

**A NEW APPROACH TO N-SUBSTITUTED OXAZOLIDINE VIA NITRILIUM ION TRAPPING** Mohammed Alhuniti, Deboprosad Mondal, and Salvatore D. Lepore\*

Abstract: We have recently demonstrated a direct conversion of secondary alcohols to amides with retention of configuration. This method involved the *in situ* formation of chlorosulfites followed by a reaction with nitrile complexes of Ti(IV) fluoride. We hypothesize that these amidation reactions involve the intermediacy of nitrilium ions which are subsequently hydrolyzed to form the observed amide product. In this presentation, we demonstrate for the first time that nitrilium intermediates can be trapped by 2-chloroethanol to give N-substituted oxazolidine products in very high diastereoselectivity. We note that these heterocycles are produced in one pot from secondary alcohol products. Generality studies as well as experiments aimed at elucidation of the mechanism will also be presented.