

HYPEROSIDE FROM *Cystidospermum cheirolepis*

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The genus *Cystidospermum*, family Euphorbiaceae, comprises a single species — *Cystidospermum cheirolepis* (F. et M.) Prokh., which grows in the Kyzylkum sands of the Khoresmian Oasis [1].

By paper chromatography and also by specific qualitative reactions we have found that the herbage of the species contains six substances of a phenolic nature.

We have previously extracted the epigeal part of this plant with 70% ethanol, concentrated the extract, and chromatographed the aqueous solution on a column of polyamide sorbent (elution with water heated to +60°C). Quercetin, kaempferol, rutin, gallic acid, and methyl gallate were isolated [2].

Continuing the elution of the column with 20–30% aqueous ethanol, we obtained an individual substance with the composition $C_{21}H_{20}O_{12}$, mp 238–240°C, $[\alpha]_D^{20} -36^\circ$; R_f 0.42 in the 15% acetic acid system and R_f 0.70 in the butan-1-ol–acetic acid–water (4:1:5) system. UV spectrum: λ_{max} in methanol 255, 265, 300 sh, 355 nm; with sodium acetate and boric acid 395 nm, while with zirconyl chloride and citric acid the shift disappears.

In the products of the hydrolysis of a solution of the glycoside in 50% ethanol with 3% HCl for 1.5 h we found the aglycone, quercetin, and the carbohydrate moiety, identified as D-galactose. The amount of aglycone in the glycoside amounted to 68%. Consequently, this substance is quercetin 3-galactoside, and a mixed melting point showed its identity with hyperoside. The amount of hyperoside in the plant was 0.83% of the weight of the air-dried raw material, as was found spectrophotometrically after separation by paper chromatography.

LITERATURE CITED

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