

POSTER PROGRAMME

26th International Biohydrometallurgy Symposium · Orléans, 28–30 September 2026



MONDAY 28 SEPTEMBER

Poster Area A · 31 posters

Bioprocessing of mining wastes and secondary resources 1–31

- 1** Electro-assisted biostimulation of a native microbial community from cobalt-bearing pyrite tailing: Effect of an iron-restricted culture medium on copper and cobalt recovery
Camila Muñoz IBS26.0005
- 2** Towards 2050 Climate Goals: Selective recovery of copper from low-grade tailings through bioleaching
Helena Passos IBS26.0203
- 3** Exploring flame spherodisation as a pre-treatment for bioleaching of Li-rich mine waste
Ana Santos IBS26.0178
- 4** Cobalt Recovery from Mine Tailings via Electro-assisted Bioleaching using Bacterial Community
Edel Fernández IBS26.0057
- 5** Scale-up and demonstration of bioleaching to recover critical raw materials from sulfidic tailings
Bodenan Francoise IBS26.0181
- 6** Modeling and Optimization of a Continuous Pilot-Scale Pyrrhotite Bioleaching System for Nickel and Sulfur Recovery
Badr Abbas IBS26.0046
- 7** Column bioleaching of a low-grade Cu-Ni ore: a mineralogical perspective
Carmen Falagan IBS26.0143
- 8** Bioreductive Pre-treatment of Low-Grade Nickel Laterites Using *Shewanella oneidensis* for Enhanced Nickel and Cobalt Recovery
Xander Zissler IBS26.0066
- 9** Critical raw materials bioleaching from Hungarian bauxite residue by *Aspergillus* sp.
Viktória Feigl IBS26.0018
- 10** Valorisation of Red Mud as a Secondary Mining Resource for Improving Nutrient Availability and Maize Growth in Tropical Peatland Soils
Saberina Hasibuan IBS26.0168
- 11** Siderophore-assisted recovery of cobalt from mining tailings and spent lithium-ion battery cathodes using an extremophilic bacterium from the Andean Altiplano of northern Chile
Luis Rojas-Araya IBS26.0041
- 12** Integrated bio-hydrometallurgical recycling of spent Li-ion batteries for producing critical mineral powders
Mohammad Raouf Hosseini IBS26.0021
- 13** Fungal bioleaching of spent Li-ion batteries for low-emission lithium extraction
Sadia Ilyas IBS26.0195
- 14** Use of *Acidithiobacillus ferrivorans* ACH for recycling used lithium-ion batteries
Francisco Remonsellez Fuentes IBS26.0200
- 15** Recovery of critical raw materials from NMC and LFP batteries using biohydrometallurgical processes
Alba Vilariño Porteiro Vilariño IBS26.0025
- 16** Coupling biogenic H₂SO₄ production with reductants for enhanced bioleaching of metals from spent lithium-ion batteries
Jianxiong Jian IBS26.0044
- 17** Bioleaching for recovery of phosphates from sewage sludge ash
Patrick Gerl IBS26.0010
- 18** Biological sulfuric acid production by *Acidithiobacillus thiooxidans* for phosphate recovery from sewage sludge ash
Rebeka Frueholz IBS26.0088
- 19** Biohydrometallurgical approaches for the recovery of critical metals from municipal waste
Naveira-Pazos Cecilia IBS26.0024
- 20** Bio-Based Recovery of Critical and Valuable Metals from Industrial and Municipal Incineration Waste
Ruben Basten IBS26.0180
- 21** Bioleaching of hazardous waste incineration bottom ashes: metal recovery potential and limitations
Mateusz Wolszczak IBS26.0079
- 22** Assessing the Bioleaching Potential of Copper-Containing Slags using Acidophilic Bacteria
Mareike Thea Fritze IBS26.0124
- 23** Effect of microbial species with heterotrophic metabolism on the non-ferrous metal bioleaching from copper slag
Plamen Georgiev IBS26.0197
- 24** Controlled Recovery of Indium and Gallium from LCD and LED Waste via Siderophore-Assisted Leaching
Eric van Hullebusch IBS26.0135
- 25** Bioleaching of Steel Milling Dust: Polymetallic Recovery and Microbial Validation
Archana Paimpillil Abraham IBS26.0201
- 26** Use of autotrophic cyanobacteria for gold leaching from printed circuit boards
Sabine Kutschke IBS26.0191
- 27** Development of a monitored bio-leaching process for precious metal recovery from Waste Electrical and Electronic Equipment
Dupuis Gwénaél IBS26.0020
- 28** Biorecovery of copper from printed circuit boards using seawater
Jesus A. Muñoz IBS26.0032
- 29** Optimization of a biological process for recovering metals from eco-designed, bio-based Printed Circuit Board (PCB) substrates.
Elia Laroche IBS26.0075
- 30** Integrated Biotechnological Systems for Sustainable Metal Recovery and Plastic Upcycling from E-Waste
A A Sutadi Saputra IBS26.0188
- 31** Mobilization of metals from e-waste by redox-active microorganisms
Martyna Głodowska IBS26.0110

Bioprocessing, Industrial Ecology and the Circular Economy in Mining and Minerals Processing

32–36

- 32** Microalgae-Enabled Biorefining Metallurgy: Converting CO₂ and Metallurgical Wastes into Sustainable Battery Material Precursors
Siti Khodijah Chaerun IBS26.0048
- 33** Green Approaches to Heavy Metal Removal: Copper Biosorption Using Alga Biomass and Agro-Wastes
Nelli Abrahamyan IBS26.0173
- 34** Bio-Electrochemical Lithium Recovery from Coal Mine Wastewater: A Circular Economy Approach
Pratiksha Srivastava IBS26.0074
- 35** Enhancing Copper Recovery in Pilot-Scale Bioleaching: The Impact of Solder Mask Pretreatment and Microbial Adaptation
Wai Hang Koo IBS26.0202
- 36** Optimization Strategies for Bioleaching of Precious Metals from Waste Printed Circuit Boards
Arevik Vardanyan IBS26.0115

Microbiology (microbial ecology, biogeochemistry, biochemistry) of biomining systems, mine wastes and mine-impacted environments

37–51

- 37** Investigating Cell Mechanical Adaptation of Chemolithoautotrophic Bacteria in Acidic, Metal-Rich Environments
Haig Alexander Eskandarian IBS26.0071
- 38** Metabolic and evolutionary mechanisms of microbial taxa in acid mine drainage
Chengying Jiang IBS26.0211
- 39** The Project "Green Tech": Innovative Biorecovery of Valuable Metals from Mining and Metallurgy Wastes (BioRecoM)
Sabine Willscher IBS26.0100
- 40** Sulfuric Acid Production by different *Acidithiobacillus thiooxidans* strains
Silja Välimets IBS26.0002
- 41** From biomining to biomanufacturing: scaling up omics ready sampling in acidic mine waters
Irene Sanchez Andrea IBS26.0073
- 42** Comparative genomics and synergistic interactions of three acidophilic iron- and sulfur-oxidizing bacteria isolated from Sudbury pyrrhotite tailings
Victoria Ivey IBS26.0148
- 43** Transcriptomic Responses of *Leptospirillum ferriphilum* and *Acidithiobacillus thiooxidans* to Iron, Sulfur, and Copper Stress
Narine Vardanyan IBS26.0189
- 44** Impact of Quorum sensing modulation on e-waste bioleaching by *Leptospirillum ferriphilum*
Massinissa Benbelkacem IBS26.0209
- 45** Exploring pyrite-driven biofilm formation as a bioengineering strategy for enhanced bioleaching
Maria Magliulo IBS26.0106
- 46** Adaptive laboratory evolution to develop a specialized acid, temperature and nitrate tolerant iron oxidizing culture
Cecilia demergasso IBS26.0127
- 47** The Effect of Ferrous Iron on Indigenous Microbial Isolation and Bioleaching Potential in Diverse Lithium-Bearing Ores
Cora Dawson-Jones IBS26.0140
- 48** Thiocyanate tolerance, inhibition, and adaptation in key biooxidation microorganisms: A systematic review
Catherine Edward IBS26.0139

- 49** Salt-enhanced growth and aggregation in novel acidophile *Igneacidithiobacillus copahuensis* relevant to saline bioleaching
Raquel Quatrini IBS26.0019

- 50** Transcriptomic Insights into Chloride Stress Tolerance Mechanisms in *Sulfobacillus thermosulfidooxidans*
Katarzyna Kwiecien IBS26.0055

- 51** A comparison of metal tolerance in acidophiles comprising 15 type species and 10 different an- and cations
Axel Schippers IBS26.0161

Bioremediation and valorisation of Mine-Impacted Waters (AMD/ARD)

52–60

- 52** Membrane H₂-fed bioreactor applied to high-sulfate mine water for Cu recovery
Fabienne Battaglia-Brunet IBS26.0017
- 53** Enrichment and Characterization of Sulfate-Reducing Microbial Communities for Mine Water Treatment
Sarah KuB IBS26.0123
- 54** Progress in biotechnical mine and process water treatment and resource recovery
Anna Kaksonen IBS26.0030
- 55** High-rate bioprocess for complex acid mine drainage treatment and metals recovery
Anna Kaksonen IBS26.0210
- 56** Acid Mine Drainage-Driven Biooxidation of a Refractory Sulfide Gold Ore
Elaheh Nouhi IBS26.0050
- 57** BioGeoMetals – A Research School for Sustainable Metal Recycling
Mark Dopson IBS26.0164
- 58** Sustainable copper removal using different biosorbents
Sona Barseghyan IBS26.0186
- 59** Evaluating the Potential of Microbially Induced Calcite Precipitation to Overcome Shortcomings of Conventional Co-Disposal
Ishaaq Hajee IBS26.0199
- 60** Microalgal polycultures for carbon cycling and metal removal from metal-contaminated mine waters
Sue Harrison IBS26.0212

WEDNESDAY 30 SEPTEMBER

Poster Area C - 31 posters

Development and Application of Biomining processes

61–74

- 61** The effects of microbial inoculation, substrates and initial pH on the leaching of critical minerals from black shale
Anna Kaksonen IBS26.0031
- 62** Seawater Bioleaching of Chalcopyrite: Adaptation of Acidophilic Consortia to Seawater for Improved Chalcopyrite Bioleaching
Paloma José Núñez Muñoz IBS26.0076
- 63** The effects of microbial inoculation, temperature and organic carbon on the leaching of low-grade chalcopyrite ore in saline water
Anna Kaksonen IBS26.0175
- 64** Biooxidation of a sulfidic refractory gold ore at different particle sizes
Jaeheon Lee IBS26.0028
- 65** Validation of a Custom Pilot Stirred Tank Bioreactor via Comparative Bench- and Pilot-Scale Biooxidation of Refractory Gold-bearing Arsenopyrite
Nadia Mykytczuk IBS26.0167
- 66** Facile and efficient sequence of Au and Ag recovery from DRGOs: biooxidation of sulfides followed by thiourea leaching under the strongly acidic conditions
Keiko Sasaki IBS26.0196
- 67** The BioGold Paradigm: Redefining Urban Waste as a Living Gold Resource
Sradhanjali Singh IBS26.0109
- 68** Investigating the biomineralization potential of *Lysinibacillus sphaericus* PG22 in the circular recovery of critical raw materials
Laura Vitale IBS26.0132
- 69** Hybrid approach for rare earth elements extraction from oil sand tailings
Sara Magdoui IBS26.0142
- 70** Determination of operation parameters of an in-situ bioleaching pilot
Benjamin Monneron Enaud IBS26.0184
- 71** Evolution of multiscale pore-fracture networks and seepage pathways in porphyry copper ore under simulated in-situ bioleaching conditions
Mingqing Huang IBS26.0067
- 72** Agglomeration of Basalt Powder for heap bioleaching
Mitra Amini IBS26.0160
- 73** Non-ferrous metal leaching from metallurgical slags and regeneration of leaching solutions by microorganisms immobilized on natural carriers
Anna Khachatryan IBS26.0190
- 74** Continuous Bioleaching of Pyrrhotite Tailings for Ni Recovery and S⁰ Production
Heping Shen IBS26.0149

Fundamental studies of Biomining (bioleaching, bio-oxidation, bioflotation, etc)

75–91

- 75** Reductive dissolution and biomineralization of magnetite: assessing a novel biomining approach for iron extraction on Mars
Antoine Carissimo IBS26.0206

- 76** Bioregenerative Biomining of Lunar Regolith: Integrated Extraction and Precipitation Processes
Pamela Flores IBS26.0114

- 77** Indirect bioleaching by MBR show wide application in selectively deep extraction of valuable/toxic metals from industrial wastes for both metal recovery and waste full-use
Baoping Xin IBS26.0006

- 78** The Bioleaching Potential of diverse *Acidithiobacillus ferrooxidans* Strains for Cobalt Recovery from Mine Tailings
Anastasia Kalampaka IBS26.0009

- 79** Biosurfactant-enhanced ion flotation for sustainable treatment of metal-bearing effluents
Mital Chakankar IBS26.0045

- 80** Environmental Mobility of Metallic and Metalloid Elements in Mining Technosols
Hugo Martin IBS26.0051

- 81** Bioleaching of critical elements in the presence of surface-active compounds in a column bioreactor
Agnieszka Pawlowska IBS26.0172

- 82** The rate of pyrite oxidation with ferric iron in the presence and absence of microorganisms
Anna Henriikka Kaksonen IBS26.0163

- 83** Effect of microbial-mineral interaction on the surface properties of jarosite precipitate during bioleaching of sulfide minerals
Tunde Ojumu IBS26.0176

- 84** Study of synthesis of Fe(III)-hydroxysulfate minerals in acidic sulfate systems
Lenka Hagarová IBS26.0183

- 85** Bioleaching of Ag-bearing tetrahedrite using iron-oxidizing bacteria under mesophilic conditions
Lenka Hagarová IBS26.0080

- 86** Influence of Ferric ion concentration and Redox potential on the Chemical Leaching of Skutterudite (CoAs₃) and Nickeline (NiAs) under acidic conditions.
Cristian Felipe Jorquera Roman IBS26.0118

- 87** Microbial strategies for the recovery of critical metals from tungsten-rich mining residues: a comparative study of biostimulation and bioaugmentation
Jean Martins IBS26.0205

- 88** Effect of particle size on bioleaching of low-grade chalcopyrite containing silicate and fluoride gangue materials in column reactors
Mwema Wanjiya IBS26.0095

- 89** Bioleaching of Li-minerals
Hanna Miettinen IBS26.0169

- 90** Effect of Temperature on Bioleaching of Nickel Sulfide Ore by an Acidophilic Microbial Community
Maxim Muravyov IBS26.0174

- 91** Empirical Evidence of REE–Organic Acid Complex Formation in Bioleaching
Elizabeth Watkin IBS26.0039