

Nickel Processing '12



Tuesday 13th November

1630-1800 **Pre-registration and wine reception**
Accompanying guests welcome

Wednesday 14th November

- 08.00 **Registration desk opens**
Light breakfast of filled croissants, tea, coffee and fruit juice
- 09.10 **Opening Remarks**
B.A. Wills (MEI, UK)
- 09.15 *Technical Session 1*
Chairmen: R.T. Jones (Mintek, South Africa) and T. Robinson (Teck, Canada)
- 09.15 **Keynote Lecture: Hydro-pyro integration in the processing of nickel laterites**
A. Oxley (Alyssum Ventures Ltd, UK) and N. Barcza (Metallurgical Engineering Consultant, South Africa)
- 10.00 **Direct extraction of nickel and iron from laterite ore using Carbonyl Process**
D.S. Terekhov and N.V. Emmanuel (CVMR® Corporation, Canada)
- 10.30 Coffee
- 11.30 **Thermodynamic analysis of the Fe-Ni-Co-Mg-Si-O-H-S-C-Cl system for selective sulphidation of a limonitic laterite ore**
C.A. Pickles, C.T. Harris and J.G. Peacey (Queen's University, Canada)
- 12.00 **The selective sulphidation and physical upgrading of nickel from a nickeliferous lateritic ore**
C.T. Harris, J.G. Peacey and C.A. Pickles (Queen's University, Canada)
- 12.30 Lunch
- 14.00 *Technical Session 2*
Chairman: E.L. Thyse (University of Stellenbosch, South Africa)
- 14.00 **Changes in an Australian laterite ore during heat treatment**
J. Yang, O. Ostrovsk (University of New South Wales, Australia) and G. Zhang (University of Wollongong, Australia)
- 14.30 **A study of atmospheric acid leaching of a South African nickel laterite**
C.K. Thubakgale, R.K.K. Mbaya (Tshwane University of Technology, South Africa) and K. Kabongo (Bohlaba Mines Ltd, South Africa)
- 15.00 **Recovery of nickel and cobalt from laterite leach tailings through resin-in-pulp scavenging and selective ammoniacal elution**
P. Littlejohn and J. Vaughan (The University of Queensland, Australia)
- 15.30 **Examining Ni-laterite ambient leach mineralogy – a holistic multi-scale approach**
H.M.A. Hunter, R.J. Herrington (Natural History Museum, UK), and E.A. Oxley (Alyssum Ventures, UK)
- 16.00 Coffee

Thursday 15th November

- 08.30 Light breakfast of filled croissants, tea, coffee and fruit juice
- 09.15 *Technical Session 3*
Chairmen: R.K.K. Mbaya (Tshwane University of Technology, South Africa) and I. Duhamed-Achin, Eramet Research, France
- 09.15 **The effect of using sodium di-methyl-dithiocarbamate (di-C₁-DTC) as co-collector with xanthates in the froth flotation of pentlandite ore**
W.A. Ngobeni, G. Hangone and D. Ikhu-Omoregbe (Cape Peninsula University of Technology, South Africa)
- 09.45 **The influence of mineralogy and ore texture on mineral liberation and flotation at the Nkomati Nickel Mine, South Africa**
G. Mishra, F. Viljoen and H. Mouri (University of Johannesburg, South Africa)
- 10.15 **Flotation of PGM-containing nickel minerals: modelling, simulation and plant-wide regression analysis**
N. du Preez and F. Crundwell (CM-Solutions, South Africa)
- 10.45 Coffee
- 11.30 **The development of novel nickel selective amine extractants**
A.I. Okewole, N.P. Magwa, P. Moleko and Z.R. Tshentu (Rhodes University, South Africa)
- 12.00 **Nickel diagnostic leaching**
N.M. Chapman, W. Van Bronswijk (Curtin University, Australia) and H. Watling (CSIRO Minerals Down Under Flagship, Australia)
- 12.30 **Atmospheric leaching of copper-nickel matte: modelling, simulation and plant-wide regression analysis**
J. Lloyd, F. Crundwell (CM Solutions (Pty) Ltd, South Africa) and N. Steenekamp (Lonmin Platinum, South Africa)
- 13.00 Lunch
- 14.00 *Technical Session 4*
Chairman: Z.R. Tshentu (Rhodes University, South Africa)
- 14.00 **Selective reductive leaching of an oxidised cobalt-containing residue**
S. Chong, W. Hawker and J. Vaughan (University of Queensland, Australia)
- 14.30 **Towards understanding nickel converter matte solidification**
E.L. Thyse, G. Akdogan (University of Stellenbosch, South Africa), P. Taskinen (Aalto University, Finland) and J.J. Eksteen (Curtin University, Australia)
- 15.00 **TGA kinetic study on the H₂ reduction of an iron nickel oxide**
Dawei Yu, Mingqian Zhu, T.A. Utigard and M. Barati (University of Toronto, Canada)
- 15.30 Closing Remarks
A.J. Wills (MEI, UK)
- 15.40 Coffee and Wine
Accompanying guests welcome