

thermo scientific



Thermo Scientific DXR3 Raman Microscopy

Raman at the speed you need

ThermoFisher
SCIENTIFIC

Microscopes

Thermo Scientific™ DXR3xi
Raman Imaging Microscope



Visual driven imaging

- Instant results previews that won't slow you down
- Ultra-fast chemical imaging that speeds scientific investigations for drug development, material science, advanced polymers and more
- Superior confocal performance for micron and submicron Raman characterization enabling more detailed images and isolating them from surrounding materials for faster decision making
- Expanded camera options with **Front Illuminated EMCCD** now available to improve data collection and reduce fringing

OMNICxi with 3D Visualization and Advanced Particle Analysis

- Gain instant information with **3D Confocal Visualization**
- Fully-automated work-flow solution for **Advanced Particle Analysis** with post-data treatment and reporting options:
 - Locate, characterize and identify particles with ease
 - Assess distributions and select particles by category
 - Advanced reporting options that fit your needs

Thermo Scientific™ DXR3
Raman Microscope

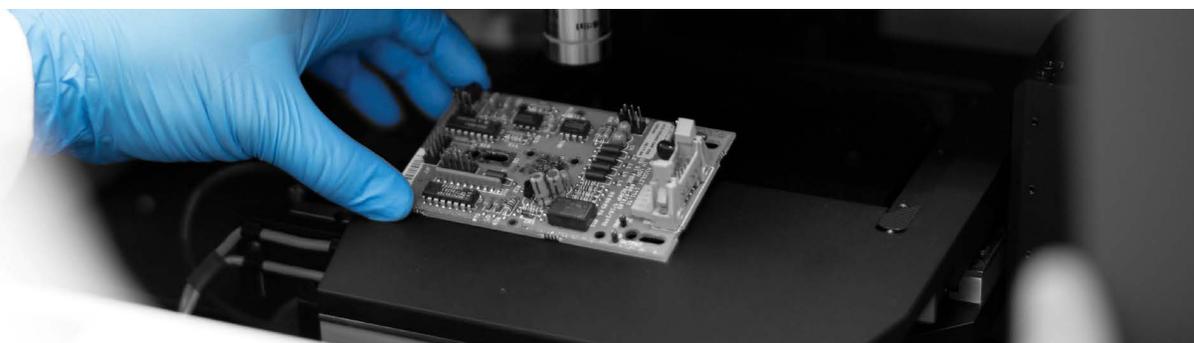


Research performance that's easy to use

- High sensitivity and spatial resolution point-and-shoot Raman capabilities
- Walk up and use operation – no expertise required
- A cost-effective instrument built for busy laboratories in academia, industry and government
- **Automatic X-axis Calibration** ensures resistance to environmental-induced drift and elimination of manual calibration

Software focused on answers

- Identify unknowns and multi-component compounds automatically
- Save time by leveraging robust mapping tools for automated analysis powered by Thermo Scientific™ OMNIC™ Atlas Software
- High-performance confocal Raman microscopy in a robust, integrated design
- **Characterize and identify** microparticles quickly with dedicated work-flow solutions



Thermo Scientific™ DXR3 SmartRaman Spectrometer



Bulk sample analysis fast and easy

- The DXR3 SmartRaman Spectrometer is designed for bulk sample analysis
- Spectral analysis interpretation with Thermo Scientific™ OMNIC™ Spectra Software
- Ideal for pharmaceutical and multi-purpose analytical labs

Automation and sampling versatility for QA/QC

- Versatility with multiple sampling accessories
- Higher throughput with multi-array plate and array automation
- Improved reliability and efficiency with **Automatic X-axis Calibration** which eliminates manual calibration

Advanced flexibility For the whole family

Accessories and components for faster Raman analysis

- Pre-aligned and lock-in-place components with auto-recognition and stored alignment allow any user to reconfigure an instrument in seconds
- Maximum flexibility with six interchangeable laser options for your analysis needs including two new high-power lasers:
 - 532 nm HP, 633 nm HP
- Reduce etaloning with **Front Illuminated TE Cooled EMCCD** and standard **Back Illuminated** camera*
- Automated polarization Raman capabilities provide structural information that complements chemical information, adding robust data for key research needs

*Only available on the DXR3xi Raman Imaging Microscope



Applications

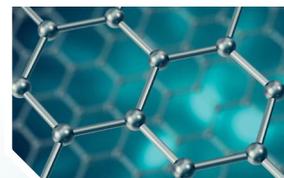


Pharma

- Rapid imaging for API distribution analysis
- Non-destructive analysis and minimal sample preparation
- Identification of isomers, hydrates, and polymorphs

Materials

- Chemical and structural analysis of multi-dimensional materials
- Ideal choice for determination of graphene layer thickness and determination of relative carbon nanotube diameter



Batteries

- Real time analysis of structural and material changes in lithium-ion batteries
- Perfect for efficient ex situ analysis of anode and cathode materials

Polymers/packaging

- Visualization of 3D confocal spectral data
- Quickly understand multi-layer samples at high resolution
- Obtain data on structure and crystallinity



Microplastics

- Microplastics: Automated, multi-point microplastics analysis and identification
- Advanced software for optical and chemical location, characterization and identification of microplastics on filters
- Higher spatial resolution enables analysis of smaller particles complementing FTIR analysis

Gemstones and geology

- Rapid non-destructive identification of fluid inclusions in minerals
- Obtain data on crystallinity and crystal structure instantly



To learn more or request a demo visit

thermofisher.com/Raman

ThermoFisher
SCIENTIFIC