



6th – 17th August 2018

<http://www.conferencemanager.dk/CenErgyIII>

Venue

Lectures and data analysis at DTU CEN on the Lyngby campus
Experiments at microscopy centres at DTU CEN on the Lyngby Campus and at DTU Energy on the Risø Campus
Transport between DTU venues provided

DTU CEN: cen.dtu.dk DTU Energy: energy.dtu.dk

Accommodation

Suggested hotels on website.

Key dates

Arrival: Monday morning, 6th August.
Departure: Friday afternoon, 17th August

Registration

NB: Limited number of participants, deadline 1st July 2018

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Registration fee will include lunch, transport between Lyngby and Risø Campus, summer school welcome dinner and social event.

Submit application on website
Early bird fee: €1200
Standard fee: €1300



CenErgy III

Advanced transmission and scanning electron microscopy in Materials Science



High performance SEM
3D SEM



Environmental TEM
Spectrum Imaging

5 ECTS points

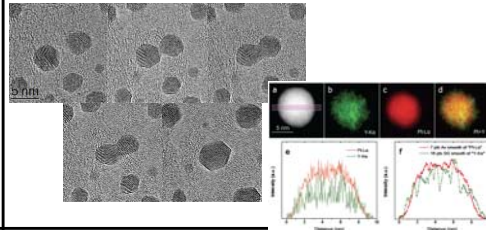


Limited places remaining
Registration deadline
1st July

Program Overview

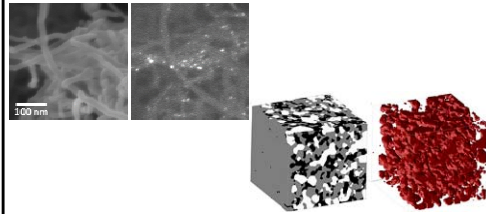
Monday: TEM lectures

- What is environmental TEM?
- Interpretation of images and spectra in ETEM
- Materials Dynamics
- Elemental and Chemical mapping with high spatial resolution
- EELS/EFTEM/EDS

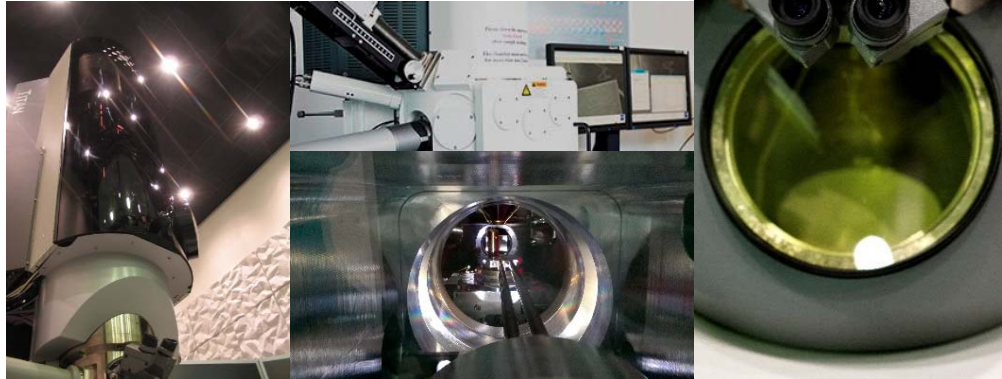


Tuesday: SEM lectures

- What is high resolution SEM imaging?
- Low voltage SEM and charge contrast
- Low loss BSE imaging
- 3D microstructure by FIB-SEM
- Ion and electron interactions in SEM & FIB
- EDS



Wednesday to Wednesday SEM, TEM and FIB Labs and data analysis



Saturday: Excursion, Sunday: Free

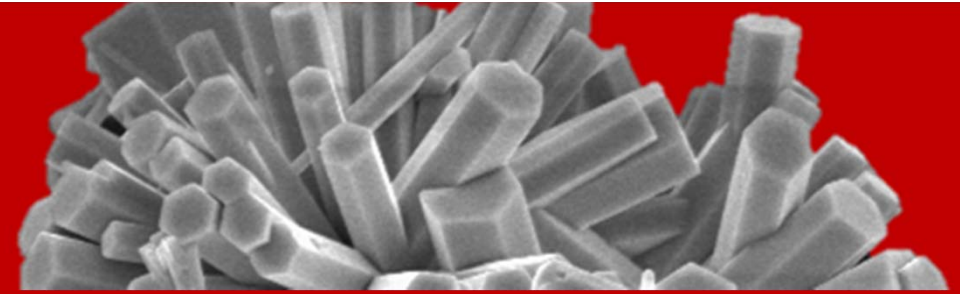
Thursday
Poster making

Prepare a poster of your labwork for the mini conference

Friday
Mini conference

Present your poster and labwork to the school

Two social events:
Summer School Dinner
Excursion



Learning experience

Lectures by DTU microscopists (incl. special guests)
Six days of hands-on microscopy and data analysis



FEI Titan Analytical 80-300ST TEM
FEI Titan E-Cell 80-300 ST TEM
Zeiss Merlin FEGSEM
Zeiss Crossbeam 1540XB FIB-FEGSEM



Choose two topics

- High performance SEM
- Environmental TEM
- 3D SEM
- Spectrum Imaging
- **Two days** of advanced data analysis:
- Interactive presentation sessions and group work
- Poster presentation of Labwork with feedback
- Close interaction with teachers in a small school

