

In situ and operando X-ray absorption spectroscopy for the study of catalysts and functional materials



Wednesday, 5 th February 2020 - Microsymposium UDM1 Venue: Chadwick Amphitheater			
8:30	Registration		
9:00	Introduction by the organizers		
	Session I - Chair: Kirill Lomachenko		
09:05 – 09:50	Keynote talk 1 About active sites in heterogeneous catalysts	Jeroen van Bokhoven ETH Zürich, Switzerland	
09:50 – 10:10	Monitoring structural changes in MoxSy phase encaged within the confinement of zeolites via HERFD-XAS and VtC-XES measured under operando sulfidation/hydrogenation reaction conditions	Rachit Khare Technical University of Munich, Germany	
10:10 – 10:30	Operando XAS on atomically precise Pt-CO clusters for oxygen reduction reaction	Martina Fracchia University of Pavia, Italia	
10:30 – 11:00	Coffee break		
	Session II - Chair: Dipanjan Banerjee		
11:00 – 11:45	Keynote talk 2: Understanding Catalysis for Realistic Supported Catalysts: Methane Oxidation and CO2 Methanation	Per-Anders Carlsson Chalmers University of Technology, Sweden	
11:45 – 12:05	Multivariate statistical analysis of in situ and operando X-ray Absorption Spectroscopy data	Samuel Regli Norwegian University of Science and Technology, Norway	
12:05 – 12:25	Fe-based bimetallic catalysts: evidencing the interplay between the two metals using in situ/operando XAS and chemometrics	Eric Marceau Université Lille, France	
12:25 – 14:00	Lunch at the EPN campus restaurant		

	Session III - Chair: Pieter Glatzel	
14:00 – 14:45	Keynote talk 3: From nanoparticles synthesis in solution to functional devices — a perspective based on in situ synchrotron studie	Dorota Koziej University of Hamburg, Germany
14:45 – 15:05	Operando X-ray absorption spectroscopy studies of Pd-based catalysts	Aram Bugaev Southern Federal University, Russia
15:05 – 15:25	Identification of mobilized Cu-oxygen pairs and of their role in the low temperature NH3-Selective Catalytic Reduction	Tommaso Selleri Politecnico di Milano, Italy
15:25 – 15:45	CO oxidation over nanocomposite CuFeAl catalysts: In situ XAS study	Andrey Saraev Boreskov Institute of Catalysis, Russia
15:45 – 16:10	Coffee break	
	Session IV - Chair: Michela Brunelli	
16:10 – 16:30	In situ Surface Resonant X-Ray Diffraction to probe the electronic structure at electrochemical interfaces	Yvonne Soldo Institut Néel, CNRS & Université Grenoble Alpes, France
16:30 – 16:50	Reaction cells for XAS and HERFD-XAS operando characterization	Antonio Aguilar Institut Néel, Université Grenoble Alpes, France
16:50 – 17:10	Sample environment laboratory at the ESRF	Yves Watier ESRF, France
17:10 – 17:30	BL updates from ESRF and CRG staff	
17:30	End of the meeting	