Synthesis of amino-cyclobutanes *via* [2+2] cycloadditions involving keteniminium intermediates

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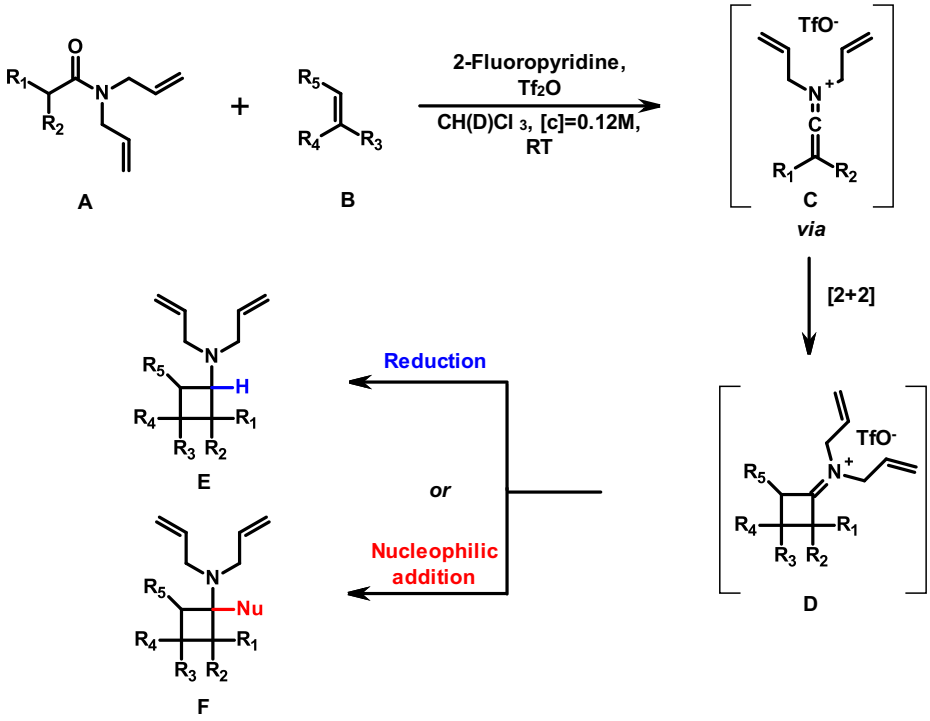
An efficient method has been developed for the synthesis of aminocyclobutanes *via* a [2+2] cycloaddition between a keteniminium salt and an alkene, followed either by a stereoselective reduction or a nucleophilic addition. The use of easily removable *N*-allyl moieties as protecting groups increases the potential of this method to access, in a few steps, highly functionalized cyclobutaneamines-containing building blocks. Moreover, competition reactions as well as DFT calculations verify the compatibility of *N*-allyl in [2+2] cycloaddition reactions.



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