



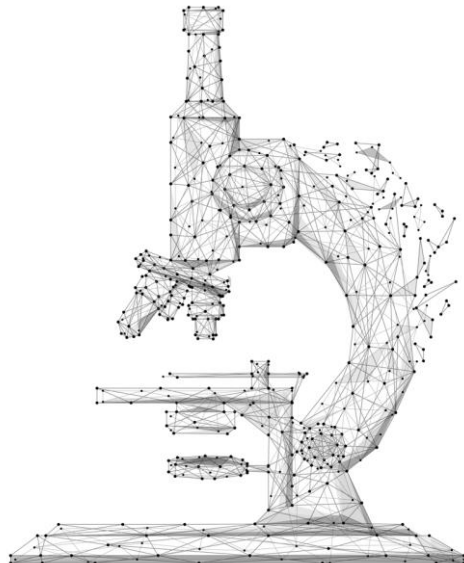
## Nanoanalytics Lab Opening

Presentations of the latest XPS, TOF-SIMS and AFM-IR / sSNOM Instruments at the Institute of Physics, Universität der Bundeswehr

**Date May 8th, 2018**

**Location Universität der Bundeswehr,**  
Werner-Heisenberg-Weg 39, 85577  
Neubiberg; Institute of Physics

Hosted by Universität der Bundeswehr in  
Cooperation with Physical Electronics GmbH



The Institute of Physics of the Universität der Bundeswehr München has an analysis and research laboratory that is unparalleled. With two new acquisitions of the VersaProbe III and the nanoIR2-s from Ansys Instruments, the surface analysis laboratory has now been completed.

Prof. Georg S. Düsberg holds the Chair of Sensor Technologies at the Institute of Physics of the Universität der Bundeswehr in Munich since January 2017. Since that time he is responsible for a lot of new equipment acquisitions for the Nanoanalytics Lab, in addition to the already existing capabilities. Prof. Düsberg's research covers material synthesis and analytics at the nanoscale including materials such as carbon nanotubes, graphene and other 2D films.

In addition to the nanoTOF II, a TOF-SIMS also from Physical Electronics, the VersaProbe III, the latest XPS system from Physical Electronics equipped with UPS, will soon provide unique results in the development of novel components with low-dimensional materials.

The Institute of Physics also procured the nanoIR2-s from Ansys Instruments. The nanoIR2-s is a combination of AFM, IR spectroscopy plus scattering SNOM, which means 3 technologies in one. Scattering SNOM provides information about the complex optical properties of the nano-scale region of the sample under a metallized tip.

### PHI VersaProbe III



XPS the surface sensitive technique can generally obtain information on elements within a few nms of the sample surface.

### nanoIR2-s



nanoIR2-s united two complementary nanoscale IR techniques, s-SNOM and AFM-IR. This combination creates remarkable new data and eliminates the need for complex optical alignments..

### PHI nanoTOF II



Identifying elements and molecular fragments with the nanoTOF II. PHI'S patented TRIFT mass spectrometer provides superior sensitivity, low spectral background and the unique ability to image highly topographic surfaces.

Tue May 8th at Institute of Physics – Universität der Bundeswehr

9:15 Registration and Welcome

9:30 **Introduction of Universität der Bundeswehr**

Prof Dr. Georg Düsberg; UniBw.

10:00 **Introduction PHI nanoTOF II**

Dr. Greg Fisher; PHI USA

10:30 Coffee Break

11:00 **Introduction PHI VersaProbe III**

Dr. Andrey Lyapin; PHI GmbH

11:30 **Introduction Anasys nanoIR2-s**

Dr. Miriam Unger; Anasys Instruments

12:00 Lunch

13:15 **Practical Part: Technique- Demos**

VersaProbe III with UPS  
nanoTOF II  
nanoIR2-s

15:15 Coffee Break

15:45 Time for Discussion

16:15 End of Workshop

The workshop is free of charge including catering as well as information materials.

For entry, all participants must be registered and bring a valid ID!

**Registration by e-mail: [szauzig@phi-europe.com](mailto:szauzig@phi-europe.com)**

Registration until 23. 04. 2018

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Date, Signature



Prof. Dr. Georg Düsberg  
Chair of Sensor Technologies  
Universität der Bundeswehr



Stefanie Zauzig  
Organization & Marketing  
PHI GmbH

**Speakers**



Dr. Greg Fisher  
TOF-SIMS  
PHI USA



Dr. Andrey Lyapin  
XPS  
PHI GmbH



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