

Symposium 3 — Nanostructures and Properties

Monday, 17 December 2007

Technical Session	Poster Session		
Date/Time	Monday, 17 December 2007 / 14:00 – 15:30 hrs		
Venue	Gallery		
Sym3:35	14:00 – 15:30	Nanoscale Patterning of Graphite Surface with Luminescent Silver-Adenine Coordination Motifs <i>Sandeep Verma, Chandra Shekhar Purohit, Ashutosh Kumar Mishra and Jitendra Kumar Bhatt</i>	3:66
Sym3:36	14:00 – 15:30	Poly(2-vinyl pyridine)- <i>b</i> -poly(<i>n</i> -hexyl isocyanate) Coil-Rod Diblock Copolymer Micelles as Nanoreactor for <i>In Situ</i> Synthesis Gold Nanoparticles <i>Priyaranjan Mohapatra, Shashadhar Samal and Jae-Suk Lee</i>	3:66
Sym3:37	14:00 – 15:30	Synthesis and Optimization of Core-Shell Silica Nanoparticles Using Reverse Microemulsion Method <i>Xin Bing Zuo, Yen Hui Lau and Sam Fong Yau Li</i>	3:67
Sym3:38	14:00 – 15:30	AFM Observations of the Binary Self-Assembly from Nucleotide Bolaamphiphile and Oligonucleotides as Templates <i>R. Iwaura, Y. Kikkawa, M. Ohnishi-Kameyama and T. Shimizu</i>	3:67
Sym3:39	14:00 – 15:30	Solution Processable Route for High Performance Transparent Electrodes <i>Kiran KumarManga, Furong Zhu and Loh Kian Ping</i>	3:68
Sym3:40	14:00 – 15:30	Oligo (p-phenylene) Containing Y-Shaped Chromophore as Chemosensor Material: Synthesis, Characterization and Self-Assemble Study <i>Satyananda Barik and Suresh Valiyaveettil</i>	3:68
Sym3:41	14:00 – 15:30	Preparation and Structural Control of Polymer Microsphere Containing Ni Nanoparticles <i>T. Tsuruoka, S. Adachi, S. Ikeda, K. Akamatsu, H. Nawafune and S. Tomita</i>	3:68
Sym3:42	14:00 – 15:30	Surface-Ordered Molecular Magnetic Switches: New Materials for Spintronics <i>P. N. Martinho, G. Morgan, M. Albrecht and C. Gandolfi</i>	3:69
Sym3:43	14:00 – 15:30	The Effect of Drying Process on the Morphology, Porosity, and Thermal Behaviour of Nanosilica Particles <i>Mohammad Jafarzadeh, Ismail Ab Rahman, Coswald Stephan Sipaut and P. Vejayakumaran</i>	3:69

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Sym3:44	14:00 – 15:30	Strong Two-Photon Absorption of Triphenylamine-Cored Chromophores with Intramolecular Charge Transfer <i>Xuanjun Zhang, Xinsheng Ren, Zhi-Kuan Chen, Qing-Hua Xu and Kian Ping Loh</i>	3:69
Sym3:45	14:00 – 15:30	Self-Assembling Process and Structure Analysis of Opaline Photonic Crystals <i>M. Ishii, M. Harada, A. Tsukigase and H. Nakamura</i>	3:70
Sym3:46	14:00 – 15:30	Analysis of Biomaterials in the White-Breasted Guinea Fowl (<i>Agelastes Meleagrides</i>) Eggshell <i>Ong Pauline, Ankur Duarah and Suresh Valiyaveetil</i>	3:70
Sym3:47	14:00 – 15:30	Low Band Gap Material for Organic Solar Cell <i>Anupam Midya, Zhang Xuanjun, Chen Zhikuan and Loh Kian Ping</i>	3:70
Sym3:48	14:00 – 15:30	Arsenic(II) Sulfide Quantum Dots: Preparation, Luminescence and Targeted Pharmaceutical Test <i>Junzhong Wang and Kian Ping Loh</i>	3:71
Sym3:49	14:00 – 15:30	Magnetic Nanostructures Fabricated by Nanocluster Beam Deposition <i>Suzi Deng, Kian Ping Loh, Jegadesan Subbiah, Ming Lin, Yong-Lim Foo, Jun Ding and Chornng-Haur Sow</i>	3:71
Sym3:50	14:00 – 15:30	Synthesis of SmCo Alloy Nanomagnet <i>Naoki Toshima and Toru Matsushita</i>	3:71
Sym3:51	14:00 – 15:30	Enhancement of the Mechanical Performance of Polypropylene Using Polypropylene-Grafted Multiwalled Carbon Nanotubes <i>B.-X. Yang, J.-H. Shi, K. P. Pramoda and S. H. Goh</i>	3:72
Sym3:52	14:00 – 15:30	Mechanical Properties of Poly(1-butene) Reinforced by Polypropylene-Grafted Multiwalled Carbon Nanotubes <i>B.-X. Yang, J.-H. Shi, X. Li and S. H. Goh</i>	3:72
Sym3:53	14:00 – 15:30	Fabrication of Copper Tetraaminophthalocyanine Nanostructures <i>G. U. Feng, X. U. Guo Qin and A. N. G. Siau Gek</i>	3:72
Sym3:54	14:00 – 15:30	Design and Properties of Functionalized Cyclophanes as a Multivalent Host <i>O. Hayashida, D. Sato, N. Ogawa and M. Uchiyama</i>	3:73
Sym3:55	14:00 – 15:30	Bubble Template Synthesis of Gold Nanoring <i>Zhou Xuedong, Zhao Aiqin, Ang Siau Gek and Xu Quo Qin</i>	3:73
Sym3:56	14:00 – 15:30	Synthesis of Dumbbell-Shaped Circular Oligonucleotides Containing Internal C3:Spacers as Human Topoisomerase I Inhibitors <i>Y. Wang and T. Li</i>	3:74
Sym3:57	14:00 – 15:30	Fabrication of Nanopatterns via Surface Chemical Modification and Reactive Reversal Nanoimprint Lithography <i>Li Guangshuo, Chin Wee shong and Low Hong Yee</i>	3:74
Sym3:58	14:00 – 15:30	Biodegradable Amphiphilic Poly[(R)-3-hydroxybutyrate]-alt-Poly(ethylene glycol) Multiblock Copolymers and their Thin Film Morphology <i>K. L. Liu, X. Li, J. Li and S. H. Goh</i>	3:74
Sym3:59	14:00 – 15:30	Multicolor Tuning of (Ln, P)-Doped YVO ₄ Nanoparticles by Single Wavelength Excitation <i>Feng Wang, Xuejia Xue and Xiaogang Liu</i>	3:75
Sym3:60	14:00 – 15:30	Novel Synthesis of Au Nanoparticles Using Poly(ethylenimine) as Reductant and Stabilizer and their Self-Assembly at Toluene-Water Interface <i>H. B. Lee, J. Lee and K. Kim</i>	3:75

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Sym3:61	14:00 – 15:30	Facile Deposition of Ag onto Polystyrene Beads for Developing Surface-Enhanced-Raman-Scattering-Based Molecular Sensor <i>H. B. Lee, J. Lee and K. Kim</i>	3:75
Sym3:62	14:00 – 15:30	Study of Electrochemical Behaviour of Ferrocene-Tagged Nanoparticles in Aqueous Environments <i>G. Chew, Y. Huang, H. Yuan and C.-S. Toh</i>	3:76
Sym3:63	14:00 – 15:30	The Study of Luminescent PbS/PS and CdS/PMMA Nanocomposites <i>M. S. Neo, Z. Y. Tan, F. Yin and W. S. Chin</i>	3:76
Sym3:64	14:00 – 15:30	Formation of Aggregates in Aqueous Solution of Parental and Substituted Boron Clusters <i>P. Cigler, P. Matejicek, B. Wojtczak, A. Andrysiak, A. B. Olejniczak, Z. J. Lesnikowski, K. Prochazka and V. Kral</i>	3:76
Sym3:65	14:00 – 15:30	Shape Control of Silver Nanostructures via Crystallographic Facet Recognition by Mixed Amine Ligands <i>Changlong Jiang, Zhongyu Duan and Xiaogang Liu</i>	3:77
Sym3:66	14:00 – 15:30	Designer Molecular Wires <i>Zhaoyue Ng and Kian Ping Loh</i>	3:77
Sym3:67	14:00 – 15:30	Micrometer — Scaled Channel Length of OFETs Patterned by Using PEDOT/PSS Microfibers <i>Hu Yan, Tsubasa Kagata, Yusaku Mori, Yuko Harashina, Yusuke Hara and Hidenori Okuzaki</i>	3:77
Sym3:68	14:00 – 15:30	Synthesis of Nano-Structured Lead Oxide by Sol-Gel Pyrolysis Method and Application as Anode and Cathode of Lead-Acid Batteries <i>Hassan Karami, Abbas Sadeghi and Rasool Mir-Ghasemi</i>	3:78
Sym3:69	14:00 – 15:30	Surface-Initiated Living Radical Polymerization of Self-Assembling L-Phenylalanine Derived Monomer from Silica: A Facile Technique for the Preparation of High-Density Chromatographic Support for RP-HPLC Application <i>M. Mizanur Rahman, Miklós Czaun, Abul K. Mallik, Makoto Takafuji and Hirotaka Ihara</i>	3:78
Sym3:70	14:00 – 15:30	Synthesis of Photoswitchable Spiropyran Sensors and Immobilizing them on Quartz Surface <i>Hwee Teo, Jonathan Hobley, Hongyan Song and Martin J. Lear</i>	3:79
Sym3:71	14:00 – 15:30	Synthesis of Photoactive Derivatives for the Development of Photo-Responsive Quartz Monolayers <i>Yihua Li, Jonathan Hobley, Hongyan Song and Martin J. Lear</i>	3:79
Sym3:72	14:00 – 15:30	Functionalization of Bare Silicon to Study the Electronic Properties of Organic Monolayers on Semiconductors <i>Yingqi Lee, Cedric Troadec, Hongyan Song and Martin J. Lear</i>	3:79
Sym3:73	14:00 – 15:30	Rhenium Schiff Base Complexes with Amino Acids as Anti-Infective Agents <i>M. M. Saw, J. Wong, K. E. Neo, A. D. Yeung and D. G. Popovich</i>	3:80
Sym3:74	14:00 – 15:30	Organic Nanocrystalline Device Fabrication Using the Nanoscale-Electrocrystallization <i>H. Hasegawa, R. Ueda, T. Kubota, A. Otomo and S. Mashiko</i>	3:80
Sym3:75	14:00 – 15:30	Synthesis of Lead Oxide Nano-Particles by Sonochemical Method and Application as Cathode and Anode of Lead-Acid Batteries <i>Hassan Karami, Mohammad Ali Karimi and Saeed Haghdar</i>	3:81

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Technical Session	Session 1		
Date/Time	Monday, 17 December 2007 / 16:00 – 17:30 hrs		
Venue	Room 306		
Chair	Zhu Junjie		
Sym3:01	16:00 – 16:30	Constructional Self-Assembly for Complex Nanostructures	3:53
Keynote		<i>Hua Chun Zeng</i>	
Sym3:02	16:30 – 16:45	Organic-Metal Hybrid Nanowires by Cooperative Self-Organization of Tetrathiafulvalene	3:53
Invited		<i>K. Naka, D. Ando, X. Wang, H. Itoh and Y. Chujo</i>	
Sym3:03	16:45 – 17:00	Fabrication of Hydrophobic Gold Nanorods and their Three-Dimensional Self-Assembling	3:54
Invited		<i>T. Imae, K. Mitamura, N. Saito and O. Takai</i>	
Sym3:04	17:00 – 17:15	Patterning Mica Surface with Nanocrystalline NaCl	3:54
		<i>Wu Jihong and Xu Guo Qin</i>	
Sym3:05	17:15 – 17:30	Synthesis and Liquid Crystalline Properties of New Binuclear Copper(II) Complex Homologues Derived from Uncomplexed Azo-Containing Ligands	3:54
		<i>Zolfaghar Rezvani, Mohammad Ali Ghanea and Sara Abodollahzadehi</i>	

Tuesday, 18 December 2007

Technical Session	Session 2		
Date/Time	Tuesday, 18 December 2007 / 11:00 – 12:30 hrs		
Venue	Room 304		
Chair	Liu Xiao Gang		
Sym3:06	11:00 – 11:30	Novel Optical and Dynamic Properties and Emerging Applications of Nanomaterials	3:54
Keynote		<i>J. Z. Zhang</i>	
Sym3:07	11:30 – 11:45	Magnetically and Fluorescently Visualized Nanodiamond for a Multi-Modal Imaging Probe	3:55
Invited		<i>N. Komatsu, M. Morita, T. Takimoto, T. Kimura and T. Inubushi</i>	
Sym3:08	11:45 – 12:00	Ag Powders, Ag-Coated Beads, and Ag Thiolates: A Core Material of Molecular Sensing/Recognition Units Operating via Surface-Enhanced Raman Scattering	3:55
Invited		<i>Kwan Kim</i>	
Sym3:09	12:00 – 12:15	<i>In Situ</i> Detection of Cellular Excitability and Exocytosis with Nanotube/Nanowire Field-Effect Transistors	3:56
Invited		<i>Yit-Tsong Chen</i>	
Sym3:10	12:15 – 12:30	Characterization of Surface Active Agent at Wet Interfaces: Studies by Specular Neutron Reflection	3:56
		<i>N. Li, R. K. Thomas, A. R. Rennie and G. Fragneto</i>	

Lunch Break	12:30 – 14:00 hrs
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Technical Program

Technical Session	Session 3		
Date/Time	Tuesday, 18 December 2007 / 14:00 – 15:30 hrs		
Venue	Room 304		
Chair	Chen Yit Tsong		
Sym3:11	14:00 – 14:30	Label-Free Dual Sensing of DNA Molecules Using GaN Nanowires	3:56
Keynote		<i>Abhijit Ganguly, Chin-Pei Chen, Chen-Hao Wang, Chih-Wei Hsu, Yu-Kuei Hsu, Ying-Chih Chang, Li-Chyong Chen and Kuei-Hsien Chen</i>	
Sym3:12	14:30 – 14:45	Fabrication of Electrochemical Biosensors Based on Functional Nanoparticles	3:57
Invited		<i>Jun-Jie Zhu</i>	
Sym3:13	14:45 – 15:00	Fabrications and Applications of Metal Nanoparticle-Attached Electrodes	3:58
Invited		<i>M. Oyama, J. Zhang and A. Ali Umar</i>	
Sym3:14	15:00 – 15:15	Nano/Micro Channel Array Devices for Generating Uniform Fine Droplets	3:58
		<i>I. Kobayashi, T. Takano, R. Maeda, Y. Wada, K. Uemura and M. Nakajima</i>	
Sym3:15	15:15 – 15:30	Stimuli-Responsive Assembly of Peptide-Functionalized Gold Nanoparticles for Colorimetric Sensors	3:59
		<i>S. Si and T. K. Mandal</i>	

Coffee Break	15:30 – 16:00 hrs
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Technical Session	Session 4		
Date/Time	Tuesday, 18 December 2007 / 16:00 – 17:30 hrs		
Venue	Room 304		
Chair	Chen Kuei Hsien		
Sym3:16	16:00 – 16:15	Fabrication of Nanostructures by Dip-Pen Nanolithography	3:59
Invited		<i>Hua Zhang</i>	
Sym3:17	16:15 – 16:30	Controlling Microstructures and Properties for Nanocomposites of Metal Nanoparticles Dispersed in Polymer Matrix	3:60
Invited		<i>K. Akamatsu</i>	
Sym3:18	16:30 – 16:45	3-Dimensional Polymer Micro-and Nanostructures via Nanoimprint Lithography	3:60
Invited		<i>Hong Yee Low</i>	
Sym3:19	16:45 – 17:00	Fabrication of Nanostructured Layer-by-layer Ultrathin Films of Water-Soluble Cationic Sexithiophenes and Anionic Polycarbazole Precursor	3:60
		<i>S. Sriwichai, S. Phanichphant, A. Baba, S. Deng, Y. Park, T. Fulghum, C. Huang and R. Advincula</i>	
Sym3:20	17:00 – 17:15	Synthesis and Characterisation of Iron Sulfide Nanocrystals	3:61
		<i>J. H. L. Beal, P. G. Etchegoin and R. D. Tilley</i>	
Sym3:21	17:15 – 17:30	Crystal Growth in the System $Cs_xNb_yW_{1-y}O_3$, $x = 0.3, 0.25$ and $0 < y < x$: Competition Between Hexagonal Tungsten Bronzes and Bronzoid Type Phases	3:61
		<i>Kalpana R. Dey, Calus H. Rüscher, Altaf Hussain and Margareta Sundberg</i>	

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Wednesday, 19 December 2007

Technical Session	Session 5		
Date/Time	Wednesday, 19 December 2007 / 11:00 – 12:30 hrs		
Venue	Room 304		
Chair	Naoki Komtasu		
Sym3:22 Keynote	11:00 – 11:30	Si and II-VI Nanomaterials Research <i>Shuit-Tong Lee</i>	3:61
Sym3:23	11:30 – 11:45	Synthesis and Optical Study of ZnS:Mn/ZnS Core/Shell Nanostructures <i>H. Xu, T. C. Sum, P. Andriy, J. Tao, A. C. H. Huan and W. S. Chin</i>	3:62
Sym3:24	11:45 – 12:00	Growth of SI and SI/SIGE Nanowires by the VLS Method for Thermoelectricity Application <i>C. Mouchet, L. Latu-Romain, C. Cayron, J. P. Simonato and E. Rouviere</i>	3:62
Sym3:25	12:00 – 12:15	Deposition of Ni ₃ S ₂ Thin Films from Single Molecular Precursor by Metal Organic Chemical Vapor Deposition <i>Lu Tian, Kian Ping Loh and Jagadese J. Vittal</i>	3:62
Sym3:26	12:15 – 12:30	Study of the Nanostructured Palladium Hydride System <i>Jan Marwan</i>	3:63

Lunch Break	12:30 – 14:00 hrs
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Technical Session	Session 6		
Date/Time	Wednesday, 19 December 2007 / 14:00 – 15:30 hrs		
Venue	Room 304		
Chair	Lee Shuit Tong		
Sym3:27 Invited	14:00 – 14:15	Optically Active Single-Walled Carbon Nanotubes <i>N. Komatsu</i>	3:63
Sym3:28 Invited	14:15 – 14:30	Tunable C60 Molecular Arrays <i>W. Chen and A. T. S. Wee</i>	3:63
Sym3:29 Invited	14:30 – 14:45	High-k Metal Gate in Semiconductor Wafer Processing – A Perspective from Equipment Supplier <i>Samuel Chiu</i>	3:64
Sym3:30	14:45 – 15:00	The Development of Functionalised Magnetic Nanoparticles for the Selective Separation of Aqueous Contaminants <i>J. R. Duffield, I. Pascual, N. M. Ratcliffe and G. R. Elder</i>	3:64
Sym3:31	15:00 – 15:15	Computational Modeling of Host-Guest Interactions in a Molecular Switch Controlled by Chemical Reactions <i>P. Hirva, M. Haukka and T. A. Pakkanen</i>	3:65

Coffee Break	15:30 – 16:00 hrs
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Technical Session	Session 7 (Combined Session with Symposium 2)		
Date/Time	Wednesday, 19 December 2007 / 16:00 – 17:30 hrs		
Venue	Room 304		
Chair	Xu Qing Hua		
Sym3:32	16:00 – 16:15	Tailoring Longitudinal Surface Plasmon Wavelengths, Absorption and Scattering Cross Sections of Gold Nanorods	3:65
Invited		<i>Jianfang Wang</i>	
Sym3:33	16:15 – 16:30	Nanoparticle-Based Strategies for High-Performance Biodetection	3:65
Invited		<i>D. Pan, X. Zuo, L. Wang, S. Song and C. Fan</i>	
Sym3:34	16:30 – 16:45	Recyclable, Thermal-Stable, Superwetting Nanowire Membranes	3:66
Invited		<i>Xiaogang Liu</i>	

** SYM-3 END **