COMPONENTS OF THE FRUIT OF *Rosa nisami*

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We have investigated the fruit of *Rosa nisami* Sosn. family Rosaceae, collected in the period of ripening in September, 1982, at Batabat in the Shakhbuz region of the Nakhichvan ASSR at a height of 1800 m above sea level.

The fruit was comminuted and the stones were separated from the flesh. The stones were defatted and their fatty oil was extracted with diethyl ether in a Soxhlet apparatus. The oil obtained (5.8% on the crude weight) was a liquid with a pleasant odor and a yellow-greenish color. Its physicochemical constants were determined by literature methods [1]: d_4^{20} 0.9122; n_D^{20} 1.4786; acid No. 5.45; saponification No. 187.10; ester No. 191.65. The amount of free fatty acids, calculated as oleic acid, was 2.7%. The flesh of the fruit contained 5.9% of lipids.

To determine the organic acids, the flesh of the fruit was extracted with water at 80-90°C for 30 min. In the resulting extract, the nonvolatile carboxylic acids were determined by paper chromatography in systems 1) butan-1-ol—acetic acid—water (100:24:10) and 2) butan-1-ol—acetic acid—water (17:2:9) in the presence of "markers." After the chromatograph had been revealed with an alcoholic solution of bromthymol blue [2], citric, malic, and tartaric acids were eluted. The total amount of the acids was 14.5 meq or, calculated as citric acid, 0.93%.

The amount of ascorbic acid in the fruit was determined by the iodometric method — 4.01% (on the crude weight) [3].

The presence of free sugars — glucose and fructose — was established by ascending PC in the butan-1-ol—acetic acid—water (4:1:5) system with aniline phthalate as revealing agent [4].

Free amino acids were determined by a standard method [5]. The fruit contained five free amino acids: leucine, methionine, valine, tyrosine, and threonine.

The total triterpenoid acids were isolated from the fruit of *R. nisami* by the method of Deren'ko and Suprunov [6]. It was established by TLC on Silufol UV 254 in the benzene—acetone (8:2) system with revelation by concentrated H_2SO_4 that the combined substances consisted of three components with the following R_f values: (I), 0.94; (II) 0.59; (III) 0.45.

The substance with R_f 0.45 gave a broad spot. It was isolated by preparative TLC in the pure form as a white powder with mp 273-276°C (from ethanol), $[\alpha]_D$ +62° (c 1.0; chloroform); λ_{max} in concentrated H_2SO_4 310 nm, which is characteristic for ursolic acid [7]. When the substance was chromatographed with an authentic sample of ursolic acid their R_f values coincided. On the basis of these facts, the substance was identified as ursolic acid.

The flesh of the fruit yielded a water-soluble polysaccharide (21.3%) and pectin substances (4.6%).

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