

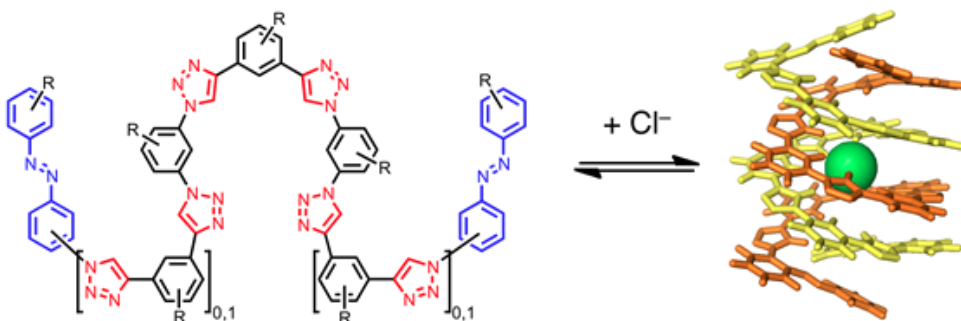
CBC SEMINAR ANNOUNCEMENT



Professor Amar Flood
Indiana University

Fishing for Chloride in Salty Waters using Photoactive Foldamers

Chloride is an abundant ion that plays critical roles in human biology and chemical processes. For these reasons, mastering ways to manipulate its availability across many environments will have far-reaching consequences. We are focusing supramolecular chemistry onto this task by taking advantage of triazole-based receptors that are easy to make and modify. Taking inspiration from biology in the form of halorhodopsin, a new class of light-active foldamers has been created that can catch and release chloride to regulate its concentration. We will then move out of organic solvents, again taking biology's lead, to tackle one of the grand challenges in host-guest chemistry: Extracting highly-hydrated chloride ions from aqueous solutions. We do so by employing the principles present in proteins like chloride channels (ClC), and for the first time with synthetic receptors, show that the hydrophobic effect can be used to extract hydrophilic guests equally as well as hydrophobic ones. Ultimately, we have learned about the important role that a foldamer's helical propensity plays in determining its function.



Date:	25th September 2012 (Tuesday)
Time:	11:00am – 12:30pm
Venue:	NTU SPMS CBC Building Level 2, Conference Room
Host:	Asst Professor Zhao Yanli