Precious Metals ‘12

Sunday 11th November

16.30-18.00 Pre-registration and wine reception
   Accompanying guests welcome

Monday 12th November

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

09.00 Opening Remarks
   J. Wills (MEI, UK) and M. Adams (Mutis Liber Pty Ltd, Australia)

09.15 Technical Session 1
   Chairmen: J.P. Vaughan (Curtin University, Australia) and A. Amankwah (University of Witwatersrand, South Africa)

09.15 Keynote Lecture: Metallurgical challenges facing the gold mining industry
   R. Dunne (Newmont Mining Corporation, USA)

09.55 Development of a laboratory test to characterize the behaviour of free gold for use in a combined flash flotation and gravity concentrator model
   T.H. McGrath and W. Staunton (Parker Cooperative Research Centre for Integrated Hydrometallurgy Solutions, Curtin University, Australia)

10.15 Demonstration of the CESL gold process
   T. Robinson, F. Lee, A. Heidel (CESL Limited, Teck, Canada)

10.35 Coffee

11.20 A method to determine the optimum cycle time for batch centrifugal concentrators
   J. Eksteen and A. Bax (Curtin University of Technology, Australia)

11.40 Process modelling of gold leaching-CIP for plant optimisation
   W.P. Staunton, G. Wardell-Johnson and A. Bax (Curtin University, Australia)

12.00 The precious metals we prefer to ignore
   J.S.J. van Deventer (University of Melbourne, South Africa)

12.20 Silver dynamics: an integrated system dynamics forecast model for silver
   M. Mrotzek, R. Baumgartner and T. Brudermann (University of Graz, Austria)

12.40 Lunch

14.00 Technical Session 2
   Chairman: L. Coetzee (Mintek, South Africa)

14.00 Preg-robbing of silicates
   S. Mohammadnejad, J.L. Provis and J.S.J. van Deventer (University of Melbourne, Australia)
14.20  **Cyanide consumption analysis**  

14.40  **Impact of recycling cyanide and its reaction products on upstream unit operations**  
M. Adams (Mutis Liber Pty Ltd, Australia)

15.00  **A comprehensive study of poly-sulfide gold ores cyanidation: toward a better development of efficient strategies to increase gold leaching**  
A. Azizi, C. Olsen, M. Ourriban and F. Larachi (COREM, Canada)

15.20  **The recovery of Au(I), Pt(II) and Pd(II) from low strength cyanide solutions, using ion exchange resins**  
E. Schoeman, S.M. Bradshaw, G. Akdogan, C. Dorfling, C.A. Snyders (University of Stellenbosch, South Africa), M.D. Turner Jones and J.J. Eksteen (Lonmin, South Africa)

15.40  **Alternative methods of leaching to conventional cyanidation method in gold mining industry**  
A. Sharafudinov, G. Demeuova, A. Tikhonov and G.K. Sugurbekova (Nazarbayev University, Kazakhstan)

16.00  **The role of arsenic in determining refractory behaviour in orogenic gold ores, Yilgarn Craton, Western Australia**  
J.P. Vaughan, S.L. Chryssoulis and D. Venter (Curtin University Australia)

16.20  Coffee

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**Tuesday 13th November**

08.15  Light breakfast of filled croissants, tea, coffee and fruit juice

09.00  **Technical Session 3**  
Chairmen: J.S.J. van Deventer (University of Melbourne, Australia) and M. Adams (Mutis Liber Pty Ltd, Australia)

09.00  **Keynote Lecture: Processing of South African platinum ores- response to squeeze**  
K. Liddell, Platmin Limited, South Africa

09.40  **Automatic size distribution estimation of platinum flotation froth using multistage adaptive thresholding and watershed**  
A. Amankwah (University of Witwatersrand, South Africa) and C. Aldrich (Curtin University, Australia)

10.00  **A complementary milling and flotation advanced process control system at a platinum concentrator**  
L. Coetzee, A. Naidoo and D. Phillpotts (Mintek, South Africa)

10.20  Coffee

11.00  **Modelling of an autoclave used for high pressure sulphuric acid/oxygen leaching of first stage leach residue**  
C. Dorfling, G. Akdogan, S.M. Bradshaw (University of Stellenbosch, South Africa) and J.J. Eksteen (Curtin University, Australia)

11.20  **The separation of rhodium and iridium using diquaternary ammonium-functionalized beads and nanofibers**  
A. Majavu, N. Torto and Z. Tshentu (Rhodes University, South Africa)
11.40 Adsorption and separation of platinum and palladium using amine functionalized styrene-based beads and nanofibers
O.E. Fayemi and Z. Tshentu (Rhodes University, South Africa)

12.00 Elution of precious and platinum group metal cyanides from strong base anion exchange resins
E. Schoeman, S.M. Bradshaw, G. Akdogan, C. Dorfling, C.A. Snyders (University of Stellenbosch, South Africa), M.D. Turner Jones and J.J. Eksteen (Lonmin, South Africa)

12.20 Pyrometallurgical upgrading of PGM-rich leach residues from the Western Platinum base metals refinery through roasting, smelting and alloy atomisation
G.A. Bezuidenhout (Lonmin, South Africa), J.J. Eksteen (Curtin University, Australia), G. Akdogan, S.M. Bradshaw (University of Stellenbosch, South Africa) and J.P.R. De Villiers (University of Pretoria, South Africa)

12.40 Conference summary and invitation to Precious Metals ’14
M. Adams (Mutis Liber Pty Ltd, Australia) and A.J. Wills (MEI, UK)

13.00 Lunch