

TrueSurface – The Original Topographic Raman Imaging System, Redefined

Innovations in Profilometer-guided Raman Imaging

WITec, the inventor of topographic Raman imaging, will present at Pittcon 2017 in Chicago the next generation of its patented TrueSurface optical profilometer. The combination of surface analysis and Raman spectral acquisition enables topographic Raman imaging on rough and uneven samples. One-pass simultaneous operation makes 3D Raman chemical characterization easier and faster than ever before.

“WITec established Raman topographic imaging with TrueSurface. We then continued to innovate, leveraging the inherent strengths of our systems,” says Dr. Olaf Hollricher, Managing Director of R&D at WITec. “The overwhelmingly positive feedback from our customers confirms that chemical 3D surface analysis with TrueSurface is a successful concept with an enthusiastic following in academia and industry.”

With the TrueSurface option, Raman spectra are acquired from precisely along a surface, or at a set, user-defined distance from a surface. This makes the distribution of chemical components within the sample visible in three dimensions. Rough, inclined or irregularly-shaped samples can be investigated with the same ease as standard samples. The requirements of sample preparation can therefore be drastically reduced.

As the TrueSurface sensor actively monitors and maintains a set distance between the objective and sample surface, its closed-loop operation can compensate for any variations during measurements with long integration times. This keeps the measurement area in focus at all times and produces sharp chemical Raman images with sub-micrometer resolution.

Investigations on pharmaceutical tablet coatings, geological samples, composite emulsions, complex semiconductor structures and many other applications can benefit from the ease of use, accelerated workflow and methodological advantages provided by the new TrueSurface.

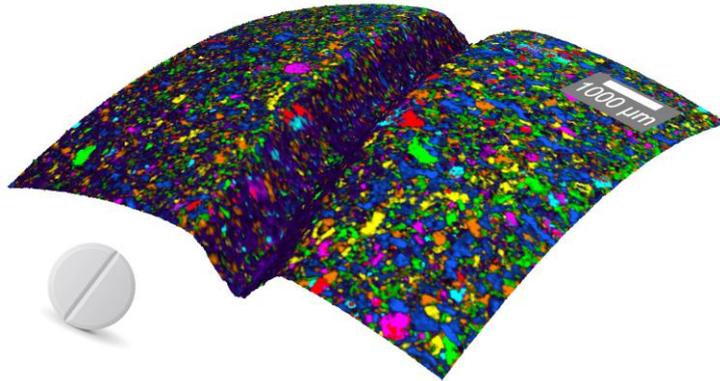
“TrueSurface is for everybody who wants to just take a sample, as it is, and put it under a microscope for chemical analysis,” explains Dr. Joachim Koenen, Managing Director at WITec. “Also, the combination of confocal Raman imaging and optical profilometry provides additional information on the chemical distribution of the sample components that are of great benefit to our customers.”

The new TrueSurface from WITec will be presented at the Pittcon 2017 Conference & Expo at McCormick Place in Chicago, Illinois from March 5th to the 9th. Topographic Raman imaging can be experienced live at booth #1638.

Watch the WITec TrueSurface product video: <https://youtu.be/8G7u9SzJbDc>

More information: <http://www.witec.de/products/accessories/truesurface/>

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The topographic Raman image of a pharmaceutical tablet shows the distribution of chemical components along a curved surface.

Download high-resolution image:

<http://witec.de/assets/Uploads/WITec-TrueSurface-Topographic-Raman-Imaging-Tablet-300dpi.png>

About WITec

WITec is a leading German manufacturer of confocal and scanning-probe microscopes for state-of-the-art Raman, Atomic Force Microscopy (AFM), Scanning Near-Field Optical Microscopy (SNOM) and developed the integrated Raman Imaging and Scanning Electron (RISE) microscopy. WITec's headquarters is located in Ulm, Germany, where all WITec products are developed and produced. Branch offices in USA, Japan, Singapore, China and Spain ensure a worldwide sales and support network. WITec has been distinguished by its innovative product portfolio and a microscope design that enables combinations of the various imaging techniques within one system. An exemplar of the company's breakthrough development is the world's first integrated Raman-AFM microscope. To this day, WITec's confocal microscopes are unrivaled in sensitivity, resolution and imaging capabilities. Significant innovation awards such as the Achema Innovation Award 2015 for the fully automated *apryon* microscope and a Prism Award 2015 for RISE microscopy document WITec's enduring success and innovative strength.

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