

Sunday 15th November

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

Monday 16th November

- 08.00 Registration desk opens
Light breakfast, tea, coffee and fruit juice
- 09.00 Welcome to Process Mineralogy '26
J. Wills (MEI, UK)
- 09.10 *Technical Session 1*
Chairpersons: TBA
- 09.10 **Keynote Lecture: Process mineralogy for critical metals in mineral processing and extractive metallurgy**
T. Grammatikopoulos (SGS Natural Resources, Canada)
- 09.40 **Mineralogical constraints on critical elements recovery from Moroccan carbonatites and implications for processing strategies**
L. Sellami, Y.A. Khouia, M. Benzaazoua, Y. Taha (Mohammed VI Polytechnic University, Morocco) and L. Filippov (Université de Lorraine, France)
- 10.00 **Multidisciplinary characterization of critical European lithium ores**
J. Liipo, S. Malmi (Metso Research Center, Finland), S. Delchini, K. Bru, H. Pillière, N. Maubec and F. Bodenan (BRGM, France)
- 10.20 Coffee and exhibition
- 11.20 **Hyperspectral mapping of lithium-bearing micas in Cornish granites using Al-OH spectral shifts and multivariate analysis**
L. Babedi, R. Fitzpatrick, R. Shail (Camborne School of Mines, UK) and J. Strongman (Petrolab Ltd, UK)
- 11.40 **Flowsheet development and selective flotation of lithium minerals from the Moose II pegmatite, Canada**
E.M. Murhula, L. Mwenee, C. Gibson (Queen's University, Canada), G.L. Dzemua (NWT Geological Survey, Canada), W. Wang (University of Texas, USA) and T. Grammatikopoulos (SGS Natural Resources, Canada)

- 12.00 **Lithium (Li) mineral characterization of drill cores from the Alijo Project, Portugal**
A. Menzies (Bruker Nano Analytics GmbH, Germany), C. de Siqueira Assumpção (AMG Brasil, Brazil), F.S. Gonçalves (AMG Portugal, Portugal) and M. Venter (AMG Lithium GmbH, Germany)
- 12.20 **In- situ time-gated Raman monitoring of spodumene calcination in a rotary furnace**
J. Havisto, A. Pasanen, H. Lindström, N. Spegazzini, A. Mäyrä, H. Vasama, J. Tenhunen, M. Paavola and K. Rahkamaa-Tolonen (VTT Technical Research Centre of Finland Ltd, Finland)
- 12.40 Lunch
- 14.00 *Technical Session 2*
Chairpersons: TBA
- 14.00 **Maintaining the gold standard in platinum jewellery**
K. Youlton (SGS, South Africa)
- 14.20 **Mineralogical analysis and metallurgical testwork on gold ores from the Frotet Project**
I. Naoki (Sumitomo Metal Mining Co. Ltd, Japan)
- 14.40 **Gold occurrence and its effect on grinding and gravity recovery at AngloGold Ashanti Siguiri Mine, Guinea**
F.B. Diallo (Anglo Gold Ashanti Siguiri, Republic of Guinea), S. Burness, A.N. Mainza and M. Becker (University of Cape Town, South Africa)
- 15.00 **From the smallest (Rum) to the largest (Bushveld) layered intrusions and their PGM's: implications for exploration and geometallurgy**
A.R. Butcher (ButcherGeologica, UK) and A.H. Menzies (Bruker Nano Analytics GmbH, Germany)
- 15.20 **Mine-plan-informed CMC depressant blend selection using XRD and microflotation of Western Bushveld PGM lithological domains**
N.J. Shackleton, V. Malysiak, O. Muswadzi and R. Madiba (AECI Mining Chemicals, South Africa)
- 15.40 **Petrogenesis and mineralogical variability within the UG1 chromitite horizons at Bokoni Platinum Mines: beneficiation and implications**
B. Masetlha, B. Von der Heyden and M. Tadie (Stellenbosch University, South Africa)
- 16.00 Sundowner in hotel gardens
Accompanying guests welcome

Tuesday 17th November

- 08.15 Registration desk opens
Light breakfast, tea, coffee and fruit juice
- 09.10 *Technical Session 3*
Chairpersons: TBA
- 09.10 **Keynote Lecture: Advancing process understanding through particle-based separation modelling**
L. Pereira (Helmholtz Institute Freiberg for Resource Technology, Germany)
- 09.40 **Coal fly ash as a secondary source of rare earth elements: mineralogical characterisation, speciation, and alkali roasting pretreatment**
N. Baloyi and Z. Baloyi (University of Johannesburg, South Africa)
- 10.00 **Apatite as the primary REE host in the Hecla-Kilmer IOCG Deposit: implications for simplified processing in western rare earth development**
T. Grammatikopoulos (SGS Canada Inc., Canada), R. Glazier and J. Galenzoski (NeoTech Metals Corp, Canada)
- 10.20 **Exploration and characterization of pegmatite's rocks as a source of polymetallic minerals, Eastern Desert, Egypt**
M.S. Bader (Central Metallurgical R & D Institute, Egypt)
- 10.40 Coffee
- 11.20 **OreCraft: a geometallurgical strategy game for teaching process mineralogy under uncertainty**
M. Parian(Luleå University of Technology, Sweden)
- 11.40 **Normalization of recovery and yield of geometallurgical concentration tests**
C. Schneider (CETEM, Brazil), F. Gontijo, Á. Leães and J.F.C.L. Costa (Federal University of Rio Grande do Sul, Brazil)
- 12.00 **Geometallurgy of manganese fines valorisation, a contribution of combined automated mineralogy and magnetic separation tests applied to the manganese sands at Comilog, Gabon**
T. Riegler and S. Munnier(Eramet Ideas, France)
- 12.20 **Development of a geometallurgical framework for predicting ore hardness from geochemistry and mineralogy in a mineral sands deposit**
S. Mgoduka, A. van der Westhuizen, M. Becker (University of Cape Town, South Africa) and C. Philander (Tronox Mineral Sands, South Africa)
- 12.40 Lunch

14.00 *Technical Session 4*

Chairpersons: TBA

14.00 **Mineralogical domaining as a geometallurgical tool in process plant design: a case study from the Zambian Copperbelt**

M. Kalichini, R. Ismail (KoBold Metals, Zambia) and D. Solanki (KoBold Metals Company, USA)

14.20 **From exploration archives to the plant: a fully autonomous automated mineralogy workflow and its transfer to process mineralogy**

J.P. Knapp (Hitachi High-Tech Americas Inc., USA), M. Enter (Vidence Inc. Canada) and L. Hunt (Saskatchewan Research Council, Canada)

14.40 **From rough surfaces to reliable data: advancing SEM mineralogy workflows for complex samples**

M. Hiscock and H. Jiang (Oxford Instruments Materials Analysis, UK)

15.00 **Vanadium deportment in the Middle Ore Layer (MOL) of the Mustavaara Fe–Ti–V deposit, Northern Finland: implications for beneficiation**

M. Markkanen (University of Turku and Geological Survey of Finland, Finland), T. Chernet, T. Karinen, E.M. Jolis (Geological Survey of Finland), R.M. Michallik (Geological Survey of Finland and University of Western Australia) and E. Heilimo (University of Turku, Finland)

15.20 **A multi-scale and multi-instrument approach to understanding the deportment of Co, Bi and Ag in the Swartberg polymetallic sulphide ore**

A. Mulelu, M. Becker (University of Cape Town, South Africa), S. Burness, T. Molaolwe-Dipitso (Black Mountain Mine, South Africa), W. Price (Vedanta Zinc International, South Africa) and A. Menzies (Bruker Nano Analytics GmbH, Germany)

15.40 **Probabilistic VNIR hyperspectral mapping of spatial galena variability in heterogeneous lead-bearing rocks**

N. Jafari (University of Tehran, Iran)

16.00 Coffee

17.45 Coaches leave for conference dinner at Kirstenbosch Botanical Gardens

Wednesday 18th November

- 08.15 Registration desk opens
Light breakfast, tea, coffee and fruit juice
- 09.10 *Technical Session 5*
Chairpersons: TBA
- 09.20 **Coupling 2D and 3D mineralogical methods to assess uranium in-situ recovery feasibility in naturally fractured reservoirs**
M. Herbelin, S. Hocquet (Orano Mining, France), O. Mangane and P. Creux (CNRS/TOTAL/UNIV PAU & PAYS ADOUR/ E2S UPPA, France)
- 09.40 **Continuous high-resolution multi-elemental mapping of sedimentary phosphorite drill cores: leveraging infrared hyperspectral imaging and joint XRF–LIBS–ICP–OES data**
M. Mazigh, O. Raji, M. Benzaazoua (University Mohammed VI Polytechnic, Morocco), A. Lima, A.C. Teodoro (Universidade do Porto, Portugal) and D. Guimarães (INESC TEC, Portugal)
- 10.00 **Integrated hyperspectral, VNIR–SWIR and XRF analysis for alteration and mineralogical characterisation in a porphyry Cu–Mo system, British Columbia, Canada**
M. Ntantiso, G. B. Motloba, B. von der Heyden, M. Tadie (Stellenbosch University, South Africa) and V. Moyo (African Rainbow Minerals Ltd, South Africa)
- 10.20 **Toward library-free mineral identification from EDS spectra**
B.H. Aslan, G. Nitschke (University of Cape Town, South Africa), J. Knapp (Hitachi High-Tech America Inc., USA) and C.Ly (Bruker Nano Analytics, USA)
- 10.40 Coffee
- 11.20 **Development of μ XRF in process mineralogy**
C.V. Ly (Bruker BNA, USA) , K. Halse (Portable Spectral Services, Australia), R. Van Der Bank and G. Nitschke (University of Cape Town, South Africa)
- 11.40 **Coarse Particle Liberation Analysis by μ XRF**
R. Colville (Petrolab, Ltd, UK)
- 12.00 **Development of a textural characterization index for mineral liberation studies based on grain morphology and particle-scale relationships**
P. Escalante, J. Oliva, H. Anticoi and C.H. Sampaio (Universitat Politècnica de Catalunya, Spain)

- 12.20 **Machine learning for automated texture classification of Ni-Cu-PGE ores: a comparative study from Västerbotten, Sweden**
A.Z. Viana, N.K.S. Aragon C. Lund and M. Parian (Luleå University of Technology, Sweden)
- 12.40 **Applying quantitative process mineralogy data for optimization of both primary grinding and regrinding for the best flowsheet efficiency**
M. Hicks, T. Kravtsov and S. Malmi (Metso Research Center, Finland)
- 13.00 Lunch
- 14.00 *Technical Session 6*
Chairpersons: TBA
- 14.00 **A quantitative chromitite texture classification scheme for comminution behaviour prediction**
D. Chetty, A. Nke, D. Mashaba, J. Ngwane and S. Nkwanyana (Mintek, South Africa)
- 14.20 **Online mineralogy inference and impact on flotation performance: an industrial case study**
A.L. Haasbroek, W. Morgan, L. Auret (Stone Three, South Africa), P. Ndlovu and T. Nkogatse (Valterra Platinum, South Africa)
- 14.40 **Flowsheet optimization using mineral characterization and FLS coarseAIR™ flotation**
T. Bujnowski, K. Davis and J. Bowden (FLS, USA)
- 15.00 **Process mineralogical characterisation of historical tin mine wastes for recovery of In, Sn, Sb, W, and Bi**
S.J. Chingwaru, O. Mejías, R. Blannin, N. Fox and A. Parbhakar-Fox (The University of Queensland, Australia)
- 15.20 **A preliminary process mineralogical study for revalorisation of the Storgangen tailings, SW Norway**
B.S. Frantzen, B.E. Sørensen and K. Aasly (Norwegian University of Science and Technology, Norway)
- 15.40 **A synthesis of mineralogy and mechanical properties in the aggregates industry**
M. Safi and D. Lombard (Council for Geoscience, South Africa)
- 16.00 Closing remarks and invitation to Process Mineralogy '28
A.J. Wills (MEI, UK)
- 16.10 Farewell drinks in hotel gardens