

Tuesday, March 24, 2009

**POSTER SESSION I: HYPERVELOCITY IMPACTS: STARDUST MODELS, LDEF, AND ISPE
6:30 p.m. Town Center Exhibit Area**

Dominguez G. Wilkins G.

[*Temperatures and Time Evolution of Hypervelocity Impact Generated Tracks in Aerogel*](#) [#2535]

I present a novel method for calculating the temperatures and dynamics of track in aerogel that are generated by the capture of hypervelocity projectiles.

Anderson W. W. Cherne F. J.

[*Material Models for Aerogel Dust Collectors*](#) [#2549]

A new material model is being developed for shocked aerogel that will significantly improve description of the effects of capture. The model takes into account chemistry and ionization of the silica and also provides estimates of transport properties.

Price M. C. Kearsley A. T. Burchell M. J.

[*Hydrocode Simulations of Aggregate Dust Particle Impacts Onto Stardust Al Foils*](#) [#1617]

3-D measurements of complex craters on Stardust foils allows models of their aggregate impactors to be constructed. Hydrocode modelling is used to validate these models. Its ability to recreate the morphology and formation of such craters is shown.

Stadermann F. J. Floss C. Brownlee D. E. Rodruck M.

[*Revisiting LDEF: High Resolution Elemental and Isotopic Characterization of Hypervelocity Impacts*](#) [#2120]

We have studied impact craters from the Long Duration Exposure Facility (LDEF) satellite which was flown in low Earth orbit for a duration of 69 months from 1984 through 1990.

Westphal A. J. Allen C. Bajt S. Basset R. Bastien R. Bechtel H. Bleuet P. Borg J. Brenker F. Bridges J. Brownlee D. E. Burchell M. Burghammer M. Butterworth A. L. Cloetens P. Cody G. Ferroir T. Floss C. Flynn G. J. Frank D. Gainsforth Z. Grün E. Hoppe P. Kearsley A. Lemelle L. Leroux H. Lettieri R. Marchant W. Mendez B. Nittler L. R. Ogliore R. Postberg F. Sandford S. A. Schmitz S. Silversmit G. Simionovici A. Srama R. Stadermann F. Stephan T. Stroud R. M. Susini J. Sutton S. Tieloff M. Tsou P. Tsuchiyama A. Tyliczszak T. Vekemans B. Vincze L. Warren J. Zolensky M. E.

[*Stardust Interstellar Preliminary Examination \(ISPE\)*](#) [#1786]

The Stardust Interstellar Preliminary Examination (ISPE) is a three-year effort to characterize the Stardust interstellar dust collection and collector using non-destructive techniques. We summarize the status of the ISPE.