



Glenn T. Seaborg Center Seminar

Using Biological Molecules to Make New Materials

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Wednesday, February 1, 2012

4:00 - 5:00 pm

Building 70A, Room 3377

Proteins and other biomolecules are emerging as highly useful components of new materials, as they provide well-defined structural and functional properties that are difficult to mimic using purely synthetic components. The full exploitation of their properties, however, will require improved coupling reactions that can attach biomolecules to polymers, particles, and material surfaces. With these goals in mind, we have developed a number of new synthetic methods that can be used to modify proteins with high selectivity and yield. This presentation will focus on the applications of these reactions for the construction of hybrid materials for solar energy collection, and the development of efficient materials for water remediation. Our work involving the use of combinatorial libraries for the identification of metal-specific binders for use in separation technologies will also be presented.

