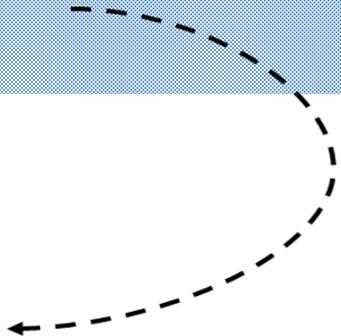


# Seminar



Wednesday, March 14, 2018

11:00 AM – 206 Furnas Hall

**Shouheng Sun**

Professor

Department of Chemistry

**Brown University**

## **Tuning Nanoparticle Catalysis for Efficient Electrochemical Reactions**

Recent advance in solution phase chemical reactions has made it possible to design and synthesize nanoparticles with nearly precise controls on nanoparticle sizes, shapes, compositions and structures for catalytic applications. In this talk, I will summarize the common methods we used to synthesize monodisperse nanoparticles, especially intermetallic nanoparticles, core/shell nanoparticles, nanowires and their self-assemblies on conducting supports. I will use Au-, Pt-, Pd-, Fe-, and Cu-based elemental and alloy nanoparticles as examples to demonstrate the rational tuning and enhancement of nanoparticle catalysis for electrochemical reduction of O<sub>2</sub>, electrochemical oxidation of HCOOH and other chemical reactions for renewable energy applications.

Refreshments at 10:45



University at Buffalo

Department of Chemical  
and Biological Engineering

School of Engineering and Applied Sciences