

The IR spectra of the substances themselves and of mixtures with ionizing and complex-forming additives confirmed the presence in them of quercetin, dihydroquercetin, and dihydrokaempferol [1]. The IR spectra contained characteristic absorption bands: 1645-1655 (C = O), 1600-1615 (=), 1590 (C₆H₅ -), 3300-3500 cm⁻¹ (OH) [2].

From quercetin and dihydroquercetin were obtained the pentaacetates [3] which were characterized by their melting points and IR and UV spectra. In addition, the mutual interconversion of quercetin and dihydroquercetin was carried out [4] and the reaction products were identified chromatographically. The dihydroquercetin was optically active, $[\alpha]_D^{20} + 42.1^\circ$ [acetone-water (1:1)].

Thus, Larix dahurica, like other species of the family Larix [5] contains not only flavonols but also their reduced forms-flavanols.

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FLAVONOLS OF RHODODENDRON LUTEUM AND RH. DAHURICUM

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We have studied the flavonoid composition of Rh. luteum (pontic azalea) collected in the flowering period in the Teberda reserve (northern Caucasus) and Rh. dahuricum (Dahurian rhododendron) collected in the budding period at the village of Elabuga (Khabarovsk territory). The total flavonoids were isolated from an ethanol-water extract of the leaves of the two rhododendrons after treatment with ethyl acetate and precipitation with chloroform.

Two-dimensional paper chromatography in systems 1) water and 2) butanol-acetic acid-water (4:1:2) showed that the leaves of Dahurian rhododendron contain three compounds of flavonol nature. The total flavonols were separated by fractional recrystallization from alcohol with subsequent purification on a column of polyamide sorbent.

A study of the UV and IR spectra and the products of acid and enzymatic hydrolysis show that one of the substances - C₂₁H₂₀O₁₂ with mp 236-239° C - is hyperoside (quercetin 3-β-D-galactopyranoside), a second - C₂₀H₁₈O₁₁ with mp 208-211° C - is avicularin (quercetin 3-α-L-arabinoside) [1, 2], and a third - C₁₆H₁₂O₇, with mp 300-303° C - is azaleatin (quercetin 5-methyl ether) [3].

Five compounds were found in the leaves of the pontic azalea, three of which were identical with those given above, while the fourth, of composition C₂₁H₂₀O₁₂ with mp 196-199° C, proved to be myricitrin and the fifth - C₁₅H₁₀O₇ with mp 309-312° C - quercetin.

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