

From the Editors

Astrophysics, Asteroids, Aubrites, Unusual Meteorites and a New Associate Editor

Our cover for this issue shows the Maltahöhe IIICD iron meteorite. Like their distant relatives the IAB iron meteorites, the lesser-known IIICD meteorites contain large dark, irregular inclusions of graphite-troilite-silicate. In fact, they constitute 14.4% of the surface of the cover photograph. In the present issue, Tim McCoy, Klaus Keil, Ed Scott and Henning Haack discuss silicate inclusions in Maltahöhe and two other IIICD iron meteorites, Carlton and Dayton, and compare them with the silicate inclusions in the IAB iron meteorites. The elemental trends displayed by these two classes are quite unlike those observed in the more populous iron meteorite groups, and it has often been suggested that these groups came from melt pools near the surface of their parent bodies rather than from cores. The present authors dispute this and consider that IAB and IIICD irons came from the core-mantle interfaces where the core is unusually sulfur-rich. However, there are many differences between the IAB and IIICD iron meteorites, which the authors attribute to major differences in the complexity of the solidification history for the and IAB and IIICD irons.

The paper by Katherina Lodders and her colleagues is discussed by Rhian Jones in her editorial below; the paper by Scott Sandford deserves special attention because it is a paper on asteroids, many of which are now appearing in *Meteoritics*. The author examines the mid-IR spectrum of ureilites and suggests possible parent bodies among the asteroids.

Also among our articles are two papers dealing with unusual meteorites. A consortium of authors led by Mike Lipschutz report studies of the Noblesville meteorite which fell precariously close to two youths in Indiana a few months ago. The meteorite is a regolith breccia with several unusual orbital and isotopic properties.

Nuclear cosmochemistry is well-represented in this issue by the Invited Review and Arnould and Howard's paper. The Invited Review by Ed Anders and Ernst Zinner deals with their studies of the interstellar grains in meteorites using isotopic signature and physical separation methods. Mike Howard and Marcel Arnould's paper deals with nucleosynthesis of heavy elements and their abundance in SiC. With such an astrophysically-oriented issue, it seemed appropriate to ask Bo Reipurth of the European Southern Observatory in Chile, a specialist in the early history and formation of stars, to write a guest editorial. Dr. Reipurth believes, as does the editorial board of *Meteoritics*, that if we could overcome the limitations of our backgrounds and traditions and become more familiar with adjacent research disciplines, our subject would greatly profit. But it is a daunting task. While *Meteoritics* has been broadening its coverage through the membership of its editorial board and the Invited Reviews, Dr. Reipurth has been publishing an electronic newsletter, which we encourage our readers to request. Any other readers of *Meteoritics* who wish to submit a guest editorial on a matter of substance and focussed on research are encouraged to contact me.

Finally, the Board is very pleased to have its number increased by the addition of Paul Weissman, a comet specialist of the highest calibre. We have published many comet papers in

Meteoritics in the last few years, and there are others in the pipeline, but this is a major step forward. The Board is committed to the notion that our science (and our journal) will be well-served by a closer interaction between all of us involved in small-body planetary research. Paul shares those sentiments, and we are proud to have him aboard.

Derek Sears
Editor