**POSTER LOCATION #432**  
*Chemical Heterogeneity of Organic Matter in Minimally-Heated CO Chondrites* [#2951]  
Organic matter in the least-heated CO chondrites is chemically heterogeneous on scales not observed in other chondrites, caused by incomplete thermal processing.

Changela H. G.  Le Guillou C.  Brearley A. J.  
**POSTER LOCATION #433**  
*Analytical Constraints on the Formation and Evolution of Organic Material by Processes on Primitive Chondrite Parent Bodies* [#2810]  
Using FIB-STXM-TEM, constraints have been made on the formation and evolution of OM on primitive chondrite parent bodies.

Tokunaga M.  Isobe H.  
**POSTER LOCATION #434**  
*Aqueous Alteration Experiments with Hydrothermal Fluid Based on the Solar Abundance in the Early Solar System* [#1704]  
Oxidative fluid based on the solar abundance may constrain carbonate formation temperature in aqueous alteration processes on carbonaceous chondrites.

**POSTER LOCATION #435**  
*Na, K-Rich Rim Around a Chondrule in Unequilibrated Ordinary Chondrite LEW 86018 (L3.1)* [#2994]  
Na, K-rich around a chondrule in a low petrographic type UOC LEW 86018 (L3.1) is being studied to understand the metamorphism, metasomatism in UOCs.

Zolotov M. Yu.  Morlok A.  Libourel G.  
**POSTER LOCATION #436**  
*Microchemical Environments of Aqueous Alteration in CR Chondrites: Chemical Equilibrium Models* [#1470]  
Models demonstrate chemically contrast alteration microenvironments in matrices, around Fe-Ni metal grains, and at matrix-metal interfaces.

Haenecour P.  Zega T. J.  Floss C.  Croat T. K.  Jolliff B. L.  
**POSTER LOCATION #437**  
*Abundances and Elemental Compositions of Presolar Silicates in CO3.0 Chondrites: Possible Indicators of Secondary Processing?* [#1160]  
We report on the possible correlation between localized (μm-scale) aqueous alteration and the spatial variation of presolar grain abundances in CO3.0 chondrites.

Lindgren P.  Lee M. R.  
**POSTER LOCATION #438**  
*Tracking the Earliest Stages of Aqueous Alteration in the Mildly Altered CM Chondrite EET 96029* [#1760]  
We have analyzed the texture and composition of chondrule mesostasis in the mildly altered CM2 EET 96029.

Dobrica E.  Brearley A. J.  
**POSTER LOCATION #439**  
*Glassy Silicate Objects, Reminiscence of Porous Microchondrules in Unequilibrated Ordinary Chondrites Showing Different Degrees of Aqueous Alteration* [#2445]  
We focus on the formation of secondary alteration products and how different elements may be mobilized and redistributed by aqueous fluids.

**POSTER LOCATION #440**  
*Aqueous Alteration in CR Meteorites as Seen with VIS/NIR and MIR Spectroscopy* [#2540]  
Spectral signatures related to variable alteration in CR meteorites are seen in the MIR. Least-altered CRs are similar to CVs while more-altered CRs are like CMs.
McDougal D. Kita N. T. Nakashima D. Tenner T. J. Valley J. W. et al. POSTER LOCATION #441
Intermineral Oxygen Three-Isotope Systematics of Silicate Minerals in Equilibrated Ordinary Chondrites [#1598]
We report O-isotope systematics of 11 EOCs that cover all groups (H, L, LL) and metamorphic types (4, 5, 6), including shock stages and brecciated meteorites.

Chaumard N. Devouard B. POSTER LOCATION #442
Zoned Plagioclases in the Matrices of CK Carbonaceous Chondrites [#1924]
We suggest that both calcic cores and sodic borders of zoned plagioclases observed in the matrices of CK chondrites were formed during parent body metamorphism.

Simon S. B. Sutton S. R. Grossman L. POSTER LOCATION #443
The Valence and Coordination of Ti in Olivine and Pyroxene in Ordinary and Enstatite Chondrites as a Function of Metamorphic Grade [#2141]
New Ti-XANES measurements on H chondrites are presented and trends in these and previous analyses of ordinary and enstatite chondrites are discussed.

Ruzicka A. Friedrich J. M. Hugo R. Hutson M. POSTER LOCATION #444
Macro- and Microstructures in Ordinary Chondrites: Implications for Impact Deformation and Annealing Processes [#1544]
We suggest that macro- and microstructures can be used to identify ordinary chondrites that formed directly below impact craters on already warm parent bodies.

McCain K. A. Ciesla F. J. Heck P. R. Rout S. S. Pellin M. et al. POSTER LOCATION #445
Measurement of Thermal Properties of the Ordinary Chondrites Relevant to Planet-Forming Processes [#2730]
The thermal properties for two ordinary chondrites are measured at the high temperatures (300–1000 K) relevant to planetesimal formation and radiogenic heating.