

COUMARINS FROM Haplophyllum dzhungaricum
AND H. multicaule

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The present communication gives the results of an investigation of an ethanolic extract from the roots and epigeal part of H. dzhungaricum N. Rubtz. and H. multicaule Vved. The plants were collected in the region of the Dzhungarian Ala-Tau in August, 1970, and in September, 1972, respectively.

By paper chromatography of the extracts, we found coumarin compounds in both samples: (I) with R_f 0.83 (yellow), (II) with R_f 0.71 (deep blue), (III) with R_f 0.50 (pale blue), (IV) with R_f 0.36 (violet), and (V) with R_f 0.05 (violet). Chromatography was performed on type EN-12 paper with petroleum ether as the mobile phase and ethylene glycol as the stationary phase [1].

When an ethanolic extract from H. dzhungaricum was separated on a column of alumina (activity grade III), two coumarins were isolated: (I) with mp 116°C and (II) with mp 127.5°C. From their melting points and IR and NMR spectra, compound (I) was identified as seselin and (II) as xanthyletin. The identity of the xanthyletin was confirmed by the absence of a depression of the melting point in a mixture with an authentic sample.

These compounds were also obtained from the extract of H. multicaule and were identified by their IR spectra. In addition, β -sitosterol was isolated from H. multicaule and identified by its melting point and IR spectrum.

This is the first time that furanocoumarin derivatives of linear and angular structure — xanthyletin and seselin — have been found in H. dzhungaricum N. Rubtz. and H. multicaule Vved.

LITERATURE CITED

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