FLAVONOIDS OF Peucedanum morissonii

A. G. Valutskaya

UDC 547.972

Peucedanum morissonii Bess. (Morisson's hogfennel) is a promising medicinal plant, the roots of which serve as a raw material for the production of the furocoumarin peucedanin [1]. Flavonoids have been found in the aqueous ethanolic extracts from the flowers and leaves of this plant by paper chromatography [2]. The ethanol was distilled off from the extract, and the residue was treated with ether. The aglycones were separated from the glycosides.

The products isolated were chromatographed on columns of polyamide sorbent which were washed with mixtures of methanol and chloroform and of ethanol and chloroform in various ratios. Four compounds were obtained in the individual state. The substances were identified on the basis of the results of a study of their absorption spectra in UV light with ionizing and complex-forming reagents [3, 4], the products of acid hydrolysis, and the absence of a depression of the melting point when they were mixed with authentic samples. The position of attachment of the sugar residues was shown by color reactions and by UV absorption spectra [5, 6].

It was established that the substances obtained were: (I) with mp 310-316°C – quercetin; (II) with mp 298-302°C – isorhamnetin; (III) with mp 184-186°C – rutin; and (IV) with mp 179-180°C – isorhamnetin 3-rutinoside.

This is the first time that these flavonoids have been isolated from Peucedanum morissonii.

LITERATURE CITED

1. G. N. Nikonov and A. A. Ivashenko, Zh. Obshch. Khim., 2740 (1963).
2. V. A. Bandyukova, Rast. Res., 591 (1965).
3. V. I. Litvinenko and N. P. Maksyutina, Khim. Prirodn. Soedin., 420 (1965).
4. T. J. Marbry, K. R. Markham, and M. B. Thomas, The Systematic Identification of Flavonoids, Springer, New York (1970), p. 354.
5. L. K. Hörhammer and K. H. Muller, Arch. Pharm., 286/59, 6, 310 (1954).
6. K. Venkataraman, Flavones und Isoflavones. Fortschr. der organisch. Naturstoffe, 14 (1959).

Central Siberian Botanical Garden, Siberian Branch, Academy of Sciences of the USSR. Translated from Khimiya Prirodnykh Soedinenii, No. 5, p. 671, September-October, 1974. Original article submitted March 29, 1974.