

# workshop

Hoervelsinger Weg 6, D-89081 Ulm, Germany  
Tel. +49 (0) 731 140 700, Fax. +49 (0) 731 140 7020  
www.witec.de, info@witec.de

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## Introduction on coupled AFM and confocal Raman spectrometry 27. January 2009 Orleans, France

The workshop will give a detailed introduction to the operational principles and instrumental configurations relevant to confocal Raman and scanning probe microscopy. Speakers from universities and industry will cover several aspects of Raman and SPM 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 geoscience, forensics, coatings, thin films and all fields where a clear identification of the distribution of chemical compounds is a necessity.

### Program

**Tuesday, 27. January, 2009**

09.00 - 09.30

09.30 - 09.45

Dr. Beloeil, Prof. Bruand,  
Dr. Vergés

09.45 - 10.10

Prof. Denis Bormann

10.10 - 10.50

Dr. Thomas Dieing

10.50 - 11.10

11.10 - 11.40

Dr. Westall, Dr. Bény,  
Dr. Foucher

11.40 - 12.20

Dr. Thomas Dieing

12.20 - 12.30

12.30 - 13.15

13.15 - 16.00

*Registration and coffee*

Welcome

The Raman effect

Technical information on the alpha500

*Coffee Break*

Exobiology and AFM-confocal Raman (Geosciences)

AFM-confocal Raman applications in Biology and Material Sciences

*Questions*

*Lunch (provided)*

Demonstration of the alpha500 (bring your own samples)

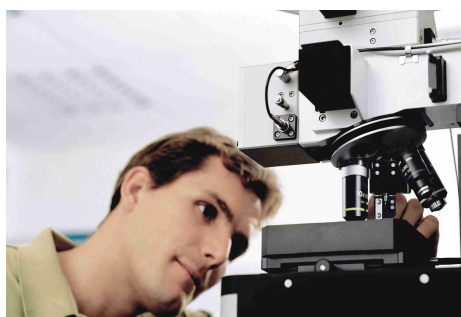


Fig. 1: WITec alpha300 Microscope System

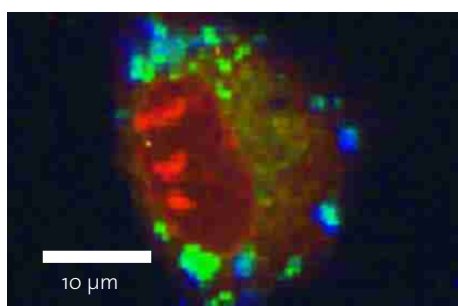


Fig. 2: Color Coded Raman Image of a Living Cell

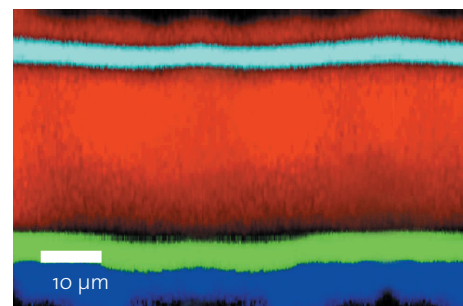


Fig. 3: Raman Image of a Multi-layer polymer coating.

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## Speakers

### Dr. Jean-Claude Beloeil

Dr. Beloeil is director of the "Centre de Biophysique Moléculaire", CNRS Orléans, France. Dr. Beloeil is a Physicochemist specialising in Magnetic Resonance Imaging (MRI) of small animals.

### Prof. Denis Bormann

Prof. Bormann is Professor at the University of Orléans, France. He is a physicist specialising in the optical properties of disordered materials.

### Dr. Jean-Michel Bèny

Dr. Bèny is a physico-chemist in spectroscopy at the Institute des Sciences de la Terre et de l'Environnement d'Orléans, France. He is also specialising in geosciences.

### Dr. Ary Bruand

Dr. Bruand is director of the "Institut des Sciences de la Terre et de l'Environnement d'Orléans", CNRS & Universities of Orléans and Tours, France. He is also Professor at the the University of Orléans and Vice President of the University for international relations. Dr. Bruand is a pedologist.

### Dr. Thomas Dieing

Dr. Dieing has a diploma in Physics and is Director Customer Support at WITec in Ulm, Germany.

### Dr. Frédéric Foucher:

Dr. Foucher is a postdoc specialising in Raman, AFM and EM techniques in the study of ancient traces of life.

### Dr. Elisabeth Lallier-Vergés

Dr. Vergés is director of the "Observatoire des Sciences de l'Univers en région Centre", Director of research at the CNRS; past Director of the "Institute des Sciences de la Terre d'Orléans". She is a sedimentologist specialising in organic geochemistry and petrography.

### Dr. Frances Westall

Dr. Westall is head of the Exobiology group at the "Centre de Biophysique Moléculaire", Orléans, France. Also Director of research at the CNRS and of the GDR-Exobiologie. Dr. Westall is a geologist specialising in the oldest traces of life.

## General Information

The workshop is free of charge but it requires registration. In order to register, please fill in the form below and mail or fax it to WITec (Fax: +49 (0)731 140 7020). You may also send your contact information electronically to [events@witec.de](mailto:events@witec.de) or in France to [westall@cnrs-orleans.fr](mailto:westall@cnrs-orleans.fr). The number of participants is limited, so book early to save your place.

It will take place at:

Centre de Biophysique Moléculaire-CNRS  
Rue Charles Sadron  
Salle de Conférences  
45071 Orléans  
France

Local Contact Person:

Dr. Frances Westall or  
Dr. Frédéric Foucher  
Université d'Orleans  
Rue Charles Sadron  
Orlean cedex 2, 45071 France  
Phone: ++33 238 257912  
Fax: ++33 238 631517  
e-mail: [westall@cnrs-orleans.fr](mailto:westall@cnrs-orleans.fr)  
<http://www.univ-orleans.fr>

## Registration

I would like to register for the Workshop.

Institution:

E-mail:

Name and Title:

Address:

Phone:

Signature:

Fax: