

From: "Ed Vicenzi" <vicenzi@volcano.si.edu>
Subject: **Smithsonian aerogel slice**
Date: June 8, 2006 8:48:03 AM PDT
To: westphal@ssl.berkeley.edu
Cc: "SI Stardusters": ; ""@volcano.si.edu, "George Flynn" <flynngj@plattsburgh.edu>
 1 Attachment, 572 KB

Andrew

So far we have used Time of Flight SIMS to look at the slice of aerogel you kindly sent us. We have made a number of measurements and here is a very brief summary of results so far:

Initially we gently sputtered the surface of the slice and found no cometary material. This caused us to initiate depth profiling into the sample. When an increase in the intensity of the Mg mass interval was observed we stopped and then analyzed a 200 x 200 um area to serve as an overview of the region.

These data were collected under low count rate conditions but after many tens of hours of integration we then thresholded a high contrast secondary ion image (e.g. 24Mg) and reconstructed a spectrum which we subsequently quantified. The following information is based upon a normalization to chondritic Fe abundance; we find that Mg, Al, Cr, and Mn exhibit chondritic ratios and Ca is depleted by a factor of 5. I should emphasize that we will have much higher quality data reduced from higher spatial resolution imaging by early next week.

I am including selected positive secondary ion images from both the larger scale (200x200 um) and the more detailed (35x35 um) scans.

Ed Vicenzi, Detlef Rost, Glenn MacPherson, and Emma Bullock

Edward P. Vicenzi
Smithsonian Institution
Department of Mineral Sciences
National Museum of Natural History
P.O. Box 37012
NHB-119
Washington, D.C. 20013-7012

(202) 633-1824
(202) 357-2476 (fax)
vicenzie@si.edu



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