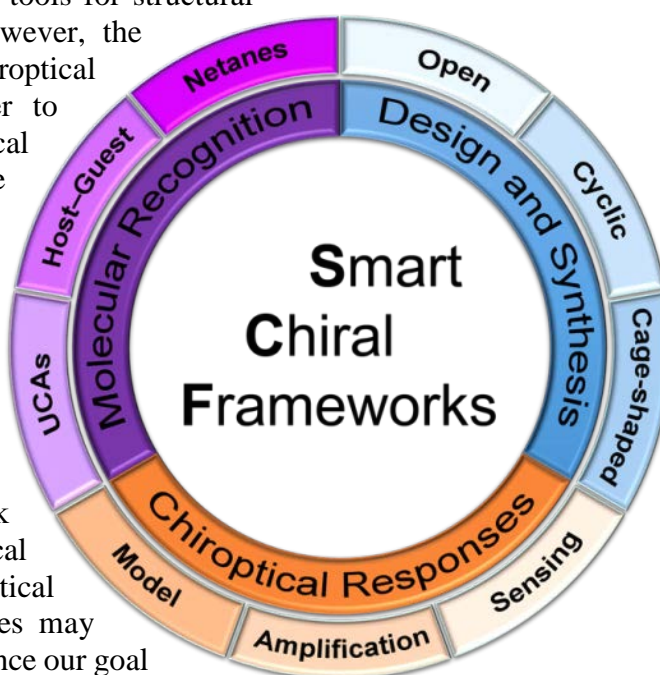


All the Way from Understanding of Chirality to Chiroptical Systems

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Chiroptical responses are very valuable tools for structural determination of chiral molecules. However, the development of everyday chiroptical applications is yet to come. In order to efficiently develop functional chiroptical materials, a deep understanding of the structure–chiroptical response relationship is essential. During the last decade, we have been using chiral axes for the construction of linear, cyclic, and cage-shaped molecules that present remarkable chiroptical responses.¹ Additionally, we have developed chiral surfaces through up-standing chiral architectures.² We took advantage of TD-DFT theoretical simulations for the design of new chiroptical systems.³ However, these methodologies may not be suitable for very large systems. Since our goal is to obtain chiroptical materials, we are currently working on a chiroptical method for predicting the responses arising from the simultaneous interaction between several chromophores.



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