

Tuesday, March 21, 2017
**SPECIAL SESSION: IODP-ICDP EXPEDITION 364
 TO THE CHICXULUB IMPACT CRATER**
8:30 a.m. Waterway Ballroom 6

[T204]

**Chairs: David Kring
 Gail Christeson**

- 8:30 a.m. Morgan J. V. * Gulick S. P. S. Expedition 364 Scientists
[IODP-ICDP Expedition 364: Drilling the Peak Ring of the Chicxulub Impact Structure](#) [#1291]
 Introduction to IODP-ICDP Expedition 364: Expedition objectives, location of the drill hole, description of the recovered core, and preliminary analyses.
- 8:45 a.m. Gulick S. P. S. * Morgan J. V. Christeson G. L. Hall B. Rae A. et al.
[Cretaceous-Paleogene Boundary Deposit Within the Chicxulub Impact Structure: Results from IODP-ICDP Expedition 364](#) [#1354]
 Preliminary results of X-ray CT images of IODP core sampled from the Chicxulub impact crater in 2016 with focus on the upper peak ring and K-Pg boundary.
- 9:00 a.m. Collins G. S. * Patel N. Rae A. S. P. Davison T. M. Morgan J. V. et al.
[Numerical Simulations of Chicxulub Crater Formation by Oblique Impact](#) [#1832]
 For dino killer / What was impact direction? / Models say straight down!
- 9:15 a.m. Claeys Ph. Goderis S. * de Winter N. J. Wittmann A. Whalen M. et al.
[The K/Pg Transition on the Peak-Ring of the Chicxulub Impact Structure in Core M0077 of IODP-ICDP Expedition 364](#) [#1520]
 This abstract describes the K/Pg interval sampled by IODP-ICDP core drilled in the Chicxulub Crater, Yucatán.
- 9:30 a.m. Wittmann A. * Claeys P. F. Chenot E. Coolen M. J. L. Ocampo-Torres R. et al.
[Preliminary Chemical Data for IODP-ICDP Expedition 364 Drill Cores of the Chicxulub Impact Structure's Peak Ring](#) [#2075]
 IODP-ICDP recovered a continuous section of impact rocks from Chicxulub's peak ring that includes a continuous siderophile element enriched K-Pg section.
- 9:45 a.m. Christeson G. L. * Gebhardt C. Gulick S. P. S. Le Ber E. Lofi J. et al.
[Physical Properties of the Chicxulub Impact Breccia Drilled at IODP/ICDP Expedition 364 Hole M0077A](#) [#1444]
 We observe a large change in physical properties across the upper and lower boundaries of the suevite unit drilled at the Chicxulub impact crater peak ring.
- 10:00 a.m. Urrutia-Fucugauchi J. * Perez-Cruz L. Rebolledo-Vieyra M. Tikoo S. Zylberman W. et al.
[Rock Magnetic Properties of IODP/ICDP Expedition 364 Site M0077 Core, Chicxulub Crater — Preliminary Results](#) [#1682]
 We present results of a rock magnetic study of the post-impact carbonates, impactites, and basement units drilled in the Chicxulub Crater peak ring.
- 10:15 a.m. Xiao L. * Zhao J. W. Liu H. S. Xiao Z. Y. Morgan J. et al.
[Ages and Geochemistry of the Basement Granites of the Chicxulub Impact Crater: Implications for Peak Ring Formation](#) [#1311]
 We report the new ages (320–340 Ma) of the basement granites of the Chicxulub Crater in the Yucatan block and discuss its tectonic implications.

- 10:30 a.m. Poelchau M. H. * Riller U. Rae A. S. P. Lofi J. Gulick S. et al.
[Structural Deformation in the Peak Ring of the Chicxulub Impact Crater – First Results from IODP-ICDP Expedition 364](#) [#1924]
Successive stages of brittle deformation are visible in peak ring granitoids, i.e., cataclasis, shearing, melt emplacement. Folding/rotation was not observed.
- 10:45 a.m. Ferrière L. * Rae A. S. P. Poelchau M. Koeberl C. IODP-ICDP Expedition 364 Science Party
[Macro- and Microscopic Evidence of Impact Metamorphism in Rocks from the Chicxulub Peak Ring IODP-ICDP Expedition 364 Drill Core](#) [#1600]
Impact metamorphism features in rocks from the Chicxulub peak ring, including impact melt rocks, shatter cones, and various shock minerals will be discussed.
- 11:00 a.m. Kring D. A. * Schmieder M. Shaulis B. J. Riller U. Cockell C. et al.
[Probing the Impact-Generated Hydrothermal System in the Peak Ring of the Chicxulub Crater and Its Potential as a Habitat](#) [#1212]
The Chicxulub Crater peak ring hosted a post-impact hydrothermal system that had the potential for harboring thermophilic and hyperthermophilic organisms.
- 11:15 a.m. Whalen M. T. * O'Malley K. Rodríguez-Tovar F. J. Morgan J. V. Gulick S. et al.
[Facies and Ichnofabrics in the Paleocene of Chicxulub: A Record of the Recovery of Life Post-Impact](#) [#1348]
Paleocene sedimentary rocks from IODP/ICDP Expedition 364, atop the Chicxulub peak ring, record a progressive increase in bioturbation and life's rapid return to the crater.
- 11:30 a.m. Lowery C. M. * Jones H. Smit J. Bralower T. J. Owens J. D. et al.
[The Recovery of Life in the Chicxulub Crater Following the End Cretaceous Mass Extinction](#) [#2156]
We present the first record of the recovery of life in a large impact crater. Zoo- and phytoplankton follow divergent trends for millions of years post-impact.