

Monday, July 27, 2015
IMPACT CRATERING PROCESSES: GLASSES AND MELTS
10:15 a.m. Sibley Auditorium

Chairs: Wolf Uwe Reimold
Christopher Hamann

- 10:15 a.m. Mohr-Westheide T. * Reimold W. U. Greshake A. Hoehnel D. Fritz J. Schmitt R. T. Salge T. Hofmann A. Oezdemir S. Schulz T. Koeberl C.
[*PGE Chemistry and Systematics of Some Archean Spherule Layers in the Barberton Mountain Land*](#) [#5060]
 Comprehensive study of petrographic, mineralogical, and geochemical characteristics from a set of new samples of Archean spherule layers in the ICDP drill core BARB5 and drill core CT3 from the Barberton Greenstone Belt (BGB), South Africa.
- 10:30 a.m. Dos Santos E. * Scorzelli R. B. Rochette P. Devouard B. Gattacceca J. Moustard F. Cournède C.
[*A New Strewnfield of Splash-Form Impact Glasses in Atacama, Chile: A Mössbauer Study*](#) [#5074]
 Recently, tektite-like glasses were discovered in the Atacama desert (Chile) and named atacamaites. The discovery of this new strewnfield allows us to extend the impact glass database and the understanding concerning these natural glasses.
- 10:45 a.m. Valenzuela M. * Blanco N. Tomlinson A. Roperch P. Devouard B. Gattacceca J. Rochette P.
[*Petrology and Magnetic Characterization of Molten Glass Samples Found at Northern Atacama Desert, Chile: Testing Their Impact Origin*](#) [#5349]
 The discovery of molten glass deposits in Northern Chile on 2011 is pointing to an impact origin after other possibilities have been ruled out. We'll present a better characterization of the mineralogy and textures of the glasses.
- 11:00 a.m. Koeberl C. Wegner W. * Glass B. P.
[*Isotopic Compositions of Tektites from Belize*](#) [#5320]
 Possible tektites from Belize, Central America, were analyzed for their Rb-Sr and Sm-Nd isotopic composition. They are unlike any other tektites and more similar to mantle compositions.
- 11:15 a.m. Hamann C. * Hecht L. Deutsch A.
[*Impact-Induced Devolatilization or Melting of Calcite? Or Both? Answers from MEMIN Experiments*](#) [#5115]
 Calcite was experimentally shocked in a series of MEMIN hypervelocity impact and laser melting experiments. Evidence for the formation of calcite melts in both types of experiments is presented and discussed.
- 11:30 a.m. Walton E. L. * Dence M. R. Herd C. D. K.
[*Thermal Metamorphic Signature in Melt-Bearing Polymict Breccias from the Steen River Impact Structure, Canada*](#) [#5123]
 Melt-bearing polymict breccias within drillcore from the Steen River impact structure are described which contain a matrix of clinopyroxene + feldspar + titanite + garnet + oxides formed by recrystallization of a superheated clastic dust.
- 11:45 a.m. Wannek D. L. M. Reimold W. U. * Thirlwall M. Hansen B. T. Schulz T. Hoffmann M. Zaag P. T. Hauser N. Siegert S.
[*Are There Two Types of Vredefort Granophyre?*](#) [#5066]
 The controversial scenario of a dike of Vredefort impact melt rock with a felsic and an intermediate phase is explored in terms of petrographic, chemical, and isotopic data.