

Regiochemistry of mercury(II) oxide oxidation of unsymmetrical *N,N*-disubstituted hydroxylamines

Sk. Asrof Ali*, S. M. Azhar Hashmi, Mohammad N. Siddiqui and Mohammed I. M. Wazeer

Chemistry Department, King Fahd University of Petroleum and Minerals, Dhahran 31261, Saudi Arabia

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Abstract

Mercury(II) oxide oxidation of *N,N*-disubstituted hydroxylamines with the α and α' carbon atoms containing one and two hydrogen atoms, respectively, gave aldonitrones in a highly regioselective manner. Removal of the α proton is involved in the rate determining step as shown by primary kinetic isotope effect.

Graphical Abstract

Mercury(II) oxide oxidation of unsymmetrical hydroxylamines (**1**) afforded aldonitrones (**2**) in a highly regioselective manner. Removal of α hydrogen is involved in the rate determining step as shown by primary isotope effect.

