

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	
9:00	DOUGLAS M. RUTHVEN	
10:00	COFFEE BREAK	
	FUNDAMENTALS 1	CHROMATOGRAPHY
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	LUNCH	
	PLENARY -1	
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16:00	COFFEE BREAK	
16:40	POSTER SESSION	

26 May		
	KEYNOTE 2	
9:00	MARCO MAZZOTTI	
10:00	COFFEE BREAK	
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	LUNCH	
14:00	SOCIAL EVENT DINNER	

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	KEYNOTE 3	
9:00	ZHOU LI	
10:00	COFFEE BREAK	
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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	54	Hyeon-Hui Lee, Kyung-Min Kim and Chang-Ha Lee	"F-ChromaCol" strategy for improving performances of simulated moving bed chromatography
12:30	14	Balamurali Sreedhar a, Andreas Seidel-Morgenstern a,b	Stationary phase gradients in preparative chromatographic separation
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	74	Kazuyuki CHIHARA, Yuki TERAMURA, Shinji TOMITA, Kenta SAITO	Diffusion of Chlorinated Hydrocarbons in High Silica Zeolite investigated by Chromatographic Method and Molecular Dynamics Simulation
10:50	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
11:10	83	Jeremy Palmer, Sun-Hwa Yeon, Anna Llobet, Keith Gubbins, John Fischer, Yury Gogotsi	Molecular Modeling and Simulation of Titanium Carbide Derived Carbons
11:30	88	Pierre Martin ^a , Gerhard Pirngruber ^b , Philibert Leflaive ^b , Alain Méthivier ^b , Abdelaziz Faraj ^c , Gino V. Baron ^a , Joeri F.M. Denayer ^a	High-throughput Experimentation for the Adsorption of Alkane/Alkene/Aromatic Mixtures on Faujasites
11:50	63	Kevin F. Loughlin and Reem Amer	Water Isotherm Models for 3A, 4A, 5A and 13X Zeolite
12:10	92	M.Sliwinska-Bartkowiak, M.Jazdzewska, K.E.Gubbins, Liangliang Huang	Melting of Water in Carbon Nanopores
12:30	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
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	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
11:50	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
12:10	42	Chien-Sheng Wu, Jung-Yu Liao, Shun-Yi Fang, Antony S. T. Chiang	Flexible and transparent desiccant coatings containing zeolite
12:30	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

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10:50	75 Kazuyuki Chihara, Hidenori Nakamura, Yuki Teramura, Yosuke Kaneko	Simulation Study of Multi-Component Gas Adsorption by Chromatographic Method
11:10	41 Hideki Tanaka, Toshihiko Katayama, Naoki Fujiwara, Hirotomo Nishihara, Takashi Kyotani and Minoru Miyahara	Phase behaviors of confined fluids in carbon-coated mesoporous silica
11:30	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
11:50	19 B. Coasne, J. Czwartos, M. Sliwinska-Bartkowiak, K. E. Gubbins	Effect of Pressure on Freezing of Pure Fluids and Mixtures Confined in Nanopores
12:10	64 V. Finsy, L. Alaerts, D. De Vos, G. V. Baron and J. F. M. Denayer	Adsorptive separation of C8 alkyl aromatic compounds with MIL-47 and MIL-53 (Al), effect of framework breathing
12:30	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.
Adsorbents/ Materials 2		
10:30	33 Alexios Harkiolakisa, Filip de Clippelb, Pierre A. Jacobsb, Gino V. Barona, Bert Selsb,, and Joeri F.M. Denayera,	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 synthesise 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 c	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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16:40	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
17:00	104	Michael Angelo Miranda, Dhandapani P., Helen Kalavathy M ¹ , Lima Rose Miranda	Activated <i>Ipomoea carnea</i> a biosorbent for the copper sorption from aqueous solution
17:20	105	Anutosh Chakraborty, Bidyut Baran Saha, Kim Choon Ng	On the Thermodynamic Modelling of Specific Surface Area of Porous Adsorbents for Natural Gas Storage

Processes

16:40	12	Nathalie Casas, Johanna Schell and Marco Mazzotti	Development of an adsorption process for pre-combustion CO ₂ capture
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16:20	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
16:40	51	Kazuyuki CHIHARA, ○Takuya CHIYODA, Keita SAWADA, Tadahiro AIKO ¹ , Takashi KANEKO ¹	Solvent Recovery by Dual Reflux PSA, a Simulation Study
17:00	57	Sol Ahn, Min-Kyu Kim, Si-Hyung Lee, Ki-Hyun Kim and Chang-Ha Lee	H ₂ PSA processes for low H ₂ feed from coal gas
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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
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