

Keteniminium chemistry: a useful tool for the synthesis of small rings and aromatic derivatives

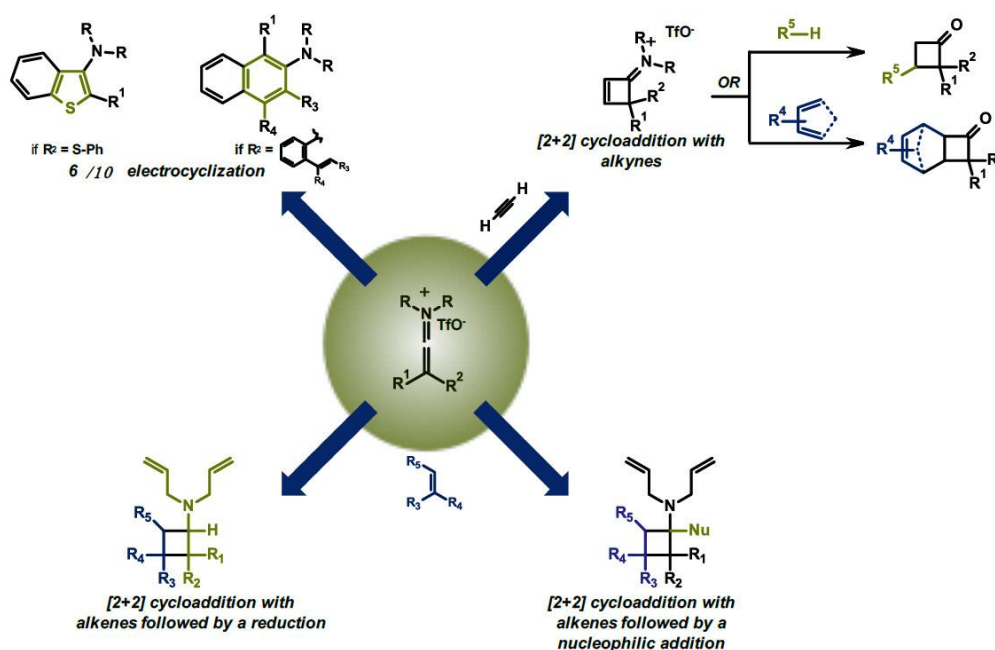
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Keteniminium salts possess different types of reactivities enabling the formation of versatile valuable skeletons. Highly substituted naphthylamines as well as 3-amino-benzothiophenes are indeed easily accessible and involve keteniminium salt intermediates reacting *via* a 6 π -/10 π or a 6 π -electrocyclization respectively. But among all the reactions involving keteniminium salts, [2+2] cycloadditions have been by far the most studied; we recently developed a [2+2] cycloaddition with alkynes affording cyclobuteniminium salt adducts which were further elaborated by [4+2] cycloaddition or Michael addition reactions using various dienes or nucleophiles. Furthermore, we also reported a one-pot sequence to obtain aminocyclobutanes, relying on [2+2] cycloadditions with alkenes followed either by stereoselective reduction or nucleophilic addition. The use of easily removable *N*-allyl protecting groups increases the potential of this method to access, in a few steps, highly functionalized cyclobutaneamines containing building blocks.



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