TOOLS AND CAPABILITIES

I2AT Provides High-tech Capabilities that Enable Scientists to Conduct Research that Matters

VHX 7000 Optical Microscope

- Fracture Analysis
- Surface Roughness

SmartLab X-ray Diffractometer

- Phase Identification and Composition
- Crystallite Size
- Residual Strain
- Crystal Orientation and Texture

Bruker Dimension Icon and Bioscope AFM

- Surface Roughness
- Surface Imaging
- Surface Potential
- Young's Modulus Adhesion

Zeiss LSM 510 Confocal

- Fluorescence Imaging
- 3-D Z Stack
- Optical Sectioning
- Immunofluorescence Imaging

JEOL 6500F and Zeiss Supra SEM

- Surface Morphology
- Surface Topography
- Ultrastructure Imaging
- Elemental Composition Analysis and Mapping

Nikon XCT 225TH

- Visualizing Interior Features within Solid Objects
- Generating 3D Models
- Inspection of Components
- Failure Analysis and Quality Control
- Porosity and Inclusion Analysis

JEOL 2100 TEM

- High Resolution (sub nm resolution) Imaging
- Elemental Analysis
- Electron Diffraction and Analysis

TA Instrument's ARESG2 Rheometer and RSA-G2 DMA

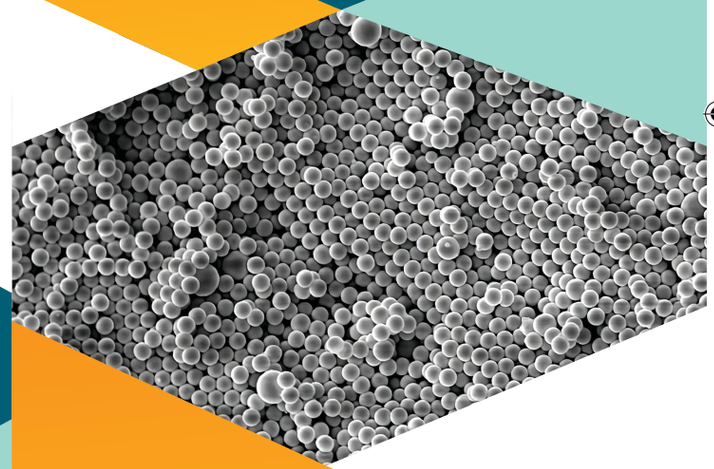
- Soft Material Characterization
- Viscoelastic Properties *(storage modulus, loss modulus, loss tangent)*
- Rheological Measurement (viscosity, elasticity, yield stress, structure formation)

MISSISSIPPI STATE UNIVERSITY™
INSTITUTE FOR IMAGING AND ANALYTICAL TECHNOLOGIES

Call 662.325.3019
301 Research Boulevard
research@i2at.msstate.edu
@institute-for-imaging-and-analytical-technologies

MISSISSIPPI STATE UNIVERSITY™

INSTITUTE FOR IMAGING AND ANALYTICAL TECHNOLOGIES

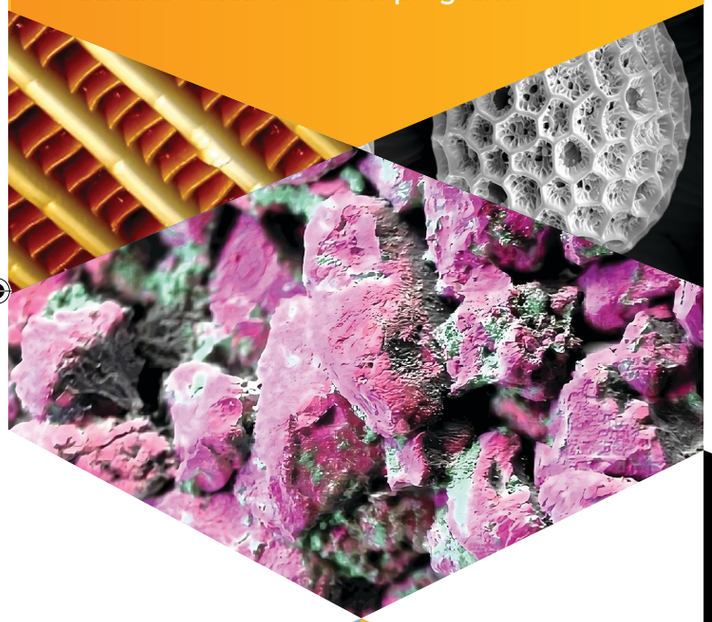


I2AT Provides High-tech Capabilities that Enable Scientists to Conduct Research that Matters

www.i2at.msstate.edu

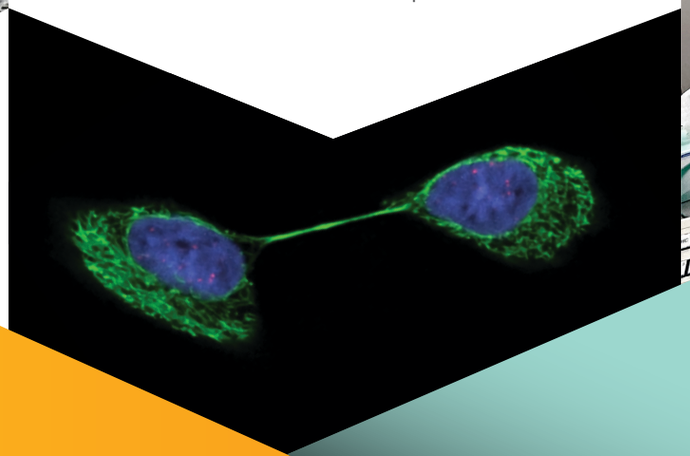
FOCUSING ON WHAT MATTERS

The Institute for Imaging & Analytical Technologies (I2AT) is a university-level research institute and core facility that provides researchers with access to major research instrumentation, technical training and consultation. This research infrastructure supports hands-on training and expertise for students and enables researchers to advance their research programs.



CONNECTING INDUSTRY WITH SCIENCE

Enabling individuals to explore beyond what the human eye can see is critical for I2AT technicians. I2AT supports a wide range of research for MSU, collaborative academic institutions and industry. Through outreach activities, we continue to establish new partners and deepen existing partnerships with local, regional, national and international partners.



We work with a wide range of samples from the size of nanoparticles to football helmets. Please reach out and let us know how we can help with your research or industry project.