The optical behavior and structure of tin sulfide thin film

by Miss Wang Yu

Date:  4th April 2008 (Friday)
Time:  12:00pm to 1:00pm
Venue:  Block EA-02-11 (Seminar Room)

Abstract

Tin Sulfide (SnS) has received much attention for solar cell and photoconductor applications due to nontoxic, inexpensive and stable properties. It has appropriate band gap and high absorption coefficient. The optical behavior is necessary for PV devices. In this project, nanowall morphology of tin sulfide was obtained via a simple method, chemical bath deposition (CBD) technique. The thickness of SnS thin film increased with the deposition time. X-ray diffraction showed that SnS was orthorhombic crystal structure with (111) preferential orientation. The band gap energy was about 1.1eV. The absorption coefficient was higher than 4×10cm⁻¹ above the fundamental absorption.

Miss Wang Yu

Miss Wang Yu received her Bachelor Degree from Chengdu University of Technology, China in 2002, and obtained her Master Degree from Xi’an Jiaotong University, China in 2006. Now she is a PhD candidate under the guidance of Associated Professor Gong Hao in Department of Materials Science & Engineering, NUS.

Dr. Xue Jun Min

All are Welcome!