Six Fluids in Ore-forming Magmatic-Hydrothermal Systems \#3510
This paper discusses some key questions regarding the consecutive steps in the generation, the physical separation, and the chemical evolution/interaction of six fluids involved in the formation of magmatic-hydrothermal ore deposits.

Evaluating the Behavior of Metals in Porphyry-type Ore-Systems: Evidence from Experimental Studies \#3806
We have performed experiments to study the partitioning behavior of select elements between magmatic brine and silicate melt, and pyrrhotite and silicate melt.

Characterization of the Magmatic-to-Hydrothermal Transition in Barren vs. Mineralized Granites \#3152
The mineralizing potential of granitic intrusions is discussed on the basis of fluid–melt partition coefficients derived by microanalysis (LA-ICP-MS, EPMA, Raman spectroscopy) of natural assemblages of coexisting melt and fluid inclusions.

Temporal Evolution of the Intrusive-Hydrothermal System at the Bingham Porphyry Cu-Au-Mo Deposit, Utah \#3719
Five porphyry intrusions produced successively smaller volumes of quartz veins, copper-gold ore and potassically-altered wall rock. Molybdenite postdates intrusions. Magmatic fluids underwent phase separation at estimated paleodepths of 2–3 km.

Copper Liquid/Vapor Partitioning in Magmatic-Hydrothermal Systems: Spectroscopic Evidence from Natural and Synthetic Fluid Inclusions \#3715
Spectroscopic analysis of mole granite vapors found Cu\(^{1+}\), probably as a chloride complex in the vapor phase at elevated temperatures.

Mobilization of Gold as a Polymetallic Melt During Pelite Anatexis \#3213
We show how gold-rich polymetallic melt interacts with silicate melt during pelite anatexis. This study is based on analysis of a migmatised gold deposit in the Gawler Craton, South Australia.

Submarine Hydrothermal Venting Associated with an Active Arc Front: Southern Kermadec Arc, New Zealand \#3215
About 55% of the volcanoes surveyed along the southern Kermadec arc are hydrothermally active. The intensity and nature of the chemical signals detected in the associated hydrothermal plumes differ significantly from results for MOR vent sites.

Gold Solubility, Speciation and Partitioning in Granite-Volatile Phase Systems \#3773
A vapor-undersaturated synthetic brine was equilibrated with metallic gold and a haplogranitic melt at 800°C and 100 MPa in order to examine the solubility, speciation and partitioning of gold in the silicate melt-brine-metallic gold system.
Simon A. C. * Candela P. A. Piccoli P. M. Frank M.  
Chlorine and Iron in Magnetite-Melt-Volatile Systems [#3782]  
We have performed a set of experiments (800°C, 100 MPa, ~NNO) in an attempt to quantify the solubility of Mt in geologically reasonable ore-generative felsic systems, examining both melt and magmatic volatile phase (MVP), as a function of varying HCl concentration.

The Porphyry to Epithermal Link: Preliminary Fluid Chemical Results from the Apuseni Mountains, Romania, and Famatina, Argentinian Andes [#3537]  
LA-ICP-MS data of fluid inclusions in porphyry and spatially associated epithermal systems show very similar element ratios for porphyry vapour enriched in Cu, Au, As, ±Au and epithermal liquid, documenting a direct genetic link between the two.

Halter W. E. * Pettke T. Heinrich C. A.  
Laser-Ablation ICP-MS Analysis of Melt Inclusions: Applications to Various Host Minerals [#3507]  
This contribution presents a quantification method for LA-ICP-MS analyses of bulk melt inclusions from various host minerals. Results demonstrate the wide applicability of the technique and examples from a magmatic ore-forming system are discussed.

Core D. P. * Kesler S. E. Essene E. J.  
Oxygen Fugacity and Sulfur Speciation in Felsic Intrusive Rocks from the Wasatch and Oquirrh Ranges, Utah [#3455]  
The oxygen fugacity and sulfur speciation are determined for the Park Premier, Clayton Peak, Last Chance, and Soldier Canyon stocks. We evaluate the impact that sulfur speciation has on the capacity of intrusions to form metal sulfide deposits.