

# Reactivity and regio- and stereoselectivity in 1,3-dipolar cycloadditions of 3,4,5,6-tetrahydro-2H-azepine 1-oxide

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## ABSTRACT

The title compd. I underwent a more rapid cycloaddn. with a no. of alkenes, then its 6-membered analog to form perhydrooxazoloazepines, e.g., II (R = Ph, OEt, CH<sub>2</sub>OH, cyano, CO<sub>2</sub>Me, CHO) and their C<sub>2</sub> enantiomers and III and their enantiomers. The stereo- and regiochem. of the reaction depends to a large extent on the substituents in the alkene component. The second order rate consts. of the above reaction of I and its 5- and 6-membered analogs with a no. of alkenes were detd.

