The 273% MANA Special Seminar



Electronic Materials Engineering and Soft Matter Investigations:

Towards stimulus responsive micro and nano-architectures

Chair: Dr. Katsuhiko Ariga (MANA PI)



Prof. Vincent Craig

(Department of Applied Mathematics, Research School of Physics and Engineering, Australian National University, Australia)

In order to probe the fundamental behaviour of soft matter at interfaces, such as wetting, surface forces and adsorption, it is necessary to employ idealised surfaces with controlled roughness and of appropriate geometry. The techniques developed for the manufacture of micro-electronics are now being applied to the control of soft matter in microfluidic devices and surfaces of controlled wettability. I will discuss how we have employed the technique of Atomic Layer Deposition (ALD) to produce ideal surfaces for surface force and adsorption studies and microfabricated surfaces, for fundamental investigations of wetting. I will also briefly describe our current interest in developing stimulus responsive micro and nano-structured surfaces.

Venue: Auditorium, 1F, WPI - MANA Bldg. Date: July 3rd, Tuesday Time: 15:30-16:15

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