



CENTRE FOR NANOSCIENCE AND NANOTECHNOLOGY SEMINAR SERIES



- TOPIC:** “Biological” Surface Science
- SPEAKER:** Professor Dr Michael Grunze
University of Heidelberg, Germany
- TIME:** 12:00-1:00pm, Thursday 15 March 2007 (No RSVP required)
- VENUE:** Cuming Theatre,
Department of Chemistry,
The University of Melbourne

ABSTRACT:

Biomaterial interphase science has developed into a mature field. This presentation will discuss selected examples from our work to demonstrate the “surface science” approach to biotechnical problems, and an example of where the Interface Science toolbox can help to solve important biological questions.

The first part of the presentation will be organized according to the dominating forces between artificial surfaces and biological molecules/cells, i.e., surfaces that are repellent, attractive, or are not recognized in a biological environment. The subtle and distance-dependent balance between these forces determines under which (external) conditions surfaces adsorb or repel proteins and cells.

The second part will demonstrate the impact synchrotron-based microscopy and spectroscopy can have on Functional Genomics. I will give an overview over X-ray microscopy applied to biological specimens, and discuss our results on the chemical and structural analysis of the melanosomes of different phenotype mice.

This is a combined CNST and Physical Chemistry seminar.

Further details available at: www.cnst.unimelb.edu.au/news/seminars.html