

Thursday, March 22, 2012
POSTER SESSION II: METEORITES AND MITIGATION
6:00 p.m. Town Center Exhibit Area

Trigo-Rodríguez J. M. Madiedo J. M. Cortés J. Dergham J. Pujols P. Ortiz J. L. Castro-Tirado A. J. Alonso-Azcárate J. Zamorano J. Izquierdo J. Ocaña F. Sánchez de Miguel A. Tapia M. Martín-Torres F. J. Lacruz J. Rodríguez D. Pruneda F. Oliva A. Pastor-Erades J.

[*The 2011 Giacobinid Outburst: Meteoroid Flux Determination and Orbital Data by Using Video Imagery from the Spanish Fireball Network*](#) [#1926]

The results for the 2011 Draconid outburst are presented. The peak flux of this meteor shower was recorded in solar longitude 195.03 (Oct. 8, 2011, at 20h00m UT). Accurate orbits for 10 high-resolution selected Draconid 2011 meteors are also given.

Ashley J. W. Christensen P. R.

[*Thermal Emission Spectroscopy of Unpowdered Meteorites*](#) [#2519]

Spectral libraries are an integral part of planetary surface remote sensing. Thermal emission spectra have been collected for whole-rock specimens of meteorites representing chondritic and achondritic groups, with asteroid assessment applicability.

Clayton A. N. Lipman M. D. Strait M. M. Flynn G. J. Durda D. D.

[*Fabrication of Hydrous Meteorites for use in Meteorite Disruption Experiments*](#) [#2764]

Hydrous meteorites demonstrate fundamental differences in their disruption patterns from anhydrous samples. A method was developed to hydrate meteorites for use as analogues in disruption experiments.

Lipman M. D. Strait M. M. Flynn G. J. Durda D. D.

[*Analysis of Fragmentation Patterns in Disrupted Meteorites and Single Mineral End-Members*](#) [#2724]

NWA 869 and Allende were disrupted as asteroid analogs and compared to disrupted end-members quartz and mica. Slopes of the size-frequency curves determine the structure of the particles produced.

Korycansky D. G. Plesko C. S.

[*Effects of Stand-off Bursts on Rubble-Pile Targets: Evaluation of a Hazardous Asteroid Mitigation Strategy*](#) [#1522]

We evaluate the effects of stand-off X-ray bursts on rubble-pile asteroids as a strategy for hazard mitigation.

Bruck Syal M. Schultz P. H. Dearborn D. S. P. Managan R. A.

[*Porosity Controls on Asteroid Defense Strategies*](#) [#2480]

We report on calculations to quantify the effects of porosity on the deflection or disruption of hazardous asteroids by standoff nuclear bursts. Asteroid response to this mitigation tactic is found to be strongly dependent on porosity.

Housen K. R. Holsapple K. A.

[*Deflecting Asteroids by Impacts: What is Beta?*](#) [#2539]

Experiments are described that measure the momentum transferred to a target body during hypervelocity impact. We find that the momentum transfer is most efficient for bodies with low porosity.