

Society of Economic Geologists Annual Conference (SEG 2024)

Sustainable Mineral Exploration and
Development

Windhoek, Namibia
27-30 September 2024

ISBN: 979-8-3313-0729-5

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2024) by Society of Economic Geologists (SEG)
All rights reserved.

Printed with permission by Curran Associates, Inc. (2025)

For permission requests, please contact Society of Economic Geologists (SEG)
at the address below.

Society of Economic Geologists (SEG)
7811 Shaffer Parkway
Littleton, CO 80127-3732
USA

Phone: +1(720) 981-7882
Fax: +1(720) 981-7874

www.segweb.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

PLENARY 1

The Impact of the Pan-African Reporting Code on the Future of Mining in Africa.....	1
<i>Olugbenga Okunlola, Theophile Ndougsa Mbarga, Prosper M. Nude, Felix Bob Ocitti, Deng Ngang Deng, Tunde Arisekola</i>	
Fostering Sustainable Development—Opportunities for the Extractive Industry	2
<i>Thabisile Phumo</i>	
More than Mining – B2Gold’s Legacy in Namibia	3
<i>John Roos</i>	

TRIFECTA 1

First Major Ore-Grade Gold Concentration on Earth’s Surface: Why, When, and Where?	4
<i>Hartwig E. Frimmel, Ryan Mathur</i>	
Beyond the State-Of-the-Art Geophysical Surveys for Mineral Exploration: Where Do We Go Next?	5
<i>Musa Manzi</i>	
Gold in Africa – History, Endowment, and Discovery	6
<i>Mike Robertson</i>	

ORAL SESSION 01

Source of Fluids in Orogenic and Intrusion-Related Gold Deposits: Insights from Trace Elements in Pyrite	7
<i>Dominique Genna, Sarah Dare, Damien Gaboury, Michel Jébrak</i>	
Large Gold Systems of Central Asia: Geodynamics and Metallogeny Revisited.....	8
<i>Reimar Seltmann</i>	
Insights into the Metallogenic Evolution of the Timmins Gold Camp Using Quartz- Hosted Melt Inclusions from the Porcupine Intrusive Suite.....	9
<i>Sarah Speight, Jacob Hanley, Stephen Piercey, Jim Crowley</i>	
Orogenic Gold Grain Coarsening from Colloidal Precursor by Ostwald Ripening.....	10
<i>Bjorn Von Der Heyden, Rutger La Cock</i>	
New Genetic Type of Gold Deposit for Timok, Serbia: The High-Grade Gold Skarn Mineralization at Coka Rakita Project.....	11
<i>Mladen Zdravkovic, Dragana Davidovic, Jelena Zivanovic, Ivan Strmbanovic, Nutu Groza, Dragan Milosevic, Olivera Dukic-Mijucic, Snezana Janjic, Aleksandar Sestak, Vuk Milic, Dragana Drobnjak, Bojana Kotlajic, Vaso Kitanovic, Janja Mihajlovic, Nikola Novicic, Tijana Mitic, Ivana Suzic, Paul Ivascanu, Kuncho Kunchev, Stefan Metodiev, Ivan Krumov, Istvan Marton</i>	

Permeability Evolution Within an Orogenic Disseminated Gold Deposit: Evidence from Liba Gold Deposit, Central China	12
<i>Pengcong Zhang, Kunfeng Qiu</i>	

ORAL SESSION 02

Synergies of Drone-Borne and Satellite Data for Noninvasive Mineral Exploration in Namibia	13
<i>René Booysen, Rupsa Chakraborty, Samuel T. Thiele, Richard Gloaguen</i>	
Influence of Mineral Microinclusions on Vectoring and Fertility Assessment Tools in the Green Rock Environment: A Case Study from Batu Hijau Porphyry Cu-Au Deposit, Indonesia	14
<i>Axel Cima, Ivan Belousov, David R. Cooke, Matthew J. Cracknell</i>	
Do Mineral Systems Have Fingerprints? (Yes, and They Can Be Used to Find World-Class Orebodies!)	15
<i>Paul Hodkiewicz, Bruce Hobbs, Alison Ord</i>	
Development of New Exploration Vectors by Quantitative Mineralogical Analysis at the Spremberg-Graustein-Schleife Cu-Ag Kupferschiefer Deposit, Lusatia, Germany	16
<i>Yonghui Kim, Max Frenzel, Bradley M. Guy, Samuel T. Thiele, Ralph Braumann, Jens Gutzmer</i>	
Geochemical Signatures of Magmatic Hydrothermal Alteration in Carbonate Rocks Around the Basin Porphyry in the Drum Mountains of West-Central Utah	17
<i>Michael J. Kirschbaum, Zhaoshan Chang, Jeff Nicholes, Adam Pacey</i>	
The Transformative Impact of Enhanced Geoscience Data Collection and AI- Powered Modeling on the Mining and Exploration Industry	18
<i>Patrick B. Redmond, Grant Sanden, Ryan Barnett, John Manchuk</i>	

ORAL SESSION 03

Valley – a High-Grade Reduced Intrusion Related Gold System in Yukon, Canada	19
<i>Thomas K. Branson</i>	
U-Pb Geochronology of the Archaen Tati Greenstone Belt Gold Deposits, NE Botswana: Evidence of Two post-Archaen and Post-metamorphic Mineralization Events.	20
<i>Charles Geraud E. Kono, Thierry B. Bineli, Peter N. Eze</i>	
Intrusion-Associated Au Mineralization in the Archean Mooshla Intrusive Complex, Doyon-Bousquet-LaRonde Mining Camp, Abitibi Greenstone Belt, Québec, Canada	21
<i>Kevin Neyedley, Jacob J. Hanley, Patrick Mercier-Langevin, Richard A. Stern</i>	
Petrography, Ore Mineral Paragenesis, and Gold Department of the Twin Hills Gold Deposit, Central Namibia	22
<i>Johannes Sales, Paul Nex</i>	
Distribution and Partitioning of Trace Elements During Hydrothermal Sulfidation of Magnetite by Pyrite, KCD Gold Deposit, DRC.....	23
<i>Yann Waku Mpaka, Bjorn P. Von Der Heyden</i>	

ORAL SESSION 04

Hydrothermal Alteration and Volcanic Stratigraphy at the Paleoproterozoic Kay Mine Volcanogenic Massive Sulfide Deposit, Black Canyon City, Arizona USA	24
<i>Aaron J. Adsit, Thomas Monecke, Mark D. Hannington, Miranda R. Lehman, David Smith</i>	
DrillDown: An Open-Source Python Package for “Drilling Down” into Ore Deposits Datasets.....	25
<i>Robert S. Collar, A. E. Williams-Jones</i>	
Perkins Discontinuities: Structurally Controlled Grade Patterns Diagnostic of Epigenetic Mineralization at the Deposit-Scale	26
<i>Jun Cowan, Bruce Hobbs</i>	
Mineral Systems: A Discussion on the Continuing Challenges and Emerging Opportunities.....	27
<i>Joel Hrominchuk, Caroline Perring, Thompson C. McCuaig</i>	
One Person’s Trash is Another’s Treasure; Extracting Additional Information on Fluid Rock Interaction from Disturbed Isotopic Systems	28
<i>Lucy M. Mathieson, Christopher L. Kirkland, Matthew L. Daggitt, Simon Bodorkos</i>	
Mineral Prospectivity Mapping on Point Data Using Graph Deep Learning Regression: Case Study of Copper Occurrence in Northern Ireland	29
<i>Felix M. Sihombing, Richard M. Palin, Hannah S. Hughes, Laurence Robb</i>	

TRIFECTA 2

Using Mg-Carbonates, Kyanite, and Immobile Elements as Pathfinders for Technology Metals in the Central African Copperbelt.....	30
<i>Anna Bidgood, Paul Slezak, Murray Hitzman</i>	
Mitigating the Streetlight Effect: Stepping into the Darkness is an Important Step in Understanding the Copperbelt	31
<i>David Selley</i>	
Provenance of the Katangan Basin in Zambia and the Implications for Basin Evolution and Exploration Search Space.....	32
<i>Munshya Zimba, Michael C. Daly</i>	

ORAL SESSION 05

Effective Bottom-Up Social and Environmental Strategies for Exploration Teams: Lessons from an Orphaned Mine.....	33
<i>Robin N. Armstrong, Richard J. Herrington, Bio+mine Team</i>	
Exploration, Mining and Biodiversity in Angola: A New Business Model	34
<i>Luis Chambel, Sandra Amaro, Luis Caetano</i>	
Redefining Viability: Integrating Social and Environmental Dimensions into Mineral Exploration Success	35
<i>Matthew Grimshaw, Sarah Gordon</i>	
Charting Sustainable Resource Development: ESG Perspectives in the DRC Mining Sector	36
<i>Innocent Mufungizi, Yann M. Waku</i>	

An Effective Formalization of Artisanal Mining Will Improve the Public Acceptability of the Mineral Extraction Industry in Mozambique.....	37
<i>Manuel Nopeia, Ivan Baptista, Simão Diquissone</i>	

The Benign Nature of Tailings from the Tumas Uranium Project, Namibia: Aligning Environmental Safeguards with Economic Outcomes	38
<i>Alex Otto</i>	

ORAL SESSION 06

Geological Characterisation, Stratigraphic Correlation and 3D Modelling of the Musinga Copper Exploration Play, Northeast Kabompo Dome, Democratic Republic of Congo	39
<i>George Aldiss</i>	

Beyond Kamoia and Kakula: Exploration in the Western Foreland	40
<i>Yves Ilayao, Kennedy Lukengu, Theodore Mukanda, Amanda M. Stoltze, Tim Dunnnett</i>	

Camp Creek Porphyry Alteration Mineralogy and Geochemistry: Exploring for Blind Copper Mineralization in Northern British Columbia, Canada.....	41
<i>Maxwell L. Porter, Shaun Barker, Farhad Bouzari, Nichole Moerhuis, Maria A. Rodriguez-Mustafa, Daniel Guestrin, Christina Antsey, Robert G. Lee, Brock Riedell</i>	

Framboids, Fluids, and Field Mapping: Understanding Sedimentary-Rock-Hosted Metal Prospectivity Across 11 Orders of Magnitude	42
<i>Elizabeth C. Turner</i>	

Evolution of the Neoproterozoic Katangan Basin in the Kipushi Mine Area, Southern DRC and Northern Zambia: The Importance of Halokinesis, Global Glacial Events, and Tectonics	43
<i>Helen Twigg, Murray W. Hitzman, Ghislain Kabunda, Munshyaimba</i>	

Exploring Geological Complexities of the Kakula Cu Deposit, Democratic Republic of Congo	44
<i>Franck B. Twite, George Gilchrist</i>	

ORAL SESSION 07

Geological and Metallogenic Characterisation of Manganocopper Mineralisation in the Tizi N'Isdid Deposits (Ounein Massif, High Atlas, Morocco)	45
<i>Imad Afla, Mustapha Souhassou</i>	

Bringing 20 Years of Research and 500 Reef Intersections Together on Ivanhoe's Tier 1 Platereef Deposit: A Synthesis from the Northern Limb of the Bushveld Igneous Complex	46
<i>Tim Dunnnett</i>	

Primary-Hosted Uranium Resources, Geology, and Mineralisation in the Damara Orogen, Namibia	47
<i>Guy G. Freemantle</i>	

Petrogenesis and Structure of the UIS Pegmatites, Namibia: A New Source of Battery Metals in Africa.....	48
<i>Laurence J. Robb, Lewis Lloyd, William Maloney, Frederick Wright-Morris, Simon Tapster</i>	

The Formation of High-Grade Iron Formation-Hosted Iron Ores of the Northern Cape Province of South Africa: Insights from Hematite Ages.....	49
<i>Albertus Smith, Nicolas Beukes, Conrad De Kock, Martha Masangane, Hayden Miller, Boitumelo Ntlhoru, Kenneth Farley</i>	

Magmatic Stratigraphy of the Deep Platreef at Sandsloot, Northern Bushveld Complex: Carbonate Contamination and Controls on Ni-Cu-PGE Mineralisation	50
<i>Erin S. Thompson, David A. Holwell, Marc Reichow, Iain McDonald, Thomas Blenkinsop, Hannah Hughes, Katie McFall, Kate R. Canham, Matthew A. Loader, Lara Du Preez, Kofi Acheampong, Andy Lloyd</i>	

ORAL SESSION 08

Discovery of the Oak Dam West IOCG Deposit, South Australia.....	51
<i>Thiago Oliveira, Jamie King, Kathy Ehrig, Marcel Menicheli</i>	
Ore-Forming Processes at the Rosh Pinah Zn-Pb-Ag Deposit, Southern Namibia: Evidence from Mineralogy, Geochemistry, and Metal Distribution	52
<i>Halleluya Ekandjo, Koen Torremans, Murray Hitzman, Philip Rieger, Simon Jones</i>	
Triple-Halogen (Cl-Br-I) Signatures of Salt Melt Inclusions in Kiruna-Type Magnetite-Apatite Ore Systems – Proof of Formation Via Evaporite Anatexis	53
<i>Tobias Fusswinkel, Xinyue Xu, Matthew Steele-Macinnis, Peter Kodera, Fernando Tornos, John M. Hanchar, Wyatt M. Bain</i>	
Linking the Nature and Timing of Diagenesis of Source Rocks with Hydrocarbon Migration and Copper Mineralisation Events in the Neuquén Super Basin, Argentina	54
<i>Richard J. Herrington, Josefina Pons, Ana L. Rainoldi, Jamie Kelly, Huw Griffiths, Nick Roberts, Veronica Trevisan, Julia Woitischek</i>	
Geometallurgical Characterization of Potential By-Products in the Spremberg- Graustein-Schleife Kupferschiefer Deposit.....	55
<i>Zahra Nourizenouz, Max Frenzel, Bradley M. Guy, Joachim Krause, Doreen Ebert, Aratz Beranoaguirre, Jens Gutzmer</i>	
Using Geochemical and Petrophysical Properties to Target Sediment-Hosted Copper Deposits.....	56
<i>J.K. Porter, D.E. Kelsey, C Adams</i>	

ORAL SESSION 09

Constraining Mineralization and Alteration Through New Geologic Mapping at Spring Peak Low-Sulfidation Epithermal System, Mineral County, NV	57
<i>Marcus J. Angus, Simon Jowitt</i>	
B2Gold's Antelope Discovery – Fresh Insights Lead to Exploration Success at Otjikoto	58
<i>James Bursey</i>	
Epithermal Gold Discoveries in the New Khundii Metallogenic Province, Southwest Mongolia	59
<i>Michael A. Macdonald, Gendenjamtsyn Bat-Erdene, Michael X. Gilles, Peter J. Dalton, Jeffrey W. Hedenquist</i>	
Predicting Giants: The Role of Geoscientists and Mineral Systems in Our World of Emerging AI.....	60
<i>Nicole Januszczak</i>	
Structural Controls on Williams Brook Gold Mineralization, New Brunswick, Canada	61
<i>Edawrd P. Wu, Stefan Kruse, Dominique Gagné, Alain Hupé</i>	
The Highbury Lithium Deposit, KwaZulu - Natal, South Africa	62
<i>Eugene Van Den Heever, Michael Cronwright</i>	

ORAL SESSION 10

Insights into Enhanced Brownfield Exploration Techniques at Morenci for Improved Ore Characterization and Mineral Reserve and Resource Addition	63
<i>Paul Albers, William Stavast, Logan Hill</i>	
Proterozoic Sediment-Hosted Mineralisation in Southeastern Australia and Links to the Belt-Purcell Basin of North America.....	64
<i>Sheree Armistead, Sebastien Meffre, Ralph Bottrill, Andrew Cross, David Huston, Grace Cumming</i>	
Geological and Geochemical Evolution of the Supergiant High-Grade Resolution Cu-Mo Deposit, Arizona	65
<i>Takeshy X. Coaquira, David R. Cooke, Lejun Zhang</i>	
Breccias in Magmatic-Hydrothermal Environments	66
<i>David R. Cooke, Francisco Testa, Lejun Zhang, Victor Torres, Angela Escolme</i>	
Prospectivity Modeling and Metallogeny of Pre-Orogenic and Orogenic Base and Precious Metals of the South Nabitah Belts, Arabian Shield	67
<i>Arnaud Fontaine, Christophe Bonnetti, Julien Feneyrol, Virginie Masson, Charles Gumiaux, Anne- Sylvie André-Mayer, Rémi Bosc</i>	

TRIFECTA 3

The Bushveld Complex and Its Mineralization, South Africa	68
<i>Judith A. Kinnaird, Marina Yudovskaya</i>	
Platinum Group Metals: it Begins and Ends in the Market	69
<i>Richard Stewart</i>	
Processing of the Bushveld Ores	70
<i>Kirsten Youlton</i>	

ORAL SESSION 11

Mineralogy and Petrology of the Petalite-Subtype Prof Pegmatite, Revelstoke, British Columbia, Canada	71
<i>Catriona M. Breasley, Lee A. Groat, Tania Martins, Robert L. Linnen, Kyle P. Larson, Rhiana E. Henry</i>	
Transtensional Tectonics Control Emplacement of Lithium-Tin Granites in the Eastern Erzgebirge (Germany/Czech Republic)	72
<i>Jan Cerny, Sam Thiele, Marie Guilcher, Matthias Burisch, Uwe Lehmann, Henrik Kaufmann, Lutz Sonnabend, Jens Gutzmer</i>	
Evolution of the Magmatic System Associated with a Supergiant Porphyry Cu Deposit from Trace Element Profiles in Zircons	73
<i>Massimo Chiaradia, Hugo Carrasco, Jing-Jing Zhu, You-Wei Chen, Dian-Zhong Wang, Angelo Aguilar, Sergio Pichott, Sergio Cubelli, Carolina Rodríguez</i>	
National-Scale Critical Mineral Assessments to Support Accelerating Discovery in Australia	74
<i>Arianne Ford, Jonathan Cloutier</i>	

Structural Controls on the Emplacement and Mineralization of Lithium-Bearing Pegmatites	75
<i>Lot Koopmans, Brayden St Pierre, Richard M. Palin, Nicholas J. Gardiner, Laurence J. Robb</i>	
End-Orogenic, Granite-Hosted Uranium Mineralisation: A Solution from Namibia	76
<i>Paul Nex, Judith A. Kinnaird</i>	

ORAL SESSION 12

Diamonds from a New Witwatersrand-Like Gold Deposit Show Evidence of Archaean Subduction in the Slave Craton, Canada	77
<i>Rory M. Changleng, Andrea Pezzera, D. Graham Pearson, Richard Stern, Thomas Stachel, Fabrizio Nestola, Jesse Reimink</i>	
The Nosib Polymetallic Mineral Deposit in the Otavi Mountain Land of Namibia – New Deposit Type Or Variation on a Theme?	78
<i>Jonathon L. Dugdale, Allison L. Dugdale, Elvis Akawa</i>	
A Potential Mafic-Ultramafic Magmatic Phase of the Kunene Complex in Angola and Namibia and Its Ni-Cu-PGE Fertility	79
<i>Ben Hayes, Lorenzo Milani, Jérémie Lehmann, Trishya Owen-Smith, Grant Bybee, Hielke Jelsma</i>	
The Discovery and Geology of the Boundary Zone Zn-Pb-Ag Deposit, Yukon, Canada: New Perspectives on Mineralizing Processes in Sediment-Hosted Base Metals Deposits	80
<i>Jack E. Milton, Haruna M. Grema, Joseph M. Magnall, Sarah A. Gleeson</i>	
The Geology of the Mingomba Deposit in the Zambian Copperbelt	81
<i>Shane Nielsen, Sitwala Mulonda</i>	
The Eureka Gold Deposit: Latest Gold Discovery in an Emerging Gold District in the Northern Zone, Damara Belt, Namibia: Alteration, Mineralization and Structural Controls.....	82
<i>Wynand Slabbert, Dave Underwood</i>	

ORAL SESSION 13

Temporal Evolution of Miocene-Pliocene Magmatic Suites Fertile for Porphyry Cu Deposits: Preliminary Results from the Tres Cerrillos Porphyry Cu Prospect, Ecuador	83
<i>Hugo Carrasco, Massimo Chiaradia, Angelo Aguilar, Sergio Pichott, Sergio Cubelli, Ana C. Rodríguez, Carlos Urrutia</i>	
Is There a Link Between Orogenic Collapse and Lithium-Bearing Pegmatites?	84
<i>Tarryn K. Cawood, Jamie Cutts, Antoine Godet</i>	
Petrography and Geochemistry of the Okohongo Copper-Silver Deposit, Kaoko Belt, Kunene Region, Namibia.....	85
<i>Abner Nghoongoloka, Ryohei Takahashi, Pearlyn Manalo, Andrea Agangi, Hinako Sato, Manuel Nopeia, Nigel Blamey, Tavis Enno, Rob Bowell</i>	
The Magmatic-Hydrothermal Nature of Granite-Hosted Uranium Mineralization on the Example of the Omahola Project in the Damara Orogen, Namibia	86
<i>Alex Otto</i>	
Iron Oxide-Copper-Gold Deposits: A One-Size-Fits All Genetic Model Does Not Work.....	87
<i>Adam C. Simon</i>	

ORAL SESSION 14

Controls on Germanium Enrichment in Zn-Pb Sediment-Hosted Mineral Deposits.....	88
<i>Juan D. Bello Rodriguez, Daniel Gregory, Merilie A. Reynolds, Denis Fougereuse</i>	
Paragenetic Evolution of Sn-Dominant Lode Systems in the Pool Mining District, Cornwall	89
<i>Kiara C. Brooksby, Robin K. Shail, Jens C. Andersen, Jamie J. Wilkinson</i>	
Primary Rare Earth Elements Mineralization of the World-Class Mt Weld Carbonatite Deposit, Western Australia.....	90
<i>Arthur V. De Oliveira, Denis Fougereuse, Peter D. Kinny, Luc-Serge Doucet, Anderson M. Dos Santos, Arthur P. Deditius, Ganesh Bhat</i>	
A Revised Model for High Grade Ni-Co-As-Ag-U-Sb-Bi Deposits: The Product of Heating and Oxidation of Marine Evaporite Brines and Hydrocarbons from Intracratonic Basins.....	91
<i>Jacob J. Hanley, Corwin Trottier, Jordan Burke, Luke Ootes, Zoltan Zajacz, Mostafa Fayek</i>	
Indium in Mine Wastes: Geochemistry, Mineralogy, and Microbiology	92
<i>Olivia Mejías, Laura Jackson, Anita Parbhakar-Fox</i>	
Micas as Tracers of Tungsten Mineralization Case Study: Santa Comba and Fontao Deposits NW Spain.....	93
<i>Candela Pita Díaz, Elena Crespo Feo, Sean Mc Clenaghan, Fernando Tornos Arroyo</i>	
Critical Metals in Base Metal Mineralization of the Otavi Mountain Land and the Kunene Region, Namibia	94
<i>Ester Shalimba, Rob J. Howell, Abner Nghoongoloka, Stephanie Lohmeier, Matthew Leybourne, Helke Mocke</i>	

POSTERS 000-025

Investigating the Role of Country-Rock Assimilation on the Mineralisation of the Platreef, Turfspruit Farm, Northern Bushveld Complex, South Africa	95
<i>Alessia Barbieri, Katie McFall, Richard Herrington, Iain McDonald, Bothepeha Phetlhu, Tim Dunnnett</i>	
Geology, Geochemistry and Zonation of the Tsumeb Polymetallic Deposit	96
<i>Rob J. Howell, Ester Shalimba, Abner Nghoongoloka, Matthew Leybourne, Daniel Layton- Matthews, Stephanie G. Lohmeier, Hartwig E. Frimmel, Helke Mocke</i>	
Application of Conventional and Unconventional Exploration Methods for Sapphire Discovery in Southeastern Madagascar: from Regional to Project Scale	97
<i>Evelyn Caiza, Dibya J. Baral</i>	
The Mineralogy of PGE in the Deep Critical Zone at Sandsloot, Northern Bushveld Complex, South Africa: PPGE Reef Underlain by an IPGE + Rh-Rich Base Metal Zone	98
<i>Kate Canham, David Holwell, Iain McDonald, Hannah Hughes, Katie McFall, Andy Lloyd, Erin Thompson, Kofi Acheampong, Lara Du Preez, Matthew Loader</i>	
Lithostratigraphic Distribution and Geochemistry of Carrollite in the World-Class Tenke- Fungurume Cu-Co Mining District, Democratic Republic of the Congo.....	99
<i>Malena Cazorla Martínez, Lingli Zhou, Murray Hitzman</i>	
Mapping Under Cover: The Kalahari Copperbelt in Eastern Namibia.....	100
<i>Branko Corner, P. R. Hildebrand, M. Kumar</i>	

Geochemical and REE Data for Sheeted Leucogranites at the Primary Uranium Deposits of the Damara Orogen, Namibia.....	101
<i>Guy G. Freemantle</i>	
The Antelope Deposit, Otjikoto, Namibia: An Integrated Geochemical and Mineralogical Study	102
<i>Charlie B. Hamblet</i>	
The Role of Exploration on an Active Mine: Case of Kamao Copper Mine	103
<i>Richard Ilunga, Franck Twite</i>	
Geochronology and Assessment of the Age(s) of Khoemacau Cu-Ag Mineralization Event(s) in the Ghanzi-Chobe Belt Portion of the Kalahari Copper Belt	104
<i>Tebogo Kelepile, Thierry Bineli Betsi, Elisha Shemang</i>	
The Growth and Expansion of Kansanshi, an Iconic Ore Deposit in the New Copper-Belt, NW Zambia.....	105
<i>Nommia Kolala</i>	
Petrography and Depositional Features of the Lower Argillaceous Series; Dunstan Farm, Chimanamani: Possible Charleswood Diamondiferous Grits Extension	106
<i>Gerald S. Kupeta</i>	
Geology of the Southwestern Part of Kakula: Structural Complexities and Evidence of Tectonic Inversion.....	107
<i>Serge M. Makenda, Franck Twite</i>	
Fingerprinting Mineralization in the Sediment-Hosted Cu-Ag System: Constraints from the Khoemacau Zone 5 Cu-Ag Deposit in NE Botswana's Portion of the Kalahari Copper Belt	108
<i>Tefo Masena, Thierry Bineli Betsi, Tebogo Kelepile</i>	
Reassessing the Bulk Geochemistry and Origin of Hematitic Iron Ores from the Northern Cape Province of South Africa	109
<i>Neo G. Moabi, Bjorn Von Der Heyden, Janne Blichert-Toft, Fanny Thibon, Harilaos Tsikos</i>	
Stratigraphic Position Change of the Mineralization at the Kamao Deposit	110
<i>Innocent Mushobekwa, Franck Twite</i>	
The Effect of the Paarl Fault on the Main Sulphide Zone, Selukwe Subchamber, Great Dyke	111
<i>Takudzwa Mwagura</i>	
A Supergene-Hydrothermal Origin of the BIF-Hosted High-Grade Iron Ores in the Mbarga Prospect, Mbalam Iron Ore District, Southern Cameroon, Congo Craton	112
<i>George L. Ngiamte, Eleanor Green, Olugbenga A. Okunlola, Roland Maas, Alan Greig, Cheo E. Suh</i>	
From Deposition to Diagenesis and Beyond – Tracing the Origins of Manganese- Lutites of the Kalahari Manganese Field.....	113
<i>Valentin Oge, Louis L. Coetzee, Bradley M. Guy, Albertus J. Smith, Jens Gutzmer</i>	
Sequence Stratigraphic Correlation and Depositional Environment Mapping in the Katangan Basin of Central Africa: Implications for Mineral Exploration	114
<i>Martin Purkiss, Michael C. Daly</i>	
Cu and Fe Isotope Contrasts Between the Paleoproterozoic Haib Porphyry Copper Deposit and Representative Phanerozoic Porphyry Systems.....	115
<i>Bibi Ayesha Jogee, Grant Bybee, Ryan Mathur, Laurence Robb</i>	

The World-Class Shamva Gold Deposit, NE Zimbabwe.....	116
<i>Ahmet K. Sener</i>	

The Implication of Metamorphism and Deformation of the Vioolsdrif Domain on the Haib Porphyry Copper-Molybdenum Deposit, Namibia.....	117
<i>Shafiishuna Silvanus</i>	

Magmatic Stratigraphy of the Deep Platreef at Sandsloot, Northern Bushveld Complex: Carbonate Contamination and Controls on Ni-Cu-PGE Mineralisation	118
<i>Erin S. Thompson, David A. Holwell, Marc Reichow, Iain McDonald, Thomas Blenkinsop, Hannah Hughes, Katie McFall, Kate R. Canham, Matthew A. Loader, Lara Du Preez, Kofi Acheamponga, Andy Lloyd</i>	

POSTERS 026-050

Geometallurgical Evaluation of the Lowermost, Low-Grade Manganese Bed in the Kalahari Manganese Field, South Africa	119
<i>Louis Van Eeden</i>	

Timing Diagenetic Processes in the Zambian Copperbelt: Insights from U-Pb Dating of Detrital Ilmenite and Authigenic Hematite.....	120
<i>Victor I. Vincent, Koen Torremans, Darwinaji Subarkah, Sarah Gilbert, Juraj Farkas, Aileen L. Doran, Alan S. Collins, Simon Jones, Jon Stacey, Murray Hitzman</i>	

EPMA, Raman Spectroscopy and EBSD Analysis Track Physiochemical Changes During Hypogene to Supergene Mineralization in the Lubambe-Mingomba Cu-Co Deposit.....	121
<i>Victor I. Vincent, Koen Torremans, Richard Unitt, Christian Burlet, Aileen L. Doran, Simon Jones, Jon Stacey, Murray Hitzman</i>	

The Hidden Talents of Quartz and Mica: Indicating Metallogenic Potential in A-Type Granitic Systems.....	122
<i>Leo Vonopartis, Paul Nex, Judith Kinnaird, Laurence Robb</i>	

Hypabyssal and Volcanic Rocks of the Western Foreland Shelf, Democratic Republic of Congo.....	123
<i>James Yates, Amanda M. Stoltze</i>	

The Significance of in Situ Sr-Nd in Apatite for Constraining Magma Sources and the Origin of Platinum Mineralisation in the Bushveld, South Africa	124
<i>Peace Zowa, Ben Hayes, Grant M. Bybee</i>	

Gold Remobilization in Gossans of the Usakos Dome in the Southern Central Zone (sCZ) of the Damara Orogen, Namibia.....	125
<i>Abia Amukongo</i>	

Invisible Gold Mineralization Within Korivipalle Dolostone and Dhone Dolerites: Implications from EPMA and LA-ICP-MS Analysis of Pyrite	126
<i>Ramesh C. Behera, Sahendra Singh, K S V. Kumar, Vinod K. Tirkey, Ramakrishna Reddy, S Shalivahan</i>	

Liquid Bismuth Collector as a Gold Concentration Mechanism in a Late-Variscan Gneiss Dome: Martinamor Case of Study.....	127
<i>Daniel Bermejo-López, Lorena Ortega, Santos Barrios, Pedro Castiñeiras, Elena Crespo, Juan Gómez Barreiro</i>	

Structural Evolution of the Magino Gold Mine, Wawa Subprovince, Ontario: An Overprinted Archean Intrusion-Related Deposit	128
<i>Ian Campos, Bruno Lafrance, Ross Sherlock, Stefan Kruse</i>	
Geochemistry, Petrography and Mineralogy of Intrusive Metamorphic Dykes and Their Relation with Gold Occurrences in the South of Minas Gerais, Brazil	129
<i>Gabriela O. Carvalho, Gustavo L. Pires, Silvia R. Medeiros</i>	
The Buritica Gold Deposit, Middle Cauca Metallogenic Belt, Colombia	130
<i>Daniel A. Castano Madrigal</i>	
Geneses of Gold Mineralization in the Mugomo and Chifumbazi Prospects of the Mualádzi Gold Field, Tete Province, Northern Mozambique.....	131
<i>Euclesia P. Cossa, Andrea Agangi, Manuel Nopeia, Vicente Manjate</i>	
Chlorite Composition as a Tracer for Mineral Exploration of the Disseminated Gold Deposit	132
<i>Tao Cui, Kunfeng Qiu, Lejun Zhang</i>	
Morphochemical and Isotopic Analysis ($\delta^{65}\text{Cu}$) of Gold from the Serra Dourada and Bananal Placer Deposits in the Aguapeí Belt, Southwest of the Amazonian Craton, Brazil	133
<i>Kelvin Dos Santos Alves, Juan G. Barreiro, Santos B. Sánchez, Ryan Mathur</i>	
Geochemical Analysis of Native Gold from the Roman Mining Area of Pino Del Oro (Zamora, Spain)	134
<i>Vanessa L. Escobar Duche, Santos Barrios Sánchez, Kelvin Dos Santos Alves, Juan Gómez Barreiro</i>	
Geological Mapping and Reinterpretation of the Gold Prospect "Descoberto" Located Near the World-Class Cuiabá Orogenic Gold Deposit, Minas Gerais, Brazil	135
<i>Beatriz A. F. Andrade, Carolina P. N. Moreto, Ricardo O. A. Mabub</i>	
Tellurium and Selenium in and Epithermal Gold Deposit in the Chatkal-Kurama Region (Uzbekistan)	136
<i>Danis I. Filimon, Rustam A. Khalmatov, Anna Gioncada</i>	
Characterization of the Gold Hill Low Sulfidation Epithermal Au-Ag Vein Deposit, Northern Nye County, Nevada	137
<i>Silas L. Goetz, Simon Jowitt</i>	
Understanding Microstructure of Gold Particles in Placers. a New Vector for Transport Intensity?	138
<i>Juan Gomez-Barreiro, Santos Barrios Sánchez, Inéz Puente-Orench, Juan Morales Sánchez Migallón</i>	
Chemical Composition of Garnets and the Relation to Mineralizing Fluids in the Tucano Gold Deposit, Amapá State, Brazil.....	139
<i>Deniro F. Gonçalves Costa, Gabriel A. Rodrigues Soares, Rosaline C. Figueiredo E Silva, Mahyra F. Tedeschi, Steffen G. Hagemann</i>	
Genesis and Mineralogy of the Golddigger Property in British Columbia, Canada.....	140
<i>Randall Karcher, Simon Kocher, Holly Stein, Roger Rosmus, Simone Pujatti, Manuele Lazzarotto, Thomas Monecke</i>	
An Assessment of the Grade Control Spacing at QKR Mine and the Effect on Au Grade Estimation.....	141
<i>Ndinelao N. Kashidinge</i>	
Studying the Internal Structure of Native Gold Using the EBSD Method	142
<i>Aleksandr Kozin</i>	

Mg Isotopes of Carbonate from the Shuiyindong Carlin-Type Gold Deposits of the Youjiang Basin (Southwest China) Provide Insights into Gold Genesis.....	143
<i>Jialong Liu, Xiaoye Jin, Xiaodong Deng, Jianwei Li</i>	

POSTERS 051-075

Relationships Between the Tectonic Evolution and the Formation of Polymetallic Vein Deposits Along the Caledonian-Appalachian Belt.....	144
<i>Taija Torvela, Rob Chapman, James Shaw, Georgian Manuc, Shane Webb, Lucia Savastano</i>	
The Structural Setting of Navachab Gold Mine and Satellite Orebodies: Insights for Exploration	145
<i>Richard R. Manyanga</i>	
Characteristics of the Ore-Forming Fluids of the Giant Karagba-Chauffeur-Durba (KCD) Gold Deposit, Northeastern Democratic Republic of the Congo (DRC).....	146
<i>Rowin P. Marais, Bjorn P. Von Der Heyden</i>	
Mapping Cryptic Telescoping Events in Porphyry-Epithermal Systems Through Integrated Microtextural-Chemical Pyrite Analysis at the Bonanza-Type Brucejack Au-Ag Deposit	147
<i>Duncan F. McLeish, Anthony E. Williams-Jones, James R. Clark</i>	
Minor and Trace Elements in Native Gold: Controls and Metallogenic Implications.....	148
<i>Julian D. Melo Gómez, Evan Hastie, Harold Gibson</i>	
Textural and Mineralogical Characterization of Gold Deposits of the Vumba Greenstone Belt of Northeastern Botswana.....	149
<i>Lebogang Mokane, Andrea Agangi, Ryohei Takahashi, Pearlyn Manalo, Kelebogile Phili, Manuel Nopeia, Thierry Bineli Betsi, Tebogo Kelepile, Zibisani Bagai</i>	
Links Between Mafic Volcanism and Porphyry Gold Mineralization: Insights from the Maricunga Belt, Chile.....	150
<i>Allyson N. Murray, Hannah C. Baker, J. Tomás Ovalle, Adam C. Simon</i>	
Epithermal Au-Ag Mineralization at Galim-Legalgorou, Cameroon Volcanic Line (CVL): Constraints from Ore Mineralogy, Mineral Chemistry of Electrum and Fluid Inclusion Data.....	151
<i>Terence Cho Ngang, Cheo Emmanuel Suh, Thomas Wagner, Tasin Godlove Bafon, Tobias Fusswinkel, Akumbom Vishiti, Eric-Claude Essono Owona</i>	
Provenance of the Placer Gold-Bearing Banket Conglomerate, Iduapriem, Ghana: Constraints from Morphology and Oxygen Isotope Characteristics of Quartz Pebbles	152
<i>Edwin A. Obeng, Kofi A. Ansah</i>	
A Reappraisal of the Structures, Alteration and Tectonic Setting of the Rambí Gold Target, Western Kenya	153
<i>Maryce N. Obindah</i>	
Assessing Structural Impact on Gold Mineralization Using Aeromagnetic, Radiometric Data Sets and Field Observations: AngloGold Ashanti Iduapriem Mine, Ghana	154
<i>Newman T. Odonkor, Prince O. Amponsah, Samuel Nunoo, Marian S. Sapah</i>	
Geochemistry, Sulfur Isotopes, and Fluid Inclusion Characteristics of the Neoarchean Gold Deposits of the Tati and Vumba Greenstone Belts of NE Botswana	155
<i>Kelebogile Phili, Ryohei Takahashi, Andrea Agangi, Pearlyn Manalo, Lebogang Mokane, Manuel Nopeia, Hinako Sato, Thierry Bineli-Betsi, Tebogo Kelepile, Nigel Blamey, Tavis Enno, Zibisani Bagai, Kemmony Baliki</i>	

Precious and Base Metal Occurrence in Amphibolites Within the Buenos Aires Complex, Tandilia System, Argentina.....	156
<i>Belén Marone, Federico J. Saponara, María F. Lajoinie, Mabel E. Lanfranchini</i>	
Evidence of Sulfide Melting in Pegmatite Veins Containing Precious and Base Metals in the Paleoproterozoic Basement of the Tandilia System, Buenos Aires, Argentina.....	157
<i>Federico J. Saponara, Belén Marone, María F. Lajoinie, Mabel E. Lanfranchini</i>	
Chlorite Thermometry and Its Implication to the Genesis of Gold Mineralization at Paramanahalli, Dharwar Craton, India.....	158
<i>Manju Sati, Rajagopal Krishnamurthi, Sakthi S. Chinnasamy, Ajit K. Sahoo</i>	
Vein Textures at the Moss Low-Sulfidation Epithermal Gold Deposit, Arizona: Constraints on the Processes of Mineral Deposition	159
<i>Greg Seitter, Thomas Monecke, Patrick Wood</i>	
The Discovery Under Cover of the 1.3-Moz Dokwe Gold Project, SW Zimbabwe.....	160
<i>Ahmet K. Sener</i>	
The Karibib Region as an Emerging Gold District in the Damara Belt, Namibia: Linking Local Fluid Sinks to Regional Fluid Flow.....	161
<i>Josia Shilunga, Alexander Kisters</i>	
Geology and Gold Mineralization at the Leeville Underground Complex, Carlin, Nevada.....	162
<i>Koray Tasbicen, Elizabeth A. Holley, Kendle Fraley, Elizabeth Stock, Carl Pollard, Joseph Becker</i>	
Kinetics of Silica Deposition as a Control on Silica-To-Ore Ratio in Mineralized Epithermal Veins.....	163
<i>Lauren R. Terry, Thomas Monecke, Cliff Buck</i>	
What Drove the Leaching of Gold from the Mesoarchean Land Surface: A Global Climate Modelling Approach.....	164
<i>Lisa Wasitschek, Hartwig E. Frimmel</i>	
Direct Dating of the Mineralization by the Single Grain (U,Th)-He Pyrite Geochronology.....	165
<i>Olga Yakubovich</i>	
Hydrothermal Alteration and Mineralization Footprint of the Čoka Rakita High- Grade Gold Skarn Deposit, Timok, Serbia.....	166
<i>Jelena Zivanovic, Dragana Davidovic, Mladen Zdravkovic, Nutu Groza, Ivan Strmbanovic, Dragan Milosevic, Snezana Janjic, Olivera Dukic-Mijucic, Aleksandar Sestak, Vuk Milic, Ivana Suzic, Vaso Kitanovic, Dragana Drobnjak, Bojana Kotlajic, Tijana Mitic, Janja Mihajlovic, Nikola Novicic, Stefan Metodiev, Kuncho Kunchev, Kalin Kouzmanov, Aleksandar Pacevski, Paul Ivascanu, Istvan Marton</i>	
Toward Automatic Airborne Magnetic Mapping – VAMPair Colibri.....	167
<i>Laurent Ameglio, Francis Galluser</i>	
Using InSAR to Detect Soil Expansion: A New Way to Explore for Kimberlites.....	168
<i>Kamogelo Baloyi, Stephanie Enslin-Scheiber</i>	

POSTERS 076-100

MOSMIN: Multiscale Observation Services for Mining Related Deposits.....	169
<i>René Booysen, Sandra Lorenz, Moritz Kirsch, Richard Gloaguen</i>	

Hydrothermal Alteration Zones Estimated by ASTER Satellite Image and ASD TerraSpec on the Eastern Zone of Cerro De Pasco, Perú	170
<i>Evelyn Caiza</i>	
Deep Learning-Based Predictive Modeling of Mineral Prospectivity with a Class- Balanced Focal Loss Function for Tackling Training Data Inequality	171
<i>Zhiqiang Zhang, Gongwen Wang, Emmanuel John Carranza</i>	
Application of BEMD in Extracting Gravity Anomaly Components Showing Deep Ore-Forming Dynamic Background of the Giant Jiaodong Gold Cluster Region.....	172
<i>Yongqing Chen, Xu Zhu, Chen Chen</i>	
How Do We Determine and Use Geochemical Background in Big-Data-Based Exploration?	173
<i>Mason L. Dykstra, Thomas-Louis De Lophem</i>	
Enhancing Platinum Group Mineral Recovery from Flotation Tailings: A Process Mineralogy Approach for Alternative Pretreatment.....	174
<i>Borbor Gibson, Nonkuselo Madlakana, Glen Nwaila, Yousef Ghorbani, Eligiusz Gugala, Sehliselo Ndlovu, Jochen Petersen</i>	
Idaho's Proterozoic-Hosted Copper-Cobalt Belt: Characteristics, Challenges and New Geologic Insights	175
<i>Virginia S. Gillerman, Reed S. Lewis, Darin Schwartz, Katharina Pfaff, Daniel Schmidt, George King, William Stone</i>	
Reuse of Granite Quarry Waste for REEs Recovery Along the Industrial Production Chain: Results from Preconcentration Tests	176
<i>Silvia Gioiello, Licia Santoro, Alberto Cazzaniga</i>	
Geometallurgical Evaluation of a Tailing Storage Facility to Address Environmental Concerns and Maximize the Extraction of Contained Resources	177
<i>Petya Gutzmer, Kai Bachmann, Raimon Tolosana-Delgado, Laura Tusa, Cecilia Contreras, Philipp Buettner, Jens Gutzmer</i>	
Muon Attenuation Radiography and Tomography in the Polymetallic St. Christoph Skarn Deposit, Ertzgebirge, SE Germany	178
<i>Marko Holma, Pasi Kuusiniemi, Gergely Surányi, Gábor Nyitrai, László Balázs, Lars Starke, Eric Hohlfeld, Jens Metschurat</i>	
A GIS and Remote Sensing Based Approach for the Classification of Mine Tailings in South Africa	179
<i>Gaone Joseph</i>	
Critical Mineral Exploration with Compiled Data: Joint Imputation and Clustering for Improved Analytics.....	180
<i>Rebecca M. Montsion, Gerhard Visser, Carsten Laukamp</i>	
Application of Machine Learning Algorithms to Predict Rock Types Using Geochemical Data: A Case Study from the Obuasi Gold District, Ghana.....	181
<i>Abdullah B. Muhammed, Emmanuel D. Sunkari</i>	
A Process Mineralogy Approach for Direct Leaching of Precious Metals from the UG2 Ore in the Bushveld Igneous Complex.....	182
<i>Nonhlanhla Ndlovu</i>	
Satellite-Based Mapping for Lithium Pegmatite Mineral Exploration in Namibia: A Criteria-Based Approach	183
<i>Olivia Rhind, Christopher Lambert, Alfie Baines, Mark Broadley</i>	

Staged Pacha-Styled Mineral Prospectivity Mapping in NW Queensland	184
<i>Jhon A. Amasifuen Leiva, Sebastián Y. Espinoza, Misael A. Robles Ancajima, Katherine M. López, Marcello Imaña, Stephanie Sykora, Ronald Yupa, Alejandro Caballero</i>	
Tin and Zinc Stable Isotope Variations in Cassiterite and Sphalerite from the Bolivian Tin Belt	185
<i>Evan C. Hirsh, Ryan Mathur, Adam C. Simon, Wayne G. Powell</i>	
Hyperspectral Outcrop Surveys for 3-D Geological Mapping	186
<i>Laura Tusa, Samuel Thiele, Erik Herrmann, Cecilia Contreras</i>	
Precompetitive Support of Exploration and Development in the Critical Minerals Era.....	187
<i>Richard K. Valenta</i>	
Innovative Narrow Reef Mining (NRE) Technology for Ultrathin Subhorizontal Ore Deposits	188
<i>Sibila Borojevic Sostaric, Ema Vokic, Vjecislav Bohanek, Luka Petro, Paulo Plese</i>	
Modeling Field Strength and RQD to Interpret Potentially Poor Ground Conditions in Southwest Wau Graben, Papua New Guinea	189
<i>Farzi Yusufali, Daniel Mogilny, Yush Rajcoomar</i>	
Application of Anomaly Components of Multi-Element Combination Extracted from Stream Sediments Data by BEMD in Mapping Ore Prospectivity Within the JGCR, Eastern China	190
<i>Aoyue Zheng</i>	
The Prediction of Uranium Occurrence Using GIS Based Geostatistical Algorithms in Erongo Region	191
<i>Silas T. David</i>	

POSTERS 101-125

EIS: Exploration Information System – Linking of Mineral Systems and Mineral Prospectivity Mapping	192
<i>Andreas Knobloch, Vesa Nykänen, Hafsa A. Munia, Tobias E. Bauer, Guillaume Bertrand, Juha Kaija, Joy Cremesty, John M. Carranza</i>	
Mineral Exploration Mapping Tools Using Machine Learning and Drone Geophysics.....	193
<i>Andreas Knobloch, Sami Niemi, Jochen Kamm, Rene Forsberg, Ari Saartenoja</i>	
Mapping Nigeria's Mineral Frontier: AI-Driven Prospecting for Investment Opportunities	194
<i>Luis Pizano, Abba Usman, Abdulrazaq Garba, Pablo Martin-Cocher, Andreas Barth, Andreas Brosig, Andreas Knobloch</i>	
Exploring for Cu-Au Alkalic Porphyry Deposits from the Fringes	195
<i>Fabrizio Abello, Farhad Bouzari, Shaun Barker, Devin Wade</i>	
Unlocking Gold Potential: Remote Sensing Insights and Applied Analysis of the Qena-Safaga Area in Egypt's Eastern Desert.....	196
<i>Mohamed Badawi</i>	
Trace Element Systematics of Auriferous Sulfides and Its Implications on the Gold Mineralization Within the Vempalle Dolostone of the Cuddapah Basin, India	197
<i>Sahendra Singh, Vijay K. K S, Ramesh C. Behera, Vinod K. Tirkey, Shalivahan S</i>	
Rare Earths and Other Minor Elements in Hungarian Coal Formations	198
<i>Csilla Balassa, Mohamed Elbalawy</i>	

Crustal Architecture of the EMARK Oceanic Core Complex	199
<i>Olivia Filson, Melissa O. Anderson, Jonathan Umbsaar</i>	
The Role of Magmas in Forming a Big Skarn System: A Case Study from La Colorada Deposit (Zacatecas, Mexico)	200
<i>Pedro Francisco, Zhaoshan Chang, Shiqiang Huang, Chris Emerson, Dante Juarez, Patricio Perez, Robert A. Creaser</i>	
Geology, Mineral Alteration and Mineralization of the Santa Cecilia Porphyry Au-Cu Deposit, Maricunga Belt, Northern Chile	201
<i>Jose Franco, Antonio Arribas, Luciano Bocanegra, Piotr Paleczek</i>	
Chlorite Chemistry of the New Afton Alkaline Porphyry Cu-Au-(Pd) Deposit, Canada	202
<i>Andres Gonzalez, Adam Simon, Devin Wade, Catherine Ryan</i>	
Retrograde, Shear-Related Copper Mineralization at the Onganja Mining District, Namibia	203
<i>Matthew P. Hales, Judith A. Kinnaird</i>	
High Grade Cu-Au-Ag Overprint at the Filo Del Sol Porphyry Deposit, Argentina- Chile	204
<i>Jack Halloran, Jeffrey Hedenquist, Keiko Hattori, Jose Perello</i>	
Hitting the the Right Frequency - Not All Conductors Are Created Equal.....	205
<i>Vessela Hobson</i>	
Nickel-Copper Sulfide Mineralization in the Maibele-North Ni Sulfide Prospect, Central-Eastern Botswana	206
<i>Jacob Kaavera, Thatayaone Oletile, Elvis Mosweu, Thembiso O. Basupi, Elisha Shemang</i>	
Unravelling Manganese Mineralization Through Intergration of Remote Sensing and Geophysical Techniques in Mansa Area of Luapula Province of Zambia	207
<i>Chanda Katotobwe, Kalela Banda</i>	
Unidirectional Solidification Textures and Magmatic Silica Caps; What Do They Tell Us?	208
<i>Douglas J. Kirwin, Axel Müller</i>	
Petrogenesis of the PGE Mineralized Mafic-Ultramafic Sills on Uitloop Farm, Northern Limb.....	209
<i>Mabatho Mapiloko, Marina Yudovskaya, Paul Nex</i>	
Controls on the Rarity of Porphyry Cu Deposits in the Archean.....	210
<i>Xuyang Meng</i>	
Late Cretaceous Metallogeny of the Turkish Eastern Pontides and the Georgian Bolnisi District: Evidence for a ~700 km-Long Epithermal-Porphyry and VMS Belt Along Eurasia.....	211
<i>Robert Moritz, Safak U. Sönmez</i>	
Understanding of Ground Gravity Responses Over the Kiala Deposit, Western Foreland, Democratic Republic of Congo	212
<i>Melanie J. Postman, Roger Salumu</i>	
Unidirectional Solidification Textures from Two Andean Intrusion-Related Cu-Au Prospects	213
<i>Misael Robles, Lisard Torró, Antonio Arribas, José Franco Moraga, Douglas Kirwin</i>	
Timing and Characteristics of Skarn-Hosted Cu-Au Mineralization at Blue Copper, Montana, USA	214
<i>Erin Shervey, Eric Lelacheur, Zhaoshan Chang, Shiqiang Huang, Mathias Burisch</i>	
Eolian Organic and Pyritiferous Siltstones as Redox Traps for Sediment-Hosted Ore Deposits	215
<i>Leandro Silva, Peir Pufahl</i>	

Hydrothermal Alteration and Cu-(Co) Mineralization of the Fishtie Deposit: Implication for Metal Source and Timing of Mineralization in the Zambian Copperbelt Deposits	216
<i>Mukuka Simusokwe, Yasushi Watanabe, Takuya Echigo</i>	

POSTERS 126-150

Physicochemical Conditions of Ore-Forming Fluids at Filo Del Sol Deposit, NW Argentina: New Insights from Laser Ablation Split Stream S Isotope and Trace Element Chemistry	217
<i>M. Camila Sojo Aguero, Hervé Rezeau, Michael Pribil</i>	
The Geological Characteristics of the Newly Outlined Cu-Au Deposits at the Sharlo and Krasta Prospects, Northeast of the Chelopech Mine, Bulgaria	218
<i>Anastasiya D. Stoyanova, Beiham Chaush, Betina Petkova, Georgi Ivanov, Hristomir Stanev, Ilian Atanasov, Ivan Petrov, Kuncho Kunchev, Martin Dobrev, Miroslav Kavaramov, Ross Overall, Strahil Terziyski, Viktor Stoychev, Aneta Aleksieva, Mariana Trifonova, Miglena Grigorova, Stefan Metodiev, Paul Ivascanu, Istvan Marton</i>	
Hydrothermal Alteration Footprint of the Chelopech High-Sulfidation Cu-Au Epithermal Deposit, Bulgaria	219
<i>Mariana G. Trifonova, Anastasiya Stoyanova, Aneta Aleksieva, Beyhan Chaush, Betina Petkova, Georgi Ivanov, Hristomir Stanev, Ilian Atanasov, Ivan Petrov, Kuncho Kunchev, Miroslav Kavaramov, Ross Overall, Strahil Terziyski, Viktor Stoychev, Miglena Grigorova, Stefan Metodiev, Paul Ivascanu, Istvan Marton</i>	
3D Lithological and Structural Geo-Modelling: A Case Study of the Mudilandima Deposit, Tenke Fungurume Mining District, Lualaba Province, Democratic Republic of Congo	220
<i>Robert K. Tshilumba</i>	
The Skarn to Porphyry Transition: Establishing Geochronological and Geochemical Links Between Skarn and Porphyry-Like Mineralization at Craigmont, British Columbia.....	221
<i>Warren Wegener, Shaun Barker, Farhad Bouzari, Matthew J. Manor</i>	
An Investigation of Helium Liberation During Olivine Serpentinization as a Potential Future Experimental Method for Research into Natural Subsurface Hydrogen Production	222
<i>Tori Weston</i>	
PGE Behavior During Serpentinization of Ultramafic Sequences in the Bushveld Large Igneous Province.....	223
<i>Marina Yudovskaya, Bruno Bartolomeu, Judith Kinnaird, Roger Key, Andy Moore, Ian McGeorge, Mabatho Mapiloko</i>	
Embedding Good Governance in Mining Operations and Value Chains.....	224
<i>Dennis O. Achoki</i>	
Partitioning and Mobility of Deleterious Elements from Sulphide Oxidation in the Historical Gold Mine Tailings.....	225
<i>Steve J. Chingwaru, Bjorn Von Der Heyden, Margreth Tadie</i>	
Assessing Opportunities for Treating Acid Mine Drainages and Environmental Degradation of Kettara Mines in Morocco.....	226
<i>Loubna Elamraoui, Abdellatif Elghali, Mostafa Benzaazoua, Olutoyin A. Fashae</i>	
Sustainable Mining Through Bioleaching in the Central African Copperbelt (CACB).....	227
<i>Liseli Kunda</i>	

United Nations Resource Management Systems as a Guide for Sustainable Resource Management: Case Example from Copperbelt Province, Zambia	228
<i>Michael M. Musialike, Eva Marquis, Gabriel Ziwa, Mubanga Mutale, Karen Hudson-Edwards, Frances Wall</i>	
Navigating Namibia's Energy Crossroads: Balancing Renewable Ambitions and Fossil Fuel Opportunities	229
<i>Shepherd M. Nyambe</i>	
Resilience and Governance in Artisanal Gold Mining: Addressing Challenges and Opportunities in Western Kenya.....	230
<i>Christine A. Omuombo, Joy A. Owidhi</i>	
Local Consideration for Blast-Induced Ground Vibration in Mining Communities.....	231
<i>Harriet N. Tetteh, Wenfeng Li, Virginia T. McLemore, Alex Rinehart</i>	
Minimising the Environmental and Social Impacts of Exploration: Lessons from the GREENPEG Project.....	232
<i>Kate Smith, Frances Wall, Robert Pell</i>	
Circular Economy Can Start from the First Stages of Exploration Geology	233
<i>Frances Wall, Eva Marquis, Karen Hudson-Edwards, Markus Zils, Gawen Jenkin, Phil Bird, Carol Pettit, Vicky Smyth</i>	
The Kuboos-Bremen Line in Namibia and South Africa: New Genetic Insights and Its Potential as a Hub for REE Enrichment Research	234
<i>Jorge C. Arthuzzi, Robert J. Giebel, Jochen Kolb, Aratz Beranoaguirre, Michael Marks, Paul H. Macey, David L. Reid, Lorenz Kemmler, Benjamin F. Walter</i>	
Nb-Ta Primary Oxides and U Secondary Minerals from Pegmatites in Central Portugal	235
<i>Santos Barrios Sánchez, Juan G. Barreiro, Julio G. García, Vitor D. Maia, Wilck G. De Campos, Ricardo Augusto S. Cipriano</i>	
The Control of Biotite on the Lithium, Fluorine and REE Budget of Crustal Silicate Magmas	236
<i>Charles D. Beard, Vincent J. Van Hinsberg, John Stix, Madeleine C. Humphreys, Owen M. Weller</i>	
Constraining the Magmatic-Hydrothermal Evolution of a Gneiss Dome: Insights from U-Pb Dating and Trace Element Analysis of Sn-W Mineralization.....	237
<i>Daniel Bermejo-López, Lorena Ortega, Pedro Castiñeiras, Lorenzo Tavazzani, Santos Barrios, Juan Gómez-Barreiro, Elena Crespo, Cyril Chelle-Michou</i>	
Detailed Mineralogical Study of the Bentonitic Basin of Northwestern Sardinia (Italy): The S'Aliderru and Sa Pigada Bianca Deposits	238
<i>Sebastiano Coticelli, Isabel Abad, Giuseppina Balassone, Piergiulio Cappelletti, Concetta Rispoli, Fabio Granitzio, Mauro Farenzena, Nicola Mondillo</i>	
The Black Angel Zn-Pb District, West Greenland: Germanium Mineralization and Syn- metamorphic Ore Formation	239
<i>Michael Eigler, Benjamin F. Walter, Jochen Kolb</i>	
Recovery Appraisal of Ag, Bi, In, Sb, Se, and Te in Processing Samples from the Ruwai Pb-Zn Skarn Deposit, Central Kalimantan, Indonesia.....	240
<i>Shelly M. Faizy, Alkiviadis Kontonikas-Charos, Mathias Burisch, Doreen Ebert, Robert Möckel, Bradley M. Guy, Joachim Krause, Valby Van Schijndel, Arifudin Idrus, Ernowo Ernowo, Anggara Widyastanto, Agata V. Kindangen, Max Frenzel</i>	

Hydrothermal Rare Earth Element (REE)-Enrichment in an Iron-Oxide-Apatite (IOA) Type Deposit at Kwyjibo, Québec, Canada: A Fluid Inclusion and Stable Isotope Study.....	241
<i>Gary Fung, Anthony E. Williams-Jones</i>	

POSTERS 151-175

Remote Sensing Aided Geological Investigation of Rare Earth Element Mineralization in Sangu-Ikola Carbonatites, Southwestern Tanzania.....	242
<i>Japhet N. Fungo, Nelson Boniface, Elisante Mshiu</i>	
Sokli – a Multimetal Carbonatite Deposit Abounds with Critical Elements	243
<i>Tuomas Gråsten, Teo Lehto, Pasi Heino, Mikko Numminen</i>	
Cassiterite LA-ICP-MS U-Pb Geochronology of Greisen- And Vein-Hosted Sn Mineralization in the Eastern Erzgebirge (Germany/Czech Republic)	244
<i>Marie Guilcher, Mathias Burisch, Richard Albert, Axel Gerdes, Jan Cerný, Sam Thiele, Uwe Lehmann, Henrik Kaufmann, Jens Gutzmer</i>	
From Eboundja Nepheline Syenite (Southern Cameroon) to Ion Adsorption REEs Deposit: Implications for REE Deposits Genesis	245
<i>Kenneth K. Kwanang, Licia Santoro, Louise Marie Bidjeck, Paul-Désiré Ndjigui</i>	
Rare Earth Element Mobilization and Enrichment in Weathered Carbonatite of the Dong Pao Deposit, Vietnam	246
<i>Martin Li, Martin Smith, Mei-Fu Zhou</i>	
The Petrography and Paragenetic Sequence of U-REE-Cu-Au Skarn Mineralisation in NW Queensland	247
<i>Christina Loidolt, John Mavrogenes, Ross Chandler, Antony Burnham</i>	
Insights into U-REE-Cu-Au Skarn Occurrences in the Eastern Mount Isa Inlier from Garnet Geochemistry and Geochronology	248
<i>Christina Loidolt, John Mavrogenes</i>	
Mineral Chemistry, Fluid Inclusion, and Isotopic Characteristics of the Enargite Orebodies at Lepanto, Mankayan, Philippines	249
<i>Pearlyn Manalo, Ryohei Takahashi, Manuel Nopeia, Kalin Kouzmanov, Nigel Blamey, Andrea Agangi, Akira Imai, Leo Subang, Marlina Elburg, Henriette Ueckermann, Linda Iaccheri</i>	
Hydrogeochemical Modelling of Indium in a Mine Waste Environment: Opportunities for Recovery from Aqueous Sources	250
<i>Olivia Mejías, Thomas Poulet, Pouria Behnoudfar, Laura Jackson, Anita Parbhakar-Fox</i>	
Multi-Stage Evolution and REE Mineralization of Wigu Hill Carbonatite, Uluguru Mountains, Tanzania.....	251
<i>Mary C. Moshi, Yasushi Watanabe, Nelson Boniface, Tatsuki Tsujimori, Carmela Tupaz, Daisuke Araoka, Shogo Aoki, Elisante E. Mshiu</i>	
Thermal Separation of Silicate-Fluorosilicate Melts: Trace Element Partitioning and Implications for Granite-Hosted REE Deposits	252
<i>Wil K. Munro, Neil R. Bennett</i>	
Rare Elements Granite-Pegmatites in Kivu Region (D.R.Congo).....	253
<i>Rub'Son H. N'Nahano, Moise Luemba, Huan Li, Mohammed Abdallah E. Ibrahim</i>	

Trace Element Characterization of Scheelite in the Polyphase Intrusive W-(Sn-Ta) Deposit of Santa Comba, NW Spain.....	254
<i>Candela Pita Díaz, Iñigo Borrajo Maza, Elena Crespo Feo, Fernando Tornos Arroyo</i>	
Mineral Forms of Thallium and the Genetic Model of the Vorontsovskoe Gold Deposit (North Urals, Russia)	255
<i>Fedor D. Sandalov, Mikhail A. Rassomakhin, Sergey Y. Stepanov, Elena V. Belogub</i>	
Dolomite as a Tool for Rare Earth Elements Exploration Undercover – A Case Study of Mt Weld Carbonatite, Western Australia	256
<i>Anderson Santos, Artur Deditius, Hans Oskierski, Arthur Oliveira, Denis Fougereuse, Pete Kinny, Ganesh Bhat, Malcolm Roberts</i>	
Hunting the Magmatic Processes that Lead to Granite-Related W Mineralization	257
<i>Angela I. Santos Costa, Coralie Siégl, Rosa Didonna</i>	
The World-Class Dolphin W Deposit, King Island, Tasmania – Exploration Tools and Infrared Spectroscopy	258
<i>Angela I. Santos Costa, David R. Cooke, Lejun Zhang, Yamila Cajal</i>	
Searching for Tin and Tungsten in Cornwall, UK: Insights from Geochemistry and Geological Mapping	259
<i>Gabriel Smith</i>	
The Importance of Pressure and Fractionation in Forming Compositionally- Diverse, Rare-Earth Rich Igneous Complexes: A Case Study of the Nechalacho Layered Suite, Canada.....	260
<i>Caroline R. Soderman, Owen M. Weller, Charles D. Beard, Nicolas Riel</i>	
Fluorite Mineralization Associated with Albitite and Skarn: An Example of Jinmu- Mihara Fluorite Deposit, Sanyo Belt, SW Japan	261
<i>Masahiro Sunada, Yasushi Watanabe, Takuya Echigo</i>	
Tracing the Metal Sources of Iberian W-Sn Deposits Through Sr-Nd Radiogenic Isotopes	262
<i>Iñigo Borrajo, Fernando Tornos, John M. Hanchar, Jose M. Fuenlabrada</i>	
The Las Herreras Deposit: Replacive IOCG Systems in the Ossa Morena Zone (SW Iberia)	263
<i>Carmen Conde, David Rodriguez, Fernando Tornos, Dolores Garcia, Gonzalo Ares</i>	

POSTERS 176-200

A Geometallurgical Approach to Recovery of Critical Metals Tellurium, Bismuth, and Tungsten as By-Products from a Swedish Gold Mine.....	264
<i>Lara U. Tritton, Gawen R. Jenkin, Daniel J. Smith, Helena Moosberg-Bustnes</i>	
A Process-Based Approach to Constraining Metal Enrichment in Alkaline-Silicate Magmatic Systems Using New Thermodynamic Models.....	265
<i>Owen Weller, Tim Holland, Caroline Soderman, Eleanor Green, Roger Powell, Charles Beard, Nicolas Riel</i>	
Mineralogical Characterization and Location of Critical Metals in the VHMS: Reevaluating the Potential of the Tharsis Mine.....	266
<i>Carmen Conde, Gonzalo Ares, Sergio Tenorio, Fernando Tornos</i>	
Heemskirk Tin Project, Western Tasmania, Australia: Characterization of Severn- Queen Hill Tin Deposits	267
<i>Nelao N. Naimbale, David R. Cooke, Wei Hong, Robert Scott</i>	

The 3D Distribution of Cobalt in VHMS: The Elvira Orebody, Iberian Pyrite Belt	268
<i>Gonzalo Ares, Carmen Conde, Guillem Gisbert, Juan C. Videira, Fernando Tornos</i>	
The Ore Genesis of Okanjande Graphite Deposit, Central Zone, Damara Belt, Namibia.....	269
<i>Nelao N. Naimbale, Shao-Yong Jiang, Fred Kamona, Daniel Machoko</i>	
Potential Sources of Rare Earth Elements (REEs) in Loch Borralan, Northwest Highlands, Scotland: Geochemical and Mineralogical Controls on REE Distribution in Carbonatite	270
<i>Abdulkadir M. Abdulkadir</i>	
Magmatic-Hydrothermal Alteration and Deformation of Spodumene Pegmatites from Musha- Ntungwa (Rwanda)	271
<i>Jolan Acke, Stijn Dewaele, Justin Uwiringiyimana, Renata Barros, Anouk Borst</i>	
Mineralogy and Phosphate Paragenesis of the Ewoyaa Lithium Pegmatites, Southern Ghana.....	272
<i>Salaam J. Adams, Marieke V. Lichtervelde, Prince O. Amponsah, Abdul-Razak S. Ballah, Iwan Williams, Lennard Kolff, Prosper M. Nude, Daniel K. Asiedu, Samuel B. Dampare</i>	
Petrography and Geochemistry of Pegmatite and Leucogranite of the Ntega- Marangara Area, Burundi, in Relation to Rare Metals Mineralisation.....	273
<i>Quesnay De Jésus Akabahinga, Anthony T. Bolarinwa, Seconde Ntiharizwa</i>	
Petrography, Geochemistry, Tectonic Setting, and Rare Earth Elements Mineralisation Potentials of Selected Granitoids from Southwestern Nigeria	274
<i>Shakirat Aminu, Akinade S. Olatunji, Maryam O. Abdus-Salam, Victoria B. Omotunde, Oghenerume S. Emecho-Ted</i>	
Nickel and Cobalt Enrichment Zone and Ore Potential Distribution in Sorowako Area and Surroundings, South Sulawesi, Indonesia	275
<i>Jj A. Ayyala, Fadlin Fadlin</i>	
Potential of Mineral Raw Materials for Battery Production in Hungary	276
<i>Mohamed Badawi, Evane C. De Cuñha</i>	
Vanadium Enrichment in Silurian Black Shales of SE Sardinia (Italy): Comparison with Other Cases of Northern Gondwana.....	277
<i>Maria Boni, Giuseppina Balassone, Nicola Mondillo, Giovanni Di Maio</i>	
LCT Pegmatite in the West African Craton: New Insights on the Metallogenic Context and Exploration Approach Based on the Issia District (Ivory Coast).....	278
<i>Christophe Bonnetti, Christophe Ballouard, Hugo Watine, Arnaud Fontaine, Anne-Sylvie André- Mayer, Karl Akueson, Rémi Bosc</i>	
Miocene Western Balkan Lithium-Borates Metallogenic Zone.....	279
<i>Sibila Borojevic Sostaric, Tomislav Brenko</i>	
Monazite-Rich Carbonatite Dykes at Eureka, Namibia.....	280
<i>Sam Broom-Fendley, Ed Loye, Pete Siegfried, Tolene Kruger, Chris Drysdale, Tim Smalley, Rainer Ellmies, Frances Wall</i>	
Rare Earth Element Mineralization in the Dongpao Deposit, Tamduong, North Vietnam	281
<i>Tinh T. Bui, Yasushi Watanabe</i>	
Hard Rock-Hosted Lithium Deposits: A Process-Centric Review.....	282
<i>Edward Bunker, Jean-Jacques Ferguson, Chris Lambert</i>	

Strengthening Li-Bearing Pegmatite Exploration Through Applied Geophysics.....	283
<i>Ana M. Carvalho, Ricardo Ribeiro, Alexandre Lima, Rui Moura, Klaus Brauch, Axel Müller</i>	
Metamorphic Upgrading of Cobalt in a Volcanogenic Massive Sulfide Deposit	284
<i>Tarryn K. Cawood, Jan M. Peter, Duane C. Petts, Matthew J. Polivchuk</i>	
On the Physical Transport of Magmatic Sulfides: Insights from the Trace-Element and Isotope Signature of Sulfide Globule Halos.....	285
<i>Maria Cherdantseva, Marco L. Fiorentini, Christopher M. Fisher, Antony I. Kemp, Laure A. Martin, Matvei Aleshin, Malcolm P. Roberts</i>	
The Origin of Stratabound Cobalt Mineralization Along the Mines-R.A.T. Contact at Kinsevere, DRC, Central African Copperbelt	286
<i>Robert S. Collar, Hervé Ilongo, Takalani Mandiwana, A. E. Williams-Jones</i>	
Advances in Exploring for Ni and V Ore Deposits Using Magnetite as an Indicator Mineral	287
<i>Sarah Dare</i>	
Genesis of IOA and IOCG Deposits Along the Cordillera De La Costa, Peru: Insights from Iron ($\delta^{56}\text{Fe}$) and Triple Oxygen ($\delta^{18}\text{O}$, $\Delta^{17}\text{O}$) Isotopic Analysis of Magnetite	288
<i>Jose C. Davila, Fredrik Sahlström, Fernando Tornos, Valentin R. Troll, John M. Hanchar, Ilya Bindeman, Xin-Yuan Zheng</i>	

POSTERS 201-225

Geochemical Characterization of K-Feldspar in Lithium-Rich Aplite-Pegmatites: Insights from the Barroso-Alvão Region, Northern Portugal	289
<i>Filipa Dias, Ricardo Ribeiro, Filipe Gonçalves, Alexandre Lima, Encarnación Roda-Robles, Tânia Martins</i>	
Effects of Post-Mineralization Metamorphism and Deformation on Sulfides and Their Remobilization in the Hotinvaara Ni Prospect, Pulju Greenstone Belt, Northern Finland.....	290
<i>Juan C. Díaz Carreño, Petri Peltonen, Jaakko Puntalo, Christoph Beier, Kathleen A. Law, Jake Williams</i>	
Multi-Scale Characterisation of Cobaltite at Palokas, Rajapalot by X-Ray Computed Tomography and Electron Microscopy.....	291
<i>Lily Dickson, Taija Torvela, Robert Chapman, Jukka-Pekka Ranta, Alice Macente</i>	
Lithium and Graphite Mineralisation of the Kuldjukttau Mts., Uzbekistan	292
<i>Alla Dolgoplova, Reimar Selmann, Rustam Mirkamalov, Farid Divaev, Rustam Khalmatov, Rustam Uzokov, Yulia Mun, Nigora Isokova</i>	
Punta Corna Co-Rich Vein System (Italy): Late-Alpine Hydrothermal Circulation and Metallogenesis.....	293
<i>Giulia Domenighini</i>	
Constraints on the Genesis of the Orbicular Rocks and Sulphide Mineralization in the Koperberg Suite, Namaqualand Metamorphic Complex, South Africa.....	294
<i>Senamile S. Dumisa, Grant M. Bybee, Paul A. Nex, Ayesha B. Jogee, Ayesha B. Jogee</i>	
Vanadium Distribution in Soil of Okahandja Map Sheet (2117 DA – DD) in Otjozondjupa Region, Namibia	295
<i>Wilka Embula</i>	

Characterization of Fluids Related with Alkalic Porphyry Deposits in British Columbia, Canada.....	296
<i>Maria Paula Estrella, Pilar Lecumberri-Sanchez, Xinyue Xu</i>	
Sulphide Mineralization and Associated Platinum Group Elements in Mafic- Ultramafic Units of the Tantalite Valley Complex, Southern Namibia.....	297
<i>Daniel Ferreira, Bjorn Von Der Heyden, Martin Klausen</i>	
The Role of Carbonate Melts in the Transport and Concentration of Metal-Rich Magmatic Sulfides.....	298
<i>Marco Fiorentini, Maria Cherdantseva, Isra Ezad, Michael Anenburg, John Mavrogenes, Stephen Foley</i>	
Determining Uranium Mineral Compositions by Electron Probe Microanalysis	299
<i>Guy G. Freemantle</i>	
Future Lithium Supply: Towards a Robust Quantitative Assessment.....	300
<i>Laura Buarque Andrade, Max Frenzel, Carolin Kresse, Britta Bookhagen, Michael Schmidt, Dirk Sandmann</i>	
In Situ Geochemistry of Mica in Exomorphic Spodumene Pegmatite Halos: Implications for Mineral Exploration.....	301
<i>Elena J. Geiger, Julian F. Menuge, Teimoor Nazari-Dehkordi, Maurice Brodbeck</i>	
Trace Elements in Alteration Minerals: A Case Study from the Kandilka Prospect, Eastern Rhodopes, SE Bulgaria.....	302
<i>Yana Y. Georgieva, Rossitsa Vasileva, Istvan Marton, Stefan Metodiev</i>	
Mineralogy and Department of Nickel, Cobalt, and Scandium in the Laterite Deposits of Sebuk Island (SE Kalimantan, Indonesia).....	303
<i>Michele Giorno, Alkiviadis Kontonikas-Charos, Doreen Ebert, Joachim Krause, Robert Möckel, Dirk Sandmann, Ernowo Ernowo, Agata V. Kindangen, Yoseph Swamidharma, Yudhi Krisnanto, Max Frenzel</i>	
Advancing Greener Economy: Insights from Studies on Bauxite Deposits in Bosnia-Herzegovina (Jajce and Posušje) and Porphyry Copper System in Bulgaria (Assarel)	304
<i>Marko Holma, Šime Bilic, Ivica Pavicic, Franjo Šumanovac, Gordana Deljak, Ivan Grubišić, Irena Peytcheva, Stoyan Georgiev, Elitsa Stefanova, Dimitrina Dimitrova, Atanas Hikov, Desislav Ivanov, Ivaylo Vasilev, Pasi Kuusiniemi, Timo Enqvist, Gergely Surányi, László Bálažs, Sandór Demok, Jarmo Kortenien, Giulio Casini, Eduard Saura, David Marti, Helena Seivane, Martin Schimmel, Markku Pirttijärvi</i>	
Temporal Evolution of the Majuba Hill Cu-(Mo)-(Sn) Deposit, Pershing County, Nevada.....	305
<i>Alexander P. Holmwood, Matthieu Harlaux, Philipp Ruprecht</i>	
A Fresh Look at the World-Class “Five-Element” Vein Deposits, Cobalt Embayment, on (Canada): Fluid and Metal Sources and Systematics, and Mineralization Ages	306
<i>Joshua Jackman, Jacob Hanley, Daniel Kontak, Robert Creaser, Richard Stern, Jonathon Toma</i>	
Lithium-Caesium-Tantalum-Mineralised Granitic Pegmatite Systems in the Palaeoproterozoic Bedrock of Sweden	307
<i>Erik Jonsson</i>	
The Structural Setting and Relative Timing of the Bergby LCT-Pegmatite Field, Central Sweden.....	308
<i>Karin Högdahl, Erik Jonsson, Magnus Leijd, Anders Zetterqvist, Pablo Petri</i>	

High Magma Differentiation Controls Rare Metal Mineralization: Traces by Tourmaline Major and Trace Elements, and Boron Isotopes	309
<i>Haiquan Li, Youye Zheng, Xin Chen</i>	
Copper and Molybdenum Isotope Variation Along a Vertical Transect Through the Epithermal-Porphyry Valeriano Cu-Au System, El Indio-Maricunga Belt, Northern Chile.....	310
<i>Stephanie Lohmeier, Bernd Lehmann, Jan Pašava, Lukas Ackerman, Ondrej Šebek, Alexandre Andronikov, Andrew Hodgkin, Francisco Bravo</i>	
Different Sn-W Vein Textures: The San Finx Deposit, NW Spain	311
<i>Ivan Losada, Iñigo Borrajo, Fernando Tornos</i>	
Magmatic Evolution and Sulfide Saturation Mechanisms Forming the Ultramafic- Hosted Stormi Ni-Cu-(Co) Deposit of the Vammala Belt, SW Finland	312
<i>Jakob Machleidt, Karsten Haase, Manuel Keith, Reiner Klemd, Christoph Beier, Patrick Hehn</i>	
Geochemical Fingerprinting of Lithium Pegmatites: A Whole-Rock Perspective	313
<i>Ryan J. Manton, Rebecca M. Montsion, Anusuriya Devaraju, Jessica M. Walsh</i>	

POSTERS 226-250

Overview of the Potential of Strategic Minerals in Bahia State - Brazil	314
<i>Hevelyn E. Martins, Maria J. Mesquita</i>	
Carbon Isotopic Studies of Calcite Veins Associated with U Mineralization in the Jahaz Deposit, North Delhi Fold Belt, Northwestern India	315
<i>Priyanka Mishra, Rajagopal Krishnamurthi, Baskaran Saravanan</i>	
Estimation of Lithium Content in Brines of La Union Salt Flat, Located in Ahumada, Chihuahua, Mexico.....	316
<i>Héctor Montes Carreón, Perla Rodríguez Contreras</i>	
Application of Apatite Chemistry in LCT Pegmatite Exploration in the Late Archean Yellowknife Pegmatite Province, NWT Canada: A Preliminary Analysis	317
<i>Gilles N. Ngoran, David R. Lentz, Gideon Lambiv Dzemua</i>	
Raw Materials from Geothermal Fluids	318
<i>Simona Regenspurg, Lydia Olaka, Franziska Wilke, Katrin Kieling, Crm-Geothermal Team</i>	
Survey for Critical Raw Materials in Tanzanian East African Rift Geothermal Areas	319
<i>Franziska Wilke, Simona Regenspurg, Anna Jentsch, Timmu Kreitsmann, Martin Zimmer, Michael Bau, Samuel Niedermann, Lydia Olaka, Albano Mahecho</i>	
Insight from Field and Petrographic Studies of Saltpond and Winneba Pegmatites and Other Associated Rocks: Implications to Ghana's Lithium Occurrence	320
<i>Theophilus Owusu Agyapong, Mary N. Selby, Samuel Nunoo, Prince O. Amponsah</i>	
A Conceptual Mineral Systems Model for the LCT Pegmatites.....	321
<i>Shanta Panja, Alok Porwal, Majid Keykhay-Hosseinpour</i>	
Lithium Clays in Volcano-Sedimentary Deposits.....	322
<i>Francesco Putzolu, Robin Armstrong, Tom Benson, Chris Emproto, Rebecca Ball, Isabel Abad, Adrian Boyce, Laura Hepburn, Nicolas Bompard, Richard Herrington</i>	

A Mineral Systems Approach for Li Volcano-Sedimentary Deposits: Commonalities with Other Li Deposit Models.....	323
<i>Robin N. Armstrong, Francesco Putzolu, Tom Benson, Richard Herrington</i>	
Unveiling the Geological Potential of Bauxite Deposits in the Democratic Republic of Congo (DRC) for Sustainable Aluminium Production and the Green Transition	324
<i>Derick U. Ramazani, Dominique W. Osomba</i>	
Palladium Enrichment and Mobilization Through Alteration and Replacement of Base Metal Sulfides in the Parisien Lake Zone, East Bull Lake Intrusion, Ontario, Canada	325
<i>Marc Rochette, Daniel Layton-Matthews, Dave Peck, Reid Keays</i>	
Overview of Uranium Activities in Namibia and the African Continent.....	326
<i>Gabi Schneider</i>	
Exploring Lithium Metallogenesis Within the Groundwaters of the Arid-Hyper Arid Environments of the Northern Cape, South Africa	327
<i>Mary N. Sithole, Khuliso Masindi</i>	
Mineralogical and Geochemical Characteristics of the Carbonatite Laterite at Sokli, Finland	328
<i>Martin P. Smith, Martin Y. Li, Sam Broom-Fendley, Tuomas Gråsten, Frances Wall</i>	
Compositional Features of Lithium-Bearing Pegmatites of the Sinsikourou and Kola Areas Around the Bougouni Region, Southwestern Mali.....	329
<i>Elhadji Mory Traore, Akinade S. Olatunji, Mory Sidibe, Seko Sanogo</i>	
Assessing Proximity to ISCG and IOCG Mineralisation Using REE-Bearing Phosphate Chemistry.....	330
<i>Travis Batch, Caroline Tiddy, Adrienne Brotodewo, David Giles, Michael Taylor, Vaclav Metelka</i>	
Is the Tennant Creek Mineral Field an IOCG Province? Insights from Chlorite Chemistry	331
<i>Damian Braize, Jeffrey A. Steadman, Sebastien Meffre, Ana Liza Cuison</i>	
Geochemistry and Origin of the Magnetite-Vonsenite Mineralization of the Monchi Mine (SW Iberia)	332
<i>Alberto Campanero, Carmen Conde, Gonzalo Ares, Fernando Tornos</i>	
Vectoring in Metamorphosed VMS Deposit: Insights from Chlorite, White Mica, and Garnet	333
<i>Cendi Dana, Steven Hollis, Darryl Podmore, Megan James, Ian Butler, Florian Füsseis, Adrian Boyce, Riquan Azri</i>	
Constraints on the Pre-Eruptive Metal and Volatile Content of Magmas Associated with Archean Volcanogenic Massive Sulfide Deposits from Zircon-Hosted Melt Inclusions	334
<i>Priyal Daya, Jacob J. Hanley, Kevin Neyedley, Sarah Speight, Stephen J. Piercey, Alexandra Tsay, Zoltan Zajacz</i>	
Combined Micron-Scale EBSD Study and LA-ICP-MS Analysis Reveals the Evolution of Pyrite and Cu-Fe-Sulphides in the Olympic Dam Cu-U-Au-Ag Deposit, South Australia.....	335
<i>Samuel A. King, Kathy Ehrig, Nigel J. Cook, Cristiana L. Ciobanu</i>	

POSTERS 251-276

Geology and Mineralogy of Pb-Ag-Cu Veins of the Central Plateau Deposit of the Jbel Addana District, (Western Anti-Atlas, Morocco).....	336
<i>Zoubair El Ouad, Mustapha Souhassou, Moha Ikenne, Hibti Mohamed, Ilmen Said, Abia El Hassan, Younes Moundi, Atmane Madi, Abdelhak Karfal</i>	

Mineralogy and Trace Element Composition of Sulfides from Porphyry-Stage and Minor Late Polymetallic Mineralization in the Gaby District, Northern Chile	337
<i>Alexandre Cugerone, Kalin Kouzmanov, Lorenzo Tavazzani, Lluís Fontboté, Sergio P. Henríquez, Juan C. Toro, Rubén Pardo, Carolina Rodríguez</i>	
White Mica Alteration in Porphyry Systems: Insights from the Gaby Porphyry Cu Deposit, Northern Chile	338
<i>Alexandre Cugerone, Kalin Kouzmanov, Lluís Fontboté, Luis Krampert, Alexandra Tsay, Zoltan Zajacz, Sergio P. Henríquez, Juan C. Toro, Rubén Pardo, Carolina Rodríguez</i>	
Alteration Assemblages and Quantitative Mineralogy of the Boundary Zone Zn-Pb ± Ag Deposit, Yukon, Canada.....	339
<i>Haruna M. Grema, Joseph M. Magnall, Sarah A. Gleeson, Jack E. Milton, Anja M. Schleicher, Alicja Wudarska, Hans-Martin Schulz</i>	
Factors for Classification of the Precious and Base-Metal Mineralization in Epithermal Deposits: Evidence from Apatite Chemistry in Ore-Related Igneous Activity.....	340
<i>Masaya Koseki, Shota Satori, Yasushi Watanabe, Takuya Echigo, Shogo Aoki</i>	
Fluid History of Zambian Copper Deposits Based on Metal Zonation in Pyrite.....	341
<i>Ross Large</i>	
Origin of the Magnetite-(Apatite) and IOCG Deposits of the Coastal Cordillera of the Andes	342
<i>Ignacio Ledesma, Fernando Tornos</i>	
Understanding Overprinting Mineralizing Systems of the Ruby Hill Deposit, Eureka, NV: Implications for Future Exploration	343
<i>Alyssa Lindsey, Simon Jowitt</i>	
Facies-Constrained Lithogeochemistry in the Irish Midlands: A Comparison Between the Collinstown Prospect and the Stonepark Zn Deposit	344
<i>Joseph Magnall, Sarah Gleeson, Philip Rieger, Mark Holdstock, Kacie Wellington, David Furlong, Murray Hitzman</i>	
Mineral Prospectivity Mapping for Porphyry Copper-Gold Mineralization Style Using Fuzzy Logic Method in the Arthurs Seat Project, Jamaica.....	345
<i>William Miguel Ortiz</i>	
The Characteristics of Chromite in the Lateritic Nickel Deposit from East Sulawesi Ophiolite, Indonesia	346
<i>Ibnu Munzir, Marek Michalik</i>	
The Essential Role of High-Volume Base Metals: Catalysts of Modern Industry.....	347
<i>Chawanangwa S. Mwansa</i>	
Allanite U-Th-Pb Geochronology of IOCG and Zn-Ag-Pb Deposits in the Mount Isa Inlier, Australia	348
<i>Luís Portela, Coralie Siégl, Charlotte M. Allen, Jim R. Austin</i>	
Copper Bio-Enrichment: Results from Isotopic Analysis at the Las Cruces Deposit, Spain.....	349
<i>J. Javier Rey-Samper, Ryan Mathur, Fernando Tornos</i>	
Lithostratigraphic Controls on the Mineralizing System at the Stonepark Zn-Pb Deposit, SW Ireland.....	350
<i>Philip Rieger, Murray W. Hitzman, Victoria Figueira Susin, Mark Holdstock, Eoin Dunlevy, Aline Melo</i>	

Hematite Orebodies Formed by Multiple Geological Events: A Case Study from the Akatani Deposit, Niigata Prefecture, Japan	351
<i>Kotaro Seno, Yasushi Watanabe, Takuya Echigo, Keita Itano, Shogo Aoki, Yoshiaki Kon, Shota Satori</i>	
Geological-Mining Characterization of the Sierra Rancheria Using Remote Sensing in the Northern Region of Chihuahua, Mexico.....	352
<i>Carlos A. Silva, Luis A. Jiménez, Perla Rodríguez</i>	
Lithogeochemistry and Magnetic Susceptibility for Stratigraphy and Alteration Identification in the Western Foreland Shelf of the DRC	353
<i>Amanda M. Stoltze, Tim Dunnett</i>	
Gorno and Piani Resinelli: Genesis and Correlations of Two Alpine-Type Pb-Zn Districts	354
<i>Luca Summino, Michele Andrea Giorno, Luca Barale, Carlo Bertok, Max Frenzel, Marta Gasparrini, Luca Martire</i>	
Unveiling Geometallurgical Potential: Insights from the Soledad Cu-Au-Ag Mineralized Tourmaline Breccias, Central Peru	355
<i>Victor J. Torres, David R. Cooke, Lejun Zhang, Julie Hunt, David L. Kelley</i>	
Mineral Chemistry as a Potential Exploration Tool Applied to the Lusale Basin and Fishtie Deposit, Central African Copperbelt (Zambia).....	356
<i>Veronica G. Trevisan, Jamie J. Wilkinson, John Spratt</i>	
Highway to Grade: The Importance of an Early Quartz Vein Stockwork for Channeling Late Ore-Bearing Fluids While Favoring Sulfide Precipitation.....	357
<i>Martin G. Vallejos, Laura Maydagán, David Selby, Kevin B. Heather, Mariano Poodts</i>	
Analysis of Visual Grading of the Hydrothermal Alteration of the Vazante Zn-Pb Deposit, Minas Gerais, Brazil: A New Vector for Exploration?	358
<i>Poliana Vidal Salgado, Luiz G. S. Correia, Bruno A. A. C. Arruda, Rafael F. De Freitas, Samuel Boucas Do Lago</i>	
Influence of Mafic Units on the Mineralising System Around the Redmoor Project, Cornwall	359
<i>Georgina C. Woodward</i>	
Texture, Trace Elements, and Sulfur Isotopes of Pyrite from the Zhao'an Zhuang Iron Deposit, Southern Margin of North China Craton: Implications for Ore Genesis	360
<i>Hengfeng Zhang, Hao Hu, Jianwei Li</i>	

SPEED TALKS 1

Unlocking Gold Potential: Remote Sensing Insights and Applied Analysis of the Qena-Safaga Area in Egypt's Eastern Desert.....	361
<i>Mohamed Badawi</i>	
Reuse of Granite Quarry Waste for REEs Recovery Along the Industrial Production Chain: Results from Preconcentration Tests	362
<i>Silvia Gioiello, Licia Santoro, Alberto Cazzaniga</i>	
Chemical Composition of Garnets and the Relation to Mineralizing Fluids in the Tucano Gold Deposit, Amapá State, Brazil.....	363
<i>Deniro F. Gonçalves Costa, Gabriel A. Rodrigues Soares, Rosaline C. Figueiredo E Silva, Mahyra F. Tedeschi, Steffen G. Hagemann</i>	

Mapping Cryptic Telescoping Events in Porphyry-Epithermal Systems Through Integrated Microtextural-Chemical Pyrite Analysis at the Bonanza-Type Brucejack Au-Ag Deposit	364
<i>Duncan F. McLeish, Anthony E. Williams-Jones, James R. Clark</i>	

Satellite-Based Mapping for Lithium Pegmatite Mineral Exploration in Namibia: A Criteria-Based Approach	365
<i>Olivia Rhind, Christopher Lambert, Alfie Baines, Mark Broadley</i>	

SPEED TALKS 2

The Mineralogy of PGE in the Deep Critical Zone at Sandsloot, Northern Bushveld Complex, South Africa: PPGE Reef Underlain by an IPGE + Rh-Rich Base Metal Zone	366
<i>Kate Canham, David Holwell, Iain McDonald, Hannah Hughes, Katie McFall, Andy Lloyd, Erin Thompson, Kofi Acheampong, Lara Du Preez, Matthew Loader</i>	

Partitioning and Mobility of Deleterious Elements from Sulphide Oxidation in the Historical Gold Mine Tailings.....	367
<i>Steve J. Chingwaru, Bjorn Von Der Heyden, Margreth Tadie</i>	

United Nations Resource Management Systems as a Guide for Sustainable Resource Management: Case Example from Copperbelt Province, Zambia	368
<i>Michael M. Musialike, Eva Marquis, Gabriel Ziwa, Mubanga Mutale, Karen Hudson-Edwards, Frances Wall</i>	

A Supergene-Hydrothermal Origin of the BIF-Hosted High-Grade Iron Ores in the Mbarga Prospect, Mbalam Iron Ore District, Southern Cameroon, Congo Craton	369
<i>George L. Ngiamte, Eleanor Green, Olugbenga A. Okunlola, Roland Maas, Alan Greig, Cheo E. Suh</i>	

Resilience and Governance in Artisanal Gold Mining: Addressing Challenges and Opportunities in Western Kenya.....	370
<i>Christine A. Omuombo, Joy A. Owidhi</i>	

SPEED TALKS 3

The Control of Biotite on the Lithium, Fluorine and REE Budget of Crustal Silicate Magmas	371
<i>Charles D. Beard, Vincent J. Van Hinsberg, John Stix, Madeleine C. Humphreys, Owen M. Weller</i>	

Future Lithium Supply: Towards a Robust Quantitative Assessment.....	372
<i>Laura Buarque Andrade, Max Frenzel, Carolin Kresse, Britta Bookhagen, Michael Schmidt, Dirk Sandmann</i>	

Hydrothermal Rare Earth Element (REE)-Enrichment in an Iron-Oxide-Apatite (IOA) Type Deposit at Kwyjibo, Québec, Canada: A Fluid Inclusion and Stable Isotope Study.....	373
<i>Gary Fung, Anthony E. Williams-Jones</i>	

Mineral Chemistry, Fluid Inclusion, and Isotopic Characteristics of the Enargite Orebodies at Lepanto, Mankayan, Philippines	374
<i>Pearlyn Manalo, Ryohei Takahashi, Manuel Nopeia, Kalin Kouzmanov, Nigel Blamey, Andrea Agangi</i>	

Author Index