

ISOQUERCITRIN - A COMPONENT OF THE LEAVES OF *Fraxinus mandschurica*

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UDC 547.972.3

On studying the substances contained in the leaves of *Fraxinus mandschurica* Rupr., we have isolated a flavonol glycoside with the composition $C_{21}H_{20}O_{12}$, mp 176-177°C (from water), $[\alpha]_D^{27} - 29.1^\circ$ (methanol). An ethanolic extract was diluted with water, and the flavonoids were extracted with butan-1-ol. The solvent was distilled off in vacuum, and the residue was chromatographed on a column of polyamide with subsequent elution by the discrete method with water and ethanol. Concentration of the ethanolic eluate gave the substance mentioned.

The UV spectrum (λ_{\max} 260, 362 nm, $\log \epsilon$ 4.40, 4.32) and color reactions show that the substance is a flavonol glycoside. On acid hydrolysis it gave the aglycone with mp 312-313°C (60%), which was identified on the basis of a mixed melting point and IR spectroscopy as quercetin, while D-glucose was found in the hydrolyzate. Bathochromic shifts [1] showed that the glucose residue was present in position 3, and the results of enzymatic hydrolysis and molecular optical activity (calculated value of $[M]_D \cdot K_p$ according to Klyne) [2] showed that it exists in the pyranose form and is attached to the aglycone by a β -glycosidic bond. On the basis of what has been said and also a mixed melting point with an authentic sample, the glycoside isolated was identified as isoquercitrin.

LITERATURE CITED

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Institute of the Chemistry of Plant Substances, Academy of Sciences of the Uzbek SSR. Institute of Chemistry, Academy of Sciences of the Turkmen SSR. Translated from *Khimiya Prirodnikh Soedinenii*, No. 3, p. 433, May-June, 1973. Original article submitted January 5, 1973.

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