Issued: 7th March 2013

## New low wavenumber performance

**Study low wavenumber Raman features quickly and easily with Renishaw's Eclipse filters for the inVia Raman microscope; block the laser, not Raman bands.**

Most materials can be successfully analysed by studying the Raman bands in the 'fingerprint' region (200 cm-1 to 1800 cm-1). However, Raman analysis at much lower Raman shifts (below 200 cm-1) can reveal very valuable information for vibrations such as:

* shear modes
* lattice modes
* acoustic modes
* breathing modes
* folding modes
* rotational modes
* heavy atom vibrations

**Eclipse performance**

Eclipse filters make low wavenumber Raman analysis easy:

* performance down to 5 cm-1 (typical - excitation specific)
* high signal levels because of high transmission efficiency for Raman-scattered light
* low noise levels from strong blocking of the Rayleigh-scattered light
* suitable for photoluminescence measurements, in addition to Raman measurements (broad bandpass)
* study both Stokes and anti-Stokes scattering; notch, rather than edge filter technology
* longevity; robust glass-based filter technology
* trouble-free use, from highly stable Renishaw mechanical mounts
* easy switching between filters with Renishaw's encoded multi-filter motorised mount

For more information about Eclipse—and other Renishaw filters—contact a local sales representative or visit www.renishaw.com/invia

**Image:** Stokes/anti-Stokes Raman bands of L-cystine (a standard sample for testing low wavenumber performance), showing bands at both 9 cm-1 and 15 cm-1.

Ends

## Notes to editors

### Renishaw profile

Renishaw is a world leader in metrology and spectroscopy technologies, with a strong history of innovation in product development and manufacturing.

Since its formation in 1973, Renishaw has supplied companies small and large, worldwide, with innovative products that increase process productivity, improve product quality, and deliver cost-effective automation solutions.

A high level of investment in research and development (R&D) has resulted in developments across a wide range of other product areas, including Raman microscopes for the spectral analysis of materials. Historically, total annual expenditure on R&D, including related engineering costs, has amounted to around 17% of turnover.

With more than 60 operations in 32 countries, and over 3,000 employees, Renishaw’s customers are strongly supported throughout the world with outstanding technical expertise and service.

### For further information

Please contact:

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