Monday, March 10, 2008
SOLAR WIND AND GENESIS: MEASUREMENTS AND INTERPRETATION
8:30 a.m. Marina Plaza Ballroom

Chairs: **K. D. McKeegan**
K. Kitts

8:30 a.m. Welten K. C. * Nishiizumi K. Caffee M. W. Meier M. M. M. Wieler R.
The Regolith Exposure History and Extremely Short Transit Times of Two Antarctic H Chondrites, MAC 02630 and MAC 02740 **[#2275]**
Based on the high solar gas contents and extremely short transit time of ~0.025 m.y. from asteroid belt to Earth, we conclude that MAC 02630 and 02740 represent a unique H-chondrite breccia with an almost pure regolith noble gas record.

8:45 a.m. Hashizume K. * Chaussidon M.
Evidence of at Least Two Extra-Selenial Components Accreting on the Moon — In Search for the Oxygen Isotopic Composition of the Solar Component Trapped in Lunar Metallic Grains **[#1531]**
We performed isotope measurements of O residing at the surface of lunar metallic grains, to untangle the contradictory situation on the solar wind component. We were able to reproduce both ^{16}O-enriched and -depleted components previously reported.

9:00 a.m. Ireland T. R. * Honda M. O'Neill H. St. C.
Solar Wind Oxygen, Diffusion, and Oxidation in the Lunar Regolith **[#1599]**
A wide variety of oxygen isotope components are found in lunar metal grains. Metal grains experience a complicated history relating to solar wind implantation, diffusional loss of oxygen, and formation of rims from intrinsic lunar sources.

9:15 a.m. Huang S. * Humayun M. Burnett D. S.
Surficial Contamination on Genesis Flight Silicon on Sapphire (SoS) Wafer Fragments and Its Implication to the Determination of Solar Wind Tracers **[#1976]**
Surficial contamination on the Genesis wafers have been characterized by analyzing most elements in the periodic table. The target elements have been selected for high precision solution-ICP-MS analysis of solar wind tracers.

9:30 a.m. Jurewicz A. J. G. * Burnett D. S. Woolum D. S. McKeegan K. D. Guan Y. Hervig R.
Solar Elemental Abundances from Genesis Collectors: Fe/Mg, Constraining Solar-Wind FIP Fractionation, and Comparisons with CI Chondrites **[#2272]**
Fe and Mg elemental abundances have been measured, and internally-consistent results from fundamentally-different types of Genesis solar-wind collectors. The Mg/Fe ratio calculated appears to be significantly different from CI.

9:45 a.m. Veryovkin I. V. * Tripa C. E. Zinovev A. V. Hiller J. M. Pellin M. J. Burnett D. S.
RIMS Analysis of Solar Wind Magnesium and Calcium in Genesis Samples **[#2396]**
Mg and Ca fluences in Genesis solar wind collectors have been measured using Resonance Ionization Mass Spectrometry.

10:00 a.m. Mabry J. C. * Meshik A. P. Hohenberg C. M. Burnett D. S. Allton J. H.
Light Noble Gas Diffusion in Genesis Samples **[#2255]**
Investigation of potential diffusive losses of light noble gases from Genesis samples.

10:15 a.m. Meshik A. P. * Pravdivtseva O. Hohenberg C. M. Mabry J. C. Allton J. H. Burnett D. S.
Argon Release Profiles and a Preliminary Ar/Kr Ratio from the Genesis Polished Aluminum Collector **[#2537]**
Argon depth profile from the Genesis polished aluminum collector obtained using multicollector Noblesse mass spectrometer and stepped UV laser extraction.

10:30 a.m. Crowther S. A. * Filtness M. J. Gilmour J. D.
Applications of RELAX to Xenon Measurements in Genesis Samples **[#1762]**
We report the results of Xe isotope analysis of one ~6 × 6 mm sample of the Genesis Si collector target. Preliminary results are subtly different from the accepted solar wind values.

10:45 a.m. Heber V. S. * Baur H. Bochsler P. Burnett D. S. Reisenfeld D. B. Wieler R. Wiens R. C.
Helium, Neon, and Argon Isotopic and Elemental Composition of Solar Wind Regimes Collected by Genesis: Implications on Fractionation Processes Upon Solar Wind Formation **[#1779]**
Elemental and isotopic composition of He, Ne and Ar will be presented for the three Genesis solar wind (SW) regimes and bulk SW. Special emphasis will be given to the relative differences between SW regimes to reveal fractionation processes in the SW.

11:00 a.m. Marty B. * Zimmermann L. Burnard P. G. Burnett D. S. Allton J. H. Heber V. S. Wieler R. Wiens R. C. Sestak S. Franchi I. A.
In Search of the Solar Wind Nitrogen Isotope Composition: Analysis of a Gold Plate from the Genesis Spacecraft Concentrator **[#1314]**
We report N isotope analysis of a gold plate from the Genesis spacecraft concentrator. We did not find evidence for a light N component in the solar wind.

11:15 a.m. McKeegan K. D. * Jarzebinski G. J. Kallio A. P. Mao P. H. Coath C. D. Kunihiro T. Wiens R. C. Allton J. H. Callaway M. Rodriguez M. C.
A First Look at Oxygen in a Genesis Concentrator Sample **[#2020]**
We have successfully analyzed solar wind oxygen implanted into the Genesis SiC concentrator target. We expect to report preliminary results for the oxygen isotopic composition of solar wind at the conference. This is the highest scientific priority of the Genesis mission.