

FLAVONOIDS OF *Achillea cartilaginea*

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By two-dimensional paper chromatography we have detected no less than eight substances of flavonoid nature in the leaves of *Achillea cartilaginea* Ldb., syn. *Ptarmica cartilaginea* Ldb. collected in the floodlands of the Western Dvina (environs of the town of Vitebsk).

To isolate the flavonoids, the raw material was treated with 95% ethanol. The extractant was distilled off under vacuum, the residue was treated with water, and the aqueous extract was treated successively with chloroform, diethyl ether, and ether acetate. By chromatography on a column of polyamide sorbent, the ethereal extract yielded an individual flavonoid TKh-1, and the ethyl acetate extract yielded flavonoids TKh-2, TKh-3, and TKh-4.

Substance TKh-1 formed bright yellow crystals with mp 309-311°C, giving no depression of the melting point with an authentic sample of quercetin.

Substance TKh-2 formed pale yellow crystals with mp 190-191°C (from 50% ethanol) $[\alpha]_{\text{D}}^{22} - 37.6^{\circ}$ (c 1.4; pyridine). From the results of IR spectroscopy in the presence of ionizing and complex-forming reagents [1-3], IR spectroscopy, and a paper-chromatographic study of the products of acid and enzymatic hydrolysis, and by mixed melting points it was identified as 3',4',5,7-tetrahydroxyflavone-3-rutinoside (rutin).

The chemical study of the substances isolated from this species is continuing.

LITERATURE CITED

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