

## LITERATURE CITED

1. A. D. Turova, Medicinal Plants of the USSR and Their Use [in Russian], Moscow (1974), p. 347.
2. A. F. Gammerman and I. I. Grom, Wild Medicinal Plants of the USSR [in Russian], Moscow (1976), p. 239.
3. N. A. Rybitskii and I. S. Gavrilov, Wild Fruits and Berries [in Russian], Leningrad (1969), p. 136.
4. Z. K. Karakeeva, R. Sh. Abaeva, and G. B. Aimukhamedova, Izv. Akad. Nauk Kirghiz. SSR, No. 1, 57 (1976).

p-HYDROXYBENZOIC ACID FROM *Centaurea polypodiifolia*

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We have investigated *Centaurea polypodiifolia* Boiss. collected in the Dzhul'fa region of the Nakhichevan ASSR in the fruit-bearing period (August, 1981).

The air-dry comminuted epigeal part of *C. polypodiifolia* (2.5 kg) was extracted with distilled water on a boiling water bath for 2 h. The extract was evaporated to small volume and the residue was treated three times successively with petroleum ether, chloroform, and ethyl acetate. The ethyl acetate extracts were combined, dried over anhydrous sodium sulfate, filtered, and evaporated. The residue (6.3 g) was chromatographed on a column of silica gel (L 40/100  $\mu$ ); column dimensions 40  $\times$  3.5 cm. Elution was carried out with hexane and with hexane-ethyl acetate (9:1) (4:1) and (3:1). The volume of each fraction was 50 ml.

From the fraction eluted by hexane-ethyl acetate (3:1) a substance with the composition  $C_7H_6O_3$ , mp 211-213°C, was isolated. The IR spectrum of the substance had the characteristic absorption bands of an OH group ( $3400\text{ cm}^{-1}$ ), of a carboxylic CO group ( $1620\text{ cm}^{-1}$ ), and of a benzene ring ( $1610$ ,  $1600$ , and  $1520\text{ cm}^{-1}$ ). The presence in the IR spectrum of the substance of strong bands at  $865$ ,  $840$ , and  $775\text{ cm}^{-1}$  showed the para substitution of the benzene ring [1]. The results of a comparison of the physicochemical constants and IR spectra, and a mixed melting point, enabled the substance obtained to be identified as p-hydroxybenzoic acid.

## LITERATURE CITED

1. L. Bellamy, Infrared Spectra of Complex Molecules, 2nd edn., Wiley, New York (1958).

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