

workshop

Hoervelsinger Weg 6, D-89081 Ulm, Germany
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Introduction to Confocal Raman Microscopy 7. - 8. October 2008 Ulm, Germany

The workshop will give a detailed introduction to the operational principles and instrumental configurations relevant to confocal Raman microscopy. Speakers from universities and industry will cover several aspects of modern Raman imaging and its fields of applications. An extensive hands-on session gives the

participants the opportunity to apply this knowledge and to evaluate their individual samples. Scientists interested in how to chemically identify and image the compounds of a sample at the highest spatial resolution are invited to participate. Typical research fields for confocal Raman

imaging are pharmaceuticals and cosmetics, materials and polymer sciences, archaeology and geology, forensics, coatings, thin films and all fields where a clear identification of the distribution of chemical compounds is a necessity.

Preliminary Program

Tuesday, October 7, 2008

09.00 - 09.30

09.30 - 10.30 Prof. Dr. Jürgen Popp

10.30 - 11.15 Dr. Olaf Hollricher

11.00 - 11.30 *Coffee*

11.30 - 12.00 Dr. Ute Schmidt

12.00 - 12.15 Andrea Jauss

12.15 - 13.00 *Lunch Break*

13.00 - 13.30 Prof. Astilean

13.30 - 14.00 Mr. Thomas Wermelinger

14.00 - 14.30 Mr. Thomas Kaltenbach

14.30 - 15.00 Dr. Thomas Häfele

15.00 - 15.30 *Coffee*

15.30 - 16.00 Prof. Dr. Max Diem

16.00 - 16.30 Dr. Sebastian Schlücker

16.30 - 17.00 Dr. Notburga Gierlinger

19.00 *Dinner*

Registration & Coffee

The Principle of Raman Spectroscopy and its Application in Microscopy

Confocal Raman Microscopy: Instrumentation, Configurations and Accessories

Combining Confocal Raman & Atomic Force Microscopy: Instrumentation and Applications
Various Application Examples of Confocal Raman Imaging

Plasmonic Nanostructures Characterization by Combining Confocal Surface-Enhanced Raman Scattering and Atomic Force Microscopy

Measuring Stress in Small Dimensions

Confocal Raman Microscopy in Photovoltaic Research

Analytical Raman Imaging of Pharmaceutical Dosage Forms

Visualizing Sub-cellular Organization, and Uptake of Drugs Into Cells, by Confocal Raman Imaging and Multivariate Analysis

SERS Microscopy: Selective Protein Localization in Cells and Tissues

Raman Imaging of Plant Cell Walls

Wednesday, October 8, 2008

09.00 - 09.30

09.30 - 12.00

12.00 - 12.30

Coffee

Equipment Demonstration & Hands-On Session

Lunch Snack & Wrap Up



Fig. 1: WITec alpha300 Microscope System

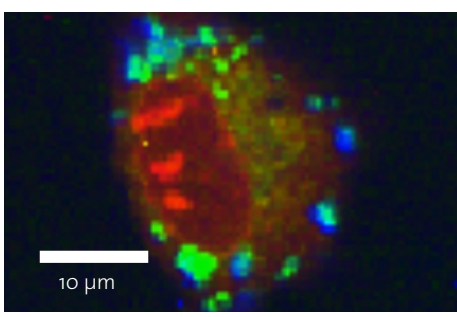


Fig. 2: Color Coded Raman Image of a Living Cell

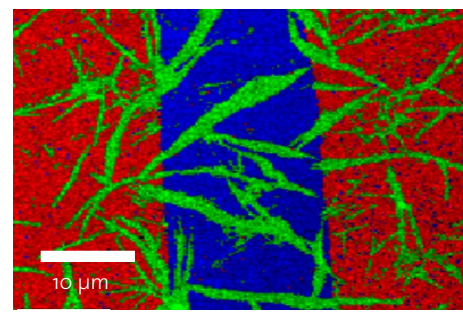


Fig. 3: Raman Image of a 7.1 nm PMMA layer (red) and a 4.2 nm alkane layer (green) on glass (blue)

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Speakers

Prof. Dr. Jürgen Popp

Prof. Popp is head of the Physical-Chemistry Institute at the University of Jena and Director of the Institute for Physical High Technology Jena.

Dipl. Biol., Andrea Jauß

Andrea Jauß is an Application Scientist at WITec.

Dipl. Phys., Thomas Kaltenbach

Mr. Thomas Kaltenbach is Research Fellow at the Fraunhofer-Institute for Solar Energy Systems (ISE), Freiburg, Germany.

Dr. Sebastian Schlücker

Dr. Schlücker is head of the biophotonics and nanobiotechnology group at the Institute of Physical Chemistry, University of Würzburg, Germany.

Dr. Olaf Hollricher

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

Prof. Simion Astilean

Prof. Astilean is head of the Molecular Spectroscopy Department of Babes-Bolyai University, Romania.

Dr. Thomas Häfele

Dr. Häfele is head of laboratory within Analytical Imaging at Novartis Pharma AG in Basel, Switzerland.

Dr. Nothburga Gierlinger

Dr. Gierlinger is Research Associate at the Department of Biomaterials at the Max-Planck-Institute for Colloids and Interfaces in Potsdam, Germany.

Dr. Ute Schmidt

Dr. Schmidt is an Application Scientist at WITec.

Mr. Thomas Wermelinger

Mr. Thomas Wermelinger is Research Associate at the Department of Materials Science (Metallurgy), ETH Zurich, Switzerland.

Prof. Dr. Max Diem

Prof. Diem is head of the "Laboratory for Spectral Diagnosis", Department of Chemistry and Chemical Biology at Northeastern University, Boston, USA.

General Information / Workshop Fee

In order to register, please fill in the form below and mail or fax it to WITec (Fax: +49 (0)731 140 7020) or send your contact information to events@witec.de. The number of participants is limited, so book early to save your place. The fee of 250.00 Euro (+VAT) for industrial and 190.00 Euro (+VAT) for academic

participants includes training material and meals. Hotel arrangements must be made by the participants themselves. The first day of the workshop will take place at "Sparkasse Neue Mitte, Hans-und-Sophie-Scholl Platz 2", the second day at the WITec Headquarters, both located in Ulm, Germany.

An invoice for the participation fee will be issued upon confirmation. Any cancellations prior to September 26. 2008 are free of charge. For cancellations after this date, we charge 30% of the initial fee. The language of the workshop is English.

Registration

I would like to register for the Workshop.

Institution:

E-mail:

Name and Title:

Address:

Phone:

Signature:

Fax:

Hotel Information

For a hotel list and tourist information please visit: <http://www.tourismus.ulm.de>