

Wednesday, March 14, 2007

**IMPACT CRATERING FROM OBSERVATIONS AND INTERPRETATIONS**

**8:30 a.m. Amphitheater**

**Chairs: S. P. Wright  
C. Koeberl**

- 8:30 a.m. Harris R. S. \* Schultz P. H. Zárate M. A.  
*La Dulce Crater: Evidence for a 2.8 km Impact Structure in the Eastern Pampas of Argentina* [#2243]  
Fieldwork and petrographic analyses of rocks containing carbonate accretionary lapilli, shock-deformed minerals, and lechatelierite provide evidence that a 2.8 km structure near La Dulce, Argentina is a mid-Pleistocene impact crater.
- 8:45 a.m. Wright S. P. \* Vesconi M. A. Spagnuolo M. G. Cerutti C. Jacob R. W. Cassidy W. A.  
*Explosion Craters and Penetration Funnels in the Campo Del Cielo, Argentina Crater Field* [#2017]  
The Campo del Cielo crater field, containing four explosion craters and at least sixteen penetration funnels, is an ideal "natural laboratory" in which to study constraints on the impact process.
- 9:00 a.m. Osinski G. R. \* Haldemann A. F. C. Schwarcz H. P. Smith J. R. Kleindienst M. R. Kieniewicz J. Churcher C. S.  
*Impact Glass at the Dakhleh Oasis, Egypt: Evidence for a Cratering Event or Large Aerial Burst?* [#1346]  
Evidence for a meteorite impact has recently been confirmed near the Dakhleh Oasis, Egypt. No source crater has been found to date. Here, we discuss the merits of a cratering event versus a large aerial burst for the formation of these impact glasses.
- 9:15 a.m. Jöeleht A. \* Plado J. Tuuling I. Gaškov M. Rooni K. Tsyroulnikov A.  
*Rim Morphology of the Kärđla Crater Based on Reflection Seismic Investigations* [#1615]  
We present results of reflection seismic investigations of the Kärđla crater, Estonia, showing that the more collapsed segments of crater rim were subject to deeper erosion by the resurging sea.
- 9:30 a.m. Maloof A. C. \* Stewart S. T. Swanson-Hysell N. Louzada K. L. Garrick-Bethell I. Soule S. A. Weiss B. P.  
*Lunar Crater, India: An Analog for Martian Impact Craters* [#2316]  
Lunar Crater is an excellent site for studies of impact crater formation and deformation, shock magnetization, and fluidized ejecta.
- 9:45 a.m. Newsom H. E. \* Misra S. Nelson M. J.  
*Aqueous Alteration of the Proximal and Distal Ejecta Blanket at Lunar Crater, India* [#2056]  
Analysis of ejecta material from Lunar crater and older paleosol material suggests the occurrence of limited post-impact chemical transport due to aqueous alteration, probably enhanced due to the extensive comminution caused by the impact.
- 10:00 a.m. Kyte F. T. \* Omura C. Gersonde R. Kuhn G.  
*Initial Results from a Detailed Analysis of Eltanin Impact Spherules* [#2276]  
Spherules are a trace component in deposits of meteoritic ejecta from the Eltanin impact event (2.5 Ma). They are most concentrated in sediment cores known to contain abundant asteroidal meltrock and meteorites. We compare textures and compositions to other impact spherules.
- 10:15 a.m. Tsikalas F. \* Faleide J. I.  
*Post-Impact Structural Crater Modification Due to Sediment Loading: An Overlooked Process* [#1013]  
Post-impact crater structure modifications are examined in detail and quantified for several impact craters, contributing to a better understanding of the more-or-less overlooked post-impact operating processes and evolution due to sediment loading.

- 10:30 a.m. Artemieva N. \* Morgan J.  
*Distal Ejecta from the Chicxulub - Numerical Model* [#1543]  
We are interested in ejecta distribution from the Chicxulub crater, as previous studies of the K-P ejecta suggested an intriguing asymmetry which may be directly connected with impact obliquity and direction.
- 10:45 a.m. Goldin T. J. \* Melosh H. J.  
*Interactions Between Chicxulub Ejecta and the Atmosphere: The Deposition of the K/T Double Layer* [#2114]  
We present a model of the deposition of the K/T boundary layer, both at distal sites and closer sites where an anomalous double layer is observed. Extreme atmospheric perturbations have important implications for both ejecta sedimentation, as well as environmental effects of the Chicxulub impact.
- 11:00 a.m. Wittmann A. \* Kenkmann T. Hecht L. Stöffler D.  
*Reconstruction of the Chicxulub Ejecta Plume's Depositional History at Drill Core Yaxcopoil-1* [#1705]  
Formation conditions of suevite-like impactites from a drill core in the Chicxulub crater were reconstructed by petrological and image analytical methods. This spans the temporal evolution of the cratering process from the initial stage of excavation to the collapse of the ejecta plume.
- 11:15 a.m. Reimold W. U. \* Koeberl C. Coney L. Ferriere L. Gibson R. L.  
*Results of Recent Petrographic and Geochemical Studies of the ICDP Drill Cores from the Interior of the Bosumtwi Impact Structure, Ghana* [#1137]  
Based on the petrographic and geochemical results on ICDP drill cores from the interior of the Bosumtwi impact structure, a number of impact cratering related problematics are examined.
- 11:30 a.m. Koeberl C. \* Reimold W. U. Gohn G. S. Miller K. G.  
*The 2005/2006 ICDP-USGS Deep Drilling Project near the Center of the Chesapeake Bay Impact Structure, Virginia, USA: A 2007 Update* [#1206]  
Two deep coreholes to a composite depth of almost 1.8 km were drilled by ICDP and USGS into the Chesapeake Bay impact structure during September-December 2005. Post-impact sediments were cored to a depth of 140 m in a third corehole during April and May 2006.