Apr 15th, 10:00 AM - 11:00 AM

The Synthesis of Vicinal Amino Alcohols through a Bicyclic Aziridine Intermediate

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Poster Presentation 5

THE SYNTHESIS OF VICINAL AMINO ALCOHOLS THROUGH A BICYCLIC AZIRIDINE INTERMEDIATE

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The vicinal amino alcohol functionality can be found in many biologically important compounds, some of which included enzyme inhibitors and sphingolipids. We wish to report our efforts on the synthesis of vicinal amino alcohols through a bicyclic aziridine intermediate. The bicyclic aziridine is prepared in three steps from an aldehyde and vinyl magnesium bromide. Opening of the aziridine with methanol leads to the formation of an oxazolidinone, which can be hydrolyzed to the vicinal amino alcohol. Aziridine opening reactions, using a variety of Lewis acid catalysts, have been studied in order to establish optimal conditions.