

FLAVONOID-O-GLYCOSIDES FROM THE HERBS OF
*LEONURUS CARDIACA*¹

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From *Leonurus cardiaca* L. (Lamiaceae) rutin (1), quinqueloside (1), and genkwanin (2) were isolated previously. Here we further report five flavanol- and three flavone-O-glycosides obtained from the herbs of this species.

EXPERIMENTAL

PLANT MATERIAL.—*L. cardiaca* was cultivated in the Landes-Versuchsanlage für Spezialkulturen Wies/Styria (Austria). The plants were harvested at blossoming time.

EXTRACTION AND ISOLATION OF THE FLAVONOIDS.—Dried and powdered herb material of *L. cardiaca* was extracted with MeOH in a Soxhlet apparatus. Lipophilic contaminations were separated by adding one part H₂O and one part CHCl₃ (3). Flavonoids were extracted from the aqueous-methanolic solution with EtOAc and fractioned on a Sephadex LH-20 column (Pharmacia) (4). Final purification and separation of flavonoids were carried out by preparative tlc on silica gel and polyamide (kaempferol-3-O-D-glucoside and apigenin-5-O-D-glucoside).

FLAVONOID IDENTIFICATIONS.—The glycosides, their aglycones, and sugars were identified by standard spectroscopic, co-chromatographic, and hydrolytic technics (5-7).

The methanolic extract yielded, besides rutin and quinqueloside, the following flavonoid-O-glycosides: quercetin as the 3-O-D-glucoside (isoquercitrin), 3-O-D-galactoside (hyperoside), 3-O-L-rhamnoside (quercitrin), and 7-O-D-glucoside; kaempferol 3-O-D-glucoside; and apigenin as the 7-O-D-glucoside, 5-O-D-glucoside, and 4'-O-D-glucoside.

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

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