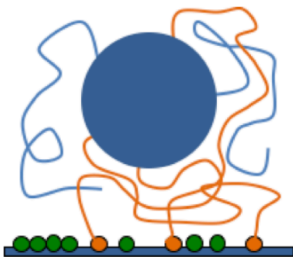


Université Libre de Bruxelles
Faculté des Sciences
Séminaires du **Laboratoire de Dynamique des
Polymères et de la Matière Molle**

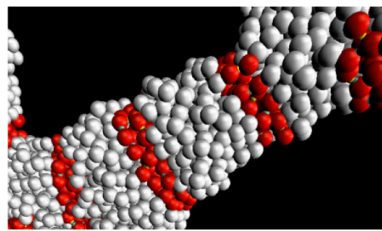
Dr. Nicholas B. Tito

Department of Chemistry, University of Cambridge, UK

Discovering Microscopic Design Rules for New Materials



multivalency



**supramolecular
polymers**



**photoactuated liquid
crystal films**

The ability to construct new materials out of microscopic building blocks is still in its infancy, mainly because the pathways by which they assemble are complex. Developing materials therefore relies on discovering microscopic design principles, often inspired by what evolution has created in biological systems. In this talk, I will highlight recent research results in which simulation and theory are used to identify microscopic design tools, and how they can be utilized to create systems with interesting behavior. Topics of focus may include: switch-like surface binding of competing multivalent particles; phase behavior of self-assembling supramolecular polymers; and chemical/mechanical modelling of photo-actuated liquid crystal network films. Emphasis will be placed on identifying the key physical ingredients driving the behavior of each system, and how theory and simulation provides predictions for utilizing these microscopic design features in new ways.

le jeudi 26 mai 2014 à 11h00
Campus Plaine, Bat. NO, Salle Solvay

Pour plus d'informations veuillez contacter le Prof. Simone Napolitano (57 41)