

^{13}C NMR spectroscopy of peroxide derivatives of cyclanes and cyclic peroxides

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Abstract

1. The ^{13}C NMR spectra of peroxide derivatives of cyclanes and cyclic peroxides have been investigated. 2. Replacement of the exocyclic OH group by OOH for saturated cyclic systems leads to a displacement of the signals from the α -carbon downfield by 13.0 ppm, while the β -carbon is displaced upfield by 4.5 ppm, without any dependence on the size or conformational structure of the rings. Replacement of the transannular OO group by CH_2CH_2 or CH_2O increases the shielding of the quaternary carbon adjoining it. © 1987 Plenum Publishing Corporation.

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