

FLAVONOIDS OF THE SEEDS OF SOME SPECIES OF
THE FAMILY Cruciferae

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Continuing a study of the seeds of plants of the family Cruciferae [1, 2], by the chromatography on Kapron of an extract of Diploxix tenuifolia D.C. (slimleaf wallrocket) with elution by mixtures of chloroform and ethanol and then aqueous ethanol, we have isolated a compound with the composition $C_{28}H_{32}O_{17}$, mp 209-211°C (from methanol), $[\alpha]_D -56^\circ$ (c 0.1; methanol), R_f 0.64 and 0.24 in the solvent systems 15% CH_3COOH and BAW (4:1:5), respectively. Qualitative reactions [3] and investigations of UV and IR spectra [4, 5] show that the substance is a flavonol glycoside with the carbohydrate component at C_3 . On the basis of the optical density of the glycoside and its aglycone ($E_{1\%}^{1\text{cm}} = 250$) it may be assumed that the glycoside isolated is a bioside [6]. The products of acid hydrolysis with 5% H_2SO_4 were found to contain isorhamnetin and D-glucose. On hydrolysis with 0.04 N HCl, an intermediate substance appeared coinciding in the fluorescence of its spots and its R_f values with isorhamnetin 3-O-D-glucoside. This bioside underwent enzymatic cleavage with rhamnodiastase, which characterizes it as isorhamnetin 3-O-gentiobioside. Isorhamnetin derivatives have also been found in the seeds of Erysimum canescens Roth. (hoary erysimum), and quercetin derivatives both in the plants mentioned and in E. cheiranthoides L. (treacle erysimum), Capsella bursa pastoris Medic. (shepherd's purse), Lepidium perfoliatum L. (clasping pepperweed), and Syrenia cana Neill.

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