

Nanobubble2024 Schedule - July 4th Edition

Registration : Oct. 9 14:00 - 17:00, Oct. 10 9:00 - 10:00

Oct. 10	Kihada Hall	Room 1	Room 2
10:00	Opening		
10:10	Keynote (Prof. Dr. Wen Zhang) Nanobubbles and their Environmental and Agricultural Applications		
10:55	Breaks		
11:10	Invited I (Prof. Samir Khanal) Nanobubble Applications in Environmental Remediation and Agriculture : Challenges and Opportunities		
11:40	Tai Shitanaka,Nanobubble technology can improve mass transfer of CO2 for algal cultivation,AB00047	Anto Tri Sugiarto,Development of Plasma Activated Fine Bubble Water System and Its Application in Agriculture,AB00062	
11:55	Amr I Abdel-Fattah,Large-scale CO2-nanobubble utilization for improving biomass productivity in marine micro-algal cultivation,AB00025	Yang Xiaolong,Enhancing ROS Production through Micro- and Nanobubbles in Ozone and Plasma Treatment Processes,AB00065	
12:10	Shreeja Lopchan Lama,Application of Nanobubbles and Biochar in Aquaponics: Effects on Plant Yield and Water Quality,AB00051	Beng Hau Tan,Body forces drive the apparent line tension of sessile droplets,AB00006	
12:25	Kyle Rafael Marcelino,Nanobubble Technology-Integrated Aquaponic Systems Enhances Plant Yields and Nitrification,AB00048	Yuki Uematsu,Nanobubble-Assisted Formation of Non-Gaseous Nanoparticles in Water,AB00011	
12:40	Lunch Time		Science Meeting 1
14:00	Keynote (Prof. Dr. Agata A. Exner) Big Impact of Tiny Bubbles: Emerging Biomedical Applications of Shell-Stabilized Nanobubbles		
14:45	Breaks		
15:00	Cynthia Keyv Tchouta,Automated Nanobubble Generation System: Characterization and Potential Applications in the Chemical Industry,AB00059	Jaka Mur,Laser-induced nanobubbles on gold nanoparticles as a model for nanobubbles occurring on natural impurities in water,AB00024	
15:15	Minoru Tanigaki,Studies on Ultrafine Bubbles Using Radioactive Nuclei as Probes,AB00055	Yatha Sharma,Nanobubble Generation from Laser-Illuminated Nanoparticles,AB00041	
15:30	Susana Y Kimura,High-precision Acoustic Velocimeter for Nanobubble Characterization,AB00030	Takehiko Sato,Generation of high-speed nanodroplets and the cleaning effect,AB00033	
15:45	Matej Kanduc,The Impact of Hydrophobic Impurities on Water's Stability Against Cavitation,AB00039	Sining Zhou,Enhancing anaerobic digestion performance of oxytetracycline-laden wastewater through micro-nano bubble ozonation pretreatment,AB00054	
16:00	Hendrik David Reese,Cavitation bubble patterns from elastic surface waves,AB00010	Hui Lu,Ozone micro-nano bubble-enhanced selective degradation of oxytetracycline from production wastewater: The overlooked singlet oxygen oxidation,AB00060	
16:15	Seung-Yop Lee,Megasonic Generation of High-Density Nanobubbles,AB00061	Julie Y. Chen,Orthogonal Measurement of Number Concentration Standards for NTA Calibration,AB00003	
16:30	Breaks		
16:45	Breaks		
17:00	Yuki Mizuno,Effects of surfactants and nanobubbles on morphology of Au-Pt core-shell nanoparticles synthesized by sonochemical and chemical	Tao Lyu,Nanobubble technology-triggered innovation in water and wastewater treatment,AB00037	
17:15	Takuro Itagaki,Effect of Microbubble Bathing on Human Sleep,AB00040	Priya Koundle,Ozone nanobubble technology as a novel AOPs for pollutants degradation under high salinity conditions,AB00069	
17:30	Karol Ulatowski,Determination of cleaning potential of microbubble dispersions of various gases in waters of different purity,AB00004	Tetsuji OKUDA,Membrane cleaning improvement using physical function of UFB,AB00064	
17:45	Xuelin Wang,Optimizing Fouling Mitigation in Membrane Distillation by Controlled Microbubble Size and Concentration,AB00017	NEELKANTH NIRMALKAR,Nanobubbles produced by membrane nanopores to probe gas-liquid mass transfer characteristics,AB00034	
18:00	Pan LI,Unveiling the Preventive Potential: Micro and Nanobubbles Influence on Membrane Fouling During Drinking Water Treatment,AB00028	LIU Shu, the effects of hydrogen ultrafine bubbles on the toxicity of heavy metals in aquatic organisms	

Applications I (Medical, Agricultral and Industry)
Applications II (Medical, Agricultral and Industry)
Microbubble Research
Fundamentals and Measurement
Fundamentals and Measurement II
Fundamentals and Measurement III
Measurement, Surface and Molecular Motion
Environmental use (Membranes, Ozone)
Environmental useII (Hydrates & Membranes)
Nanodroplet, Plasma, Lasers

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Oct. 11	Kihada Hall	Room 1	Room 2
9:30	Keynote (Prof. Dr. Koichi Terasaka) Generation, concentration and separation of ultrafine bubbles in water		
10:15	Breaks		
10:30	ALOK DAS,Interaction between nanobubbles and bacteria: impacts on growth and its mechanism,AB00056	Tsutomu Uchida,Liquid-AFM observation of surface-Ultrafine bubbles formed on hydrophobic smooth solid (HOPG) surface from methane-hydrate dissociated water,AB00001	
10:45	Keiji Yasuda,Formation of hollow polymer particles by fine bubbles and anti-crystallization,AB00026	Mengdi Pan,CO2-nanobubble-enhanced crystallisation of clathrate hydrates: paths towards industrial-water treatment,AB00018	
11:00	Masayuki Yamasaki,Properties of ultrafine-bubbles and its application to cooking,AB00008	Ryota Saito,3D microscopy reveals complex deformation of nanobubbles confined in nanotubes,AB00057	
11:15	Damien V. B. Batchelor,Freeze-Drying and Optical Characterization of Lipid Shell Nanobubbles ,AB00032	Ryuto Ohashi,High Speed AFM Observation of Electrolytic Nanobubbles Formation and Dissolution Process on HOPG,AB00005	
11:30	Gaurav Yadav,Electrochemically reactive nanobubbles by water electrolysis,AB00031	John Nicholas Jackowitz,Unveiling a Hidden Population: Sub-50 nm Ultrafine Bubbles Revealed by Liquid Cell TEM and their Potential Applications,AB00016	
11:45	Viet-Anh Nguyen,Physical properties of nanobubble under various operational conditions,AB00067	Fankai Peng,Modelling Bulk Nanobubbles of Nitrogen, Oxygen, and Air in Water by Molecular Simulations,AB00038	
12:00	Michael Coey,Nanobubbles in Hard Water,AB00019	Hamidreza Hassanloo,Unraveling Nanobubble Formation, Stability, and Effects on Host Liquid Inherent Properties: Insights from Molecular Dynamics Approaches,AB00015	
12:15	Lunch time		Science Meeting 2
13:30	Keynote (Prof. Dr. Claus-Dieter Ohl) Not so stable bulk nanobubbles, what can we do with them?		
14:15	Breaks		
14:30	Invited II (Prof. Yoshihisa Harada)		
14:45			
15:00	Takeshi Ohdaira,Targeting Effects of Positively Charged Nanobubbles on Gastrointestinal Cancer Cells: Potential to Prevent Recurrence After Surgery,AB00020	Yasutaka Yamaguchi,Mechanical and Thermodynamic Analysis of Wetting and Liquid-Related Interfaces by Molecular Dynamics,AB00066	
15:15	Pinunta Nittayacharn,Optimizing Cationic Nanobubble Formulations for Enhanced In-Vitro Acoustic Performance, Cellular Uptake, and Transfection Efficiency,AB00029	Daniela Miano,Elucidating the interaction forces between surface nanobubbles and nanoparticles,AB00009	
15:30	Sergio Marino Viafara Garcia,Optimizing Oxygen Delivery in Tissue Engineering: Integrating Micro/Nano Bubbles and Droplets into Photocrosslinkable Scaffolds,AB00045	Heyun Du,Investigation of 2D materials as electrochemical catalyst using scanning electrochemical microscopy,AB00007	
15:45	Lijuan Zhang,The In-situ Formation and Evolution of Perfluorocarbon Nanobubbles in Microdroplets Induced by Soft X-ray, AB00071	Ing-Shouh Hwang,Different Perspectives on the Nature of Surface Nanobubbles and Bulk Nanobubbles,AB00021	
16:00	Poster Session		
16:15			
16:30			
16:45			
17:00			
17:15			
17:30			
Banquet			

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Oct. 12	Kihada Hall	Room 1	Room 2
9:30	Keynote (Prof. Dr. Jun Hu) Gas-liquid Interfaces of Nanobubbles in Bulk Water Solution: Unique Properties & Applications		
10:15	Breaks		
10:30	Invited (Prof. Keita Ando)		
11:00	Niall J. English, Nanobubble engineering of low-energy aeration for water treatment, AB00043	Aakriti Sharma, Effect of nanobubbles of different gases over the antisolvent crystallization of glycine using ethanol as an antisolvent, AB00012	
11:15	Shivi Garg, Enhancing CO2 utilisation process using the novel technique of nanobubbles, AB00050	Abinash Biswal, Bulk Nanobubble Generation in Gasoline Fuel: Investigating its Impact on Spray Characterization, AB00014	
11:30	Sritay Mistry, Hydrogen nanobubbles in ammonia, AB00023	Fang Yang, Nanobubble drug delivery system, AB00070	
11:45	Justin Chun-Te Lin, CO2 nanobubble as a carbon utilization approach from seawater brine mining, AB00046	Yan Chen, Preparation and biomedical application of fluorescent nanobubbles, AB00071	
12:00		Hao Xiong, Preparation of biomembrane shelled nanobubbles, AB00072	
12:15		Mengyuan Cui, Oxygen dependent chemiluminescent for reactive oxygen species induced tumor inhibition, AB00073	
12:30	Closing		

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Poster Session

AB00013	Ichiro	Otsuka	NanoSight NTA size identification of molecular species of NB clusters in NB aqueous solutions
AB00022	Xinyan	Wang	Small nanobubbles through high frequency vibrations
AB00035	Chung-Kai	Fang	The stability and chemical composition of nitrogen gas hydrate overlayer on HOPG surfaces
AB00036	Ching-Hsiu	Chen	Can Bulk Nanobubbles be Mesoscopic Clathrate Hydrate Structure?
AB00042	Niall	J. English	Nanobubble-enhanced combustion and exhaust-emissions profiles of calorific fuels
AB00044	Prutchayawo	Thopan	Stability and mechanisms of melatonin loaded niosome and air-nanobubbles
AB00049	Hideaki	Teshima	Thermal Responses of Nanoscale Gas Phases at Graphite-Water Interfaces
AB00052	Takashi	Hata	Study on Destabilization of Ultrafine Bubbles
AB00053	Yuto	Yabuuchi	Effect of Ultrafine Bubbles near a Wall on Translational Motion of Millibubble Clusters under a Sound Field
AB00058	Hyang-Bok	Lee	Charge of a single bubble of sound emitting light in water
AB00063	Kaori	Tada	Effect of Ultrafine Bubbles on the Precipitation Behavior of Ca(OH) ₂
AB00068	Naoto	Nihei	Effect of irrigation with nanobubble water on crop growth and soil environment in a sorghum field