



NECEM Summer School: Electron Microscopy for Energy

Materials Via Zoom

Tuesday 1st September– Thursday 3rd September 2020

Tuesday 1st September		
9:30AM- 10:00AM	Welcome and Introductions	Prof Ulrich Stimming (Newcastle University) Dr Budhika Mendis (Durham University)
Session 1: Scanning Electron Microscopy Techniques		
10:00AM- 10:55AM	Basics of SEM	Dr Cornelia Rodenburg (University of Sheffield) Chair: Dr Guillaume Zoppi (Northumbria University)
11:00AM- 11:55AM	Cathodoluminescence	Prof Rachel Oliver (University of Cambridge) Chair: Dr Guillaume Zoppi (Northumbria University)
12.00PM- 13.00PM	Poster presentations	
2:00PM- 2:55PM	EBSL and EBIC	Dr Daniel Abou-Ras (Helmholtz- Zentrum Berlin, Germany) Chair: Dr Guillaume Zoppi (Northumbria University)

3:00PM- 3:55PM	Scanning Probes under the Microscope	Prof Phillip Moriarty (University of Nottingham) Chair: Prof Ulrich Stimming (Newcastle University)
Social session 1		
5:00- 7:00PM	Virtual Social and networking session	
Wednesday 2nd September		

Session 2: Academic Training		
9:00AM- 9:55AM	Science, Outreach and Engagement	Dr Samantha Tang (Nottingham University) Chair: Dr Elizabeth Gibson (Newcastle University)
Session 3: Transmission Electron Microscopy Techniques		
10:00AM- 10:55AM	Basics of TEM	Prof Richard Beanland (University of Warwick) Chair: Dr Douglas Halliday (Durham University)
10.55 AM- 11.15 AM	Virtual Coffee break	
11:15AM- 12:10PM	Scanning TEM	Dr Emanuela Liberti (Oxford University) Chair: Dr Douglas Halliday (Durham University)
2:00PM- 2:55PM	EDX, EELS Chemical Analysis	Prof Gerald Kothleitner (Graz University of Technology, Austria) Chair: Dr Michael Hunt (Durham University)

3:00PM- 3:55PM	Aberration correction	Prof Quentin Ramasse (SuperSTEM facility, Daresbury) Chair: Dr Michael Hunt (Durham University)
Social session 2		
5:00- 7:00PM	Virtual Social and networking session	
Thursday 3rd September		
Session 4: Academic Training		
9:00AM- 9:55AM	North East Energy Catalyst - Driving growth across the North East energy sector	Mr David Lynch North East Local Enterprise Partnership Chair: Dr Neil Beattie (Northumbria University)
Session 5: Aberration corrected and in-situ microscopy techniques		
10:00AM- 10:55AM	Electron-Specimen interactions	Prof Les Allen (University of Melbourne, Australia) Chair: Dr Thomas Penfold (Newcastle University)
10:55AM- 11.15AM	Virtual Coffee break	
11:15AM- 12:10PM	Density Functional Theory Simulations	Prof Keith McKenna (University of York) Chair: Dr Thomas Penfold (Newcastle University)
2:00PM- 2:55PM	Liquid cell microscopy	Prof Nigel Browning (University of Liverpool) Chair: Dr Joshua Karlsson (Newcastle University)
3:00PM- 3:55PM	Gas cell microscopy	Prof Pratibha Gai (University of York) Chair: Dr Joshua Karlsson (Newcastle University)

4:00PM- 4.30 PM	Closing Remarks	Prof Ulrich Stimming (Newcastle University) Dr Budhika Mendis (Durham University)
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