## Electron & Scanning Probe Microscopy

- ASYLUM MFP-3D Scanning Probe Microscope
- DIGITAL INSTRUMENTS Atomic Force Microscope
- FEI Helios Nanolab 600i FIB/SEM
- FEI Quanta 600i Environmental SEM
- FEI Talos F200x TEM/STEM
- FEI Tecnai T12
- JEOL JSM-7000F Field Emission SEM
- KEYENCE VHX-5000
- PHENOM SEM
- TESCAN S8252G Raman SEM/FIB
- WITEC Laser Confocal Raman Microscope

## Mass Spectrometry

- IONTOF TOF-SIMS.V*
- SCIEX 5500 Triple Quad
- SCIEX X500R QToF

## X-Ray Diffraction & Computed Tomography

- PANALYTICAL Empyrean Modular X-Ray Diffractometer*
- PANALYTICAL X’Pert Pro X-Ray Diffractometer
- ZEISS Versa 520 XCT*

## X-Ray Photoelectron Spectroscopy

- Rocky Mountain Center for Environmental XPS

## Mechanical Testing

- MARK-1- ESM 1500
- MTS Alliance RT/100
- INSTU-MET Renew 1125
- SATEC SONNTAG Fatigue Testing System SF-1-U
- DIC Fatigue Dynamics RBF-200
- Rotating Bending Fatigue
- DSI Gleeble 3500-GTC
- MTS Exceed E22 Impact Tester
- MTS Landmark 370.10
- MTS Landmark 370.25
- MTS 312.21 Top Actuator
- MTS 312.21 Hydraulic Grips
- MTS 312.21 Bending Under Tension
- MTS 312.41
- MTS 810 Material Test System 318.50
- Extensometers
- Digital Image Correction
- Heater and Cooling Furnaces

## Nanofabrication & Device Processing

- Class 1,000 and Class 10,000 clean rooms
- KARL SUSS MJB3 UV400 Mask Aligner
- ULVAC-RIKO MILO-5000 Rapid Thermal Annealer
- Plasma Preen System
- Spin Coater/Hot Plate
- Wet & Dry Oxidation Furnaces
- Diffusion Furnace
- Vacuum Furnace
- AUTO GLOW 200 Reactive Ion Etcher
- MARCH 1701 Reactive Ion Etcher
- TPT hb05 Wire Bonder

## Thin Film Deposition & Surface Characterization

- ANGSTROM Thermal Evaporator
- AJA Sputtering System
- High Temperature Thermal Evaporator
- Semicore Sputtering System
- Tabletop Gold Sputter Coater
- Solar Simulator w/EQE
- Electrical Probe Station
- Four Point Probe
- D-600 Profilometer
- HL5500 Hall Effect Measurement System
- CARY 5G UV-VIS Spectrometer
- Optical Microscope

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* Instrument has in situ capabilities

For more detailed information on instrumentation capabilities, to request access or assistance, and view user rates, please visit: Mines.edu/Shared-Facilities
Meet the Team

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