

What Is Brilliant and BRIGHT at the Australian Synchrotron

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Amphithéâtre SOLEIL

The *Australian Nuclear Science & Technology Organisation* (ANSTO) operates, maintains, and develops a wide range of research infrastructure (worth ~\$1 billion) for the benefit of all Australians, including some of the largest research facilities in the country. The Lucas Heights campus in Sydney hosts the *Australian Centre for Neutron Scattering*, the *Centre for Accelerator Science* and the *National Deuterium Facility*.

The Clayton campus in Melbourne is home to the *Australian Synchrotron*, a 3 GeV electron accelerator that is used to generate brilliant beams of infrared and X-ray light for use in a variety of scientific research – studies in radiotherapy, biomedical imaging and 3-D computed tomography; macromolecular crystallography for the study of the biomolecular basis of disease and the development of new medicines; agricultural, environmental and climate change research; studies in advanced electronics and advanced energy materials; planetary sciences; engineering; advanced manufacturing; and cultural heritage studies. The Australian Synchrotron currently hosts over 1000 experiments per annum across its 14 operational beamlines and is currently in the middle of the ~\$100 million *BRIGHT Program* to design, build and commission the new suite of next-generation beamlines at the facility.

This presentation will showcase recent capability upgrades, as well as a range of impactful research outcomes from the Australian Synchrotron in the fields of health, advanced and energy materials, environmental and climate change research, engineering materials and cultural heritage studies. I will also highlight the new research capabilities from our next-generation BRIGHT Beamlines and look to the future of Synchrotron research capabilities for Australia.



<https://www.ansto.gov.au/facilities/australian-synchrotron>

Formalités d'entrée : accès libre dans l'amphi du pavillon d'Accueil.

Si la manifestation a lieu dans le Grand Amphi SOLEIL du Bâtiment Central merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès).

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