Benoit Coasne

(CNRS Research Director, Section 15)

PART A : CURRICULUM VITAE

Benoit COASNE (Male, 47 ans, 2 children, benoit.coasne@univ-grenoble-alpes.fr)
Laboratoire Interdisciplinaire de Physique,
CNRS/Université Grenoble Alpes, Grenoble, France
CNRS Research Director 2nd classe (section 15, CNRS)
Researcher id: http://scholar.google.com/citations?user=-rO1SkUAAAAJ&hl=en&oi=ao
Site Web: benoitcoasne.github.io

Research Theme

« Adsorption, Phase Transitions and Transport in Nanoporous Materials »

Academic Records and Education

2015/… **CNRS Reseach Director (2nd Class)**
Lab. Interdisciplinaire de Physique, CNRS/Univ. Grenoble Alpes, France.

2012/15 **CNRS Research 1st class + MIT Visiting Associate Prof.**
CNRS/MIT Lab, USA. Group leader « Multiscale adsorption/transport »

2011 **Habilitation** à diriger des recherches, *Thermodynamics/dynamics of fluids, electrolytes and solides in porous materials*. Univ Montpellier

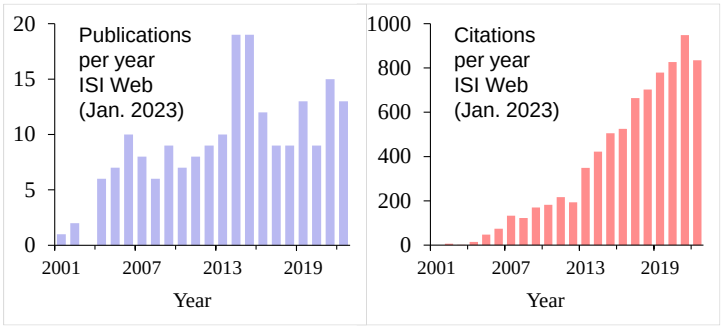
2005/12 **CNRS Researcher** (1st class since 01/2009)
Institut Charles Gerhardt, Montpellier, France

2003/04 **Postdoctoral Researcher**, Department of Chemical Engineering,
North Carolina State University, Raleigh, NC, USA

2003 **PhD Physics**, *Adsorption and condensation of fluids in porous silicon*
Groupe de Physique des Solides, Univ Paris 7, France

Science/International Recognition

203 Articles (3 Nature Mat, 6 Nat Comm, 2 Chem Soc Rev, 2 PNAS, 2 JACS, 4 PRL., 3 J Phys Chem Lett)
47 H-index (**54** Google Scholar)
7396 Citations
51 Invited Conferences
77 Seminaires, Schools, etc.



Awards and Distinctions

2019 Invited Professor, Chair Saint-Gobain, Institut Navier, France
2016/22 Board of Directors, International Adsorption Society
2015/19 Prime d'encadrement doctoral et de recherche, CNRS et MENESR
2012/15 Visiting Associate Professor, MIT, Cambridge, USA
2011/17 Cofounder of the French Adsorption Society
2010/14 Prime d'Excellence Scientifique, CNRS et MENESR
2013 Scientific Collaborator, Faculté Polytechnique de Mons, Belgium
2011 Award "Chercheur d'Avenir 2011" in Languedoc Roussillon, France
2006 Visiting Scholar, Adam Mickiewicz University, Poznan, Poland

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RESPONSIBILITIES, MANAGEMENT AND SCIENTIFIC ANIMATION

Responsibilities, Collective Tasks

2022/… Steering Committee, New Joint Laboratory CNRS - PetroChina
2022/… ILL Review Panel, Institut Laue Langevin (Neutron Center), Grenoble
2022/… Committee "Young Researcher Award", Int. Adsorption Society
2022/… Board Member Division Chimie Physique, Société Chimique de France
2022/24 Scientific Council Expert, IFP Energies Nouvelles
2022/… French Chair, French/German Adsorption Initiative (www.adsorption.eu)
2019/… Principal Science Advisor, VEOLIA Design Center, St Maurice, France
2019/22 Panel Chair IAS Carbon neutrality, International Adsorption Society
2016/… Nominated Member LIPhy Council, CNRS/University Grenoble Alpes
2011/17 President of the French Adsorption Society (elected and then reelected)
2012/15 Group Leader « Multiscale Adsorption and Transport »
CNRS/MIT Lab., Boston, USA
2015/20 Member Poromechanics Committee, Am. Soc. Civil Enginers
2011/14 Member Institute Charles Gerhardt Council, CNRS/Univ. Montpellier
2009/12 Head of the Communication Commission of Institute Charles Gerhardt
2009/12 Member Scientific Animation of the Institute Charles Gerhardt
2010/16 Board member, French Zeolite Society
2009/12 Board member, Local section LR of the French Chemical Society SCF

Commission of Trust

2019/20 M-ERA.NET strategy expert group (21 pers.) Roadmapping 2020 call
2020 Science Council Expert, IFP Energies Nouvelles
2018 Guest Editor, Issue "Adsorption" in Curr. Op. Chem. Eng. (Elsevier)
2017/18 Panel ANR, French National Science Agency « Matériaux inorganiques »
2015/21 Panel FWO, Flanders Res. Foundation « Chem Eng & Material Sci. »
2014 Review Editor in the Editorial Board of Frontiers | Energy Research - Open Access Journal, partner of Nature Publishing Group (NPG)
2014 Co-Guest Editor, « Design/modeling porous materials », Eur Phys J
Since 2009 External expert in Sections 31 et 33 of CNU

Organization of scientific meetings

2023 Conference co-chair "FRA/GER Adsorption meeting", Strasbourg, France
2018 Colloquium Chair "Matériaux poreux, granulaires, à grande surface spécifique", Conference Matériaux 2018, Strasbourg, France (~ 100 people)
2018 Symp. Chair "Soft Porous Materials", Interpore2018, N. Orleans, USA
2010/17 Journées Annuelles Association Française de l'Adsorption (~ 70 people)
2011/16 Journées Annuelles Groupe Français des Zéolithes (~ 80 people)
2013 Ionic Liquids for Materials (~ 100 people) ILMAT2013, Montpellier
2010 Journées SCF Grand Sud Ouest (~80 people), Montpellier

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Student and postdoc supervision (17 PhD, 18 postdocs, 15 undergrad)

● **17 PhD Students** 1. J. Dweik, 2. C. Abrioux, 3. P. Bonnaud, 4. F. Villemot, 5. M. Lepinay (St Micro), 6. P. Billemont (UMons, Belgique), 7. L. Deliere (CEA), 8. H. Getachew, 9. D. Jin, 10. R. Bey, 11. I. C. M. Costa (IFPEN), 12. M. Chen (ETH medal award, Switzerland), 13. Z. Zaafouri (IFPEN), 14. S. Cohen (U. Maryland, Chateaubriand Fellow), 15. W. Kellouai, 16. N. Ferreira de Souza, 17. L. Didier ● **18 Postdocs** 1. P. Cazade, 2. G. Ori, 3. L. Ngoc Ho, 4. R. Hartkamp, 5. A. Botan, 6. G. Hantal, 7. K. Falk, 8. C. Bousige, 9. P. Billemont, 10. T. Lee, 11. A. Obliger, 12. G. Couchaux, 13. D. Mehlhorn, 14. A. Schlaich, 15. R. Manokaran, 16. A. Sam, 17. V. Prasad, 18. S. Gravelle ● **15 Undergrad.** 1. L. Naamar, 2. G. Pallares, 3. D. Horlait, 4. P. Epicoco, 5. I. Aydogdu, 6. J. Nigon, 7. F. Freitag, 8. L. Atmani, 9. H. Meyer, 10. J. Mohan, 11. D. Tabacchioni, 12. Z. Zaafouri, 13. M. Barbagero, 14. K. Olson, 15. P. Sanchez-Moreno Royer

PhD and Habilitation Jurys (46 including R = Reviewer, P = President)

46. K. Wang (**P**, Montpellier), 45. HDR R. Semino (**R**, Paris), 44. F. Rizk (**R**, Lyon), 44. K. Ariskina (**R**, Pau), 42. A. Hammoumi (**R**, Cavaillon), 41. M. Ducamp (**R**, Cavaillon), 40. M. Benchaabane (**R**, Paris), 40. A. Robert (Paris), 39. M. Ducamp (**R**, Paris), 38. A. Marcotte (**P**, ENS Paris), 37. A. Mishra (**R**, Univ. Metz), 36. F. Guy (**P**, Chambéry), 35. C. Methais (**R**, Besançon), 34. M. Sperra (**R**, SP, Brazil), 34. G. El Tabbal (**R**, Paris), 32. T. Virdis (**R**, VUB Brussels), 31. J. B. Pigot (**R**, Paris), 30. A. Patt (**R**, Dijon), 29. A. Hafreager (**R**, Oslo), 28. R. Bingre (**P**, Strasbourg), 27. K. L. Nguyen (**R**, Marseille), 26. A. Coste (Montpellier), 25. N. Ganfoud (**R**, Paris), 24. C. Cabaud (**P**, Paris), 23. M. Chen (**R**, ETH Zurich), 22. HDR M. Vandamme (**R**, Paris), 21. B. K. Xiong (Tours), 20. E. Perrin (**R** + **P**, Berlin + Paris), 19. J. Wolanin (**R**, Paris), 18. HDR J. Jacquemin (**R**, Tours), 17. P. Bacle (**R**, Paris), 16. W. Louisfrema (**R**, Paris), 15. W. Goncalves (**R**, Lyon), 14. S. Dutta (**R**, Rennes), 13. J. M. Vanson (**R**, Paris), 12. M. Ciantar (**R**, Paris), 11. C. Péan (**R**, Paris), 10. C. Sempere (**R**, Lyon), 9. M. Michelin-Jamois (**R**, Lyon), 8. B. Farbos (**R**, Bordeaux), 7. G. Aubry (**R**, Grenoble), 6. A. Bouzid (Strasbourg), 5. M. De Toni (**R**, Paris), 4. L. Brochard (**R**, Paris), 3. M. Amrouche (**R**, Manchester), 2. A. Botan (**R**, Paris), 1. M. Jeffroy (Orsay)

VALORISATION, TECHNOLOGICAL TRANSFER, INDUSTRIAL RELATIONS

Contracts and Research Grants (* = total funding unknown)

Contrat	Période	Organisme	Partners	Montant	Responsabilité
SESAME	2022/26	ANR	4	~50 k€	Partner
ACOUFEN	2021/25	ANR	3	~500 k€	Coordinator
MENIHR	2021/25	ANR	3	106 k€	Partner
IRGA21	2021/23	Univ. Grenoble Alpes	3	43 k€	Co-Coordinator
MODYTICS	2019/23	ANR Astrid	4	130 k€	Partner
CATCALL	2019/23	ANR	2	130 k€	Partner
2FDN	2019/23	PhD grant	2	103 k€	Coordin.
IFPEN	2017/20	Research contract	1	30 k€	Coordin.
TWIST	2017/20	ANR	5	80 k€	Partner
CEA	2017/20	Research contract	3	40 k€	Partner
EUROKIN4	2017/18	Research contract	1	12.5 k€	Coordin.
IFPEN	2016/19	Research contract	1	18 k€	Coordin.
TOTAL	2017/18	Research contract	3	7 k€	Partner
TAMTAM	2011/15	ANR	4	~500 k€	Coordin.
X-Shale	2012/15	Industry	3	~1 M€/year	Co-coordin.
OCTAPPOM	2014	NEEDS	2	~100 k€	Coordin.
GENESIS	2013/16	ANR	3	~400 k€	Partner
TARG-E-D	2013/16	ANR	3	~376 k€	Partner
Transport_ion	2012/15	Cherch. Avenir	2	~70 k€	Coordin.
NanoChalco	2011/15	ANR	3	~500 k€	Coordin.
Structuring_IL	2012/15	CINES	1	CPU Time	Coordin.
IDDILIQ	2009/12	ANR	1	200 k€	Partner
ATILH	2008/10	Industry	5	100 k€*	Partner
SiMoNanoMem	2008/10	ANR	4	400 k€	Partner
Eau, Electro	2009/10	CINES	1	CPU Time	Coordin.

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Partnership with industry/Consulting

2009/20 Saint Gobain, Consulting « Adsorption/transport in porous materials »
2019/20 EUROKIN consortium, 200 page report on transport in porous media
2012/15 Shell and Schlumberger, « Adsorption, Transport, Mechanics properties of Gas Shale". Collab. Industry/Academia
2015/17 Gaztransport & Technigaz (GTT) Report on Adsorption (2015) + Report on Knudsen diffusion (2017) + Technical calculations (2017)
2008/2010 Association Technique de l'Industrie des Liants Hydrauliques (ATILH), « Porosity, transport and resistance of concrete ». (2008-2010)

FORMATION, TEACHING, DISSEMINATION

Teaching, Training

2022/… International Master Week, Qingdao University/China, Adsorption and transport in porous materials **(6 h/year)**
2016/… Reearch Training Master Nanosciences, University Grenoble Alpes, Molecular modeling **(40 h/year)**
2018/… Res. Seminar for Master 2 Nanophysics, U. Grenoble Alpes **(1 h/year)**
2018 Collège École Polytechnique X, Multiscale porous materials **(4h)**
2014 Formation Arkema, Characterization techniques of porous solids **(8h)**
2013 Formation ST Microelectronics, Molecular simulation **(16h)**
2012 Collège École Polytechnique X, Multiscale porous materials **(4h)**
2012 Formation IRCELYON, Molecular simulation **(16h)**
2011 Course, Institute of Separative Chemistry, Molecular modeling **(2h)**
2009 Tutorat Bénévole auprès d'élèves en primaire/collège/lycée, Association de quartier Boutonnet, Montpellier **(2 h/week)**
2005/11 Master Phys/Chem, U. Montpellier, Molecular modeling **(8 h/year)**
2000/02 IUT, Univ. Paris 7, Classical Mechanics **(115h)**
2000/01 DEUG, Univ. Marne la Vallée, Electromagnetism **(45h)**
1999/00 DEUG, Univ. Paris 7, Electronics **(70h)**

Communication/Dissemination

2020 Les matériaux nanoporeux: de l'utilité des trous en chimie des matériaux, Chimie Etonnante CNRS (Farrusseng, Coasne)
2020 Des matériaux fonctionnels à l'échelle du nanomètre, Usine Nouvelle **1035**, Oct. 2020 (Farrusseng, Coasne)
2016 Article P. Passebon in Industrie & Technologies, https://www.industrie-techno.com/comprendre-les-gaz-de-schiste-pour-mieux-les-exploiter.42366
2012 L'eau dans les mésopores du ciment, Ciments, Bétons, Plâtres et Chaux **907**, 64, 2012. (Bonnaud, Pellenq, Coasne)
2010 Internship L'Express.fr. 2 articles « Nous comprenons les consommateurs d'eau en bouteilles » et « Le triplement du nucléaire doit être débattu »
2010 Seminar for University Students on Research in France
2008 Seminar for High School Students on Research in France

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PART B : SCIENTIFIC PRODUCTION

1. Publications in peer-reviewed journals (183)

including 6 invited review articles (titles in red)

Communication releases are indicated in green

In Preparation

P193. A. Schlaich, M. Vandamme, M. Plazanet, **B. Coasne**, Bridging Microscopic Dynamics and Hydraulic Permeability in Mechanically-Deformed Nanoporous Materials, To be submitted (2022).

P192. M. Rajasekaran, A. Schlaich, M. Vandamme, S. Brisard, J. M. Pereira, **B. Coasne**, Enhanced Self-Diffusion and Collective Transport of Water in Thermalized Nanoporous Materials: From hydrogen-Bond Softening to Correlated Solid-Fluid Dynamics, To be submitted (2023).

P191. S. Dutta, A. Nossov, A. Galarneau, Y. Didi, B. Said, R. Denoyel, V. Wernert, **B. Coasne**, F. Guenneau, Apparent Anomalous Temperature Behavior of Self-Diffusion in Hierarchical Monolithic Zeolites: A Pulsed-Field Gradient Nuclear Magnetic Resonance and Thermodynamic Study, To be submitted (2022).

P190. W. Kellouai, P. Judeinstein, M. Plazanet, J. M. Zanotti, Q. Berrod, M. Drobek, A. Julbe, **B. Coasne**, Free Volume Theory of Self-diffusion in Zeolite: Molecular simulation and Experiment, To be submitted (2022).

P189. M. Lucioli, M. Rescigno, F. G. Alabarse, U. Ranieri, B. Frick, **B. Coasne**, L. E. Bove, Low Temperature Dynamics of Water Confined in Hydrophilic Zeolite Nanopores, To be submitted (2023).

Submitted

P188. A. Sam, M. Barbagero, R. Venegas, **B. Coasne**, Multiscale Acoustic Properties of Nanoporous Materials: From Microscopic Dynamics to Mechanics and Wave Propagation, *J. Mech. Phys. Sol.*, To be submitted (2022).

P187. C. Zhang, **B. Coasne**, D. Derome, J. Carmeliet, Adsorption/percolation model for water diffusion in deformable nanoporous polymers, To be submitted (2022).

2023

P186. A. J. Souna, S. R. Cohen,, C. A. Rivera, K. Manfred, **B. Coasne**, J. T. Fourkas, The Role of Resonant Coupling in Vibrational Sum-Frequency-Generation Spectroscopy: Liquid Acetonitrile at the Silica Interface, *J. Mol. Liq.*, in press (2023)

P185. S. Dutta, A. Galarneau, D. Minoux, C. Aquino, J. P. Dath, F. Guenneau, **B. Coasne**, Molecular Diffusion in Hierarchical Zeolites with Ordered Mesoporosity: Pulsed Field Gradient Nuclear Magnetic Resonance combined with Thermodynamic Modeling, *J. Phys. Chem. C*, in press (2023).

P184. A. Obliger, C. Bousige, J. M. Leyssale, **B. Coasne**, Mini-review on the development of atomistic kerogen models and their applications in gas adsorption and diffusion (Invited Review Paper), *Energy Fuels*, in press (2023).

+ ACS Editor's Choice, https://pubs.acs.org/page/policy/editorchoice/index.html

2022

P183. V. Wernert, **B. Coasne**, P. Levitz, K. Nguyen, E. J. Garcia, R. Denoyel, Tortuosity of hierarchical porous materials: diffusion experiments and random walk simulations, *Chem. Eng. Sci.* **264**, 118136 (2022).

P182. D. Bauer, Z. Zaafouri, G. Batot, **B. Coasne**, From Transient to Stationary Transport in Porous Networks under Various Adsorption Conditions and Kinetics, *J. Phys. Chem. B* **126**, 6125 (2022).

P181. C. O'Sullivan, C. Arson, **B. Coasne**, A Perspective on Darcy's Law across the Scales: From Physical Foundations to Particulate Mechanics, *J. Eng. Mech.* **148**, 11 (2022).

+ Editor's Choice section of the *Journal of Engineering Mechanics* page in the ASCE Library **https://ascelibrary.org/journal/jenmdt**

P180. I. C. Medeiros-Costa, C. Laroche, **B. Coasne**, J. Pérez-Pellitero, Xylene Selectivity at the External Surface of Hierarchical Zeolites: Experiment and Molecular Modeling, *Ind. Eng. Chem. Res.* **61**, 10184 (2022).

P179. C. Pagis, D. Laprune, Lucian Roiban, T. Epicier, C. Daniel, D. Farrusseng, **B. Coasne**, Morphology and topology assessment in hierarchical zeolite materials: adsorption hysteresis, scanning behavior, and domain theory, *Inorg. Chem. Frontiers* **9**, 2903 (2022).

P178. W. Kellouai, P. Judenstein, M. Plazanet, S. Baudoin, M. Drobek, A. Julbe, **B. Coasne**, Gas Adsorption in Zeolite and Thin Zeolite Layers: Molecular Simulation, Experiment and Adsorption Potential Theory, *Langmuir* **38**, 5428 (2022).

P177. S. Ghojavand, **Benoit Coasne**, R. Guillet-Nicolas, P. Bazin, M. Desmurs, L. J. Aguilera, V. Ruaux, S. Mintova, The role of alkali metal cations on the CO2 adsorption behavior of nanosized chabazite, *ACS Appl. Nano. Mater.* **5**, 5578 (2022).

P176. J. W. M. Osterrieth et al., How reproducible are surface areas calculated from the BET equation?, *Adv. Materials*, 2201502 (2022).

P175. D. T. Bowron, D. A. Keen, M. Kint, C. Weigel, L. Konczewicz, S. Contreras, **B. Coasne**, G. Garbarino, M. Beaudhuin, J. Haines, J. Rouquette, Atomic-Spring Effect in Amorphous Silica-Helium Composite, *J. Phys. Chem. C* **126**, 5722 (2022).

P174. Z. Zaafouri, G. Batot, C. Nieto-Draghi, B. Rotenberg, **B. Coasne**, D. Bauer, Impact of adsorption kinetics on pollutant dispersion in water flowing in nanopores, *Adv. Water Res.* **162**, 104143 (2022).

P173. V. Wernert, K. L. Nguyen, P. Levitz, **B. Coasne**, R. Denoyel, Impact of surface diffusion on transport through porous materials, *J. Chrom. A* **1665**, 462823 (2022).

P172. M. Dopke, F. Westerbaan van der Meij, **B. Coasne**, R. Hartkamp, Surface Protolysis and its Kinetics Impact the Electrical Double Layer, *Phys. Rev. Lett.* **128**, 056001 (2022).

P171. S. R. Cohen, M. Plazanet, S. Rols, D. J. Voneshen, J. T. Fourkas, **B. Coasne**, Structure and Dynamics of Acetonitrile: Molecular Simulation and Neutron Scattering, *J. Mol. Liq.* **348**, 118423 (2022).

P170. C. Zhang, M. Chen, **B. Coasne**, S. Keten, D. Derome, J. Carmeliet, Hygromechanics of Composite with Intramolecular Interactions at Fiber-Matrix Interface Investigated with Molecular Dynamics, *Composites Part B* **228**, 109449 (2022).

P169. A. Schlaich, D. Jin, L. Bocquet, **B. Coasne**, Electronic screening using a virtual Thomas–Fermi fluid for predicting wetting and phase transitions of ionic liquids at metal surfaces, *Nature Materials* **21**, 237 (2022).

+ CNRS communication: https://www.inp.cnrs.fr/index.php/fr/cnrsinfo/un-fluide-virtuel-pour-simuler-des-liquides-charges-confines

2021

P168. M. Lions, C. Daniel, B. Coasne, F. Meunier, A. Tuel, D. Farrusseng, The Pivotal Role of Critical Hydroxyl Concentration in Si-rich zeolites for Switching Vapor Adsorption, *J. Phys. Chem. C* **125**, 22890 (2021).

P167. J. Wolanin, L. Michel, D. Tabacchioni, J. M. Zanotti, J. Peters, I. Imaz, **B. Coasne**, M. Plazanet, C. Picard, Heterogeneous Microscopic Dynamics of Water Nanoconfined in a Ultra-hydrophobic Environment: Neutron Scattering and Molecular Modeling, *J. Phys. Chem. B* **125**, 136 (2021).

P166. M. Santoro, M. Morana, D. Scelta, J. Rouquette, K. Dziubek, F. A. Gorelli, R. Bini, G. Garbarino, A. van der Lee, F. Di Renzo, B. Coasne, J. Haines, Insertion of

Oxygen and Nitrogen in the Siliceous Zeolite TON at High-Pressure, *J. Phys. Chem. C* **125**, 19517 (2021).

P165. C. Zhang, M. Chen, S. Keten, **B. Coasne**, D. Derome, J. Carmeliet, Hygromechanical mechanisms of wood cell wall revealed by molecular modeling and mixture rule analysis: Role of components, interphases and hydrogen bonding, *Sci. Adv.* **7**, eabi8919 (2021).

P164. T. Rego, S. Spagnoli, M. C. Fauré, C. Allain, **B. Coasne**, J. Malinge, C. Shen, P. Fontaine, M. Goldmann, Unexpected order-disorder transition in Diacetylene alcohol Langmuir film, *Langmuir* **37**, 30 (2021).

P163. Z. Zaafouri, G. Batot, C. Nieto-Draghi, B. Rotenberg, D. Bauer, **B. Coasne**, Lattice Boltzmann method for adsorption under stationary and transient conditions: Interplay between transport and adsorption kinetics in porous media, *Phys. Rev. E* **104**, 015314 (2021).

P162. R. Bey, **B. Coasne**, C. Picard, Carbon dioxide as a line active agent: its impact on line tension and nucleation rate, *Proc. Nat. Acad. Sci.* **118**, e2102449118 (2021).

+ CNRS communication: https://inp.cnrs.fr/fr/cnrsinfo/le-co2-comme-tensioactif-de-ligne-dans-un-nanopore

P161. F. G. Alabarse, B. Baptiste, M. Jimenez-Ruiz, **B. Coasne**, J. Haines, J. B. Brubach, P. Roy, H. E. Fischer, S. Klotz, L. E. Bove, Different Water Networks Confined in Unidirectional Hydrophilic Nanopores and Transitions with Temperature, *J. Phys. Chem. C* 125, 14378 (2021).

P160. D. Jin, **B. Coasne**, Reduced phase stability and faster formation/dissociation kinetics in confined methane hydrate, *Proc. Nat. Acad. Sci.* **118**, e2024025118 (2021).

P159. W. Xu, X. Liu, M. Pena-Alvarez, H. C. Jiang, P. Dalladay-Simpson, **B. Coasne**, J. Haines, E. Gregoryanz, M. Santoro, High Pressure Insertion of Dense H2 into a Model Zeolite, *J. Phys. Chem. C* **125**, 7511 (2021).

P158. L. Scalfi, **B. Coasne**, B. Rotenberg, On the Gibbs-Thomson equation for the crystallization of confined fluids, *J. Chem. Phys.* **154**, 114711 (2021).

P157. P. Judeinstein, M. Zeghal, D. Constantin, C. Iojoiu, **B. Coasne**, Interplay of Structure and Dynamics in Lithium/Ionic Liquid Electrolytes: Experiment and Molecular Simulation, *J. Phys. Chem. B* **125**, 1618 (2021).

P156. C. Bousige, P. E. Levitz, **B. Coasne**, Bridging scales in disordered porous media by mapping molecular dynamics onto intermittent Brownian motion, *Nature Comm.* **12**, 1043 (2021).

2020

P155. M. Chen, **B. Coasne**, R. Guyer, D. Derome, J. Carmeliet, A Poromechanical Model for Sorption Hysteresis in Nanoporous Polymers, *J. Phys. Chem. B* 124, 8690-8703 (2020).

P154. Y. Long, J.C. Palmer, B. Coasne, K. Shi, M. Sliwinska-Bartkowiak and K. E. Gubbins, Reply to Comment on "Pressure enhancement in carbon nanopores: a major confinement effect", *Phys. Chem. Chem. Phys.* **22**, 9826 (2020).

P153. M. Chen, **B. Coasne**, D. Derome, J. Carmeliet, Role of cellulose nanocrystals on hysteretic sorption and deformation of nanocomposites, *Cellulose* **27**,6945 (2020).

P152. Z. Zaafouri, D. Bauer, G. Batot, C. Nieto-Draghi, **B. Coasne**, Cooperative Effects Dominating the Thermodynamics and Kinetics of Surfactant Adsorption in Porous Media: From Lateral Interactions to Surface Aggregation, *J. Phys. Chem. B* **124**, 10841-10849 (2020).

P151. M. Chen, **B. Coasne**, D. Derome, J. Carmeliet, Coupling of Sorption and Deformation in Soft Nanoporous Polymers: Molecular Simulation and Poromechanics, *J. Mech. Phys. Sol.* **137**, 103830 (2020).

P150. C. Hadji, B. Dollet, H. Bodiguel, W. Drenckan, **B. Coasne**, E. Lorenceau, Impact of fluorocarbon gaseous environments on the permeability of soap films to air, Langmuir 36, 13236-13243 (2020).

P149. R. Bey, B. Coasne, C. Picard, Probing the concept of line tension down to the molecular scale, *J. Chem. Phys.* **152**, 094707 (2020).

P148. C. Zhang, A. Shomali, R. Guyer, S. Keten, **B. Coasne**, D. Derome, J. Carmeliet, Disentangling Heat and Moisture Effects on Biopolymer Mechanics, *Macromolecules* **53**, 1527 (2020).

P147. C. Zhang, **B. Coasne**, R. Guyer, D. Derome, J. Carmeliet, Moisture induced crossover in the thermodynamic and mechanical response of hydrophilic biopolymer, *Cellulose* **27**, 89 (2020).

2001 – 2019

P146. A. Monpezat, S. Topin, L. Deliere, D. Farrusseng, **B. Coasne**, Evaluation methods of adsorbents for air purification and gas separation at low concentration. Case studies on xenon and krypton, *Ind. Chem. Eng. Res.* **58**, 4560 (2019).

P145. A. Schlaich, **B. Coasne**, Dispersion truncation affects the phase behavior of bulk and confined fluids: coexistence, adsorption and criticality, *J. Chem. Phys.* **150**, 154104 (2019).

P144. N. Ben Abdelouahab, A. Gossard, S. Rodts, B. Coasne, P. Coussot, Drying: a simple suction process, *Eur. Phys. J. E* **42**, 66 (2019).

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P34. A. Galarneau, N. Calin, J. Iapichella, M. Barrande, R. Denoyel, **B. Coasne**, F. Fajula, Optimization of the properties of macroporous chromatography silica supports through surface roughness control, Chem. Mater. **21**, 1884 (2009).

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P9. B. Coasne, F. R. Hung, F. R. Siperstein, K. E. Gubbins, Molecular simulation of gas adsorption in realistic models of silica nanopores, *Ann. Chim. Sci. Mat.* **30**, 375 – 383 (2005).

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2. Conference Proceedings with peer-review (20)

A20. A. Sam, **B. Coasne**, R. Venegas, Towards bridging nanoscale and macroscale acoustics of porous solids, Proceedings of the Internoise Conference (2022).

A19. D. Derome, M. Chen, C. Zhang, A. Shomali, **B. Coasne**, J. Carmeliet, Modeling wood long term performance? The challenge of using natural materials, Poromechanics VI: Proceedings of the Sixth Biot Conference on Poromechanics, *ASCE Proc.* (Am. Soc. Civil Enginers), 427-434 (2017).

A18. M. Chen, **B. Coasne**, R. Guyer, D. Derome, J. Carmeliet, Analysis of Sorption and Mechanical Hysteresis of Nano-Porous Materials: Upscaling Molecular Simulations with the Dependent Domain Theory, Poromechanics VI: Proceedings of the Sixth Biot Conference on Poromechanics, *ASCE Proc.* (Am. Soc. Civil Enginers), 427-434 (2017).

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A16. L. Broussous, M. Lepinay, **B. Coasne**, C. Licitra, F. Bertin, V. Rouessac; A Ayral, "Molecular Simulation Contribution to Porous Low-K Pore Size Determination after Damage by Etch and Wet Clean Processes", *Solid State Phenomena* **255**, 215 (2016).

A15. P. Billemont, **B. Coasne**, G. De Weireld, Adsorption of carbon dioxide, methane, and their mixture in porous carbons: effect of surface chemistry, water content and pore disorder, *Proceedings of the International Conference on Coal Science & Technology 2013* (2013).

A14. B. Coasne, "Pressure effects in phases confined in pores: application to in-pore freezing and mechanical enhancement of porous materials", *ASCE Proc.* (Am. Soc. Civil Enginers) (2013).

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A9. S. Bhattacharya, K. E. Gubbins, **B. Coasne**, F. R. Hung, "Molecular simulation of gas adsorption in mesoporous silicas SBA-15," in *Proceedings of the 4th Pacific Basin Conference on Adsorption Science and Technology* (2006).

A8. R. J. –M. Pellenq, **B. Coasne**, "Testing the validity of small – angle and adsorption – based characterization techniques by atomic – scale simulation", Technical proceedings of the 2006 NSTI Nanotechnology Conference **1**, 819 – 822 (2006).

A7. F. R. Hung, **B. Coasne**, K. E. Gubbins, F. R. Siperstein, M. Sliwinska-Bartkowiak, A Monte Carlo study of capillary condensation of krypton within realistic models of templated mesoporous silica materials, *Studies in Surface Science and Catalysis* **160**, Elsevier Science, 153 – 160 (2006).

A6. R. J. M. Pellenq, **B. Coasne**, R. O. Denoyel, J. Puibasset, "Effect of pore morphology and topology on capillary condensation in nanopores: a theoretical and molecular simulation study", *Studies in Surface Science and Catalysis* **160**, Elsevier Science, 1 – 8 (2006).

A5. B. Coasne, J. Czwartos, K. E. Gubbins, F. R. Hung, M. Sliwinska-Bartkowiak, "Confinement effect on freezing of binary mixtures", *Studies in Surface Science and Catalysis* **160**, Elsevier Science, 667 – 674 (2006).

A4. S. Bhattacharya, **B. Coasne**, F. R. Hung, K. E. Gubbins, Modeling and characterization of triblock surfactant templated mesoporous silicas, *Studies in Surface Science and Catalysis*, Elsevier Science **160**, Elsevier Science, 527 – 534 (2006).

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A2. B. Coasne, A. Grosman, C. Ortega, R. J. M. Pellenq, Physisorption in nanopores of various sizes and shapes: A grand canonical Monte Carlo study, *Studies in Surface Science and Catalysis* **144**, Elsevier Science, 35 – 42 (2002).

A1. B. Coasne, A. Grosman, N. Dupont-Pavlovsky, C. Ortega, M. Simon, Adsorption in ordered porous silicon: a reconsideration of the hysteresis phenomenon in the light of new experimental observations, *Mat. Res. Soc. Symp. Proc.* **651** (2000).

3. Book or Book Chapters (3)

B3. D. Farrusseng, **B. Coasne**, Solides nanoporeux: de l'utilité des trous en science des matériaux, Etonante Chimie !, Ouvrage de Vulgarisation, *CNRS Editions* (2020).

B2. G. Ori, C. Massobrio, **B. Coasne**, Molecular modeling of glassy surfaces, Molecular dynamics of disordered systems, *Springer* (2015).

B1. R. J. M. Pellenq, **B. Coasne**, P. E. Levitz "Adsorption and Condensation of Xenon in Mesopores having a Microporous Texture or a Surface Roughness", *Molecular Simulation of Adsorption Phenomena* Eds. N. Quirke and D. Nicholson, Taylor and Francis, London (2005).

4. Invited conferences (51)

I51. B. Coasne, Bridging Molecular Dynamics and Macroscopic Transport in Nanoporous Materials (invited talk), *CECAM Workshop "Fluids in porous materials: from fundamental physics to engineering applications"*, EPFL Lausanne, Switzerland (2023).

I50. B. Coasne, Dynamics in compliant nanoporous materials: Coupling multiscale dynamics and mechanics (invited talk), *Modelling Complexity in Mechanics*, Alghero, Sardinia, Italy (2023).

I49. B. Coasne, Oversolubility in nanoconfinement: from adsorption in porous media to wetting of interfaces (invited talk, symposium 'Reactivity in nanoconfined interfaces), *ACS Meeting 2023*, Indianapolis, IN, USA (2023).

I48. B. Coasne, Reduced phase stability and faster formation/dissociation kinetics in confined methane hydrate (invited talk), *GDR Hydrates*, Rueil Malmaison (Paris), France (2022).

I47. B. Coasne, Adsorption and Transport in Nanoporous Materials (keynote, colloque 10), *Matériaux 2022*, Lille, France (2022).

I46. B. Coasne, Wetting and phase transitions of ionic liquids at metal surfaces: Electronic screening using a virtual Thomas–Fermi, *CECAM Workshop on Ion adsorption and electrokinetic transport at interfaces*, Marcoule (Avignon), France (2022).

I45. B. Coasne, Gas Adsorption in Zeolite and Thin Zeolite Layers: Molecular Simulation, Experiment and Adsorption Potential Theory, *8th Workshop "Prospects & Challenges in Zeolites and Related Porous Materials"*, Cabourg/Caen, France (2022).

I44. B. Coasne, Multiscale diffusion in carbonaceous materials, *CECAM Workshop on adsorption in microporous carbons for a range of societal and emerging applications*, Bordeaux, France (2022).

I43. B. Coasne, Adsorption and diffusion in zeolitic materials, *Groupe Français des Zeolithes (GFZ)*, Vogue (Ardeche), France (2022). Keynote Invitation.

I42. B. Coasne, Fluid adsorption and diffusion in zeolitic materials, *First International Edition of the 21st Chinese Zeolite Conference (21CZC)*, Qingdao, Shandong Province, China (2021). Visioconference.

I41. B. Coasne, Adsorption and transport in nanoconfinement, *Summer Workshop nanoCAFÉ group* (Sapienza Universita di Roma), Siena (Tuscany), Italy (2021). 3 seminars on "Adsorption and criticality in nanoconfined fluids", "Wetting and phase transitions at metallic surface", "Bottom up model of dynamics/transport in porous media"

I40. B. Coasne, Fluid adsorption and transport in nanoporous materials, *Annual meeting of the German Adsorption Society*, Frankfurt, Germany (2021)..

I39. B. Coasne, Adsorption et transport de fluides dans des angstropores, *Rencontres Francophones de l'Association Française de l'Adsorption*, France (2021). Visioconference.

I38. B. Coasne, Fluid adsorption and diffusion in nanoporous materials, *US DOE Res. Center for Enhanced Nanofluidics Transport*, MIT, Boston, USA (2021). Visioconference.

I37. B. Coasne, Fluid adsorption and diffusion in nanoporous materials, *2021 Biot-Bazant Conferenc eon Engineering Mechanics and Physics of Porous Materials*, Northwestern University, Chicago, USA (2021). Visioconference.

I36. B. Coasne, Fluid adsorption and diffusion in nanoporous materials, *APS March Meeting*, USA (2021). Visioconference.

I35. B. Coasne, Adsorption and diffusion in porous materials, *10h International Symposium on Heat Transfer*, Beijing, China (2020). Postponed 2022 due to COVID-19.

I34. B. Coasne, Adsorption and diffusion in porous materials, *8th Workshop* NIMS-UR1-CNRS-SG, Tsukuba, Japan (2019).

I33. B. Coasne, Multiscale adsorption and transport in porous materials, *Workshop Modèles cinétiques pour les milieux poreux*, Bordeaux, France (2019).

I32. B. Coasne, Atom-scale simulation of adsorption and transport in nanoporous media (keynote), *Symposium on Acoustics of Nanoporous Materials*, Salford University, Manchester, UK (2019).

I31. B. Coasne, Multiscale adsorption and transport in porous materials, *Colloque Matériaux poreux: Synthèse, Propriétés, Applications*, College de France, Paris, France (2019).

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I30. B. Coasne, Hydrocarbon adsorption and transport in realistic molecular model of kerogen's structure, *2018 MRS International Materials Research Congress*, Cancun, Mexico (2018).

I29. B. Coasne, Adsorption et transport dans les milieux nanoporeux, *Journées de la Matière Condensée 2018*, Molecular liquids under micro/mesoporous confinement, Grenoble, France (2018).

I28. B. Coasne, Realistic molecular model of kerogen in gas shales: hydrocarbon adsorption and transport (keynote 30'), *Materiaux 2018 – Symposium Matériaux Carbonés*, Strasbourg, France (2018).

I27. B. Coasne, Desorption: drying at the nanoscale?, *The Physics of Drying*, Marne-La-Vallée, France (2018).

I26. B. Coasne, Molecular Approach to Adsorption in Multiscale Porous Materials, *1st International GFZ edition*, Cabourg, France (2018).

I25. B. Coasne, Oversolubility effects in nanoconfined solvents, *2018 MRS International Materials Research Congress*, Cancun, Mexico (2018).

I24. B. Coasne, Modeling Adsorption and Transport in Multiscale Porous Materials, *Materials, Characterization, Catalysis*, Zurich, Switzerland (2018).

I23. B. Coasne, Adsorption and Transport in Multiscale Porous Materials, *American Institute of Chemical Enginers*, Minneapolis, MN, USA (2017).

I22. B. Coasne, Poroelastic Theory Applied to the Adsorption-Induced Deformation of Vitreous Silica (plenary talk), *6th Biot Conference on Poromechanics*, Paris, France (2017).

I21. B. Coasne, Molecular Modeling of Porous Materials: Structure, Texture and Adsorption Properties, *Energy Materials Nanotechnology Mesoporous Materials*, Prague, Czech Republic (2016).

I20. B. Coasne, Adsorption and Transport in Multiscale Porous Media, *Multiscale high-performance computational modelling*, EMPA Topical Day, Zurich, Switzerland (2015).

I19. B. Coasne, Atom-scale modelling of elastic and failure properties of clays and clay/organic hybrid materials, *Reactive Force Fields: From Development and Implementation to Applications*, RSC Faraday Division and CCP5, Manchester, UK (2015).

I18. B. Coasne, Adsorption and transport in hierarchical porous materials, *Fourth Workshop on Zeolites: Prospects & Challenges*, Caen, France (2015).

I17. B. Coasne, Multiscale adsorption and transport in porous materials, *6th International Symposium "Advanced microporous and mesoporous materials"*, Black Sea Coast, Bulgaria (2015).

I16. B. Coasne, Adsorption and transport in multiscale porous materials, *CECAM Workshop "Simulation of systems under thermodynamic-like gradients"*, Zaragoza, Spain (2015).

I15. B. Coasne, Adsorption and transport in multiscale porous materials, *Workshop MultiScale Porous Materials*, San Sebastian, Spain (2014).

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I14. B. Coasne, Molecular modeling of Amorphous Porous Materials, *European Research Materials Society – Fall Meeting*, Warsaw, Poland (2014).

I13. B. Coasne, Adsorption and Transport in Hierarchical Zeolites: The view from the NanoScale, *1st International Symposium on Energy Challenges and Mechanics*, Aberdeen, Scotland (2014).

I12. B. Coasne, A bottom-up model of adsorption and transport in multiscale porous media, *American Society of Mechanical Engineering Annual Meeting*, Montreal, Canada (2014).

I11. B. Coasne, Crystallization in porous materials: the view from the nanoscale, *4th International Workshop on Crystallization in Porous Media*, Amsterdam, Netherlands (2014).

I10. B. Coasne, Chemistry of interfaces between inorganic minerals and porous carbons: implications for the mechanical properties of gas shale, *Society of Engineering Science and American Society of Mechanical Engineering Annual Meetings*, Providence, RI, USA (2013).

I9. **B. Coasne**, "Adsorption, intrusion, and freezing in porous silica: the view from the nanoscale". *3rd International Conference on Nanotek (Nanotek 2013)*, Las Vegas, NV, USA.

I8. **B. Coasne**, "Pressure effects in nanoconfined phases". *5th Biot Conference on Poromechanics*, Vienna, Austria (2013).

I7. **B. Coasne**, "Adsorption and transport in hierarchical zeolites: the view from the nanoscale". *2nd Worskshop on Zeolites*, Caen, France (2013).

I6. B. Coasne, Adsorption and dynamics of ions confined in nanopores: from simple ions to ionic liquids, *CECAM Workshop on Aging of Materials*, Zurich, Switzerland (2012).

I5. **B. Coasne**, "Surface chemistry and performance of carbon materials". *Surface Chemistry and Performance of Carbon materials*, Budapest, Hungary (2012).

I4. **B. Coasne**, "Adsorption and dynamics of water and ions in nanopores". *32nd International Conference on Solution Chemistry*, La Grande Motte, France (2011).

I3. **B. Coasne**, "Simulation moléculaire de l'adsorption et confinement de fluides dans des adsorbants microporeux et mesoporeux". *26e Réunion du Groupe Français des Zéolithes*, Presqu'ile de Giens, France (2010).

I2. B. Coasne, "Development of realistic models of MCM-41 materials for gas adsorption studies". *CECAM Workshop on Surfactant Templated Porous Materials: Synthesis and Characterisation*, Zurich, Switzerland (2008).

I1. B. Coasne, "Transition de phase dans des matériaux nanoporeux". *Matériaux Hybrides Organisés Multifonctionnels (HMOM)*, La Grande Motte, France (2006).

5. Oral communications in conferences (171)

O171. A. Schlaich, D. Jin, L. Bocquet, B. Coasne, Wetting and phase transitions of ionic liquids at metal surfaces: Elec-tronic screening using a virtual Thomas–Fermi, *Fundamentals of Adsorption 14*, Broomfield, CO, USA (2022).

O170. B. Coasne, Confinement de fluides dans des matériaux nanoporeux, *Journée des utilisateurs GRICAD*, Grenoble, France (2021).

O169. M. Chen, B. Coasne, R. Guyer, D. Derome, J. Carmeliet, Where lies hysteresis in materials undergoing sorption-induced swelling?, *POROTEC*, Germany (2019).

O168. A. Gossard, B. Coasne, M. Nidal Ben Abdelouahab, P. Coussot, Drying thanks to nano-films?, *INTERPORE* 2019, Valencia, Spain (2019).

O167. A. Schlaich, B. Coasne, Coupling of Adsorption and Transport in Hierachical Porous Materials, *INTERPORE* 2019, Valencia, Spain (2019).

O166. M. Bah, E. D. Manga, P. da Costa, M. Drobek, A. Ayral, G. Despaux, E. Le Clezio, A. Julbe, B. Coasne, Acoustic Footprint of Gas Permeation through Porous Materials, *Groupe Français des Zéolithes* 2019, Ile de Porquerolles, France (2019).

O165. D. Jin, B. Coasne, Phase Stability and Formation Kinetics of Methane Hydrate in Nanoporous Media, *Fundamentals of Asdorption* 2019, Cairns, Australia (2019).

O164. Z. Zaafouri, B. Coasne, G. Batot, C. Nieto-Draghi and D. Bauer, TRT-Lattice Boltzmann simulation of transport and adsorption in porous media, *14th World Congress in Computational Mechanics (WCCM)*, Paris, France (2019).

O163. I. C. Medeiros-Costa, C. Laroche, J. Perez-Pellitero, B. Coasne, Advanced characterization of hierarchical zeolites for optimal xylene separation, *Materials, Characterization, and Catalysis Workshop*, Zurich, Switzerland (2018).

O162. B. Coasne, Transport as a tool to characterize multiscale porous media, *8th International Workshop on Characterization of Porous Materials: From Ångströms to Millimeters*, Delray Beach, FL (2018).

O161. M. Bah, E.D. Manga, M. Drobek, E. Le Clezio, G. Despaux, P. Da Costa, A. Ayral, B. Coasne, A. Julbe, Acoustic emission monitoring: A novel diagnostic tool for characterization of porous ceramic membranes during gas permeation, Keynote Oral presentation, *15th International Conference on Inorganic Membranes*, Dresden, Germany (2018).

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C54. M. Manko, W. Makowski, **B. Coasne**, A. Galarneau, Thermodesorption as a new tool to characterize hierarchical micro/mesoporous materials, *27e Reunion du Groupe Francais des Zeolites*, Areches, France (2011).

C53. M. Manko, W. Makowski, **B. Coasne**, A. Galarneau, Thermodesorption as a new tool to characterize hierarchical micro/mesoporous materials, *5th international FEZA conference*, Valencia, Spain (2011).

C52. Y. Long, J. C. Palmer, B. Coasne, M. Sliwinska-Bartkowiak, K. E. Gubbins, Under pressure: quasi-high pressure effects in nanopores, *9th international symposium on the characterization of porous solids*, Dresden, Germany (2011).

C51. B. Coasne, L. Viau, A. Vioux, Structure and dynamics of ionic liquids entrapped in nanoporous silica, *4h Congress on Ionic Liquids (COIL)*, Washington DC, USA (2011).

C50. P. Bonnaud, **B. Coasne**, P. Levitz, R. J. M. Pellenq, "Dynamics of water in hydroxylated and calcium silica nanopores". *4th International Workshop on Dynamics in Confinement*, Grenoble, France (2010).

C49. P. A. Cazade, J. Dweik, **B. Coasne**, F. Henn, J. Palmeri, "Structure and dynamics of electrolyte solution in nanopores". *4th International Workshop on Dynamics in Confinement*, Grenoble, France (2010).

C48. B. Coasne, L. Viau, A. Vioux, "Ionic liquids confined in nanoporous silica". *8th Liblice Conference on the Statistical Mechanics of Liquids*, Brno, Czech Republic (2010).

C47. P. Bonnaud, P. A. Cazade, **B. Coasne**, P. Levitz, R. J. M. Pellenq, "Dynamics of water and electrolytes in hydrophilic and hydrophobic pores". *8th Liblice Conference on the Statistical Mechanics of Liquids*, Brno, Czech Republic (2010).

C46. I. Aydogdu, **B. Coasne**, A. Galarneau, R. J. M. Pellenq, F. Di Renzo, "Mercury intrusion in ordered and disordered porous silicas". *10th International Conference on Fundamentals of Adsorption*, Awaji Hyogo, Japan (2010).

C45. P. Bonnaud, **B. Coasne**, R. J. M. Pellenq, "Freezing of a molecular or electrolyte film on a mesopore surface". *10th International Conference on Fundamentals of Adsorption*, Awaji Hyogo, Japan (2010).

C44. P. Billemont, **B. Coasne**, G. De Weireld, "Confinement of CO2 and CH4 in nanoporous carbons in presence of water". *10th International Conference on Fundamentals of Adsorption*, Awaji Hyogo, Japan (2010).

C43. C. Abrioux, **B. Coasne**, F. Henn, G. Maurin, "Dynamique de l'eau et des cations dans des Faujasites". *25e Réunion du Groupe Français des Zéolithes*, La Porte des Isles, France (2009).

C42. B. Coasne, A. Mezy, R. J. M. Pellenq, D. Ravot, J. C. Tedenac, "Zinc Oxide Nanostructures Confined in Porous Silicas". *5th Pacific Basin Conference on Adsorption Science and Technology*, Singapore (2009).

C41. B. Coasne, C. Alba-Simionesco, F. Audonnet, G. Dosseh, K. E. Gubbins, "Adsorption and Freezing of Benzène on Silica Surfaces and Nanopores". *7th International Symposium Effects of Surface Heterogeneity in Adsorption and Catalysis on Solids*, Kazimierz Dolny, Poland (2009).

C40. B. Coasne, D. Horlait, A. Mezy, D. Ravot, J. C. Tedenac, "Molecular Modeling of Semiconductor Nanostructures Obtained Within Carbon Nanotubes". *Carbon'09: The Annual World Conference on Carbon*, Biarritz, France (2009).

C39. P. A. Cazade, J. Dweik, **B. Coasne**, F. Henn, J. Palmeri, "Dynamics of electrolyte solutions confined in nanopores". *Diffusion Fundamentals III: Basic principles of theory, experiment and application*, Athens, Greece (2009).

C38. B. Coasne, K. E. Gubbins, "A simple Microscopic Model to Predict the Phase Diagram of Materials Confined in Nanopores". *JEEP XXXIV: Journées d'études des équilibres entre phases*, Marrakech, Maroc (2008).

C37. C. Abrioux, **B. Coasne**, G. Maurin, F. Henn, "Self-diffusivity of water in Faujasites NaY56 and NaX96: A molecular Dynamics study". *8th international symposium on the characterization of porous solids*, Edinburgh, Scotland (2008).

C36. B. Coasne, C. Alba-Simionesco, F. Audonnet, G. Dosseh, K. E. Gubbins, "Adsorption and freezing of benzene on silica surfaces and nanopores". *8th international symposium on the characterization of porous solids*, Edinburgh, Scotland (2008).

C35. R. J. M. Pellenq, **B. Coasne**, "A unifying approach to capillary condensation and evaporation in nanopores". *8th international symposium on the characterization of porous solids*, Edinburgh, Scotland (2008).

C34. B. Coasne, A. Galarneau, F. Di Renzo, R. J. M. Pellenq, "Adsorption and intrusion of fluids in regular and defective nanopores". *8th international symposium on the characterization of porous solids*, Edinburgh, Scotland (2008).

C33. J. Czwartos, M. Sliwinska-Bartkowiak, **B. Coasne**, K. E. Gubbins, "Freezing of mixtures confined in silica nanopores: Experiment and molecular simulation". *8th international symposium on the characterization of porous solids*, Edinburgh, Scotland (2008).

C32. J. Dweik, **B. Coasne**, F. Henn, J. Palmeri, "Ion transport at the water/air and water/nanopore interfaces". 7th Liquid Matter Conference, Lund, Sweden (2008).

C31. B. Coasne, C. Alba-Simionesco, F. Audonnet, G. Dosseh, K .E. Gubbins, "Adsorption and Freezing of Benzene on Silica Surfaces and Nanopores". 7th Liquid Matter Conference, Lund, Sweden (2008).

C30. C. Abrioux, A. Nicolas, **B. Coasne**, S. Devautour, F. Henn, G. Maurin, A. Boutin, A. Di Lella, C. Nieto-Draghi, A. H. Fuchs, "Molecular simulation and experiment of cations in zeolite upon water adsorption". 4th FEZA Conference, Paris, France (2008).

C29. J. Czwartos, M. Sliwinska-Bartkowiak, **B. Coasne**, K. E. Gubbins, "Confinement effect on melting of mixtures in activated carbon fibers and silica glasses: Experiment and molecular simulation". *E-MRS 2008 Spring meeting*, Strasbourg, France (2008).

C28. B. Coasne, A. Mezy, R. J. M. Pellenq, D. Ravot, J. C. Tedenac, "Molecular modeling of the thermodynamic stability of ZnO nanostructures obtained within porous materials". *Inorganic Materials Conference*, Dresden, Germany (2008).

C27. C. Abrioux, A. Nicolas, **B. Coasne**, S. Devautour, F. Henn, G. Maurin, A. Boutin, A. Di Lella, C. Nieto-Draghi, A. H. Fuchs, "Molecular simulation and experiment of cations in zeolite upon water adsorption". *11e Journées de la Matière Condensée*, Strasbourg, France (2008).

C26. A. Mezy, **B. Coasne**, F. Henn, R. J. M. Pellenq, D. Ravot, J. C. Tedenac, "Thermodynamical stability of ZnO nanostructures obtained within porous materials : Experiment and molecular simulation". *JEEP XXXIII: Journées d'études des équilibres entre phases*, Lyon, France (2007).

C25. N. Fekkar-Nemmiche, S. Devautour-Vinot, P. Gaveau, G. Silly, **B. Coasne**, F. Henn, A. Mehdi, C. Reye, R. Corriu, "Adsorption of water in functionalized SBA-15 probed by NMR and conductivity measurements". *9th International Conference on Fundamentals of Adsorption*, Giardini Naxos, Sicily – Italy (2007).

C24. F. R. Hung, **B. Coasne**, S. Bhattacharya, M. Thommes, K. E. Gubbins, "Krypton adsorption on mesoporous silica: A combined simulation and experimental approach". *9th International Conference on Fundamentals of Adsorption*, Giardini Naxos, Sicily – Italy (2007).

C23. C. Abrioux, **B. Coasne**, G. Maurin, J. C. Giuntini, F. Henn, A. Boutin, A. H. Fuchs, C. Nieto-Draghi, "Influence du potentiel interatomique sur la distribution cationique dans les zéolithes de type Faujasite". *23e Réunion du Groupe Français des Zéolithes*, La Grande Motte, France (2007).

C22. N. Bibent, N. Fekkar-Nemmiche, S. Devautour-Vinot, G. Silly, P. Gaveau, **B. Coasne**, F. Henn, R. Mouawia, A. Mehdi, C. Reye, R. J. P. Corriu, "Mobilité des charges ioniques dans des silices mésoporeuses fonctionnalisées sous l'influence d'adsorption d'eau". *23e Réunion du Groupe Français des Zéolithes*, La Grande Motte, France (2007).

C21. A. Mezy, **B. Coasne**, F. Henn, R. J. M. Pellenq, D. Ravot, J. C. Tedenac, "Nanostructures ZnO obtenues dans des matériaux nanoporeux : Expérience et simulation moléculaire". *23e Réunion du Groupe Français des Zéolithes*, La Grande Motte, France (2007).

C20. B. Coasne, A. Mezy, F. Henn, R. J. M. Pellenq, D. Ravot, J. C. Tedenac, "Atomistic simulation of ZnO nanostructures prepared in mesoporous materials". *15th International Zeolite Conference*, Beijing, China (2007).

C19. N. Fekkar-Nemmiche, S. Devautour-Vinot, G. Silly, **B. Coasne**, F. Henn, A. Mehdi, C. Reye, R. Corriu, "Water confined in functionalized SBA-15 probed by NMR and conductivity measurements". *15th International Zeolite Conference*, Beijing, China (2007).

C18. C. Abrioux, **B. Coasne**, G. Maurin, A. Boutin, J. C. Giuntini, A. H. Fuchs, F. Henn, P. Ungerer, "Influence of the cation/zeolite interatomic potentials on the cation distribution in faujasites". *15th International Zeolite Conference*, Beijing, China (2007).

C17. R. J. M. Pellenq, **B. Coasne**, "Effect of pore morphology and topology on adsorption and capillary condensation in nanopores". *Thermodynamics 2007*, Rueil-Malmaison, France (2007).

C16. B. Coasne, F. Di Renzo, A. Galarneau, "Adsorption et Condensation dans des silices mésoporeuses MCM-41, MCM-48 et SBA-15". *22e Réunion du Groupe Français des Zéolithes*, La Rochelle, France (2006).

C15. A. Galarneau, B. Lefèvre, H. Cambon, **B. Coasne**, S. Valange, Z. Gabelica, J. P. Bellat, F. Di Renzo, "La Taille des pores des silices mésoporeuses par adsorption d'azote et pénétration de mercure". *22e Réunion du Groupe Français des Zéolithes*, La Rochelle, France (2006).

C14. S. Devautour-Vinot, **B. Coasne**, N. Fekkar-Nemmiche, F. Henn, A. Mehdi, C. Reye, R. Corriu, "Dielectric Specroscopy to probe adsorption and confinement effect in functionalised mesoporous silica". *3rd International Workshop on Dynamics in Confinement*, Grenoble, France (2006).

C13. R. J. –M. Pellenq, **B. Coasne**, R. O. Denoyel, J. Puibasset, "A theoretical and molecular simulation study on the effect of pore morphology and topology on capillary condensation in nanopores". *3rd International Workshop on Dynamics in Confinement*, Grenoble, France (2006).

C12. S. Bhattacharya, **B. Coasne**, F. R. Hung, K. E. Gubbins, "A molecular simulation study of gas adsorption in nanoporous silica". *7th Liblice Conference on Statistical Mechanics of Liquids*, Lednice, Czech Republic (2006).

C11. B. Coasne, K. E. Gubbins, F. R. Hung, R. J. –M. Pellenq, "Capillary condensation within MCM-41 materials: The role of surface disorder". *7th Liblice Conference on Statistical Mechanics of Liquids*, Lednice, Czech Republic (2006).

C10. N. Fekkar-Nemmiche, S. Devautour-Vinot, **B. Coasne**, F. Henn, A. Mehdi, C. Reye, R. Corriu, "Water dynamics in silica nanopores from conductivity measurements: Effect of the surface chemistry". *9th International Conference on Dielectric and Related Phenomena*, Poznan, Poland (2006).

C9. B. Ratajczak, M. Sliwinska-Bartkowiak, **B. Coasne**, K. E. Gubbins, "Apparent critical point in binary mixtures: Experimental and simulation study". *US – Poland Workshop on Nanoscience and Nano-Structured Materials*, Poznan, Poland (2006).

C8. B. Ratajczak, **B. Coasne**, M. Sliwinska-Bartkowiak, "Apparent critical point in binary mixtures m-nitrotoluene with n-alkanes: Experimental and simulation study". *9th International Conference on Dielectric and Related Phenomena*, Poznan, Poland (2006).

C7. M. sliwinska-Bartkowiak, M. Jazdzewska, F. R. Hung, **B. Coasne**, K. E. Gubbins, "Freezing of CCl_4 within carbon nanotubes: a combined experimental and simulation approach". *Thermodynamics 2005*, Sesimbra, Portugal (2005).

C6. B. Coasne, J. Czwartos, K. E. Gubbins, F. R. Hung, M. Sliwinska-Bartkowiak, "Confinement Effect on Freezing of Binary Mixtures". *7th international symposium on the characterization of porous solids*, Aix-en-Provence, France (2005).

C5. S. Bhattacharya, **B. Coasne**, F. R. Hung, K. E. Gubbins, "Modeling and Characterization of Triblock Surfactant Templated Mesoporous Silicas". *7th international symposium on the characterization of porous solids*, Aix-en-Provence, France (2005).

C4. G. Maurin, **B. Coasne**, A. Nicolas, S. Devautour-Vinot, J. C. Giuntini, F. Henn, "Effect of water adsorption on thermodynamics and dynamics of the extra-framework cations in zeolite systems". *Diffusion Fundamentals: Experiment and Application*, Leipzig, Germany (2005).

C3. F. R. Hung, **B. Coasne**, K. E. Gubbins, F. R. Siperstein, M. Sliwinska-Bartkowiak, "Effect of confinement on freezing in cylindrical pores". *8th International Conference on Fundamentals of Adsorption*, Sedona, USA (2004).

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C2. B. Coasne, A. Grosman, C. Ortega, "Study of capillary condensation hysteresis in mesoscopic pores: Comparison between adsorption in P + type porous silicon and adsorption in SBA". *6th international symposium on the characterization of porous solids*, Alicante, Spain (2002).

C1. B. Coasne, A. Grosman, N. Dupont-Pavlovsky, C. Ortega, M. Simon, "Adsorption in an ordered and non-interconnected mesoporous material: Single crystal silicon". *International discussion meeting on Physical Chemistry in Confining Geometries*, Berlin, Germany (2000).

7. Seminars, practical schools (77)

S77. B. Coasne, Adsorption et transport de fluides dans des matériaux nanoporeux, *Séminaire donné dans le cadre de la Chaire Innovation du Collège de France (Pr. Lydéric Bocquet)*, Collège de France, Paris, France (2023).

S76. B. Coasne, Adsorption and transport in nanoporous materials, *TOTAL Energies*, Pau, France (2022).

S75. B. Coasne, Transport dans les matériaux poreux: de l'échelle nanométrique au milieu continu, *TEC21*, Grenoble, France (2022).

S74. "Fluid Adsorption and Transport in Nanoporous Materials", *Manchester University*, Manchester, UK (March 01, 2021). On-line seminar due to COVID-19.

S73. "Fluid Adsorption and Transport in Nanoporous Materials", *Univ. Caen/ENSICAEN*, Caen, France (Feb. 02, 2021).

S72. "Adsorption and Transport in Subnanoporous Media: Theory and Molecular Modeling", *ETH Zurich*, Zurich, Switzerland (February 18, 2020).

S71. "Adsorption and Transport in Multiscale Porous Media", *Oslo University*, Oslo, Norway (August 29, 2019).

S70. "Physique des Gaz de Schiste: Une Vision Moléculaire", *Université François Rabelais de Tours*, Tours, France (March 22, 2018).

S69. "Adsorption and Transport in Multiscale Porous Media", *Université Franche Comté*, Besançon, France (February 12, 2018).

S68. "Adsorption dans les matériaux poreux multiéchelles", *Institut de Chimie et des Matériaux de Paris Est*, Thiais, France (January 13, 2017).

S67. "Adsorption and Transport in Multiscale Porous Media", *Freie Universitat*, Berlin, Germany (February 15, 2017).

S66. "Adsorption and Transport in Multiscale Porous Media", *Laboratoire Charles Coulomb*, Montpellier, France (April 18, 2017).

S65. "Adsorption and Transport in Multiscale Porous Media", *New Jersey Institute of Technology*, Newark, NJ, USA (November 06, 2017).

S64. "Adsorption et transport multiéchelles dans les matériaux poreux", *Science et Ingénierie des Matériaux et Procédés*, Grenoble, France (March 24, 2016).

S63. "Adsorption et transport multiéchelles dans les matériaux poreux", *Institut de Physique de Rennes*, Rennes, France (June 06, 2016).

S62. "Adsorption and transport in multiscale porous materials", *IFPEN Rueil Malmaison*, Rueil Malmaison, France (September 22, 2016).

S61. "Adsorption and condensation in porous materials : The view from the nanoscale", *ST Microelectronics*, Crolles-Grenoble, France (October 05, 2016).

S60. "Adsorption and Transport in Multiscale Porous Media", *Montanuniversitaet Leoben*, Leoben, Austria (December 12, 2016).

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S59. "Adsorption et transport multiéchelles dans les solides poreux", *Saint Gobain CREE*, Cavaillon, France (February 12, 2015).

S58. "Multiscale Adsorption and Transport in Porous Media", *IBM Almaden Research Center*, San Jose, CA, USA (June 16, 2015).

S57. "Caractérisation des milieux poreux", *Saint Gobain CREE*, Cavaillon, France (October 02, 2015).

S56. "Freezing in porous materials: the view from the nanoscale", Heriot-Watt University, School of Engineering and Physical Sciences, Edinburgh, Scotland, UK (Janvier 15, 2014).

S55. "Adsorption and transport in porous materials: the view from the nanoscale", Gaztransport & Technigaz, Paris, France (May 12, 2014).

S54. "Adsorption and freezing in porous media: the view from the nanoscale", *3rd Practical Summer School of Labex Chemisyst – Fondation Balard*, Montpellier, France (Sep. 17-19, 2014).

S53. "Adsorption et transport dans les solides poreux hierarchises", *IFP – Energies Nouvelles*, Solaize, France (Sep. 26, 2014).

S52. "Adsorption et transport dans les solides poreux hierarchises", *Laboratoire de Physique Interdisciplinaire de Physique (LIPHY)*, Universite Joseph Fourier, Grenoble, France (Oct. 02, 2014).

S51. "Multiscale Modeling of Amorphous Porous Materials", *Workshop « Materials Modeling »*, Institut Physique Chimie des Matériaux de Strasbourg, Université Strasbroug, France (Oct. 03, 2014).

S50. "Adsorption and transport of simple fluids and ionic liquids in porous media", *Laboratoire Leon Brillouin*, CNRS et CEA Saclay, France (Dec. 10, 2014).

S49. "Adsorption and transport in porous materials", *ETH - EMPA*, Zurich, Switzerland (May 08, 2013).

S48. " Adsorption and transport in porous materials", *CEA Bruyeres le Chatel*, Arpajon, France (June 03, 2013).

S47. "Molecular simulation of adsorption and dynamics in nanopores", *2nd Practical Summer School of Labex Chemisyst – Fondation Balard*, Montpellier, France (Jul 04, 2013).

S46. "Approche moléculaire de l'adsorption et du transport dans des matériaux poreux", Saint Gobain CREE, Cavaillon, France (September 25, 2013).

S45. "Adsorption et transport dans les matériaux poreux hiérarchisés", LASIR, Lille, France (September 26, 2013).

S44. "Freezing in porous materials: the view from the nanoscale", Princeton University, Civil and Environmental Engineering, Princeton, NJ, USA (October 07, 2013).

S43. "Molecular simulation of adsorption and dynamics in nanoporous solids", ETH - EMPA, Zurich, Switzerland (January 20, 2012).

S42. "High pressure effects in nanoconfined phases", Laboratoire Charles Coulomb (L_2C), Montpellier, France (February 20, 2012).

S41. "High pressure effects in nanoconfined phases", Laboratoire Physicochimie des Electrolytes, Colloïdes et Sciences Analytiques (PECSA), Université Pierre et Marie Curie, France (April 24, 2012).

S40. "Simulation et modélisation de la dynamique et du transport dans des nanomembranes", Journées Avenir de la fillière membranaire en Languedoc-Roussillon, Pole de Compétitivité TRIMATEC Languedoc-Roussillon, France (April 26, 2012).

S39. "High pressure effects in nanoconfined phases", Département de Chimie, Ecole Normale Supérieure de Lyon, France (June 01, 2012).

S38. "High pressure effects in nanoconfined phases", Institut Physique Chimie des Matériaux de Strasbourg, Université Strasbroug, France (June 28, 2012).

S37. "Molecular simulation of adsorption and dynamics of solvents and ions in nanopores", *1st Practical Summer School of Labex Chemisyst – Fondation Balard*, Montpellier/Cevennes, France (2012).

S36. "Simulation de l'adsorption et de la diffusion de molécules dans des solides poreux", Institut de Science des Matériaux de Mulhouse, Mulhouse, France (April 28, 2011).

S35. "Apport de la modélisation moléculaire à l'étude des matériaux", Journée Scientifique Pole Chimie Balard / Saint Gobain, Montpellier, France (Juin 24, 2011).

S34. "Adsorption and dynamics of water and ions confined in nanopores", *6th European Practical School of Separation and Analytical Chemistry of Marcoule*, Marcoule, France (July 2011).

S33. "Modelisation moleculaire multi-échelle des matériaux: propriétés physiques, chimiques et structurales", Saint Gobain CREE, Cavaillon, France (September 09, 2011).

S32. "Le gel de l'eau dans les mésopores du ciment", *Ecole thématique Physique, Chimie et Mécanique des matériaux cimentaires*, La Grande Motte, France (2011).

S31. "Apport de la simulation moléculaire à l'étude des solides poreux", Institut de Recherches sur la Catalyse et l'Environnement (IRCELyon), Lyon, France (April 26, 2010)

S30. "Apport de la simulation moléculaire à l'étude des solides poreux", Laboratoire de Chimie de la Matière Condensée de Paris, Paris, France (May 19, 2010)

S29. "Théorie et modélisation moléculaire: de la molécule au matériau en passant par les architectures moléculaires", *Journée d'échange scientifique entre l'ICGM et l'ICSM*, Marcoule, France (2010).

S28. "Adsorption, freezing and dynamics of fluids confined in nanoporous materials", Department of Chemistry and Biochemistry, University of Maryland, College Park, MD, USA (October 12, 2010)

S27. "Apport de la modélisation moléculaire aux sciences des matériaux", Saint Gobain CREE, Cavaillon, France (July 02, 2009).

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S26. Theory and molecular modeling of transport in nanoporous membranes, *4th European Practical School of Separation Chemistry*, Marcoule, France (2009).

S25. Théorie et modélisation moléculaire: de la molécule au matériau en passant par les architectures moléculaires, *Conseil Scientifique de l'Institut Charles Gerhart Montpellier*, Montpellier, France (2009).

S24. "Modélisation moléculaire de l'adsorption, intrusion, structure et dynamique de fluides dans des nanopores", Faculté Polytechnique de Mons, Mons, Belgique (November 17, 2009).

S23. "Adsorption et dynamique de liquides complexes confinés dans des nanopores", Centre Interdisciplinaire des Nanosciences de Marseille, Marseille, France (November 24, 2009)

S22. "Freezing in nanoporous materials", Department of Chemical and Biomolecular Engineering, North Carolina State University, Raleigh, NC, USA (December 05, 2008).

S21. "Solidification et structure de fluides confinés dans des nanopores", Laboratoire de Physique Théorique, CNRS - Université Paul Sabatier/Toulouse (February 20, 2007).

S20. "Modélisation moléculaire de l'adsorption et intrusion de fluides dans un milieu nanoporeux", Matériaux Divisés, Revêtements, ELectrocéramiques MADIREL, CNRS - Université de Provence (October 11, 2007).

S19. "Modélisation moléculaire de l'adsorption et intrusion de fluides dans un milieu nanoporeux", Laboratoire de Physique de la Matière Condensée et Nanostructures, CNRS – Université Claude Bernard Lyon I (October 12, 2007).

S18. "Molecular modeling of adsorption and intrusion in nanoporous materials", Institute of Physics, Adam Mickiewicz University, Poznan, Poland (October 17, 2007).

S17. "Molecular modeling of adsorption and intrusion in nanoporous materials", Institute of Chemistry, Stranski Laboratory of Physical and Theoretical Chemistry, Technische Universitat Berlin, Berlin, Germany (December 11, 2007).

S16. "Transitions de phase de fluides confinés dans des matériaux nanoporeux", Laboratoire de Chimie Physique, CNRS - Université de Paris-Sud Orsay (January 13, 2006).

S15. "Transitions de phase de fluides confinés dans des matériaux nanoporeux", Séminaire Ecole doctorale, CNRS - Université Montpellier 2 (January 19, 2006).

S14. "Cristallisation dans un milieu poreux", Workshop sur la cristallisation en milieu confiné, Centre de Recherche en Matière Condensée et Nanosciences, CNRS – Marseille (September 08, 2006).

S13. "Transitions de phase de fluides confinés dans des matériaux nanoporeux", Laboratoire des Colloides, Verres et Nanomatériaux, CNRS - Université Montpellier 2 (November 09, 2006).

S12. "Molecular simulation of phase transitions in nanoporous materials", Institute of Organic Chemistry and Biochemistry, Center for Complex Molecular Systems and Biomolecules, Prague, Czech Republic (September 17, 2005).

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S11. "Molecular simulation of phase transitions in nanoporous materials", Institute of Physics, Adam Mickiewicz University, Poznan, Poland (September 23, 2005).

S10. "Etude expérimentale et par simulation moléculaire des transitions de phase dans un milieu nanoporeux", Laboratoire de Chimie de l'école normale supérieure de Lyon (December 09, 2003).

S9. "Etude expérimentale et par simulation moléculaire des transitions de phase dans un milieu nanoporeux", Laboratoire Environnement et Minéralurgie, CNRS/INPL (December 11, 2003).

S8. "Etude expérimentale et par simulation moléculaire des transitions de phase dans un milieu nanoporeux", Laboratoire de Physique Moléculaire, CNRS - Université de Franche Comté (December 12, 2003).

S7. "Etude expérimentale et par simulation moléculaire des transitions de phase dans un milieu nanoporeux", Laboratoire de Physico-chimie de la Matière Condensée, CNRS - Université de Montpellier II (December 15, 2003).

S6. "Etude expérimentale et par simulation moléculaire des transitions de phase dans un milieu nanoporeux", Matériaux Divisés, Revêtements, ELectrocéramiques MADIREL, CNRS - Université de Provence (December 17, 2003).

S5. "Etude expérimentale et par simulation moléculaire des transitions de phase dans un milieu nanoporeux", Laboratoire de Chimie Physique, CNRS - Université de Paris-Sud Orsay (December 18, 2003).

S4. "Etude expérimentale et par simulation moléculaire des transitions de phase dans un milieu nanoporeux", Laboratoire de Physique de la Matière Condensée et Nanostructures, CNRS – Université Claude Bernard Lyon I (December 19, 2003).

S3. "Etude de la physisorption/ condensation de gaz dans un matériau mésoporeux", Centre de Recherche sur la Matière Divisée CRMD, CNRS - Université d'Orléans (June 28, 2002).

S2. "Apport des simulations Monte Carlo dans l'ensemble Grand Canonique à l'étude de la physisorption/condensation de gaz dans un matériau mésoporeux", Laboratoire de Physique Moléculaire, CNRS - Université de Franche Comté (December 10, 2002).

S1. "Adsorption dans des pores non interconnectés ouverts à une ou deux extrémités: origine de l'irréversibilité du phénomène de condensation capillaire", Matériaux Divisés, Revêtements, ELectrocéramiques MADIREL, CNRS - Université de Provence (March 04, 2001).

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