Goldstein J. I.  Yang J.  Scott E. R. D.
*Relative Metallographic Cooling Rates: Can They be Measured Using Co/Ni Ratios at Taenite/Kamacite Interfaces?* [#5132]
The relative cooling rates of IVA and IIIAB irons obtained recently by Wasson and Hoppe must be treated with much caution as they were obtained with inadequate spatial resolution and a flowed phase diagram and methodology.

Benedix G. K.  Kaczmarek M.-A.  Reddy S.
*Microstructural Analysis of Troilite in IAB Iron Meteorites* [#5217]
We are using the EBSD technique to study troilite in iron meteorites. The crystallography of troilite will lead to better understanding of the various processes that have affected iron meteorites during and after cooling.

Holness M. B.  Benedix G. K.
*Decoding Microstructures in Four Corners IAB Iron* [#5219]
Dihedral angles between different minerals give information about the chemical and physical properties of those systems. We apply the technique here to silicate inclusions in the Four Corners iron meteorite.

Badekha K. A.  Grokhovsky V. I.  Yakovlev G. A.
*Study of Schlieren Bands in the Ataxites Using EBSD Method* [#5288]
In this work we present further results of the study of the Schlieren bands in a number of ataxites using the EBSD method.

Oshtrakh M. I.  Larionov M. Yu.  Grokhovsky V. I.  Semionkin V. A.
*Non-Equivalent Microenvironments of the 57Fe in each M1, M2 and M3 Sites of Schreibersite Extracted from Sikhote-Alin Iron Meteorite* [#5281]
It is possible that the number of various microenvironments may be different for the M1, M2, and M3 sites. Based on this results it was possible to relate different numbers of sextets obtained by the better fit of schreibersite Mössbauer spectra.

Bordeaux N.  Mubarok A.  Goldstein J. I.  Lewis L. H.
*Magnetic Characterization of Tetrataenite in Mesosiderites and Chondrites* [#5128]
We describe the magnetic domain configurations of tetratagonal L10 tetrataenite (Tt) found in chondritic and mesosiderite metal using magnetic force microscopy to understand the relationships between magnetic domain state and the properties of Tt.

Langenhorst F.  Harries D.  Pack A.
*Jepara — A New Main Group Pallasite from Java, Indonesia* [#5068]
We report here the find and mineralogical characterization of the new main group pallasite Jepara from Java Island, Indonesia.

Fries M. D.
*Examining the Hypothesis of Pallasites as Core Material* [#5139]
A finite-element model suggests that pallasites could originate from the core of a small body due to incomplete differentiation.

Hwang S. L.  Chu H.-T.  Varela M. E.  Yui T. F.  Shen P.
*SEM-EDX and ATEM Studies of Olivinites from the Angrite D’Orbigny* [#5124]
New results about the phase assemblage and defect microstructures on a large olivinite from D’Orbigny using SEM-EDX and ATEM techniques.
*Additional Sr Isotopic Heterogeneity in Zagami Olivine-Rich Lithology* [#5190]
New Rb-Sr data on Zagami demonstrate that the Ol-rich lithology is different from FG, CG, and DML in Sr-isotopic signatures, and that highly evolved magma was infiltrated into a nearly solidified body at a final stage of the Zagami formation.

*Petrologic, Elemental and Oxygen Isotopic Characterization of Highly Enriched Mafic Shergottite Northwest Africa 7257* [#5367]
Northwest Africa 7257 is a medium-grained enriched mafic intersertal shergottite with among the highest rare earth element abundances found so far for such martian specimens.

Belmonte S. L. R. Zucolotto M. E. Fontes R. C. dos Santos J. R. L.
*3-D Virtual and Physical Reconstruction of Bendego Iron* [#5149]
The use of three-dimensional laser scanning to meteorites to preserve the original shape of the meteorites before cutting and the facility of saved the datas in STL format (stereolithography) to print three-dimensional physical models and generate a digital replica.