



Advanced Materials Research Conference (AMRC 2019)

Organized by Singapore Laboratory Professionals & supported by NUS Singapore

Conference Theme: Advanced Materials Research

September 26-27, 2019

Venue: Faculty of Science, National University of Singapore

Day 1: 26 September 2019 (Thursday)

| Time | Talk | Speaker |
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| 8.30 -9.00 | Registration and Opening remarks | SLPL & Prof Suresh, NUS |
| Morning Session: Keynote Lectures, Chairperson: Prof. Andrew Grimsdale, NTU, Singapore | | |
| 9.00 – 9.30 | Keynote Lecture 1 Scope of Boron-Assisted (Co)Polymerizations for the Synthesis of Oxygenated (Co)Polymers Prof Yves GNANOU King Abdullah University of Science and Technology (KAUST), Thuwal 23955, Saudi Arabia | |
| 9.30 – 10.00 | Keynote Lecture 2 Perylene incorporated nanoparticles and their applications Assoc Prof Suresh Valiyaveetil Department of Chemistry, National University of Singapore, Singapore | |
| 10.00 – 10.30 | Keynote Lecture 3 A Journey with Crystalline Solids Possessing Unusual Physical and Chemical Properties Prof Jagadese J. Vittal Department of Chemistry, National University of Singapore, Singapore | |
| 10.30 – 11.00 | Keynote Lecture 4 Impact of Nanomaterials induced Endothelial Leakiness in Nanomedicine and Nano safety Assoc Prof. Leong Tai Wei David Department of Chemical and Biomolecular Engineering, National University of Singapore, Singapore | |
| 11.00 – 11.30 | Morning Break | |
| | Invited talk and oral presentation (Soft electronics and Nano medicine) | |
| | Chair: Prof Suresh Valiyaveetil, NUS Singapore | |
| 11.30 - 11.50 | Ultra-flexible organic electronics A/P Tomoyuki Yokota , Department of Electric and Electronics Engineering University of Tokyo | |
| 11.50 – 12.10 | Soft and deformable Mechanical Energy Harvesters Dr Kaushik Parida , School of Materials Science and Engineering, Nanyang Technological University | |
| 12.10 – 12.30 | Influence of citric acid on NaCMC-HPMC-ZnO hydrogel films for wound healing applications K. Dharmalingam , IIT Guwahati, India | |
| 12.30 – 14.00 | Lunch and Poster Session | |
| | Invited talk and Oral presentation (Pyrolysis and Energy Storage) | |
| | Chair : Assoc Prof R. Vinu, IITM, India | |
| 14.00 -14.20 | Innovative Tandem μ -Reactor GC/MS System for Fast Screening of Catalysts and Chemical process Ichi Watanabe , Frontier Laboratories Ltd., Japan | |
| 14.20 – 14.40 | A Proposal for Frontier Elastics Nanobattery (ENB): Novel Materials versus. Lithium Ion Battery(LIB) System Prof. Izzac Hendry Elim , Faculty of Mathematics and Natural Sciences, Pattimura University, Indonesia | |

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| 14.40 – 15.00 | Green production of polyhydroxy butyrate (PHB) using lignocellulosic biomass (<i>Ceratonia siliqua</i> pods) as a self-sufficient feedstock for upstream to downstream processing Dr Arul Manikandan , IIT Guwahati, India |
| 15.00 – 15.20 | Smart Materials for consumer Care (Personal care products) Dr Cheng Weirun , IMRE, A-STAR, Singapore |
| 15.20 – 15.40 | An approach towards asymmetric porous PVA films and their mechanical response Ms Rumya Pervin , IIT, Madras, India |
| 15.40 – 16.00 | Unraveling the Fast Pyrolysis Kinetics and Product Formation from Synthetic Polymers With and Without Flame Retardants using Py-GC/MS and Py-FTIR Jayarama Krishna , IIT Madras, India |
| 16.00 – 16.30 | Afternoon Break |
| 16.30 – 16.50 | Omega 7 (<i>cis – vaccenic acid</i>), in LAOR (Worm), as a Health Supplement to preventif Stroke and MCI Prof. Arend Mapnawang , Indonesia |
| 16.50 – 17.10 | Carbon Dot-BSA nanoparticle for concomitant release of antibiotic and Reactive Oxygen Species for antibacterial Photodynamic Therapy Assoc Prof. Prolay Das , IIT Guwahati, India |

Day 2: 27 September 2019 (Friday)

| Time | Talk | Speaker |
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| Morning Session: Keynote Lectures, Chairperson: Prof. Yves Gnanou KAUST, Saudi Arabia | | |
| 9.00 – 9.30 | Keynote Lecture 5 Synthesis of new materials for optoelectronic applications Assoc Prof Andrew C. Grimsdale Nanyang Technological University, Singapore | |
| 9.30 – 10.00 | Keynote Lecture 6 1 and 2D mineral lyotropic materials, from discovery to applications Assoc Prof Dr Jean Christophe Gabriel DRF/IRAMIS/NIMBE, France & SCARCE Laboatory @NTU, Singapore | |
| 10.00 – 10.30 | Keynote Lecture 7 Smart Ferroelectric Materials for Sensors and Transducers Dr Kui Yao Principal Scientist, IMRE, A*STAR Institute, Singapore | |
| 10.30 – 11.00 | Morning Tea Break | |
| | Invited talk and Oral presentation (Pyrolysis and High Energy Storage) Chair: Dr Ichi Watanabe, Frontier Laboratories, Singapore | |
| 11.00-11.20 | Analytical Fast Pyrolysis in Renewable Fuels and Reaction Kinetics Applications Assoc. Prof. R. Vinu , IIT Madras, India | |
| 11.20 – 11.40 | High-Performance p-type Thermoelectric Polymers Assoc Prof Jianyong Ouyang , National University of Singapore, Singapore | |
| 11.40 – 12.00 | Analysis of Thermset Resins and Battery Materials using Pyrolysis-GCMS Dr Sathrugnan Karthikeyan , Frontier Laboratoires, Singapore | |
| 12.00 -12.20 | Seeing Structural Origins and Foreseeing New Pathways to Improved Lead-Free Piezoelectrics with Aberration-Corrected Scanning Transmission Electron Microscopy Dr Haijun Wu , National University of Singapore, Singapore | |
| 12.20 – 12.40 | Chiral Woodpile Morphology Optimization for Plasmonic Enhanced Enantiomeric Detection in Pharmacology Quality Management Dr Gautam Ramasamy , ACS International, Singapore | |
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| 12.40 – 14.00 | Lunch and Poster Session |
| Afternoon | Invited Talk and Oral presentation Green and Smart Materials (Chair: Prof Izaak Hendry Elim, Indonesia) |
| 14.00 – 14.20 | Conical nanopores for enhancing water permeation through alumina membranes: a molecular simulation Dr Anjaiah Nalaparaju , National University of Singapore, Singapore |
| 14.20 - 14.40 | Biomass to Biofuels via Catalytic Hydropyrolysis using Analytical Py-GC/MS Ms Kavimonica Venkatesan , IIT Madras, India |
| 14.40 – 15.00 | The use of cellulose nanofibers extracted from water hyacinth in composites Dr. Supachok Tanpichai , King Mongkut's University of Technology Thonburi, Thailand |
| 15.00 – 15.20 | Single step process for catalytic upgradation of bio-oils obtained from microwave-assisted fast pyrolysis of biomass Dr. Lakshmi Prasad Gurrula , IIT Madras, India |
| 15.20 – 15.40 | Novel Green Catalyst for advanced Oxidation Process Dr. Augustine Quek , National University of Singapore, Singapore |
| 16.00 – 16.30 | Afternoon Tea break |
| 16.30 – 16.50 | Investigation of Incorporation of inhibitors on the performance of acrylic based anticorrosion coating, Prof. Ramesh Kasi , University of Malaya, Malaysia |
| 16.50 – 17.10 | Photoelectrochemical Properties of Photochemically Deposited Nanocrystalline CdSe Films Prof Sanjay Waman Pawar , Pune University, India |
| 17.10 – 17.30 | Conference Closing and Vote of Thanks |

For Registration, please visit www.amrc2019.com

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Poster Sessions:

There will be 25-30 posters during Poster session. Details will be published later.