

# The 64th MANA Special Seminar



## Preparation of Nanomaterials for Energy and Environmental Applications

**Prof. Chia-mei Yu**

*Department of Chemistry and Environmental Science Programme  
The Chinese University of Hong Kong*

Energy and environment are the biggest challenges of the 21st century. It is ironic that such big problems may be solved by something very small. Nanomaterials, with attractive chemical and physical properties, are being explored for their potential in energy and environmental applications. For example, when nanosized anatase titanium dioxide is illuminated by UV, it triggers an energetic response that can split water molecules to form hydrogen gas and oxidize pollutants to environmentally acceptable products. Many metal oxide and chalcogenide nanomaterials also exhibit interesting electrochemical properties. They show great promise for energy conversion and storage. A series of photo- and sono-chemical methods as well as microwave-enhanced approaches for the fabrication of these pure and composite materials have been developed. Their preparations as well as applications will be discussed in this presentation.

**Venue: Seminar Room #431, MANA Bldg., Namiki**

**Date: Mar 9<sup>th</sup> Monday Time: 11:00-12:00**

Contact: International Center for Materials Nanoarchitectonics (MANA), Nakata (ex. 8806)