



Posters Presentations: Monday 2 February 2009

- PP001 Concentration Depth Profiles of Inorganic Ions at Liquid Surfaces**
Gunther Andersson¹, ¹*Flinders University, Faculty of Science and Engineering, Australia*
- PP002 Medicinal Plant Resources for Bioprospecting and Drug Development in Parbat District of Nepal**
Ram Lal Shrestha¹, Lekh Nath Gautam², ¹*Tribhuvan University, Amrit Science Campus, Nepal*, ²*Natural Product Laboratory, Nepal*
- PP003 Magneto-Responsive Hollow Capsules Prepared via Colloid Templating**
Kiyofumi Katagiri¹, Masato Nakamura¹, Yuji Imai¹, Kunihito Koumoto¹, ¹*Nagoya University, Japan*
- PP004 Study on Formation Process and Structure of Polyproline SAM on Gold Surface**
Ying Han¹, Takashi Iwama¹, Tatsuhiko Adachi¹, Hidenori Noguchi¹, Kazuyasu Sakaguchi¹, Kohei Uosaki¹, ¹*Hokkaido University, Japan*
- PP005 Adsorption Behaviour of Polyelectrolyte onto Alumina Particles and its Effect on the Particles' Dispersion State**
Takamasa Mori¹, Takafumi Hida¹, Kazumasa Suzuki¹, Ikue Inamine¹, Takayoshi Kiguchi¹, JunIchiro Tsubaki¹, ¹*Nagoya University, Japan*
- PP006 Control of Oxygen Adsorption on Organometallic Complexes due to Magnetic Fields**
Koichi Hashikawa¹, Atom Hamasaki¹, Taku Iiyama¹, Sumio Ozeki¹, ¹*Shinshu University, Japan*
- PP007 Hexagonal-Square Lattice Phase Transition in 2D Colloidal Monolayer Induced by Steric Layer Potentials: Analysis by Means of Monte Carlo Simulations**
Masayuki Aoshima¹, Akira Satoh¹, Roy Chantrell², ¹*Akita Prefectural University, Japan*, ²*York University, United Kingdom*
- PP008 Behaviour of Aqueous Foam Stabilised by Nanosilica & Non-ionic Surfactant**
Timothy Hunter¹, Graeme Jameson¹, Erica Wanless¹, ¹*University of Newcastle, Australia*
- PP009 Modification of Structure and Functionality of Deamidated Wheat Proteins via Maillard Conjugation with Dextrans**
Benjamin Wong², Donald McNaughton², Li Day¹, Maryann Augustin¹, ¹*Food Science Australia (CSIRO), Australia*, ²*Monash University, Australia*
- PP010 Bacterial Adhesion to Poly(ethylene oxide) Polymer Brush Surfaces – Influences of Temperature and Salt Concentration.**
Jacob Shephard¹, ¹*University of Otago, New Zealand*
- PP011 Driving Force for Liquid Marble Formation**
Nicky Eshtiaghi¹, Jacques S. Liu¹, Wei Shen¹, Karen Hapgood¹, ¹*Monash University, Australia*
- PP012 Reversible Coalescence in Kinetically Stabilised Emulsions**
Nelly Bulgarelli¹, Kathryn McGrath¹, ¹*MacDiarmid Institute for Advanced Materials and Nanotechnology, School of Chemical and Physical Sciences, Victoria University of Wellington, New Zealand*



- PP013 Surface Force Measurements between Mineral Oxides: Under what conditions does DLVO Theory Apply?**
Rick Walsh¹, Vince Craig¹, ¹*Department of Applied Mathematics, Research School of Physical Sciences and Engineering, The Australian National University, Australia*
- PP014 Core/shell structured PMMA Microspheres with Polyaniline and MWNT and their Electrorheology**
K. Zhang¹, H. J. Choi¹, ¹*Inha University, Korea, Republic of*
- PP015 Critical Hydrophobicity and Granule Morphology Transition in Drop Penetration into Porous Powder Beds**
Thanh Nguyen^{1,2}, Wei Shen², Karen Hapgood¹, ¹*Monash Advanced Particle Engineering Laboratory, Department of Chemical Engineering, Monash University, Australia,* ²*Australian Pulp and Paper Institute, Department of Chemical Engineering, Monash University, Australia*
- PP016 Marine Bioadhesives: Electron Microscopy and in situ ATR-IR Spectroscopy Characterization.**
Luigi Petrone¹, Norman L. C. Ragg², A. Jim McQuillan¹, ¹*Department of Chemistry, University of Otago, New Zealand,* ²*Cawthron Institute, New Zealand*
- PP017 Polymeric Silicone-Containing Microemulsions**
Suraj Chandra Sharma¹, Koji Tsuchiya¹, Kenichi Sakai¹, Hideki Sakai^{1,2}, Masahiko Abe^{1,2}, Reiji Miyahara³, ¹*Department of Pure and Applied Chemistry, Faculty of Science and Technology, Tokyo University of Science, Japan,* ²*Institute of Colloid and Interface Science, Tokyo University of Science, Japan,* ³*Shiseido Research Center, Japan*
- PP018 AFM Bubble Colloidal Probes**
Ivan U. Vakarelski^{1,2}, Raymond R. Dagastine¹, Ofer Manor¹, Derek Y.C. Chan¹, Geoffrey W. Stevens¹, Franz Grieser¹, ¹*Particulate Fluids Processing Centre, University of Melbourne, Australia,* ²*Institute of Chemical and Engineering Sciences, Singapore*
- PP019 Anti-Fouling Surfaces Grown in Multi-Well Plates: Surface Initiated Atom Transfer Radical Polymerisation of Polymer Brushes**
Bryan R. Coad¹, Yi Lu¹, Laurence Meagher¹, ¹*CSIRO Molecular and Health Technologies, Australia*
- PP020 Study of Adsorption Kinetics Using Optical Reflectometer with Improved Sensitivity and Stability**
Shaun Howard¹, Vince Craig¹, ¹*the Australian National University, Australia*
- PP021 Effect of acid leaching on functionalised mesoporous materials**
Massey de los Reyes¹, Peter Majewski¹, Christopher Griffith¹, ¹*Mawson Institute, Australia*
- PP022 Interactions of Ultrafine Particles with Bubbles**
Sin Ying Tan¹, Catherine Whitby¹, John Ralston¹, Daniel Fornasiero¹, ¹*Ian Wark Research Institute, University of South Australia, Australia*
- PP023 Novel Characterization of Hollow Microspheres using AFM**
Stefanie Sham¹, Raymond Dagastine¹, ¹*Particulate Fluid Processing Centre, Department of Chemical and Biomolecular Engineering, The University of Melbourne, Australia*



- PP024 Surface Tension as a Function of Surface Structure of Ionic Liquids**
Vera Lockett¹, Rossen Sedev¹, John Ralston¹, ¹*Ian Wark Research Institute UniSA, Australia*
- PP025 Shape changes of tail-polymerizable surfactant aggregates during polymerization**
Khwanrat Chatjaroenporn¹, Paul FitzGerald¹, Robert Baker¹, Gregory Warr¹, ¹*The University of Sydney, Australia*
- PP026 Adsorption and Structure of Nonionic Surfactants at the Ionic Liquid/Air Interface**
Deborah Wakeham¹, Petru Niga², Mark Rutland², Gregory Warr³, Rob Atkin¹, ¹*University of Newcastle, Australia*, ²*Royal Institute of Technology, Sweden*, ³*University of Sydney, Australia*
- PP027 Conformal Nanometric Surface Patterning Using Polymer Film Dewetting**
Andrew Michael Telford¹, Chiara Neto¹, Laurence Meagher², ¹*University of Sydney, Australia*, ²*CSIRO, Australia*
- PP028 Synthesis and Characterisation of Self-Assembled Monolayers of N-[3-(Trimethoxysilyl) propyl] diethylenetriamine on Silica Particles**
Chiu Ping Chan¹, Peter Majewski¹, Namita Choudhury¹, ¹*Ian Wark Research Institute, Australia*
- PP029 Synthesis of Mesoporous Titanium Dioxide from Protic Ionic Liquids**
Zhengfei Chen^{1,3}, Tamar Greaves¹, Rachel Caruso³, Calum Drummond², ¹*CSIRO Molecular and Health Technologies (CMHT), Australia*, ²*CSIRO Materials Science and Engineering (CMSE), Australia*, ³*School of Chemistry, The University of Melbourne, Australia*
- PP030 Fabrication of Nanoporous Anodic Alumina Oxide membranes with tailored chemical functionalities**
Md Jani Abdul Mutalib¹, Losic Dusan², G. Shapter Joe¹, H. Voelcker Nicolas¹, ¹*Flinders University, Australia*, ²*University of South Australia, Australia*
- PP031 Gel Spinning of Atactic Poly(vinyl alcohol)/Sodium Alginate Blend Solution**
Dong Gyu Park¹, Won Seok Lyoo¹, Eun Joo Shin², Yong Sik Chung³, Tae Hwan Oh¹, Sung Soo Han¹, ¹*Division of Advanced Organic Materials, School of Textiles, Korea, Republic of*, ²*Polymer Gel Research Cluster Center, Yeungnam University, Korea, Republic of*, ³*Department of Textile Engineering, Chunbuk National University, Korea, Republic of*
- PP032 Leaching Mechanism and Kinetic Behaviour of an Aluminosilicate Clay Mineral**
Terry Dermis¹, William Skinner¹, Jonas Addai-Mensah¹, ¹*Ian Wark Research Institute (University of South Australia), Australia*
- PP033 Preparation and Characterization of High Molecular Weight Atactic Poly(vinyl alcohol)/Sodium Alginate/Silver Nanocomposite by Electrospinning**
Won Seok Lyoo¹, Young Jae Lee¹, Kyeong Il Oh¹, Han Yong Jeon², ¹*Division of Advanced Organic Materials, School of Textiles, Yeungnam University, Korea, Republic of*, ²*Division of Nano-Systems Engineering, Inha University, Korea, Republic of*



PP034 Preparation of Syndiotactic Poly(vinyl alcohol) Gel Microspheres by Heterogeneous Surface Saponification of Poly(vinyl pivalate/vinyl acetate) under Various Saponification Conditions

Young Jae Lee¹, Won Seok Lyoo¹, Kun Young Kwak¹, Jin Wook Cha¹, Hae Giu Lee², Kyong Min Shin³, Han Gon Choi⁴, Seok Kyun Noh⁵, ¹*Division of Advanced Organic Materials, School of Textiles, Yeungnam University, Korea, Republic of*, ²*Medical College, The Catholic University, Korea, Republic of*, ³*Taewong-Medical Co., Ltd., Korea, Republic of*, ⁴*College of Pharmacy, Yeungnam University, Korea, Republic of*, ⁵*School of Display and Chemical Engineering, Yeungnam University, Korea, Republic of*

PP035 NanofabricationSA

Dennis Palms¹, ¹*Ian Wark Research Institute, Australia*



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- PP036 Development of a High Performance Continuous Cake-less Filtration System**
Junlchiro Tsubaki¹, Hiroshi Satone¹, Takahisa Katsuoka¹, Takayuki Hirata¹, Takamasa Mori¹, ¹*Nagoya University, Japan*
- PP037 Correlation between Interfacial and Dermal Delivery Characteristics of Nanoparticle-coated O/W Emulsions**
Nasrin Ghousei Eskandar¹, Spomenka Simovic¹, Clive A. Prestidge¹, ¹*Ian Wark Research Institute, Australia*
- PP038 The Effects of Polydispersity on the Self Assembly of Nanostructures**
Chris Howell¹, Christine Fernyhough¹, Patrick Fairclough¹, ¹*University of Sheffield, United Kingdom*
- PP039 Lubrication Forces on Colloidal Particles**
Christopher Honig¹, William Ducker¹, ¹*University of Melbourne, Australia*
- PP040 Tunable light emission using Quantum dot coated Upconverters**
Tich-Lam Nguyen¹, Paul Spizzirri¹, Gerry Wilson², Paul Mulvaney¹, ¹*University of Melbourne, Australia*, ²*CSIRO, Australia*
- PP041 Preparation of Poly(vinyl pivalate)/Gold Nanocomposite Microspheres using Suspension Polymerization of Vinyl Pivalate**
Sun Gil Kim¹, Won Seok Lyoo¹, Won Wook Jeong¹, Seong Cheol Kim¹, Yeong Soon Gal², Seok Soon Noh¹, ¹*Division of Advanced Organic Materials, School of Textiles, Yeungnam University, Korea, Republic of*, ²*Polymer Chemistry Laboratory, College of Engineering, Kyungil University, Korea, Republic of*
- PP042 Continuous Flow Polymer Adsorption on Monodisperse Droplets for Microcapsule Synthesis in a Microfluidic Chip**
Craig Priest¹, Anthony Quinn², Almar Postma², Alexander Zelikin², John Ralston¹, Frank Caruso², ¹*University of South Australia, Australia*, ²*The University of Melbourne, Australia*
- PP043 Biomolecular surface interactions and cell adhesion studied using QCM-D**
Olivia Lavén¹, ¹*Q-Sense, Sweden*
- PP044 Surface Dilational Viscosity of Nonionic Polypropylene Glycol Surfactants and their influence on Foam Behaviour**
Su Nee Tan¹, Anzhen Jiang¹, Jin Jau Liau¹, Roger Horn¹, ¹*Ian Wark Research Institute, Australia*
- PP045 Surface Chemical Modification of Porous Silicon to Control Molecular interactions and Adsorption**
Karyn Jarvis¹, Timothy Barnes¹, Clive Prestidge¹, ¹*Ian Wark Research Institute, University of South Australia, Australia*
- PP046 The Influence of Shear Responsive Polyethylene Oxide Adsorption behaviour on the Dewatering Behaviour of Talc**
Kai Ying Yeap¹, Jonas Addai-Mensah¹, David Beattie¹, ¹*Ian Wark Research Institute, University of South Australia, Australia*



- PP047 Synchrotron XPS Study of Fractured, Solution Exposed Heterogeneous Chalcopyrite Surfaces**
Robert Acres¹, Sarah Harmer¹, David Beattie¹, ¹*Ian Wark Research Institute, University of South Australia, Australia*
- PP048 Enzyme Assisted Self Assembly**
Richard Williams¹, Rein Ulijn², ¹*CSIRO Molecular and Health Technologies, Australia*, ²*The University of Strathclyde, United Kingdom*
- PP049 Phospholipid-based cubic Phases for Improved Drug Delivery Applications**
Hsin-Hui Shen¹, Florian Huber¹, Guoliang Zhen¹, Durga Acharya¹, Simon Saubern¹, Patrick Hartley¹, Keith McLean¹, ¹*CSIRO, CMHT, Australia*
- PP050 Analysis of Osteoblast Cell Behaviour on Nanostructured Porous Silicon Functionalised with Chemical Gradients of Plasma Polymerised Films**
Endre Szili¹, David Steele¹, Andrew Michelmore¹, Robert Short¹, Nicolas Voelcker², ¹*Mawson Institute, University of South Australia, Australia*, ²*School of Chemistry, Physics and Earth Sciences, Flinders University, Australia*
- PP051 Lamellar to Cubic Phase Transitions Intermediates in Colloidal Dispersions of Self-Assembled Systems.**
Xavier Mulet¹, Calum J. Drummond¹, Xiaojuan Gong², Lynne J. Waddington³, ¹*CSIRO Molecular and Health Technologies, Australia*, ²*CSIRO Molecular and Health Technologies, Australia*, ³*CSIRO Molecular and Health Technologies, Australia*
- PP052 Direct Peptide Synthesis on a Solid Surface**
Wade Mosse¹, Merran Koppens¹, Thomas Gengenbach³, Denis Scanlon², Sally Gras^{1,2}, William Ducker^{1,4}, ¹*Department of Chemical and Biomolecular Engineering, The University of Melbourne, Australia*, ²*Bio21 Institute, The University of Melbourne, Australia*, ³*CSIRO Molecular and Health Technologies, Australia*, ⁴*Virginia Tech, United States*
- PP053 Forces between alpha-AI203 probe and air bubble measured by AFM**
Li Jiang¹, Marta Krasowska¹, Daniel Fornasiero¹, John Ralston¹, ¹*University of South Australia, Australia*
- PP054 Characterization of amino functional groups on the surface of silica colloids**
Khoa Pham¹, Damian Fullston¹, Kwesi Sagoe-Crentsil¹, ¹*CSIRO, Australia*
- PP055 Gelation kinetics of silica colloids in the presence of Ca²⁺ ion**
Khoa Pham¹, Damian Fullston¹, Kwesi Sagoe-Crentsil¹, ¹*CSIRO, Australia*
- PP056 Dynamic Forces between Bubbles and Surfaces and Hydrodynamic Boundary Conditions**
Ofer Manor¹, Ivan Vakarelski^{1,4}, Geoffrey Stevens¹, Franz Grieser¹, Raymond Dagastine¹, Derek Chan^{1,2}, ¹*Particulate Fluids Processing Centre, University of Melbourne, Australia*, ²*Mathematics, National University of Singapore, Singapore*, ³*Institute of High Performance Computing, Singapore*, ⁴*Institute of Chemical and Engineering Sciences, Singapore*
- PP057**



- PP058 Sedimentation Of Diluted Polydisperse Suspensions Of Calcium Carbonate: Experimental And Simulation Study**
Cesar Augusto Perez Zapata¹, Herley Casanova¹, Cesar Ignacio Restrepo¹,
¹*Universidad de Antioquia, Colombia*
- PP059 Adsorption of phenol by HDTMA-modified organoclays**
Binoy Sarkar¹, Yunfei Xi¹, Megharaj Mallavarapu¹, Ravi Naidu¹, ¹*CERAR and CRC, University of South Australia, Australia*
- PP060 Environmental Marine Bacteria Interactions with Poly(Ethylene Terephthalate) Polymer Surfaces**
Hayden Webb¹, Russell Crawford¹, Tomoo Sawabe², Elena Ivanova¹, ¹*Swinburne University of Technology, Australia*, ²*Laboratory of Microbiology, Faculty of Fisheries Sciences, Hokkaido University, Japan*
- PP061 The Effect of Architecture on the Crystallization of Oxyethylene/Oxybutylene Block Copolymers from Micelles in n-Octane**
Shaomin Mai¹, Anthony J. Ryan¹, ¹*University of Sheffield, United Kingdom*
- PP062 Water Soluble Polymers For Water Purification And Vesicular Encapsulation.**
Patrick Fairclough¹, Christine Fernyhough¹, Craig Fairgrieve¹, Sarah Kettlewell¹,
¹*University of Sheffield, United Kingdom*
- PP063 Bovine Serum Albumin Adsorption on N-Methyl-D-Glucamine Ligand Immobilized Colloidal Silica Surface**
Jingtian Han¹, Patrick Silcock¹, A. James McQuillan², Phil Bremera¹, ¹*Department of Food Science, University of Otago, New Zealand*, ²*Department of Chemistry, University of Otago, New Zealand*
- PP064 Study on the surface tension of water-based adhesive on the 3-D prototype application**
Cheng-Chien Wang², Chuh-Yung Chen¹, Yu-Cheng Kuo², ¹*National Cheng-Kung University, Taiwan*, ²*Southern-Taiwan University, Taiwan*
- PP065 Self Assembly of a Polybutadiene-Poly(methacrylic acid) Copolymer in Water: Effect of pH on Morphology and Kinetics**
Christine Fernyhough¹, Giuseppe Battaglia¹, Tony Ryan¹, ¹*University of Sheffield, United Kingdom*