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Award

2002 Best Student Paper in Planetary Sciences Award for Nicolas Dauphas

We are proud to announce that the winner of the Best Student Paper in Planetary Sciences Award for the year 2002 is Nicolas Dauphas of the Centre de Recherches Pétrographiques et Géochimique, Nancy, France, for his paper, Molybdenum evidence for inherited planetary scale isotope heterogeneity of the protosolar nebula (*The Astrophysical Journal* 563:640–644). Nicolas has received his Ph.D. in geosciences from the Institut National Polytechnique de Lorraine, Nancy, France, and was nominated by Bernard Marty of the Centre de Recherches Pétrographiques et Géochimiques, and Ecole Nationale Supérieure de Géologie, both at Nancy, France.

Nicolas was born and grew up in Nantes, Brittany, France. Nicolas always wanted to work in the field of Earth and planetary sciences. For that reason, he entered the Ecole Nationale Supérieure de Géologie, the only one of France's highly selective engineering schools devoted specifically to geosciences. While finishing his engineering degree, he simultaneously obtained a master's degree in geochemistry. As part of his master's research, he used H and N isotopes to develop a model of delayed addition of volatile elements to the Earth's atmosphere. In addition to pursuing this theoretical subject, he analyzed the nitrogen in samples from the Earth's deep mantle. He showed that the N isotopic composition of terrestrial mantle is heterogeneous, due to either core-mantle interaction, or to recycling of nitrogen biologically fractionated at the Earth's surface.

Nicolas has always been interested in the problem of origins, leading him naturally to pursue his Ph.D. studies in the field of cosmochemistry. His thesis investigations of the isotopic composition of molybdenum in primitive and differentiated meteorites have provided an important contribution to the field of isotope cosmochemistry. By developing state-of-the-art techniques in both chemical separation and ICP-MS sector isotope analysis, he was able to determine the isotopic compositions of distinct components of primitive meteorites. He demonstrated that Orgueil contains two types of Mo having mirror-like isotopic compositions that were formed by different nucleosynthetic processes. Mixing of these different components provides the molybdenum of our solar system. Nicolas further demonstrated the existence of subtle Mo isotopic variations among bulk primitive and iron meteorites. These variations show that the solar system's Mo is not fully homogenized and allow the establishment of genetic relationships among planetary bodies.

While pursuing this difficult Ph.D. project, Nicolas still found time to explore other aspects of the early history of the Earth and the solar system, such as the origin of the Earth's atmosphere and the origin of platinum-group elements in the mantle. His accomplishments have also been recognized by the 2003 *Geochemical Journal* Best Paper Award (Dauphas N., Reisberg L., and Marty B. 2002). An alternative explanation for the distribution of highly siderophile elements in the Earth. *Geochemical Journal* 36:409–419), and by the 2004 Best Ph.D. Thesis Award for "Cosmochimie Isotopique du Molybdène" (2002) from the Institut National Polytechnique de Lorraine.

I wish to join with the officers and members of the Meteoritical Society and the Planetary Division of the Geological Society of America, as well as the competition judges in congratulating Nicolas Dauphas. His work stood out in a field of strong papers and shows the high standards attained by students in planetary science.

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