Friday, March 14, 2008
IMPACT CALIBRATION AND EFFECTS
10:30 a.m. Crystal Ballroom B

Chair: A. J. Westphal

10:30 a.m. Nakamura-Messenger K. * Keller L. P. Clemett S. J. Jones J. H. Palma R. L. Pepin R. O. Klöck W. Zolensky M. E. Messenger S.
New Manganese Silicide Mineral Phase in an Interplanetary Dust Particle **[#2103]**
We report a new mineral phase from a cluster IDP of the comet "Grigg-Skjellerup" collection, L2055. The Mn-Fe-Cr silicide phase, which has not been observed previously in nature, may also shed light on the LIME olivine.

10:45 a.m. Ogliore R. C. * Butterworth A. L. Fakra S. Frank D. Gainsforth Z. Marcus M. A. Westphal A. J.
Chemical Analysis of a Large Stardust Track Associated with a Presolar Grain **[#2363]**
We report on the iron oxidation state of every particle in a large Stardust cometary track whose progenitor particle was likely the source of the only presolar grain found to date in the Stardust sample.

11:00 a.m. Iida Y. Tsuchiyama A. * Kadono T. Nakamura T. Sakamoto K. Nakano T. Uesugi K. Zolensky M. E.
Three-Dimensional Shapes and Impactor Size Estimation of Stardust Impact Tracks **[#1563]**
3-D structures and elemental abundances of Stardust impact tracks were examined. The sizes of impactors for the tracks were estimated from the track entrance sizes and Fe abundances. The track shapes were compared by normalizing the track size.

11:15 a.m. Hörz F. * Cintala M. J. See T. H. Nakamura-Messenger K.
Impact Experiments with Al_2O_3 Projectiles into Aerogel **[#1446]**
Impact experiments into aerogel with Al_2O_3 projectiles produced tracks some two times deeper than glass projectiles at similar impact conditions; Al-containing melts suggest ablation and temperatures >2050ºC (at 6 km/s).

11:30 a.m. Anderson W. W. * Cherne F. J.
Model Development for Assessment of Thermal Histories of Returned Stardust Cometary Dust Samples **[#2540]**
A new thermal model for thermal history during dust particle capture is presented.