NOTES

6-Hydroxymethyl angolensate from *Swietenia mahagoni* Jacq[1].

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In the previous communications we reported three terpenoid constituents, mahoganin[2], 7-deacetyl-7-oxo gedunin[3] and cyclomahogenol[4] from *S. mahagoni* Jacq. We now report the isolation of a new furanolactone, which was eventually identified as 6-hydroxy methyl angolensate (I) isolated from *Khaya grandifoliola* by Connolly *et al.*[5].

The compound m.p. 235–38°, $[\alpha]_D$ 90° ($CHCl_3$) was found to be homogeneous by the thin layer chromatography using the solvent system, benzene-chloroform (1 : 1) containing 2% methanol (R_f value 0·45). From analytical data the molecular formula $C_{27}H_{34}O_8$ was assigned to this compound. This has also been confirmed by mass spectral measurements when a molecular ion peak at m/e 486 was observed. The ir. spectrum of the compound shows bands at 3475 (hydroxyl), 1724 (δ-lactone, carbomethoxy, cyclohexanone) and 1505 and 875 cm^{-1} (furan ring). The uv. absorption maxima characteristic for furan at 211 mμ (log ϵ 3·69) and for ketonic function at 275 mμ (log ϵ 1·42) was recorded.

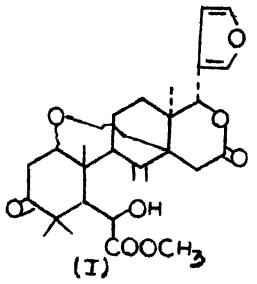
The N.M.R. spectrum of the compound (60 MHz in $CDCl_3$) showed the presence of two α-furan protons (δ 7·3–7·5); β-furan proton (δ 6·4); one furfurylic proton (δ5·65); protons for a carbomethoxy group (δ 3·87); protons for a terminal methylene group (δ 5·2; 4·9); hydroxyl proton (δ 3·13, disappears on deuteration); protons adjacent to an oxide linkage (δ 3·6) and signals 4-*C*-methyl groups (δ 1·45, δ 1·36, δ 1·07 and δ 0·88).

All the functional groups showed that the furanolactone had a structure very similar to that of methyl angolensate[6,7], andirobin[8] and mahoganin[2]. The hydrogen adjacent to hydroxyl (CHOH) signal at δ 4·48 was very similar to that in swietenine[9]. This suggests

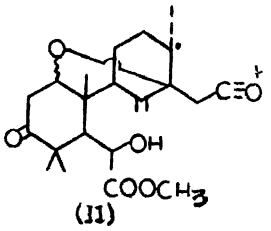
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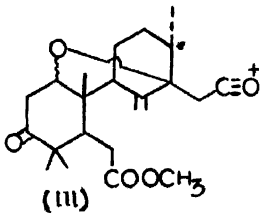
that it has a $-CH_2-CHOH-COOCH_3$ grouping. The mass spectrum of the compound showed significant peaks at m/e 390 (M-96) and at m/e 348 (M-138). The peak at M-96 could be represented by (II) very similar to that of the mass spectral peak at m/e 374 for methyl angolensate (III).



(I)



(II)



(III)

All these data lead to the formulation of the new furanolactone as 6-hydroxy methyl angolensate. When we were working with the compound, the structure of 6-hydroxy methyl angolensate was reported by Connolly *et al.*[5] mainly on the basis of N.M.R. data (100 MHz). They isolated it from *Khaya grandifoliola*. The identity of our compound was established by comparing the mixed melting point and T.L.C. data of 6-hydroxy methyl angolensate kindly provided by Dr. K. H. Overton.

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