

Tuesday, March 13, 2007
IMPACT CRATERING: OBSERVATIONS AND EXPERIMENTS
10:30 a.m. Amphitheater

Chairs: S. T. Stewart
A. Gucsik

- 10:30 a.m. Huson S. A. * Pope M. C. Foit F. F. Jr. Watkinson A. J.
Immiscibility Features Between Silica-rich and Carbonate-rich Material in Breccia from the Sierra Madera Impact Structure [#1817]
Immiscibility features between silica and carbonate-rich material are reported in impact breccias from the central uplift of the Sierra Madera impact structure.
- 10:45 a.m. Okumura T. Gucsik A. * Nishido H. Ninagawa K.
Raman Spectroscopy of Planar Deformation Features of Shocked Quartz Samples from Ries and Barringer Impact Structures [#1062]
The identification of a Raman spectroscopic method that would allow us to a) identify shocked minerals and their shock-induced microdeformations, and b) give information on the shock pressure would be useful for the identification and study of impact environments.
- 11:00 a.m. Kurosawa K. * Ishibashi K. Sugita S. Kadono T. Ohno S. Matsui T.
Laser Ablation Experiments on HCN Production in a Neutral Atmosphere [#1629]
We conducted laser ablation experiments to investigate whether impact-induced high-temperature CN radicals are converted to HCN in a neutral atmosphere. The results indicate that this HCN formation mechanism is more efficient than pure shock heating of a neutral atmosphere.
- 11:15 a.m. Okamoto C. * Arakawa M.
Fragment Velocity Distribution of Core-Mantle Bodies in Collisional Disruption [#1708]
We use a two-stage light gas gun and investigate the collisional strength and fragment velocities of core-mantle targets in order to clarify the difference of reaccumulation condition between homogenous targets and core-mantle targets.
- 11:30 a.m. Takagi Y. * Hasegawa S. Yano H. Yamamoto S. Sugita S. Teramoto K. Honda C.
Kurosawa K. Nakada T. Abe M. Fujiwara A.
Impact Cratering Experiments in Microgravity Environment [#1634]
Impact cratering experiments in the microgravity environment were performed using a drop tower. Results indicate the crater formation time and final diameter are not controlled by the gravity scaling.