

Friday, March 14, 2008
ORDINARY AND ENSTATITE CHONDRITES
8:30 a.m. Crystal Ballroom B

Chair: M. C. McCanta

- 8:30 a.m. Sharp T. G. * Xie Z. DeCarli P. S.
Shock Veins in L6 Chondrite RC106 and Constraints on the Impact History of the L6 Parent Body [#2324]
 Melt-vein mineralogy of L6 chondrite RC106 and hydrodynamic calculations are used to explore impact conditions on the L6 parent body. An appropriate pressure pulse occurs 8 km below the parent body surface in a 4 km/s impact with a 10-km object.
- 8:45 a.m. Schrader D. L. * Connolly H. C. Jr. Laurretta D. S.
Sacramento Wash 005 and MET 00428: Impact Generated Sulfide-rich Fe,Ni Melts from the H-Chondrite Parent Body [#1185]
 We present data that suggests that the S-rich, ungrouped iron meteorites Sacramento Wash 005 and MET 00428 formed impact induced melting on the H-chondrite parent body.
- 9:00 a.m. Kita N. T. * Kimura M. Ushikubo T. Valley J. W. Nyquist L. E.
Oxygen Isotope Systematics of Chondrules from the Least Equilibrated H Chondrite [#2059]
 High precision ion-microprobe oxygen isotope data from 21 chondrules in Y-793408 (H3.2) show results very similar to those in LL3 chondrites. Two chondrules (IAB and IIA) contain relict olivine grains with 3‰ ¹⁶O-enrichment compared to the host.
- 9:15 a.m. McCanta M. C. * Beckett J. R. Stolper E. M.
Zonation of Phosphorus in Olivine: Dynamic Crystallization Experiments and a Study of Chondrule Olivine in Unequilibrated Ordinary Chondrites [#1807]
 We present an experimental/analytical investigation of the origin of P zoning in olivine focusing on the effect of cooling rate. We investigate P zonation in unequilibrated chondrite olivines to attempt to constrain diffusive equilibration rates.
- 9:30 a.m. Rubin A. E. *
Geochemical, Mineralogical and Petrological Relationships in Enstatite Chondrites [#1114]
 The geochemical, mineralogical, and petrological properties of enstatite chondrites reflect nebular processes that produced reduced precursors and collisional events on their parent bodies that caused wide-spread melting, brecciation, and annealing.
- 9:45 a.m. van Niekerk D. * Keil K.
Possible Impact Melt Features in Unequilibrated Enstatite Chondrites [#2296]
 We are studying unequilibrated enstatite chondrites and have identified metal/troilite objects containing crystals of enstatite, feldspar and graphite. We suspect their origin to be non-nebular and possibly impact-related.
- 10:00 a.m. Berthet S. B. * Malavergne V. M. Righter K.
Evolution of Indarch (EH4 Chondrite) at 1 GPa and High Temperature [#1635]
 Chondrites have long been considered possible building blocks of the telluric planets and have been studied at various P-T-fO₂ conditions to constrain early accretion processes. We investigate the effect of the fO₂ on the phase relations of Indarch.