

- 3:30 p.m. Bell M. S. *
[Relative Shock Effects in Mixed Powders of Calcite, Gypsum, and Quartz: A Calibration Scheme from Shock Experiments](#) [#1321]
A systematic experimental shock study of calcite, gypsum, and quartz powders mixed 1:1:1 was carried out in order to calibrate shock pressures in naturally shocked carbonates and sulfates to shock effects in quartz.
- 3:45 p.m. Ishibashi K. * Yagi T. Matsui T.
[Determination of the Decomposition Boundary of CaCO₃ at High Temperature: Implications for Impact-induced Degassing of CaCO₃](#) [#1569]
We experimentally determined the decomposition boundary of CaCO₃ up to ~5000 K and ~10 GPa with a technique of laser-heated diamond-anvil cell. Then, impact-induced degassing of CaCO₃ is discussed using the newly determined decomposition boundary.
- 4:00 p.m. Hermalyn B. * Schultz P. H. Heineck J. T.
[Early-Stage Ejecta Velocity Distribution](#) [#2492]
This study investigates high speed early-time departures from the accepted power-law relationship of ejecta velocity over a range of projectile diameters by utilizing a new high speed 3D-Particle Imaging Velocimetry technique.
- 4:15 p.m. Kraus R. G. * Stewart S. T.
[Thermodynamics of Impacts onto Icy Mixtures: Peak and Post-Shock Temperature Measurements in an Ice-Sand Mixture](#) [#2508]
We present the first experimental shock and release temperature data on ice-sand mixtures.
- 4:30 p.m. Schultz P. H. * Anderson J. L. B. Hermalyn B.
[Origin and Significance of Uprange Ray Patterns](#) [#2496]
Arcuate uprange crater rays occur on the Moon, Mercury, and Mars. This pattern reflects depends on the evolution of initial coupling that depends on both impactor (density, speed and angle) and target (porosity).