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B R I E F C O M M U N I C A T I O N

PSEUDOCARPAINE FROM *Carica Papaya*

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Carica papaya L. (melon tree, Caricaceae) is a perennial that is cultivated in many countries. We studied the alkaloid content of the species cultivated in Uzbekistan. We studied leaves, bark, and heartwood of melon tree. The $CHCl_3$ extract of ground leaves and heartwood was moistened with dilute ammonia solution. The quantitative contents of total alkaloids in the leaves (0.025%) and heartwood (0.036%) were determined. TLC indicated that both totals were qualitatively the same so they were combined. Treatment with ether gave two fractions. The fraction soluble in ether was chromatographed on an aluminum-oxide column with elution by hexane and ether. White needle-like crystals (mp 65-66°C, ether) were isolated from the ether eluates.

The IR spectrum contains absorption bands at 3325 (NH), 2929, 1717, 1470, 1376, 1234, 1200, 1118, 1099, and 784 cm^{-1}, which are consistent with active H, an ester carbonyl, and an ether in the molecule.

The mass spectrum has peaks for the molecular ion with *m*/*z* 478 and ions with *m*/*z* 463 $[M - 15]^+$, 449 $[M - 29]^+$, 436 $[M - 42]^+$, 419 $[M - 59]^+$, and others.

The PMR spectrum ($CDCl_3$) at strong field exhibits two 3H doublets centered at 1.03 (3H, d, J = 7 Hz) and 1.25 (3H, d, J = 7 Hz) from two secondary methyls. Two signals appear as a 1H quartet and multiplet at 2.26 and 2.85 ppm from protons of two methyls geminal to methyls. A 2H signal appears as a broad multiplet at 4.76 ppm, apparently from two methine protons coupled with esters.

A methylene hump probably from methylene protons is present at 1.1-2.00 ppm. Such a PMR spectrum, IR spectral characteristics, and mass spectrum indicate that the alkaloid is pseudocarpaine [1], which has been isolated previously from a wild species of *C. papaya*. Comparison of the spectral data for the alkaloid isolated by us with those of carpaine [2, 3] and pseudocarpaine [3] confirmed our conclusion. Thus, signals for the methyls of carpaine usually appear as one 6H doublet because of the symmetric overlap of signals. The PMR spectrum of our compound has methyl signals as two resolved 3H doublets, which corresponds to the PMR spectrum of pseudocarpaine. Therefore, the alkaloid isolated by us is pseudocarpaine, which was first found by us in the introduced species of melon wood.

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