

# Scientific and Social Programme (final)

## Programme at a glance

### Sunday, September 4<sup>th</sup>, 2016

19:00-21:00	<b>Welcome cocktail and Registration</b>	Rectorat Universitat de Lleida Plaça Victor Siurana 1
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### Monday, September 5<sup>th</sup>, 2016

8:15-18:00	<b>Registration</b>	Transfronterer Building
8:45-9:00	<b>Opening Ceremony</b>	Auditorium
9:00-10:40	<b>Plenary Lectures</b>	Auditorium
10:40-11:10	<b>Fruit &amp; coffee break</b>	Multipurpose building
11:10-12:30	<b>Parallel sessions</b>	Law and Economy Faculty
12:30-14:00	<b>Lunch</b>	Multipurpose building
14:00-15:20	<b>Parallel sessions</b>	Law and Economy Faculty
15:20-15:40	<b>Fruit &amp; coffee break</b>	Multipurpose building
15:40-17:00	<b>Parallel sessions</b>	Law and Economy Faculty
17:00-18:00	<b>Poster session &amp; networking (with drinks and snacks)</b>	Below auditorium hall
19:30-22:00	<b>Visit to La Seu; buses departure in front of Auditorium building at 19:15 (food and refreshments will be served)</b>	

### Tuesday, September 6<sup>th</sup>, 2016

9:00-10:40	<b>Plenary Lectures</b>	Auditorium
10:40	<b>Group Photo</b>	In front of Multipurpose Building
10:45-11:10	<b>Fruit &amp; coffee break</b>	Multipurpose building
11:10-12:30	<b>Parallel sessions</b>	Law and Economy Faculty
12:30-14:00	<b>Lunch</b> (IAP Board Meeting, room 2.13)	Multipurpose building
14:00-15:20	<b>Parallel sessions</b>	Law and Economy Faculty
15:20-15:40	<b>Fruit &amp; coffee break</b>	Multipurpose building
15:40-17:00	<b>Parallel sessions</b>	Law and Economy Faculty
17:00-18:00	<b>Poster session &amp; networking (with drinks and snacks)</b>	Below auditorium hall
20:30-22:00	<b>Gala Dinner</b>	Restaurant El Mirador Av. President Josep Tarradellas, 45 (walking distance of the Auditorium)

## Scientific and Social Programme (final)

### Wednesday, September 7<sup>th</sup>, 2016

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9:00-10:40	<b>Plenary Lectures</b>	Auditorium
10:40-11:10	<b>Fruit &amp; coffee break</b>	Multipurpose building
11:10-12:50	<b>Parallel sessions</b>	Law and Economy Faculty
13:00-13:20	<b>Closing Ceremony, Awards</b>	Auditorium
13:20-15:00	<b>Lunch</b>	Multipurpose building
15:00-19:00	<b>Tutorial on Capacitive Deionization (registration needed)</b>	Computer room 1.08 in multipurpose building (above cafeteria)

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### Monday 5<sup>th</sup> September

8:15 AM	<b>Registration</b> (Transfronterer Building)		
8:45 AM	<b>Opening Ceremony</b> (Auditorium Room)		
9:00 AM	<b>Susan L.S. Stipp</b> (OM01 P, p.20) Interfaces Against Pollution: Learning from nature to meet society's challenges		
9:50 AM	<b>Kenneth A. Dawson</b> (OM02 P, p.21) New Frontier of Bio-Nano Interactions		
10:40 AM	Fruit & coffee break		
	<b>Session 1 Room A</b>	<b>Session 1 Room B</b>	<b>Session 1 Room C</b>
	Environmental impact of nanomaterials I Chair: K.A. Dawson	Biogeochemical cycles I Chair: S.L.S. Stipp	Interfaces for Environmental applications I Chair: M.A. Anderson
11:10 AM	<b>J.R. Lead:</b> Manufactured nanoparticles in natural systems; some uses and questions (OM03 KN, p.22)	<b>G. Carrasco:</b> Zinc complexing ligands in seawater, river water and peat land water from natural, agricultural and industrial sources in South East Asia: Elucidating humics, ligands and bioavailable metals in complex systems (OM15bis = P023)	<b>P.J.J. Alvarez:</b> Nanotechnology-Enabled Water Treatment: A Vision to Enable Decentralized Water Treatment and Reuse (OM27 KN, p.46)
11:30 AM	<b>K. Danielsson:</b> Influence of Natural Organic Matter Model Molecules on the Aggregation of TiO <sub>2</sub> Nanoparticles (OM04, p.23)	<b>M. Borisover:</b> Sorbed organic compound induces hydration of natural organic matter (NOM): A cooperative NOM swelling or a condensation in NOM environment? (OM16, p.35)	<b>C. Lomenech:</b> Water purification using oleate-modified magnetic nanoparticles (OM28, p.47)
11:50 AM	<b>L. Gutierrez:</b> Natural Organic matter interfacial interactions with tannic acid-coated Silver nanoparticles: Implications on nanocontaminants mobility (OM05, p.24)	<b>K. Palanivelu:</b> Leaching studies on marine shells using carbonated sea water (OM17, p.36)	<b>S.G. Muntean:</b> Removal of organic pollutants from wastewaters by magnetite/carbon nanocomposites (OM29, p.48)
12:10 PM	<b>W. Sun:</b> Sediments inhibit 17 $\beta$ -estradiol and 17 $\alpha$ -ethinylestradiol adsorption by carbon nanotubes and graphene oxide: Effects of sediment particle size and organic matters (OM06, p.25)	<b>L.H.E. Winkel:</b> The global biogeochemical cycle of selenium (OM18 KN, p.37)	

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### Monday 5<sup>th</sup> September

12:30 PM			
LUNCH			
	<b>Session 2 Room A</b>	<b>Session 2 Room B</b>	<b>Session 2 Room C</b>
	Environmental impact of nanomaterials II Chair: J.R. Lead	Chemodynamics Chair: J.F.L. Duval	Interfaces for Environmental applications II Chair: M. Grzelczak
02:00 PM	(cancelled)	<b>R.M. Town:</b> Intraparticulate metal speciation analysis: electrostatic and covalent contributions to binding of Cd <sup>2+</sup> , Pb <sup>2+</sup> and Cu <sup>2+</sup> by humic acid nanoparticles (OM19 KN, p.38)	<b>N. Tufenkji:</b> Green synthesis of ultra-strong nanocomposite hydrogels for water treatment (OM30 KN, p.49)
02:20 PM	<b>K.N.M. Mahdi:</b> Silver nanoparticles in soil: aqueous extraction combined with single-particle ICP-MS for detection and characterization (OM08, p.27)	<b>V. Bolaños:</b> Isotopically exchangeable pool of Cr (E <sup>w</sup> <sub>Cr</sub> value) in surface water: the colloidal contribution (OM20, p.39)	<b>L. Duclaux:</b> Adsorption of ibuprofen on a microporous carbon fabric, effect of ultrasound irradiation, competition with organic matter, and pore filling by a biofilm (OM31, p.50)
02:40 PM	<b>A. Praetorius:</b> Single-particle element fingerprints for the detection of engineered cerium oxide nanoparticles in soils (OM09, p.28)	<b>C. Parat:</b> ISIDORE probe for trace metal speciation: from equilibrium to dynamic approach (OM21, p.40)	<b>T.D. Pham:</b> Adsorptive removal of organic and inorganic pollutants from aqueous solution by surfactant modified alumina (OM32, p.51)
03:00 PM	<b>K.A. Jensen:</b> Screening and ranking of the redox and acid-base reactivity during transformation and dissolution of manufactured nanomaterials in hydrous mediums: Valuable information for risk assessment? (OM10 KN, p.29)	<b>J.P. Pinheiro:</b> Addressing temperature effects on metal chemodynamics (OM22 KN, p.41)	<b>R.K. Dey:</b> Study of kinetics, thermodynamics and mechanism of defluoridation of drinking water using metal-loaded polymers (OM33, p.52)

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### Monday 5<sup>th</sup> September

03:20 PM	Fruit & coffee break		
	<b>Session 3 Room A</b> Environmental impact of nanomaterials III Chair: K.A. Jensen	<b>Session 3 Room B</b> Metal-humic interactions Chair: J. Antelo	<b>Session 3 Room C</b> Interfaces for Environmental applications III Chair: N. Tufenkji
03:40 PM	<b>R. Behra:</b> Interactions of nanoparticles with four fresh water algal strains (OM11 KN, p.30)	<b>T. Saito:</b> Ion-binding properties of humic substance in deep sedimentary groundwater (OM23 KN, p.42)	<b>M. A. Anderson:</b> Building a Better Environment by Doing Things "Porely" (OM34 KN, p.53)
04:00 PM	<b>A. Anderson:</b> Transport of waste-generated metallic colloids and nanoparticles in the Environment (OM12, p.31)	<b>W. Chen:</b> Dependency of Pb, Cd, and Zn binding on sources of dissolved organic matter (OM24, p.43)	<b>A. Tiraferri:</b> Water Chemistry Affects the Efficacy of Concentrated Suspensions of Iron Oxide Nanoparticles Used for Aquifer Reclamation (OM35, p.54)
04:20 PM	<b>R.F. Domingos:</b> A Kinetic Environmental Fate Model for the Risk Assessment of Engineered Nanomaterials (OM13, p.32)	<b>J.E. Groenenberg:</b> Modelling of tri-valent metal binding to humic substances with the NICA-Donnan model (OM25, p.44)	<b>Y. Hu:</b> Synthesis of Mg(OH) <sub>2</sub> -coated nanoscale zero-valent iron (NZVI) for improved mobility and in-situ remediation in sand columns (OM36, p.55)
04:40 PM	<b>N. Hondow:</b> Quantitative electron microscopy to probe nanoparticle dispersions and cellular uptake (OM14 KN, p.33)	<b>J. Xu:</b> Copper Binding to Soil Fulvic and Humic Acids: NICA-Donnan Modeling and Conditional Affinity Spectra (OM26, p.45)	<b>K. Saeed:</b> Preparation, Characterization and Applications of Electrospun Polyacrylonitrile Nanofibers (OM37, p.56)
05:00 PM	<b>Poster session &amp; networking</b> with drinks and snacks		
07:30 PM	Social event: visit to La Seu Vella, with food and refreshments		

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### Tuesday 6<sup>th</sup> September

9:00 AM	<b>François M.M. Morel</b> (OT01 P, p.57) Strong and weak chelators conspire to control the bioavailability of trace metals to microbes		
9:50 AM	<b>Peter G.C. Campbell</b> (OT02 P, p.58) Influence of interfacial phenomena on metal uptake by aquatic organisms		
10:40 AM	Fruit & coffee break		
	<b>Session 4 Room A</b> Metal-bio interactions Chair: P.G.C. Campbell	<b>Session 4 Room B</b> Interfacial phenomena: theory & modelling Chair: A. V. Delgado	<b>Session 4 Room C</b> Interfaces for Environmental applications IV Chair: T.D. Waite
11:10 AM	<b>V.I. Slaveykova:</b> Mercury species bioavailability to aquatic primary producers: from the cell to the community level (OT03 KN, p.59)	<b>J.F. Dufrêche:</b> Multiscale modelling for decontamination of aqueous solution using porous oxides (OT14 KN, p.70)	<b>E. Brillas:</b> Electrochemical advanced oxidation processes: Application to the remediation of waters with organic pollutants (OT26 KN, p.82)
11:30 AM	<b>F.A.R. Barbosa:</b> Cyanobacteria is resistant to Hg and useful for its removal from aqueous medium (OT04, p.60)	<b>M. Predota:</b> The molecular origin of zeta-potentials as revealed by non-equilibrium molecular dynamics simulations of a realistic mineral-aqueous solution interface (OT15, p.71)	<b>A. D'Haese:</b> Transport of OMPs through FO membranes: influence of OMP and draw solute properties (OT27, p.83)
11:50 AM	<b>J.F.L. Duval:</b> Kinetic and thermodynamic determinants of metal partitioning at biointerfaces: impacts of intracellular speciation dynamics (OT05, p.61)	<b>T. Preocanin:</b> Inner surface potential measurements and interpretation of equilibrium at electrical interfacial layer (OT16, p.72)	<b>M. Stefanescu:</b> Hybrid sonolysis application as polishing step for removal of THMs generated from the drinking water treatment flow based on coagulation-flocculation, filtration and chlorination (OT28, p.84)
12:10 PM		<b>Y. Adachi:</b> Dynamics of water soluble polyelectrolytes at the occasion of adsorption on the surface of colloidal particles probed by flocculation properties (OT17 KN, p.73)	<b>R. Prasad:</b> Catalysis and kinetics of diesel soot oxidation over nano-size perovskite catalyst (OT29, p.85)
12:30 PM	LUNCH		
	<b>Session 5 Room A</b> Soils and sediments I Chair: L.K. Koopal	<b>Session 5 Room B</b> Analytical techniques I Chair: R. M. Town	<b>Session 5 Room C</b> Interfaces for Environmental applications V Chair: E. Brillas
02:00 PM	<b>L. Weng:</b> Modelling Adsorption Processes at the Interfaces of Soil Particles - 15 Years Development (OT06 KN, p.62)	<b>P. Salaun:</b> Cation mediated reduction of antimonate $\text{Sb}(\text{OH})_6^-$ at gold electrode (OT18 KN, p.74)	<b>B. Erable:</b> Performances of bioelectrochemical technologies for energy passive wastewater treatment (OT30 KN, p.86)

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02:20 PM	<b>B. Chefetz:</b> Adsorptive fractionation of dissolved organic matter (DOM) by mineral surface (OT07, p.63)	<b>I. Mazerie:</b> Design of Portable Sensor to Detect Pollutants in our Environment (OT19, p.75)	<b>S.Y. Ryu:</b> Mixed-metal semiconductor anodes for electrochemical water splitting and reactive chlorine species generation: Implications for electrochemical wastewater treatment (OT31, p.87)
02:40 PM	<b>G. Fleury:</b> ESI-FTMS study of the effect of mineral surface properties on the sorptive fractionation of soil fulvic acids (OT08, p.64)	<b>M. Plavsic:</b> The characterization of polysaccharides in seawater accessed by electrochemical methods (OT20, p.76)	<b>S. Pandit:</b> Bacterial Biofilm formation on carbon electrodes under influence of an electric field (OT32, p.88)
03:00 PM	<b>M. Avena:</b> Ligand exchange reactions at the metal oxide-water interface. Equilibrium and dynamic conditions (OT09 KN, p.65)	<b>E. Companys:</b> Review and recent developments of AGNES: a stripping technique for the determination of free metal concentrations (OT21, p.77)	<b>H. Zhao:</b> Transformation and products of organic micropollutants with the presence of humic substance in water during enzymatic catalysis (OT33, p.89)
03:20 PM	Fruit & coffee break		
	<b>Session 6 Room A</b> Soils and sediments II Chair: W. Tan	<b>Session 6 Room B</b> Analytical techniques II Chair: J.P. Pinheiro	<b>Session 6 Room C</b> Interfaces for Environmental applications VI Chair: J.F. Dufrêche
03:40 PM	<b>L.K. Koopal:</b> Surfactant Adsorption to Soil Components (OT10 KN, p.66)	<b>W. Davison:</b> Maximizing mechanistic information from DGT-plant studies (OT22 KN, p.78)	<b>A.V. Delgado:</b> New materials as electrodes for capacitive energy production (OT34 KN, p.90)
04:00 PM	<b>B. Embley:</b> Modelling dust-control foams: Drainage into a fractal porous substrate (OT11, p.67)	<b>T. Nhu-Trang:</b> Comparison between active and passive sampling POCIS for monitoring polar pesticides in Tra Vinh rivers (Mekong Delta) (OT23, p.79)	<b>Y.G. Mishael:</b> Adsorption of Effluent Organic Matter by Polycation-Clay Composite Sorbents: Effect of Polycation Configuration on Pharmaceutical Binding (OT35, p.91)
04:20 PM	<b>H. Bertin:</b> Foam Placement for Soil Remediation (OT12, p.68)	<b>T.H. Dao:</b> Real-time X-ray Fluorescence in Probing Rhizosphere Processes Controlling Release and Losses of Phosphorus and Other Macronutrients (OT24, p.80)	<b>J. Zajac:</b> Prediction of the effects of competitive adsorption in the dye removal from wastewater by layered double hydroxides: competition between anionic Orange-type dyes and inorganic divalent anions (OT36, p.92)
04:40 PM	<b>P. Behra:</b> Comparison of sorption behaviour of different contaminants on natural aquifer sand (OT13, p.69)	<b>E. Anticó:</b> Comparison of emerging techniques for Zn speciation measurements in a nutrient solution (OT25, p.81)	<b>T. Hofmann:</b> Biochar as interface against organic pollutants (OT37, p.93)
05:00 PM	<b>Poster session &amp; networking</b> with drinks and snacks		
08:30 PM	Social event: Gala Dinner		

## Scientific and Social Programme (final)

### Wednesday 7<sup>th</sup> September

9:00 AM	<b>Laurent Charlet</b> (OW01 P, p.94) Advanced experimental techniques to probe environmental interfacial processes		
9:50 AM	<b>Bert Hamelers</b> (OW02 P, p.95) The electrosorption process for energy generation		
10:40 AM	Fruit & coffee break		
	<b>Session 7 Room A</b>	<b>Session 7 Room B</b>	<b>Session 7 Room C</b>
	Geochemistry of Iron Chair: M. Avena	Interfacial phenomena: instrumental methods Chair: L. Charlet	Interfaces for Environmental applications: Capacitive Deionization Chair: B. Hamelers
11:10 AM	(relocated)	<b>M. Grzelczak:</b> Self-assembled composite colloids and their application to SERS detection (OW08 KN, p.101)	<b>T.D. Waite:</b> Nature, Extent and Implications of Redox Processes in Capacitive Deionization (CDI) Water Treatment (OW13 KN, p.106)
11:30 AM	<b>M. Gledhill:</b> Investigating the impact of ocean acidification on the speciation of iron - a combined experimental and modeling approach (OW03 KN, p.96)	<b>H.A. Al-Abadleh:</b> Organics on the Surface of Hematite Nanoparticles and the Environmental Fate of Arsenicals from ATR-FTIR, Surface Complexation Modeling and Flow Calorimetry Studies (OW09, p.102)	<b>P.M. Biesheuvel:</b> The origin of pH fluctuations in capacitive deionization (OW14, p.107)
11:50 AM	<b>J. Antelo:</b> Iron nanominerals in mining environments: formation, stability and reactivity (OW05 KN, p.98)	<b>G. Martin-Gassin:</b> How to “in situ” probe interfaces during depollution processes? Non- linear optic applied to molecular adsorption onto solid particles (OW10, p.103)	<b>C. Santos:</b> Optimizing Energy Efficiency Parameters in Capacitive Deionization Systems (OW15, p.108)
12:10 PM	<b>M. Wang:</b> Effect of aluminum substitution on the Pb(II) adsorption on goethite and CD- MUSIC modeling (OW06, p.99)	<b>S. Bellini:</b> Probing of the solid- liquid interface of adsorbing materials for food detoxification with Second Harmonic Scattering (SHS) method: example of Ochratoxin A (OW11, p.104)	<b>M. Tedesco:</b> Modeling Ion and Water Transport in Shock Electrodialysis (OW16, p.109)
12:30 PM	<b>W. Tan:</b> A vision for transformation of iron oxides with organic molecules in soil (OW07 KN, p.100)	<b>M. Sander:</b> Viruses at solid- water interfaces: assessing major interactions driving adsorption and competitive effects on adsorption in the presence of dissolved organic matter as co- adsorbate (OW12, p.105)	<b>S. Ahualli:</b> Use of soft electrodes for capacitive deionization (OW17, p.110)
01:00 PM	<b>Closing Ceremony, Awards, Announcement of following IAP Meeting</b>		
01:20 PM	LUNCH		
3:00 PM	<b>Tutorial on Capacitive Deionization</b> Computer Room		