

Tuesday, August 6, 2013

POSTER SESSION: GEOLOGIC MEASURES OF IMPACT CRATERING

4:00 p.m. Alumni Hall

Singleton A. C. Osinski G. R.

[Microscopic Effects of Shock Metamorphism in Zircon from the Haughton Impact Structure](#) [#3116]

Zircon grains from the Haughton impact structure were studied to examine the correlation between microscopic features and the shock levels at which they occur. This includes a previously unreported microporous texture.

Vishnevsky S. A.

[The Popigai: Unusual Features of Large Scale Impact Cratering](#) [#3005]

The unique Popigai astrobleme exhibits a number of unusual impact formations, structures and features which are still unknown in other terrestrial impact sites. Some of these unusual properties and interpretation of their origin are presented.

Chanou A. Osinski G. R. Grieve R. A. F. Ames D. E.

[Petrographic Characterization of Popigai Impact Melt-Bearing Breccias](#) [#3055]

A set of impact melt-bearing breccias from Popigai impact structure was analyzed using optical microscopy, scanning electron microscopy, electron microprobe and digital image analysis. Here, we present their petrographic and textural characterization.

Misra S. Ray D. Androli M. A. G.

[Carbonate-Rich Impact-Melt from Morokweng Impact Structure, South Africa](#) [#3063]

The abstract first time reports carbonate impact-melt from Morokweng impact crater, South Africa. The observation comes from a bore hole study drilled by De Bears Company at ~15 km SW of Morokweng town.

Pati J. K. Reimold W. U. Greshake A. Koeberl C. K. Pati P.

[Pseudotachylite Breccia Veins from Dhala Impact Structure, North Central India: Texture, Mineralogy and Geochemical Characterization](#) [#3064]

This is the first report of pseudotachylitic breccia veins (PTB) in basement granitoids from the Dhala structure, north central India. The host granitoids and PTB show similar REE pattern despite extensive alteration and major element concentration.

Nakamura N. Meyer C.

[Deciphering Lithological Contact of Granophyre Dikes with Bedrock Granites at Vredefort Dome, South Africa](#) [#3057]

We report a petrological and rock magnetic study of the lithological contact of Vredefort Granophyre with bedrock granite.

Chang Y. Goto K. Sekine Y. Tajika E.

[Characteristics and Vertical Profile of Shocked Quartz Grains in the YAX-1 Core: Constraints on Transient Crater Size and Ejecta Deposition Process of the Chicxulub Impact](#) [#3046]

Characteristics and vertical profiles of PDFs on shocked quartz grains contained in the YAX-1 core derived from the Chicxulub Crater suggest that the core was located outside the transient crater, and that water had invaded into the crater.

Kerrigan M. C. Osinski G. R. Tornabene L. L.

[Revisiting the Diameter of the West Clearwater Lake Impact Structure, Quebec, Canada](#) [#3085]

We focus on West Clearwater Lake using remote sensing data to examine the surrounding terrain for structural features associated with an impact crater rim morphology outside of the lake area.

Suttak P. A. Boyce J. I. Hrvoic D.

[Geophysical Mapping and Modelling of the Charity Shoal Structure, Lake Ontario, Canada](#) [#3032]

The Charity Shoal structure is an enigmatic, crater-like depression in Lake Ontario. Magnetic, seismic and bathymetric data were collected over the shoal. Data analysis and forward modeling indicate an impact event or a diatreme as the likely origin.

Gottwald M. Fritz T. Breit H. Schättler B. Harris A.

[Mapping Terrestrial Impact Craters with the TanDEM-X Digital Elevation Model](#) [#3001]

We use the global digital elevation model (DEM) generated in the TanDEM-X mission for mapping terrestrial impact craters. This mission generates a global DEM with unprecedented properties permitting very detailed investigations of impact structures.

Khoury H. N. Salameh E. M. Reimold W. U.

[Mineralogy and Geochemistry of Post-Impact Sedimentary Infill of the Crater Moat and Carbonates of the Crater Floor, Waqf As Suwwan Impact Structure](#) [#3030]

Results of a shallow drilling program into the moat and central uplift of the Waqf as Suwwan impact structure, Jordan are presented. Stratigraphic evidence suggests a deep level of erosion.

Chaabout S. Chennaoui Aoudjehane H. Reimold W. U. Aboulahris M. Aoudjehane M.

[Evidence of Non-Impact Cratering Origin of Imilchil \(Morocco\) Lakes \(Isli and Tislit\)](#) [#3074]

Isli and Tislit lakes (High Atlas Mountains, Morocco) were recently proposed as impact structures, related to the Agoudal iron meteorite found about twenty km from the lakes. Our study did not provide any evidence for such an origin.

Pourkhorsandi H.

[Search for Impact Craters in Iran: Citizen Science as a Useful Method](#) [#3038]

To recognition probable impact craters in Iran, we use Google Earth data in the first step. Some probable structures identified and studies suggest non-impact origin for them. Studies on other craters in Iran are in progress.

Xie Z. Zuo S.

[Airburst Impact Origin Hypothesis of Taihu Lake Basin in Southeast of China in Around 7000 Years ago](#) [#3076]

The paper is to report investigation on unique morphology, occurrence, distribution, and mineralogy of siderite concretions found in Taihu Lake, Southeast of China, and discuss airburst impact origin hypothesis of Taihu Lake basin in ~7000 years ago.

Sisodia M. S.

[Large Meteorite Impacts and Genesis of Precambrian Granites](#) [#3006]

The earth scientists have been in pursuit for long to resolve granite genesis enigma. The Precambrian Dhala granites and Malani Rhyolites of India have their origin due to impact. It is thus proposed to find relation of impact and silicic provinces.