Orthous-Daunay F. R.  Quirico E.  Lemelle L.  Beck P.  De Andrade V.  Simionovici A.  Derenne S.

Sulfur Speciation in Carbonaceous Chondrites HF/HCl Residues by S K-Edge XANES Microspectrometry [#1777]

Sulfur oxidation state of insoluble OM from 3 CI1, 5 CM2, Renazzo (CR2) and Tagish Lake was determined by S-XANES. Different redox ratios are reported among these chondrites, possibly evidencing chemical effects of hydrothermalism.

Court R. W.  Sephton M. A.

Volatile Yields Upon Pyrolysis of Carbonaceous Chondrites as Determined by Quantitative Pyrolysis-Fourier Transform Infrared Spectroscopy [#1556]

We have used quantitative pyrolysis-fourier transform infrared spectroscopy to determine the production of water and carbon dioxide upon the stepped pyrolysis of a range of carbonaceous chondrites.


Carboxylic Acid Abundances in the Tagish Lake Meteorite: Lithological Differences and Implications for Formic Acid Abundances in Carbonaceous Chondrites [#1925]

Analysis of two different Tagish Lake rocks found: 1) a very low GCMS response for formic acid, 2) formic acid concns above 100 ppm and 3) that formic acid to higher homologue ratios indicate the average level of oxidation for the soluble organics.

Wilson K. B.  Wilson T. L.

Radial Breathing Modes in Cosmochemistry and Meteoritics [#1627]

Radial breathing modes in Raman spectra are “smoking gun” signatures of some Q-phase candidates in cosmochemistry and meteoritics. These active vibrational modes are either ignored or are not being reported. The resolution of Q depends upon them.