

International Workshop on Extended-nano Fluidics

Mar. 26 and 27, 2015

Koshiba hole, The University of Tokyo, Tokyo, Japan

Mar. 26

Session	Time		Presenter	Title	ID
Opening	8:45 9:00		Takehiko Kitamori (Univ. Tokyo) & Albert van den Berg (Twente Univ.)		
Plenary	9:00 9:40		Jan Eijkel (Twente Univ.)	Small is powerful: nanofluidics for nanomachining, energy generation and cavitation	PT01
Nanofluidics & Engineering	9:40 10:00	Invite	Jongyoon Han (MIT)	Nanofluidics for rapid protein analysis	IT01
	10:00 10:20	Invite	Kazuma Mawatari (Univ. Tokyo)	Single molecule immunoassay devices by extended-nano fluidic technology	IT02
	10:20 11:50	Short presentation & poster presentation			
		Invite	Levent Yobas (HKUST)	Integrated glass capillaries on silicon for extended nanofluidics	IP01
		Invite	Takatoki Yamamoto (TIT)	Evaluation of a novel UV-curable PDMS for nanoscaled molding	IP02
		Invite	Tatsuro Endo (Osaka Prefecture Univ.)	Nanoscale optical device for biosensing application using printable photonics technology	IP03
			Yan Xu (Osaka Prefecture University)	Site-Specific Functionalization of Nanofluidic Channels	CP01
			Wei Wang (Peking University)	Ultra-sensitive detection based on nanoparticles trapped at the tip of funnel-shaped nanochannel	CP02
			Masaya Miyazaki (AIST)	Protein Crystal Habit Modification Using Microfluidic Chip	CP03
			Toyohiro Naito (Kyoto Univ.)	The effects of chemical and structural properties of microstructure on pressure generated by electroosmotic flow	CP04
			Nobuo Misawa (Toyohashi University of Technology)	Easy Fabrication of a Laminated Paper-based Fluidic Channel	CP05
			Yifan Liu (HKUST)	Integrated Nanoslit Array Fluidic Diode for Protein Detection	CP06
			Hac Huong Thu Le (RIKEN)	Novel Non-label Detection of Proteins in Extended-nano Spaces by Thermal Lens Microscopy Using Nanostructures	CP07
			Ling Lin (Univ. Tokyo)	Extended-nano Interface for Living Single Cell Analysis	CP08
			Naoya Miyawaki (Univ. Tokyo)	UV Excitation Differential Interference Contrast Thermal Lens Microscope	CP09
			Hiroki Morita (Univ. Tokyo)	Thermal lens detection device using mach-zehnder interferometer waveguide	CP10
	Lunch	11:50 13:30			
Plenary	13:30 14:10		Albert van den Berg (Twente Univ.)	Nanostructures for opto-electrochemical sensing	PT02
Liquid properties & Fluid science	14:10 14:30	Invite	Anne-laure Bianco (Université de Lyon)	Probing liquid and ionic transport in one single BN-nanotube	IT03
	14:30 14:50	Invite	Hirofumi Daiguji (Univ. Tokyo)	Water transport in silica nanopores	IT04
	14:50 15:10	Invite	Hiroshi Ushiyama (Univ. Tokyo)	Theoretical studies on the mechanism of proton transfer among high density acid groups in polymer electrolyte fuel cells	IT05
	15:10 15:30	Invite	Yutaka Kazoe (Univ. Tokyo)	Fluid Properties of Liquid Confined in Extended-nanochannel	IT06
	15:30 17:00	Short presentation & poster presentation			
		Invite	Craig Prest (Univ. South Australia)	Nanoscale precursor films on chemically heterogeneous surfaces	IP04
		Invite	Itsuo Hanasaki (Osaka Univ.)	Brownian motion as a hallmark of single particle characteristics in fluids	IP05
			Anne-laure Bianco (Université de Lyon)	EK transport in nanometric foam films	CP11
			Ruey-Jen Yang (NCKU)	Ion Concentration Polarization on Paper-based Microfluidic Devices	CP12
			Hwang Junho (Univ. Tokyo)	Kinetics of water uptake and release in aligned mesoporous silica	CP13
		Kyojiro Morikawa (TIT)	Study on liquid properties in extended nanospace by streaming current/potential method	CP14	
		Kyohei Yamashita (Univ. Tokyo)	Molecular Dynamics of Adsorption/Desorption and Transport of Water in Hydrophilic Nanopore	CP15	

		Porpin Pungetmongkol (TIT)	Direct evaluation of electric double layer in nanochannel by electrical impedance spectroscopy	CP16
		Keisuke Ikeda (Univ. Tokyo)	Proton Transfer Enhanced by Surface Silanol Groups in Extended Nanospace	CP17
		Shohei Watanabe (Keio University)	Nano Color Imaging for Investigation of Electrostatic Potential Induced by Ion Concentration near Liquid-liquid Flowing Interface	CP18
		Takayuki Minami (Keio University)	Non-intrusive Measurement of Ion Concentration Distribution in Electrolyte Solution by CARS	CP19
		Tsukasa Hattori (Keio University)	Non-intrusive Imaging of Concentration Distributions at Liquid-solid Interface Using Raman Scattering by Total Internal Reflection	CP20
		Hirotohi Yasaki (Nagoya Univ.) Sun Xiaoyin (Nagoya Univ.)	Multi-parameters sensing in microfluidic devices Control of single DNA molecules translocation velocity in nanofluid devices	CP21 CP22
		Winarto (Keio University)	Water molecules structure confined in carbon nanotube and electric field and its separation	CP23
Banquet	18:00 20:00			

Mar. 27				
Session	Time	Presenter	Topics	ID
Plenary	8:30 9:10	Takehiko Kitamori (Univ. Tokyo)	Extended nanofluidics for novel functional devices	PT03
Application	9:10 9:40 Keynote	Stephen C. Jacobson (Indiana Univ.)	Characterization of Virus Capsid Assembly with Nanofluidic Devices	KT01
	9:40 10:00 Invite	Noritada Kaji (Nagoya Univ.)	DNA separation by nanopillars and nanowires	IT07
	10:00 10:20 Invite	Yuriy Pihosh (Univ. Tokyo)	Solar Light Driven μ -Fuel Cell	IT08
	10:20 11:50 Short presentation & poster presentation			
	Invite	Takehiko Tsukahara (TIT)	Extended-Nano fluidic-Based Separation of Actinide and Lanthanide Ions By Controlling Electrostatic Forces	IP06
	Invite	Takao Yasui (Nagoya Univ.)	Nanowires for biomolecule analysis	IP07
	Invite	Takatoki Yamamoto (TIT)	Electrical single bio-particle detection in nanofluidics device	IP08
	Invite	Gan Hiong Yap (SiT)	Enhanced Transport of Materials into Enamel Nanopores	IP09
	Invite	Hisashi Shimizu (Univ. Tokyo)	Separation Analysis of Using Extended-Nano Chromatography and Differential Interference Contrast Thermal Lens Microscope	IP10
		Kento Sakoya (Univ. Tokyo)	Development of extended-nano gradient chromatography for separation of biomolecules	CP24
		Adelina Smirnova (Univ. Tokyo)	Step-Gradient Reversed Phase Chromatography In Extended-Nanospace For Amino Acids Separation	CP25
		Kennedy O. Okeyo (Univ. Tokyo)	A Novel Approach for Generating Dendritic Cells for Cancer Immunotherapy Employing High Yield One-to-One Electrofusion Technique	CP26
		Takashi Sakurai (Univ. Tokyo)	Peptide-based Ligand Screening System for G Protein-Coupled Receptors Using Water-in-oil Droplets	CP27
		Casey J. Galvin (OIST)	The Micro/Bio/Nanofluidics Unit at the Okinawa Institute of Science and Technology	CP28
		Duncan McMillan (Univ. Tokyo)	Membrane platforms to examine enzymatically driven proton transfer in the nanospace	CP29
		Ryoichi Ohta (Univ. Tokyo)	Countable-Molecule Immunoassay by Integrating ELISA in Extended-nano Space	CP30
		Tatsuro Nakao (Univ. Tokyo)	Efficient Capture of DNA Utilizing Extended-nano Channel for the Quantification of Countable DNA	CP31
		Hangyeol Seo (Univ. Tokyo)	Development of High-Efficient Proton Conductor Based on Ferroelectric LN Material	CP32
		Takashi Ugajin (Univ. Tokyo)	Parallel Aq./org. Two-phase Flow in Extended-nanochannel Formed by Partial Hydrophobic Modification	CP33
Closing	11:50 12:20			
	12:20 13:30	Lunch		
Tour of Shin-Kawasaki: Nanofabrication Facilities	13:30			