MC2025 Karlsruhe Microscopy Conference

LKM

Poster Sessions

14:00, Monday, 01.September 2025

Poster session 1: M1 6: Energy-related materials and catalysts
MS1.P06: **Local hydrogen concentration and distribution in Pd nanoparticles – An *in situ* STEM-EELS approach** - Svetlana Korneychuk

Poster session 1: MS1: Energy-related materials and catalysts
MS1.P13: **Characterization of porous iron structures in the iron-steam process for indirect hydrogen storage** - Jonas Kaltenbach

Poster session 1: MS1: Energy-related materials and catalysts
MS1.P24: ***In situ* ESEM study of catalyst support dynamics under reaction conditions** - Birger Holtermann

Poster session 1: MS1: Energy-related materials and catalysts
MS1.P28: **Structural and chemical evolution of LSCF/GDC air electrodes in solid oxide cells with metallic interconnectors – A (S)TEM analysis** - Ardavan Makvandi

Poster session 4: MS2: Metals and alloys
MS2.P32: **Creep-induced microstructural evolution of a eutectic Mo-Si-Ti alloy by correlative electron microscopy** - Hemanth Thota

Poster session 4: MS2: Metals and alloys
MS2.P34: **Segregation to creep-induced stacking faults in Ni-base single crystal superalloys** - Zhongmin Long

Poster session 7: MSLB: Material Science Late Breaking Posters
MSLB.P05: **Electron microscopy analysis of organic thin-film transistors on the device level** - Simon Hettler

---

14:00, Tuesday, 02.September 2025

Poster session 8: MS3: Disordered materials
MS3.P03: **Studying dark-field speckle contrast of amorphous matter as a function of time** - Martin Peterlechner

Poster session 9: IM 3: SEM and FIB developments
IM3.P09: **Probing the work function of catalytic platinum by energy band-pass filtered secondary electrons** - Erich Müller

Poster session 9: IM 3: SEM and FIB developments
IM3.P16: **Transfer and electrical contacting of nanomaterials for in situ TEM using FIB** - Simon Hettler

Poster session 14: MS 5: Functional organics, carbon-based and hybrid materials Topics
MS5.P08: **Determining the distribution of the different carbon based nano phases in the photoactive layer of semitransparent organic solar cells** - Kerstin Märkle

---

14:00, Wednesday, 03.September 2025

Poster session 18: MS 6: Ceramics, composites and geoscience
MS6.P09: **Electron probe microanalysis of porous 3D nano-printed semiconducting ZnO nanoarchitectures** - Kistian Kraft

Poster session 21: MS 7: Multi-scale and correlative in-situ/operando electron microscopy
MS7.P01: ***In situ* ESEM analysis of platinum dewetting behaviour on different oxide supports under reactive atmospheres** - Mareike Dortmund

Poster session 21: MS 7: Multi-scale and correlative in-situ/operando electron microscopy
MS7.P07: **Tracking (thermo-)electric properties during crystallization of an aGe thin film by *in situ* TEM** - Simon Hettler

31 August–4 September 2025

MC2025 Karlsruhe Microscopy Conference

LKM

Workshops

Sunday, 31.August 2025

13:15 - 14:30, WS2.04 Part 3 Materials meets life science microscopy – From critical preparation to advanced microscopy of sensitive/reactive specimens

conference room 2

Beam induced damage (Cryo-FIB/TEM, Carbon contamination) - Erich Müller

Sunday, 31.August 2025

13:30 - 15:10, WS5.03 Part 2.2 In-situ/operando TEM and SEM

conference room 4

Gas-phase SEM and TEM - Yolita M. Eggeler

Oral Talks

Wednesday, 03.September 2025

17:45, MS5.06 - Functional organics, carbon-based and hybrid materials

dm-arena, plenary hall

***In situ* Pyrolysis of 3D printed building blocks for functional nanoscale metamaterials** - Qing Sun

Thursday, 04.September 2025

14:45, MS7.03 - Multi-scale and correlative in-situ/operando electron microscopy

dm-arena, plenary hall

Correlative in situ electrochemical TEM and electrochemistry coupled *in situ* Raman spectroscopy elucidation of mechanism of electropolymerization of 1,8-dihydroxynaphthalene derived allomelanin thin films - Nivedita Sudheer

Thursday, 04.September 2025

15:45, MS8.07 - Beyond ideal 2D and van der Waals materials: Disorder, defects, adatoms and contamination

conference hall

Etching and carbon contamination dynamics on thin carbon films - Arne Johan Schwartz