

## DECARBONISING THE STEEL INDUSTRY: EXPLORING TECHNOLOGICAL DEVELOPMENTS FOR SUSTAINABLE IRONMAKING

Hosted by the Centre for Ironmaking Materials Research (CIMR) at the University of Newcastle, the conference aims to facilitate collaboration to identify future research opportunities, and to understand the challenges and opportunities the steel industry is facing as it transitions towards net-zero carbon.

With the global imperative to implement low-emission cokemaking and ironmaking, the University of Newcastle, through the CIMR, is seizing the opportunity to host academic and industry experts in an international conference to exchange knowledge and communicate technological developments in sustainable ironmaking.

### CONFERENCE TOPICS

#### Low emission iron and steelmaking technologies

- Modified blast furnace
- DRI-ESF process route
- Direct reduced iron
- Emerging pathways

#### Decarbonisation pathways

- Auxiliary reductants
- Electrolysis processes
- Hydrogen and electricity utilisation

#### Raw materials for low emission ironmaking

- Raw material requirement for low-carbon blast furnace operations and DRI production
- Sintering, pelletising, briquetting
- Biomass utilisation

Fundamental studies, kinetics of reduction, gasification, etc.

#### Sustainable Cokemaking

- New cokemaking technologies
- Impact of renewable additives on coking process
- Reactivity of bio-coke
- Stamp charging technology
- Coke quality requirements in low-carbon blast furnace
- Coke oven gas cleaning and utilisation
- Sustainability of biomass supply chain
- Optimisation of blends with bio-additives

#### Process Integration and Optimisation

- Carbon capture and utilisation
- Utilisation of iron and steelmaking slags

#### Regional Specific Developments

### VENUE

Newcastle City Hall  
90 King St, Newcastle NSW 2300

### CONTACTS

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### IMPORTANT DATES

30 Sep 2024	Abstract Submission Deadline
31 Jan 2025	Online Registration Closes
16 Mar 2025	Welcome Function
17 Mar 2025	Technical Sessions   Conference Dinner
18 Mar 2025	Technical Sessions
19 Mar 2025	Site Visit

CONFERENCE REGISTRATION  
[www.sustainableironmaking.com.au](http://www.sustainableironmaking.com.au)

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