Nanocrystalline materials are of interest for a variety of applications. This talk describes the design and functionalization of nanocomposite materials for biological and chemical applications. Specifically, we have synthesized metallic, metal oxide and semiconducting nanocrystals for bioimaging, bioseparation, biosensing, theranostic, fuel cell and catalytic applications. These nanocrystals are ≤ 10 nm in size, and are surface modified to provide for high dispersion, biocompatibility, and water solubility. They are used as building blocks to create multifunctional nanocomposite particles with unique properties.

Nanoporous materials have also been developed with high surface area and high density of functional groups. These systems are employed as novel heterogenized catalysts with excellent activity and recyclability. They are also useful as adsorbents for green chemistry applications.

CBC SEMINAR ANNOUNCEMENT

Professor Jackie Ying
Institute of Bioengineering and Nanotechnology (IBN)
Nanomaterials for Biomedical and Green Chemistry Applications

Nanocrystalline materials are of interest for a variety of applications. This talk describes the design and functionalization of nanocomposite materials for biological and chemical applications. Specifically, we have synthesized metallic, metal oxide and semiconducting nanocrystals for bioimaging, bioseparation, biosensing, theranostic, fuel cell and catalytic applications. These nanocrystals are ≤ 10 nm in size, and are surface modified to provide for high dispersion, biocompatibility, and water solubility. They are used as building blocks to create multifunctional nanocomposite particles with unique properties.

Nanoporous materials have also been developed with high surface area and high density of functional groups. These systems are employed as novel heterogenized catalysts with excellent activity and recyclability. They are also useful as adsorbents for green chemistry applications.

Date: 17th April 2013 (Wednesday)
Time: 2:30pm – 4:00pm
Venue: NTU SPMS CBC Building Level 2, Conference Room
Host: Assoc Professor Chen Hongyu