

## Appendix – Workshops and Conferences

### **The Australian Synchrotron Summer School, ANU, 27 January – 4 February 2004**

The Australian Synchrotron is now under construction in Melbourne with a scheduled opening date of March 2007. The focus of the annual RSPHysSE Summer School series for 2004 was thus synchrotron science as co-chairs Dr Mark Ridgway and Dr Chris Glover sought to enhance and prepare the potential future user base of our new state-of-the-art national research facility. The eight-day Summer School featured renowned lecturers and scientists from both Australia and overseas and was targeted at fourth-year undergraduate students, post-graduate students and post-doctoral fellows. Participants were drawn from all Australian states in addition to Korea and New Zealand with all 100 available places allocated three months in advance. Lecture topics ranged from the fundamentals to applications spanning a variety of topics and disciplines. Given the outstanding success of the 2004 Summer School, we now anticipate it will be offered every three years to enable any Australian post-graduate student with an interest in synchrotron science to participate.

A special **International Conference on Hofmeister Phenomena** was organised by Professor W. Kunz, Professor B.W. Ninham and Dr P. Lo Nostro at Regensburg, Germany, 26–28 February 2004. The results are embodied in *Current Opinion in Colloid and Interface Science* 9, numbers 1,2 August 2004 to which a number of members of the Department of Applied Mathematics contributed papers. The research represents a paradigm shift in physical chemistry of some considerable moment.

The **Fourteenth International Conference on Vacuum-Ultraviolet Radiation Physics** (VUV-XIV) was chaired by Professor Brenton Lewis and organised, on behalf of the International Advisory Board, principally by a School team with representation from AMPL, EME, and AM. The conference was held in Cairns from 19–23 July 2004 and attracted around 420 scientific registrants, 90% of whom were international, 15 exhibition booths, and around \$120,000 in grants and sponsorship.

The Conference encompassed all aspects of theoretical and experimental studies of the interaction of ultraviolet and soft X-ray radiation with matter over a photon-energy range from 5 eV to several keV. Relevant areas of research included atomic and molecular physics, materials sciences, physics, chemistry, biology and the novel instrumentation required to conduct such research. The major tools of investigation such as synchrotron radiation, lasers, laboratory sources, and plasma sources were important topics, as were the associated optics, technology, and analytical techniques. The VUV-XIV Proceedings, edited by Dr Anatoli Kheifets, have been published as a special issue of the peer-reviewed *Journal of Electron Spectroscopy and Related Phenomena*.

The Department of Nuclear Physics hosted the **Accelerator Technical Forum** from 14–16 September designed to promote interaction among technical, professional and academic staff from Australia and New Zealand who are involved in the operation and development of particle accelerators and related facilities. The Forum was attended by 45 people and 31 oral presentations were given.

The **4<sup>th</sup> Annual Workshop on Nuclear Techniques**, organised by Professor Aidan Byrne, was held from 27–30 September in the Department of Nuclear Physics. Thirteen undergraduate students from the University of Wollongong's medical physics program participated in this year's workshop. The workshop program is designed to actively engage students in the fundamentals of the measurements of nuclear radiations and the elements of isotope production using accelerator facilities. Students participated in an intensive four-day program that included experiments on the 14UD heavy-ion accelerator. Topics covered included radiation safety, detector design and operation, isotope production, accelerator operation.

The Department of Applied Mathematics hosted **Materials and Complexity II** in Kioloa from 2-5 November.