Fundamentals and applications of surface analysis

June 20th – 22nd, 2018
Eggenstein-Leopoldshafen, Germany

The Thermo Fisher Scientific XPS Symposium is a widely used analysis method provides qualitative, chemical state information for surfaces and interfaces. Since 1995, our unique combination of users, scientists, engineers, and technicians have been sharing their latest developments and research results to help those who work with XPS get insight into the fundamentals of the XPS instrument and current applications in real-world research.

Leading international scientists and experts from industry will report on a range of important topics such as battery technology, polymer-based structures for applications, and research areas. The XPS workshop addresses scientists, engineers, and technicians in an interactive forum to discuss the latest developments in the field of surface analytical characterization. We are looking forward to your participation.

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Venue: Karlsruhe Institute of Technology (KIT, Campus North), Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany

Workshop: KIT Lecture Hall, Building 640
8:30-18:00

Thursday, June 21st

Moderation: Michael Bruns (1st day) and Tim Nunney (2nd day)

09:00 Registration, Welcome and Refreshments

09:20 Introduction
  - Richard White, Tim Nunney, Michael Bruns and Surface Analysis Group

09:30 Overview of the workshop
  - Richard White, Tim Nunney, Thermo Fisher Scientific, UK

09:40 XPS – From the basics to applications in Materials Sciences
  - Dr. Tim Nunney, Thermo Fisher Scientific, UK

10:10 Multi-technique surface analysis for semiconductor materials
  - Prof. Matthias Kehrer, Johannes Kepler University, Linz, Austria

10:40 Surface analytical characterization of high voltage spinel materials for Li-ion batteries
  - Dr. Michael Bruns, Karlsruhe Institute of Technology, Germany

11:00 Coffee Break

11:20 Applied surface science – XPS at KIT
  - Prof. Christian Kübel, INT, Karlsruhe Institute of Technology, Germany

11:50 Surface analytical characterization of high voltage spinel materials for Li-ion batteries
  - Dr. Michael Bruns, IAM, Karlsruhe Institute of Technology, Germany

12:30 Lunch Break

13:30 Lunch Break

13:50 Surface analytical characterization of high voltage spinel materials for Li-ion batteries
  - Dr. Michael Bruns, IAM, Karlsruhe Institute of Technology, Germany

14:00 Multitechnique surface analysis for semiconductor materials
  - Dr. Michael Bruns, Karlsruhe Institute of Technology, Germany

14:20 RAPD: Coating/substrate characterization and analysis of defects
  - Dr. Michael Bruns, Karlsruhe Institute of Technology, Germany

14:50 Applications of XPS – from catalysis to biomaterials
  - Prof. Christian Kübel, INT, Karlsruhe Institute of Technology, Germany

15:20 Poster Session

15:50 Coffee Break

16:30 Surface analytical characterization of high voltage spinel materials for Li-ion batteries
  - Dr. Michael Bruns, IAM, Karlsruhe Institute of Technology, Germany

17:00 Participation of the XPS K-Alpha Demo
  - Dr. Tim Nunney, Thermo Fisher Scientific, UK

17:30 Flash Presentations

19:00 Dinner sponsored by Thermo Fisher Scientific

Friday, June 22nd

Moderation:

09:00 K-Alpha Demo: (K-Alpha demo)

09:30 Buried interfaces in lithium ion batteries probed with HAXPES
  - Dr. Michael Bruns, IAM, Karlsruhe Institute of Technology, Germany

10:00 Applications of XPS for chemical and electrical characterization of devices
  - Dr. Tim Nunney, Thermo Fisher Scientific, UK

10:40 Coffee Break

11:00 Proving the hierarchical structure of polymer layers by XPS depth profiling
  - Dr. Michael Bruns, Karlsruhe Institute of Technology, Germany

11:30 Surface analytical characterization of high voltage spinel materials for Li-ion batteries
  - Dr. Michael Bruns, IAM, Karlsruhe Institute of Technology, Germany

11:50 Lunch Break

13:30 Applications of XPS to go beyond the basics of XPS
  - Dr. Michael Bruns, IAM, Karlsruhe Institute of Technology, Germany

14:00 Multi-technique surface analysis for semiconductor materials
  - Dr. Michael Bruns, Karlsruhe Institute of Technology, Germany

14:30 Rapid XPS mapping: opening up of new fields of application for quantitative chemical state imaging
  - Dr. Michael Bruns, IAM, Karlsruhe Institute of Technology, Germany

15:00 Coffee Break

15:20 Poster Session

15:50 Flash Presentations

16:30 End / Closing Remarks / Next Event

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Workshop: KIT Lecture Hall, Building 640
8:30-18:00

Poster Session
09:00-12:30

Coffee Break
09:30, 11:00, 13:30, 15:00

Lunch Break
11:00

Coffee Break
09:30, 11:00, 13:30, 15:00

Rapid XPS mapping: opening up of new fields of application for quantitative chemical state imaging
- Dr. Michael Bruns, IAM, Karlsruhe Institute of Technology, Germany

Participants / 10 min each
- Richard Smith, Johnson Matthey, UK
- Dr. Delphine Flahaut, University of Pau, France
- Sefik Suzer, Bilkent University, Ankara, Turkey
- John Watts, University of Surrey, UK
- Michael Bruns, IAM, Karlsruhe Institute of Technology, Germany
- Tim Nunney, Richard White, Thermo Fisher Scientific, UK
- Michael Bruns, Vanessa Trouillet, IAM, Karlsruhe Institute of Technology, Germany;
- Richard White, Tim Nunney, Thermo Fisher Scientific, UK
- Christian Kübel, INT, Karlsruhe Institute of Technology, Germany
- Ruth Schwaiger, Karlsruhe Institute of Technology, Germany
- Matthias Kehrer, Johannes Keppler University, Linz, Austria
- Richard White, Thermo Fisher Scientific, UK

17:00 End / Closing Remarks / Next Event

Venue: At the workshop venue, KIT, Campus North, Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany

Further information for surfaces and interfaces. With our XPS workshop we address scientists, engineers, and technicians in an interactive forum to discuss the latest developments in the field of surface analytical characterization.

Register now online at:
www.thermofisher.com/xps-workshop-2018