

Recrystallization from ethanol gave colorless crystalline needles with a stable mp of 218° C. Yield 0.2% (of the dry acetone extract of the needles).

Found, %: C 75.55, 75.42; H 9.67, 9.72. Calculated for $C_{20}H_{30}O_3$, %: C 75.47; H 9.43; mol. wt. 318 (by mass spectroscopy).

The UV spectrum had no maximum whatever (between 400 and 220 m μ). The IR spectrum of the substance had the following bands: 3440 cm^{-1} (OH group), 1700 (CO in a carboxy group), 1640 and 900 cm^{-1} (double bond, possibly of the $CH_2 =$ type). Thus, we had obtained a hydroxy acid with a composition relating it to the diterpenes.

Many workers [1-5] have isolated resin acids of the pimaric acid group from plants of the genus *Juniperus* and other genera of the family Cupressaceae.

The closest to the hydroxy acid that we isolated is hydroxysandaracopimaric acid [3], but it has mp 270° C.

Evidently the hydroxy acid $C_{20}H_{30}O_3$ that we found is a new one, at least for junipers; we have called it turcomanic acid.

The IR spectra (on a UNICAM SP.200 spectrometer) and the mass spectra of turcomanic acid were taken in the Institute for the Chemistry of Natural Compounds AS USSR.

REFERENCES

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ALKALOIDS OF GLAUCIUM FLAVUM

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A study of the alkaloid composition of Glaucium flavum Grantz. has led to the isolation of, in addition to the alkaloids known for this genus, a base with the composition $C_{19}H_{21}NO_4$, mp 125-126° C (benzene), $[\alpha]_D^{20} +60^\circ$ (c 0.9591; ethanol); hydrochloride $C_{19}H_{21}NO_4 \cdot HCl$ with mp 260-262° C (decomp., aqueous ethanol); picrate with mp 194-196° C (decomp., aqueous ethanol).

When the base $C_{19}H_{21}NO_4$ was compared with a sample of the alkaloid d-aurotensine (I), kindly given to us by I. Slavik, their IR spectra were found to coincide and there was no depression of the melting point of a mixture. However, our alkaloid contains a N-methyl group and two mobile hydrogens, and on treatment with acetic anhydride it formed a triacetyl derivative $C_{25}H_{27}NO_7$ with mp 165-167° C (alcohol), which possessed no basic properties and was optically inactive.

The production of a triacetyl derivative which, according to the IR spectrum, contains not only a O-acetyl but also a N-acetyl group (1770, 1648 cm^{-1}), can be explained by the rupture of the C-N bond during acetylation with simultaneous N-acetylation which is characteristic for the aporphine alkaloids. In actual fact, the methylation of the base that we had isolated with diazomethane gave its di-O-methyl derivative, which proved to be identical with d-glaucine. The results of the investigations carried out show that our base $C_{19}H_{21}NO_4$ is identical with authentic d-aurotensine from G. flavum. This base is bis-O, O-demethylglaucine.

REFERENCE

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