

FUROCOUMARINS OF THE FRUIT OF HERACLEUM ASPERUM AND OF THE ROOTS OF
H. APIIFOLIUM

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As reported previously [1], in the fruit of Heracleum asperum we have detected bergapten, phellopterin, and a substance of undetermined structure. Continuing investigations of the coumarin composition of this species, we have isolated yet another furocoumarin, biacangelicin $C_{17}H_{18}O_7 \cdot H_2O$ with mp 117–118° C. The melting point of anhydrous biacangelicin is 125–126° C, $[\alpha]_D^{25} +24^\circ$ (c 0.05; absolute ethanol).

By separation on a polyamide sorbent (at a ratio of 1 : 50) [2], from the total coumarins of the roots of H. apiifolium we obtained bergapten $C_{12}H_8O_4$ with mp 189–191° C and, by re-separation of a fraction consisting of three substances on the same adsorbent we obtained scopoletin $C_{10}H_8O_4$ with mp 204–205° C.

All the substances mentioned were shown to be identical with the corresponding authentic materials by paper chromatography in various systems of solvents, by UV and IR spectroscopy, and by transformation products.

REFERENCES

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2. N. F. Komissarenko, I. G. Zoz, I. N. Beletzky, and W. S. Sokolow, Planta Medica, 17, 2, 170, 1969.

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