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Development of Mssbauer Microscope for Meteorite Studies

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Meteorites are almost always mixed phase minerals at the microscopic level. There are numerous ways to study the structure and properties of these minerals that can uniquely identify the source of the meteorites. Here, we present a newly developed microscopic method: synchrotron radiation-based Mossbauer Microscope. We will discuss the potential of this new approach with two different imaging modalities.

In Collaboration With J. Zhao, M. Y. Hu, Argonne National Laboratory.