

Wednesday April 22nd

17.30-19.00 **Registration and drinks reception, with hot and cold canapés**
Accompanying guests welcome

Thursday April 23rd

08.00 Registration desk opens
Light breakfast, tea, coffee and fruit juice

09.00 Welcome to Mineral Processing Circuits '26
J. Wills (MEI, UK)

09.10 *Technical Session 1*
Chairpersons: TBA

09.10 **Keynote Lecture: A new paradigm for mineral processing circuits – what might underpin the philosophy?**
K.P. Galvin (University of Newcastle, Australia)

09.40 **Flowsheet design for the recovery of rare earth minerals from an iron-dolomite-carbonatite deposit**
M.C. Vila, M.L. Dinis, K. Amancio, A.C. Silva, A. Magane (University of Porto, Portugal), C. Bollet (École Nationale Supérieure de Géologie, France), E. Levei, I. Török (National Institute of Research and Development for Optoelectronics, Romania), N. Gajendra and L. Ferrando-Climent, Institute for Energy Technology, Norway)

10.00 **Comparing fine rare earth elements minerals recovery from complex tailings in mechanical flotation and Reflux Flotation Cells: reagents and pulp chemistry**
P.C.O. Adu, W. Skinner, G.B. Abaka-Wood (University of South Australia, Australia), M. Zanin (University of South Australia and MZ Minerals, Australia) and L. Morrissey (University of Adelaide, Australia)

10.20 Coffee and exhibition

11.20 **Options for disposal of the naturally radioactive processing residues of a rare earths project**
H.G. Jung and P. Booth (GeoEnergy Consult, Germany)

11.40 **Improving lithium concentration through sequential magnetic and dense media separation**
J. Figueiredo (Federal University of Ouro Preto, Brazil, and University of Porto, Portugal), H. Pereira, L. Silva, F.L. Martins, É. Linhares, J.A.M. da Luz (Federal University of Ouro Preto, Brazil), M. C. Vila (University of Porto, Portugal) and L. Pereira (Helmholtz Institute Freiberg for Resource Technology, Germany)

- 12.00 **Influence of microwave pre-treatment on particle breakage and comminution efficiency of mineral ores**
T. Amos-Judge, R. Asamoah (University of South Australia, Australia and University College London, UK) and R.Wu (University College London, UK)
- 12.20 **Evaluation of SAG mill model parameters to understand the effect of ball load level**
S. Nkwanyana, N. Lameck (Mintek, South Africa), T. Moodley and I. Govender (Mintek and University of KwaZulu-Natal, South Africa)
- 12.40 **An energy-efficient alternative comminution and beneficiation circuit for the Kanyika niobium project**
R. Zietsman (Globe Metals & Mining, Australia)
- 13.00 Lunch
- 14.00 Technical Session 2
Chairpersons: TBA
- 14.00 **Gravity–magnetic integration and selective regrinding for pyrochlore recovery at Kanyika**
R. Zietsman (Globe Metals & Mining, Australia)
- 14.20 **Phenomenological and population balance approaches for scaling SAG milling kinetics from pilot to industrial applications**
P. Pichinao (Anglo American, Chile)
- 14.40 **The carbon footprint of cast grinding media**
D. Hodges and P. Shelley (Molycop Global, USA)
- 15.00 **The versatility of HPGR in mineral processing and cement production circuits**
A. Hubert, H. Günter, F. Heinicke and A. Thamm (Köppern Aufbereitungstechnik GmbH & Co., Germany)
- 15.20 **Investigating the performance of different comminution strategies in early gangue minerals rejection**
G.B. Abaka-Wood, M. Drechsler, N. Giang and W. Skinner (University of South Australia, Australia)
- 15.40 **Development and calibration of a phenomenological throughput model for the Quellaveco concentrator**
P. Pichinao and S. Urrejola (Anglo American, Chile)

16.00 Repurposing an existing stirred mill to improve PGM recovery in UG2 flotation circuits

T.L. Moodley, S. Nkwanyana (Mintek and University of KwaZulu-Natal, South Africa), I. Govender (Mintek, University of KwaZulu-Natal and University of Cape Town, South Africa), S. Pikinini, V. Govender, O. Mapazi, J. Sehata, N. Ntsasa, H. Mabowa, J. Tshilongo (Mintek, South Africa) and S. Zulu (Siyanda Bakgatla Platinum Mine (Pty) Ltd, South Africa)

16.20 Coffee

18.30 Coaches depart to Wild Fig Restaurant for conference dinner

Friday April 24th

08.15 Registration desk opens

Light breakfast, tea, coffee and fruit juice

09.00 Technical Session 3

Chairpersons TBA

09.00 Cyclone column separator based fine coal preparation process and carbon-ash separation process for coal gasification slag

H. Yang, L. Dong, M. Fan and W. Bao (Taiyuan University of Technology, China)

09.20 Development of a transparent and modular model library for integrated process simulation

T. Louw, C. Kriel (Stellenbosch University, South Africa) and L. Auret (Stellenbosch University and Stone Three, South Africa)

09.40 A new flotation simulation approach using model optimization

A. Huraira and J. Suhonen (Metso Finland Oy, Finland)

10.00 Real-time optimization of flotation circuits using machine learning and sensor data fusion

R.R. Mahomane (University of KwaZulu-Natal and South African Nuclear Energy Corporation, South Africa)

10.20 Coffee

11.10 Advances in HydroFloat™ technology: from coarse particle recovery to finer feed applications in modern mineral processing circuits

R.A. Dadzie, W. Skinner, J. Addai-Mensah, R. Asamoah, G.B. Abaka-Wood (University of South Australia, Australia) and M. Zanin (University of South Australia and MZ Minerals, Australia)

- 11.30 **Integration of ultrafine flotation within an MF2 circuit: optimizing copper recovery and energy efficiency at the Copperwood Project**
A. Ojaghi, D. Frost (DRA Globa, Canada), W. Van Dyk (Highland Copper, USA) and L. Lintvelt (DRA Global, South Africa)
- 11.50 **Optimization approach for the quartz industry by using sands from Ravno, Slovenia**
K. Mohanty, J. Oliva, P. Alfonso, C.H. Sampaio, H. Anticoi, G. Dan, J. Perea (Universitat Politècnica de Catalunya, Spain) and B. Damjanovič (EKW-Kremen d.o.o., Slovenia)
- 12.10 **Assessment of an eco-friendly bio-collector derived from Moroccan biomass waste for the direct flotation of low-grade phosphate ore**
H. Hilmi, A. Abidi, K. El Amari, A. Yaacoubi and A. Baçaoui (Cadi Ayyad University, Morocco)
- 12.30 **Linking flotation pulp chemistry with mill feed mineralogical characteristics**
B. Amankwaa-Kyeremeh, W. Skinner, R. Asamoah (University of South Australia, Australia) and C. Greet (University of South Australia and Magotteaux, Australia)
- 12.50 Lunch
- 14.00 *Technical Session 4*
Chairpersons : TBA
- 14.00 **Identifying key attributes driving the environmental performance of aggregates production**
V. Gowda, C. Lee, K. Bhadani, G. Asbjörnsson, M. Evertsson (Chalmers University of Technology, Sweden), P.R. Martinez (ANEFA and Universidad Politécnica de Madrid, Spain) and C.L. Frades (ANEFA, Spain)
- 14.20 **Mineral processing circuits for mine waste valorization: towards sustainable phosphate resources**
M. Haidouri, Y. Ait-Khouia, A. Elghali, M. Benzaazoua and Y. Taha (Mohammed VI Polytechnic University, Morocco)
- 14.40 **Integrating fluidised-bed flotation and magnetic separation for coarse sulphide tailings reprocessing**
Z. Rezaee, R.A. Dadzie, W. Skinner and G. Abaka-Wood (University of South Australia, Australia)
- 15.00 **Smart online process adaptation for complex refractory gold ore processing**
R.K. Asamoah (University of South Australia, Australia)
- 15.20 **The economic recovery of metal values from flotation tailings through magnetite and ammonium sulphate co-production in a zero-waste framework**
P. Miller (BacTech Environmental Corp., Canada), E. Ngoma, Z. Diloireto, E. Pakostova and N. Mykytczuk (MIRARCO, Canada)

15.40 Hydrometallurgical extraction of nickel laterites through resin in moist mix integration into pressure acid leach CCD Circuits

G. Acquah, G. Abaka-Wood, W. Skinner, J. Addai-Mensah, R. Asamoah (University of South Australia, Australia), P. Spiridonov (University of South Australia and InnovEco, Australia), A. Sheik and K. Sanjay (University of South Australia and CSIR, India)

16.00 Conference closure and invitation to Mineral Processing Circuits '28

A.J. Wills (MEI, UK)

16.10 Farewell sundowner in hotel gardens

Accompanying guests welcome