

Mining and Environment International Conference

Full day Session

Elements of Biomining

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Monday June 24th

- 10:00 AM** Nadia Mykytczuk (Laurentian), Vlad Papangelakis (UToronto), Sue Baldwin (U British Columbia)- Overview of the Elements of Biomining Project
- 10:25AM** Dazhi Ren, Georgiana Moldoveanu, Vladimiro Papangelakis (U Toronto) - Ferric Sulfate Leaching of Pyrrhotite Tailings Under Controlled pH and ORP at 80 °C
- 10:50AM** Lais Mazullo M. Pereira, Han Zhou, Vladimiro Papangelakis, and Elizabeth Edwards (U Toronto) - Bioleaching of Nickel from sulphide ores and wastes at circumneutral pH under denitrifying conditions
- 11:15-11:30** **Break**
- 11:30AM** Madiha Khan, Thomas Clark, Julian Wiesner, Paul Miller, Nadia Mykytczuk (Laurentian U) - Genomics-Driven Optimization of the Bio-recovery of Refractory Gold from Arsenic-Rich Materials
- 11:55AM** Alexandra Methe, Arielle Bieniek, Thomas Merritt, Nadia Mykytczuk (Laurentian U)- A meta-genomic and meta-metabolomic analysis of a microbial community enriched from high arsenic mine tailings
- 12:20-1:20** **Lunch**
- 1:20 PM** Susan Baldwin (U British Columbia) - Microbially-mediated reductive processes for sulfur and selenium
- 1:45 PM** Erin Furnell and Erin Bobicki (U Toronto) Investigation of the Biodegradation of Diethylenetriamine and its Metal Chelates, an Effluent By-product in Nickel Mineral Processing
- 2:10 PM** Patrick Diep, Krishna Mahadevan, Alexander Yakunin (U Toronto) - Microbial Nickel Capture Proteins for Mining Applications
- 2:35 PM** **Break**
- 2:50 PM** Jinjin Chen, Andrew Jo, Yilan Liu, Radhakrishnan Mahadevan (U Toronto) One-step efficient genome editing in Acidithiobacillus ferrooxidans via CRISPR/Cas9
- 3:15 PM** Alice Zhu and Brad Saville (U Toronto) Techno economic assessments of pyrrhotite processing technology options
- 3:40-3:50 PM** **Closing remarks**
- 5:30-6:30 PM** **Closed session for industrial partners- POSTPONED to Fall 2019**