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COUMARINS FROM THE FRUIT OF PRANGOS FERULACEA

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We have previously reported [1-5] the isolation of a number of coumarin derivatives from the roots of Prangos ferulacea (L.) Lindl. (family Umbelliferae) collected in the Bichenak mountains of the Nakhichevan Autonomous Soviet Socialist Republic.

According to chromatography on paper treated with a 20% aqueous solution of ethylene glycol (mobile phase petroleum ether) [6] and in a thin layer of alumina [ethyl acetate-benzene (1 : 6) and (1 : 2) systems; Al_2O_3 of activity grade II], the fruit of the plant studied contains nine substances of a coumarin nature, of which two-a compound $C_{15}H_{13}O_3$ (I) with mp 82.5° C and a compound $C_{16}H_{14}O_4$ (II) with mp 108° C-were identified with osthol and isoimperatorin, respectively.

Substance (III), $C_{16}H_{14}O_5$, with mp 115-117° C, from its IR spectrum and its R_f value, corresponds to the known furocoumarin oxypeucedanin, which we have previously isolated from the roots of Prangos ferulacea [1, 3, 4].

When III was isomerized in 20% sulfuric acid, an isomer of oxypeucedanin $C_{14}H_{16}O_5$ (IV) with mp 146° C (from ethanol) was obtained. A mixture of isomerized III with an authentic sample of isomerized oxypeucedanin likewise gave no depression of the melting point. Nevertheless, the melting point of III did not correspond to any of the known forms of oxypeucedanin. Since the dextrorotatory form of oxypeucedanin (Prangolarin), which has been isolated from the roots of Prangos pabularia (L.) Lindl., has mp 104-105° C, $[\alpha]_D^{30}$ +20.1° (chloroform) [7], and the optically inactive form (racemate) has mp 141-142° C [1], substance III is obviously the levorotatory form of oxypeucedanin. Substance III was isolated in very small amount.

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FLAVONOIDS OF POLYGONUM PERSICARIA

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We give the results of a study of the flavonoids of the leaves of Polygonum persicaria L. (spotted ladysthumb) collected in the botanical garden of the Academy of Sciences of the Kazakh SSR in May, 1966.

The flavonoids were separated by chromatography of a methanolic extract on a column containing Kapron and by preparative paper chromatography.

Repeated recrystallization from aqueous ethanol gave quercetin, isoquercitrin, and hyperoside.

The substances obtained were identified on the basis of alkaline cleavage, acid and enzymatic hydrolysis, reduction with magnesium in concentrated hydrochloric acid, molecular rotation, and IR spectra, and also by comparing the products of these processes with reference samples in paper chromatography in various systems of solvents [1, 2].