

Brings microscope functionality to your spectrometer

MicOS Microscope Optical Spectrometer

Using a standard microscope for luminescence characterization often means inefficient fiber-optic coupling to the spectrometer, and difficult access for many sample configurations, such as side-emitting devices, or upright cryostats. Nor do standard microscopes offer flexibility for coupling multiple lasers for photoluminescence excitation.

HORIBA Scientific's MicOS merges microscopy and spectroscopy, to provide optimal coupling from sample all the way to the detector. Down-looking or side-looking configurations for side-emitting devices or upright cryostats give you flexible sample access. An optional, fully automated stage for mapping and sample-positioning is available. The MicOS offers a flexible platform for the use of multiple lasers for sample excitation. The system includes a vision camera so you always see what you are measuring.



The MicOS is the most cost-effective and flexible microspectrometer solution!

Specifications*

| Spectrometers | | iHR320 | | iHR550 |
|----------------------------------|---------------|--------------------------------|--------------|--------------------------|
| Spectral range ¹ | | 200 nm to 1600 nm | | |
| Spectral resolution ² | | 0.18 nm | | 0.1 nm |
| Detector | Type | CCD 1024 × 256 OE ³ | IGA 512 × 25 | Single-channel |
| | Range | 200–1050 nm | 800–1600 nm | 190–1600 nm ⁴ |
| Excitation laser ⁵ | | 532 nm | 633 nm | 785 nm |
| Microscope Objective | Magnification | 10× | 50× | 100× |
| | Spot size | 100 μm | <20 μm | <10 μm |
| Sample stage | | xyz (manual or motorized) | | |

¹Depends on choice of objective, filters, and detectors.
²For 1200 gr/mm grating and open-electrode CCD
³BIUV, BIVS, and BIDD formats available for specific quantum-efficiency requirements.
⁴Needs two detectors to cover entire range.
⁵Other options are available upon request.

*Specifications are subject to change without notice.

Photoluminescence

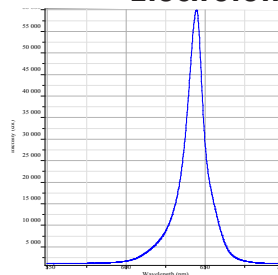


Aggregate of fluorescent beads

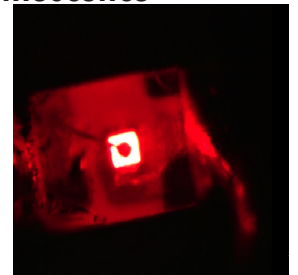


Fluorescence map overlay at 700 nm, following excitation at 633 nm

Electroluminescence



Emission of red LED



Red LED

HORIBA

Scientific

ELEMENTAL ANALYSIS

FLUORESCENCE

GRATINGS & OEM SPECTROMETERS

OPTICAL COMPONENTS

PARTICLE CHARACTERIZATION

RAMAN

SPECTROSCOPIC ELLIPSOmetry

SPR IMAGING



Feature

Microspectroscopy Benefits

| | |
|--|---|
| Fully integrated system | Optimum coupling from the sample all the way to the detector |
| Down-looking and side-looking configurations | Flexibility to measure luminescence from side-emitting devices and samples in upright cryostats |
| Multiple lasers | Can accommodate multiple fiber-coupled lasers for excitation at different wavelengths |
| Optional automated stage | Allows mapping functions and accurate sample-positioning |
| Vision camera included | See exactly what you are measuring |
| LabSpec Software | Complete control of an entire spectrograph system with full analysis capabilities |
| Wide spectral range | Collect emission spectra from 200 nm up to 1600 nm |

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HORIBA
Scientific

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