

E2-58: Alkaloid from *Microcos paniculata*

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Microcos paniculata L. (Tiliaceae) is a small tree growing at lower altitudes. We have previously reported the isolation of the insecticidal N-methyl-6 β -(deca-1'3'5'-trienyl)-3 β -methoxy-2 β -methylpiperidine from *M. paniculata*. Chromatographic separation of the acid soluble fraction of the dichloromethane – methanol (1=1) extract of the stem bark of *M. paniculata*, resulted in isolation of the alkaloid.

The UV spectrum of the alkaloid indicated it to be a piperidine. Its ¹H NMR contained 3 methyl signals for CH₃CH₂, CH₃CH and N CH₃ groups. ¹H and ¹³CNMR indicated the presence of 3 olefinic groups. COSY experiments showed that a long chain substituent consisting of a butanyl moiety attached to 3 conjugated double bonds was present as found in the alkaloid isolated previously.

An OH substituent was present as there was a CHOH proton signal in its ¹H NMR spectrum. A comparison of the ¹H and ¹³CNMR spectra with those of the alkaloid previously isolated, disclosed that they were very similar except for the absence of OCH₃ signals suggesting that the alkaloid was a piperidine with a methylated nitrogen carrying methyl and hydroxyl substituents in addition to the long chain substituent. The positions of these groups were determined by

COSY experiments and the alkaloid was shown to have a N-methyl-6 β -(deca-1'3'5'-trienyl)-3 β -hydroxy-2 β -methylpiperidine structure.

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