



RTCM JCU RESEARCH SHOWCASE 2026

PRESENTATIONS: Wednesday 12 August, James Cook University, Building 134 Room 101

8:15AM - 8:45AM	Registration
8:45AM - 8:50AM	Welcome
8:50AM - 8:55AM	Trailblazer Overview Rohan McDougall - Director, Resources Technology and Critical Minerals Trailblazer, Curtin University
8:55AM - 9:10AM	Opening Address Maria James - Chief Executive Officer, Mount Isa to Townsville Economic Development Zone (MITEZ)
9:10AM - 9:15AM	Introduction to the Showcase Associate Professor Ioan Sanislav - Head, Economic Geology Research Centre and James Cook University Trailblazer
9:15AM - 9:35AM	Vanadium mineralisation in black shales: global characteristics and the Julia Creek-Richmond example, Queensland, Australia Truong Le, Helen McCoy-West, Ioan Sanislav, Matt Scipione <i>Partners: JCU Geoscience, Engineering Critical Minerals Group QEM Richmond Vanadium Technology Velox Products Critical Minerals Queensland</i>
9:35AM - 9:50AM	Electrokinetic in situ leaching of vanadium from low-permeability critical mineral ores Ramin Mahyapour
9:50AM - 10:30AM	MORNING TEA
10:30AM - 10:50AM	Sustainable Rare Earth Element extraction from Australian ores Rosilene Gabas <i>Partners: JCU Geoscience, Engineering, Physical Sciences NorthX Ark Mines Basin Energy Sunshine Metals Critica Limited</i>
10:50AM - 11:05AM	Characterising Rare Earth Element distribution from granitic parent rock to regolith profile of Sybella Domain, Mount Isa Province Soham Mohanty <i>Partners: JCU Geoscience, Engineering, Physical Sciences Basin Energy</i>
11:05AM - 11:20AM	Rare Earth Element mineralisation, geochemistry and evolution of the Jupiter Intrusive Complex, Murchison Domain, WA Arya Sasidharan Nair, Alex McCoy-West <i>Partners: JCU Geoscience, Engineering, Physical Sciences Critica Limited</i>
11:20AM - 11:35AM	Engineering high-value nanocarbon materials from waste: processes, properties and applications Mohan Jacob <i>Partners: JCU Engineering Strategic Metals Australia</i>
11:35AM - 11:55AM	Electrifying mining operations: opportunities for clean transport, charging and energy infrastructure Yang Du <i>Partners: JCU Engineering My Energy Group</i>
11:55AM - 12:15PM	Filler-modified polypropylene macro synthetic fibres and their effect on post-crack performance of shotcrete Hamid Nami, Elsa dos Santos Antunes, Medhdi Khatamifar, Tejas Mahesh Koushik <i>Partners: JCU Engineering Danbar Plastics Mineright</i>
12:15PM - 1:30PM	LUNCH
1:30PM - 1:45PM	Copper stable isotopes as an exploration tool: challenges and outlook Utpalendu Halder <i>Partners: JCU Geoscience, Engineering Anglo American Strategic Energy Resources AIC Mines</i>
1:45PM - 2:00PM	Coupling numerical modelling and isotopic analysis for mineral exploration: a hydrogeological approach Erin Plato <i>Partners: JCU Geoscience, Engineering AIC Mines</i>
2:00PM - 2:20PM	High-throughput neutron tomography core scanner for critical mineral resources Alica Hoess <i>Partners: JCU Geoscience, Physical Sciences, Engineering ANSTO Terra Search Sunshine Metals Ravenswood Gold</i>
2:20PM - 2:40PM	Optimising the geophysical ore body model to aid discovery of critical minerals Stuart Russell <i>Partners: JCU Physical Sciences, Geoscience Anglo American Strategic Energy Resources</i>
2:40PM - 2:55PM	Buchanans Dome critical minerals project Mark Nestmeyer <i>Partners: JCU Geoscience Strategic Metals Australia</i>
2:55PM - 3:00PM	Wrap-Up Associate Professor Ioan Sanislav - Head, Economic Geology Research Centre and James Cook University Trailblazer
3:00PM - 4:00PM	NETWORKING EVENT

Battery Mineral Production

Mining Technology

Critical Mineral Discovery



Curtin University

IN COLLABORATION WITH



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA



JAMES COOK
UNIVERSITY
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