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13C NMR spectroscopy of peroxide derivatives of cyclanes and cyclic peroxides

Klochkov V., Antonovskii V., Chernov P., Aganov A., Koshel' G.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

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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