



Scientific Program (Updated May 1, 2024)

Sunday, 19 May

4:00-6:00 Registration

6:00-8:00 Welcome Reception

Monday, 20 May

8:30-8:40

Welcome Address

Alex Neimark and Matthias Thommes

8:40-9:00

Opening Remarks

Katsumi Kaneko

Shinshu University, Japan

Session 1: Adsorption and Transport

09:00-09:30

Keynote: Adsorption and diffusion in nanoporous materials: the view from the nanoscale

Benoit Coasne

CNRS/Univ. Grenoble Alpes

09:30-09:50

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

09:50-10:10

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

Stylianos Kalaitzopoulos, Enzo Mangano, Stefano Brandani
University of Edinburgh

10:10-10:40 Coffee Break

Session 2: Experimental Methods I

10:40-11:10

Keynote: Deformation Dynamics of Nanoporous Solids upon Liquid Imbibition

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

11:10-11:30

Topological cluster structure of water confined in hydrophobic pores

Yasuhiro Sugiyama, Ryusuke Futamura, Taku Iiyama
Shinshu University

11:30-11:50

Quantitative Assessment of Hydrophilicity/Hydrophobicity in Nanoporous Materials

Alexandra Inayat, Ana-Sunčana Smith, Carlos Cuadrado Collados, Dorothea Wisser, Jakob Söllner, Jan Paul Grass, Martin Hartmann, Matthias Thommes, Rustam Durdyev
FAU Erlangen-Nürnberg, Erlangen, Germany

11:50-12:10

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

Daniel Bowron, Marta Falkowska
The University of Manchester

12:10-12:30

Selectivity in adsorption of responsive metal-organic frameworks

Irena Senkowska, Leila Abylgazina, Mariia Maliuta, Stefan Kaskel, Volodymyr Bon
Dresden University of Technology

12:30-2:00 Lunch Break

Session 3: Molecular Simulations

02:00-02:30

Keynote: Insights into Capillary Condensation and Hysteresis in Nanoporous Materials from New Simulation Methods

Randall Snurr
Northwestern University

02:30-02:50

Anomalous interaction between propylene and Ag cation in zeolites

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

02:50-03:10

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

Bogdan Kuchta

Wroclaw University of Science and Technology, Department of Chemistry

03:10-03:30

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

Shivam Parashar, Alexander Neimark

Rutgers University

03:30-03:50

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

03:50-04:10

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

Gennady Gor, George Scherer, Howard Stone

Princeton University, NJIT

4:30-7:30 Poster Session with Refreshments (Coffee/ Beer/ Hors d'oeuvres)

Tuesday, 21 May

Session 4: Experimental Methods II

8:00-8:30

Keynote: Combining multiple functions to achieve process intensification in adsorptive separations

Joeri Denayer

Vrije Universiteit Brussel

8:30-8:50

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

8:50-9:10

Direct visualization of Al distribution inside zeolite crystals

Yoshihiro Kamimura, Tetsuya Kodaira, Akira Endo

National Institute of Advanced Industrial Science and Technology

9:10-9:30

Predicting the pore-structure transport relationship in disordered alumina using hyperpolarized xenon MRI and NMR cryodiffusometry

Stefano Marc Collins, Sean Rigby, Huw Williams, Galina Pavlovskaya, Thomas Meersmann, Arthur Harrison, Christophe Vallée, Thibaud Chevalier, Dina Lofficial

University of Nottingham and IFP Energies Nouvelles

9:30-9:50

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

Enzo Manganò, Riccardo Rea, Mohsen Gholami, Joeri Denayer, Stefano Brandani

The University of Edinburgh

9:50-10:10

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

Remy Guillet

CNRS - LCS

10:10-10:40 Coffee Break

Session 5: Computational Design of Nanoporous Materials

10:40-11:10

Keynote: Material discovery with physics and AI

Lev Sarkisov

The University of Manchester, UK

11:10-11:30

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

Daniel Siderius, Jack Evans, Stefan Kaskel

Fraunhofer IWS & TU Dresden

11:30-11:50

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

Rutgers University

11:50-12:10

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

Guillaume Maurin

Université Montpellier/CNRS

12:10-12:30

Molecular Simulation of Peptide Retention in Reversed-Phase Liquid Chromatography

José Paulo Mota

NOVA School of Science and Technology

12:30-2:00 Lunch Break

Session 6: Experimental Methods II

2:00-2:30

Keynote: Structural changes in ZIFs upon gas and liquid phase adsorption

Joaquin Silvestre Albero

University of Alicante

2:30-2:50

On the characterization of nanoporous carbons with small-angle scattering

Oskar Paris, Christian Prehal

Montanuniversität Leoben

2:50-3:10

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

Martin Hartmann, Hasan Baser, Marcus Fischer, Rebecca Reber, Wilhelm Schwieger
Erlangen Center for Interface Research and Catalysis, FAU Erlangen-Nürnberg, Erlangen,
Germany

3:10-3:30

Correlations of NMR Relaxometry Data and Polymer Surface Chemistry

Alan Allgeier, Murilo Suekuni
University of Kansas

3:30-3:50

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,
Matthias Thommes
Institute of Separation Science and Technology, Friedrich-Alexander-University Erlangen-
Nuremberg

3:50-4:10

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

Charles Nicholson
NYU School of Medicine

4:10-4:40 Coffee Break

Session 7: Theoretical Methods

4:40-5:10

Keynote: 3-D Density Functional Theory to Describe Adsorption of Pure Substances and Their Mixtures on Crystalline and Amorphous Adsorbents

Frederico Wanderley Tavares
Universidade Federal do Rio de Janeiro

5:10-5:30

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

Antoine Barthes, David Grégoire, Christelle Miquieu
Université de Pau et des Pays de l'Adour

5:30-5:50

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

David GREGOIRE, Youssef Khaldouni, Laurent Perrier, Thomas Bernet, Christelle Miquieu
Universite de Pau et de Pays de l'Adour, E2S UPPA, CNRS, LFCR, Anglet, France

5:50-6:10

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

6:10-6:30

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

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

Imperial College London

8:00 Conference Dinner

Wednesday, 22 May

Session 8: Experimental Methods III

8:30-9:00

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

Katsumi Kaneko

Research Initiative for Supra-Materials, Shinshu University

9:00-9:20

Designing Macroporous-Mesoporous Adsorbents for Sustainability

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

University of Vienna, Austria

9:20-9:40

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

Pegie Cool

Professor in chemistry

9:40-10:00

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

Marc Florent, Paola S Pauletto, Teresa J Bandosz

CCNY

10:00-10:20

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

10:20-10:50 Coffee Break

Session 9: Nanomaterials for Adsorption Applications

10:50-11:20

Keynote: Separation Performance of Zeolitic-Imidazolate-Framework-Based Membranes

Michael Tsapatsis

John Hopkins University

11:20-11:40

Unique characterization data of graphene mesosponge

Hiroto Nishihara

Tohoku University

11:40-12:00

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

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

12:00-12:20

Functional porous physisorbent materials from phosphorite waste: Advanced characterizations and applications

Ali Mohammed YIMER, Ayalew Hussen ASSEN, Youssef BELMABKHOUT

Mohammed VI Polytechnic University

12:20-12:40

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

Adriana Zelenakova

Pavol Jozef Šafarik University in Košice

12:40-1:00 CPM-9 Closing

Concluding Remarks

Keith Gubbins

North Carolina State University, USA

Closing Ceremony

Alex Neimark and Matthias Thommes

Après CPM-9 Activity

1:30 Barbecue lunch and company tour of Anton-Paar QuantaTec in nearby Boynton Beach (Transportation Provided)

Poster Presentations (order of display will be changed)

1. ***Molecular mechanisms of water intrusion and extrusion in hydrophobic nanopores***
Abdelraheem Abdella, Kolattukudy P. Santo, Alexander Neimark
Rutgers, The State University of New Jersey
2. ***Temperature-Dependent V-Type Isotherm Models: Applied to Water Vapor Adsorption on Metal-Organic Frameworks***
Cristian Cardenas
IFP Energies Nouvelles
3. ***Molecular simulation of separation of C60 and coronene in silica nanopores***
Rustam Durdyyev, György Hantal, Ana-Sunčana Smith
PULS Group, Friedrich-Alexander-Universität Erlangen-Nürnberg, Institute for Theoretical Physics, Interdisciplinary Center for Nanostructured Films
4. ***Densification and Validation of Binderless MOF Monoliths Based On Temperature-Pressure Swing Hydrogen Storage and Delivery Conditions***
Ruthradharshini Murugavel, Ali Rownaghi, Fateme Rezaei
Department of Chemical & Biochemical Engineering, Missouri University of Science and Technology
5. ***Composite Boron Nitride-based Immobilized Nanohydride Toward Self-Accelerated Reversible Hydrogen Storage***
Maxwell Tsipoaka, Fateme Rezaei
Missouri University of Science and Technology
6. ***Facile Characterization of Pore Accessibility in Metal-Organic Framework/Polymer Composites***
Trenton Tovar
U.S. Army, DEVCOM Chemical Biological Center
7. ***The Effect of Carbon Nanotube Diameter on Hydration of Critical Material Ions from E-waste***
Qing Shao, Zachary Baker
University of Kentucky
8. ***Characterization of hydroxyl groups in zeolite defects using advanced temperature-programmed desorption***
Shunsuke Shimizu, Hirotomoto Nishihara, Ryota Osuga, Takeharu Yoshii
Institute of Multidisciplinary Research for Advanced Materials, Tohoku University
9. ***A Novel Method for Obtaining Carbon Molecular Sieves for N₂/O₂ Separation***
Koki Urita, Kaito Marubayashi, Miyu Hamasaki, Hideki Tanaka, Takashi Ishida, Yasuyuki Yamane, Jin Miyawaki, Hiroo Notohara, Isamu Moriguchi
Nagasaki University
10. ***Mechanical Properties of Gases Adsorbed in Micropores from the Fluctuation Theory***
Santiago Flores Roman, Alina Emelianova, Gennady Gor
New Jersey Institute of Technology
11. ***Molecular Simulation of Adsorption of Sarin and Simulants on Metal–Organic Frameworks***

Elizaveta Basharova, Alina Emelianova, Allen Reed, Gennady Gor, Andrei Kolesnikov
NJIT

12. ***Characterization of Mycelium-Based Leather Using Sorption-Ultrasonic Experiments***
Gunel NABIYEVA, Ashoka Karunaratne, Christopher Rasmussen, Naila Assem, Jonathan Bauer, Alexei Khalizov, Gennady Gor
Dept. of Chemical and Materials Engineering, New Jersey Institute of Technology, Newark, NJ, USA
13. ***Self-template Synthesis of Nanoporous Carbons from π -conjugated Ionic Liquids with Molecular Nanocarbon Functionalities***
Ryusuke Futamura, Toshinori Seki, Kento Nakamura, Ryuta Sekiguchi, Taku Iiyama
Shinshu University
14. ***Validation of pore size distribution from a new GCMC kernel based on a slit-pore model with carbon surface heterogeneity***
Kazuyuki Nakai
MicrotracBEL Corp.
15. ***Investigating the effect of the extra-framework cation on propane / propylene adsorption in LTA zeolites***
Claessens Benjamin, Emily Bloch, Gabriel Trierweiler-Conçalves, Gerald Chaplais, Jean Daou, Jean-Louis Paillaud, Mohammed-El Amine Benchaabane, Sandrine Bourrelly
Aix-Marseille University, CNRS
16. ***INFRAorp & MULTIpport Rapid surface analysis by optical calorimetry***
Stefan Kaskel, Felix Spranger
Fraunhofer IWS; TU Dresden
17. ***Unique dissolution/precipitation phenomena in microspace induced by physisorption***
Takeru Yokoyama, Taku Iiyama, Ryusuke Futamura, Takahiro Ueda, Yuka Matsuda
Faculty of Science, Shinshu University 3-1-1 Asahi, Matsumoto, Nagano 390-8621, Japan
18. ***Reference Isotherms for Water Vapor Sorption on Nanoporous Carbon: Results of an Interlaboratory Study***
Huong Giang Nguyen, Blaza Toman, Roger van Zee, Matthias Thommes
National Institute of Standards and Technology
19. ***Kinetics of Adsorption-Induced Deformation in Microporous Materials***
Andrei Kolesnikov, Gennady Gor
Department of Chemical and Materials Engineering, New Jersey Institute of Technology
20. ***Small-angle neutron scattering reveals high-density adsorbed hydrogen in carbon micropores at low pressures and supercritical temperature***
Sebastian Stock, Malina Seyffertitz, Nikolaos Kostoglou, Max Valentin Rauscher, Bruno Demé, Christian Mitterer, Oskar Paris
Montanuniversität Leoben, Chair of Physics
21. ***High sensitivity analysis of nitrogen in carbon materials using temperature-programmed desorption up to 2100 °C***

- Takeharu Yoshii, Ginga Nishikawa, Hiroto Nishihara
Tohoku University
22. ***Carbon Dioxide Capture in NaOH-Impregnated Activated Carbon***
Prapatsorn Borisut, Atichat Wongkoblap, Chaiyot Tangsathitkulchai, Aroonsri Nuchitprasitchai, Krittamet Phothong
Suranaree University of Technology
23. ***A unified approach for bridging the gap between cDFT and equation of state for confined fluids***
Amaro Gomes Barreto Jr., Dárley Carrijo de Melo, Felipe Rocha Pinto, Frederico Wanderley Tavares, Vítor Sermoud
Universidade Federal do Rio de Janeiro
24. ***Sorption-Ultrasonic Characterization of Water-Filled Xerogels***
Ashoka Karunarathne, Alexei Khalizov, Gennady Gor, Gudrun Reichenauer, Stephan Braxmeier
New Jersey Institute of Technology
25. ***Metal Organic Framework Hollow Fibers for CO₂ adsorption and Chemical Warfare Agent Degradation***
John Landers
Apollodyne
26. ***Scalable Continuous Flow Hydrogenation Using Structured Catalyst Reactor***
Andrea Adamo, James Mannino, John Holcombe, Lorenzo Milani, Steve Stark, Vladimiro Nikolakis
W.L. Gore & Associates Inc.
27. ***Hydrogen storage: predicting at room temperature in a series of activated carbons***
José Carlos Alexandre de Oliveira, Daniel V. Gonçalves, Sebastião M. P. Lucena
Universidade Federal do Ceara
28. ***Hydrophobic metal-organic frameworks with new fluorinated ligands***
Vladimír Zeleňák, Dávid Princík, Adriána Zeleňáková
Faculty of Natural Science, Pavol Jozef Safarin University in Kosice, Slovakia
29. ***Sorption of SF₆ and SO₂ on Modified Zeolites Materials***
Katarzyna Zarębska, Mikihiro Nomura, Megumi Irie, Jakub Szczurowski
Faculty of Environmental Engineering, Geomatics and Renewable Energy, Kielce University of Technology, 25-314 Kielce, Poland
30. ***Trapped in the CO₂ Loop: A Study of Carbon/MOF Composites for Direct Air Capture (DAC)***
Jakub Szczurowski, Adrian Lubecki, Katarzyna Zarębska, Patryk Bartulik
Faculty of Environmental Engineering, Geomatics and Renewable Energy, Kielce University of Technology, 25-314 Kielce, Poland
31. ***Solid-State Hydrogen Storage: Advancements in Nanoporous Materials and Neutron Scattering Techniques***
Haihua Wang, Mi Tian, Oana Ghita, Valeska Ting, Xiayi Hu
University of Exeter

32. ***Assessment of the Specific Surface Area by Small-Angle X-ray Scattering***
Andreas Keilbach, Armin Moser, Heike Ehmann
Anton Paar GmbH
33. ***Applications of MOFs for the chemical warfare agents (CWAs) simulant adsorption***
Emily Bloch, Guillaume Maurin, Lotfi Boudjema, Sandrine Bourrelly
Aix-Marseille University - CNRS MADIREL
34. ***Microscopic understanding of stability and adsorption/separation of CO₂ from flue gas by MOFs in real industrial conditions***
M. Wahiduzzama, P. Lyu, N. Heymans, N. Garcia-Moncada, G. Mouchaham, M. Daturi, G. De Weireld, C. Serre, Sabine Devautour-Vinot, G. Maurin
ICGM CNRS/ENSCM/UM
35. ***Study of Crystallization Pressure by Molecular Simulation***
Bilal MAHMOUD HAWCHAR, Laurent brochard, Florian osselin, Jean-Michel Pereira, Matthieu Vandamme, tulio honorio
36. ***3D-printed hybrid zeolite structures constructed by a phase inversion process***
Ben Sutens, Marleen Rombouts, Steven Mullens, Yoran De Vos
VITO
37. ***Understanding wetting and drying of nanoporous media through optical and dilatometry experiments***
Juan Sanchez, Laura Gallardo, Yannick Tetzner, Patrick Huber
Hamburg University of Technology
38. ***CH₄/H₂O Competitive adsorption in Nano porous materials under clathrate hydrate formation conditions***
IYOTI SHANKER PANDEY, Joaquin Silvestre Albero
DTU CHEMICAL ENGINEERING
39. ***Incorporating material flexibility effects into adsorption modeling using non-local Density Functional Theory***
Christelle Miqueu, Raphael Labeyrie
Université de Pau et des Pays de l'Adour
40. ***Novel nanoporous composites for hydrogen storage***
Alex Pennetier, Jean-Philippe Torré, Laurent Perrier, Christelle Miqueu
Université de Pau et des Pays de l'Adour
41. ***In situ pXRD monitoring of compliant MOFs under combined mechanical and gas pressure***
Paul IACOMI, Pascal Yot, Christian Serre, Frederico Alabarse, Sujing Wang, Guillaume Maurin
42. ***Acoustic Response of Fluid Adsorption in Nanoporous Materials***
Loriane Didier, Alan Sam, Rodolfo Venegas, Benoit Coasne
CNRS/Univ. Grenoble Alpes
43. ***Impact of Carbon Content in Single-Wall Carbon Nanotube-Titanium Dioxide Composites Interfacial Modulation and Catalytic Behavior***
Coset Abreu Jauregui, Antonio Sepúlveda-Escribano, Joaquín Silvestre-Albero
University of Alicante

44. ***Extruding diffusion constants from your extrudates: PFG-NMR and chromatography***
Sean McIntyre, Daryl Williams, Paola Sáenz-Cavazos, Paul IACOMI
45. ***Supercritical fluid activation and in-situ adsorption-microcalorimetric system to directly measure the gas adsorption amount, heat and kinetic data***
Wentao Jiang, liuliu long, Yue-Biao Zhang
ShanghaiTech University
46. ***Impact of Crystal Structure on Methanol Vapor Adsorption in MFI-Type Zeolites: Equilibrium Isotherms and Kinetic Insights***
Coset Abreu Jauregui, Francisco Murilo Tavares de Luna, Igor de Mesquita Figueredo, Joaquín Silvestre-Albero, Leandro Martins
University of Alicante
47. ***Evaluation of a Commercial Chabazite-Type Zeolite Aging in the Industrial Process of Dehydration of Natural Gas CO₂-Enriched***
Kalil Kashefi, Marcos Anacleto da Silva, Vera M.M. Salim, Frederico W. Tavares, NEUMAN SOLANGE DE RESENDE, Amaro G. Barreto
Universidade Federal do Rio de Janeiro, EQ
48. ***Tailoring the Adsorption Properties of Hierarchical Porous Silicas for High-Capacity Water Sorbents***
Pasquale Fulvio, Jiaji Lin, Krista Walton
Georgia Institute of Technology
49. ***PyCOSMOS: A Python Tool for Compartmentalization of Unit Cells of Metal-Organic Frameworks***
Shivam Parashar, Alexander Neimark
Rutgers
50. ***Modelling Kerogen Flexibility in Response to Hydrocarbon Adsorption using Hybrid Molecular Dynamics/Monte Carlo***
Shivam Parashar, Alexander Neimark, Peter I. Ravikovitch
Rutgers
51. ***Modeling Adsorption of Simple Fluids and Alkanes on 3D Nanoporous Carbons***
Nicholas Corrente, Elizabeth Hinks, Aastha Kasera, Raleigh Gough, Peter I. Ravikovitch, Alexander Neimark
Rutgers University
52. ***SAFT-DFT Studies of Nanoporous Carbon Deformation Induced by Multicomponent Adsorption***
Nicholas Corrente, Elizabeth Hinks, Aastha Kasera, Alexander Neimark
Rutgers University
53. ***Characterization of Nanoporous Carbons Using Generative Models***
Lucas J. Santos, Elvis do A. Soares, Amaro Gomes Barreto Jr., Frederico Wanderley Tavares
Universidade Federal do Rio de Janeiro
54. ***Quantifying Structural Rigidity in Metal–Organic Frameworks with Increased Linker Dimensionality***

- Courtney Smoljan, Omar Farha, Randall Snurr
Northwestern University
55. ***Quantification of Copolymer Microstructure from Liquid Chromatography using a Statistical Interaction Model***
Christopher Rasmussen, Yefim Brun
Bolt Threads Inc.
56. ***Estimation of porous media transport properties solely based on mercury intrusion porosimetry***
David Grégoire, Gilles Pijaudier-Cabot, Fadi Khaddour, Lionel Ecay, Sara Khalil
Universite de Pau et de Pays de l'Adour, E2S UPPA, CNRS, LFCR, Anglet, France
57. ***The influence of confinement effects on the thermophysical properties of 4-methoxyazobenzene***
Timm Kraus, Michael Fröba
Universität Hamburg
58. ***Reference Isotherms using Reference Materials***
Roger van Zee, Blaza Toman, Huong Giang Nguyen, Matthias Thommes
NIST
59. ***Explorations of the Molecules-to-Materials Continuum***
Robert Szilagyi
The University of British Columbia - Okanagan
60. ***Carbon Dioxide Capture from Flue Gas using 13X binder free Zeolite: effect of the presence of Sulfur Dioxide***
Celio Cavalcante, Diana Azevedo, Enrique Vilarrasa-Garcia, Eurico Torres, Moises Bastos-Neto, Rafaelle Santiago
Universidade Federal do Ceara
61. ***A Comparative Study of Physical and Chemical Modification for Improved CO2 Capture in Fixed-Bed Adsorption***
Suravit Naksusuk
School of Chemical Engineering, Suranaree University of Technology
62. ***Converting Waste Tire to Activated Carbon Adsorbent Materials for Landfill Gas Purification***
Brandyn Nutter, Amirjavad Ahmadian Hosseini, Laura Rojas, Masoud Jahandar Lashaki
Florida Atlantic University
63. ***Analyzing the Performance of Propylamine-Grafted Mesoporous Silica for Direct Air Capture Applications***
Amirjavad Ahmadian Hosseini, Laura Rojas, Masoud Jahandar Lashaki
Florida Atlantic University
64. ***Triamine-Grafted Mesoporous Silica Materials for CO2 Capture from the Atmosphere***
Laura Rojas, Amirjavad Ahmadian Hosseini, Masoud Jahandar Lashaki
Florida Atlantic University
65. ***Development and application of an advanced percolation model for pore network characterization by physical adsorption***

Jakob Söllner, Alexander Neimark, Matthias Thommes
Institute of Separation Science and Technology, Friedrich-Alexander Universität
Erlangen-Nürnberg

66. ***Improving the robustness and reproducibility of gas adsorption isotherm measurements on nanoporous materials***

Darren Broom

Hidden Isochema Ltd

67. ***Analysis protocol for quantitative structure-property understanding of adsorptive separation.***

Changyub PAek

68. ***Development of novel porous geopolymer monoliths based on Moroccan oil shale for effective removal of heavy metals (Zn (II), Cu (II), Pb (II)) from wastewater.***

said mansouri, SANAE SBI, JONES ALAMI, HASSAN HANNACHE, YOUSSEF TAMRAOUI

Mohammed VI Polytechnic University, Benguerir

69. ***Evaluation of cellulosic fiber pore structure with thermoporosimetry***

Thad Maloney

Aalto University

70. ***Revisit the Molecular Sieving Mechanism in LTA Zeolites: Does Size Really Matter?***

Aamir Hanif, Mingzhe Sun, Tianqi Wang, Zeyu Tao