



## From the Editor

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In the April issue, we focus on lunar samples, regolith processes, and meteorites from the moon. This is the first of a number of issues of *Meteoritics & Planetary Science*, where we will focus on one particular topic. Others, including martian meteorites and cratering studies, are planned.

We have several papers which are concerned with lunar samples. Linda Elkins Tanton and colleagues studied the processes which could form the Apollo 15 green glasses, using phase equilibria experiments. Marc Norman and others studied an Apollo 16 lunar breccia in an isotopic study to improve our knowledge of the age and composition of this breccia, as well as related lunar rocks. Two other papers deal with broader issues concerning the early history of the moon: Jasper Halekas et al. discuss magnetic surveys of the moon and evidence for an early magnetic field. Bill Hartmann takes the idea of a late lunar cataclysmic bombardment to task; his position is that there is no real proof of this event in the geochronologic records. This is in some contrast to the work of the late Graham Ryder, this year's Barringer medalist.

Lunar meteorites are the only meteorites where the source object is clearly known. We now have many lunar meteorites—several new ones seem to turn up every year now. Two papers from the Tennessee group of Larry Taylor discuss a new meteorite (Dhofar 287) with two very different lithologies, a basalt and a breccia. Tim Fagan and colleagues from several laboratories discuss the new lunar meteorite

Northwest Africa 773, which may bring us new information about lunar mare evolution. Vera Fernandes et al. from Manchester discuss the  $^{40}\text{Ar}$ - $^{39}\text{Ar}$  ages of both Northwest Africa 032 and 773, which gave Ar-Ar ages of 2.8 and 2.91 Ga. If these represent crystallization ages, they are remarkably young. Dolores Hill and Bill Boynton revisit the trace-element chemistry of Calcalong Creek, the first lunar meteorite found outside Antarctica.

Finally, K. J. Mathew and K. Marti report on solar-wind noble gases in the gas-rich meteorite Pesyanoe and its relation to solar-wind implantation in the lunar regolith. The nature of these processes is important for our understanding of the build-up of these elements in lunar and other regoliths.

Since it seems it will be a long time before we sample new areas of the moon with sample return missions, lunar meteorites may become our "probes" of unsampled areas, similar to our martian meteorite "probes."

A. J. Timothy Jull  
Editor

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