

7TH DRESDEN NANOANALYSIS SYMPOSIUM

**“NANO-SCALE CHARACTERIZATION FOR CUTTING-EDGE MATERIALS
RESEARCH AND SUSTAINABLE MATERIALS DEVELOPMENT“**

*Organized by Dresden Fraunhofer Cluster Nanoanalysis (DFCNA), supported by the European Materials
research Society (E-MRS) and the European Materials Characterization Council (EMCC)*

*August 30, 2019, Dresden, Germany.
Fraunhofer IKTS Dresden, Maria-Reiche-Strasse 2*

Supported by:



PROGRAM

Coffee / Registration (8:30 am – 9:00 am)

Welcome (9:00 am – 9:10 am)

Ehrenfried Zschech, Fraunhofer IKTS Dresden and Technische Universität Dresden, Germany

Session 1 (9:10 am – 10:40 am) – Session chair: Ehrenfried Zschech

9:10 am – 9:40 am

KEYNOTE TALK

“Controlling the structure, composition and surface terminations of 2D transition metal carbides (MXenes) “

Yury Gogotsi, Director of A.J. Drexel Nanomaterials Institute and Charles T. and Ruth M. Bach Distinguished University Professor, Philadelphia/PA, USA

9:40 am – 10:10 am

KEYNOTE TALK

“The role of sustainable materials applied to flexible devices: The role of cellulose “

Elvira Fortunato, Director of CENIMAT - Centre for Materials Research and Professor at Materials Science Department, FCT, Universidade NOVA de Lisboa, Portugal

10:10 am – 10:40 am

KEYNOTE TALK

“Multiscale 3D characterization using X-ray and charged particle based microscopy”

Jaroslav Klima, Chairman of the Board & CEO, TESCANA ORSAY HOLDING, Brno, Czech Republic

Coffee break and poster session (10:40 am – 11:10 am)

Session 2 (11:10 am – 12:50 pm) – Session chairs: Olivier Thomas

11:10 am – 11:30 am

“Organic 2D materials: Challenges and opportunities for nanoanalysis “

Xinliang Feng, Technische Universität Dresden, Germany

11:30 am – 11:50 am

“Nano-scale characterization of lead free potassium sodium niobate (KNN) single crystals and polycrystals towards sustainable nonlinear dielectrics “

Paula Vilarinho, University of Aveiro, Portugal

11:50 am – 12:10 pm

“Advanced nanomechanical characterization for industrial applications “

Oden Warren, Bruker, Minneapolis/MN, USA

12:10 pm –12:30 pm

“Reactivity close and far from the equilibrium state in various joining processes”

Joanna Wojewoda-Budka, Institute of Metallurgy and Materials Science, Polish Academy of Sciences, Cracow, Poland

12:30 pm –12:50 pm

“Advanced neutron characterisations techniques apply to micro (nano) technologies”

Manon Letiche, Institut Laue-Langevin (ILL) Grenoble, France

Lunch break and poster session (12:50 pm – 2:20 pm)

Session 3 (2:20 pm – 3:40 pm) – Session chairs: Malgorzata Lewandowska

2:20 pm – 2:40 pm

“Correlative studies of surface enhanced Raman spectroscopy with plasmon energies in photolithographically designed nanoparticles as determined by STEM-EELS “

Robert Sinclair, Stanford University, Palo Alto/CA, USA

2:40 pm – 3:00 pm

“Nanoscale 3D measurements by electron tomography “

Georg Haberfehlner, Graz University of Technology, Austria

3:00 pm – 3:20 pm

“Stress gradient characterization in thin films using nano X-ray diffraction“

Josef Keckes, Montanuniversität Leoben, Austria

3:20 pm – 3:40 pm

“The amorphous-crystal transition in GeTe nanostructures: New insights from in situ synchrotron radiation measurements “

Olivier Thomas, Aix Marseille Université, France

Best poster award ceremony and closing remarks (3:40 pm – 4:10 pm)

Ehrenfried Zschech, Fraunhofer IKTS Dresden and Technische Universität Dresden, Germany

Coffee and cake, and poster session (4:10 pm – 5:30 pm)

Ehrenfried Zschech, Fraunhofer IKTS Dresden and Technische Universität Dresden, Germany

Poster sessions

10:40 am – 11:10 am

12:50 pm – 2:20 pm

4:10 pm – 5:30 pm