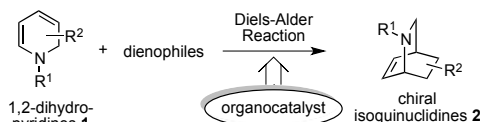


Development of new antiviral candidate molecules using organocatalyzed asymmetric Diels-Alder reaction of 1,2-dihydropyridines with dienophiles as a key reaction



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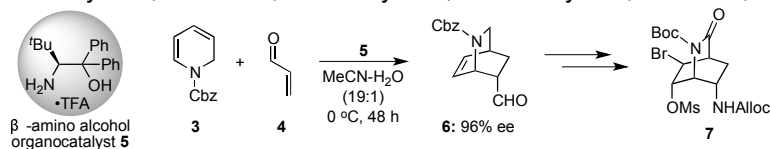
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Asymmetric Diels-Alder (DA) reaction of 1,2-dihydropyridines **1** with dienophiles using an organocatalyst is an important reaction for the construction of chiral isoquinuclidines (2-azabicyclo

[2,2,2]octanes) **2**, can be used as the synthetic intermediates for the synthesis of biological active molecules such as oseltamivir phosphate.

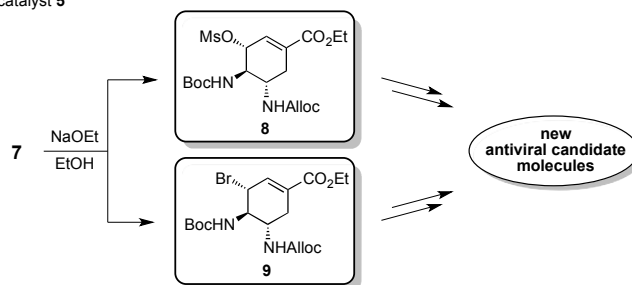
In this presentation, we introduce that simple primary α -aminoalcohol **5** acts as an efficient chiral organocatalyst for the enantioselective DA reactions of *N*-Cbz-1,2-dihydropyridine **3** with acrolein **4**. In addition, we also describe the utilization of both the new chiral building blocks **8** and **9** that were obtained from the intermediate **7** for the preparation of new antiviral candidate molecules.

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