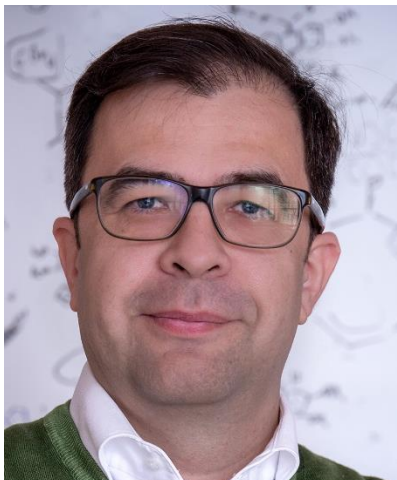


# PROFESSOR MICHAEL MASTALERZ

Institute of Organic Chemistry  
Heidelberg University



**Thursday, September 14th**

**10:30am**

**006 Steele**

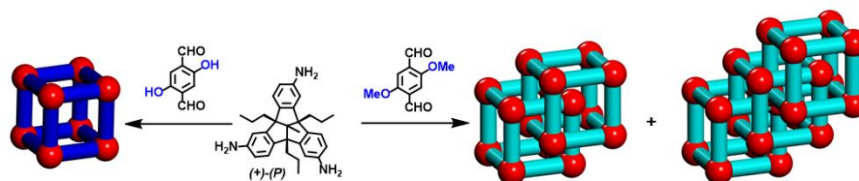
## “Self-Assembly & Catenation of Organic Cages”

**Bio:** Professor Michael Mastalerz is a professor at the Institute of Organic Chemistry at Ruprecht-Karls-Universität Heidelberg. His main research interests are: - Organic Porous Molecules and Materials by Dynamic Covalent Bond Formation - Crystal Engineering and Self-Assembling - Supramolecular Chemistry - Nonplanar Extended Aromatic Molecules - Development of New Synthetic Methods

**Abstract:** The synthesis of shape-persistent organic cages by reversible bond formations is meanwhile an established method to generate a plethora of different structures and geometries of functional molecular cages from rather simple building blocks in one step.<sup>[1]</sup> When structurally related but different building blocks are reacted, self-sorting processes can occur,<sup>[2,3]</sup> which is presented in the first part of the talk.

The formation of catenated cages will be discussed in the second part of the talk.<sup>[4,5,6]</sup> Here, by various substituents in combination with different solvents, catenation events can be controlled giving preferably monomeric, dimeric, or trimeric (catenated) cages.

Finally, a fundamental understanding of underlying weak interactions will pave the way to be able to even larger catenated oligomeric structures.



### References

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- [4] G. Zhang, O. Presly, F. White, I. M. Oppel, M. Mastalerz, *Angew. Chem. Int. Ed.* **2014**, *53*, 5126-5130.
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