



The 2018 E-MRS Spring Meeting and Exhibit

The Strasbourg Convention Centre, June 18 to 22, 2018

<http://www.european-mrs.com/>

Symposium K

Defect-induced effects in nanomaterials

<http://www.european-mrs.com/defect-induced-effects-nanomaterials-emrs>

Hot topics to be covered by the symposium:

- Defects in graphene and other 2D materials
- Swift heavy ion irradiation as the means to tailor nanomaterials
- Effects of grain boundaries and interfaces on the diffusion and transport processes in nanomaterials
- Electronic structure of defects in nanostructures; consequences for carrier transport, magnetism, optical and electronic properties, as well as device parameters
- Creation, evolution and properties of radiation defects in nanosize materials and heterostructures; the role of interfaces, nonstoichiometry, strain and adjacent layers
- Use of defects as microprobes
- Multiscale computer modeling of defect creation and transformation in nanomaterials
- Novel technological processes of micro-, nano- and optoelectronics using defects and radiation effects in nanostructures

A **joint session** with symposium Y "New developments in the modeling and analysis of radiation damage in materials" is foreseen on the following topics: (i) In situ TEM and atom probe tomography and (ii) Ab initio calculations and numerical simulations.

Invited speakers:

- **Hanns-Ulrich Habermeier**, Max Planck Institute, Stuttgart
- **Teresa Monteiro**, University of Aveiro
- **Marjeta Maček Kržmanc**, Jožef Stefan Institute, Ljubljana
- **Edith Bucher**, Montanuniversität Leoben
- **Graeme Watson**, Trinity College, Dublin
- **Alexander Ya. Polyakov**, NUST "MISiS", Moscow
- **Sebastian van Dijken**, Aalto University
- **Maria Eugenia Toimil-Molares**, GSI Helmholtzzentrum für Schwerionenforschung, Darmstadt

Chairpersons:

Nikolai A. Sobolev (Universidade de Aveiro and I3N)

Flyura Djurabekova (University of Helsinki)

Eugene Kotomin (Institute of Solid State Physics, University of Latvia, Riga and MPI for Solid State Research, Stuttgart)

Deadline for abstract submission: 18 January 2018