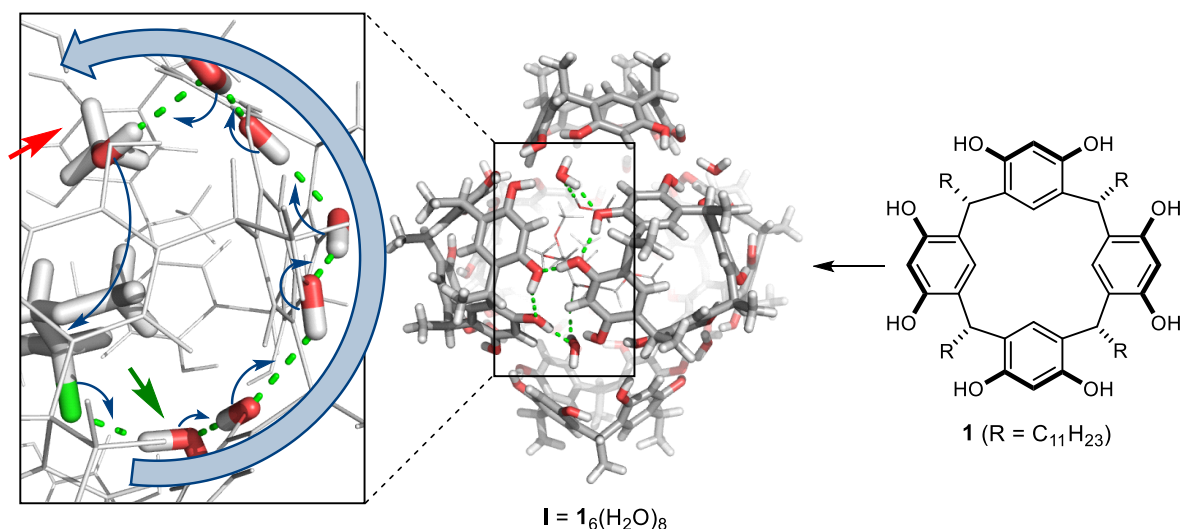


# Catalysis inside a supramolecular capsule

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My group is interested in exploring catalysis inside supramolecular containers. Our main focus has been the hexameric resorcin[4]arene capsule (see below), originally reported by the Atwood group.<sup>1</sup> It has served us as a reliable catalyst for a variety of acid-catalyzed cationic reactions ranging from simple acetal hydrolysis to more complex iminium catalysis and terpene cyclizations. Investigations revealed that related molecular capsules are not competent in these reactions. The most recent results concerning terpene cyclizations will be presented.<sup>2,3</sup> Furthermore, very recent published, as well as unpublished, results concerning stereoselective glycosylations inside the hexameric resorcin[4]arene capsule will be discussed.<sup>4</sup> A unusual proton wire mechanism is likely at work (see below).



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