

Technical Contact

Randy Heyler
+1 (626) 357-9600 x 732
randy.heyler@coherent.com

PR Contact

David Kuntz
+1 (310) 377-5393
davidkuntz@cox.net

For Immediate Release:

Coherent THz-Raman[®] Modules Reveal Sample Phase Morphology

Santa Clara, CA, February 1, 2019 – The Coherent TR-Series of THz-Raman[®] spectroscopy modules deliver spectral information in the THz frequency (i.e., low wavenumber) range, which provides unique data about subtle phase differences, crystallinity, orientation and other sample characteristics. TR-Series modules can be used to upgrade an optical microscope or virtually any visible/NIR or Raman spectrometer. These products allow simple access to this key “structural fingerprint” frequency range, and enable non-destructive characterization of structural changes in real time. Coherent will display these TR-Series modules at their upcoming BiOS and Photonics West exhibits (San Francisco, February 2-3, and 5-7, 2019, respectively).

Coherent TR-Series modules utilize the company's patented narrowband filter technology. Specifically, these notch filters are reflective volume holographic filters (VHGs) that are engineered to deliver long lifetime, high efficiency and excellent transmission. Their bandwidth is a factor of ten narrower than legacy gel-based holographic or thin film notch filters, enabling the capture of both Stokes and anti-Stokes Raman scatter very close to the laser excitation wavelength.

In spite of its unique potential, research and imaging based on the THz spectral region has been limited mainly to specialty laboratories. Because of the complexity and cost of the systems needed to generate and detect THz radiation, frequency-resolved THz data has been even more challenging. However, by using Raman scatter near to the excitation (Rayleigh) wavelength, these TR-Series modules now provide the same data, but with the convenience and affordability of using visible or near-IR light, i.e., with glass optics, fibers and silicon-based (CCD/CMOS) detectors.

These new products for Raman spectroscopy expand and complement Coherent's comprehensive portfolio of lasers and laser systems for life science applications that address scanning microscopy and flow cytometry.

###

Founded in 1966, Coherent Inc. is one of the world's leading providers of lasers and laser-based technology for scientific, commercial and industrial customers. Our common stock is listed on the Nasdaq Global Select Market and is part of the Russell 1000 and Standard & Poor's MidCap 400 Index. For more information about Coherent, visit the company's website at <https://www.coherent.com> for product and financial updates.