KAEMPFERITIN FROM Dorycnium graecum

T. S. Zurabishvili and É. P. Kemertelidze

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We have exhaustively extracted the leaves and flowers of the plant Dorycnium graecum (L.) Ser., which grows in Georgia, with 80% methanol. The methanol was evaporated and the aqueous extract was purified with ethyl ether, concentrated, and left in the refrigerator. After some days, a precipitate deposited which was separated off and recrystallized from ethanol. Bright yellow elongated acicular crystals were obtained (0.6%) with mp 204-208°C; UV spectrum: $\lambda_{max}^{C_2H_5OH}$ 265, 345 nm.

On paper and thin-layer chromatograms in various systems the compound isolated appeared at the level of an authentic sample of kaempferitin.

Acid hydrolysis with 2% sulfuric acid gave rhamnose and an aglycone with mp 275-276°C, which was characterized as 3,4',5,7-tetrahydroxyflavone (kaempferol).

The glycoside that we had obtained was identified as kaempferol 3,7-dirhamnoside, or kaempferitin, by qualitative reactions, the products of its acid hydrolysis, its chromatographic behavior, by a mixed melting point, its IR spectrum, and the bathochromic shifts of the maxima in the UV region of the spectrum in the presence of ionizing and complex-forming reagents [1-3].

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