IMMS12 | Montpellier 2024

Final scientific program

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Monday, July 8, 2024

Time	Event / presentation
08:00 - 10:00	Registration
08:00 - 09:30	IMMA board meeting
10:00 - 10:15	Opening (Mousseron A) - Eric Clot (Director of the Institut Charles Gerhardt de Montpellier), Bao-Lian Su (President of IMMA) and Peter Hesemann (Chair of IMMS12)
10:15 - 11:00	Plenary session (Mousseron A) - Peter Hesemann
10:15 - 11:00	Applications of nanoporous materials - from batteries to magnetics - Sarah H. Tolbert, UCLA
11:00 - 12:20	General session (Mousseron A) - Vera Meynen
11:00 - 11:20	Impact of mineralizing agents (F- vs. OH-) on aluminium site distribution and acidity of ZSM-5 zeolites - Bruno Alonso, ICGM, Montpellier, France
11:20 - 11:40	Tuning the size of hollow mesoporous organosilica nanoparticles - Rozenn Le Parc, Laboratoire Charles Coulomb, Montpellier, France
11:40 - 12:00	How to tune the hydrophobic-hydrophilic character in MOF materials for energy applications - Fabrice Salles, Institut Charles Gerhardt Montpellier, France
12:00 - 12:20	Influence of humidity on the sorption of CO2 in prototypical porous materials: insights and challenges - Paul Iacomi, Surface Measurement Systems
12:20 - 14:00	Lunch (courtyard)
14:00 - 14:30	Keynote session (Mousseron A) - Morgan Stefik
14:00 - 14:30	Metal Organic Frameworks: from biological to environmental applications - Patricia Horcajada, IMDEA
14:40 - 16:00	Materials synthesis (Mousseron A) - Morgan Stefik
14:40 - 15:00	Soft-templated mesostructured TiO2 - SiO2 composites and their activity for methyl orange photodegradation - Jean-Luc BLIN, Laboratoire Lorrain de Chimie Moléculaire (L2CM)
15:00 - 15:20	Improving the catalytic properties of magnesium oxide by using Mesoporous Magnesium Carbonate as a precursor - Hefei SUN, Sorbonne Université, Paris, France
15:20 - 15:40	Synthesis of dendritic ZSM-5 zeolite mediated by a POSS-promoted mesophase - Elena Alonso Giner, IMDEA Energy

Time	Event / presentation
15:40 - 16:00	DES-mediated mesoporous nanoceria with gold doping - Ronak Kakadiya, Lund University
14:40 - 16:00	Energy storage and conversion (Mousseron B) - Samuel Bernard
14:40 - 15:00	Triboelectrification during intrusion-extrusion of water in mesoporous materials - Eder Amayuelas, CIC ENERGIGUNE - Parque Tecnol Alava
15:00 - 15:20	Functional porous materials for energy-efficient ammonia synthesis and separation - Shih-Yuan Chen, Energy Catalyst Technology Group, Energy Process Research Institute (EPRI), National Institute of Advanced Industrial Science and Technology (AIST)
15:20 - 15:40	Hierarchical architecture: a novel facile and cost-efficient strategy to boost the electrochemical performance of Li-O2 battery cathodes - Yuan-Guo Wu, Harbin Institute of Technology, University of Namur
15:40 - 16:00	Towards electrochemical regeneration of photocatalyst immobilized into mesoporous silica film - Mahmoud Rahal, LCPME, Université de Lorraine, Nancy, France
16:00 - 16:30	Coffee break (courtyard)
16:30 - 17:50	Materials synthesis (Mousseron A) - Andreas Stein
16:30 - 16:50	Sustainable synthesis of MIL-101(Cr) from tannery effluent and mesoporous silicas from phosphate industry residue for environmental remediation - Ayalew Assen, University Mohammed VI Polytechnic (UM6P), Applied Chemistry and Engineering Research Centre of Excellence (ACER CoE), Ben Guerir, Morocco
16:50 - 17:10	Synthesis of novel covalent organic frameworks for proton conduction - Eva Dahlqvist, Chalmers University of Technology, Gothenburg, Sweden
17:10 - 17:30	Towards the manufacture of highly porous activated carbons from wood by-products with the use of an innovative activation method - Andrei Tchernychev, Laboratory of Inorganic Materials Chemistry (CMI),
17:30 - 17:50	Uniform single-crystal mesoporous Metal-Organic Frameworks - Zirui Lv, Fudan University, Shanghai, China
16:30 - 17:50	Adsorption and catalysis (Mousseron B) - Michael Tiemann
16:30 - 16:50	Controlled synthesis and in-depth structural analysis of mesoporous Ti-bisphosphonates for biorefinery catalysis - Chandana Chandran, Department of Chemistry, University of Antwerp, Belgium
16:50 - 17:10	The para-fluoro-thiol reaction: a versatile route for the production of functionalized nanoporous polymers for gas storage or separation - Benhur Mekonnen, Université de Pau et des Pays de l'Adour, France
17:10 - 17:30	Engineering the creation of mesopores within MOFs and their derived materials for enhanced removal of heavy metals from Water - EL MEHDI MOUMEN, Université Mohammed VI Polytechnique, Ben Guerir, Morocco
17:30 - 17:50	Sorption selectivity in the promising MOF CALF-20: an experimental and simulation study - Philippe Trens, ENSCM, Montpellier, France
18:00 - 20:00	Welcome reception (courtyard)

Tuesday, July 9, 2024

Time	Event / presentation
08:30 - 09:15	Plenary session (Mousseron A) - Sarah Tolbert
08:30 - 09:15	Synthesis and applications of mesostructured materials from tannins - Vanessa Fierro, Institut Jean Lamour
09:20 - 10:20	General session (Mousseron A) - Sarah Tolbert
09:20 - 09:40	Design Criteria for Nanoporous Carbon Materials as Solid Contacts for Wearable Ion-Selective Sensors - Andreas Stein, University of Minnesota, USA
09:40 - 10:00	A general concept toward the in-situ encapsulation of metal sites in a micro/mesoporous Si-C-O-N-based matrix to stimulate superior oxygen evolution reaction activity - Samuel Bernard, Institut de Recherche sur les CERamiques
10:00 - 10:20	Excess Surface Work – Disjoining Pressure Model Applied on Mesoporous Materials - Jürgen Adolphs, Microtrac Retsch GmbH
10:20 - 10:50	Coffee break (courtyard)
10:50 - 11:50	General session (Mousseron A) - Bénédicte Lebeau
10:50 - 11:10	Synthesis of the N-doped Multiporous Carbon with High Electric Conductivity from Agricultural Wastes for Application in Supercapacitor - Hong-Ping LIN, Department of Chemistry, National Cheng Kung University
11:10 - 11:30	Zeolitic imidazole framework materials design for improved energy absorption performance - Eder Amayuelas, CIC ENERGIGUNE - Parque Tecnol Alava, Vitoria-Gasteiz, Spain
11:30 - 11:50	Design of Metal-Organic Frameworks and Reaction Systems for Efficient Photocatalytic H2O2 Production - Hiromi Yamashita, Osaka University
11:50 - 12:10	Presentations of exhibitors (Mousseron A)
12:10 - 14:00	Lunch (courtyard)
14:00 - 14:30	Keynote session (Mousseron A) - Kazuyoshi Kanamori
14:00 - 14:30	Nanostructured actinide oxides for the nuclear fuel preparation - Diane Rebiscoul, CEA
14:40 - 16:00	Materials characterization (Mousseron A) - Kazuyoshi Kanamori
14:40 - 15:00	Hierarchical zeolites from assembled nanosheets: tuning sheet thickness trough a simple and direct dual templating approach - Bruno Alonso, ICGM, Montpellier, France
15:00 - 15:20	Particulate and mesoporous TiO2 and SrTiO3/TiO2 composites: effects of hydrothermal etching and conversion on photocatalytic performance - Lion Schumacher, University of Bayreuth, Germany
15:20 - 15:40	Role of the molecular interactions in the self-assembly of organosilanes during the sol-gel synthesis of hybrid mesoporous films - Jakub Kusz, Laboratoire de Chimie ENS de Lyon, France

Time	Event / presentation
15:40 - 16:00	Phosphorylation-triggered surfactant removal with simultaneous functionalization of mesostructured silicates framework - Malak El Kaddouri, Euromed Research Center, Engineering Division, Department of chemical engineering, Laval University
14:40 - 16:00	Materials synthesis (Mousseron B) - Jean-Luc Blin
14:40 - 15:00	Solid-state microwave assisted synthesis of UVM-7, a silica mesoporous material - Jose V. Ros-Lis, University of Valencia, Spain
15:00 - 15:20	3D printed functional monoliths from mesoporous silica nanoparticles for environmental applications - Thomas Gaillard, Institut Charles Gerhardt Montpellier - Institut de Chimie Moléculaire et des Matériaux de Montpellier
15:20 - 15:40	Synthesis of Hierarchically Porous Carbon Materials via Hydrothermal Carbonization : Impact of Reaction Parameters and Solvent Composition - Ludivine Onillon, Institut Charles Gerhardt Montpellier, France
15:40 - 16:00	Robust and microporous Zr-phosphonate MOF as proton conductor filler for proton exchange membrane fuel cells - Catalina Biglione, IMDEA Energy Institute, Spain
16:00 - 16:30	Coffee Break (courtyard)
16:30 - 17:50	Biology and sensor (Mousseron A) - Magali Gary-Bobo
16:30 - 16:50	Enhanced anticancer activity of periodic mesoporous organosilicas based on Sn (IV) bis-organosilane complexes - Alberto Galindo, Universidad Rey Juan Carlos, Madrid, Spain
16:50 - 17:10	Tools to Probe Paracellular Permeability at the Nanoscale: Connecting the Shape and Surface Chemistry of Mesoporous Silica Nanoparticles to Intestinal Barrier Function - Claudia Iriarte Mesa, Department of Functional Materials and Catalysis, Faculty of Chemistry, University of Vienna, Vienna Doctoral School in Chemistry (DoSChem), University of Vienna, Austria
17:10 - 17:30	Synthesis of pH-Responsive Periodic Mesoporous Organosilica Nanoparticles for Controlled Delivery - Chalunda Tirayaphanitchkul, Vidyasirimedhi Institute of Science and Technology, Institut Charles Gerhardt Montpellier, France
17:30 - 17:50	Four Physical Phenomena in one 3D-rGO@TiO2@(SOS@AuNCs) photocatalyst for Unprecedented Photocatalytic Hydrogen Generation via Water Splitting - Laroussi CHAABANE, Laboratory of Inorganic Materials Chemistry (CMI),
16:30 - 17:50	Materials synthesis (Mousseron B) - Brad Chmelka
16:30 - 16:50	Direct transformation of silica from rice husk into MCM-1 and amino acid functionalized MCM-41 for size exclusion chromatography - Anne Galarneau, Institut Charles Gerhardt Montpellier, France
16:50 - 17:10	3D printed gas diffusion electrodes from mesoporous silica nanocages - Nadia Batool, ICGM, France
17:10 - 17:30	Self-limiting growth of thin dense LTA membranes boosts H2 gas separation performance - Pengyao Yu, University of Namur, Belgium
17:30 - 17:50	Cooperation of anisotropic growth and etching for the reshaping of Single-Crystal metal−organic framework - Minchao Liu, Fudan University, Shanghai, China

Time	Event / presentation
18:00 - 19:30	Poster session with wine and cheese

Wednesday, July 10, 2024

Time	Event / presentation
08:30 - 09:15	Plenary session (Mousseron A) - Vanessa Fierro and Patricia Horcajada
08:30 - 09:15	Silicone-based aerogels that show mechanical flexibility - Kazuyoshi Kanamori, Kyoto University
09:20 - 09:50	Keynote session (Mousseron A) - Vanessa Fierro and Patricia Horcajada
09:20 - 09:50	Therapeutic potential of photoactivable nanoparticles - Magali Gary-Bobo, IBMM
09:50 - 10:20	Coffee break (courtyard)
10:20 - 12:20	General session (Mousseron A) - Bao-Lian Su
10:20 - 10:40	A recovery of valuable NH3 through a gas-switching storage and reduction of harmful NOx - Tatsuo Kimura, National Institute of Advanced Industrial Science and Technology, Nagoya, Japan
10:40 - 11:00	Mesostructured TiO2 as supports for hydrotreating catalysts - Jean-Luc BLIN, Laboratoire Lorrain de Chimie Moléculaire (L2CM)
11:00 - 11:20	Mesoporous Copper-Ceria: Selective Gas Sensors for CO Monitoring in Presence of H2 - Michael Tiemann, Paderborn University, Germany
11:20 - 11:40	Crystalline porous frameworks as nano-enhancers for membrane liquid and gas separation - KUJAWSKI Wojciech, Nicolaus Copernicus University, Toruń, Poland
11:40 - 12:00	Tentative Classification for Porous Nanoparticle Based on Shape, Topology and Pore Array (SToPA) - Laurent Bonneviot, ENS de Lyon, France
12:00 - 12:45	Plenary session (Mousseron A) - Bao-Lian Su
12:00 - 12:45	Molecular superassemble for functional mesoporous materials and their future applications - Dongyuan Zhao, Fudan University
12:45 - 14:00	Lunch (courtyard)
14:00 - 17:30	free afternoon
15:30 - 17:30	Visit of Montpellier's historical center - (optional)
18:30 - 23:00	Banquet

Thursday, July 11, 2024

Time	Event / presentation
08:30 - 09:15	Plenary session (Mousseron A) - Sheng Dai
08:30 - 09:15	Tailoring the (surface) properties of hybrid organic-inorganic titania - Vera Meynen, University Antwerp
09:20 - 10:20	General session (Mousseron A) - Sheng Dai
09:20 - 09:40	Increasing the bioavailability of drugs by their confinement in porous materials - David Bergé-Lefranc, Institut de Chimie Radicalaire, UMR 7273
09:40 - 10:00	Mesoporous silica films as implant coatings for local drug delivery - Emma Björk, Nanostructured Materials, Department of Physics, Chemistry, and Biology (IFM), Linköping University
10:00 - 10:20	Advanced nanotherapy: L-DOPA@MSN for the treatment of Parkinson disease - Rafael A. Garcia-Monoz, Universidad Rey Juan Carlos, Madrid, Spain
10:20 - 10:50	Coffee break (courtyard)
10:50 - 12:10	General session - Ulrich Wiesner
10:50 - 11:10	Mesostructured materials with controllable long-range orientational ordering and anisotropic properties - Brad Chmelka, University of California [Santa Barbara]
11:10 - 11:30	Direct Self-Assembly of Mesoporous Heterostructures with Block Polymers - Morgan Stefik, University of South Carolina
11:30 - 11:50	Ordered Mesoporous Organosiloxane Elastomers toward Nanoparticle Separation - Takamichi Matsuno, Department of Applied Chemistry, Faculty of Science and Engineering, Waseda University, Kagami Memorial Research Institute for Materials Science and Technology, Waseda University
11:50 - 12:10	Template synthesis of semiconductor nanoparticles using mesoporous silicas - Makoto Ogawa, Vidyasirimedhi Institute of Science and Technology, Rayong, Thailand
12:10 - 14:00	Lunch (courtyard)
14:00 - 14:30	Keynote session (Mousseron A) - Karen Edler
14:00 - 14:30	Block copolymer self-assembly directed mesoporous quantum materials - Ulrich Wiesner, Cornell University
14:40 - 15:40	General session (Mousseron A) - Karen Edler
14:40 - 15:00	MOF-derived catalysts for CO2 recycling - Alan Chaffee, Monash University
15:00 - 15:20	Mesoporous Hybrid Catalysts for Heterogeneous Photo-Redox Catalysis: Impact of Material Support on Selectivity of Radical Cyclization - Bénédicte Lebeau, Institut de Science des Matériaux de Mulhouse, France
15:20 - 15:40	Precise Construction of Porous Carbon Materials for Energy Conversion - Jian Liu, Inner Mongolia University, Dalian Institute of Chemical Physics
15:40 - 16:15	Coffee break (courtyard)

Time	Event / presentation
15:45 - 16:15	IMMA board meeting
16:20 - 17:30	IMMA business meeting
17:30 - 18:00	New IMMA board meeting

Friday, July 12, 2024

Time	Event / presentation
08:30 - 09:15	Plenary session (Mousseron A) - Corine Gerardin
08:30 - 09:15	Tailoring mesoporous carbons and related materials for energy-storage and energy-conversion applications - Sheng Dai, Oak Ridge National Laboratories
09:20 - 10:00	General session (Mousseron A) - Corine Gerardin
09:20 - 09:40	ZnGa2O4:Cr@SiO2 mesoporous nanoparticles as persistent luminescence nanoagents for deep photodynamic therapy - Aurelie Bessiere, Institut Charles Gerhardt Montpellier
09:40 - 10:00	Designing the topology of porous nanoparticles for applications in nanomedicine - Belen Albela, ENS de Lyon, France
10:00 - 10:30	Coffee break (courtyard)
10:30 - 11:10	General session - Diane Rebiscoul
10:30 - 10:50	Design of smart hybrid porous materials for controlled drug delivery - Virginie Hornebecq, Matériaux divisés, interfaces, réactivité, électrochimie
10:50 - 11:10	Efficient polymer templates for tailoring properties of multifunctional ordered mesoporous materials - Corine Gerardin, UMR 5253 CNRS/ENSCM/UM
11:10 - 11:40	Keynote session (Mousseron A) - Diane Rebiscoul
11:10 - 11:40	Mesostructured metal oxides from deep eutectic solvents - Karen J. Edler, Lund University
11:40 - 12:00	Final remarks (Mousseron A)

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