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FLAVONOIDS OF THE LEAVES OF *Colchicum speciosum*

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Chemical investigations of *Colchicum speciosa* Stev. have related mainly to its alkaloid composition [1-3]. We have now studied the flavonoid composition of the leaves of *C. speciosum* Stev. gathered in the middle of May, 1989, in the environs of the village of Krasnaya Polyana, Krasnodar' territory, in the active vegetation phase.

The comminuted air-dry material (1 kg) was exhaustively extracted with 70% ethanol. The combined extracts were concentrated under vacuum to an aqueous residue, and this was treated with chloroform to eliminate ballast substances. The flavonoids were extracted from the purified aqueous solution with ethyl acetate.

To isolate individual compounds, the total flavonoids were deposited on a column of polyamide sorbent and were eluted successively with chloroform and mixtures of alcohol and chloroform. As a result, four substances of flavonoid nature were isolated and identified:

Substance (I) -  $C_{15}H_{10}O_5$ , light yellow crystals, mp 341-343°C. UV spectrum: 335, 270 nm; identified as apigenin [4].

Substance (II) -  $C_{15}H_{10}O_6$ ; yellow crystals, mp 329-330°C. UV spectrum: 350, 265 nm; identified as luteolin [4].

Substance (III) -  $C_{21}H_{20}O_{10}$ , light yellow crystals, mp 225-227°C. UV spectrum: 335, 270 nm.

Substance (IV) -  $C_{21}H_{20}O_{11}$ , light yellow crystals, mp 266-268°C. UV spectrum: 350, 255 nm.

Substances (III) and (IV) were glycosides, and, as the result of acid hydrolysis, substance (III) yielded apigenin and D-glucose, and substance (IV) luteolin and D-glucose. It was established by UV spectroscopy with diagnostic additives that the carbohydrate residues in them were attached to the hydroxyls in the C-7 positions. Substance (III) was apigenin 7-O- $\beta$ -D-glucoside (cosmosiin), and substance (IV) was luteolin 7-O- $\beta$ -D-glucoside (cynaroside) [4]. The flavonoids isolated were identified from the results of elementary analysis and of UV and IR spectroscopy, and also from the absence of melting point depressions of mixtures of authentic samples with the compounds isolated. Thus, two flavonoid glycosides (cynaroside and cosmosiin) and two aglycons (epigenin and luteolin) have been isolated from leaves of *Colchicum speciosa* Stev.

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