



# RESOURCES

**THE AUSTRALIAN SYNCHROTRON: YOUR PARTNER  
IN PROBLEM-SOLVING AND INNOVATION**

*'At the Australian Synchrotron,  
we can test 200 samples in only  
five days – using conventional  
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take us months.'*

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## WORLD-CLASS RESEARCH SOLUTIONS

The Australian Synchrotron empowers industry to problem-solve and innovate, revealing how matter fits together, moves, interacts and changes, in a way that outshines what can be achieved in any conventional laboratory.

We partner with industry to achieve world-class breakthroughs in areas as diverse as supporting the development of effective treatments for Alzheimer's disease and reducing impacts of environmentally intensive practices, to boosting the nutritional value of food and gaining new insight into the efficient storage and transport of energy.

Our experts harness light, a million times brighter than the sun, to examine and analyse the structure and behaviour of samples in unprecedented detail, with precision, accuracy and speed not available elsewhere, helping industry partners to interrupt, boost and manipulate the most basic of processes to overcome technical hurdles and roadblocks and drive product innovation.

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## WE PROVIDE A RANGE OF HIGHLY SPECIALISED AND UNIQUE SERVICES IN RESOURCES

### MINERAL PROCESSING:

- analysing the elemental, chemical and structural properties of ore, understanding what minerals and phases are present and their relative positioning, to enhance the economic viability of metal extraction.

### PROCESS VALIDATION:

- quantifying critical parameters such as void spaces and surface chemistry during key production stages, to better characterise minerals and improve processing.

### EXPLORATION:

- improving site selection and value determination by enhancing the detection and characterisation of minerals during exploration.

## WHAT OUR CLIENTS SAY ABOUT US

*'Analysing coke's porous qualities at the Australian Synchrotron, we can test 200 samples in only five days – using conventional laboratory equipment, this would take us months.'*

*'Access to much faster, higher quality images allows us to fine-tune our advice and provide it back to companies in a timely manner.'*

*Dr Merrick Mahoney, Associate Professor, School of Engineering, The University of Newcastle*

## ENVIRONMENTAL REMEDIATION:

- understanding the chemistry of metals and heavier elements in soils, sediments, water and wetlands to control contaminant mobility and manage toxicity and bioavailability.

## WE PROVIDE FULLY-SUPPORTED ANALYTICAL SERVICES BEFORE, DURING AND AFTER YOUR EXPERIMENTS, INCLUDING:

- identifying and tailoring effective synchrotron techniques for your sample to expedite detailed analysis
- delivering fast data acquisition from your sample, in unprecedented detail
- supporting timely data analysis and reporting.




For further information on how the Australian Synchrotron can help you problem-solve and innovate, contact:

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