COUMARINS OF THE EPIGEAL PART

OF Scabiosa comosa

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The epigeal part of Scabiosa comosa Fisch. ex Roem ex Schult., family Dipsacaceae was collected in the meadowland of the Gang of the Kizhinga region of the Buryat ASSR in August, 1973, in the flowering period [1].

The comminuted raw material was treated with chloroform, and from the evaporated extract from column chromatography on alumina (acidic) with elution by petroleum ether followed by recrystallization from ethanol, we obtained a white crystalline substance (I), mp 61-62°C, R_f 0.92 [TLC; silica gel L 40/100 μ ; petroleum ether-ethanol (1:2) (system 1)], R_f 0.89 [petroleum ether (system 2)] with a yield of 0.01% on the weight of the dry raw material.

On the basis of UV and IR spectroscopy and elementary analysis, and also from a mixed melting point, substance (I) was identified as umbelliprenin [2-4].

On further column chromatography with ether, 0.05 g of substance (II) was obtained with mp 188-190°C, R_f 0.57 (system 1), 0.19 (system 2) (TLC, silica gel L). From its UV and IR spectra and empirical formula, the substance corresponds to bergapten [4, 5]. The elution of the column was continued, and when ethanol was used as the solvent 0.09 g of a white substance (III) with mp 65-67°C, R_f 0.87 (system 1) was obtained.

The UV and IR spectra and elementary analysis showed that substance (III) is a coumarin, C₉H₆O₂ [4].

LITERATURE CITED

- 1. E. G. Bobrov, "The Genus <u>Scabiosa</u> L., in: Flora of the USSR [in Russian], Vol. XXIV, Moscow-Leningrad (1961).
- 2. T V. Bukreeva and G. V. Pigulevskii, Zh. Prikl. Khim., 39, No. 7, 1541 (1966).
- 3. M. E. Perel'son and Yu. N. Sheinker, Teor. Éksp. Khim., No. 5, 697 (1967).
- 4. G. A. Kuznetsova, Natural Coumarins and Furocoumarins [in Russian], Leningrad (1967).
- 5. M. E. Perel'son, Zh. Obshch. Khim., 33, No. 3, 952 (1963).

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