Synthesis and NMR study of some highly substituted isoxazolidines. Wazeer, Mohammed I. M.; Azhar Hashmi, S. M.; Asrof Ali, Sk. Chem. Dep., King Fahd Univ. Petroleum & Minerals, Dhahran, Saudi Arabia. Canadian Journal of Analytical Sciences and Spectroscopy (1997), 42(6), 190-195. Publisher: Polyscience Publications.

Abstract

A series of highly substituted isoxazolidines with substituents at various ring positions has been synthesized and their 1H NMR spectra recorded over a range of temps. The NMR spectra at low temps. indicate the presence of two invertomers due to slow nitrogen inversion, except in most compds. The nitrogen inversion barriers are detd. using complete line shape anal., and their dependence on steric factors and H-bonding is discussed.