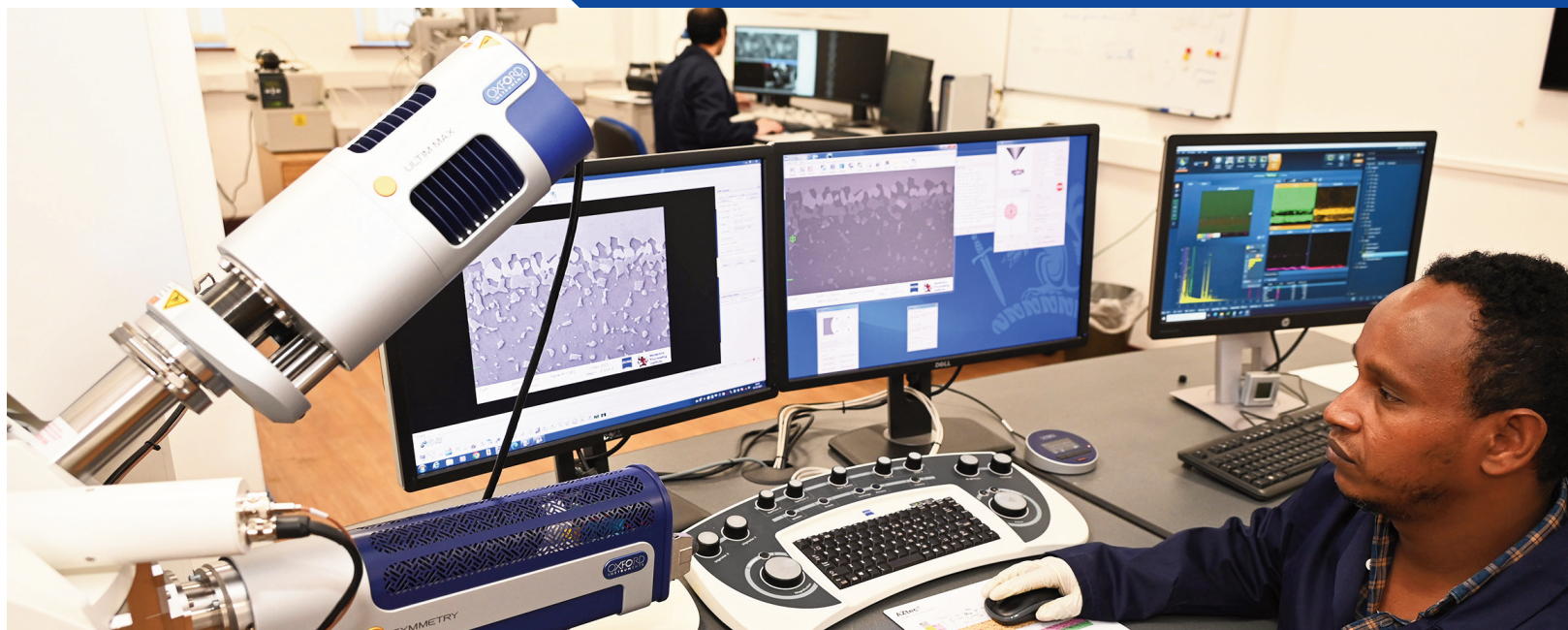




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# Characterisation and Analysis



## CHARACTERISATION AND ANALYSIS

The Characterisation and Analysis Group utilises characterisation techniques enabling efficient and effective research and development into advanced materials. The Group runs a comprehensive suite of analysis equipment providing chemical, powders, thermal, and microstructural analysis and assessment.

### Capabilities

The Group provides analysis of light elements, ambient and high temperature crystallographic assessment, elemental analysis on alloy bases, quantitative analysis of mass changes and calorific effect, including analysis of the evolved gas.

Optical microscopes and scanning electron microscopes are used for high magnification assessment image capture. Other capabilities include method development, analysis of metal powders, mineral phase identification and quantification in materials, microstructural analysis, fracture analysis, qualitative and semi-quantitative compositional analysis, and microstructural transformations at elevated temperature or under strain conditions.

### Benefits

- > Assessment of a wide range of materials operating in different conditions
- > A broad range of characterisation techniques available ensuring the most relevant analysis is provided
- > High performance equipment providing detailed and accurate analysis
- > Cost effective analysis due to equipment capabilities

### Services

- > Scanning Electron Microscopy
- > High Temperature Characterisation
- > Powders Characterisation
- > Chemical Analysis
- > Thermal Analysis
- > Microstructural Analysis
- > Failure Analysis

### Facilities

Facilities include an Advanced Materials Characterisation Centre that has a comprehensive suite of equipment allowing a whole range of different characterisation techniques to be carried out to meet multiple analysis requirements.



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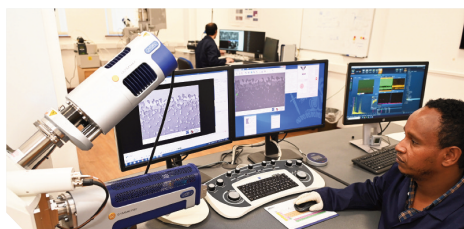
# Research and Technology

Scan the relevant QR code to find out more about key areas in which we provide research and technology support.

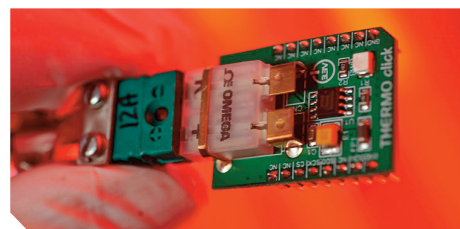
## CHARACTERISATION AND ANALYSIS



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## CRITICAL RAW MATERIALS



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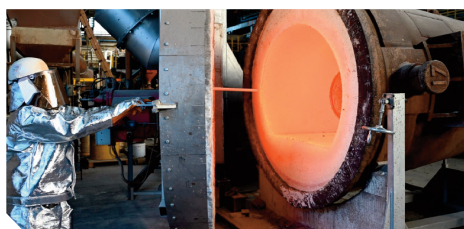
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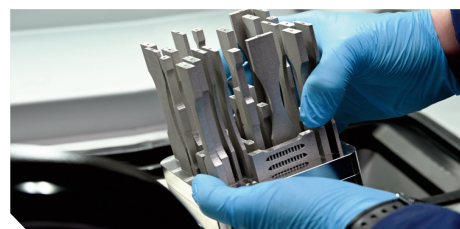
## ENERGY AND PROCESS DECARBONISATION



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## GREEN METALS



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