

FLAVONOLS OF THE GRAPE

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In a study of the flavonol composition of the solid parts of the grape raceme it was found that the combs of grapes of the variety Rkatsiteli and the skins of the variety Saperavi were richest in these substances.

To investigate the flavonols of Rkatsiteli grapes, the total phenolic substances – the enotannin – was isolated from the combs by a known method [1].

The individual flavonols were obtained by separating the enotannin on Sephadex LH20. A total of three flavonols were isolated – astragalín, kaempferol, and isoquercitrín [2, 3].

The combined phenolic substances from the skin of grapes of the Saperavi variety were separated by extracting it with hot water and then concentrating the extract. The extract was transferred to a column by Sephadex LH20 and was separated into its individual components. Three individual substances were obtained: astragalín, isoquercitrín, and rutin [2, 3].

The flavonoids isolated from the combs of Rkatsiteli grapes and from the skin of Saperavi grapes were identical with respect to the following characteristics: their melting points, their UV and IR spectra and bathochromic analyses using complex-forming and ionizing reagents, the results of a study of the products of acid and enzymatic (rhamnodiastase) hydrolyses, the values of $[\alpha]_D^{20}$, and the results of a comparison of the $[M]_D^{20} \cdot K_P$ values of the flavonoids with the values of the coefficients of the molecular rotations of phenyl glycosides.

This is the first time that the flavonols kaempferol and astragalín have been isolated from grapes.

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