FLAVONOIDS OF THE LEAVES OF Rhamnus pallasii

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From the air-dry leaves of <u>Rhamnus pallasii</u> F. et M. growing in Tbilisi the flavonoids were extracted with 80% methanol. The ethanol was evaporated from the extract under vacuum, and the aqueous liquid was purified with chloroform and was chromatographed on a column of polyamide sorbent. The column was washed with chloroform and with mixtures of ethanol and chloroform with gradually increasing concentrations of ethanol. Three individual flavonoids -1, 2, and 3 - were obtained.

Substance 1, with the composition $C_{15}H_{10}O_6$, mp 275-277°C was identified by its IR and UV spectra and by its behavior on paper chromatography as 3,4',5,7-tetrahydroxyflavone or kaempferol.

Substance 2, with the composition $C_{16}H_{12}O_7$, mp 303-305°C was identified similarly as 3,4'5,7-tetra-hydroxy-3'-methoxyflavone, or isorhamnetin.

Substance 3 with the composition $C_{15}H_{10}O_7$, mp 310-313°C was characterized as 3,3',4',5,7-pentahydroxyflavone, or quercetin [1-3]. It is significant that in the leaves of <u>Rhamnus pallasii</u> the flavonoids are found only in the form of the free aglycones.

LITERATURE CITED

- 1. V. S. Batyuk and A. F. Kol'tsova, Khim. Prirodn. Soedin., 121 (1969).
- 2. A. P. Prokopenko, V. I. Spiridonov, V. I. Litvinenko, and V. T. Chernobai, Khim. Prirodn. Soedin., 649 (1972).
- 3. H. Strzelecka and J. Malinowski, Acta Pol. Pharm., 29, 417 (1972).

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