Barrat J. A.  Benoit M.  Cotten J.

Bulk Chemistry of the Nakhlite Miller Range 03346 (MIL 03346) [#1569]

We report on the composition of MIL 03346 and have determined the concentrations of 45 elements using a combination of ICP-AES and ICP-MS procedures.

Gorin V. D.  Alexeev V. A.

Radionuclides in the Bukhara CV3 and Kilabo LL6 Chondrites [#1034]

The contents of cosmogenic Mn-54, Na-22, Al-26, and natural potassium in chondrites Bukhara CV3 and Kilabo LL6 are submitted.

Hewins R. H.  Zanda B.  Bourot-Denise M.  Albarède F.  Bland P. A.

Formation of Oxygen Isotope Reservoirs by Mixing Chondritic Components [#1944]

$\Delta^{17}O$ is controlled by the abundance of CAIs in CC and of type II chondrules in OC, and $\Delta^{18}O = \delta^{18}O - \delta^{17}O$ by the abundance of matrix in all groups. Calculated $\Delta^{17}O$ and $\Delta^{18}O$ reproduce measured values. Chondrite groups originated by mixing isotopically distinct petrologic components.

Huber L.  Hofmann B.  Gnos E.  Leya I.

The Exposure History of the JaH 073 Meteorite [#1628]

We measured noble gases in fragments of the JaH 073 strewnfield meteorites. The data confirm that large meteorites usually suffer complex exposure with a first stage exposure on the parent body.

Ivliev A. I.  Alexeev V. A.

Estimation of the Meteorite Orbits by the Thermoluminescence Method [#1047]

Estimation of the meteorite orbits by the thermoluminescence method is considered.

Jacobsen S. B.  Ranen M. C.

The $^{133}$Cs-$^{135}$Ba Chronometer and the Origin of Extinct Nuclides in the Solar System [#2241]

High precision Cs-Ba isotopic data for chondrites yield an upper limit of about 0.00001 for the $^{135}$Cs/$^{133}$Cs ratio in the early solar system. This value is consistent with galactic average production but not with injection from a young stellar source.

Kashkarov L. L.  Shilobreeva S. N.  Kalinina G. V.

Chemical Modification of the Luna 24 Olivine Grains Under Solar Cosmic Ray Irradiation [#1080]

The new results of the radiation parameters in the silicate micrograins of the Luna 24 soil matter and the first results of the chemical modification inside an individual lunar regolith olivine microcrystals subjected to different exposure SCR protons and $\alpha$-particles dose are presented.

Lavrentjeva Z. A.  Lyul A. Yu.  Shubina N. A.  Kolesov G. M.

Siderophile, Rare Earth and Some Other Trace Element Distributions in Components of Abee Enstatite Breccia [#1035]

Siderophile, rare earth and some other trace element distributions in components of Abee enstatite breccia are considered.

Miyamoto M.  Koizumi E.  Mikouchi T.

Verification of a Model to Calculate Cooling Rates in Olivine by Consideration of Fe-Mg Diffusion and Olivine Crystal Growth, II [#1538]

We developed a model to calculate the olivine cooling rate by analyzing zoning on the basis of Fe-Mg diffusion during crystal growth. We verify this model by using zoning profiles produced by dynamic crystallization for Martian and lunar meteorites.

Petford N.  Rushmer T.  Lansdown G.

Numerical Modelling of Liquid Metal Transport in Partially Molten H5 Ordinary Chondrite [#1603]

An equation-based model of liquid metal segregation in Fe-bearing chondrite meteorites is presented. Textural data from natural samples provide the input conditions. Initial results confirm porous flow of Fe-Ni-S liquid alloy as an important metal segregation mechanism in planetary interiors.
Sharygin V. V.  Kovyazin S. V.  Podgornykh N. M.
Mineralogy of Olivine-hosted Inclusions from the Omolon Pallasite [#1235]
This paper is concerning mineralogy of olivine-hosted inclusions from the Omolon pallasite. Troilite, kamacite, nickelphospide, taenite, stanfieldite, chromite, whitlockite, eskolaite and Si-O-bearing phase were found in metal-sulfide blebs.

Smoliar M. I.  Alexander C. M. O’D.  Walker R. J.  Jacobsen S. B.
Re-Os Isochron for Allegan (H5): Reconciling Re-Os and U-Pb Chronologies [#1468]
New precise Re-Os isochron for Allegan (H5) allows to reconcile Re-Os and U-Pb chronometers with ~2 times improved precision. Also, due to record-low Re/Os ratio in several samples, isochron gives the most reliable value for the initial $^{187}\text{Os}/^{188}\text{Os}$ ratio of the solar system.

Wang Y.  Hua X.  Hsu W.
Phosphoran-Olivine in Opaque Assemblages of the Ningqiang Carbonaceous Chondrite: Implication to Their Precursors [#1504]
We report the first occurrence of phosphoran-olivine in opaque assemblages of the Ningqiang carbonaceous chondrite and discuss its implications to the precursor of opaque assemblages.

Zhang A.  Hsu W.  Wang R.  Ding M.
Assemblage of Diopside, Pyroxene, Akimotoite, and Ringwoodite in the Heavily Shocked Sixiangkou L6 Chondrite: Further Constraints of Shock Metamorphism [#1069]
This study reports the occurrence of diopside, pyroxene, akimotoite, and ringwoodite in the shock-induced melt veins of Sixiangkou and discuss its implication to the shock metamorphism.