

Sn-W-Critical Metals & Associated Magmatic Systems

An International Geological Conference
Tinaroo Lake Resort, Atherton Tablelands, Queensland, Australia
24 - 28 June, 2019

CONFERENCE PROGRAM

MONDAY 24 JUNE

TINAROO LAKE RESORT: REGISTRATION OPENS 3 pm; WELCOME FUNCTION: 5 pm to 7.30 pm

TUESDAY 25 JUNE

Time	Presentation	Author(s)
9:00:00 AM	Carl Spandler Welcome	
9:10:00 AM	KEYNOTE PRESENTATION Rolf Romer Influence of protolith chemistry on the regional distribution of Phanerozoic magmatic tin deposits	Rolf L. Romer, Uwe Kroner
9:50:00 AM	John Mavrogenes Redox controls on granite related hydrothermal ore deposits	Jo Ward, John Mavrogenes, Nick Tailby
10:15:00 AM	INVITED PRESENTATION Marc Norman Composition, source, and petrogenesis of the Mole Granite, New England Batholith, NSW	Marc Norman
10:40:00 AM	TEA	
11:10:00 AM	Xiangchong Liu CO ₂ escaping leads to wolframite precipitation	Xiangchong Liu, Dehui Zhang
11:35:00 AM	Yuan Mei Tungsten transport in ore-forming fluids: insights from <i>ab initio</i> molecular dynamics simulations	Yuan Mei, Weihua Liu, Xin-Song Wang, A.E. Williams-Jones
12:00:00 PM	Hendrik Falck The Cantung tungsten mine, Northwest Territories, Canada: an overview of the mine geology and summary of ongoing research projects	H. Falck, H. E. Jamieson, B. Kazamel, E. Salmabadi, K. Hickey, J. Hanley, E. Adlakh, A. Roy-Garand, C. Lentz, V. Elongo, H. Legros, P. Lecumberri-Sanchez, K.L. Shelton
12:20:00 PM	Hendrik Falck The Mactung tungsten deposit, Northwest Territories, Canada: an overview of the geology and summary of ongoing research projects	H. Falck, E. Martel, B. Fischer, A.L. Gebru, D.R. Lentz, E. Adlakh, J. Hanley, A. Roy-Garand, V. Elongo, H. Legros, P. Lecumberri-Sanchez, G. Kirkham
12:40:00 PM	LUNCH	
1:40:00 PM	Rolf Romer Sn-W-Ta, Au, and U mineralization in the Appalachians and the Variscides	Rolf L. Romer, Uwe Kroner
2:05:00 PM	Tony Truelove The Tellerhäuser tin-zinc-indium deposit – new geological insights unlocking value	Antony Truelove
2:30:00 PM	Leonidas Vonopartis Towards an integrated model for magmatic and hydrothermal tin systems: examples from Aftica	Judith A. Kinnarid, Paul A.M. Nex
2:55:00 PM	TEA	
3:20:00 PM	Leonidas Vonopartis Magmatic and hydrothermal evolution of the tin-mineralisation at the Groenfontein Tin Mine in the Lebowa Granite Suite, South Africa	L.C. Vonopartis, P.A. Nex, J.A. Kinnaird, L.J. Robb
3:45:00 PM	Jason Bennett The chemical variability of cassiterite microstructures	Jason Bennett, Anthony Kemp, Steffen Hagemann, Marco Fiorentini, Malcolm Roberts
4:10:00 PM	Yanbo Cheng New Sn & W ore exploration toolkit: chemistry of zircon, cassiterite and volcanic rocks	Yanbo Cheng, Carl Spandler, Zhaoshan Chang
4:35:00 PM	INVITED PRESENTATION Ryan Mathur Sn isotope fractionation in ores and rocks: genetic and exploration implications	Ryan Mathur, Wayne Powell
5:00:00 PM	HAPPY HOUR & POSTER SESSION	
6:30:00 PM	CONFERENCE DINNER, TINAROO LAKE RESORT	

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WEDNESDAY 26 JUNE

Time	Presentation	Author(s)
9:00:00 AM	Roger Taylor Session - Introduction	Peter Pollard
9:15:00 AM	KEYNOTE PRESENTATION Phillip Blevin The character, setting and genesis of magmas associated with Sn-W critical metal mineralisation in eastern Australia	Phillip Blevin
9:55:00 AM	Paul Dirks The Watershed tungsten deposit, northeast Queensland, Australia: An example of a Permian metamorphic tungsten upgrade after a Carboniferous magmatic-hydrothermal mineralization event	Jaime Poblete, Paul Dirks, Jan-Marten Huizenga, Zhaoshan Chang
10:20:00 AM	TEA	
10:50:00 AM	John Nethery North Queensland tectonics and the tin-gold connection	John Nethery
11:15:00 AM	Gavin Clarke Element Partitioning in the Formation of a microgranite sill with associated Mo (+/- W) deposits in the Herberton District, north-east Queensland, Australia	Gavin Clarke
11:40:00 AM	Nick Oliver Tin – indium – silver – base metal polymetallic epithermal bonanza lodes from the Dover Castle district, Herberton tinfield, NE Queensland	Nicholas Oliver, Matthew Haindl, Shane Mardon, Paul Dirks, Yanbo Cheng, Craig Nettlebeck, Carl Spandler
12:05:00 PM	Gavin Clarke Introduction to the Geology of the Herberton Region	Gavin Clarke
12:20:00 PM	LUNCH	
1:15:00 PM	TINAROO - HERBERTON Visit to Herberton historical tin mining area: Mining Museum & Great Northern Mine Walk Long trousers, sun hat and sun screen, walking shoes suitable for rough paths, water, are recommended Includes Afternoon Tea	
5:30:00 PM	DINNER, PAGODA CHINESE RESTAURANT IN ATHERTON	

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THURSDAY 27 JUNE

Time	Presentation	Author(s)
8:45:00 AM	<p>INVITED PRESENTATION</p> <p>David Cooke</p> <p>Magmatic-hydrothermal features in Paleozoic Sn-W- base metal-mineralized and barren granites of Tasmania</p>	David Cooke, Wei Hong, Lejun Zhang, Colin Jones, Evan Orovan
9:10:00 AM	<p>Wei Hong</p> <p>Unidirectional solidification textures from the Sn-mineralised Heemskirk Granite, western Tasmania: Characteristics, mineral chemistry and O-isotopes</p>	Wei Hong, David Cooke, Lejun Zhang, Nathan Fox, Jay Thompson
9:35:00 AM	<p>Gavin Clarke</p> <p>Effects of exsolving fluids on the mineralogy and geochemistry of the Cattle Camp Granite, Herberton Tinfield, north-east Queensland, Australia: a cautionary tale</p>	Gavin Clarke
10:00:00 AM	TEA	
10:30:00 AM	<p>KEYNOTE PRESENTATION</p> <p>Jingwen Mao</p> <p>Geology and metallogeny of tungsten and tin deposits in China</p>	Jingwen Mao, Hegen Ouyang, Shiwei Song, Shunda Yuan, Zhenhua Zhou, Wei Zheng, Huan Liu, Peng Liu, Yanbo Cheng, Maohong Chen
11:10:00 AM	<p>Fanying Gong</p> <p>Status and exploration deployment recommendations of tin resources in China</p>	Fanying Gong, Guogang Xie, Yongsheng Li, Hairui Sun, Tingjie Yan, Zezhong Du
11:35:00 AM	<p>Jack Ma</p> <p>Temperature control on tin mineralisation in Gejiu East Tin Field, China, and its implications for mineral exploration</p>	Jack Ma
12:00:00 PM	<p>Bob Henderson</p> <p>Pluton-related W-Sn mineralisation in the Dongpo orefield</p>	Chunli Guo, Robert Henderson
12:25:00 PM	LUNCH	
1:25:00 PM	<p>INVITED PRESENTATION</p> <p>Shao-Yong Jiang</p> <p>Geological characteristic and ore genesis of typical rare metal deposits in China</p>	Shao-Yong Jiang, Tao Liu, Hui-Min Su, Kui-Dong Zhao, Wei Chen
1:50:00 PM	<p>Chun-Long Wang</p> <p>Intensive Mesozoic Li-Be-Nb-Ta mineralization in the Kelumute-Jideke pegmatite field, Chinese Altai</p>	Chun-Long Wang, Shao-Yong Jiang, Ke-Zhang Qin
2:15:00 PM	<p>INVITED PRESENTATION</p> <p>Peter Pollard</p> <p>Magmatic and hydrothermal evolution of the Yichun Ta-Sn-Li deposit, south China</p>	Peter Pollard
2:40:00 PM	TEA	
3:10:00 PM	<p>Paul Slezak</p> <p>Geology and ore genesis of the Yangibana LREE district, Western Australia</p>	Paul Slezak, Carl Spandler, Andy Border, Kieren Whittock
3:35:00 PM	<p>Carl Spandler</p> <p>Geology and tectonic setting of the Toongi rare metal deposit, central NSW</p>	Carl Spandler, Caitlin Morris
4:00:00 PM	<p>Helen Degeling</p> <p>A regional appraisal of Queensland's critical elements resources</p>	Laurie Hutton
4:25:00 PM	<p>Ross Chandler</p> <p>The magmatic evolution and rare metal potential of the Peak Range Volcanics, central QLD</p>	Ross Chandler, Carl Spandler
4:50:00 PM	<p>Carl Spandler</p> <p>Conference Roundup</p>	

DINNER, TINAROO LAKE RESORT

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POSTERS

TUESDAY 25 to THURSDAY 27 June

Title	Authors
The trace element geochemistry of cassiterite in Tasmanian tin deposits	Joshua Denholm, Aleksandr Stepanov, Ralph Bottrill
The Magmatic Hydrothermal Transition at Bluestone Bay, Tasmania	Colin L. Jones, Evan A. Orovan, David R. Cooke, Michael Roach
Geological features of the Jiaoxi tungsten deposit in the western Bangong-Nujiang metallogenic belt, Tibet, China	Yong Wang, Juxing Tang, Liqiang Wang, Jan Marten Huizenga
Structural controls and geochronology constraints on the metallogenesis of the Lame Zn-Cu-Sn polymetallic skarn deposit, Guangxi Province, China	Changhao Xiao
The geology and genesis of the Wolfram Camp W-Mo deposit, Queensland, Australia	Kairan Liu, Zhaoshan Chang, Yanbo Cheng
Overviews & Deposits Sn-W-Critical Metal Mineralisation	Various

FRIDAY 28 JUNE

Bus Transport		
7:30:00 AM	Bus #1: Transport to Cairns Airport (for delegates not attending field trip to Mt Carbine)	7:30 AM Depart Tinaroo 9:30 AM (approximately) Arrive Cairns Airport
8:00:00 AM	Bus #2: Mt Carbine Field Trip	8:00 AM Depart Tinaroo for Mt Carbine 5:00 PM (approximately) Arrive Cairns Airport
5:30:00 PM	Bus #2: Return to Tablelands from Cairns Airport	5:30 PM Depart Cairns Airport 7:30 PM (approximately) Arrive Tinaroo