Thursday, March 22, 2012
POSTER SESSION II: ZIRCONS: A RECORD OF ANCIENT IMPACTS
6:00 p.m. Town Center Exhibit Area

Cavosie A. J. Erickson T. M. Radovan H. A. Moser D. E. Gibbon R. J.
The Cenozoic Detrital Shocked Mineral Record of Southern Africa **[#2279]**
This abstract reviews the Cenozoic detrital shocked mineral record of southern Africa.

Erickson T. M. Cavosie A. J. Radovan H. A. Moser D. E. Barker I. R. Wooden J.
Implications of Detrital Shocked Minerals at the Mouth of the Orange River: Continental Scale Transport by Fluvial, Eolian, and Coastal Processes **[#1938]**
We document detrital shocked grains from the mouth of the Orange River in South Africa. These grains require long (1200 to 2000 km) distances of transport, diverse sedimentary processes, and originate from multiple impact basins.

Montalvo P. E. Cavosie A. J. Cintron N. O. Radovan H. A. Moser D. E. Gibbon R. J.
Detrital Shocked Zircons in Cenozoic Fluival Terraces of the Vaal and Orange Rivers, South Africa **[#2059]**
This abstract describes the occurrence of detrital shocked zircons in Cenozoic fluvial terraces of the Vaal and Orange Rivers in South Africa.

Lugo Centeno C. M. Cavosie A. J. Radovan H. A.
A Search for Detrital Shocked Zircons Eroded from the Santa Fe Impact Structure, New Mexico, USA **[#2014]**
This study describes preliminary results of a search for detrital shocked zircons eroded from the Santa Fe impact structure, New Mexico, USA.

Thomson O. A. Cavosie A. J. Radovan H. A. Moser D. E.
Origin of Detrital Shocked Zircons from Different Sedimentary Environments at the Sudbury Impact Structure, Ontario Canada **[#2129]**
This abstract describes the occurrence of detrital shocked zircons in fluvial and glacial deposits at the Sudbury impact basin, Ontario, Canada.

Cupelli C. L. Moser D. E. Barker I. R. Darling J. Bowman J. R. Wooden J. Hart R.
Zircon-Based Identification of Mafic Impact Melt Bodies at the Center of the Vredefort Dome-Remnants of the Lost Melt Sheet **[#2402]**
Analysis has led to identification of mafic impact melts at the Vredefort impact. Using microstructural analyses of zircon we were able to distinguish igneous grains for dating and the U-Pb geochronology support crystallized at the time of impact.

Wielicki M. M. Harrison T. M. Boehnke P. Schmitt A. K.
Modeling Zircon Saturation Within Simulated Impact Events: Implications on Impact Histories of Planetary Bodies **[#2912]**
We model the likelihood and crystallization temperatures of impact produced zircon on Earth, the Moon and Mars.

Hopkins M. D. Mojzsis S. J.
Early Thermal Events Recorded in Zircon U-Th-Pb Depth Profiles from Eucrite Meteorites and Lunar Impact Breccias **[#2109]**
Thermal events recorded in zircon U-Th-Pb depth profiles from Millbillillie eucrite show a core Pb-Pb age (~4560 Ma) that correlates with other reported crystallization ages for eucrites and a previously unseen younger thermal event at ~4530 Ma.