

Organic Colloquium

presenting

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“Cyclodextrin Complexation: From Fundamental Science to Applied Toxicant Detection”

Abstract. The complex interactions between molecules that are not covalently linked but are in close proximity remain poorly understood. These non-binding interactions are both ubiquitous and essential for life: for example, in biology, they determine how proteins fold into three-dimensional conformations and how DNA is replicated to form new cells; and in the environment, they determine how the residue from oil spills disperses into the ecosystem. Research in our group focuses on investigating these non-binding interactions using highly efficient fluorescence energy transfer as a crucial investigative tool. This energy transfer requires that the donor and acceptor molecules be in close proximity, which we ensure through binding them in the interior of a macrocycle. Applications of this energy transfer in the array-based detection of small molecule carcinogens and in the detection and environmental remediation of oil spills will also be discussed.

Thursday, February 25, 2016

5:00 PM

Cram Conference Room – 3440 Molecular Sciences Bldg