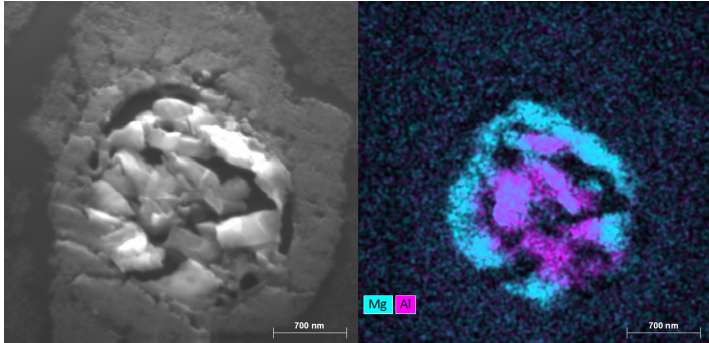




# Imaging and Chemical Analysis Laboratory



Interplanetary dust particle. EDX maps by Nathaniel Rieders

## About this Facility

ICAL is a user oriented facility that supports both applied research and education in all science and engineering disciplines at MSU. The laboratory provides access to state of the art equipment as well as professional expertise and individual training to government organizations, academic institutions, and the private sector. Laboratory instrumentation is dedicated to the characterization of materials through high resolution imaging and spectroscopy. ICAL promotes interdisciplinary collaboration between the research, educational and industrial fields.

[www.physics.montana.edu/ical/](http://www.physics.montana.edu/ical/)

## Instrumentation

- |   |   |
|---|---|
| 1 Atomic Force Microscope (AFM)                             | 7 Scanning Auger Electron Nanoprobe (AUGER) |
| 2 Field Emission Scanning Electron Microscope (FE SEM)      | 8 Epifluorescence Optical Microscope        |
| 3 Scanning Electron Microscope (SEM)                        | 9 Critical Point Drying System              |
| 4 Small-Spot X-ray Photoelectron Spectrometer (XPS)         | 10 Microarray ChipWriter and Reader System  |
| 5 Time-of-Flight Secondary Ion Mass Spectrometer (ToF-SIMS) | 11 Video Contact Angle System               |
| 6 X-Ray Powder Diffraction Spectrometer (XRD)               | 12 Zeta Potential Meter                     |

## Outreach

ICAL interacts with over 200 students a year in such activities as class demonstrations and teaching, short courses, individual research projects, K-12 outreach and related activities.

To talk more in detail about how we may be able to help you, contact MONT director David Dickensheets at [davidd@montana.edu](mailto:davidd@montana.edu)

Dr. Recep Avci is the ICAL Director

ICAL is a part of MONT, the Montana Nanotechnology Facility, supported by NSF. MONT supports open access to 6 research facilities at MSU and is a part of the National Nanotechnology Coordinated Infrastructure (NNCI) with access to 15 additional sites across the US. If MONT does not have the instrumentation you need, we will find what you're looking for at one of our partner institutions.

[www.nnci.net](http://www.nnci.net)

