

Thursday, August 8, 2013
IMPACTITES: FROM PROXIMAL TO DISTAL
1:30 p.m. Fraser Auditorium

A look at the properties and emplacement mechanism(s) of impactites, from proximal to distal.

Chairs: Livio Tornabene
Ludovic Ferrière

- 1:30 p.m. Grieve R. A. F. * Osinski G. R. Chanou A.
[*Onaping Formation, Ries Suevite and Melt-Fuel-Coolant-Interaction \(MFCI\) \[#3028\]*](#)
 The Sudbury Onaping Formation and the Ries suevite Ries have been postulated to form as the result of melt-fuel-coolant-interaction (MFCI), i.e., by the explosive interaction between impact melt and water. Both interpretations cannot be correct.
- 1:50 p.m. Vålja R. * Kirsimäe K. Boamah D. K. Somelar P.
[*Inverted Structure of Melt-rich Impact Breccias at Bosumtwi Crater: Implications to Mixing and Cooling History of Fallout Suevites \[#3033\]*](#)
 Fallout suevites at Bosumtwi Crater reveal gradual mineral and chemical changes that indicate mixing between suevites and underlying clastic breccia at the lower contact of suevite bed, and slow cooling of initially much thicker suevite blanket.
- 2:10 p.m. Salge T. * Goran D. Schulte P. Deutsch A.
[*The Distinct Behavior of Sedimentary Target Rocks During the Chicxulub Impact Event: Observations at Proximal and Distal Ejecta Deposits at K-Pg Sites El Guayal, La Lajilla, and Drill Cores UNAM-7 and ODP 207 \[#3101\]*](#)
 EDS/EBSD analysis indicate melting and dissociation of carbonates and sulfates. Reformation of calcite would cause a prolonged release of thermal energy that may have initiated a delayed vapor release. It could force the gas driven ejecta transport.
- 2:30 p.m. *Coffee Break*
- 2:50 p.m. Davatzes A. E. K. * Enos M.
[*Spherule size Distribution and Lithology in the Dales Gorge Spherule Bed \[#3050\]*](#)
 Size distribution of spherules in the Dales Gorge spherule layer and comparison to other Archean spherule beds.
- 3:05 p.m. Giuli G. * Cicconi M. R. Trapananti A. Eeckhout S. G. Pratesi G. Paris E. Koeberl C.
[*Iron Redox Variations in Australasian Muong Nong-Type Tektites \[#3084\]*](#)
 The Fe oxidation state along few profile across dark/light layers of two Australasian Muong Nong tektite sample have been studied by Fe K-edge XANES. The dark layer results to be slightly but reproducibly more oxidized respect to the light layers.
- 3:25 p.m. Ebert M. * Hecht L. Deutsch A. Kenkmann T.
[*Element Partitioning Processes between Iron-Rich Projectiles and Silica-Rich Targets in Hypervelocity Impact Experiments \[#3044\]*](#)
 This study addresses fundamental topics in impact cratering: 1) projectile partitioning into ejecta material, 2) element-fractionation processes during projectile-target interaction.

- 3:45 p.m. Wright S. P. *
[*Decompression Cracks in Altered Basalt Under Solid-State Shock Pressures: A New Macroscopic Shock Texture*](#) [#3049]
In Class 2 (~20–40 GPa) shocked basalts, which are solid-state (no melting), decompression cracks form in altered protoliths at Lonar Crater, India. This feature can be used to identify impact melt-bearing breccia and altered protoliths.
- 4:05 p.m. Huber M. S. * Plado J. Ferrière L.
[*Oldest Impact Structures on Earth — The Case Study of the Suavjärvi Structure \(Russia\)*](#) [#3073]
Suavjärvi (Russia) is considered to be the oldest confirmed impact structure on Earth. However, our recent field expedition and observations do not support the conclusion that the Suavjärvi structure was generated by a hypervelocity impact.