyranoside).

The catechins and phenolcarboxylic acids of the bush cinquefoil were identified by paper chromatography from their R_f values in various solvent systems, qualitative reactions in visible and UV light, with the parallel chromatography of authentic samples [5].

As a result of the investigations the following were found in the epigeal part of the plant: (-)-epicatechin gallate, (\pm)-catechin, (-)-epicatechin, (-)-epigallocatechin, (-)-epigallocatechin gallate, and also caffeic, p-coumaric, sinapic, ferulic, and ellagic acids.

LITERATURE CITED

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