

## ABSTRACTS APPROVED

(64 abstracts approved as of August 28, 2017)

**Represented Countries (12):** Australia, Brazil, Canada, Chile, Colombia, Finland, France, Japan, Peru, South Africa, Sweden and USA

### Applied Mineralogy and Mineral Characterization

(8)

**(A07) Fast Analysis Advances in Real-Time Control for Copper Processing With Geoscan on Belt Analyzers**

Luke Balzan, Andrew Harris and Zoran Bauk, Scantech International, Australia

**(A08) Diffraction Logging to Evaluate Ore Typologies in Phosphate Ore Deposit**

Márcia Saito, Amanda Pires e Souza and Luiz de Barros, Vale Fertilizantes, Brazil; Angela Avelar, Elisabeth da Fonseca and Eliomar Ferreira, Vale, Brazil

**(A24) Validation Algorithm for Quantitative Mineralogy Data Applications**

Nicolás Urrutia\*, Víctor Montenegro, Alfredo López, Angus McFarlane, CSIRO Chile International Centre of Excellence, Chile; and Leandro Voisin, AMTC-Universidad de Chile

**(A56) XRD and XRF in Cutting Core Samples (CCS) with a Diamond Saw Versus Geological Mapping**

Javiera Gerding, Edmundo Martinez, Felipe Matthews, Samia Perez, Jose Contreras and Eusebio Andrade, Centro de Estudios Mineralógicos, CEM Geotacama, Chile

**(A60) Geometalurgical Characterization of Gold as a By-Product on a Porphyry Copper Deposit, Chile**

Mauricio Belmar, Melisse Henry, Karin Quintana, Hector Suazo, Yeslainge Fuentes, Paulina Andaur, Centro de Mineralogía Avanzada, SGS Minerals, Chile; and Tassos Grammatikopoulos, Advanced Mineralogy Network Laboratory, SGS Minerals, Canada

**(A74) Common Instruments for Applied Mineralogy Investigations: What to Expect from each Technique and how to Reconcile the Results from Different Techniques**

Mahdi Ghobadi, Activation Laboratories, Canada

**(A76) Industrial Test of an Online Mineralogy Analyser on Copper Slurry with XRD**

Oswaldo Maldonado, Rubén Vásquez, Soluciones Analíticas, Chile; and Héctor Lizama, Codelco Tech, Chile

**(A80) TESCAN Integrated Mineral Analyzer – A New Generation of Process Mineralogy Technology**

Paul Gottlieb, Tescan Orsay Holding, Czech Republic; Rafael Rossetto, Tescan, Brazil; and Osvaldo Maldonado, Soluciones Analiticas, Chile

**Sampling, Geometallurgical Modeling and Data Reconciliation****(11)****(A06) Validation of Sampling in ROM Piles Regarding Short-Term Planning**

Rui Duarte, Vladia Goncalves and Angela Bertol, Mining Engineering Department, UFRGS, Brazil

**(A11) Metallurgical Accounting and Data Reconciliation Applying Numerical Methods**

Alejandro Mayta and Miguel Mayta, Universidad Nacional de San Agustın, Peru; and Yuli Hancoo, Department of Metallurgy, Instituto HDE, Peru

**(A25) Accounting Precious Metals in Base Metals Plants**

Luc Lachance, Simon Gariepy and Myriam Cousineau, Algosys, Canada

**(A42) Minimum Criteria for Reporting Representativity of Metallurgical Samples**

Adam Johnston and Mayra Jefferson, Transmin Metallurgical Consultants, Peru

**(A44) Development of a Geometallurgical Model for Zinc Recovery in Votorantim Metais Holding Vazante Mine**

Jorge Bechir, Camilo Neto, Pablo Pina , Adelson de Souza, Votorantim Metais Holding, Brazil

**(A45) The Construction of a Geometallurgical Model for MMIC, Yamana Gold, Brazil**

Flavia Batista, Mauricio Prado, Luiza Silva, and Joao Ferreira, Yamana Gold, Brazil; Oscar Alruiz and Magın Torres, Altair Minerıa, Chile

**(A49) Express Modelling of Geology, the Road Map Without**

Claudia Monreal, CORE Mining, Chile

**(A51) Geometalurgy Application in Cost Optimization, North Tajo Colquijirca Mine**

Ivan Huallpayunca and Jorge Zapata, Sociedad Minera El Brocal, Peru

**(A52) Geometallurgical Block Model vs Geometallurgical Units**

Samuel Canchaya, Sampling OK; Universidad Nacional de Ingenierıa; and Pontificia Universidad Catolica de Chile

**(A70) Geometallurgical Analysis for Increasing Gold Recovery**

Tiago Silva, Paulo Gomes, Mariana Lemos and Roberto Pereira, Anglo Gold Ashanti, Brazil

**(A73) Data Base Management for Mining Companies**

Luis Manríquez and Mauricio Pacheco, Proa Sistémica, Chile

**Testing and Prediction of Process Performance: Crushing, Grinding, Flotation****(7)****(A27) Metallurgical Test Work Can Avoid Embarrassment**

Guillermo Kelly, GK Trebol, Chile

**(A29) Using Ausgrind to Model Effects of Secondary Crushing on SAG-Based Circuit Throughput**

Bianca Foggiatto, Robert Braun, Greg Lane, Ausenco, Australia; Richard Whittering, Ausenco, Chile; Hugo Jimenez, Minera Candelaria, Lundin Mining, Chile; and Ron McGregor, Lundin Mining, UK

**(A34) Power-Based Modelling of Single-Stage AG and SAG Mill Circuits**

Alex Doll, Alex Doll Consulting, Canada; and Miguel Becerra, Anglo American, Chile

**(A58) NIR Use for Geometalurgic Modeling of Hardness (Axb, Bwi)**

Gerardo García, Xiomara Rubio, Antofagasta Minerals, Chile; and Pedro Carrasco, GABGEO, Chile

**(A66) Drilling Specific Energy Application for Estimation of SAG TPH in Short Term Planning, Teck Carmen de Andacollo**

Víctor Araya, David Novoa, Minera Teck Carmen de Andacollo, Chile; and Cristián Jeraldo, University of Exeter, UK

**(A82) Applicability of Packed Bed Test (PBT) to assess the ore hardness variability in HRCTM High Pressure Grinding Rolls**

Daniel Suarez, Nathan Elkin, Metso, USAS; and Raúl Noriega, Metso, Chile

**(A77) The Hogg & Fuerstenau Power Model for AG/SAG Mills: Recalibration with an Expanded Empirical Database**

Jaime Sepúlveda, J-Consultants, Chile

**Comminution: Crushing, Grinding, SAG, HPGR****(7)****(A19) Energy Optimization of Mine-Plant Processes in Low Grade Copper Mines**

Juan Carlos Santana, Javier Arzúa, Manuel Cánovas, Department of Metallurgical and Mining Engineering, Universidad Católica del Norte, Chile; and Robinson Manríquez, ENAEX, Chile

**(A23) Multi Stage HPGR Circuits – Increasing the benefit across the comminution flow sheet**

*(Auspiciador pide presenter Jueves 5 octubre)*

Frank van der Meer, WEIR Venlo, Netherlands

**(A38) Sequential Grinding: A New Approach**

Luis Grünewald, MinPro, Chile; and Marcelo Sanzana, Enami, Chile

**(A53) Shifting the Comminution Workload from Secondary to Re grind Stage: An Energy Efficient Approach**

Samayamutthirian Palaniandy, Nippon Eirich, Australia; Hidemasa Ishikawa, Nippon Eirich, Japan; and Mohsen Yahyaei, SMI-JKMRC, University of Queensland, Australia

**(A54) Grinding Specific Energy Consumption and its analysis by Montecarlo Method**

German Ocaña and Carlos Rabanal, Minera las Bambas, Perú

**(A57) Fine Grinding Rotors With Improved Service Life By DEM Modelling**

Alex Heath, J. Belke and H. Lehto, Outotec, Australia

**(A83) Vision for the Future: Sharing Options to Enhance Value Through Efficient Mineral Production**

Alison Keogh, The Coalition for Energy Efficient Comminution (CEEC) International and Grant Ballantyne, Julius Kruttschnitt Mineral Research Centre, Sustainable Minerals Institute, The University of Queensland, Australia

<b>Classification, screening and mineral sorting</b>
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**(A03) Sensor Based Ore Sorting: Case Study on Evaluating Gold Ore Sorting Using Simulation Software**

Matti Talikka and Antti Remes, Outotec, Finland

**(A21) Using IPS in Potash Industry from -10 to 120 Celsius Degree**

Pejman Oghazi, Metso Minerals, Sweden

**(A41) Particle Size Distribution Data Correction Applying the Taylor Polynomial Approximation Technique**

Alejandro Mayta, Miguel Mayta, Universidad Nacional de San Agustín, Peru; and Yuli Hanco, Instituto HDE, Peru

**(A69) Ore Sorting applied to Gold Ores**

José Dumont and Mariana Lemos, Anglo Gold Ashanti, Brazil +

**(A81) Two-Mass Vibrating Screens for High Tonnage Applications**

Steve Massman, General Kinematics, USA; Edward Wipf and Gary Beerkircher, EdRockMan, USA

**Flotation: fundamentals, reagents and industrial applications****(9)****(A04) Pilot-Scale Demonstration of the Hydrofloat Flotation Cell for Coarse Sulfide Recovery**

Michael Mankosa, Eriez Magnetics, USA; Eric Yan, Andrew Hobert, Lance Christodoulou, Eriez Flotation Division, USA; and Felipe Valdes, Eriez Flotation Division, Chile

**(A14) Grinding Chemistry: The Surface Chemistry of Chalcocite Ground in Different Grinding Environments**

Christopher Greet, Grant Small, Magotteaux, Australia; Jessica Kinal, Magotteaux Andino, Chile

**(A16) Pyrite Activation: How much does it hurt and what can be done about it?**

Romke Kuyvenhoven, Empírica Consultores, Chile; and Massimiliano Zanin, Future Industries Institute, University of South Australia

**(A17) An Innovative Ultra-High-Intensity-Conditioning Method to Improve Selectivity of Flotation**

Kalle Kemppainen, Mika Körkkö, Haarla Oy Oulu Laboratory, Haarla Oy, Finland; Scott Jobin-Bevans, Haarla Americas, Chile; and Johannes Haarla, Haarla Americas, USA

**(A20) Potential to Enhance the Pulp Flowrate Distribution in a Rougher Flotation Circuit: Use of Radioactive Tracers**

Pablo Bustos, Luis Maldonado, Los Pelambres Mine, Antofagasta Minerals, Chile; Luis Vinnett, Paulina Vallejos, Juan Yianatos, Automation and Supervision Center for Mineral Industry, Universidad Técnica Federico Santa María, Chile; and Francisco Díaz, Trazado Nuclear e Ingeniería, Chile

**(A28) Novel Treatment for Bituminous Copper Ore**

Juan Schwarze and Leandro Voisin, AMTC Universidad de Chile

**(A59) Application of AERO® 7260HFP in Codelco-DCH as Partial Replacement for NaSH in Cu-Mo Separation**

S. Vegas, S Honores and H. Carreño, División Chuquicamata, Codelco, Chile; C. Grawe, C. Quintanar and P. Zarate, Solvay, Chile

**(A62) Silver, Lead and Zinc Recovery from a Zinc Hydrometallurgical Residue**

Marina Lopes, Adelson de Souza, Votorantim Metais Holding, Brazil; and Carlos Pereira, Mining Engineering Department, Ouro Preto Federal University, Brazil

**(A78) A Process Technology for Selective Flotation of Cu-Mo Using Lignin Derivatives Reagents**

Lina Uribe, Department of Mining Engineering, University of Talca, Chile; Leopoldo Gutiérrez, Department of Metallurgical Engineering, University of Concepcion, Chile; Vicente Hernandez and Regis Texeira, Center of Biotechnology, University of Concepcion, Chile

**Modeling, Design, Optimization and Control of Mineral Processes****(11)****(A05) Plant Performance Forecasting Using Geometallurgical Data and Advanced Process Simulation Techniques**

Manuel González, Caspeo, Chile; Stéphane Brochot and Marie Durance, Caspeo, France

**(A32) Analysis of Las Bambas Grinding Circuit Applying Montecarlo Methodology**

Carlos Rabanal, Germán Ocaña and Rafael Carpio, Minera Las Bambas, Peru

**(A35) Increasing Production at Polyus Gold Blagodatnoye with Holistic Optimization from Mine-to-Mill**

Roberto Valle, Hatch, Peru; Walter Valery, Kristy-Duffy, Erico Tabosa, Hatch, Australia; and Rodrigo Hayashida, Hatch, Brazil

**(A36) Construction and Application of a New TPH Model for Caserones Concentrator**

Constantino Suazo, Eduardo Cortés, SCM Lumina Copper, Caserones, Chile; Oscar Alruiz and Magín Torres, Altair Minería, Chile

**(A43) Optimization of Cyclone Operational Parameters of Juruti Bauxite Washing Plant**

Mônica Paiva, Ever Dias and Antonio Coutinh, Alcoa World Alumina, Brazil; José Tavares, Escola de Minas, Universidade Federal de Ouro Preto, Brazil; Thiago Jatobá and Homero Delboni, Escola Politécnica da Universidade de São Paulo, Brazil

**(A46) Methodology for Predicting the Benefit of Grind Control Using Real-Time Particle Size Measurement**

Christian O'Keefe, Robert Maron, Alejandro Jaque and Americo Zuzunaga, CiDRA Minerals Processing, USA

**(A47) Yamana Chapada's Optimisation of a Copper/Gold Plant**

Flávia Batista, Rafael Almeida and Lucas Silva, Yamana Gold, Brazil; Tuhin Banerjee and Daniel Gudgeon, Woodgrove Technologies, Canada

**(A48) APC at LaRonde: The Progressive Control Approach**

Yanick Dumais, Richard Lemire, LaRonde, Agnico Eagle, Canada; Tuhin Banerjee, Woodgrove Technologies, Canada; and Heine Weitz, Woodgrove Technologies, South Africa

**(A65) Drilling Specific Energy: A tool for Production Management at Teck Carmen de Andacollo**

Víctor Araya, Minera Teck Carmen de Andacollo, Chile; and Cristián Jeraldo, University of Exeter, UK

**(A67) Applying On-Line Analysis, Advanced Control and Data Analytics for Improved Plant Performance**

A Rantala, J Moilanen, J Timperi, Outotec, Finland

**(A79) Dynamic Modeling of Flotation Rougher Plant and Incorporation of Controller MPC Neuronal**

Héctor Careño, Chuquicamata Division, Codelco, Chile

<b>Processing Technology Innovations and New Projects</b>	<b>(4)</b>
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**(A02) Analysis of the Economic Feasibility of Silica Recovery in Mine Tailings**

Javier Lucar and Andrea Guerrero, Cía. Minera Poderosa, Peru

**(A26) Evaluation of Black Sands Concentration and High Energy Ball Milling to Obtain Nanometric Ilmenite**

Jorge Albarracín, Andrés Arias, Hernán Barrera and Julio Pedraza, Universidad Industrial de Santander, Colombia

**(A31) Las Bambas – Start Up and Ramp Up**

Carlos Rabanal, Germán Ocaña and Juliano Villanuevam Minera Las Bambas, Peru

**(A63) Performance Optimization of Paste Thickening**

Mika Kosonen, Sakari Kauvosaari, Shan Gao, Brandt Henriksson, Outotec, Finland