

Received Articles

(48 articles as of April 23)

Represented Countries (14): Australia, Brazil, Canada, Chile, Finland, Germany, Peru, Spain, Sweden, Switzerland, The Netherlands, Turkey, United Kingdom and USA.

GEOMET: Case Studies and Industrial Practices

(04 papers)

1. **(A03) Optimizing Flotation: Enhancing Metallurgical Performance with Froth Quality Diagnostics**
Sébastien de Blois and Alex Thivierge, Jumine, Canada
2. **(A08) LIBS Sensors for Mining: Analytical Tools Revolutionizing Material Characterization and Process Control**
Sadia Manzoor and Ad Maas, Spectral Industries, The Netherlands; Emmanuel Briones and Dirk Van Der Werff, Holtec, Chile
3. **(A18) Using the Attrition Cell to Reduce Yield Stress in Bauxite Tailings Slurry**
Roldnei Candido, Maria Ferreira and Luiz Brito, Mineração Rio do Norte, Brazil
4. **(A40) Reducing Variability of Talc in Copper Processing Plant using Blending Piles: A Case Study**
Stephanie Sá, Marcos Lopes, Rafael Sposito, Carolina Araujo Souza, Geovan Oliveira and Raquel Carneiro, Vale Base Metals, Brazil

GEOMET: Geometallurgical Characterization and Modelling

(06 papers)

1. **(A09) Modeling and Estimation of Geometallurgical Variables from an Integrated Workflow with Seequent Solutions**
Joaquín Morales, Lucas Torres and Julia Oliveira, Seequent, Chile
2. **(A20) Characterization and Processing Challenges of Oxidized Stockpile Ore at the Bingham Canyon Mine**
Laura Hughes, Michael Kassela and Isaac Boadi, Rio Tinto Kennecott, USA
3. **(A31) Using Neural Networks to Develop an Ai Geomet Model**
Marcos Bueno, Leonardo Lara, Thiago de Almeida and Malcom Powell, Geopyörä, Finland
4. **(A35) Predictive Geometallurgical Models for Gerdau Iron Ore Mine in Brazil**
Anna Luiza Batista, Talvani Barbosa, Matheus Carvalho Costa, Raquel Cerqueira Pinto and Douglas Mazzinghy, Department of Mining Engineering, Federal University of Minas Gerais, Brazil; Emiliana Machado, Reginaldo Zacarias and Leticia Rodrigues, Gerdau, Brazil
5. **(A43) Integrating Machine Learning and Conditional Simulation for Geometallurgical Block Modelling: A Case Study from the Resolution Copper Project**
Cecilia Artica, First Quantum, Australia
6. **(A49) Geometallurgical Modelling to Support the Mine Planning in an Iron Ore Operation**
Mônica Mendes, Fabiana Teixeira, Anderson Soares, Elisabeth Fonseca, Heitor Silva, Janaina Morais and Eduardo Motta, Vale, Brazil

(GEOMET) Metallurgical balance and reconciliation

(01 paper)

1. (A38) Reduction of Discrepancy in Metallurgical Accounting for Gold Production at Newmont Yanacocha

Danitza Torres and Benito Quiñones, Yanacocha, Newmont, Peru

GEOMET: Technology and Software for Data Analysis and Geometallurgy Development

(01 paper)

1. (A16) Enhancing Efficiency: Integrating Inline Microscopy and AI based image analysis in Concentrator Plants

Sebastian Maaß and Max Frei, SOPAT, Germany; Robert Pancko, Berlin Institute of Technology and SOPAT, Germany

(GEOMET) Mineral and clay characterization

(02 papers)

1. (A30) Development of Magnesium Analysis for Copper Concentrate Traceability

André Menezes, Maria Beatriz Silva, Mário Freitas, Stephanie Sá, Douglas Rocha and Luciana Miranda, Vale Base Metals, Brazil

2. (A41) Insights on Particle Categorization in Mineral Characterization through Automated Mineralogy

Felipe Martínez, SGS, Chile

(GEOMET) Mineral sampling

(01 paper)

1. (A33) Evaluation of Sampling and Laboratorial Protocols by Theory of Sampling and Plant Products Grades

Antônio Nascimento, Gilson Silva and Luiz Brito, Mineração Rio do Norte, Brazil

(GEOMET) Testing and prediction of process performance: crushing, grinding, flotation, leaching, sedimentation

(02 papers)

1. (A25) A New Capability of the Ball Mill Abrasion Test (BMAT) for the Grinding Media QA Process

Carlos García, Molycop, USA and Hamid Pourasiabi, Molycop and The University of Queensland, Australia

2. (A32) Grinding Media Wear Model Review

María José Astudillo and Paul Shelley, Molycop, Chile and Australia

(GEOMET) Applied mineralogy

(01 paper)

1. (A46) Origin of Alumina (Al₂O₃) in Iron Concentrates and its Impact on Pellet Feed Processing in the Huasco Valley, Chile

Paulina Salgado, Gerardo Saavedra, Mario Lagos and Jorge Alvarado, Compañía Minera del Pacífico, Chile

PROCEMIN: Automatic Control, Expert Systems and Data Analysis

(02 papers)

1. **(A02) Implementing Digital Lubrication Technology for Predictive Maintenance Data Analysis in Heavy Mobile Equipment**
Stuart Sandler and Tim Hall, GreaseBoss, United States and Australia
2. **(A24) HPGR Optimization Through Advanced Control: Improving Throughput and Stability**
Sofía Calderón, Compañía Minera del Pacífico, Chile and Víctor Calderón, Andritz, Chile

PROCEMIN: Expansions and new projects

(02 papers)

1. **(A17) Study Case of High-Quality Magnetite Concentration for a Greenfield Iron Ore Concentrator Plant**
Juan Vergara-Meruane, Alfredo Maureira, Javier Vergara and Ricardo Esteban, BBA Consultants, Chile and Canada; Jean Rojas, Juan Ramiro and Israel Solis, Compañía Minera del Pacífico, Chile
2. **(A37) Design, Commissioning and Startup of the Mantoverde Copper Concentrator**
Nilson Saldía, Lucia Gomez, Leonardo Parraguez, Sergio Gaete, Brandon Akerstrom and Peter Amelunxen, Capstone Copper, Chile and Canada

PROCEMIN: Flotation: Fundamentals, Reagents and Industrial Applications

(08 papers)

1. **(A06) The Effectiveness of Flotation Launder Retrofit on Copper Concentrators**
Christian Cardoso, Guillermo Bermudez and Aino Saikkonen, Metso, Canada and Finland
2. **(A07) Contributing to Mining Sustainability: Collector Reagent Formulation from End-of-Life Tires**
Oscar Pinto-Burgos, Walter Díaz-Pérez, Vicente Bustamante-Villouta, Arturo Rock, Leopoldo Gutiérrez and Miguel Parra Marisio, Konatec, Chile; Javiera Gutiérrez-Espinoza, Chemical Engineering Department, University of Castilla-La Mancha, Spain
3. **(A10) Forecasting Mass Balance with Mass Pull Parameter in Copper Flotation Plants**
Alex Rey, Fluor, Chile
4. **(A12) Hydrodynamic Characterization of a New Biodegradable Frother Chemistry at Laboratory Scale**
Sebastián Vergara, Miguel Maldonado and Nicolás Miranda, D. de Ingeniería Metalúrgica, Universidad de Santiago de Chile; Rodrigo Urtubia, Envirotec Innovation and Sustainability, Chile
5. **(A15) On the Formulation of a Novel Collector to Improve Coarse Particle Flotation Applying Mixture Design**
Cristian Saavedra, Patricio Zarate, Michael Mallea and Wagner Silva, Clariant, Chile and USA
6. **(A34) Advancing Tailings Reprocessing: Pilot-Scale Sulfide Recovery for Sustainable Resource Recovery**
Maziar Sauber, Antonio Di Feo, Yevhen Kravtsov, Jophat Engwayu and Arik Collins, Canmet Mining, Canada; Charlotte Gibson, The Robert M. Buchan Department of Mining, Queen's University, Canada

- 7. (A36) Application of Novel Co-collector Reagents for Enhanced Coarse Particle Flotation in Altered Cu-Mo Ore**
Cristian Saavedra, Wendel Rodrigues and Rodolfo Ramognini, Clariant, Chile and Peru
- 8. (A50) Flowsheet Development for Meridian's Cabaçal Project**
Neri Roux, SGS Lakefield, Canada; Norman Lotter, Flowsheets Metallurgical Consulting, Canada and Martin McFarlane, Meridian Mining, United Kingdom

PROCEMIN: Comminution: Crushing, Grinding, SAG, HPGR

(02 papers)

- 1. (A04) Analysis and Prediction of Ball Mill Overload in SABC Circuits**
Leonardo Espinoza, Franklin Charca and Jhon Aro, National University of San Agustin, Peru
- 2. (A48) Moving Towards Greener Economy: Vertical Roller Mill (VRM) for Eco-Efficiency Dry Comminution**
Hamid-Reza Manouchehri, University of British Columbia, Canada and Northland Oretch, Sweden

PROCEMIN: Processing of precious metals, industrial and ferrous minerals

(01 paper)

- 1. (A44) Recovery of Precious Metals from Waste Streams in the PEACOC Project**
Guillermo Pozo, Carmen del Rio, María Ibañez, Maider Azpeitia, Ainhoa Unzurrunzaga and Elisabet Andrés, Tecnalia, Spain

PROCEMIN: Modeling, design, optimization and control of mineral processes

(04 papers)

- 1. (A23) Optimizing Collahuasi's Flotation Circuit with AI-Driven Solutions: Enhancing Process Stability and Metal Recovery**
Giovanni Cecchi and Cristian González, IntelliSense.io, Chile; Marcelo Rodríguez, Compañía Minera Doña Inés de Collahuasi, Chile
- 2. (A28) Measuring the Pulp Chemistry for Improved Metallurgical Performance**
Christopher Greet, Magotteaux, Australia
- 3. (A29) Quantifying the Impact of Roping Events on the Recovery and Net Metal Production**
Rodrigo Bruna, Robert Maron, Alejandro Jaque and Alejandro Ramos, CIDRA Minerals Processing, Chile and USA
- 4. (A39) Rate increase at Plants I and II of Salobo**
Bruno Sousa, Thiago Pereira and Vitor Teixeira, Vale Base Metals, Brazil

PROCEMIN: New Processing Technologies

(09 papers)

- 1. (A01) Performance Comparison of a WEMCO II and WEMCO Flotation Cell in a Copper Rougher Application**
Ian Coltrin, Bryan Forbes, Jesse Bowden, Jake Albers, Bartosz Dabrowski, Thien Sok and Dariusz Lelinski, FLSmidth, USA

2. **(A05) Online Rheology: Transforming Operational Efficiency in Mining**
Walter Díaz-Pérez, Vicente Bustamante-Villouta, Leopoldo Gutiérrez, Arturo Rock and Miguel Parra-Marisio, Konatec, Chile
3. **(A19) Vertical Roller Mills: A Mature Technology Introduced as New Application into Mining**
Caroline Woywadt and André Cruz, Gebr. Pfeiffer, Germany and Brazil
4. **(A21) Reimagining Flotation Circuits with Novel Flotation Technologies through Pre-Concentration and Scalping**
Nathalie Kupka, Alejandro Yáñez, Valentina Concha, Cagri Emer and Antti Rinne, Metso, Finland, Chile and Turkey
5. **(A22) Reflections on a Journey in Geometallurgy**
Steve Williams and Nichola McKay, Blue Coast Research, Canada
6. **(A26) Jameson Cells in Industrial Rougher Applications**
Chad Rogers, Sam Crane, Eduardo Morin, Adam Price, Ryan Jones and Chris Anderson, Glencore Technology, Australia and Chile
7. **(A42) Testing Magnetic Conditioning at Escondida's Laguna Seca Concentrator**
Heydi Fernández, Hans Alverez and Víctor Fernández, Minera Escondida, BHP, Chile; Damaso Barrios, BHP Group, Chile and Christos Karageorgos, Ausmetec, Peru
8. **(A45) Approval of Copper Sulfide Collector as a Substitute for Amyl Xanthate Potassium (PAX): Salobo Mine**
Ernani Delano, Fernanda Roenick, Jorge Arce, Kesley Ribeiro, Rafael Oliveira and Renan Sousa, Vale Base Metals, Brazil
9. **(A51) Application of Artificial Intelligence in Gearless Mill Drive (GMD) Mining Operations and Maintenance**
Carlos Miguez and Dominique Stucki, ABB, Spain and Switzerland

PROCEMIN: Solid-Liquid Separation and Tailings Retreatment

(01 paper)

1. **(A11) Conversion of a Conventional Tailings to a Perimeter Configuration using Nalco WaterShed Polymer**
Francois Verdoorn, Simec Mining, Australia and Keith Gibbs, Ecolab, Australia

PROCEMIN: Classification, screening and mineral sorting

(01 paper)

1. **(A47) Sorting: A Missing Part for Greener Mining - Techno-Economical Aspects of Sorting Process**
Hamid-Reza Manouchehri, University of British Columbia, Canada and Northland Orectech, Sweden

PAPERS DISTRIBUTION

MINING COMPANIES

(18 papers)

BHP, Minera Escondida, Chile (1)
BHP Group, Chile
Capstone Copper, Chile and Canada (1)
Compañía Minera del Pacífico, Chile (3)
Compañía Minera Doña Inés de Collahuasi, Chile (1)
First Quantum, Australia (1)
Meridian Mining, United Kingdom (1)
Mineração Rio do Norte, Brazil (2)
Newmont, Yanacocha, Peru (1)
Rio Tinto Kennecott, USA (1)
Simec Mining, Australia (1)
Vale Base Metals, Brazil (5)

ENGINEERING AND CONSULTING COMPANIES

(07 papers)

BBA Consultants, Chile and Canada
Blue Coast Research, Canada (1)
Ecolab, Australia
Envirotec Innovation and Sustainability, Chile
Flowsheets Metallurgical Consulting, Canada
Fluor, Chile (1)
Geopyörä, Finland (1)
Holtec, Chile
Jumine, Canada (1)
Northland Orectech, Sweden
Seequent, Chile (1)
SGS Lakefield, Canada
SGS, Chile (1)
Spectral Industries, The Netherlands (1)

SUPPLIER COMPANIES

(16 papers)

ABB, Spain and Switzerland (1)
Andritz, Chile
Ausmetec, Peru
CIDRA Minerals Processing, Chile and USA (1)
Clariant, Chile, Peru and USA (2)

FLSmidth, USA (1)
Gebr. Pfeiffer, Germany and Brazil (1)
Gerdau, Brazil
Glencore Technology, Australia and Chile (1)
GreaseBoss, United States and Australia (1)
IntelliSense.io, Chile
Konatec, Chile (2)
Magotteaux, Australia (1)
Metso, Canada, Finland, Chile and Turkey (2)
Molycop, Chile, Australia and USA (2)
SOPAT, Germany (1)

UNIVERSITIES AND RESEARCH CENTERS

(06 papers)

Berlin Institute of Technology, Germany
Federal University of Minas Gerais, Brazil (1)
National University of San Agustín, Peru (1)
Queen's University, Canada
Tecnalia, Spain (1)
The University of Queensland, Australia
Universidad de Santiago de Chile, Departamento de Ingeniería Metalúrgica (1)
University of British Columbia, Canada (2)
University of Castilla-La Mancha, Chemical Engineering Department, Spain

STATE-OWNED INSTITUTIONS, NGOS AND GOVERNMENT AGENCIES

(01 paper)

Canmet Mining, Canada (1)