

Chrome Colloquium 2017 –Final Programme

Day 1 – Monday 19 June 2017

07:00–08:00 **Registration opens and early morning refreshments**

08:00–08:05 **Safety briefing and emergency proceedings**

08:05–08:15 **Welcome and Opening of Conference**
M.W. Erwee, *Conference Chairperson*

08:15–08:30 **Opening Address**
C. Musingwini, *SAIMM President*

Session: 1

Session Chairperson: I.J. Geldenhuys

08:30–09:10 **Keynote: The past, present and future of smelting ferrochromium alloys**
N.A. Barcza and M. Freeman, *Metallurgical and Techno-economic Consultants, South Africa*

09:10–09:50 **Chrome ore over the past quarter- where to from here?**
L Smith, *Core Consultants*

09:50–10:15 **Factors to take into account when designing a furnace containment system for ferrochromium production**
J.D. Steenkamp, *Mintek, South Africa*

10:15–10:40 **Mid-Morning Refreshments**

Session: 2

Session Chairperson: Q.G. Reynolds

10:40–11:05 **Radiation-based models for arcs in ferrochromium furnaces**
B. Bowman, *Consultant, USA*

11:05–11:30 **Carburization of synthetic chromite solid solutions by Ar-CH₄-H₂ gas mixtures**
V. Canaguier*, I-H. Svenum[†], and L. Kolbeinsen*, **Norwegian University of Science and Technology, Norway, [†]SINTEF Materials and Chemistry, Norway*

11:30–11:55 **The importance of mineral characterization in chromite fines processing**
V. Govender, A.A. Corfield, D. Chetty, and W. Clark, *Mintek, South Africa*

11:55–12:20 **Chromium research at Sintef/NTNU in Norway, focus on energy consumption**
E. Ringdalen, *SINTEF Materials and Chemistry*

12:20–13:20 **Lunch**

Session: 3

Session Chairperson: R.H. Eric

13:20–14:00 **Keynote: Optimized selection of carbon reductants to include in pre-reduced (Premus) or oxidative sintered (Outotec) type chromite pellets**
P. Beukes, *North West, University, South Africa*

14:00 – 14:25 **Next-generation ferrochrome industry optimization with computational modelling**
N. Sweeten and J.H. Zietsman, *Ex-Mente, South Africa*

14:25–14:50 **Development of a method to assist in excavation of industrial-scale furnace tap-holes**
J.D. Steenkamp, *Mintek, South Africa*

14:50–15:15 **Automated control of chromite spiral concentrate grade**
A.M. Russell and D.N.C. Phillipotts, *Mintek, South Africa*

15:15–15:20 **Close Day 1**
M.W. Erwee, *Conference Chairperson*

15:20–15:40 **Network and Afternoon Refreshment**

Day 2 – Tuesday 20 June 2017

07:00–08:00 **Registration opens and early morning refreshments**

08:00–08:05 **Safety briefing and emergency proceedings**

08:05–08:15 **Welcome Address**
M.W. Erwee, *Conference Chairperson*

Session: 4

Session Chairperson: R.T. Jones

08:15–08:55 **Keynote:** Heinz Pariser

08:55–09:35 **Keynote: Why modelling, why natural gas, why chromium?**
R.H. Eric, *University of the Witwatersrand, South Africa*

09:35– 10:30 **Brunch with Peter Major Chrome Mining in South Africa. Who's making the money from it?**

Session: 5

Session Chairperson: M.W. Erwee

10:30–10:55 **Particle tracking analysis and modelling of fines gravity processes**
C. Bergmann, *Mintek, South Africa*

10:55–11:20 **Magnetic properties of chromite spinels from various reefs in the Bushveld Complex**
G. Marape, H. Thiele, S. Mathebula, and C. Bergmann, *Mintek, South Africa*

11:20–11:45 **Derivation of chromous capacities of chromium containing slags**
R.H. Eric *University of the Witwatersrand, South Africa*

11:45–12:10 **Modelling the plasma arc in electric furnaces: an illustrated primer**
Q.G. Reynolds, *Mintek*

12:10–12:20 **Conference Close and Afternoon Refreshments**

12:20–13:20 **Lunch**