21COE Programme: Mechanical Systems Innovation Open Seminar

21COE Programme: Mechanical System Innovation Third Open Seminar 2006 will be held as follows. Any participants will be welcome.

- Invited Speaker : Associate Professor, Stephen O'Brien (Columbia University, Materials Science and Engineering Department of Applied Physics and Applied Mathematics)
- Title : Scale your enthusiasm: designing nanomaterials
- Date & Time: 20th July 2006 (Thursday), 14:00~15:30
- Place: The University of Tokyo, Engineering Building No.2, 3rd Floor,

232 Lecture Room (Room Number 2-301)

Abstract: Nanocrystals and nanotubes can be considered building blocks in the rational design of new materials considered essential to progress in nanotechnology. We have developed chemical methods to prepare nanocrystals which represent a broad and appealing range of properties and subsequent applications, spanning magnetic, dielectric, optical and catalytic. We are able to observe the formation of multicomponent superlattices of these nanocrystals based on self assembly. Control over nanocrystal growth can also be applied to carbon nanotube synthesis with control of diameter and orientation. Central to the process is the ability to demonstrate control over the chemistry at the nanoscale.

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