Public Abstract First Name:Jena Middle Name:L. Last Name:Whetstine Adviser's First Name:Sheryl Adviser's Last Name:Tucker Co-Adviser's First Name: Co-Adviser's Last Name: Graduation Term:FS 2010 Department:Chemistry Degree:PhD Title:Characterizing and Understanding Self-Assembling Nanocapsules Host-Guest Systems

Self-assembled nanocapsules are large entities that are capable of containing a smaller entity. For the purpose of my research, the smaller entities are fluorescent or capable of emitting light. Previous research has shown that a specific nanocapsule, C-hexylpyrogallol[4]arene or PgC6, is capable of containing up to two fluorescent entities. The focus of this research is fine-tuning the parameters the smaller flourescent entity must have in order to be contained within one of these nanocapsules. A second nanocapsule that contains copper metal ions was investigated as well.