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COUMARINS OF THE GENUS Ledum

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The genus Ledum L. (family Ericacaea) is represented in the flora of the USSR by four species (L. palustre L., L. macrophyllum Tolm., L. hypoleucum Kom., and L. decumbens (Ait) Lodd. et Stend [1, 2]). From the herbage of Ledum palustre L. collected in the European part of the USSR (Kostroma Province) the coumarin fraction has been isolated [3]. We have found no information in the literature available to us of the presence of coumarins in the ledums growing in the territory of Siberia and Fart East.

We have analyzed one- and two-year stems freed from leaves of the above-mentioned four species of ledum collected on the territory of Western Siberian and the Far East in the incipient fruit-bearing phase.

The comminuted raw material was extracted with ethanol. The ethanolic extract was concentrated in vacuum and diluted with water (1:1). The precipitated that deposited was separated off and the filtrate was treated with chloroform. The solvent was distilled off and the residue was chromatographed on paper impregnated with formamide—acetone (1:3), using chloroform as the mobile phase [4]. Subsequent rechromatography on paper and elution by chloroform and ethanol yielded six coumarins. In a comparison with authentic samples, three hydroxycoumarins were identified: esculetin, umbelliferone, and scopoletin.

IR spectra were taken on a UR-20 instrument in chloroform and UV spectra on a Specord in ethanolic solutions. The results obtained confirm the authenticity of the individual compounds of coumarin nature that have been isolated from ledums for the first time.

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