

COMPONENTS OF THE LEAVES OF *Olea verrucosa*

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Plants of the family Oleaceae L. are rich in biological substances and have long been used in traditional and scientific medicine [1-6]. However, *O. verrucosa* L (warty olive) had not been investigated in the chemical respect. We have studied the chemical composition of the leaves of warty olive gathered in the Mardakyansk arboretum, Azerbaidzhan Academy of Sciences.

Substances (1-5) were isolated from the air-dry leaves by successive extraction with *n*-hexane, chloroform, and acetone, followed by purification and separation on a column filled with alumina of activity grade II.

Substance (1), white crystalline, composition $C_{30}H_{48}O_3$, mp 300-302°C (ethanol), $[\alpha]_D^{20} +78^\circ$ (*c* 0.8, pyridine). Its IR spectrum showed absorption bands at (cm^{-1}) 3400 (hydroxy group), 1700 (carboxy group), 1656 and 819 (double bond).

Substance (2), white crystalline, composition $C_{30}H_{48}O_4$ mp 266-268°C (ethanol), $[\alpha]_D^{20} +40^\circ$ (*c* 0.9; pyridine). Its IR spectrum showed absorption bands at (cm^{-1}) 3450 (hydroxy group), 1700 (carboxy group), and 1658 and 820 cm^{-1} (double bond).

Substance (3), white acicular, composition $C_6H_{14}O_6$, mp 164-166°C (ethanol), hexaacetate with mp 120-122°C (methanol).

Substance (4), amorphous, composition $C_{25}H_{32}O_{13} \cdot 1.5 H_2O$, $[\alpha]_D^{20} -145^\circ$ (*c* 1.0; methanol), $\lambda_{max}^{methanol}$ 234, 285 nm. The IR spectrum showed absorption bands at (cm^{-1}) 3400 (hydroxy group), 1720 (ester bond), and 1640 and 1535 cm^{-1} (double bond in an aromatic nucleus).

On the basis of their physicochemical properties and IR and UV spectroscopic and chromatographic characteristics, using authentic samples, substance (1) was identified as oleanolic acid, (2) as maslinic (2 α -hydroxyoleanolic) acid, (3) as *D*-mannitol, and (4) as β -(3,4-dihydroxyphenyl)ethanol.

Substance (5) was identified as the secoiridoid glucoside oleuropein, which possesses a high physiological activity [7]. This is the first time that all the substances mentioned above have been isolated from the leaves of warty olive [4-6].

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