

Raman Microscope

Raman microscopy provides non-destructive chemical and structural information with micrometer and sub-micrometer spatial resolution. By combining vibrational spectroscopy with optical microscopy, the method enables direct analysis of microscopic features, phase composition, and chemical heterogeneity in solids, coatings, biological samples, and functional materials.

The laboratory Raman microscope is configured for confocal microanalysis and automated chemical imaging. The system supports multiple laser excitation wavelengths with software-controlled switching, allowing optimization for fluorescence suppression and signal sensitivity. A motorized high-precision sample stage enables point mapping, depth profiling, and fast Raman imaging. Automated wavelength calibration and instrument self-tests ensure long-term spectral accuracy and reproducibility. The platform supports both routine measurements and advanced research workflows, including 2D and 3D Raman mapping.



Key Features

- Confocal Raman microscopy with sub-micron spatial resolution
- Multi-laser excitation with software-controlled switching
- High-speed Raman imaging and mapping
- Depth profiling and 3D Raman analysis
- Non-destructive analysis of solids, coatings, and microstructures



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