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PHENOLIC COMPOUNDS OF BETONICA FOLIOSA

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We have studied the epigeal part of Betonica foliosa Rupr. — Stachys betonicaeflora Rupr. collected in the flowering phase in the foothills of the Kirgiz range in the region of Issyk-Ata, for its content of phenolic compounds.

Chromatographic analysis of the extracts (extractant—50% methanol; system for chromatography—0.1 N HCl) showed the presence of five substances which, on the basis of qualitative reactions, UV spectra of the spots on paper, and the results of a comparison with authentic samples, were identified as caffeic (R_f 0.20), 4-caffeoylquinic (R_f 0.40), chlorogenic (R_f 0.50), neochlorogenic (R_f 0.70), and 1-caffeoylquinic (R_f 0.80) acids. Thus, the tanning substances previously found in these plants [1] form a complex of depsinoids of caffeic and quinic acids.

By two-dimensional chromatography [1] n-BAW (4:1:2) and 2) 15% CH_3COOH] and one-dimensional chromatography (60% CH_3COOH) four flavonoids were found in the extract of Betonica foliosa (Stachys betonicaeflora). All of these substances were isolated by fractional extraction with butanol from aqueous solutions and were separated on a column of Kapron. Three individual compounds, (A, B, and C) were obtained.

Substance A, from its physicochemical constants, UV spectrum, and a comparison with an authentic sample, proved to be identical with orientin [2].

Substance B has been provisionally characterized as an apigenin glycoside with a substituent in position 4'.

Substance C is also an apigenin derivative, of an aglycone nature, with methoxy groups in positions 7 and 4'.

We are the first to have found C-glycosides in plants of the family Labiatae.

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