

**Thursday, March 26, 2009**  
**INTERSTELLAR MATTER: ORIGINS AND RELATIONSHIPS**  
**10:00 a.m. Waterway Ballroom 5**

**Chair: Frank Stadermann**

- 10:00 a.m. Duprat J. \* Dobrica E. Engrand C. Aléon J. Gounelle M. Leroux H. Marrocchi Y. Meibom A. Mostefaoui S. Rouzaud J.-N. Robert F.  
[Extreme Deuterium Enrichment in Organic Matter from Cometary Antarctic Micrometeorites](#) [#1724]  
 Deuterium rich organic matter, with D/H up to 30 times the terrestrial value, has been identified in ultra-carbonaceous micrometeorites from central Antarctic snow, strongly suggesting a cometary origin for these objects.
- 10:15 a.m. Floss C. \* Stadermann F. J. Yada T. Noguchi T. Nakamura T.  
[Anomalous Nitrogen Isotopic Compositions in the Stardust-rich Antarctic Micrometeorite T98G8: Affinities to Primitive CR Chondrites and Anhydrous IDPs](#) [#1082]  
 We report the presence of abundant N isotopic anomalies in T98G8, an Antarctic micrometeorite that contains high abundances of presolar grains. Its mineralogical and isotopic characteristics suggest a link to IDPs or certain CR chondrites.
- 10:30 a.m. Bonal L. \* Huss G. R. Krot A. N. Nagashima K.  
[Highly <sup>15</sup>N-enriched Chondritic Clasts in the CB/CH-like Isheyevo Meteorite](#) [#2046]  
 We report the discovery of chondritic clasts in the CB/CH-like meteorite Isheyevo, characterized by bulk <sup>15</sup>N-enrichment such as  $\delta^{15}\text{N} = 1000\text{--}1300\text{‰}$  and where hotspots (up to  $\delta^{15}\text{N} = 4000\text{‰}$ ) are present. Their origin will be discussed.
- 10:45 a.m. Ishii H. A. \* Bradley J. P. Bonal L. Krot A. N. Huss G. R. Nagashima K. Hutcheon I. D. Teslich N.  
[Transmission Electron Microscopy on Highly <sup>15</sup>N-Enriched Chondritic Clasts in the Isheyevo Meteorite](#) [#2467]  
 To explore the possible origin and carrier(s) of extreme <sup>15</sup>N enrichments in unique chondritic clasts in the Isheyevo CH/CB-like meteorite, TEM analyses are being undertaken. Initial results from bulk-enriched and hotspot areas are presented.
- 11:00 a.m. Briani G. \* Gounelle M. Marrocchi Y. Mostefaoui S. Robert F. Leroux H. Meibom A.  
[Ultra-Pristine Extra-Terrestrial Material with Unprecedented Nitrogen Isotopic Variation](#) [#1642]  
 A xenolith in the chondrite Isheyevo shows pristine mineralogy and the most extreme N isotopic variation measured in any solar system material — but no H and C isotopic anomalies. This poses new challenges for models for light element fractionation.
- 11:15 a.m. De Gregorio B. T. \* Stroud R. M. Nittler L. R. Cody G. D. Kilcoyne A. L. D.  
[Isotopically Anomalous Organic Globules from Comet 81P/Wild 2](#) [#1130]  
 Two Stardust cometary organic globules contain anomalous  $\delta\text{D}$  or  $\delta^{15}\text{N}$  (but not both), indicating a presolar origin.