

Providing Access to Experts & Instrumentation

Electron Microscopy

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
PHENOM SEM
TESCAN S8252G Raman SEM/FIB*

Scanning Probe & Optical Microscopy

ASYLUM MFP-3D Scanning Probe Microscope
DIGITAL INSTRUMENTS Atomic Force Microscope
KEYENCE VHX-5000
D-600 Profilometer
WITEC Laser Confocal Raman Microscope

Optical & Electrical Surface Characterization

CARY 5G UV-VIS Spectrometer
Four Point Probe/ Electrical Probe Station
FTIR Spectrometer/Ellipsometer
HL5500 Hall Effect Measurement System
Janis SHI-4-2 Cryostat
Solar Simulator
WOOLLAM M-2000 Ellipsometer

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

Class 1,000 Clean rooms
ABM UV Mask Aligner
AUTO GLOW 200 Reactive Ion Etcher
KARL SUSS MJB3 UV400 Mask Aligners
NANYTE Beam UV - Laser Lithography
Plasma-Preen System
RAITH VOYAGER E-Beam Lithography System
Spin Coater/Hot Plate
ULVAC-RIKO MILO-5000 Rapid Thermal Annealer
Diffusion Furnace
High Temperature Furnace
Vacuum Furnace
Wet & Dry Oxidation Furnaces
TPT hb05 Wire Bonder

Thin Film Deposition

AJA Sputtering System
AJA UHV Multi-Technique Deposition System
ANGSTROM Thermal Evaporator
High Temperature Thermal Evaporator
Semicore Sputtering System
Tabletop Gold Sputter Coater

Water Quality Analysis

DR-6000 Hach
Shimadzu TOC-L Total Carbon Analyzer
Thermoscientific Dionex ICS-900

X-Ray Photoelectron Spectroscopy*



Rocky Mountain
Center for
Environmental XPS

Mass Spectrometry

CAMECA APT LEAP 4000X SI
IONTOF TOF-SIMS.V*
SCIEX 5500 Triple Quad
SCIEX X500R QToF
THERMO SCIENTIFIC Orbitrap Exploris 240

X-Ray Diffraction & Computed Tomography

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

Meet the Team

Our experts are happy to meet with your research groups, provide assistance with grant proposals, conduct individual consults or present technical talks. Submit your requests on our website:

[Mines.edu/Shared-Facilities](https://mines.edu/Shared-Facilities)



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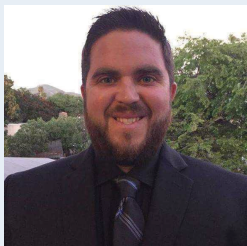
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For more detailed information on instrumentation capabilities, to request access or assistance, and view user rates, please visit:

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