

8TH INTERNATIONAL CONFERENCE ON FUNCTIONAL MATERIALS AND DEVICES 2024 (ICFMD-2024)

TUESDAY, 6TH AUGUST 2024 (DAY 1)				
Time	BERLIAN ROOM			
0800	REGISTRATION			
0915	OPENING CEREMONY			
0945	PS01 – Agus Purwanto Development of Fast-Charging Energy Storage			
1030-1100	COFFEE BREAK			
Time	BERLIAN ROOM	NILAM ROOM	ZAMRUD ROOM	KENANGA ROOM
1100	KS01 – Masaru Aniya Studying the Relation Between Thermoelectric, Superionic and Mechanical Properties of Ionic Conductors	KS03 – Yoshizawa-Fujita Ionic Plastic Crystals as Flexible Solid Electrolytes for Rechargeable Batteries	KS09 – Wan Jefrey Basirun Borophene 2D material for Electrochemical Sensing and Electrocatalysis	KS06 – Markus Diantoro Exploring The Role of Metal Oxide in Carbon-Based Supercapacitors: Configuration and Structure Modification Effect to Performance Enhancement
1130	IS01 – Norazila Ibrahim Magnetic Field Dependent of Resistivity in Polycrystalline Manganites: Towards Sustainable Spintronics-Based Magnetic Sensor	IS02 – Vengadaesvaran V. Balakrishnan Biomass-Derived Magnetic Bio-Char Material as Sustainable Electrode Material for Lithium Ion Battery	IS03 – Izan Izwan Misnon Porosity Design of MnCoFe ₂ O ₄ Using Sacrificial SiO ₂ Nanoparticle by Auto-Combustion Technique for Supercapacitor Application	IS08 – Muhd Firdaus Kasim Washing Effect on Electrochemical Performance of Single Crystal LiNi _{0.59} Co _{0.37} Ti _{0.1} Al _{0.01} O ₂ (NCTA) Cathode Materials by Water
1150	IS05 – Goh Boon Tong Low-Temperature Synthesis of Two-Dimensional Materials by Hot-Wire Chemical Vapour Deposition for Hydrogen Production	IS24 – Suman Long Term Exposure and Health Risk Assessment from Urban Air Pollution Along the Road Network	IS07 – Muhamad Kamil Yaakob Designing Multifunctional Bi _{1-x} GaxFeO ₃ Materials: An Integrated Computational and Experimental Approach	IS13 – Mohd Fareezuan M. Aziz Enhancing Ionic Conductivity: PVA Gel Electrolyte with Diethyl Carbonate Plasticizer for Dye-Sensitized Solar Cell Application
1210	OP09 – Nur A'Inaa Izzati Nazarihan Understanding the Impact of Carbon Coatings on LiNi _{0.8} Mn _{0.2} Co _{0.2} O ₂ (NMC811) Cathode	OP42 – Abdul Hanan Vanadium-based MXene integrated MoS ₂ : The effective electrocatalyst for Hydrogen evolution in alkaline media	OP11 – Azran Mohd Zainoodin Performance of Platinum-Coated Titanium for Proton Exchange Membrane Water Electrolyzer Bipolar Plates	OP37 – Khushboo Gupta Electrochemical Analysis of Cs ₂ AgBiBr ₆ double perovskite for Energy Applications

	Materials Towards the Behaviour of Their Electrochemical Performance			
1225	OP01 – Ong Kar Kien Investigations on PAA-Based Ionogel Polymer Electrolyte and its EDLC Application	OP02 – Abdul Rahman Abdul Rahim Magnetic Biochar Adsorbent for Adsorptive Removal of Microplastics	OP03 – Jumril Yunas Transferless Soft-Litography Process for the Fabrication of PDMS Based Dome-Shaped Membrane	OP04 – Abdul Rahman Mohmad Mechanical Exfoliation and Fabrication of 2-Dimensional Rhenium Disulfide Nanoflakes
1240	CORPORATE SLOT Neware	OP06 – Kelimah Anak Elong Improvement in the Structural and Electrochemical Performance of NMC 111 Through Ti and Al Doping	OP07 – Dharma Darren Ram Equilibrium Molecular Dynamics (EMD) Simulation on Thermal Conductivity of Strained Hexagonal Boron Nitride/ Graphene vdWs Heterostructure	OP08 – Muhammad Sholihin A. Rahim First Principle Method for Studying Thermoelectric Properties of Anti-Perovskite Ba ₃ SiO and Ca ₃ SiO
1255-1400	LUNCH			
1400	KS13 – T. M. W. J. Bandara Development of Dye-Sensitized Solar Cells Utilizing Carbonaceous Material in Three Functional Components	IS11 – Liew Chiam Wen Dual Charge Carriers Transport in Aloe vera/ poly(acrylic acid) (PAA)-based Gel Polymer Electrolyte	IS04 – Tan Winie Enhanced Efficiency of Dye-Sensitized Solar Cell with Polyaniline-Decorated FeCo ₂ O ₄ Counter Electrode: Synthesis, Characterization and Performance Analysis	IS14 – Richa Tomar NanoPower: Harnessing Zinc Ferrite Cellulose for Dye removal and Lung Cancer treatment
1430	IS09 – Herlin Pujiarti Photovoltaic Characteristics of ZnO Nanorod-based Organic Dye with Different Light Intensity for Dye-sensitized Solar Cells	IS37 – Shahid Bashir Environmentally Friendly Green Materials for Flexible Energy Storage Devices	IS12 – Teo Li Ping Preparation and Characterization of Solid Polymer Electrolytes	OP38 – Manju Kumari Investigation on Hydrothermal Synthesis of Nickel Doped LaFeO ₃ and its Utilization in Energy Storage Applications
1450	OP43 – Wong Weng Pin Optimization of Microwave Synthesis and Thermal Annealing of Bismuth Sulfide as Thermoelectric Material	OP14 – Norbazirah Aisya M. Rusli Irregular Crystal Nanocubes FeCo ₂ Se ₄ Wrapped with MWCNT for All-Solid-State Asymmetric Supercapacitor	OP15 – Nurul Hanis Hazirah Yussuf Duration Regulated Hydrothermal Synthesis in the Pursuit of Attaining Cobalt Sulfide for Supercapacitor Applications	OP16 – Dea A. K. Ramadhani The Role of Ag Doping on ZnO Nanorod Structure, Electrical and Optical Properties for Dye-Sensitized Solar Cell Applications
1505	OP17 – Farhan Nur Al Afandy Dye-Sensitized Solar Cell Utilizing Reduced Graphene Oxide Films Counter Electrode: Effect of Reduced Graphene Oxide Thickness	OP18 – Silvia Nurlaili Agustina Modification Gel Polymer Electrolyte using Natural Biopolymer Brown Algae to Optimize Supercapacitor Performance	OP19 – Naimjonov Arslonbek Determination of the Effect of Gamma Radiation on the Electrophysical Properties of Electrolytes of DSSCs	OP20 – Abdullaziz Abdulkarimov Electrophysical and Optical Characteristics of Natural Dye Sensitized Solar Cells
1520	OP21 – Abdurahim Okhunov	OP22 – Hazira Binti Hussin	OP23 – Salma Tourti	OP24 – Nurdiana Nordin

	Properties of Ground State Band of 230,232Th Isotopes	Green Synthesis of Selenium Nanoparticles using Corn-Husk Extract	Green Synthesis of Selenium Nanoparticles by using Banana Peel Extract as Reducing and Capping Agent	Development of Flexible, Conductive Sodium Alginate Thin Films Doped with Metal Ions and PEDOT for Self-Powering LED Applications
1535	OP25 – Indra Pardede Anatomy of the Magnetic Anisotropy Energy in 2D Materials (Cr ₂ C, CoS ₂ , and VSe ₂) from First Principles for Spintronics Applications	OP26 – I Putu Mahendra Synthesis of Cu Doped ZnO with Citric Acid as Capping Agent using Hydrothermal Method for Photodegradation of Methylene Blue	OP27 – Nur Anna Lia Malim Exploring the Effects of Lithium Content on Ni _{0.8} Mn _{0.1} Co _{0.1} (OH) ₂ (NMC811) Precursors and Their Electrochemical Properties	OP28 – Neelam Rawat The Bioinspired Energy Storage Materials for Advanced and Sustainable Supercapacitors
1550	OP30 – Shilpa Kumari Bambusa arundinacea Shoot Extract-Mediated Synthesis of Silver Oxide Nanoparticles and Its Anticancer Activity	OP31 – Rashi Chaudhary Antibacterial Properties of Graphene-Based Nanomaterials: Surface Functionalization and Optimization	OP33 – Aafreen Kausar Detail Electrical and Photo Electrochemical Studies of Potassium Hydroxide Incorporated and Ionic Liquid Doped Polyethylene Oxide	OP12 – Zainal Mustakim Eco-Friendly Extraction and Characterization of Chitosan and Melanin from Hermetia Illucens Via Microwave Irradiation
3-Minute Poster Presentation				
1605-1635	PP01 – Ianatul Khoiroh Liquid-Liquid Extraction for The Separation of Binary Mixture Composed of Acetonitrile and Benzene With EMIM-Based Ionic Liquids PP02 – Siti Musliha Binti Mat Ghani Biomass Compositional Analysis and Thermal Extraction Process of Lignin from Coconut Coir PP03 – Arif Zuhair Bin Mohd Arnuar Current Methods for Peroxide Detection in Food and The Emerging Role of Heteroaromatic Dyes as an Efficient Alternative PP04 – Pradeep Nayak Chitosan-Poly (Vinyl Alcohol) (PVA) Solid Blend Polymer Electrolyte Membranes for Developing Primary Magnesium Ion Cells PP05 – Azira Binti Azahidi	PP10 – Ahmad Faris Bin Mohd Adnan Evaluation of Microbial Fuel Cell Performance: Utilizing N-Phthaloylchitosan/Ammonium Triflate Salt Membrane using Lactic Acid Bacteria based Anodophilic Culture PP11 – Nur Khuzaimah Farhana Binti Abd Aziz Guar Gum-Based Gel Polymer Electrolytes: Enhancing Performance and Stability of Dye-Sensitized Solar Cells PP12 – Nurshafiza Shahabudin Oil Palm Agrowaste Cellulosic Electrolyte for Electrochromic Devices PP13 – Siti Nor Farhana Binti Yusof Eco-Friendly Plasticizer from Recycled PET for Enhancing Polymer Electrolytes in DSSCs	PP19 – Nurnilamsari Binti Shamshurim Impact of NaCF ₃ SO ₃ on Structural and Electrical Properties of Gellan Gum-Based Solid Polymer Electrolyte at Room Temperature PP20 – Norazlin Binti Zainal The Effect of Ionic Liquid on the Ionic Conductivity and Dielectric Properties of Epoxidized Natural Rubber Based Polymer Electrolytes PP22 – Intan Nurazrin Binti Yusry Zainol Sodium Polymer Electrolyte for Sodium Ions Battery PP23 – Wan Atikah Iman Binti Wan Ruzali	PP30 – Uktamaliev Bekzod Electrophysical Characteristics of PMMA-EC-LiTF-SCN Electrolyte PP31 – Faridah Sonsudin Studies on the Polymer Electrolyte using Modified Guar Gum and NH ₄ NO ₃ Salt PP32 – Mohd Ali Bin Mat Nong Enhancing Electrospun Cellulose Acetate Nanofiber Composites with Polyacrylonitrile for Advanced Functional Materials in Flexible Electronics PP33 – Juraina Md Yusof The Properties of Carbon Nano Particles Biochar for Electrospun Carbon Nanofiber PP34 – Sakinah Abdullah

	<p>Effect of Fe³⁺ and Al³⁺ Substitution in Layered Li-Rich Li[Li_{0.1}Ni_{0.7}Co_{0.3}]O₂ Cathode Material for Li-Ion Batteries: Structural and Electrochemical Characterizations</p> <p>PP06 – Nurul Izza Taib</p> <p>Synthesis and Structural Characterization of g-C₃N₄/AgI Composite and its Reactivity Towards Methylene Blue Degradation</p> <p>PP07 – Iesti Hajar Hanapi</p> <p>Secondary Filler Behavior on the Chopped Carbon Fiber (CCF) Reinforced Epoxy Composite Bipolar Plate for Proton Exchange Membrane Fuel Cell (PEMFC)</p> <p>PP08 – Sabrina M Yahaya</p> <p>Impedance Study of Polyaniline Coated Mild Steel in a 0.5M Aqueous NaCl Solution</p> <p>PP09 – Mas Fiza Binti Mustafa</p> <p>Synthesis and Electrochemical Performance of Nano-Sized V₂O₅ Cathodes for Rechargeable Aluminium-Ion Batteries: Effect of Annealing Temperature on Structural and Cyclic Voltammetry</p>	<p>PP14 – Nurhidayu Binti Harudin</p> <p>Enhancing the Electrochemical Properties of Ca-Doped Mg Based Cathode Materials by Electrospinning Method</p> <p>PP15 – Jacky Yong</p> <p>Correlated Barrier Hopping Dynamics of Na⁺ Ions in Poly(vinyl alcohol) Biopolymer-based Solid Polymer Electrolytes: Electrical and Structural Analysis</p> <p>PP16 – Ahmad Danial Azzahari</p> <p>The Modification of Silver Diammine Fluoride with Green Capping Agents to Reduce Silver-Mediated Dentine Staining</p> <p>PP17 – Wang Jian</p> <p>Design of Polysulfide-Derived Anionic Heterostructures to Promote Rapid Na⁺ Transport</p> <p>PP18 – Izlina Supa'at</p> <p>Effect of Sintering Temperature on Structural and Electrical Properties of Na₂MgSiO₄ Solid Electrolyte</p>	<p>Ionic Conductivity and Glass Transition Temperature of Ionic Liquid Embedded (ENR-50)-LiN(CF₃SO₂)₂ Polymer Electrolyte</p> <p>PP24 – Jerome Liew</p> <p>Characterization of Ti₃C₂ MXene Synthesized by Various Etching Route</p> <p>PP26 – Megat Muhammad Ikhsan Bin Megat Hasnan</p> <p>Electrical, Electrochemical and Structural Properties of PE-Ti₂AlC Mo-doped composite Separator Prepared by Dual Target Magnetron Sputtering</p> <p>PP27 – Nuriddinova Mashkhurakhon</p> <p>Calculation of the Density of Electron States in Defects of Amorphous Semiconductors</p> <p>PP28 – Sultonov Akhmadjon</p> <p>Main Dynamic Characteristics of Powerful Pulse GaAs-AlGaAs Superluminescent LEDs</p> <p>PP29 – Ergashov Abdurasul</p> <p>Photoelectric Characteristics of TiO₂-Based on Thin-Film Solar Elements with Ruthenium (II) Compounds</p>	<p>Optical Properties and Characteristics of Solar Cells with Grape Juice as Dye Materials</p> <p>PP38 – Zul Hazrin Bin Zainal Abidin</p> <p>Eliminating Adhesive Layers in Silver Metallization: A Comparative Study of Glass Cleaning Methods for Enhanced Hydroxylation and Adhesion</p> <p>PP39 – Wong Siew Munn</p> <p>Development of Poly(Ethyl Methacrylate)-Based Calcium Ion Conductor</p> <p>PP40 – Siti Rohana Majid</p> <p>Electrochemical Analysis of Calcium/Cobalt Oxide Composite as Cathode Material for Calcium-Ion Batteries</p> <p>PP41 – Nurulain Nadia Maliki</p> <p>Colourimetric as Alternative Qualitative Measurement for Reheated Cooking Oil</p> <p>PP42 – Ahmad Danial Azzahari</p> <p>Guar gum phthalate: An organosoluble agropolymer for gel polymer electrolyte applications</p>
1635-1700	COFFEE BREAK			
1700-1800	POSTER SESSION			

WEDNESDAY, 7TH AUGUST 2024 (DAY 2)			
Time	BERLIAN ROOM		
0900	PS02 Yuki Nagao Energizing the Future: Innovations in Polymer Electrolytes for Next-Gen Energy Storage and Transport Technologies		
Time	BERLIAN ROOM	NILAM ROOM	ZAMRUD ROOM
0945	KS04 – Han Young Woo Conjugated Polyelectrolytes as a Multifunctional Interlayer for Optoelectronic Devices	KS07 – Masashi Kotobuki Development of Solid Electrolytes	KS05 – Hao Wang Sustainable Enhancement of Post Processing for Metal Additive Manufacturing
1015	IS19 – Sandeep Kumar Singh Miniaturized Quad-Band Coplanar Waveguide Fed Patch Antenna by Using Dielectric Materials for WiMAX, IMT, WLAN, and 5G Applications	IS15 – Kanu Priya Biogenic Nanoparticles: Revolutionizing Cancer Treatment	IS25 – Tarun Varshney Controlling of Large-ordered PHWR by using Model Order Reduction Techniques
1035-1100	COFFEE BREAK		
1100	IS20 – Har Mohan Singh Algal Biomolecules a Sustainable Source for Energy Conversion and Energy Storage Applications	IS16 – Mohit Sahnii Promising Photocatalytic Performance of A and B Side Doping in BiFeO ₃ Nanoparticles	IS26 – Amit Sachdeva Effect of Cadmium Sulphide on PEMA based polymer Electrolyte Nanocomposite and its application in DSSC
1120	IS22 – Mansi Sharma Greening Resilience: Biopolymers in Governing Abiotic Stress Tolerance in Plants	IS06 – Sharudin Omar Baki Radiation Shielding Study of Tungsten Impact on Tellurite-Bismuth Based Glasses	IS27 – Ismayil Beyond Lithium: Exploring Magnesium Ion Conducting Polymer Electrolytes for Energy Storage Devices
1140	OP10 – Chong Kar Lun Extraction and Characterization of Cellulose Nanocrystal from Sago Pith Waste	OP46 – Muhammad Ammar Hairul Nizam Influence of H ⁺ Carriers on Ionic Conduction Properties for Alginate-PVA Based Bio-Polymer Electrolytes	OP50 – Mohammad Nofil A Novel PCB-based Electrochemical Platform for Rapid and Accurate Detection of Ascorbic Acid
1155	OP13 – Lai Jau Choy Graphene-Based Nanofillers and Compatibilizers: Their Influences on Mechanical and Morphological Properties of PBT/PET Nanocomposites	OP47 – Nuraziliana Muhd Ghazali Optimizing H ⁺ Ion Fraction for Enhanced Impedance Response in Blended Biopolymer Electrolytes	OP51 – Chethan C. Thimmarayappa Analysis of Biomarkers in Artificial Tears using a Miniaturized Electrochemical Sensor
1210	OP44 – Muhammad Norhaffis Mustafa	OP48 – Ahmad Faizrin Ahmad Fuzlin	OP52 – Akmal Fathurrahman Zulkifli

	MXene/Nickel Cobalt Phosphate Multifunctional Electrode Material for Enhanced Electrochromic Energy Storage Application	Electrochemical Properties of Symmetric Supercapacitor Proton Conducting Alginate Bio-Based Polymer Electrolytes	Semiconductive-like Properties and Negative Differential Effect Observed in Riboflavin
1225	OP45 – Yasir Ali Bhutto Experimental Investigation of Bio-Based Particles Integrated Lauric Acid Phase Change Material for Solar Energy Storage Application	OP49 – Sarah Hailan Purification of Colloidal Oil in Water Emulsions by Cationic Adsorbent Prepared from Recycled Polyethylene Waste	OP53 – Nikita Buriak Impedance Spectroscopy Analysis for Modelling of Vanadium Redox Flow Batteries with Different Stack Design
1240	PHOTO SESSION		
1300-1400	LUNCH		
1400-1830	TOUR		
1930-2200	GALA DINNER		

THURSDAY, 8TH JUNE 2024 (DAY 3)

THURSDAY, 8TH JUNE 2024 (DAY 3)			
Time	BERLIAN ROOM		
0900	<p align="center">PS03 – Abdul Kariem Bin Mohd Arof Performance and Impedance Spectroscopy of Dye-Sensitized Solar Cells using Natural Dyes</p>		
Time	BERLIAN ROOM	NILAM ROOM	ZAMRUD ROOM
0945	<p>KS08 – Zurina Osman Characteristics of Mg-Based Cathode Materials with Different Doping Element Concentrations</p>	<p>KS11 – Pramod Kumar Singh Stable Dye Sensitized Solar Cells using Ionic Liquid Doped Polymer Electrolyte and Crystal Based Working Electrode</p>	<p>KS12 – Sangaraju Shanmugam Advanced Materials for Sustainable and Green Electrochemical Energy Storage Devices</p>
1015	<p>IS17 – Pankaj Kumar Tripathi Photonic and Display Features of the Blue-Phase Liquid Crystals for Phase Stabilization and Device Development</p>	<p>IS30 – Nada Masmali Enhancing Structural, Transport and Dielectric Properties of Composite Cus-Ag₂S Colloidal Semiconductor Nanocrystals-Based Gel Polymer Electrolyte</p>	<p>IS10 – Woo Haw Jiunn Engineering Advanced Anode Materials: Cationic Heterostructure Design in Transition Metal Chalcogenides for Sodium Ion Batteries</p>
1035-1100	COFFEE BREAK		
1100	<p>IS28 – Zainovia Lockman Formation of 1-D Oxide Nanomaterials by Metal Surface Oxidation and their Photochemical Properties Assessment</p>	<p>IS31 – Mohd Ifwat Bin Mohd Ghazali Studying Increased Electrical Conductivity for RF based Component Using Dual Metal Coatings on 3D Printed SLA Platforms</p>	<p>IS35 – Mohd Hamdi Ali @ Buraidah Composite Gel Carbon Dots-Polymer Electrolytes for Dye-Sensitized Solar Cells</p>
1120	<p>IS29 – Ahmad Salihin Samsudin Unleashing The Potential of PMMA/PLA Based-Gel Polymer Electrolytes for The Application in Lithium-Ion Batteries</p>	<p>IS34 – Muhamad Faiz Md Din Magnetic Phase Transition and Structural on NdT₂X₂ Compound (T=Transition Metal) and (X=Metalliod)</p>	<p>IS36 – Ramesh Kasi Enhancement of Barrier Protection of Organic Coatings with the Incorporation of Graphene Oxide as a Reinforcing Filler</p>
1140	<p>OP40 – Faiza Bibi Facile Extraction of Mo₂Ti₂C₃T_x Mxene Via Hydrothermal Synthesis for Electrochemical Energy Storage</p>	<p>OP58 – Wei Tan Inverse Design and Additive Manufacturing of Shape-Morphing Structures Utilising Functionally Graded Composites</p>	<p>OP62 – Chen Yuncai High-Entropy Sodium Layer Oxides – A Novel Concept for Sodium-Ion Batteries Cathode</p>
1155	<p>OP41 – Elsa George</p>	<p>OP59 – Azura Binti Hamzah</p>	<p>OP64 – Ahmad Haziq Aiman Bin Rosol</p>

	Preparation of hydrothermally assisted microwave synthesis of BiSbTe for thermoelectric applications	Thickness Analysis of Mechanically Exfoliated $\text{MO}_2\text{GA}_2\text{C}$ SA for Ultrafast Fibre Laser Application	Microsecond Erbium Doped Fiber Laser using Thulium Doped Fiber Saturable Absorber (SA)
1210	OP55 – Mohd Amirul Mukmin Bin Abdullah Investigating the Effects of Boron Concentration and Dipping Time on Treatability and Mechanical Properties of Paulownia Wood	OP05 – Rosmamuhamadani Ramli Cementitious Materials Utilizing Anadara Granosa Cockle Shells as Aggregate	OP65 – Jamal I. Daoud Regression Model Building and Error Autoregression
1225-1300	DISCUSSION AND CLOSING CEREMONY		
1300-1400	LUNCH		