FLAVONOIDS AND PHENOLIC ACIDS OF Pyrethrum corymbosum

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We have studied the polyphenolic composition of *Pyrethrum corymbosum* (L.) Willd. (Mediterranean chrysanthemum) collected in the flowering period in the region of the town of Kislovodsk.

Two-dimensional chromatography (15% solution of CH_3COOH in the first direction, and BAW in the second direction) of an ethanolic extract of the epigeal part of the plant showed the presence of six substances which were assigned to the polyphenols from the results of color reactions with chromogenic reagents.

To isolate the substances, 0.5 kg of air-dry flowers was exhaustively extracted with ethanol, and the ethanolic extract was concentrated, diluted with water, and treated with chloroform. The purified ethanolic extract was chromatographed on a column of polyamide and the substances were eluted with solutions of ethanol of increasing concentration (from 20 to 80%). The eluates obtained were analyzed chromatographically, and the fractions containing identical substances were combined. The eluates were concentrated, and the precipitates that formed were recrystallized from methanol.

Spectral chracteristics [2] showed that substance (I) was a flavonoid. The Bryant test for glucosides [3] was positive. On the basis of the results of a study of the products of acid and alkaline hydrolysis and a mixed melting point, substance (I) was identified as lute-olin 7-0- β -D-glucoside.

From the results of UV and IR spectroscopy and alkaline cleavage, substance (II) was shown to be 3',4',5,7-tetrahydroxyflavone, which is known as luteolin.

An ethanolic extract of the epigeal part of the plant was found to contain phenolic acids: caffeic and chlorogenic, their presence being established by chromatography with the use of specific reagents [4].

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