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STEREOSELECTIVE SYNTHESIS OF 2-VINYLSERINOLS VIA ACI CATALYZED CYCLIZATION OF BIS-TRICHLOROACETIMIDATE

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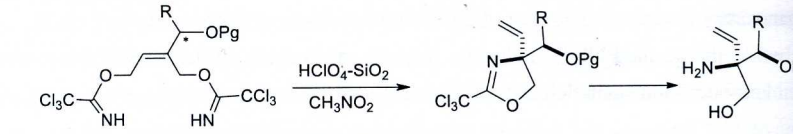
2-Substituted serinol is a substructure found in many natural products e.g. Lactacystir temicidin and Omuralide.[1-2] To achieve stereoselective synthesis of the *C*-quaternary ser we studied oxy-group directed diastereoselective cyclization of bis-imidates **1** vinyloxazolines **2**. The cyclization products **2** can be further converted to 2-vinylserir and its derivatives.



1
R= Alkyl, aryl, vinyl, allyl, homoallyl

75-90 % yield
dr up to 94 : 6

2

3
2-Vinylserinols

The best results for the cyclization of bis-imidates **1** were obtained using perchloric ac sorbed on silica as catalyst and nitromethane as solvent. Reaction was *syn*-selective pro oxazoline **2** as major diastereomer with good yields.

References:

1. Cativiela, C.; Dıaz-de-Villegas, M. D. *Tetrahedron: Asymmetry* **2007**, *18*, 569.
2. Kang,S. H.; Kang, S. Y.; Lee, H-S.; Buglass, A. J. *Chem. Rev.* **2005**, *105*, 4537