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LAGOCHILIN 3-MONOACETATE FROM *Lagochilus inebrians*

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Lagochilin and its tetraacetate [1, 2] have been isolated previously from *Lagochilus inebrians* Bge, and three flavonoids have also been detected chromatographically [3].

We have studied the plant collected in August, 1975 in the environs of Samarkand. The air-dry epigeal part (2.8 kg) was extracted with ether. The extract was concentrated to small volume and was then mixed with alumina, and substances were extracted from it successively with hexane and carbon tetrachloride. The carbon tetrachloride fraction was passed through a column of alumina [eluent: chloroform—methanol (100:3)]. The total substances obtained were rechromatographed on a column of type LC 100/250 silica gel (eluent:chloroform). The purified total material was again passed through the column with carbon tetrachloride—methanol (25:1) as eluent.

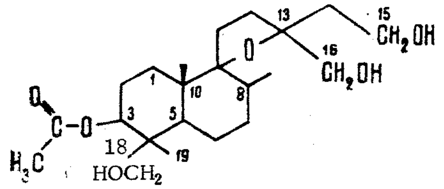
The last fractions yielded a new crystalline substance, not described in the literature, with mp 102-103°C and composition $C_{22}H_{38}O_6$. Its molecular weight was 398 (mass spectrometrically), and its specific rotation $[\alpha]_D^{27}$ +6.3° (c 1; ethanol).

The substance was soluble in ethanol, methanol, ether, chloroform, and benzene and was insoluble in carbon tetrachloride and hexane.

The IR spectrum of the compound had absorption bands characteristic for hydroxy (3370-3500 cm^{-1}) and ester (1743 cm^{-1}) groups.

Hydrolysis of the substance isolated in ethanol with a 5% solution of KOH gave lagochilin and on acetylation with acetic anhydride in pyridine lagochilin tetraacetate was formed. Thus the substance isolated is an acetyl derivative of lagochilin.

The mass spectrum of the compound had peaks with m/e 172, 185, and 198, showing that the acetyl group was present at C-3 or C-18 of the lagochilin molecule. The position of attachment of the acetyl group was established with the aid of PMR spectra. In the PMR spectrum (Varian XL-100, δ scale, HMDS, $CHCl_3$) a three-proton singlet of a single acetyl group was observed at 1.98 ppm and a one-proton quartet at 4.78 ppm which is characteristic for a C-3 proton to which an acetyl group is attached [4]. As was to be expected, the signals of the protons at C-15, C-16, and C-18 appeared in a different region of the spectrum as compared with the signals of the corresponding protons in the PMR spectrum of lagochilin tetraacetate. On the basis of these facts, the structure of lagochilin 3-monoacetate is proposed for the diterpenoid isolated:



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ANTHOCYANINS OF THE SKIN OF THE FRUIT OF *Persica vulgaris*

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We have investigated ten varieties of the species *Persica vulgaris* Mill. of the early and middle periods of ripening and of different origins. All varieties apart from Inzhirnyi novyi had a yellow flesh of the fruit and main color of the skin was from creamy white to golden yellow and orange with a carmine, red, or bright red tinge. They contained sugars (10-14%), organic acids (0.4-0.6%), vitamins A and C, mineral salts, and pectin and tannin substances [1]. The chemical compositions of the leaves, flowers, fruit, stem bark and root bark have been reported previously [2-5].

The air-dry skins of the fruit were extracted by steeping at room temperature with chloroform, ethyl acetate, and methanol containing 1% of hydrochloric acid. The total yield of extractive substances in chloroform was from 5.4 to 6.0%.

Ethyl acetate extracted mainly the flavonoid and tannin substances, and methanol extracted chlorogenic acid, sugars, and anthocyanins with some contaminating substances. The anthocyanins were extracted from the concentrated extract with isoamyl alcohol. The amount of anthocyanins in the skins of different varieties of peach (in percentages on the air-dry weight of the raw material) were as follows:

Variety	Origin	Date of Ripening and Collection	Total Amount of Anthocyanins
Morettini giallo precoce	Italy	June 22	9.34
Red Haven	America	July 12	10.65
Golden Jubilee — standart	America	July 15	9.63
Sovetskii	Nikit-skii Botanical Garden	July 19	7.54
Kremlevskii	The same	July 25	5.64
Yulduz	R. R. Shreder Institute	July 27	13.76
Inzhirnyi novyi — standart	The same	July 28	5.32
Valiant	America	July 29	7.15
Lola — standart	R. R. Shreder Institute	July 30	13.37
Start — standat	The same	August 2	7.41

From the acidic methanolic extract by chromatography on cellulose powder we obtained a dark violet substance with mp 215-217°C (decomp.). From its chromatographic behavior [6, 7] and properties it was identified as chrysanthemin, isolated previously from peach flowers [3, 8].

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