LUTEOLIN 7-GLUCOSIDE FROM THE LEAVES

OF Salix caprea

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Continuing investigations of the phenolic compounds of Salix caprea L. (goat willow) [1, 2], by paper chromatography in the butan-1-ol-acetic acid-water (4:1:5) system we have found a substance with R_f 0.48. In order to isolate this flavonoid, 1.0 kg of the finely comminuted dry leaves collected in the Shusha region of the Azerbaidzhan SSR, was extracted successively with chloroform and with 70% ethanol. The ethanolic extracts obtained were evaporated under vacuum to an aqueous residue, and this was treated with ethyl acetate. After a day, the ethyl-acetate-saturated aqueous extract deposited light yellow crystals. After three recrystallizations from methanol, these had mp 258-260°C.

The products of acid hydrolysis with 5% sulfuric acid for 3 h were found to contain D-glucose and the aglycone (luteolin). UV spectrum of the glycoside: $\lambda_{\max}^{CH_3OH}$ 353, 255 nm, $[\alpha]_D^{20}-54^\circ$ [c 0.512; methanol-pyridine (5:1)].

On the basis of the results of acid and enzymatic hydrolysis, the IR spectrum, UV spectroscopy with ionizing and complex-forming reagents [3], polarimetry, and paper chromatography, the glycoside isolated was identified as luteolin $7-\beta$ -D-glucopyranoside [4].

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