

COUMARINS FROM THE FRUITS OF *CACHRYS FERULACEA*LORENZO CAMARDA, PIETRO MAZZOLA¹, and VINCENZO SPRIO**Istituto di Chimica Farmaceutica e Tossicologica, Università di Palermo, via Archirafi 32, 90123 Palermo, Italy*

Chemical investigation of the fruits of *Cachrys ferulacea* (L.) Calestani (Umbelliferae) collected in Sicily, Italy, led to the isolation and identification of the coumarin, 7-methoxy-8-(3-methyl-2-butenyl)-2-H-1-benzopyran-2-one (osthol), and of three furocoumarins, 4-methoxy-7-H-furo[3,2-g][1]-benzopyran-7-one (bergapten), 9-[(3-methyl-2-butenyl)oxy]-7-H-furo[3,2-g][1]-benzopyran-7-one (imperatorin), and 4-[(3-methyl-2-butenyl)oxy]-7-H-furo[3,2-g][1]-benzopyran-7-one (isomperatorin).

Their spectral data (ir, uv, ms, ¹H nmr) agreed with those reported in the literature (1,2).

EXPERIMENTAL

PLANT MATERIAL.—Whole plants of *C. ferulacea* were collected in June 1985, and identified at the Botanical Institute of the University of Palermo where a voucher specimen is deposited in the Herbarium.

EXTRACTION AND ISOLATION.—The air-dried, powdered fruits (700 g) were extracted (Soxhlet) with EtOAc. The extract was dried over anhydrous Na₂SO₄ and concentrated in vacuo. The residue obtained was chromatographed on a Si gel column at medium pressure by using a mixture of hexane-EtOAc (9:1) as eluent.

Four compounds were eluted in the following order: imperatorin (100 mg), bergapten (80 mg), osthol (200 mg), and isomperatorin (200 mg).

The coumarin and the three furocoumarins isolated were identified by spectral data as well as by comparison with the corresponding published data (1,2).

Full details of the isolation and identification of the compounds are available on request to the senior author.

ACKNOWLEDGMENTS

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LITERATURE CITED

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