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PROGRAM & ABSTRACTS

C-Quaternary Vinylglycinols by Lewis Acid Catalyzed Cyclization of Allylic bis-Trichloroacetimidates

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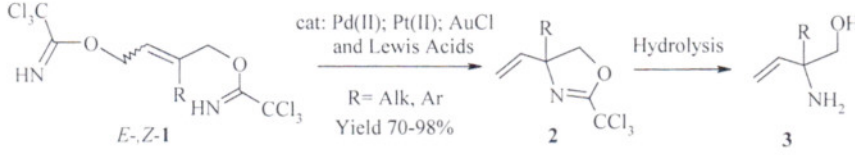
C-Quaternary β-amino alcohols and amino acids are key structural elements of many natural products and pharmaceutically relevant compounds. *C*-Quaternary vinylglycinols **3** have been demonstrated as versatile key intermediates for the synthesis of such type of compounds.[1,2] In our poster we present novel relatively short access to racemic *C*-quaternary vinylglycinols **3** that involves metal catalyzed cyclization of bis-trichloroacetimidates **1** to 4-vinyloxazolines **2**.



We demonstrate that the regioselectivity of the cyclization depends on the catalyst used. Regioselectivity is very high in the case of $PtCl_2$, AuCl, cationic Pd(II) complex generated from $PdCl_2(Ph_3P)_2$ and in the case of Lewis acids like $AlCl_3$, $FeCl_3$, BF_3, $(Me)_3SiOTf$ while it is low in the case of neutral $PdCl_2(MeCN)_2$ complex. Several examples of the Lewis acid catalyzed cyclization of imidates **1** to vinyloxazolines **2** are given and the potential mechanism of the reaction is discussed.

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References:

1. Jones, M. C.; Marsden, S. P.; Munoz Subtil, D. M. *Org. Lett.* **2006**, 8, 24.
2. Berkowitz, D. B.; Wu, B.; Li, H. *Org. Lett.*, **2006**, 8, 5.