

COUMARINS FROM *MURRAYA PANICULATA**KANWAL RAJ, SHYAMA C. MISRA, RANDHIR S. KAPIL
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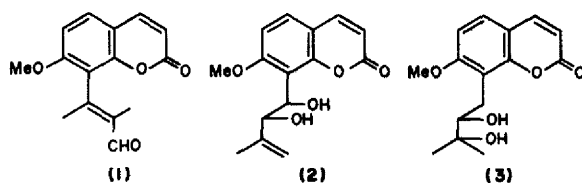
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Key Word Index—*Murraya paniculata*; Rutaceae; coumarins; murralongin; murrangatin; meranzin hydrate.

In view of the versatility of the type of chemical structures obtained in the plants belonging to the family Rutaceae [1] and the interesting series of new compounds isolated and studied from *Murraya koenigii* Spreng. (Rutaceae) [2], in these laboratories, it was considered of interest to examine another plant of the *Murraya* genus i.e. *M. paniculata* (Linn.) Jack syn. *M. exotica* Linn. Prior to this investigation a number of coumarins [3–11], flavones [6,7,12–14], indoles [15,16] and essential oil [17] have previously been isolated from this plant.

The C_6H_6 and $CHCl_3$ soluble fractions of the EtOH extract of the fresh leaves after column chromatography on Si gel afforded murralongin (1) [18], murrangatin (2) [11] and meranzin hydrate (3) [19]. The identities were confirmed by comparison with authentic materials.



EXPERIMENTAL

Fresh leaves of *M. paniculata* (2 kg), collected from the Institute campus, were extracted with 95% EtOH (10 l). The EtOH extract was concentrated *in vacuo*, diluted with H_2O (200 ml) and extracted with *n*-hexane (3×200 ml) followed by C_6H_6 (4×300 ml) and $CHCl_3$ (4×300 ml). The combined C_6H_6 extracts were washed with H_2O , dried and the solvent removed. The residue (9 g) was chromatographed on a column of Si gel (450 g) in *n*-hexane. Elution was effected with increasing proportions of C_6H_6 followed by EtOAc. The 10% EtOAc- C_6H_6 fractions on concentration afforded murralongin (250 mg), mp 134–135°, M^+ 258. The $CHCl_3$ fraction (7.5 g) was also chromatographed on a Si gel column (375 g) and elution was effected with *n*-hexane followed by C_6H_6 -EtOAc. The 25% C_6H_6 -EtOAc fractions furnished murrangatin (300 mg), mp 133°, M^+ 276; diacetate, mp 123°. Further elution with C_6H_6 -EtOAc gave meranzin hydrate (150 mg), mp 128°, M^+ 278; acetate, mp 133–134°; diacetate, mp 114°.

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