Full Spectrum Clarity with the i-Raman Duo

From fingerprint to stretch – All in One Scan

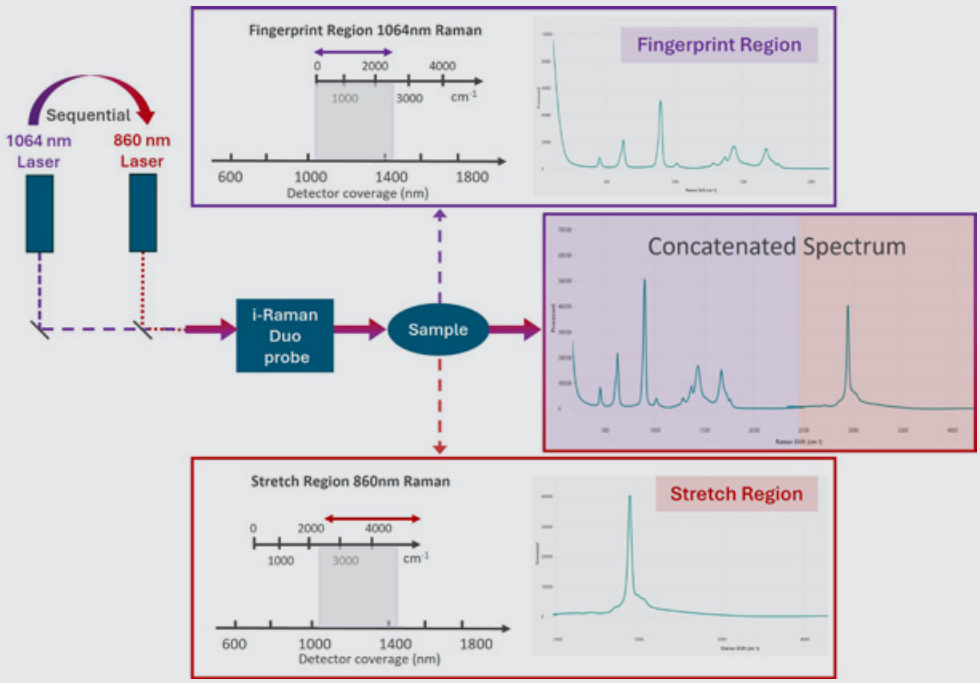
HIGHLIGHTS

- Extended Raman detection range covering 100 cm^{-1} to 4600 cm^{-1}
- Reveals high wavenumber stretch bands above 2000 cm^{-1}
- Dual laser excitation avoids fluorescence interference
- Fully integrated with seamless coverage of fingerprint and stretching regions

Metrohm

How does concatenated Raman work?

The i-Raman Duo employs two lasers – 1064 nm for the fingerprint region (100–2500 cm^{-1}) and 860 nm for the stretch region (2500–4600 cm^{-1}) – to capture a broad Raman spectral range in a single scan. The probe is optimized for sequential data acquisition, and SpecSuite software seamlessly concatenates the resulting spectra into a single measurement for streamlined analysis.



Measure beyond the ordinary

To access the full molecular picture of a sample, the i-Raman Duo combines two laser excitations through a single spectrometer and probe. This captures both fingerprint and stretching regions cleanly and efficiently, delivering high-sensitivity spectra while avoiding spectral interference from fluorescence.

Rugged stability, guaranteed versatility

The i-Raman Duo delivers high-resolution Raman data in the stretch region past 3500 cm^{-1}, rivaling the performance of FT-Raman systems. Its no-moving-parts design ensures rugged performance and long-term stability. The i-Raman Duo boasts a diverse range of sampling accessories making it ideal for demanding applications, whether in the QC lab or the research lab.

More information, more applications

The stretch region of a Raman spectrum can provide valuable information about molecules such as alkynes, lipids, proteins, nucleic acids, carbohydrates, and water. Applications that benefit from enhanced spectral information include:

- biomedical diagnostics
- petrochemicals and biofuels
- agriculture
- moisture analysis
- food and beverage testing

ORDERING INFORMATION

Instrument	
2.954.0060	i-Raman Duo