

## E0053

**Small-Angle Scattering with a Focus on Bio-molecular Structure in Australia.** Jill Trehwella, Univ. of Sydney and Bragg Institute, ANSTO.

There has been a recent surge of interest in small-angle scattering for studying bio-molecules in recent years. As the molecular structural problems become more challenging, researchers are turning to small-angle scattering data as a potential source of complementary information that can aid in importing the accuracy of NMR derived structures (Grishaev *et al.* 2005, *JACS* **127**,16621) or in order to be able to build models of complexes for which there are crystal or NMR structures of components but the components may have flexible linkers that inhibit crystallization (Vigil *et al.* 2005, *JBC* **280**, 35521). At this opportune time, Australia is investing in instrumentation for small-angle scattering using laboratory based X-ray sources, high brilliance X-rays from the new Australian Synchrotron under construction in Melbourne, and neutron beams from the new Open Pool Australian Light Reactor (OPAL) that is in commissioning at Lucas Heights, near Sydney. This talk will briefly describe the existing and planned facilities, and the science that is being and will be enabled.