

# Stereochemical journey among carbocations and precursors

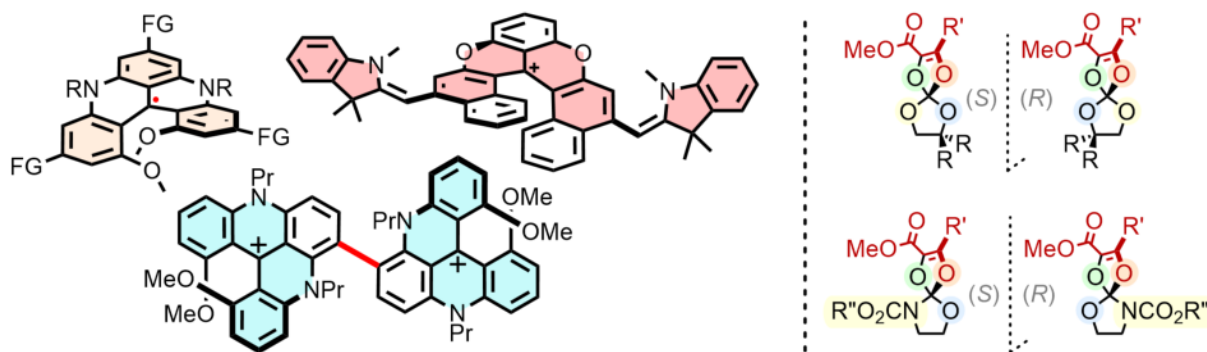
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Charged molecules and intermediates display unique reactivity and properties. In this context, studies on original cationic [4] and [6]helicenes will be presented. These compounds display original chemical and electronic properties thanks to the extended delocalization provided by the triarylcarbenium framework.<sup>[1]</sup> Molecular engineering towards novel reactivities and properties, electronic and chiroptical in particular, will be reported.<sup>[2]</sup>

Also, a focus will be given on metal-catalyzed decompositions of  $\alpha$ -diazocarbonyls – and those involving CpRu complexes<sup>[3]</sup> particular. An attention will be given to routes affording ylide intermediates and then functionally rich heterocyclic derivatives. A large variety of stereoselective and enantiospecific transformations are available through these metal carbene reactions and subsequent ylide transformations. Mechanistic investigations will be detailed during the lecture.



## References

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