



Accepted Oral Presentations

Understanding the Origins of Reversible and Hysteretic Pathways of Adsorption Phase Transitions by Mesocanonical Ensemble Monte Carlo Simulations

Shivam Parashar, Alexander Neimark
Rutgers University

Deformation Dynamics of Nanoporous Solids upon Liquid Imbibition

Patrick Huber, Juan Sanchez
Hamburg University of Technology and Deutsches Elektronen-Synchrotron DESY

Dissemination and updates to the universal standard archive file for adsorption data

Daniel Siderius, Jack Evans, Stefan Kaskel
Fraunhofer IWS & TU Dresden

Unusual coexisting adsorption and structural transformations mechanism in Nano-Porous Materials

Bogdan Kuchta
Wroclaw University of Science and Technology, Department of Chemistry

Unique characterization data of graphene mesosponge

Hirotomo Nishihara
Tohoku University

Simulations and Thermodynamic Models for Intrusion of Aqueous Electrolytes in Nanoporous Materials

Anne Boutin, FX Coudert, Alain FUCHS, Ambroise de Izarra
PSL University, Paris, France

Flat-histogram Simulations of Water in MOFs: Advanced Strategies for Overcoming Sampling Challenges

Daniel Siderius, Harold Hatch, Vincent Shen
National Institute of Standards and Technology

On the characterization of nanoporous carbons with small-angle scattering

Oskar Paris, Christian Prehal
Montanuniversität Leoben

Formation and Characterization of ZIF-8 Supraparticles and Their Packings with Hierarchical Porosity

Satoshi Watanabe, Atsushi Fujiwara, Shotaro Hiraide, Minoru Miyahara, Nicolas Vogel
Department of Chemical Engineering, Kyoto University

Framework-dependent kinetics of adsorption-induced structural transition in flexible metal-organic frameworks

Shotaro Hiraide, Yuta Sakanaka, Iori Sugawara, Hajime Uematsu, Shogo Kawaguchi, Minoru Miyahara, Satoshi Watanabe
Kyoto University

The Evolution of the Pore Structure-Transport Relationship in Shales Following Microwave Treatment

Mohamed Adam, Agnes Anuka, David Large, Sean Rigby
University of Nottingham

Rapid Characterization of Mass Transfer in Fiber Composites Using a Commercial Volumetric Adsorption Instrument

Kaihang Shi, Florencia Son, Randall Snurr, Omar Farha
University at Buffalo, State University of New York

Topological cluster structure of water confined in hydrophobic pores

Yasuhiro Sugiyama, Ryusuke Futamura, Taku Iiyama
Shinshu University

Anomalous interaction between propylene and Ag cation in zeolites

Hideki Tanaka, Tomoki Ogata, Motomu Sakai, Masahiko Matsukata, Katsuya Teshima
Shinshu University

Shell-Core Structure in Extruded Pellets Characterized Using the Zero Length Column Technique

Stylianos Kalaitzopoulos, Enzo Mangano, Stefano Brandani
University of Edinburgh

Mechanism of Vapor Sorption and Sorption-Induced Deformation in Bacterial Spores

Gennady Gor, George Scherer, Howard Stone
Princeton University, NJIT

Measurement of multicomponent adsorption isotherms based on a temperature-step approach and mass spectrometry

Nicolas Chanut, Robbe Van Loenhout, Cesar Para Cabrera, Masaya Sugihara, João Fernandes, Margot Verstreken, Leen Boullart, Rob Ameloot
KU Leuven

Effect of surface chemical heterogeneity of carbon textiles on their detoxification activity against CWA surrogate

Marc Florent, Paola S Pauletto, Teresa J Bandosz
CCNY

Zeolitic imidazole framework materials design for improved energy absorption performance

Eder Amayuelas, Sandeep K. Sharma, Jaideep Mor, Luis Bartolomé, Marcus Carter, Benjamin Trump, Andrey A. Jakovenko, Pawel Zajdel, Simone Meloni, Yaroslav Grosu
CIC energiGUNE

Direct visualization of Al distribution inside zeolite crystals

Yoshihiro Kamimura, Tetsuya Kodaira, Akira Endo
National Institute of Advanced Industrial Science and Technology

Correlations of NMR Relaxometry Data and Polymer Surface Chemistry

Alan Allgeier, Murilo Suekuni
University of Kansas

Structure characterization-mediated designing of novel carbon-based nanostructured materials

Katsumi Kaneko
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Kinetic measurements on monoliths using the Adsorption Differential Volumetric Apparatus (ADVA)

Enzo Mangano, Riccardo Rea, Mohsen Gholami, Joeri Denayer, Stefano Brandani
The University of Edinburgh

Porous silica-coated magnetic nanoparticles for molecular diagnostics of virus infection

Adriana Zelenakova
Pavol Jozef Šafárik University in Košice

Selectivity in adsorption of responsive metal-organic frameworks

Irena Senkovska, Leila Abylgazina, Volodymyr Bon, Stefan Kaskel, Mariia Maliuta

Investigating preferential adsorption of N₂ from the air in Zeolite 13X using total neutron scattering

Daniel Bowron, Marta Falkowska
The University of Manchester

Computational-aided development of MOF-based Mixed Matrix Membranes for molecular separation

Guillaume Maurin
Université Montpellier/CNRS

Impact of a kerogen network on the behavior of confined hydrocarbon liquids

Dmitry N. Lapshin, Bennett D Marshall, Erich A. Muller, Peter I. Ravikovitch

Imperial College London

Characterization of carbon quantum dots in aqueous solution: numerical simulations

Clarisse Basset, Bogdan Kuchta, Lucyna Firlej, Michael Roth, Carlos Wexler

University of Missouri, USA

Applications of 3D Amorphous Carbon Molecular Models for Adsorption and Mechanical Property Predictions

Nicholas Corrente, Elizabeth Hinks, Aastha Kasera, Raleigh Gough, Peter I. Ravikovitch,

Alexander Neimark

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Adsorption separation of CO₂ from CH₄/CO₂ mixture by Low Silica X zeolite and Recovering of Adsorption Heat for Further Applications

Akihiko MATSUMOTO, Keiichi Hasegawa, Yuji Hasegawa

Toyohashi University of Technology

Molecular Simulation of Peptide Retention in Reversed-Phase Liquid Chromatography

José Paulo Mota

NOVA School of Science and Technology

Towards “infinite” selectivities in CO₂/CH₄ and CO₂/N₂ separations with MgNa-GIS flexible zeolite

Remy Guillet

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A non-local Density Functional Theory for water adsorbed in nanoporous materials.

Antoine Barthes, David Grégoire, Christelle Miqueu

Université de Pau et des Pays de l'Adour

Designing Macroporous-Mesoporous Adsorbents for Sustainability

Freddy Kleitz, Aaron Brewer, Changxia Li, Patrick Guggenberger, Justyna Florek

University of Vienna, Austria

Brain Tissue Modeled as a Porous Medium with parameters derived from Micro-Iontophoresis Experiments

Charles Nicholson

NYU School of Medicine

Permeability and multiphase flows in tight porous media: quantitative predictions with Lattice-Boltzmann Methods

Andrew Olhin, Aleksey Vishnyakov

Moscow State University

Coupling between poroelasticity and the density functional theory for the estimation of adsorption-induced swelling in nanoporous materials

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Use of Ultrasonic Monitoring for In situ Diagnostics of Zeolite and MOF Crystallization

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Tuneable mesoporous silica materials for gas storage applications via nanoconfined clathrate formation

Pegie Cool
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Advanced Textural and Surface Chemistry Characterization by Combining Adsorption and Liquid Intrusion with NMR Relaxometry

Carola Schlumberger, Carlos Cuadrado Collados, Jakob Söllner, Lukas Sandner, Jincheng Xu,
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Quantitative Assessment of Hydrophilicity/Hydrophobicity in Nanoporous Materials

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