ACSSSC 31 - Poster session
Monday 29th January 5-7pm

P01: Phase Behaviour in Charged Colloidal Systems.
Amani Alruwaili[1].
1. School of Science, RMIT University, Australia

P02: Simulation of Brownian motion of a colloidal spherical particle near a flat surface. **Avinash Ashok**[1], Raymond Dagastine[1].
1. Particulate Fluids Processing Centre and the Department of Chemical Engineering, The University of Melbourne, Australia.

P03: Engineering Red Blood Cells and Polyethylene Glycol on Diagnostic Materials to Detect Fibrinogen.
Marek Bialkower[1], Heather McLeish[1], Gil Garnier[1], Rico Tabor[2].
1. Bioresource Processing Research Institute of Australia (BioPRIA), Department of Chemical Engineering, Monash University, Australia. 2. School of Chemistry, Monash University, Australia.

P04: Ellipsoidal droplet production and arrested coalescence: shape transformation and evolution.
Hao Chen[1], Tim Atherton[2], and Patrick T. Spicer[1].
1. School of Chemical Engineering, University of New South Wales, Australia 2. Department of Physics and Astronomy, Tufts University, USA.

P05: Aligned droplet patterns by dewetting of polymer bilayers.
Ming Chiu[1], Jared Wood[1], Asaph Widmer-Cooper[1] and Chiara Neto[1].
1. School of Chemistry and University of Sydney Nano Institute, The University of Sydney, Australia.

P06: Nanocellulose Gel for Biomedical Applications.
Rodrigo Curvello[1], Llyza Mendoza[1], Heather McLiesh[1], Rico Tabor[2], Gil Garnier[1].
1. BioPRIA, Department of Chemical Engineering, Monash University, Australia 2. School of Chemistry, Monash University, Australia.

P07: A Scalable Method to make Anisotropic Nanoparticles by Nanolithography.
Tanweepriya Das[1], Raymond Dagastine[1].
1. Particulate Fluids Processing Centre and the Department of Chemical Engineering, The University of Melbourne, Australia.

P08: Charge reversal and aggregation of humic substances induced by hydrophobic monovalent counter-ions.
Azizul Hakim[1], Motoyoshi Kobayashi[2].
1. Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan 2. Faculty of Life and Environmental Sciences, University of Tsukuba, Japan.

P09: Shrinkage Behavior of Microbubble.
Xingshuo Huang[1].
1. Research School of Physics and Engineering, Australia National University, Australia.

P10: Fully printed fullerene solar cells with high performance molecular nematic liquid crystalline.
Daniel Kroh[1], Doojin Vak[2], Anna Koehler[3], Lee Richter[4], David J. Jones[1].
1. School of Chemistry, Bio21 Institute, University of Melbourne, Australia 2. CSIRO Manufacturing Flagship, Australia 3. Experimental Physics II, University of Bayreuth, Germany 4. Materials Science and Engineering Division, National Institute of Standards and Technology, USA.

P11: Biocompatible fluid for biological tissue separation.
Zhiwei Li[1], Ian Dinihan[2], Patrick Spicer[1].
1. Complex Fluid Group, School of Chemical Engineering, The University of New South Wales, Australia 2. Australia.

P12: Ion Migration in Methylammonium Lead Halide Perovskite Films.
Huan Long[1], Cheng Li[1], Sven Huettner[1].
1. Macromolecular Chemistry I, University of Bayreuth, Germany.

P13: Precursor Film Formation of an Ionic Liquid on Highly Oriented Pyrolytic Graphite.
Stephanie V. MacWilliams[1,2], Iliana Delcheva[1,2], John Ralston[3], Bruce Cowie[4], David A. Beattie[1,2], Marta Krasowska[1,2].
1. Future Industries Institute, University of South Australia, Australia 2. School of Information Technology and Mathematical Sciences, University of South Australia,

Australia 3. Division of Information Technology, Engineering and the Environment, University of South Australia, Australia 4. Australian Synchrotron, Australia.

P14: Robust and facile encapsulation using silica—polymer composites.

Shane P. Meaney[1], Rico F. Tabor[1], Bart Follink[1].
1. School of Chemistry, Monash University, Australia.

P15: Quantification of long-range forces for underwater superoleophobic surfaces.

Ahmed Owais[1], Truis Smith-Palmer[2], Angus Gentle[3], Chiara Neto[1].
1. School of Chemistry and The University of Sydney Nano Institute, The University of Sydney, Australia 2. Department of Chemistry, St Francis Xavier University, Canada 3. School of Mathematical and Physical Science, University of Technology Sydney, Australia.

P16: Protocols for Chemical Removal in Water Treatment.

Hongjiao Pang[1], Peter Scales[1].
1. Department of Chemical Engineering, Melbourne School of Engineering, University of Melbourne, Australia.

P17: Highly efficient metals capture and froth flotation of graphene oxide using an inexpensive surfactant.

Huw Parks[1,2], Thomas M. McCoy[2], Rico F. Tabor[2].
1. School of Chemistry, Cardiff University, UK 2. School of Chemistry, Monash University, Australia.

P18: Effect of Methyl Isobutyl Carbinol on bubble rise velocity and stability of foam film formed under dynamic conditions.

Piotr Pawliszak[1,2], Vamsee Ulaganathan[1], David Beattie[1,2], Marta Krasowska[1,2], Bronwyn Hajek[2].
1. Future Industries Institute, University of South Australia, Australia 2. School of Information Technology and Mathematical Sciences, University of South Australia, Australia.

P19: Transparent lubricant-infused surfaces for anti-biofouling applications.

Sam Peppou-Chapman[1,2], Truis Smith-Palmer[1,3], Cameron Ware[1,3], Liam Scarratt[1,3], Chiara Neto[1,2].
1. School of Chemistry, University of Sydney, Australia 2. Australian Institute for Nanoscale Science and Technology, University of Sydney, Australia 3. Department of Chemistry, St Francis Xavier University, Canada.

P20: Development of 3D printed microfluidic perfusion devices to measure cryoprotectant permeability.

Rekha Raju[1], Hannes Honn[1,2], Khashayar Khoshmanesh[3], Gary Bryant[1].
1. Dept. of Physics, School of Science, RMIT University, Australia 2. University of Applied Science Karlsruhe, Germany 3. School of Engineering, RMIT University, Australia.

P21: Patterning of Photo-responsive Smart Materials.

Ashish Sharma[1], Shobha Shukla[1], Rico F. Tabor[2].
1. Department of Metallurgical Engineering and Materials Science, Indian Institute of Technology Bombay(IITB), IITB-Monash Research Academy, 2. School of Chemistry, Monash University, Australia.

P22: Uptake of Cubosomes into the Cellular Environment.

Jamie Strachan[1], Celine Valary[2], Charlotte Conn[3].
1. School of Science, RMIT University, Australia 2. School of Health and Biomedical Sciences, RMIT University, Australia 3. School of Science, RMIT University, Australia.

P23: Phytantriol modified with DSPE-PEG2000: a Temperature-Dependent Lipid-based Nanomaterials for On-demand Drug Delivery.

Xiaohan Sun[1], Angel Tan[1], Ben J. Boyd[1].
1. Monash Institute of Pharmaceutical Sciences (MIPS), Monash University, Australia 2. ARC Centre of Excellence in Convergent Bio-Nano Science and Technology, Australia.

P24: CFD study of buoyancy driven droplet coalescence.

Abdul R.V. Rasheed[1], Joseph D. Berry[1], Lachlan R. Mason[2], Geoffrey W. Stevens1, Dalton J.E. Harvie[1].
1. Particulate Fluids Processing Centre and Department of Chemical Engineering, The University of Melbourne 2. Department of Chemical Engineering, Imperial College London.

P25: Design of multistage platforms for drug delivery and photothermal therapy against cancer cells.

Thibaut Thai[1], Nicolas Voelcker[2,3], Tobias Kraus[1,4]

1. INM - Leibniz Institute for New Materials, 66123 Saarbrücken, Germany 2. Monash Institute of Pharmaceutical Sciences, Monash University, Australia 3. Melbourne Centre for Nanofabrication, Australia 4. Colloid and interface chemistry, Saarland University, Germany.

P26: Gas-induced flocculation of magnetic graphene oxide adsorbents.

Geosmin A. Turpin[1], Rico Tabor[1].

1. School of Chemistry, Monash University, Australia.

P27: Mechanical and friction properties of cellulose-hemicellulose hybrid hydrogels.

Yading Wang[1], Jason R. Stokes[1], Gleb E. Yakubov[1].

1. School of Chemical Engineering, University of Queensland, Australia.

P28: Measurement of Polyelectrolyte Multilayer Mechanical Properties using Biaxial Tensile Stress Measurements.

Jessie. L. Webber[1, 2], David. A. Beattie[1], Marta Krasowska[1], James. K. Ferri[3].

1. Future Industries Institute, University of South Australia, Australia 2. School of Information Technology and Mathematical Sciences, University of South Australia, Australia 3. School of Engineering, Virginia Commonwealth University, USA.

P29: Investigation of Targeted Delivery of Drug Nanocrystal Loaded Liposomes by Azide-cyclooctyne Functionalisation to Cancer Cells.

Y. Xiao[1], Q. Liu[1, 2], T. Li[1, 2], and B. Boyd[1, 2].

1. Monash Institute of Pharmaceutical Sciences, Monash University, Australia; 2. ARC Centre of Excellence in Convergent Bio-Nano Science and Technology, Monash University, Australia.

P30: Shaped and Stimuli-responsive Droplets for Improved Drug Delivery.

Haoda Zhao[1], Paul Young[2], Daniela Traini[2], and Patrick Spicer[1].

1. School of Chemical Engineering, the University of New South Wales, Australia 2. Respiratory Technology, Woolcock Institute of Medical Research and Discipline of Pharmacology, School of Medicine, University of Sydney, Australia.

P31: Probing the surface characteristics of polymeric nanoparticles decorated with cell-penetrating peptides.

S. Streck[1], H. Mørck Nielsen[2], T. Rades[2], B. J. Boyd[3] and A. McDowell[1].

1. School of Pharmacy, University of Otago, New Zealand 2. Department of Pharmacy, University of Copenhagen, Denmark 3. Monash Institute of Pharmaceutical Sciences, Monash University, VIC 3000, Australia

P32: Lift forces on a sphere in bounded and wall-bounded flows.

Nilanka I. K. Ekanayake[1], Anthony Stickland[1], Ineke L. Muir[2], Steven K. Dower[2], Joseph D. Berry[1], Dalton J.E. Harvie[1].

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