

BPACIFIC BASIN CONFERENCE ON ADSORPTION SCIENCE AND TECHNOLOGY (PBAST 5), SINGAPORE

TENTATIVE PROGRAM (Click on paper number for abstracts)

25 May		
8:45	OPENING	
	KEYNOTE 1 [Auditorium]	
9:00	DOUGLAS M. RUTHVEN	
10:00	COFFEE BREAK	
	FUNDAMENTALS 1 [Auditorium]	CHROMATOGRAPHY [Lecture Theatre]
10:30	6	5
10:50	9	1
11:10	16	107
11:30	20	38
11:50	91	44
12:10	18	14
12:30	30	
	LUNCH	
	PLENARY -1 [Auditorium]	
14:00	24	
14:40	25	
15:20	65	
16:00	COFFEE BREAK	
16:40	POSTER SESSION	

26 May		
	KEYNOTE 2 [Auditorium]	
9:00	MARCO MAZZOTTI	
10:00	COFFEE BREAK	
	FUNDAMENTALS 2 [Auditorium]	ADSORBENTS/ MATERIALS 1 [Lecture Theatre]
10:30	37	3
10:50	83	22
11:10	88	66
11:30	63	39
11:50	92	42
12:10	93	34
12:30	123	10
	LUNCH	
14:00	SOCIAL EVENT DINNER	

27 May		
	KEYNOTE 3 [Auditorium]	
9:00	LI ZHOU	
10:00	COFFEE BREAK	
	FUNDAMENTALS 3 [Auditorium]	ADSORBENTS/ MATERIALS 2 [Lecture Theatre]
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	LUNCH	
	PLENARY -2 [Auditorium]	
14:00	59	
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15:20	36	
16:00	COFFEE BREAK	
	ENVIRON APPLICATIONS	PROCESSES
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List of oral presentations on 25 May 2009

Keynote 1			
09:00	KN1	D.M. Ruthven	Past progress and future challenges in adsorption science and technology
Fundamentals 1			
10:30	6	K.Kaneko, T. Ohba, Y. Tao, C.M.Yang, N.Kojima, Y. Nobuhara, T. Konishi, T. Fujikawa, M.Yudasaka, S. Iijima, and H. Kanoh	Structure of Water Molecular Assemblies and Hydrated Ions in Hydrophobic Nanospaces of Carbon
10:50	9	T.X. Nguyen, J.-S. Bae, Y. Wang and S.K. Bhatia	On the Strength of the H ₂ -Carbon Interaction and Prediction of Adsorption Isotherms of H ₂ and D ₂ in Nanoporous Carbons
11:10	16	B. Coasne, C. Alba-Simionesco, F. Audonnet, G. Dosseh, K.E. Gubbins	Adsorption and Freezing of Benzene on Silica Surfaces and Nanopores
11:30	20	Ravichandar Babarao and Jianwen Jiang	Charged Metal-Organic Framework for Highly Selective Adsorption of Gas Mixtures: A Molecular Simulation Study
11:50	91	Jacek Jagiello and James. P. Olivier	Physical Adsorption in Carbon Pores of Finite Dimensions: Application to Characterization of Porous Carbons.
12:10	18	B. Coasne, A. Galarneau, F. Di Renzo, R. J. M. Pellenq	Intrusion and Retraction of Fluids in Ordered and Disordered Nanopores
12:30	30	Yusuke Takahashi, Hirotaka Fujita, Takao Fujii, Akiyoshi Sakoda, Yuan-Yao Li, Wan-Hua Lin	Preparation of Carbon Nanofibers from Poly(ethylene glycol) with Controlling Their Structure
Chromatography			
10:30	5	Suzhou Li, Yoshiaki Kawajiri, Jörg Raisch,, Andreas Seidel-Morgenstern,	Simulated moving bed chromatography with fractionation and feedback: principle and performance optimization
10:50	1	D. Leinekugel-le-Cocq, C. Laroche, S.P. Afonso and P. Leflaive	Influence of desorbent selectivity on Simulated Moving Bed
11:10	107	Bijan Medi, Mohammad Amanullah	Efficient numerical methods based on finite volume for handling steep fronts in chromatographic separation processes
11:30	38	Shigeharu Katsuo, Christian Langel, Cristian Grossman, Manfred Morari, Massimo Morbidelli, Marco Mazzotti	Optimizing control of Improved Simulated Moving Bed (I-SMB) Process
11:50	44	R. C. R. Rodrigues, R. J. S. Silva, J. P. B. Mota	Robust design and operation of compact two-column SMB process for binary separation
12:10	14	Balamurali Sreedhar , Andreas Seidel-Morgenstern	Stationary phase gradients in preparative chromatographic separation
12:30			
Plenary			
14:00	24	D. D. Do, H. D. Do, D. Nicholson, L. Herrera and A. Wongkoblap	The Role of Accessibility in the Characterization of Porous Solids and Their Adsorption Properties
14:40	25	Suresh K. Bhatia	Mixture Transport in Nanopores: Modelling from First Principles
15:20	65	Joshua D. Moore, Ying-Chun Liu, and Keith E. Gubbins	Transition from Single-File to Fickian Diffusion in Carbon Nanotube Structures

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Keynote 1			
09:00	KN2	M. Mazzotti	The role of adsorption in CO ₂ capture and storage systems
Fundamentals 2			
10:30	37	Isabel A.A.C. Esteves, Fernando J.A.L. Cruz, Sandeep Agnihotri, Erich A. Müller, José P.B. Mota,	Langmuirian Analysis of Sub- and Super-critical Adsorption Data of Gases on Carbon Nanotubes
10:50	83	Jeremy Palmer, Sun-Hwa Yeon, Anna Llobet, Keith Gubbins, John Fischer, Yury Gogotsi	Molecular Modeling and Simulation of Titanium Carbide Derived Carbons
11:10	88	Pierre Martin, Gerhard Pirngruber, Philibert Leflaive, Alain Méthivier, Abdelaziz Faraj, Gino V. Baron, Joeri F.M. Denayer	High-throughput Experimentation for the Adsorption of Alkane/Alkene/Aromatic Mixtures on Faujasites
11:30	63	Kevin F. Loughlin and Reem Amer	Water Isotherm Models for 3A, 4A, 5A and 13X Zeolite
11:50	92	M.Sliwinska-Bartkowiak, M.Jazdzewska, K.E.Gubbins, Liangliang Huang	Melting of Water in Carbon Nanopores
12:10	93	A.P. Guimarães, A. Möller, R. Staudt, D.C.S. Azevedo and C.L. Cavalcante Jr	Influence of CO ₂ co-adsorption on diffusion properties of n-alkanes in silicalite
12:30	123	Huan Cong Huang, Wen Wen Chen, and Sang Kyu Kwak	Characterization of Fluid-Solid Phase Transition of Cylindrically Confined Atomic Fluids
Adsorbents/ Materials 1			
10:30	3	Mykola Seredych, Jakub Lison, Urs Jans and Teresa J. Bandosz	The effect of the porosity and surface acidity of activated carbons on their adsorption capacity and selectivity for highly efficient desulfurization
10:50	22	Zhen Guo, Yu Du, Xianbin Liu, Xiujuan Wang, Yuan Chen, Yanhui Yang	Synthesis and Application of Chiral Mesoporous Silica
11:10	66	Hirofuka Fujita, Takao Fujii, and Akiyoshi Sakoda	Adsorption of Carbon Dioxide on Phase Change Material/Amino-functionalized Mesoporous Silica Composite Adsorbent
11:30	39	Luis F. Herrera (speaker), Duong D. Do	Variation of the PSD and the accessible volume with the ligand in MOF. Comparison between MOF-5, MOF-10 and MOF-16
11:50	42	Chien-Sheng Wu, Jung-Yu Liao, Shun-Yi Fang, Antony S. T. Chiang	Flexible and transparent desiccant coatings containing zeolite
12:10	34	Sarah Couck, Joeri F.M. Denayer, Gino V. Baron, Jorge Gascon, Freek Kapteijn	An Amino-Functionalized MIL-53 Metal Organic Framework with Large Separation Power for CO ₂ and CH ₄
12:30	10	Feng-Chin Wu, RU-LING TSENG, PINH-SUEH WU	High surface area and mesopore activated carbon prepared from unburnt carbon in coal fly ash with NaOH activation and adsorption

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09:00	KN3	L. Zhou	Challenges and opportunities in high pressure adsorption
Fundamentals 3			
10:30	29	Gueudre Laurent , Jolimaitre Elsa, Bats Nicolas, Dong Weï	Diffusion in zeolites : can surface resistance explain discrepancies between intracrystalline self-diffusion coefficients experimental values ?
10:50	41	Hideki Tanaka, Toshihiko Katayama, Naoki Fujiwara, Hirotomo Nishihara, Takashi Kyotani and Minoru Miyahara	Phase behaviors of confined fluids in carbon-coated mesoporous silica
11:10	49	Anjaiah Nalaparaju, X. S. Zhao and Jianwen Jiang	Characterization of Extraframework Ions and Interplay with Nonpolar/Polar Sorbates in Titanosilicate ETS-10: A Molecular Simulation Study
11:30	19	B. Coasne, J. Czwartos, M. Sliwinska-Bartkowiak, K. E. Gubbins	Effect of Pressure on Freezing of Pure Fluids and Mixtures Confined in Nanopores
11:50	64	V. Finsy, L. Alaerts, D. De Vos, G. V. Baron and J. F. M. Denayer	Adsorptive separation of C ₈ alkyl aromatic compounds with MIL-47 and MIL-53 (Al), effect of framework breathing
12:10	26	S. Junpirom, C. Tangsathitkulchai, D.D. Do, M. Tangsathitkulchai	Water vapour adsorption in activated carbon: An application of a new adsorption-desorption model of Do et al.
12:30			
Adsorbents/ Materials 2			
10:30	33	Alexios Harkiolakis, Filip de Clippel, Pierre A. Jacobs, Gino V. Baron, Bert Sels,, and Joeri F.M. Denayer,	Shape Selective Separation of n- and iso-alkanes using Carbon-Silica Composites
10:50	78	Wang-Hua Lin and Yuan-Yao Li	Synthesis of platelet graphite nanofibers and their application in gas sensing
11:10	82	Rahul Kasat, Elias Franses, and N.-H. Linda Wang	Chiral Recognition Mechanisms in Polysaccharides-Based Sorbents
11:30	84	Zhihui Hu, Donghui zhang, Li Zhou	Direct synthesize amine-functionalized mesoporous silica for CO ₂ adsorption
11:50	85	Craig M. Tenney, Trinh D. Tran, and Christian M. Lastoskie; Hirofumi Kanoh and Katsumi Kaneko; Hiroshi Kajiro	Pre- and Post-Combustion Carbon Dioxide Capture Using a Latent Porous Crystalline Copper-Organic Framework Adsorbent
12:10	94	Brad A Wells, Zhijian Liang, Marc Marshall, Alan L Chaffee	Modeling Selective Gas Adsorption in Metal Organic Frameworks
12:30	111	Timothy T.Y. Tan, Laisheng Li, Siu-Choon Ng	Application of Submicron Porous Silica Particles for High Efficiency Enantioseparation in Capillary Electrochromatography (CEC)
Plenary			
14:00	59	Gongkui Xiao, Penny Xiao, Simon Wilson, Ranjeet Singh, Kaustubh Joshi, Alan Chaffee and Paul Webley	Capture of CO ₂ in Pre-Combustion Processes by Pressure Swing Adsorption
14:40	67	Minoru Miyahara and Hideki Tanaka	A New Molecular Simulation Technique for Determining Vapor-Liquid Equilibrium in Nanopores
15:20	36	P. L. Llewellyn , S. Bourrelly , G. Maurin , T. Devic , P. Horcajada , C. Serre , Y.; Filinchuk , G. Férey	Probing the flexibility of MOFs : what are the principle factors that lead to this guest induced flexibility and can these be transposed to mixture adsorption ?

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Environmental applications

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17:00	71	Chun-Chi Chang, Yao-Hui Huang	Phosphate Adsorption and Recovery from an Industrial Wastewater
16:20	81	Kuen-Song Lin, Hao-Wei Cheng, Wen-Ru Chen, and Chian-Fu Wu	Photocatalysis and Adsorptive Removal of BG5 Basic Dyes from Wastewater Using Titania Nanotubes
16:40	104	Michael Angelo Miranda, Dhandapani P., Helen Kalavathy M, Lima Rose Miranda	Activated Ipomoea carnea a biosorbent for the copper sorption from aqueous solution
17:00	105	Anutosh Chakraborty, Bidyut Baran Saha, Kim Choon Ng	On the Thermodynamic Modelling of Specific Surface Area of Porous Adsorbents for Natural Gas Storage
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Processes

16:40	12	Nathalie Casas, Johanna Schell and Marco Mazzotti	Development of an adsorption process for pre-combustion CO ₂ capture
17:00	46	Vemula Rama Rao, Shamsuzzaman Farooq and William Bernard Krantz	Effect of Layering Adsorber with Different Sized Particles on Pulsed Pressure Swing Adsorption Process Performance
16:20	77	R. Pini, G. Storti, M. Mazzotti	CO ₂ storage in coal seams and ECBM recovery: adsorption on dry and wet coal
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Ads Matl	11	Ru-Ling Tseng, Pinh-Sueh Wu; FENG-CHIN WU	High surface area and micropore activated carbon prepared from unburnt carbon in coal fly ash with KOH activation and economic evaluation
Ads Matl	17	B. Coasne, A. Mezy, R. J. M. Pellenq, D. Ravot, J. C. Tedenac	Zinc Oxide Nanostructures Confined in Porous Silicas
Ads Matl	23	Xianbin Liu, Zhen Guo, Saranya Gunasekaran, Yuan Chen, Susanna Su Jan Leong, Yanhui Yang	Monodispersed MCM-41 large particles by modified pseudomorphic transformation: diamine functionalization and application in bioseparation of proteins
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Ads Matl	43	Ru-Ling Tseng, Pinh-Sueh Wu; Feng-Chin Wu	Properties and adsorption of the activated carbon prepared with corncob hull pretreated with sulfuric acid at low temperature and activated with KOH
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Ads Matl	61	Gang Li, Ranjeet K Singh, Liying Liu and Paul A Webley	Surface modification of 13X zeolite beads for CO ₂ capture from humid flue-gas streams
Ads Matl	62	Satoshi Watanabe, Hayato Sugiyama, Hirobumi Adachi, Hideki Tanaka, and Minoru Miyahara	Free Energy Analysis for Adsorption-Induced Lattice Transition of Flexible Coordination Framework
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Ads Matl	80	Kuen-Song Lin, Yu-Hsien Su, Chao-Shuen Chang, and Su-Wei Chiu	Characterization and Hydrogen Storage of Surface-modified Multi-wall Carbon Nanotubes for Fuel Cell Application
Ads Matl	87	Lu Lv, Kean Wang, and George X.S. Zhao	Adsorption of Heavy Metals on Crosslinked Chitosan-Cellulose Hydrogel Beads
Ads Matl	100	Tjie Kok	The Use of Modified Natural Zeolite from Gunung Kidul, Yogyakarta, Indonesia to Reduce The Contamination of Copper, Zinc, and Cadmium in Waste Water of Electroplating Industry
Ads Matl	112	Yunyang Liu, Zhenfu Ng, Easir A. Khan, Chi-bun Ching, Zhiping Lai	Synthesis of MOF Membranes
Ads Matl	124	Man On FU and Xijun HU	A novel adsorbent for sulphur dioxide removal
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Env Apl.	69	Chia-Chi Chang , Yao-Hui Huang	Adsorption of Fluoride Aqueous Solution by Waste Iron Oxide
Env Apl.	70	Fu-Chi Cheng , Yao-Hui Huang	Arsenate adsorption from aqueous solution on waste iron oxide
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Env Apl.	108	V.Jaikumar, V.Ramamurthi	Biosorption of acid dyes by spent brewery grains: Characterization and modeling
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Env Apl.	115	Harish R., Michael Angelo Miranda, Christopher Cyril Sandeep, Lima Rose Miranda	Sorption of patent blue v from aqueous solutions onto organophilic bentonite
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Fundamentals	15	Ravichandar Babarao, Zhongqiao Hu, A. Nalaparaju, X. S. Zhao and Jianwen Jiang	Mechanistic Understanding of Fluids Confined in Nanoporous Materials: From Zeolites, Organic-Zeolites to Bioorganic-Zeolites
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