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NOVEL ROUTES TO UNSATURATED AMINO ALCOHOLS

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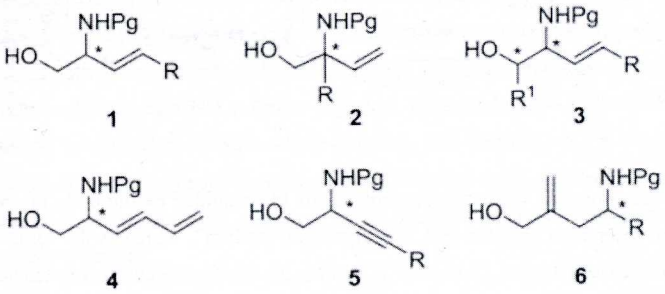
Abundance of amino alcohols in pharmacologically active compounds and natural products inspires the discovery of novel and more efficient methods for their synthesis. Routes leading to the unsaturated amino alcohols are particularly important given their high derivatization potential.



We have developed new approaches for the assembly of several types of the unsaturated amino alcohols **1-6** based on the intramolecular amination reactions of activated intermediates with trichloroacetimidates. Thus, allylic substitution involving double bond activation by Pd (II) catalyst provided amino alcohols **1**. Allylic and propargylic substitutions trough the activation of the leaving group by Lewis acid catalyst could be used to prepare products of types **1-5**. Amination of *in situ* generated cyclopropylcarbinyl/homoallyl cation afforded products of type **6**. For each of the above mentioned approaches, the substrate scope and options to control the stereochemistry was investigated.