

**PUBLIC LECTURE ANNOUNCEMENT**

<b>TOPIC</b>	MORPHOLOGY EVOLUTION AT NANO- TO MICRO-SCALE
<b>SPEAKER</b>	Professor Dongfeng Xue
<b>HOST</b>	Professor Lu Li
<b>DATE</b>	9 February 2009 (Monday)
<b>TIME</b>	14:30 – 16.30
<b>VENUE</b>	EA 06-03

**SYNOPSIS**

Morphology evolution of inorganic/organic crystals during crystallization is a universal growth phenomenon. In this work, we have developed a capping agent-assisted strategy to clearly identify the whole process of morphology evolution in solution growth system. One kind of morphology evolution trend with three types of morphologies of cuprous oxide ( $\text{Cu}_2\text{O}$ ) was kinetically observed at varying the molar ratio of EDTA/Cu(II) under three different pH values. Two kinds of morphology evolution trends of zinc oxide ( $\text{ZnO}$ ) were also kinetically observed in the presence of  $\text{H}_2\text{O}_2$  and  $\text{CH}_3\text{COOH}$  (HAc), respectively. Simulation results show that the morphology evolution of nano- to micro-scale crystals is strongly dependent on the bonding characters of a growth system. The present strategy explores the principles of morphology evolution of functional materials, and can be widely extended to nano- to micro-scale devices research.

**BIOGRAPHY**

Dr Dongfeng Xue is a professor and Head of Materials Science and Chemical Engineering at Daliang University of Technology. He is specialized in the synthesis of nanostructured materials, nano-architecture and self-assembly quantum- and nano – dots. His group has some collaboration on the ferroelectric materials and single crystals.

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