24th November 2015

**Renishaw’s inVia confocal Raman microscope connects to Bruker’s Dimension Icon AFM**

Renishaw is an experienced supplier of integrated Raman-AFM solutions, having offered them for over 16 years. The latest addition to the range of instruments it supports is Bruker’s Dimension Icon AFM. This additional pairing demonstrates the extreme flexibility of the Renishaw inVia confocal microscope, and its ability to interface to a wide range of instruments employing many analytical techniques.

inVia-Icon is a fully integrated Raman-AFM system. It has a comprehensive range of features, making it the highest performing, yet easy-to-use, system for co-localised Raman-AFM measurements. It supports a full range of AFM techniques and µ-Raman capabilities, and can characterise the properties of materials at sub-micrometre and nanometre scales.

The Dimension Icon provides users with uncompromised performance, robustness, and the flexibility to perform nearly every AFM measurement type, at resolutions previously only obtained by extensively customized systems. The inVia microscope complements this by producing both rich, detailed, chemical images and highly specific Raman data from discrete points. Users can make both Raman and AFM measurements without moving their samples between instruments and without compromising performance. In addition, if necessary, both instruments can be used independently.

The inVia-Icon combination has a flexible arm linking the two instruments; this couples light between the two with mirrors, providing a higher efficiency than fibre optic coupling. This ensures users can acquire high quality data in the minimum time, with market-leading signal-to-noise levels.

The flexible coupling arm employs Renishaw’s StreamLineHR™ high resolution mapping technology. It can Raman map areas up to 500 µm × 500 µm, with position encoders ensuring 100 nm repeatability. Bruker’s proprietary PeakForce QNM complements StreamLineHR by providing even higher resolution nano-mechanical information.

“Renishaw’s patented sampling arm allows the sample to be measured while it is still mounted on the AFM; making correlated measurements with both systems is easy,” said Tim Batten, Renishaw Applications Scientist. He added, “The arm does not contact the AFM and, as such, does not affect its performance.”

Adding inVia’s powerful chemical imaging capabilities to the Bruker Dimension Icon sets a new standard, delivering high-performance surface characterisation with both efficiency and ease.

For an up-to-date listing of the AFM/SPM models that can be coupled with an inVia, contact your local Renishaw office. Please visit www.renishaw.com/contacts

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**About Renishaw**

Renishaw is one of the world's leading engineering and scientific technology companies, with expertise in precision measurement and healthcare. The company supplies products and services used in applications as diverse as jet engine and wind turbine manufacture, through to dentistry and brain surgery. It is also a world leader in the field of additive manufacturing (also referred to as 3D printing), where it is the only UK business that designs and makes industrial machines which ‘print' parts from metal powder.

The Renishaw Group currently has more than 70 offices in 33 countries, with over 4,000 employees, of which 2,700 people are employed within the UK. The majority of the company's R&D and manufacturing is carried out in the UK and for the year ended June 2015 Renishaw achieved sales of £494.7 million of which 95% was due to exports. The company's largest markets are the USA, China, South Korea, Germany and Japan.

The Company's success has been recognised with numerous international awards, including eighteen Queen's Awards recognising achievements in technology, export and innovation. Renishaw received a Queen’s Award for Enterprise 2014, in the Innovations category, for the continuous development of the inVia confocal Raman microscope. For more information visit [www.renishaw.com](http://www.renishaw.com)

### For further information

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