Processes in magma chambers with implication to genesis of ore deposits

Leaders: Rais Latypov and Steve Barnes
Pre-symposium Workshop, 12th International Platinum Symposium, Yekaterinburg, Russia (9-10 August 2014) (2 days)

Preliminary program
(Each talk is 45 mins, 10 mins for discussion and 5 mins for changeover.)

9 August 2014 (Saturday) Morning
1. 8:00-9:00: "Platinum group elements – from the mantle to the crust’’ by Dr. Steve Barnes (CSIRO, Australia)
2. 9:00-10:00: "Structural controls on intrusion emplacement, filling of magma chambers and growth of plutonic bodies" by Prof. Alexander Cruden (Monash University, Australia)

10:00-10:30: coffee break
3. 10:30-11:30: "An introduction to magma physics: physical constraints on magma flow and magmatic ore formation" by Dr. Jess Robertson (CSIRO, Australia)
4. 11:30-12:30: "Phase equilibria constraints and dynamics of magma differentiation in small to large magma chambers" by Prof. Alexey Ariskin (Vernadsky Institute, Russia)

12:30-13:30: lunch break

9 August 2014 (Saturday) Afternoon
5. 13:30-14:30: “Initial stage in the development of magma chambers” by Prof. Rais Latypov (Wits University, South Africa)
6. 14:30-15:30: "Intermediate stage in the development of magma chambers" by Dr. Olivier Namur (University of Cambridge, UK)

15:30-16:00: coffee break
7. 16:00-17:00: “Advanced stage in the development of magma chambers: the case for in situ crystallization” by Prof. Ian Campbell (Australian National University, Australia)
8. 17:00-18:00: “Final stage in the development of magma chambers” by Dr. Ilya Veksler (GFZ, Helmholtz Centre Potsdam, Germany)

10 August 2014 (Sunday) Morning
1. 8:00-9:00: “Ore forming processes in magmatic sulfides – lessons from komatiites and disseminated sulfide ores” by Dr. Steve Barnes (CSIRO, Australia)
2. 9:00-10:00: “Relative roles of in-situ crystallization, mechanical transport, and dynamic upgrading in the formation of komatiite-associated chromite deposits” by Prof. Michael Lesher (Laurentian University, Canada)

10:00:00-10:30: coffee break

3. 10:30-11:30: “Petrological constraints on the formation Ni-Cu-PGE sulphide ores of the Noril’sk intrusions” by Dr. Nadezhda Krivolutskaya (Vernadsky Institute, Russia)

4. 11:30-12:30: “The role of in situ crystallization in the origin of PGE deposits in layered intrusions: old and new insights from the Bushveld Complex” by Prof. Rais Latypov (Wits University, South Africa)

12:30-13:30: lunch break

10 August 2014 (Sunday) Afternoon

5. 13:30-14:30: “Structures in cumulates and the role of gravitational slumping in the origin of ore deposits in layered intrusions” by Prof. Wolf Maier (Cardiff University, UK)

6. 14:30-15:30: “New insights into the origin of magmatic Au-PGE mineralization in the Skaergaard intrusion, Greenland” by Prof. Reid Keays (Monash University, Australia)

15:30-16:00: coffee break

7. 16:00-16:30: “The role of As as a collector of PGE in magma chambers” by Prof. Hazel Prichard (Cardiff University, UK)

9. 16:30-17:30: “The role of magma differentiation and post-magmatic processes in origin of PGE-rich chromitites in the Ural-Alaskan-type mafic-ultramafic intrusions” Dr. Evgeny Pushkarev (Institute of Geology and Geochemistry, Russia)

10 August, 18:00 – Shuttles begin travelling from the Ural Federal University, (Lenin Avenue, 51) to “Family House” Café. Ice Break Party in the Uktus Ural-Alaskan-type massif.