1,3-Dipolar cycloaddition reactions of 1-aza-1-cyclooctene 1-oxide. Al-Jaroudi, Said S.; Perzanowski, Herman P.; Wazeer, Mohammed I. M.; Ali, Sk. Asrof. Chemistry Dep., King Fahd Univ. Petroleum and Minerals, Dhahran, Saudi Arabia. Tetrahedron (1997), 53(15), 5581-5592. Publisher: Elsevier.

Abstract

The stereochem. and reactivity of the cycloaddn. reactions of eight-membered cyclic nitrone (I) with several alkenes have been studied. The concd. soln. of the cyclic nitrone undergoes polymn. to give acyclic polynitrone (15). The nitrone I is found to be less reactive than its seven-membered counterpart. Barrier to nitrogen inversion in one of the cycloaddn. product, a 8/5 fused ring system, was detd. to be 55.4 kJ/mol.

