STRUCTURE AND NUCLEAR MAGNETIC RESONANCE STUDIES OF A LIMONOID FROM PLEIOSPERMIUM ALATUM (RUTACEAE)

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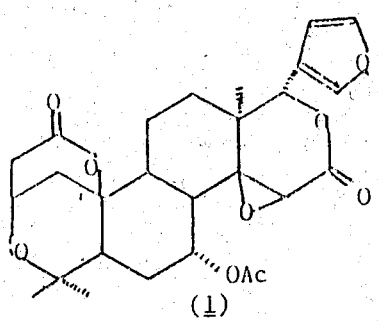
Pleiospermium alatum, a medicinal plant growing in India and Sri Lanka, has been subjected to several investigations and the presence of alkamides, acridone alkaloids and coumarins have been reported.[1-3] We have now isolated a crystalline limonoid from the root bark of this plant the structure of which has been elucidated as 1-(10 → 19) abeo-7α- acetoxy-10β-hydroxyisoobacunoic acid-3,10-lactone (1)[4] with the aid of its spectroscopic properties.

Analysis of ^{1}H NMR, ^{1}H-COSY NMR, ^{13}C NMR (completely decoupled and off-resonance), ^{1}H-^{13}C shift correlated NMR spectra and NOE difference studies allowed assignment of all the ^{1}H and ^{13}C signals of 1.



(1)

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