PHENOLIC COMPOUNDS OF CHAITURUS MARRUBIASTRUM

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In a preliminary investigation of the epigeal part of Chaiturus marrubiastrum L. [1, 2] we detected the presence of aromatic acids and flavonoids. These compounds were separated by fractionation from evaporated ethanolic extracts and by column chromatography of the separate fractions.

Mainly, the ethyl acetate fractions contained flavonoid aglycones and caffeic acid and its derivatives.

The mixture of these substances was separated on a Kapron column with ethyl acetate elution. Kaemferol, quercetin, caffeic acid, and 3-caffeylquinic, 4-caffeylquinic, 5-caffeylquinic, and 1-caffeylquinic acids were isolated.

The ethanolic fractions were first purified on a layer of Kapron from acetone and isopropanol solution and then the purified flavonoid glycosides were separated repeatedly on a Kapron column with elution by water and mixtures of water and ethanol.

The following were obtained in the individual state: quercetin 3-glucoside with mp 240–241° C, $[\alpha]_D^{20}$ −65° (c 0, 2; ethanol); kaempferol 3-glucoside with mp 177–179° C, $[\alpha]_D^{20}$ −69° (c 0.5; ethanol); quercetin 3-rhamnoglucoside, or rutin, with mp 190–191° C, $[\alpha]_D^{20}$ −32° (c 0.7; dimethylformamide); and kaempferol 3-rhamnoglucoside with mp 222–223° C, $[\alpha]_D^{20}$ −30° (c 0.3; dimethylformamide).

The substances were identified on the basis of their physicochemical properties, UV and IR spectra and comparison with authentic samples.

REFERENCES

1. Flora of the USSR, Vol. XXI [in Russian], AN SSSR, Moscow–Leningrad, 144, 1954.
2. Reference List of Plants of the Ukraine [in Ukrainian], AS UkrSSR, Kiev, 569, 1965.

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