

At a Glance

The workshop focuses on contemporary challenges in surface and nanoanalytics, highlighting microscopic techniques and methods, which are available in the DFG core facility ICAN. This includes scientific and technical lectures addressing topics in:

- X-ray photoelectron spectroscopy
- Scanning Auger electron microscopy
- Atomic force and scanning probe microscopy
- Transmission and scanning transmission electron microscopy
- Time-of-flight secondary ion mass spectrometry

About ICAN:

ICAN provides researchers and cooperation partners from industry the opportunity to analyze their samples with the best-suited methods (service operation). After a technical introduction, experienced users may carry out measurements themselves (user operation). On request, ICAN assists in the choice of the analytical techniques and the interpretation of the results.

At the core of ICAN lies a state-of-the-art microscopy center in the NanoEnergieTechnikZentrum (NETZ) on the Duisburg campus of the University of Duisburg-Essen. Here, five complementary major techniques for structural and chemical analysis on length scales down to the atomic level are available.

These methods for surface analysis and nanoanalysis are complemented by further analytical methods, provided by research groups under the roof of the Center for Nanointegration Duisburg-Essen (CENIDE), one of Germany's largest nanoscience research networks.

Registration & Further Information:

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Registration (Deadline: November 11, 2016)

www.uni-due.de/cenide/ican/workshop
Please note, the number of participants is limited to 100. Registration takes place on a first come-first served principle.

Fee

Standard participation: 80,00 Euro *
Universities / research facilities: 40,00 Euro *
Staff from University of Duisburg-Essen: free
* excl. 19% VAT (value added tax)

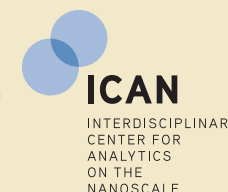
Venue

NanoEnergieTechnikZentrum (NETZ)
University of Duisburg-Essen
Carl-Benz-Straße 199
47057 Duisburg
www.cenide.de/ican

Photos: © ICAN | CENIDE



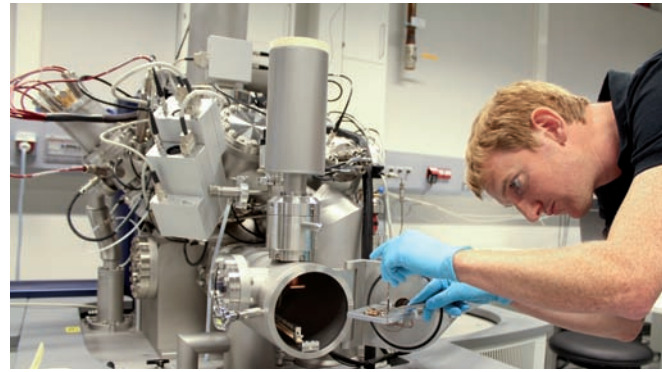
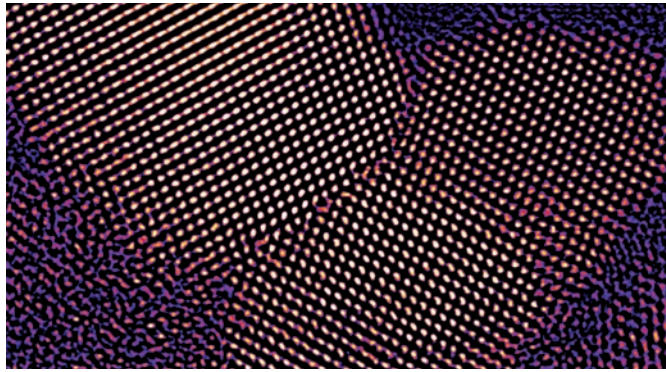
Nanoanalytics Workshop
ICAN – DFG Core Facility



ICAN
INTERDISCIPLINARY
CENTER FOR
ANALYTICS
ON THE
NANOSCALE

University of Duisburg-Essen, Germany
November 17 – 18, 2016

www.uni-due.de/cenide/ican/workshop



Thursday, November 17, 2016

- 08:30** *Registration*
- 09:00** Opening, Official Welcome
(Nils Hartmann, ICAN, University of Duisburg-Essen)
- 09:10** Scanning XPS and Scanning AES: Micro- and Nano-Area Surface and Depth Profiling Chemical Characterization
(John Hammond, Physical Electronics, USA)
- 10:00** Interphase Formation on Lithium Solid Electrolytes – a Simple Approach to Study Interfacial Reactions in situ by Photoelectron Spectroscopy
(Joachim Sann, Institute of Physical Chemistry, Justus-Liebig-University Gießen)
- 10:30** Nodular Graphite in Ductile Iron: a Scanning Auger Electron Microscopy Study
(Ulrich Hagemann, ICAN, University of Duisburg-Essen)
- 10:50** *Break*
- 11:10** TOF-SIMS: From Static Surface Characterization to Three-Dimensional Organic and Inorganic Micro Area Analysis
(Sven Kayser, ION-TOF, Münster)
- 12:00** Analysis of Protein Adsorption on PDMAEMA Polymer Brushes: a TOF-SIMS Study
(Nils Hartmann, ICAN, University of Duisburg-Essen)
- 12:20** *Lunch*

- 13:30** Nanocharacterization for Complex Scientific Questions in Material Science – New Approaches for Nanomechanical, Nanoelectrical, and Nanooptical AFM Techniques
(Hartmut Stadler, Bruker Nano, Karlsruhe)
- 14:20** Precise Measurement of Cell Mechanics and Quantification of the Heparin Effect on Platelet-Tumor Cell Interaction
(Hermann Schillers, Medical Faculty, Westphalian Wilhelm University Münster)
- 14:50** *Break*
- 15:10** Applications of Aberration Corrected Electron Microscopy – an Overview
(Philipp Wachsmuth, JEOL, Germany)
- 16:00** Scanning Transmission Electron Microscopy – Structural and Compositional Investigations at High Resolution
(Katharina Gries, Faculty of Physics, Philipps-University Marburg)

Friday, November 18, 2016

- 09:00** Guided Tour through the Microscopy Center Including Demonstrations and Consulting
- 12:00** Closing Remarks

Location



Directions

