The 1,3-dipolar cycloaddition of cyclic nitrones with 1,2-disubstituted alkenes.Ali, Sk.Asrof; Khan, Javaid H.; Wazeer, Mohammed I. M.; Perzanowski, Herman P.Chem. Dep., KingFahd Univ. Pet. Miner., Dhahran, Saudi Arabia.Tetrahedron (1989), 45(18), 5979-86.

Abstract

A comparative study of the stereochem. behavior of the 1,3-dipolar cycloaddn. of 1,2disubstituted alkenes with 1-pyrroline 1-oxide (I) and 2,3,4,5-tetrahydropyridine 1-oxide (II) has been carried out. Both the nitrones exhibit very similar stereochem. properties. Rate consts. for the cycloaddn. of these nitrones to disubstituted alkenes have been detd. at 36° by 1H NMR. I reacts slower than II due to the presence of bond eclipsing strain in the transition state involving I.