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ISOLATION OF COLUMBIN FROM *MELOTHRIA MADEROSPATANA*

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Plant. Melothria maderospatana Cogn. DC. (Cucurbitaceae) collected in Chaochou, Pington, Taiwan. Voucher Specimen is deposited in the Herbarium of Botany, Colledge of Science, National Taiwan University. *Previous work*. None. *Uses*. Antidote (flower) and analgesic (radix) in Taiwan.[1,2] The ethanolic extract of the roots was concentrated to dryness and the residue was treated repeatedly with portions of warm tartaric acid solution until all of the basic substances were removed. The acid-insoluble residue was recrystallized from acetone to give white needles, m.p. 195–196°.

MS peaks at *m/e* 358·142 ($C_{20}H_{22}O_6$ requires 358·142) and 314·153 ($C_{20}H_{22}O_6$–CO_2 requires 314·152), IR bands at 3500, 3125, 1745, 1705, 1503 cm^{-1}, and NMR peaks at 7·60(2H,*m*), 6·57(1H,*m*), 6·40(1H,*dd*, *J* 5·0, 8·0 Hz), 6·12(1H,*dd*, *J* 1·5, 8·0 Hz), 5·47(1H,*dd*, *J* 4·5, 11 Hz), 5·21 (1H,*dd*, *J* 1·5, 5·0 Hz), 3·5(1H,*bs*, D_2O exchangeable OH), 2·47(4H,*m*), 2·23(1H,*d*, *J* 4·5 Hz), 1·97(1H,*d*, *J* 11 Hz), 1·6(2H,*m*), 1·10(3H,*s*), and 0·85(3H,*s*) indicated that the compound was columbin. The compound was further characterized by facile transformation to decarboxycolumbin, m.p. 141°, on heating over 195°. The IR and chromatographic behaviour were identical to those of an authentic sample. Columbin, a bitter substance, was isolated from *Jateorhiza palmata* Miers (Menispermaceae) with minor congeners jateorin, chasmanthin, and palmarin.[3,4]

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