ABSTRACT AND PROGRAM

THE 6th INTERNATIONAL SYMPOSIUM ON NANO AND SUPRAMOLECULAR CHEMISTRY

In Commemoration of the 70th Birthday of Prof. Jack M. Harrowfield & Prof. Jackues Vicens

Aug 10-14th, 2014

Campus Udayana University

Bukit Jimbaran, Bali,

Indonesia

Organized by:

Universitas Gadjah Mada
Indonesia

Udayana University
Indonesia

Kosin University
South Korea

National Research
Foundation of Korea

DAY 2, TUESDAY, August 12 th, 2014					
08:00-08:30	Registration				
08:30-09:00	Plenary Lecture	PL-3	Leonard F. Lindoy		Chair: Ok Sang Jung
09:00-09:30	Plenary Lecture	PL-4	Shinya Hayami		
09:30-10:00	Plenary Lecture	PL-5	Jong-Seung Kim		Chair: Mark Ogden
10:00-10:10	Coffee Break				
10:10-10:35	Invited Speaker	IS-12	Murray Baker		Chair: Karsten Gloe
10:35-11:00	Invited Speaker	IS-13	Takumi Konno		
11:00-11:25	Invited Speaker	IS-14	Artur R. Stefankiewicz		Chair: Dominique Matt
11:25-11:50	Invited Speaker	IS-15	Fafu Yang		
11:50-12:15	Invited Speaker	IS-16	Jorge Beltramini		Chair: Chengzhong (Michael) Yu
12:15-13:15	Lunch				
13:15-13:40	Invited Speaker	IS-17,18	Sung-Hoon Kim	Jan J. Weigand	Chair: M Mocerino / J Beltramini
13:40-14:05	Invited Speaker	IS-19,20	Kerstin Gloe	Wenny Irawati	
14:05-14:30	Invited Speaker	IS-21,22	Kuroiwa Keita	Dong-Weon Lee	
14:30-14:50	Oral Presentation	OP-9,10	Ita Margaretha Nainggolan	Sajjad Sedaghat	Chair:Kerstin Gloe/J Weigand
14:50-15:10	Oral Presentation	OP-11,12	Sandy Budi Hartono	Joonkyung Jang	
15:10-15:30	Oral Presentation	OP-13,14	Wojciech Ciesielski	Felycia E. Soetaredjo	
15.30-15.50	Coffee Break				
15:50-15:55	Oral Flash Presentation	OFP-25,26	Hemavathy Surikumaran	Iman Farahbakhsh	Chair: A Stefankiewicz/T Konno
15:55-16:00	Oral Flash Presentation	OFP-27,28	Muggundha Raoov	Nailal Muna	
16:00-16:05	Oral Flash Presentation	OFP-29,30	Kohei Takami	Kumuthini Chandrasekaram	
16:05-16:10	Oral Flash Presentation	OFP-30,31	Mitra Slipranata	Ricky Syahputra	
16:10-16:15	Oral Flash Presentation	OFP-32,33	Mun-Ki Bae	Malinovskaia, T.D	
16:15-16:20	Oral Flash Presentation	OFP-34,35	Oka Ratnayani	Maria Ulfa	
16:20-16:25	Oral Flash Presentation	OFP-35,36	Irfan Ilmi	Ga Ram Lee	
16:25-16:30	Oral Flash Presentation	OFP-37,38	Arif Rahman	Hitomi Ohmagari	
16:30-16:35	Oral Flash Presentation	OFP-39,40	Manabu Nakaya	Kazuya Hirata	
16:35-16:40	Oral Flash Presentation	OFP-41,42	Hee Eun Kim	Kitjanit Neranon	
16:40-16:45	Oral Flash Presentation	OFP-43,44	Nia Sukma	Peyvand Valeh-e-Sheyda	
16:45-16:50	Oral Flash Presentation	OFP-45,46	Dewi Hastuti	Foliatini	
16:50-17:00	Closing Remark (Prof. Jack M. Harrowfield, Prof. Leonard F. Lindoy)				
18:00-22:00	Celebration Party for JMH & JV's 70th Birthday and Banquet				

IS-22

CHEMICALLY MODIFIED PDMS MICROFLUIDIC CHANNELS FOR EASY CONTROL OF OXIDIZED LIQUID METAL

DONG-WEON LEE AND GUANGYONG LI

Department of Mechanical Engineering, Chonnam National University, Gwangju, 500757, Republic of Korea

Easy move of oxidized Galinstan in microfluidic channels is a promising way for the wide application of the non-toxic liquid metal. In this research, we report a chemical surface modification waythat enhances the non-wetting characteristic of oxidized Galinstan in themicrofluidic channel. Various inorganic acidswere tested to form super-lyophobic surface on the PDMS thin film. Microfluidic channels treated with sulfuric acid (H_2SO_4) shows the highest contact angle and a low hysterics in the dynamic measurement. Creating, transporting, separating and merging of oxidized Galinstan droplets were successfully demonstrated in the microfluidic channels. After optimizationof the two methods,the potential application ofadjustable capacitor and tunable electronic filter were realized by using liquid metal-based microfluidic devices.