



# CPM8 | PROGRAM

Sunday, May 6, 2018

1:30 p.m. Opening

**1:30 - 2:00 PM** **Opening Remarks: Alexander V. Neimark- Workshop Chair** (Rutgers University, United States) and **Matthias Thommes- Workshop Vice-Chair** (Quantachrome Instruments, United States), **Keith Gubbins**, North Carolina State University, United States

2:00 p.m. Session: Effects of Nanoconfinements  
Chair: Keith Gubbins

**2:00 - 2:30 PM** **Keynote Lecture - Katsumi Kaneko**  
***Nanoconfinement Mediated Materials / Adsorption Engineering***

Shinshu University, Japan

**2:30 - 2:50 PM** **Michael Froeba**, Benedikt Mietner, Young Joo Lee, Sandra Koenig, Uta Sazama, and Felix Brieler  
***Properties of Water Confined in Periodic Mesoporous Organosilicas: Nanoimprinting The Local Structure***

University of Hamburg, Germany

**2:50 - 3:10 PM** **Michael Hirscher**<sup>1</sup>, Rafael Balderas-Xicohténcatl<sup>1</sup>, Katie A. Cychoz<sup>2</sup>, Remy Guillet-Nicolas<sup>2</sup>, Luke L. Daemen<sup>3</sup>, Yong Q.Cheng<sup>3</sup>, Anibal J. Ramirez-Cuesta<sup>3</sup>, Hung-Hsuan Lin<sup>4</sup>, Thomas Heine<sup>4</sup> and Matthias Thommes<sup>2</sup>  
***Density of Adsorbed Hydrogen at Low Temperatures in Mesoporous Materials***

<sup>1</sup> Max Planck Institute for Intelligent Systems, Germany, <sup>2</sup> Quantachrome Instruments, United States, <sup>3</sup> Spallation Neutron Source, United States, <sup>4</sup> Leipzig University, Germany

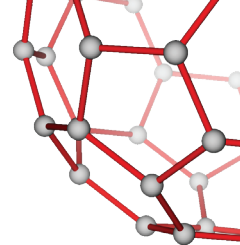
**3:10 - 3:30 PM** **Rustem Valiullin**, Daniel Schneider and Daria Kondrashova  
***Phase Transitions in Geometrically Disordered Mesoporous Solids***

University of Leipzig, Germany

**3:30 - 3:50 PM** **Pierre Levitz**  
***Probing Interfacial Water Dynamics in Colloidal and Nanoporous Systems by Nuclear Magnetic Relaxation Dispersion***

CNRS/UPMC, France

**3:50 - 4:10 PM** **Break**



# CPM8 | PROGRAM

Sunday, May 6, 2018  
 4:10 p.m. Session: Nanoporous Materials and  
 Adsorption Processes for Industrial Applications  
 Chair: Peter Ravikovitch

4:10 - 4:35 PM	<b>Invited Talk - Robert Bedard</b> <i>New SAPO based nanoporous materials and some potential applications</i> Honeywell UOP, United States
4:35 - 5:00 PM	<b>Invited Talk - Christian Canlas</b> , Kevin Sutovich, Jane Dowell, Andrew Lim, Renee Foard, Hui Jiang, Mike Ziebarth and Wu-Cheng Cheng <i>Porosimetry: Applications and Challenges in Fluid Catalytic Cracking</i> W. R. Grace & Co., United States
5:00 - 5:25 PM	<b>Invited Talk - Nikolai Nesterenko</b> <i>From Molecular Sieves to Industrial Catalysts: The Past, Present &amp; Future in Total</i> Total S.A., Belgium
5:25 - 5:50 PM	<b>Invited Talk - Andrew Pomerantz</b> <i>Kerogen-Hosted Porosity: Controls on Storage and Transport in Gas Shale</i> Schlumberger-Doll Research, United States
5:50 - 6:10 PM	<b>Pegie Cool</b> <sup>1</sup> , Qi Xin <sup>1</sup> , Vera Meynen <sup>1</sup> , A. Papavasiliou <sup>2</sup> and F.K. Katsaros <sup>2</sup> <i>Water-Based Route Towards Dispersed CuO-Loaded Catalysts: Texture, Structure and Catalytic Performance in Automotive Exhaust Gas Conversion</i> <sup>1</sup> University of Antwerp, Belgium, <sup>2</sup> National Center for Scientific Research "Demokritos", Greece
6:10 - 6:30 PM	<b>Federico Brandani</b> <sup>1</sup> , Pluton Pullumbi <sup>1</sup> , Stefano Brandani <sup>2</sup> and Enzo Mangano <sup>2</sup> , <i>Characterizing The Mass Transfer Kinetic Mechanism In Microporous Adsorbents Using The Volumetric Technique</i> <sup>1</sup> Air Liquide Center de Recherche Paris-Saclay, France, <sup>2</sup> University of Edinburgh
7:00 PM	<b>Welcome Reception</b>



# CPM8 | PROGRAM

Monday, May 7, 2018

8:30 a.m. Session: Characterization of Pore Structure and Confined Fluids

Chair: Katsumi Kaneko

**8:30 - 9:00 AM** **Keynote Lecture - Gerhard H. Findenegg**  
***Structural Characterization Of Complex Fluids In Tubular Nanopores***

Technical University of Berlin, Germany

**9:00 - 9:20 AM** **Michael Steiger**, Tanya Talreja and Kristen Linnow  
***Deliquescence of NaCl Crystals in Confinement***

University of Hamburg, Germany

**9:20 - 9:40 AM** **Simone Mascotto**<sup>1</sup>, Giorgia Greco<sup>2</sup>, Eike Gerike<sup>1</sup>, Dirk Wallacher<sup>2</sup>, Armin Hoell<sup>2</sup>,  
 Michael Krumrey<sup>3</sup>, Klaus Rademann<sup>4</sup> and Simone Raoux<sup>2</sup>  
***Direct Investigation of The Adsorbate Evolution in Mesoporous Silicon  
 Combining Anomalous SAXS, EXAFS and Xenon Physisorption***

<sup>1</sup>University of Hamburg, Germany, <sup>2</sup>Helmholtz-Zentrum Berlin, Germany, <sup>3</sup>Physikalisch - Technische Bundesanstalt Institute Berlin, Germany, <sup>4</sup>Institut für Chemie, Humboldt-Universität zu Berlin, Germany

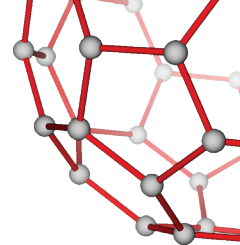
**9:40 - 10:00 AM** **Patrick Huber**<sup>1</sup>, Mark Busch<sup>1</sup>, Kathrin Sentker<sup>1</sup>, Tommy Hofmann<sup>2</sup>, Dirk Wallacher<sup>2</sup>,  
 Andriy V. Kityk<sup>3,1</sup>, Andreas Schönhals<sup>4</sup>, Arda Yildirim<sup>4</sup>, Arne Zantop<sup>5</sup> and Marco Mazza<sup>5</sup>  
***Liquid Crystals Confined In Mesopores: Adsorption Isotherms,  
 Self-Assembly of Supramolecular Helices and Extremely Fast Electro-Optics***

<sup>1</sup>Hamburg University of Technology, Germany, <sup>2</sup>Helmholtz Center Berlin for Materials and Energy, Germany, <sup>3</sup>Czestochowa University of Technology, Poland, <sup>4</sup>Federal Institute for Materials Research and Testing, Germany, <sup>5</sup>Max-Planck Institute for Dynamics and Self-Organization, Germany.

**10:00 - 10:20 AM** **Mirian Elizabeth Casco**, En Zhang, Sven Grätz, Volodymyr Bon, Simon Krause,  
 and Lars Borchardt  
***Impact of The Surface Chemistry on The Methane Hydrate Formation In  
 Carbon Nanopores***

TU Dresden, Germany

**10:20 - 10:50 AM** **Break**



# CPM8 | PROGRAM

Monday, May 7, 2018  
10:50 a.m Session: Molecular Simulations  
Chair: Alain Fuchs

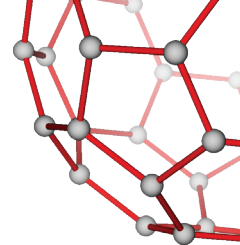
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| 10:50 - 11:20 AM | <b>Keynote Lecture - Keith Gubbins</b><br><i>Compression and high pressure effects in adsorbed films</i><br>North Carolina State University, United States  |
| 11:20 - 11:40 AM | <b>Daniel W Siderius</b> , Nathan A. Mahynski, and Vincent K. Shen<br><i>Calculation of The Isosteric Enthalpy of Adsorption In Monte Carlo Molecular Simulation: Consideration of Bulk Phase Nonideality and Isosteres of Total Adsorption</i><br>National Institute of Standards and Technology, United States  |
| 11:40 - 12:00 PM | <b>J. Ilja Siepmann</b> <sup>1,2</sup> , Evgenii O. Fetisov, Mansi S. Shah <sup>1,2</sup> and Michael Tsapatsis, <sup>1</sup><br><i>First Principles Monte Carlo Simulations of Adsorption and Reaction Equilibria</i><br><br><sup>1</sup> Department of Chemical Engineering and Materials Science, University of Minnesota, United States,<br><sup>2</sup> Department of Chemistry and Chemical Theory Center, University of Minnesota, United States |
| 12:00 - 12:20 PM | <b>Jacek Jagiello</b> <sup>1</sup> , and Mietek Jaroniec <sup>2</sup><br><i>Adsorption Model for Porous Oxides with Corrugated Cylindrical Pores 2D-NLDFT Approach</i><br><br><sup>1</sup> Micromeritics Instrument Corporation, United States,<br><sup>2</sup> Kent State University, United States  |
| 12:20 - 12:40 PM | <b>Tatsumasa Hiratsuka</b> , Hideki Tanaka and Minoru Miyahara<br><i>Comprehensive Modeling of Capillary Condensation/Evaporation in Open-Ended Nanopores</i><br>Kyoto University, Japan  |
| 12:40 - 2:10 PM  | <b>Lunch Break</b>  |



# CPM8 | PROGRAM

Monday, May 7, 2018  
 2:10 p.m. Session: Advanced Materials  
 Chair: Joeri Denayer

2:10 - 2:40 PM	<b>Keynote Lecture - Peter Behrens</b> <b><i>Nanoporous Biomaterials</i></b>  University of Hanover, Germany
2:40 - 3:00 PM	<b>Bernd Smarsly<sup>1</sup>, Torben Pfaff<sup>1</sup>, Felix Badaczewski<sup>1</sup>, Marc Loeh<sup>1</sup> and Dirk Wallacher<sup>2</sup></b> <b><i>Small-Angle Neutron Scattering (SANS) of Porous Carbons Combined with in-situ Physisorption Measurements – Linking Microstructure to Nanoscaled Porosity</i></b>  <sup>1</sup> University of Giessen, Germany, <sup>2</sup> Berlin Neutron Scattering Center, Germany
3:00 - 3:20 PM	<b>Teresa J Bandoz, and Dimitrios Giannakoudakis</b> <b><i>Smart Cotton Textiles for detection/detoxification of nerve agents: role of MOF/g-C<sub>3</sub>N<sub>4</sub> features</i></b>  The City College of New York, United States
3:20 - 3:40 PM	<b>Remy Guillet-Nicolas<sup>1,2,3</sup>, François Bérubé<sup>3</sup>, Matthias Thommes<sup>2</sup>, Michael T. Janicke<sup>4</sup> and Freddy Kleitz<sup>1,3</sup></b> <b><i>Selectively Tuned Pore Condensation and Hysteresis Behavior in Mesoporous SBA-15 Silica: Correlating Material Synthesis to Advanced Gas Adsorption</i></b>  <sup>1</sup> University of Vienna, Austria, <sup>2</sup> Quantachrome Instruments, United States, <sup>3</sup> Université Laval, Canada, <sup>4</sup> Los Alamos National Laboratory, United States.
3:40 - 4:00 PM	<b>Michael Tiemann, Christian Weinberger, Sai Ren, Xiaojuan Cao, Marc Hartmann, and Thorsten Wagner</b> <b><i>Bimodal Mesoporous CMK-5 Carbon: Selective Pore modification and Pore Filling</i></b>  University of Paderborn, Germany
4:00 - 4:20 PM	<b>Lars Borchardt, Desiree Leistenschneider, Sven Grätz and Christina Schneidermann</b> <b><i>Syntheses in Ball Mills – Solvent Free Pathways Towards Porous Carbons and Polymer Frameworks</i></b>  Technische Universität Dresden, Germany
4:20 - 4:40 PM	<b>Break</b>
4:40 - 7:30 PM	<b>Poster Session</b>



# CPM8 | PROGRAM

Tuesday, May 8, 2018  
8:30 a.m. Session: Molecular Modeling  
Chair: Peter Monson

**8:30 - 9:00 AM** **Keynote Lecture - Alain Fuchs**  
*Forced Intrusion of Water and Aqueous Solutions in Nanoporous Materials*  
PSL University - Paris, France

**9:00 - 9:20 AM** **Duong Dang Do**, Yonghong Zeng, Hui Xu, Arkanata Akram, Luisa Prasetyo, Shiliang Tan and D. Nicholson  
*Clusters, Molecular Layers and Condensate in Adsorption: Interplay between various Interactions and the Nature of the Adsorbed Phase-Gas Interface*  
University of Queensland, Australia

**9:20 - 9:40 AM** **Youn-Sang Bae**, Seo-Yul Kim, Wanje Park, Seung-Ik Kim and Seung-Joon Lee  
*A Novel Acetic Acid-Fragment Co-Assembly Method for Creating Defects in a Copper-Based Metal-Organic Framework and Its Effects on Methane Uptakes*  
Yonsei University, Republic of Korea

**9:40 - 10:00 AM** **Romain Gaillac**<sup>1,2</sup>, François-Xavier Coudert<sup>1</sup> and Pluton Pullumbi<sup>2</sup>,  
*Modeling of Liquid Metal-Organic Frameworks*  
<sup>1</sup>ENSCP/CNRS, France, <sup>2</sup>Air Liquide, Paris-Saclay Research Center, France

**10:00 - 10:20 AM** **Benoit Coasne**  
*Transport as a Tool to Characterize Multiscale Porous Media*  
CNRS/University of Grenoble, France

**10:20 - 10:40 AM** **Break**



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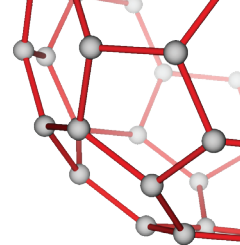
Tuesday, May 8, 2018

10:40 a.m. Session: Experimental Methods

Chair: Stefano Brandani

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| 10:40 - 11:10 AM | <p><b>Keynote Lecture - Conchi Ania</b><sup>1</sup>, Alicia Gomis-Berenguer<sup>1,2</sup>, José B. Parra<sup>2</sup>, Eduardo Salas<sup>3</sup> and Germán Castro<sup>3</sup></p> <p><b><i>In-situ Synchrotron X-ray Diffraction Upon Gas Adsorption and Release for Exploring Unusual Adsorption Features in Porous Materials</i></b></p> <p><sup>1</sup>CEMHTI/CNRS, France, <sup>2</sup>Instituto Nacional del Carbón, Spain, <sup>3</sup>European Synchrotron Radiation Facility, France</p>       |
| 11:10 - 11:30 AM | <p><b>Joaquin Silvestre Albero</b><sup>1</sup>, Yongqiang Q. Cheng<sup>2</sup>, Luke L. Daemen<sup>2</sup>, Anibal J. Ramirez-Cuesta<sup>2</sup> and Carlos Cuadrado-Collados<sup>1</sup></p> <p><b><i>Synchrotron XRD and in Elastic Neutron Scattering Studies Under Operando Conditions to Understand Structural Phenomena in ZIFs</i></b></p> <p><sup>1</sup>University of Alicante, Spain, <sup>2</sup>Oak Ridge National Laboratory, United States,</p>  |
| 11:30 - 11:50 PM | <p><b>Steven Claes</b> and Hans Janssen</p> <p><b><i>Multi-Scale Pore Network Characterization of Building Materials Using Micro-CT and FIB-SEM Tomography</i></b></p> <p>KU Leuven, Belgium</p>   |
| 11:50 - 12:10 PM | <p><b>Margarita Russina</b><sup>1</sup>, Ewout Kemner<sup>1</sup> and Ferenc Mezei<sup>2,3</sup></p> <p><b><i>Probing Potential of The Confinement – Study of In-Cage Dynamics of Molecular Hydrogen in Clathrates Hydrates.</i></b></p> <p><sup>1</sup>Helmholtz-Zentrum Berlin, Germany, <sup>2</sup>European Spallation Source, Sweden, <sup>3</sup>Wigner Research Center for Physics, Hungary</p>   |
| 12:10 - 12:30 PM | <p><b>Sean P. Rigby</b><sup>2</sup>, Galina E. Pavlovskaya<sup>1</sup>, Thomas Meersmann<sup>1</sup> and Chunyu jin<sup>1</sup></p> <p><b><i>Fluid Flow and Permeation Within a Hierarchical Porous Medium With Transverse Permeability Discontinuity</i></b></p> <p><sup>1</sup> Sir Peter Mansfield Imaging Centre, School of Medicine, University of Nottingham, United Kingdom<br/><sup>2</sup> Department of Chemical and Environmental Engineering, University of Nottingham, United Kingdom</p> |
| 12:30 - 12:50 PM | <p><b>Dieter Bathen</b><sup>1</sup>, Christian Bläker<sup>1</sup>, Christoph Pasel<sup>1</sup> and Frieder Dreisbach<sup>2</sup></p> <p><b><i>Coupling of Volumetric and Calorimetric Devices for Simultaneous Measurements of Adsorption Isotherms and Enthalpies</i></b></p> <p><sup>1</sup>University of Duisburg-Essen, Germany, <sup>2</sup>Rubotherm GmbH, Germany</p>   |
| 12:50 - 2:10 PM  | <p><b>Lunch Break</b></p>  |





# CPM8 | PROGRAM

Tuesday, May 8, 2018  
2:10 p.m. Session: Experimental Methods II  
Chair: Bernd Smarsly

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| 2:10 - 2:30 PM | <p><b>Ryusuke Futamura</b><sup>1</sup>, Taku Liyama<sup>1</sup>, Yury Gogotsi<sup>1,2</sup>, Mark J. Biggs<sup>3,6</sup>, Mathieu Salanne<sup>4</sup>, Patrice Simon<sup>1,5</sup> and Katsumi Kaneko<sup>1</sup></p> <p><b><i>Pore Size Effects on Partial Breaking of Coulombic Ordering Structure of Ionic Liquids in Carbon Nanopores</i></b></p> <p><sup>1</sup>Shinshu University, Japan <sup>2</sup>Drexel University, United States,<br/><sup>3</sup>Loughborough University, United Kingdom,<br/><sup>4</sup>Sorbonne Universités, France, <sup>5</sup>Université Paul Sabatier, <sup>6</sup>The University of Adelaide, Australia</p>   |
| 2:30 - 2:50 PM | <p><b>Lisa Joss</b> and Ronny Pini</p> <p><b><i>X-ray CT Imaging of Gas Adsorption to Characterize Nanoporous Materials</i></b></p> <p>Imperial College London, United Kingdom</p>  |
| 2:50 - 3:10 PM | <p><b>Marta Falkowska</b><sup>1</sup>, Daniel T. Bowron<sup>2</sup>, Haresh Manyar<sup>3</sup>, Tristan G.A. Youngs<sup>2</sup> and Chris Hardacre<sup>1</sup></p> <p><b><i>What Effect Does Confinement Have on The Structure of Liquid Benzene?</i></b></p> <p><sup>1</sup>The University of Manchester, United Kingdom, <sup>2</sup>STFC ISIS Facility, Rutherford Appleton Laboratory, United Kingdom, <sup>3</sup> School of Chemistry and Chemical Engineering Queen's University Belfast, United Kingdom</p>   |
| 3:10 - 3:30 PM | <p><b>Joeri Denayer</b>, Julien Cousin Saint Remi, Stijn Van der Perre, Benjamin Claessens and Gino Baron</p> <p><b><i>Size-Controllable MOF Composite Particles for Adsorptive Separations: Formulation, Characterization and Study of Mass Transfer Resistances</i></b></p> <p>Vrije Universiteit Brussel, Belgium</p>  |
| 3:30 - 3:50 PM | <p><b>Emily Bloch</b><sup>1</sup>, Nicolas Chanut<sup>1</sup>, Sandrine Bourrelly<sup>1</sup>, Bogdan Kuchta<sup>1</sup>, Christian Serre<sup>2</sup>, Jong-San Chang<sup>3,4</sup>, Paul A. Wright<sup>5</sup> and Philip L. Llewellyn<sup>1</sup></p> <p><b><i>An Experimental Method for Screening the Effect of Water Vapour on Gas Adsorption Performance: Application to CO<sub>2</sub> Capture From Flue Gas in MOFs</i></b></p> <p><sup>1</sup>Aix-Marseille University/CNRS, France, <sup>2</sup>ESPCI Paris, ENS., France,<br/><sup>3</sup>Departement of Chemistry Sungkyunkwan University, Korea,<br/><sup>4</sup>Research Center for Nanocatalysts, Korea, <sup>5</sup>University St Andrews, Scotland</p> |
| 3:50 - 4:10 PM | <p><b>Paola Rodríguez</b><sup>1</sup>, Juan Carlos Moreno Piraján<sup>1</sup> and Liliana Giraldo<sup>2</sup></p> <p><b><i>Immersion Calorimetry Study of Textural and Chemical Modifications of MOFs</i></b></p> <p><sup>1</sup>University of Los Andes, Colombia, <sup>2</sup> Universidad Nacional de Colombia, Colombia,</p>  |
| 4:10 - 4:30 PM | <p><b>Break</b></p>   |





# CPM8 | PROGRAM

Tuesday, May 8, 2018

4:30 p.m. Session: Adsorption Deformation

Chair: Joaquin Silvestre Albero

4:30 - 5:00 PM **Keynote Lecture - Oskar Paris**

***Assessing Adsorption Induced Deformation of Nanoporous Materials with X-ray and Neutron Scattering***

University in Leoben, Austria

5:00 - 5:20 PM **Robert Eschrich<sup>1</sup>**, Christian Reichenbach<sup>1</sup>, Andreas Möller<sup>1</sup>, Jen Möllmer<sup>2</sup>, Marcus Lange<sup>2</sup>, Hannes Preißler<sup>2</sup>, Roger Gläser<sup>2</sup> and Matthias Thommes<sup>3</sup>

***Flexible MOFs for Gas Separation – A Case Study Based on Static and Dynamic Sorption Experiments.***

<sup>1</sup>Quantachrome GmbH & Co. KG, Germany, <sup>2</sup>Institut für Nichtklassische Chemie e.V., <sup>3</sup>Quantachrome Instruments, FL, United States

5:20 - 5:40 PM **Bogdan Kuchta<sup>1,3</sup>**, Lucyna Firlej<sup>2,3</sup>, Filip Formalik<sup>4</sup> and Philip Llewellyn<sup>1</sup>

***Structural Transformations of Methane Adsorbed in MOF-5 Model Framework***

<sup>1</sup>Aix-Marseille University, France, <sup>2</sup>University of Montpellier, France, <sup>3</sup>University of Missouri, United States, <sup>4</sup>Wroclaw University of Science and Technology, Poland

5:40 - 6:00 PM **Carlos Wexler**, Joseph Schaeperkoetter, Helmut Kaiser and Haskell Taub

***In-situ Neutron Scattering Observation of Adsorption-Induced Expansion in the Interlayer Spacing of Graphene Oxide Frameworks***

University of Missouri, United States

6:00 - 6:20 PM **Christian Lastoskie** and Francisco J. Sotomayor

***Prediction of Carbon Dioxide Breakthrough in “Gating” Adsorbents Using Osmotic Framework Adsorbed Solution Theory***

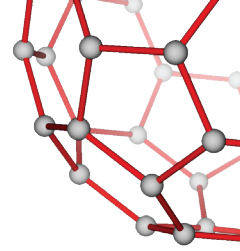
University of Michigan, United States

6:20 - 6:40 PM **Irena Senkowska<sup>1</sup>**, Alexander Krylov<sup>2</sup>, Alexander Vtyurin<sup>2,3</sup>, Petko Petkov<sup>4,5</sup>, Mariia Maliuta<sup>1</sup>, Volodymyr Bon<sup>1</sup>, Thomas Heine<sup>4</sup>, Stefan Kaskel<sup>1</sup> and Evgenia Slyusareva<sup>3</sup>

***Raman Spectroscopy Studies of the Terahertz Vibrational Modes of Flexible Pillared Layer MOF***

<sup>1</sup>Technische Universität Dresden, Germany, <sup>2</sup>Federal Research Center KSC SB RAS, Russia, <sup>3</sup>Siberian Federal University, Russia, <sup>4</sup>University of Sofia, Bulgaria, <sup>5</sup>Universität Leipzig, Germany

8:00 PM **Conference dinner**



# CPM8 | PROGRAM

Wednesday, May 9, 2018

9:00 a.m. Session: Dynamics and Diffusion

Chair: Duong D. Do

**9:00 - 9:30 AM** **Keynote Lecture - Peter Monson**

***Modeling Dynamics of Confined Fluids: From Adsorption to Membrane Separations***

University of Massachusetts - Amherst, United States

**9:30 - 9:50 AM** **Stefano Brandani** and Alessio Centineo

***Measurement of Water Adsorption Equilibrium and Kinetics Using the ZLC Technique***

University of Edinburgh, United Kingdom

**9:50 - 10:10 AM** **Gennady Y. Gor**<sup>1</sup> and Boris Gurevich<sup>2</sup>

***How to Interpret Ultrasonic Measurements on Fluid-Saturated Nanoporous Solids?***

<sup>1</sup>New Jersey Institute of Technology, United States, <sup>2</sup>Curtin University and CSIRO Australia

**10:10 - 10:30 AM** **István Furó**<sup>1</sup>, Fredrik Elwinger<sup>2</sup> and Payam Pourmand<sup>1</sup>

***Diffusive Transport in Pores. Tortuosity and Molecular Interaction with the Pore Wall***

<sup>1</sup>KTH Royal Institute of Technology, Sweden, <sup>2</sup>GE Healthcare Bio-Sciences AB, Sweden

**10:30 - 10:50 AM** **Break**



## CPM8 | PROGRAM

Wednesday, May 9, 2018

10:50 a.m. Session: Metal-Organic Frameworks

Chair: Michael Froeba

**10:50 - 11:20 AM** **Keynote Lecture - Jeffrey Long**<sup>1</sup>, Rebecca Siegelman<sup>1,3</sup>, Douglas Reed<sup>1</sup>, Jonathan Bachman<sup>2</sup>, Phillip Milner<sup>1,3</sup>, Miguel Gonzalez<sup>1</sup>, Julia Oktawiec<sup>1</sup>, Lucy Darago<sup>1</sup>, Tomč e Runč evski<sup>1</sup>, Jeffrey Martell<sup>1</sup>, Dianne Xiao<sup>1</sup>, Thomas McDonald<sup>1</sup>, Jarad Mason<sup>1</sup>, Eric Bloch<sup>1</sup>, Zoey Herm<sup>1</sup>, Benjamin Keitz<sup>1</sup>, Brian Wiers<sup>1</sup>, Wendy Queen<sup>1,3</sup>, Stephen Geier<sup>1</sup> and Leslie Murray<sup>1</sup>

***Cooperative Adsorption and Gas Separations In Metal-Organic Frameworks***

<sup>1</sup>Departments of Chemistry, University of California, United States,

<sup>2</sup>Chemical and Biomolecular Engineering, University of California, United States,

<sup>3</sup>Lawrence Berkeley National Laboratory, United States

**11:20 - 11:40 AM** **Simon Krause**<sup>1</sup>, Volodymyr Bon<sup>1</sup>, Irena Senkowska<sup>1</sup>, Daniel M. Többsens<sup>2</sup>, Dirk Wallacher<sup>2</sup>, Guillaume Maurin<sup>3</sup>, François-Xavier Coudert<sup>4</sup> and Stefan Kaskel<sup>1</sup>

***Negative Gas Adsorption in Mesoporous Switchable Metal-Organic Frameworks***

<sup>1</sup>Dresden University of Technology, Germany,

<sup>2</sup>Helmholtz-Zentrum Berlin für Materialien und Energie, Germany,

<sup>3</sup>Université Montpellier, France, <sup>4</sup>Chimie ParisTech, France

**11:40 - 12:00 PM** **Hyunchul Oh**<sup>1</sup>, Hoi Ri Moon<sup>2</sup> and Michael Hirscher<sup>3</sup>  
***Exploiting Diffusion Barrier and Chemical Affinity of Metal-Organic Frameworks for Efficient Hydrogen Isotope Separation***

<sup>1</sup>GNTECH, Republic of Korea, <sup>2</sup>UNIST, Republic of Korea,

<sup>3</sup>Max Planck Institute for Intelligent Systems, Germany

**12:00 - 12:20 PM** **T. Grant Glover**<sup>1</sup>, Jackson Cunningham<sup>1</sup>, Mohammad Hossain, Tim M. Becker<sup>2</sup> and Brooks D. Rabideau<sup>1</sup>

***Binary Adsorption of CO<sub>2</sub> and Water on UiO-66 MOF***

<sup>1</sup>University of South Alabama, United States, <sup>2</sup> Delft University of Technology, Netherlands

12:20 p.m Closing

**12:20 - 12:50 PM** **Alex Neimark** (Rutgers University, United States), **Matthias Thommes** (Quantachrome Instruments, United States) and **Gerhard Findeneegg** (TU Berlin)  
***Discussion and Closing Remarks***

### Post-Conference Events (Registration Required)

**3:00 - 5:00 PM** **Quantachrome Instruments Tour**

**6:00 - 8:30 PM** **Sunset Cruise Sponsored by Quantachrome**