

Monday, July 2 nd		
09:00-09:30	Registration	
09:30-10:00	Welcome and brief Introduction to the techniques A. Fernández (Instituto de Ciencia de Materiales de Sevilla)	General characterization techniques
10:00-11:00	X-Ray diffraction and related methods J. Dille (Université Libre de Bruxelles)	
11:00-11:30	Coffee break	
11:30-12:30	X-Ray photoemission spectroscopy: surface analysis and chemical states J.P. Espinós (Instituto de Ciencia de Materiales de Sevilla)	
12:30-13:30	Atom probe S. Lozano-Perez (University of Oxford Department of Materials)	
13:30-15:00	Lunch break	
15:00-16:00	Scanning electron microscopy: fundamentals and applications M.C. Jiménez de Haro (Instituto de Ciencia de Materiales de Sevilla)	SEM: Microstructure and chemical characterization
16:00-16:15	Coffee break	
16:15-17:15	Electron diffraction methods: EBSD J. Dille (Université Libre de Bruxelles)	
17:15-19:15	GMS-Digital Micrograph demo training Vicent Richard (Gatan France)	

Tuesday, July 3 rd		
09:00-10:30	Introduction to Transmission Electron Microscopy C. Rojas (Instituto de Ciencia de Materiales de Sevilla)	TEM: Microstructure
10:30-10:45	Coffee break	
10:45-11:45	TEM sample preparation A. Kovacs (Ernst Ruska Center for Microscopy and Spectroscopy with Electrons)	
11:45-12:00	Coffee break	
12:00-13:00	Aberration corrected high-resolution transmission electron microscopy: imaging techniques and applications M. Luysberg (Ernst Ruska Center for Microscopy and Spectroscopy with Electrons)	
13:00-14:30	Lunch break	
14:30-16:00	Electron diffraction and diffraction contrasts in the TEM R. Schierholz (Instituto de Ciencia de Materiales de Sevilla)	
16:00-16:15	Coffee break	
16:15-17:15	Tomography and holography L.C. Gontard (Instituto de Ciencia de Materiales de Sevilla)	
17:15-19:15	Group 1 DEMO EELS spectrum imaging	Group 2 DEMO SEM, AFM, TEM

Wednesday, July 4 th		
09:00-10:00	Advanced nano-analysis in the (S)TEM: EDX and EELS spectrum imaging S. Lozano-Perez (University of Oxford Department of Materials)	TEM: Spectroscopy
10:00-11:00	Advanced nano-analysis in the (S)TEM: EFTEM S. Lozano-Perez (University of Oxford Department of Materials)	
11:00-11:30	Coffee break	
11:30-12:30	An introduction to EELS modeling R. Nicholls (University of Oxford Department of Materials)	
12:30-13:30	Scanning probe microscopy : STM and AFM J. Benítez (Instituto de Ciencia de Materiales de Sevilla)	General characterization techniques
13:30-15:30	Lunch break	
15:30-16:30	Imaging, Image modification, image analysis in (nano-)materials science P. Nagy (Chemical Research Center Hungarian Academy of Sciences)	
16:30-18:30	Group 1 DEMO SEM, AFM, TEM	Group 2 DEMO EELS spectrum imaging