

In the identification of the substances we used UV spectroscopy with ionizing and complex-forming additives, PMR spectroscopy, and acid hydrolysis [5, 6].

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ACETYLVITEXIN — A NEW FLAVONOID FROM THE FLOWERS

OF *Crataegus sanguinea*

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By column chromatography on cellulose and silica gel, from the total flavonoids of the flowers of *Crataegus sanguinea* Pall. (redhaw hawthorn) we have isolated a substance of flavonoid nature in the form of white acicular crystals with the composition $C_{23}H_{22}O_{11}$, mp 208–211°C (from methanol), R_f 0.58 (15% CH_3COOH), 0.67 (BAW, 5:1:4).

Alkaline hydrolysis with a 0.1% solution of KOH gave a substance which was identified as vitexin.

UV spectra with ionizing and complex-forming additives (λ_{max} , nm): (CH_3OH) 269, 222; (+ CH_3COONa) 281 sh, 301, 378; (+ CH_3COONa/H_3BO_3) 270, 283, 338; (+ CH_3ONa) 281, 330, 394; (+ $AlCl_3$), 277, 305, 350, 386 (+ $AlCl_3/HCl$) 278, 304, 344, 382. Analysis of the UV-spectroscopic results showed the presence of free hydroxy groups in the 4', 5, and 7 positions [1, 2].

The PMR spectrum of the glycoside taken in deuteropyridine contained the following signals (ppm): doublet at 8.23 (2H), $J = 8.5$ Hz, being the signal of the H-2', 6' protons; doublet at 7.03 (2H), $J = 8.5$ Hz — H-3', 5'; singlet at 6.8 (1H) — H-6; singlet at 6.7 (1H) — H-3; triplet at 6.35 (1H), $J = 8.5$ Hz — assigned to the signal of the proton in position 2 of a glucose residue; singlet at 5.77 (1H) — assigned to the signal of the proton of the anomeric center of a β -glucose residue; multiplet at 4.05–4.6 ppm (6H, belonging to the protons of the glucose residue; singlet at 1.76 (3H) — the signal of an acetyl group. The position of the acetyl group was determined by the INDOR method.

On the basis of the results of hydrolysis and of UV and PMR spectroscopy, the substance isolated has been characterized as 8-C-(2''-acetyl- β -D-glucopyranosyl)-4', 5, 7-trihydroxyflavone, and we have called it acetylvitexin.

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