

## **Energy Materials Research at The Australian Synchrotron**

The Australian Synchrotron is one of Australia's premier research facilities and, at about \$300 million, represents one of the biggest single investments in scientific excellence in the nation's history. Operated by the Australian Nuclear Science and Technology Organisation, the Australian Synchrotron produces intense beams of X-ray and infrared light at its ten experimental endstations, providing world-class research capabilities. Since commencing user operations in 2007 the Australian Synchrotron has become an integral part of the Australian and New Zealand research landscape, having supported over 35,000 user visits. To date the facility has generated more than 3000 peer reviewed journal articles, with a sizable proportion appearing in leading journals such as *Nature*, *Science*, *Advanced Materials*, *Physical Review Letters*, and *Proceedings of the National Academy of Science, USA*.

This presentation will highlight research performed on new energy materials at the Australian Synchrotron in collaboration with our staff, which has led to advances in the fields of organic photovoltaics and electronics, batteries, hydrogen storage systems, gas separation and carbon sequestration technologies, as well as other new classes of low-energy electronics.

---