**Tuesday, March 24, 2009**
**POSTER SESSION I: SOLAR WIND AND GENESIS:**
**MEASUREMENTS AND INTERPRETATION**
**6:30 p.m. Town Center Exhibit Area**

Yamada A. Nanbu S. Hiraki Y. Seta T. Kasai Y. Ozima M.
*Mass Independent Isotopic Fractionation of Oxygen in Earth Wind (EW) with Relevance to Exotic Oxygen in Lunar Metals* **[#1478]**
To test suggestion by Ozima et al. (2008), we calculate photodissociation cross sections of $O_2$ for isotopomers using quantum chemistry method and estimate isotopic ratios at the altitude of 300–400 km.

McKeegan K. D. Kallio A. P. Heber V. Jarzebinski G. Mao P. H. Coath C. D. Kunihiro T. Wiens R. Allton J. Burnett D. S.
*Oxygen Isotopes in a Genesis Concentrator Sample* **[#2494]**
Oxygen isotopic compositions of solar wind collected by the Genesis concentrator sample are reported.

Heber V. S. Wiens R. C. Jurewicz A. J. G. Baur H. Vogel N. Wieler R. Burnett D. S.
*Isotope Fractionation of Solar Wind Implanted into the Genesis Concentrator Target Determined by Neon in the Gold Cross and Implantation Experiments* **[#1485]**
All four arms of the concentrator gold cross were analyzed for Ne, proving that the entire concentrator target was radially homogeneously irradiated. An implantation experiment showed, however, that backscatter loss of Ne from AuSS is not controllable.

Mabry J. C. Meshik A. P. Hohenberg C. M. Burnett D. S.
*Real-Time Diffusive Losses of Light Noble Gases from Genesis Aluminum Collectors* **[#1783]**
Genesis collector pieces were baked for an extended time in order to quantify the effect that diffusive losses of light noble gases from the Genesis collector materials have on the measured isotopic and elemental ratios.

Cetina C. Grabowski K. S. Knies D. L.
*SIMS-AMS Method for Measuring Solar Wind Silicon in DLC Genesis Collectors* **[#2550]**
We are illustrating the use of the NRL facility to determine the amount of solar wind silicon retained in DLC collectors. We are encouraging the Genesis science community to consider this method as an alternate solution in other cases.

Humayun M. Huang S.
*Low-Level Magnesium Isotopic Analysis for the Genesis Mission* **[#1272]**
A method for multicollector ICP-MS analysis of Mg isotopic composition on 1E12 atoms of Mg with 1‰ precision is presented, together with initial results.

Rodriguez M. C. Calaway M. C. Allton J. H. McNamara K. M. Hittle J. D.
*Status of Reconstruction of Fragmented Diamond-on-Silicon Collector from Genesis Spacecraft Solar Wind Concentrator* **[#1337]**
The Genesis concentrator was comprised of four quadrants: two of SiC, one of 13C diamond and one of DLC on silicon (this target did not survive the hard landing). This is a report on identifying the DLC pieces and finding their initial orientation.

Burkett P. J. Rodriguez M. C. Calaway M. C. Allton J. H.
*Genesis Solar Wind Array Collector Cataloging Status* **[#1373]**
A focused characterization task was initiated in May 2008 to document the largest array fragments in the Genesis solar wind collection. To date, the collection consists of 3460 samples. By area, total percentage of cataloged array material is 18%.

Calaway M. J. Rodriguez M. C. Allton J. H. Stansbery E. K.
*Decontaminating Solar Wind Samples with the Genesis Ultra-Pure Water Megasonic Wafer Spin Cleaner* **[#1183]**
The cleaning efficiency of the Genesis Ultra-pure Water Megasonic Wafer Spin Cleaner will be presented. Results show the effectiveness of the new cleaner removing particle contamination from Genesis silicon wafers implanted with solar wind.