



THE CHINESE UNIVERSITY OF HONG KONG

Department of Physics

SEMINAR

Studying Physical Properties of Nano-scale Materials Using Neutron Scattering

by

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Time: 1:30 - 2:30 p.m.

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ALL INTERESTED ARE WELCOME

Abstract

The rational development of advanced nano-scale materials and the necessity of understanding many biological materials in molecular scales require a fundamental knowledge of the relationship between structure and physical properties at multiple length scales. Scattering methods are uniquely suited to obtaining the necessary information with careful designed experiments. In this talk, I will present my future research plans. Although many interesting researches using neutron/x-ray scattering techniques will be discussed, I will focus on two major themes: 1) understanding the properties of nanoporous materials with a particular emphasis on energy storage, but also with an eye toward other applications including molecular sieving and catalysis and 2) understanding the behavior and interactions of bio-related colloidal particles in solution for applications such as drug delivery. In addition, due to the fast expansion of the neutron scattering field in China, I would also like to discuss possible opportunities to use the newly constructed neutron scattering facilities in China and build a dedicated neutron scattering instrument for materials science researches.