

PRINT ONLY: IDPs, PRESOLAR/SOLAR GRAINS, STARDUST

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Some Features of Noble Gases Released from the Grain-Size Fractions of the Orgueil CI Meteorite Nanodiamonds [#1078]

The P3 component noble gases in meteoritic nanodiamonds are most probably in non-diamond carbonaceous phase. This phase (e.g., ordered graphite-like phase) is in surface local sites of diamond grains. Probably, P3 gases were adsorbed by this phase.

Genge M. J. Taylor S.

Barred Olivine Chondrule Fragments Amongst Micrometeorites [#1728]

The discovery of barred olivine material coarse-grained micrometeorites is reported and strongly supports a chondrule origin for these materials.

Messenger S. Nakamura-Messenger K. Keller L. P.

¹⁵N-rich Organic Globules in a Cluster IDP and the Bells CM2 Chondrite [#2391]

We have identified ¹⁵N-rich submicrometer organic globules in the Bells CM2 chondrite and in cluster interplanetary dust particles. The size, structure, chemical, and isotopic compositions are similar to organic globules previously studied in the Tagish Lake meteorite.

Wirick S. Flynn G. J. Keller L. P. Sandford S. A. Zolensky M. E. Nakamura Messenger K. Jacobsen C.
Comparison of Carbon XANES Spectra from an Iron Sulfide from Comet Wild 2 with an Iron Sulfide Interplanetary Dust Particle [#1450]

Carbon XANES spectra from an IDP heated upon atmospheric entry is compared to an iron sulfide extracted from aerogel from the Stardust sample return mission. From carbon XANES spectra it appears both iron sulfides contain aliphatic hydrocarbons.