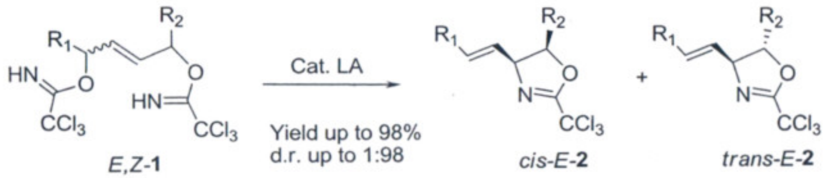
NOVEL STEREOSELECTIVE ROUTE TO *SYN* AND *ANTI* AMINO ALCOHOLS

Liene Grigorjeva, Aigars Jirgensons
Latvian Institute of Organic Synthesis; Aizkraukles 21, Riga, Latvia
liene_grigorjeva@osi.lv

Amino alcohols are valuable constituents of a wide range of biologically active natural products and pharmacologically important compounds. Besides, they serve as a versatile precursors for other building blocks, such as β-hydroxy-α-amino acids, 2-hydroxyalkyl piperidines, 2-amino 1,3-diols, etc.

Vinyloxazolines **2** are versatile amino alcohol precursors. Herein, we present an investigation of regioselectivity and diastereoselectivity in Lewis acid catalysed cyclization of bis-trichloroacetimidates **1** to the corresponding *cis*- and *trans*-*E*-oxazolines **2**.



Amino alcohol precursors

R^1, R^2 = Alk, Ar
LA = $FeCl_3$, $AlCl_3$,
$BF_3 \cdot Et_2O$, TMSOTf

It was found that the double bond configuration of substrate determines the reaction diastereoselectivity. In the case of *E*-bis-imidates **1** the major reaction product was *cis*-*E*-oxazoline **2**, while *Z*-bis-imidates **1** gave *trans*-*E*-oxazoline **2**. It is demonstrated, that regioisomeric ratio varies depending on substrate used, as well as Lewis acid catalyst.

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