

Catalysis in Confined Spaces

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Abstract: We have been exploring organic and organometallic reactions that occur in the confined space of self-assembled water-soluble tetrahedral M_4L_6 clusters. For example, cationic phosphinegold(I) complexes encapsulated by an anionic Ga_4L_6 tetrahedral demonstrated higher turnover numbers, rate acceleration and/or produced different products compared to the unencapsulated catalysts. This lecture will focus on our most recent studies of reactions promoted by encapsulation in these supramolecular hosts, induced thermally and/or photochemically, and the mechanisms of these reactions.

Keywords: Supramolecular Chemistry, Transition Metal Catalysis, Asymmetric Catalysis.

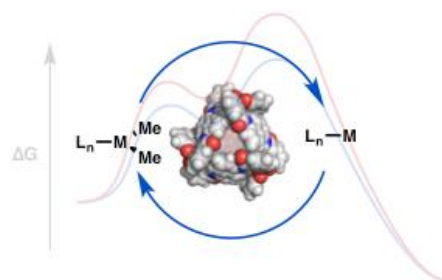


Figure 1.

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