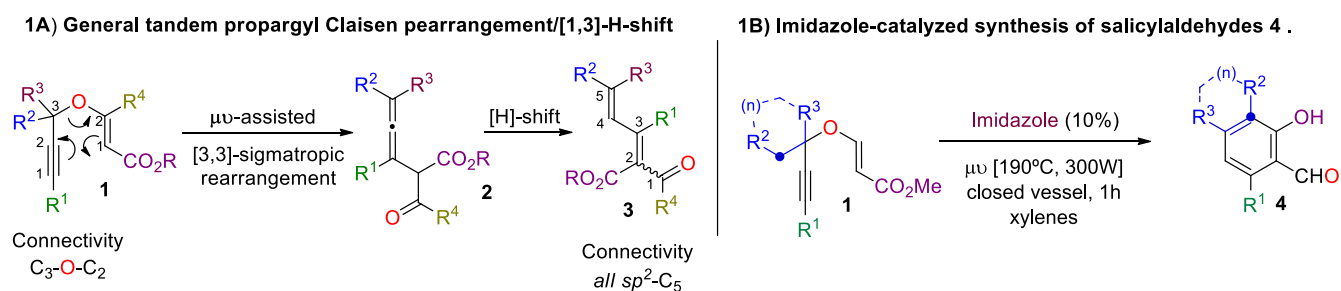


THE MICROWAVE-ASSISTED ORGANOCATALYZED REARRANGEMENT OF PROPARGYL VINYL ETHERS TO SALICYLALDEHYDES DERIVATIVES

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Propargyl vinyl ethers **1** constitute a privileged group of small size, densely functionalized and readily accessible linear scaffolds. The main key to the chemical reactivity encoded in these structures is the [3,3]-sigmatropic rearrangement (propargyl Claisen rearrangement) shown in Scheme 1A,^[1] which takes place irreversibly and under thermodynamic control to generate the allene **2** which isomerizes to dienal **3**. We have developed a microwave-assisted, catalytic (imidazole 10 mol-%) and scalable methodology to transform these allenes into salicylaldehyde motives supported on a broad range of topologies, which spanned from simple aromatic monocycles to complex fused polycyclic systems.^[2] The reaction manifold is depicted in Scheme 1B. We have performed a theoretical study of this reaction which is in full agreement with the observed experimental results. The reaction scope and the proposed mechanism will be commented in our presentation.



Scheme 1

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