Received Articles

(39 articles as of March 20)

Represented Countries (10): Australia, Brazil, Canada, Chile, Germany, Panama, Peru, The Netherlands, United Kingdom and USA.

(PROCEMIN) New Mineral Processing Technologies (03 articles)

1. **(A07) Enhacing SAG Mill Start-Up and Performance with Hybrid Liners: Solution for Modern Operations**
   Ernesto Mori and Jennifer Giron, Tega Industries, Chile and Panama; Mark Sherman, Fluor, Canada
2. **(A25) Use of an Online Grade Analyzer to Reduce Uncertainty in Flotation Feed Control at Salobo 3**
   Fabio Galvão, Olegario Junior, Gladstone Vieira, André Caetano, Igor Abreu and Erick Araujo, Vale Base Metals, Brazil
3. **(A26) From Texture to Recovery: Evaluating the Role of Compact Hematite in Iron Losses to Tailings**
   Neymayer Lima, Laura Andrade and Pedro Porto Cavalcanti, Vale, Brazil

(PROCEMIN) Modeling, Design, Optimization, and Control of Mineral Processing (04 articles)

1. **(A01) The Role of Impeller Size and Particle Size on Solids Suspension in a Mechanical Flotation Cell**
   German Lastra, Bellson Awatey, Juan Jose Frausto and Kym Runge, Julius Kruttschnitt Mineral Research Centre, The University of Queensland, Australia
2. **(A13) Python-Based Data Analytics for Operational Insights in Mineral Processing Plants**
   Juan Vergara-Meruane, Charles Blais, Katherine Mansilla, Ricardo Esteban and Javier Vergara, BBA Consultants, Chile and Canada
3. **(A14) Modernization of Molybdenum Flotation: A Case Study with Rio Tinto Kennecott Copper**
   David Hatton, Woodgrove Technologies, Canada
4. **(A23) Predicting Silica Grade in Iron Ore Flotation**
   Altieres Frade, Vale, Brazil; Kerollan Ramos, Vale Institute of Technology, Brazil and Thomás Pinto, Universidade Federal of Minas Gerais, Brazil

(PROCEMIN) Comminution: Crushing, SAG, HPGR, Ball and Ultrafine Grinding (02 articles)

1. **(A05) Dry Grinding with Vertical Roller Mills: Mill Design and Plant Layout**
   Caroline Woywadt and André Cruz, Gebr. Pfeiffer, Germany and Brazil
2. **(A10) Assessing Gold Leaching Variability in HPGR-Processed Ores Using Energy-Matched Piston Press Tests**
   Jaidar Saud, Bern Klein and Rafael Felipe, Norman B. Keevil Institute of Mining Engineering, The University of British Columbia, Canada

(PROCEMIN) Flotation: Fundamentals, Reagents, and Industrial Applications (03 articles)

1. **(A09) Optimization of Copper Recovery in Smelter Slags: An Experimental Analysis of Flotation at Chuquicamata**
   Pablo Rojas, César Briceño and Eduardo Garrido, Chuquicamata Division, Codelco, Chile
2. **(A17) Industrial Evaluation of a Mixed Dithiophosphate-Thioamide Collector as a Single Collector in Rougher Flotation**
   Héctor Piña, Yarielba Serrano and Felipe Varela, Compañía Minera San Geronimo, Chile
3. **(A30) Methodology for Selecting Reagents in the Rougher Flotation of a Copper Porphyry Deposit with a High Pyrite Content**
   Noelia Stuardo, Alex Rey and Cristian Garrido, Fluor, Chile

(PROCEMIN) Processing of Precious Metals, Industrial Minerals, and Ferrous Minerals (01 article)

1. **(A06) Gold Grade Measurement in Conveyed Ores using Geoscan Gold**
   Henry Kurth and Claudio Ramon, Scantech International, Australia

(PROCEMIN) Mineral Economics, Tailings Reprocessing, and Materials Recycling (01 article)

1. **(A39) Current State of the Art in the Recovery of Cobalt Encapsulated in Pyrite and Copper Sulfides from Scavenger Tailing**
   Jorge Ipinza, Millaray Hernández, Camilo Araos, Patricia Fernández and Waldo Aracena
   Centro de investigación en minería sustentable, CIMS-JRI, Chile

(PROCEMIN) Advanced Process Control and Expert Systems (03 articles)

1. **(A04) Smart Eyes in the Slurry Real-Time Particle Sizing with AI-Powered Inline Microscopy**
   Vitor Braz, SOPAT GmbH (AMS), The Netherlands; Sebastian Maaß, SOPAT GmbH, Germany and Jose Benedito Roberto, Vale, Brazil
2. **(A35) Real-Time Detection and Categorization of Pressure Spikes in SAG Milling via Advanced Analytics**
   Juan Pablo Bastías and Francisca Hurtado, Laguna Seca, Minera Escondida, BHP, Chile; Katherine Bustos, Rafael Berrios, Nicolás Grágeda, José Rojas, Daniel Baquedano and Nicolás Neira, Honeywell, Chile
3. **(A36) Scenario Detection and Coordination for Copper Flotation Circuits**
   Nicolás Grágeda, Nicolás Neira, Daniel Baquedano, José Rojas and Francisco Arenas, Honeywell, Chile; Juan Pablo Bastías, Laguna Seca, Minera Escondida, BHP, Chile

(GEOMET) Sampling and Sensors (03 articles)

1. **(A02) In-Pit Sensing of Deleterious High Alumina Ores to Enable Selective Mining**
   Daniel Finfer and Janti Shawash, Anglo American, United Kingdom

2. **(A18) Continuous Elemental Analysis for Validation of Geometallurgical Models**
   Robin Sheehy, Héctor Mendoza and Jake Jones, Real Time Instruments, Australia and Chile
3. **(A24) Advancing Mineral Processing with PGNAA: Enhancing Efficiency, Quality, and Sustainability**
   Tom Strombotne, Claudio Piccino, Garry Noble and Kevin Gordon, Thermo Fisher Scientific, USA and Australia

(GEOMET) Testing and prediction of metallurgical parameters: Crushing, Grinding, Flotation, Concentration, Sedimentation, Filtration, and Environmental Performance (01 article)

1. **(A03) Robust Flowsheet Development with High-Confidence Flotation Testing**
   Norman Lotter, Flowsheets Metallurgical Consulting, Canada; M.C. Hoffman, Maximum Process Solutions, Canada; Neri Roux, SGS Lakefield, Canada and Phillip Mackey, P.J. Mackey Technology, Canada

(GEOMET) Geometallurgical Modeling (08 articles)

1. **(A08) Geometallurgy Models: Simplicity Wins Over Complexity – Back to Basics**
   Regina Baumgartner, Linda Duncan and Keith Merriam, Teck Resources, Canada
2. **(A16) Development of a Geometallurgical Algorithm for Rougher Recovery in a Copper Concentrator Plant**
   Adriela Osses, Alex Rey and Cristian Garrido, Fluor, Chile
3. **(A20) Knowledge-Guided Early-Stage Geomet Modelling: ML and Multivariate Recovery Simulation**
   Rob Downard, Ryan Barnett and John Manchuk, GeologicAI, Australia and Canada
4. **(A28) Geometallurgical Recovery Estimation from Liberation Grade**
   Trinidad Salas, Alex Rey and Cristian Garrido, Fluor, Chile
5. **(A29) Recovering Value from Rougher Tailings: Predictive Modeling of Coarse Particle Flotation**
   Catalina Lobos-Zúñiga, Catalina Martínez-Barrueto and Mauricio Romero, Empírica Consultores, Chile
6. **(A32) Industrial Reagent Testing at the Sossego Plant: MK-400 (Liquid Lime)**
   André Menezes, Douglas Rocha, Elaine Lima, Manassés Aguiar, Maria Beatriz Silva, Mário Freitas, Jorge Arce and Stephanie Sá, Vale Base Metals, Brazil
7. **(A37) Small Data: Unlocking Deep-Learning for Geometallurgy Through Two-Stage Training**
   Javier Merrill-Cifuentes and Alex Maritati, IMDEX, Australia
8. **(A38) Integrated Methodology for the Development of SWIR Chemometric Models Applied to Geometallurgy**
   Francisca Gómez, Débora Sugamiele, Javiera Fernández, Esteban Leiva and Efraín Cárdenas, Teck Resources, Chile

(GEOMET) Geometallurgical Applications in Production Planning (03 articles)

1. **(A11) Geometallurgical Mapping of Deleterious Elements at the Salobo Mine**
   Ricardo Nunes Melo, Giseli Ramos and Igor Carneiro, Vale Base Metals, Brazil and Fernanda Gontijo, Federal University of Rio Grande do Sul, Mining Engineering Department, Brazil

2. **(A22) Impact of Over-Extraction Beyond Economic Height on Metallurgical Recovery and the Development of a Geometallurgical Risk Index at the Chuquicamata Underground Mine**
   Paula Peñaloza and Claudio Cordova, Chuquicamata Division, Codelco, Chile
3. **(A33) Geometallurgical Blending of Chuquicamata and Radomiro Tomic Ores for Concentrator Optimization**
   César Briceño, Pablo Rojas and Eduardo Garrido, Chuquicamata Division, Codelco, Chile

(GEOMET) Metallurgical Balancing and Reconciliation (03 articles)

1. **(A12) Finding the Right Balance: The Influence of Measurement Quality and Mass Balance Methodology in Metallurgical Accounting**
   Diana Felipe, JKTech, Australia
2. **(A19) Sampling System Uncertainty and Its Impact on Metallurgical and Economic Performance**
   Rocío Paineo, Maria Piffardi and Lilian Zavala, Chuquicamata División, Codelco, Chile
3. **(A21) Geometallurgical Integration Applied to Copper Beneficiation at the Salobo Complex**
   Fabio Galvão, Priscila Bueno, Rosiane Aquino, Filipe Barros, Sebastião Adelino and Layane Nascimento, Vale Base Metals, Brazil

(GEOMET) Case Studies and Industrial Practices (02 articles)

1. **(A31) Geometallurgical Assessment of Bacaba Ore: A Case Study at Sossego Mine**
   André Menezes, Douglas Rocha, Elaine Lima, Manassés Aguiar, Maria Beatriz Silva, Mário Freitas and Jorge Arce, Vale Base Metals, Brazil
2. **(A34) Mine-to-Plant Optimization through Operational Strategies under Extremely Hard Rock Conditions**
   Jorge Cárdenas, José Salvador and Juan Lazarte, Enaex, Peru

(GEOMET) New Technologies and Methodologies for Geometallurgical Model Development (02 articles)

1. **(A15) Defining Geometallurgical domains with PCA and K-Means and Optimizing Sampling Intensity per Domain using Monte Carlo Simulations**
   Laura Andrade, Tiago Caixeta, Carolina de Souza, Neymayer Lima and Pedro Porto Cavalcanti, Vale, Brazil
2. **(A27) Hyperspectral and XRF Core Scanning to Resolve Copper Texture for Geomet Applications**
   John Manchuk and Rob Donard, GeologicAI, Canada

ARTICLES DISTRIBUTION

MINING COMPANIES (19 articles)

Anglo American, United Kingdom (1)
BHP, Minera Escondida, Chile (2)
Codelco, Chuquicamata Division, Chile (4)
Compañía Minera San Geronimo, Chile (1)
Teck Resources, Canada and Chile (2)
Vale, Brazil (4)
Vale Base Metals, Brazil (5)

ENGINEERING AND CONSULTING COMPANIES (07 articles)

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P.J. Mackey Technology, Canada
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SOPAT GmbH, The Netherlands and Germany
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Woodgrove Technologies, Canada (1)

UNIVERSITIES AND RESEARCH CENTERS (03 articles)

Centro de investigación en minería sustentable, CIMS-JRI, Chile (1)
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The University of Queensland, Julius Kruttschnitt Mineral Research Centre, Australia (1)
The University of British Columbia, Norman B. Keevil Institute of Mining Engineering, Canada (1)
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