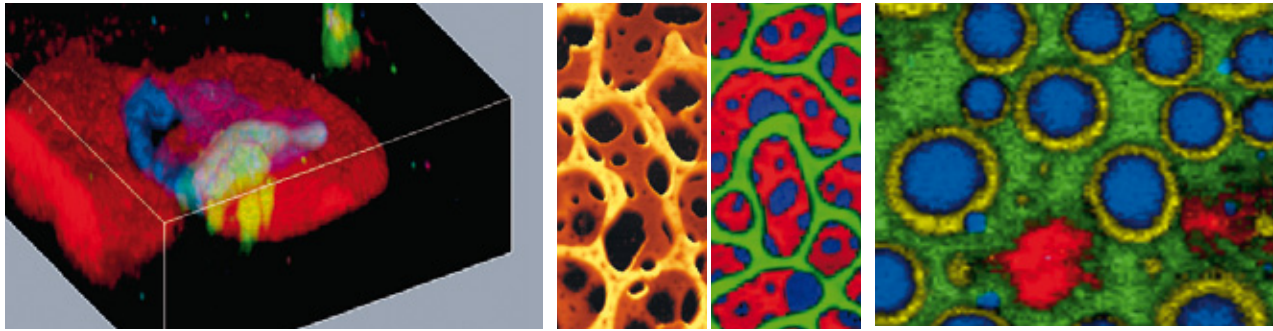


The full spectrum of cutting-edge applications and techniques
30. Sept. – 2. Oct. 2013 | Ulm, Germany

10th Symposium Confocal Raman Imaging



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10th ANNIVERSARY
WITEC SYMPOSIUM

Confocal Raman Imaging

The full spectrum of cutting-edge applications and techniques

This year's 10th Anniversary Symposium will provide deep insights into confocal Raman imaging. Speakers from universities and industry will present their scientific achievements and talk about several aspects of modern Raman imaging. The poster sessions will provide an opportunity to learn more about recent scientific results in Raman imaging from various fields of applications, while the equipment demonstration will give a detailed introduction to the operational principles and instrumental configurations relevant to confocal Raman microscopy. During the three-days symposium the participants will have sufficient time for in-depth discussions and close interaction with leading scientists and users of WITec microscope systems.

Scientists interested in chemically identifying and imaging the compounds of a sample at the highest spatial resolution are invited to participate. Typical research fields for confocal Raman imaging include pharmaceuticals and cosmetics, materials and polymer sciences, medical and life sciences, archaeology and geology, forensics, coatings, thin-films and all fields in which clear identification of the distribution of chemical compounds is a necessity.

Program

MONDAY, SEPTEMBER 30, 2013		'Stadthaus Ulm', Münsterplatz 50, Ulm	
14.30 – 15.00		<i>Registration & Coffee</i>	
15.00 – 15.15		<i>Welcome</i>	
15.15 – 16.15	Prof. Dr. Sebastian Schlücker	The Principles of Raman Spectroscopy and its Application in Microscopy	
16.15 – 16.30		<i>Coffee</i>	
16.30 – 17.30	Contributed Talks	3x 20 min talks, selected from among the submitted abstracts	
17.30 – 18.30		<i>Poster Session & Get-together with Beer and Wine Reception with snacks</i>	
18.30 – 19.30	Prof. Dr. Wolfgang Kiefer	Raman Historicals	
TUESDAY, OCTOBER 01, 2013		'Stadthaus Ulm', Münsterplatz 50, Ulm	
08.45 – 09.00		<i>Coffee</i>	
09.00 – 09.45	Dr. Olaf Hollricher	Confocal Raman Microscopy: Instrumentation, Configurations and Resolution	
09.45 – 10.15	Dr. Thomas Dieing	Combining Raman with Structural Surface Imaging Techniques	
10.15 – 10.45		<i>Coffee</i>	
10.45 – 11.15	Prof. Dr. Malgorzata Baranska	Lifestyle Diseases Studied by Raman Imaging, AFM, and SNOM	
11.15 – 11.45	Dr. Christian Matthäus	Raman Imaging of Eukaryotic Cells	
11.45 – 12.15	Dr. Hilde Jans	The Potential of Surface-enhanced Raman Spectroscopy towards In-vivo Imaging	
12.15 – 13.15		<i>Lunch Break</i>	
13.15 – 13.45	Prof. Dr. Henrique E. Toma	Perspectives of Confocal Raman Microscopy and Hyperspectral Optical Microscopy in Nanotechnology	
13.45 – 14.15	Prof. Dr. Christoph Stampfer	Raman Imaging of Graphene and Carbon Nanotubes	
14.15 – 14.45	Prof. Dr. Jeongyong Kim	Nano Confocal Spectroscopic Imaging of Organic Single Nano Structures	
14.45 – 15.15		<i>Coffee</i>	
15.15 – 15.45	Dr. Jagjit Nanda	Confocal Raman Imaging and Spectroscopy of Electrochemical Energy Storage Materials	
15.45 – 16.15	Prof. Dr. Andrew Steele	Confocal Raman Imaging of Extraterrestrial Materials	
16.15 – 17.30		Poster Session continued	
19.00		<i>Dinner & Get-together</i>	
WEDNESDAY, OCTOBER 02, 2013		WITec Headquarters, Lise-Meitner-Str. 6, Ulm	
09.00		<i>Shuttle Bus Ulm City Center to WITec Headquarters</i>	
09.15 – 09.45	Dr. Thomas Dieing	Confocal Raman Imaging System Configurations	
09.45 – 12.15	Equipment Demonstration	- Confocal Raman Imaging - Combining AFM & Raman Imaging - True Surface & Large Area Imaging - WITec Project Data Evaluation Software I+II	
12.15 – 13.15		<i>Lunch</i>	
13.15 – 14.45	Equipment Demonstration	continued	
14.45		<i>Coffee & Wrap-up</i>	
15.30		<i>Shuttle Bus WITec Headquarters to Ulm City Center</i>	

Invited Speakers

Prof. Dr. Sebastian Schlücker

Sebastian Schlücker is Professor of Physical Chemistry at the University of Duisburg-Essen. His research interests include the design, synthesis and bioanalytical applications of SERS nanoparticle probes as well as the development and application of laser spectroscopic techniques in biophysical chemistry.

Dr. Olaf Hollricher

Dr. Hollricher is managing director at WITec and head of Research & Development.

Prof. emer. Dr. Wolfgang Kiefer

Dr. Kiefer is Prof. emeritus of the Physical Chemistry Institute at the University of Würzburg, Germany

Dr. Thomas Dieing

Dr. Dieing is Director Customer Support at WITec.

Prof. Dr. Malgorzata Baranska

Prof. Dr. Malgorzata Baranska is a head of the Raman Imaging Group at the Department of Chemical Physics at the Jagiellonian University, Krakow, Poland. Her main research area is the analysis of bioactive compounds by means of spectroscopic methods. The very new direction of her research is related to lifestyle diseases, their development and methods of curing, specifically to finding new drugs with endothelium bioactivity.

Dr. Christian Matthäus

Dr. Christian Matthäus is working as a research assistant at the Institute of Photonic Technology (IPHT) in Jena, Germany in the group of Prof. Jürgen Popp. His main research interests are linear and non-linear spectroscopic imaging techniques and their application to biological samples.

Dr. Hilde Jans

She is mainly involved at IMEC in the department of Life Science Technologies – Nano-bio Componentes, Leuven, Belgium. Hilde Jans is mainly involved in research related to the use of plasmonic nanostructures for diagnostic purposes.

Prof. Dr. Henrique E. Toma

Prof. Dr. Toma is head of the Institute of Chemistry, University of Sao Paulo, Brazil which is one of the longest established research centers in Chemistry in Brazil. The research areas mainly focus on nano- and supra-molecular materials.

Prof. Dr. Christoph Stampfer

Prof. Dr. Stampfer is head of the II. Institute of Physics A at the RWTH Aachen, Germany and member of the Peter Grünberg Institute (PGI-9) at the Forschungszentrum Jülich.

Prof. Dr. Jeongyong Kim

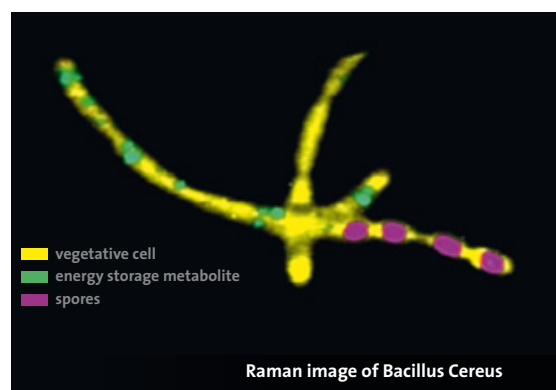
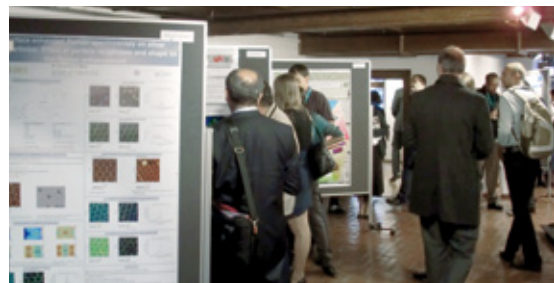
Prof. Dr. Kim is working with the Department of Energy Science at Sungkyunkwan University, Suwon, South Korea and is group leader of the Nanoscopy Group at the Center for Integrated Nanostructure Physics (CINAP) at the Institute for Basic Science (IBS).

Dr. Jagjit Nanda

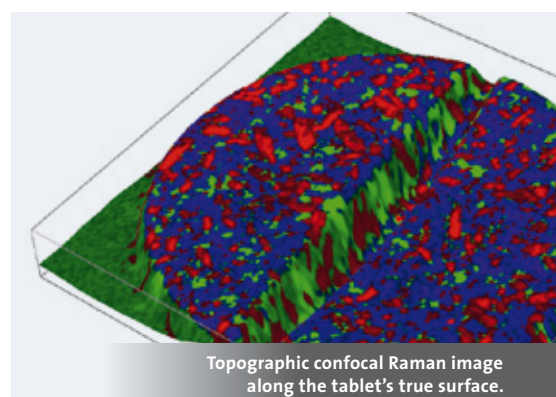
Dr. Jagjit Nanda is a senior staff scientist in the Materials Science and Technology Division at Oak Ridge National Laboratory, USA working in the area of energy storage and conversion materials. Dr. Nanda also holds a joint faculty position at the Chemical and Biomolecular Engineering Department at the University of Tennessee, Knoxville.

Prof. Dr. Andrew Steele

Prof. Dr. Andrew Steele of UCL, UK has helped to pioneer the use of confocal Raman imaging spectroscopy of extraterrestrial materials as a tool to aid in the characterization of organic carbon in the solar system. From these studies he is attempting to refine a robust strategy for the detection of life elsewhere in our solar system and in particular Mars.



Raman image of Bacillus Cereus



Topographic confocal Raman image along the tablet's true surface.

Application images on front cover:
3D Raman image of a fluid inclusion in garnet
Confocal Raman and AFM topography image of a polymer blend on glass
Raman image of an emulsion used in food production

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Registration and Symposium Fee

In order to register, please go to <http://www.raman.net> and fill in the registration form. The number of participants is limited, so book early to ensure your participation. **The fee includes training materials, meals and a Springer "Confocal Raman Microscopy" book.**

Presenters of a poster or a talk will receive a 15% discount. An invoice for the participation fee will be issued upon confirmation. Hotel arrangements must be made by the participants themselves (see hotel information below). The first and second day of the symposium will take place at 'Stadthaus Ulm', Münsterplatz 50, right next to the famous cathedral. The third day will take place at **WITec Headquarters**. Both locations are in Ulm, Germany. Any cancellations prior to September 13th 2013 are free of charge. For cancellations after this date, we charge 30% of the initial fee. The language of the symposium is English.

Book included!



Contributed Talks and Poster Session

Participants are encouraged to submit an abstract for the poster or the contributed talks session. The speakers of the contributed talks session will be chosen from among the submitted abstracts. A template including an instruction on how to arrange the abstract can be downloaded at: <http://www.raman.net> Please indicate your contribution to the poster or talk session on the registration form and send your abstract by e-mail to events@witec.de. Abstract deadline is August 23rd.

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Early Bird Registration (until 31. July)

Three Days

Industrial Participants:	360,- Euro (+VAT)
Academic Participants:	299,- Euro (+VAT)

Two Days

Industrial Participants:	245,- Euro (+VAT)
Academic Participants:	220,- Euro (+VAT)

One Day

Industrial Participants:	130,- Euro (+VAT)
Academic Participants:	115,- Euro (+VAT)

Regular Registration (after 31. July)

Three Days

Industrial Participants:	395,- Euro (+VAT)
Academic Participants:	330,- Euro (+VAT)

Two Days

Industrial Participants:	270,- Euro (+VAT)
Academic Participants:	245,- Euro (+VAT)

One Day

Industrial Participants:	140,- Euro (+VAT)
Academic Participants:	125,- Euro (+VAT)

Presenters of a talk or a poster in the contributed sessions will receive a **15 % discount**.

Abstract Deadline (talks & posters)

23. August 2013

Late Abstract Deadline (posters)

12. September 2013

Hotel Information

For information about hotels and booking please visit the tourist information website of Ulm: <http://www.tourismus.ulm.de>

Please be advised that several other events take place in Ulm during the week of the symposium. We recommend hotel accommodations be booked as soon as possible.