

FLAVONOIDS FROM *ARTEMISIA CAMPESTRIS* SSP. *GLUTINOSA*

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*Artemisia campestris* L. ssp. *glutinosa* (Gay ex Besser.) Batt. (Compositae) is a widespread plant, endemic in the western part of the Iberian peninsula. In previous papers (1-5), we have communicated the composition of the essential oil and the isolation of several *p*-hydroxyacetophenone derivatives, two new 2-methyl-2-hydroxymethylchromenes, acetylenes, and terpenoids from the hexane extract. Now we report the flavonoid content of a CHCl<sub>3</sub> extract of the plant, previously extracted with hexane.

This CHCl<sub>3</sub> extract (4.60% of the dry plant weight) was resolved into neutral (20%), acid (10%), and phenolic (70%) fractions by extraction with an alkaline solution. The components of the phenolic fraction were isolated by preparative cc, followed by crystallization, to give pure samples of the flavonoids: sakuranetin (6), isosakuranetin (7), naringenin (8), homoeriodictyol (9), 7-*O*-methyleeriodictyol (10), 7,3'-*di-O*-methylidihydroquercetin (11), padmatin (12), and hispidulin (13) (ir, <sup>1</sup>H nmr, <sup>13</sup>C nmr, cd).

## EXPERIMENTAL

**PLANT MATERIAL.**—*A. campestris* ssp. *glutinosa* was collected at the end of July 1979, at "La Flecha," Salamanca, W. Spain. The plant was identified by Prof. B. Casaseca Mena from the Botany Department of Salamanca University (Herbarium No. 7362).

**EXTRACTION AND ISOLATION.**—The aerial parts of the air-dried plant 3.0 kg were extracted with hexane and then with CHCl<sub>3</sub>. The CHCl<sub>3</sub> extract was extracted with aqueous NaOH (10%), and the alkaline solution was acidified with CO<sub>2</sub> to pH 7.5-8 and extracted with CHCl<sub>3</sub>. Evaporation of the solvent gave the phenolic fraction (97.36 g, 70%).

The phenolic fraction was chromatographed on silica gel to give with C<sub>6</sub>H<sub>6</sub>-EtOAc (9:1): sakuranetin (220 mg) and isosakuranetin (100 mg); with C<sub>6</sub>H<sub>6</sub>-EtOAc (8:2): naringenin (75 mg), homoeriodictyol (185 mg), 7-*O*-methyleeriodictyol (728 mg), 7,3'-*di-O*-methylidihydroquercetin (1.230 g), padmatin (658 mg), and hispidulin (276 mg).

Full details of the isolation and identification of the flavonoids are available on request to the authors.

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