Australia-Japan Collaboration in Neutron Scattering: Past, Present and Future

R. A. Robinson[1#]

[1]*Bragg Institute, Australian Nuclear Science and Technology Organisation, Lucas Heights, NSW 2234, Australia*

 # corresponding author: E-mail rro@ansto.gov.au

There has been long-standing collaboration between Australia and Japan in both synchrotron radiation and neutron scattering. With the recent start-up, in the mid 2000s, of the J-PARC spallation source in Tokai, Japan, and the state-of-the-art 20-MW OPAL research reactor in Sydney, Australia, this collaboration is moving into a new and exciting phase. I will describe some of the Japan-Australia collaboration so far, including results by Australian groups at J-PARC and Japanese groups at OPAL, work done involving both sources, and a view to the future as to how the future collaboration can turn into something that is greater than the sum of its parts. Examples will be drawn from the following research areas: magnetism in technetium compounds; adsorption of gases into metal-organic frameworks; *in-operando* studies of Li-ion batteries; organic light-emitting diodes and photovoltaics; the microstructure of starch; and thin-film and multilayer magnetism.