

9th INTERNATIONAL
Conference
FOR YOUNG
CHEMISTS



09 - 11
OCTOBER
2024

GREEN INNOVATION IN CHEMISTRY:
CATALYZING SUSTAINABLE SOLUTIONS
FOR A GREENER TOMORROW

ORGANIZED BY

School of Chemical Sciences



CO-ORGANIZED BY



IPB University
— Bogor Indonesia —



Bayview Hotel George Town, Penang, Malaysia

LIST OF PRESENTING PARTICIPANTS

CODE	NAME	TITLE
IV-01	DR. KAVIRAJAA PANDIAN SAMBASEVAM	Electropolymerization of Polyaniline: A Versatile Approach for Rapid Deployment of Sensors in Food and Environmental Pollutant Monitoring
IV-02	DR. MUGGUNDHA RAOOV	Advanced Microextraction Methods for Polycyclic Aromatic Hydrocarbons in Food Using Magnetic Nanoparticle-Ionic Liquid Technology
IV-03	DR. SUBHAN SALAEH	New Crosslinking Routes of Rubber Vulcanizates for Smart and Sustainable Materials
ANA-01	DR. ALOYSIUS AKAANGEE PAM	Making The Switch from Traditional Activating Agents to Eco-Friendly Solvents for Activated Carbon: A Step Towards Long-Term Pb(II) Removal from Water
ANA-02	DR. ISA KOKI	The Use of Chemometric Techniques in The Assessment and Source Identification of Toxic Metal Pollutants Along Kano Rivers Nigeria
ANA-03	MR. ZHEN HONG CHANG	Enhanced Stability and Permeability of Graphene Oxide Nanocomposite Membranes Via Glycine and Diglycine Cross-Linking
ANA-04	AISHA HAMID BALOCH	Development of Bimetallic Supported on 3D-Structured Metals Catalysts
ANA-05	MR. NASIR MUAZU	Electrochemical Degradation of Methylene Blue (MB) Using Graphite/PVC Anodes Coated with Nickel Oxide and Zinc Oxide:

		Optimization, Kinetic Analysis and Industrial Application Potential
ANA-06	MR. YAHAYA ALIYU DANMARAYA	Development of Dummy Template Molecularly Imprinted Polymer for The Adsorption of Organophosphorus Pesticides: Preliminary Studies
ANA-07	MUSAB ALGHODRAN	Development of Magnetic Graphene Oxide-Deep Eutectic Solvent for The Determination of Organophosphorus Pesticides: A Preliminary Studies
ANA-08	DR. SAPTONO HADI	Fabrication of Carboximetyl Chitosan-Alginate Polyelectrolyte Complex Membrane for Adsorption of Methylen Blue in Water
ANA-09	NURFARHANIM ABU BAKAR	Innovative Chitosan Hydrogels as A Sustainable Plant Growth Regulator for Resilience Agriculture
ANA-10	ZULHAN ARIF	Simple Detection of Hexavalent Chromium in Solutions Using Optode Membrane
ANA-11	NATALIA MARBUN	Microparticles Zerumbone from Zingiber Zerumbet Rhizome in Chitosan Modified Oleic Acid
ANA-12	DOREEN NB CHANDRA SIRI	Rapid Portable Atmospheric Solids Analysis Probe Mass Spectrometry for On-Site Urine Drug Screening
ANA-13	AMIRUL RAHIMI NORAZMI	Exploration of Potential Application of Natural Deep Eutectic Solvent in Vortex Assisted Liquid-Liquid Microextraction for The Determination of Selected Furanic Compounds in Honey

ANA-14	MR. MAMDOOH QATAN	Trends in Bimetallic Nanomaterials and Methods for Removal of P-Nitrophenol and Its Derivatives from Wastewater
ANA-15	YI HUAN TAN	Environmental Assessment of Single-Use Laboratory Plastic Waste: A Case Study
ANA-16	ZENI RAHMAWATI	Potentiometric Sensor-Based Imprinted TS-1 Zeolite for Selective Detection of Cholesterol
ANA-17	ASSOC. PROF. DR. MATEEN ABBAS	Green Synthesis of Iron Nanoparticles using Tagetes Erecta Flower Extract for The Detoxification of Various Mycotoxins
ANA-18	AR. DR ALIYU MUHAMMAD	Voltammetric Detection of Amoxicillin Residue in Milk at Nanohybrid Modified Screen Printed Electrode
BIOCHEM-01	YEHEZKIEL STEVEN KURNIAWAN	Design and <i>In Silico</i> Modelling of Heterocyclic-Based Xanthone Derivatives as Potential Anticancer Agent Through Tyrosine Kinase Inhibition
BIOCHEM-02	HUSNAINI BASIR	Discovery of Indoleninyl-Pyrazolo[3,4- <i>b</i>]pyridines as Potent Chemotherapeutic Agents Against Colorectal Cancer Cells
BIOCHEM-03	YONG YONG ONG	<i>In Silico</i> Peptidomics in Identifying Novel Bioactive Peptides from Sludge Worm (<i>Tubifex Tubifex</i>): A Green Chemistry Approach
BIOCHEM-04	TRIVADILA	In Vitro Kinetics of Cyclooxygenase-2 (COX-2) Inhibition by Spageticola Tribolata Extract
IND-01	ZHEXUN ONG	Reforming Wood Preservative Delivery: Employment of Tebuconazole-Loaded Self-Emulsifying Drug Delivery System (SEDDS) and Tebuconazole-Loaded Zein Nanoparticles

IND-02	ISABELLE ZIEGLER-DEVIN	Green Approach to Produce Lignin Nanoparticules
IND-03	MS. AFREEN AHTEHAM	Development Of PPy/MnO ₂ /N-CNT Coated Carbon Felt Anode for Microbial Degradation of Methyl Yellow Dye
IND-04	NOR NAJHAN IDRIS	Enhancing Lignin Properties Via Steam Explosion Pretreatment: A Novel Modification Approach
IND-05	SANI MUHAMMAD GUMEL	Investigation of Chitosan Efficacy as A Good Delivery Biopolymer for Anti-Breast Cancer Drugs Through Molecular Docking
IND-06	MOHAMAD HAMDIZAINAL ABIDIN	Neoteric Green Solvents for Improved Solubility and Antioxidant Activity of α -Tocopherol
IND-07	LAI YEE LEE	Development of A 3D Reduced Graphene Oxide Aerogel for Treatment of Pharmaceutical Wastewater
INO-01	ADHI DWI HATMANTO	Incorporation of ZnO Nanofillers into Chitosan/KI/I ₂ -Based Quasi Solid Electrolytes
INO-02	RATIH LESTARI	Sustainable Recycling of Plastic Bag Waste into Carbon Quantum Dots Using Optimized Pyrolysis-Hydrothermal Methods for Selective Fe(III) Sensing
INO-03	INDRIANA KARTINI	Carbon Dot Nanocomposites from Cajeput Tree Modified with Folic Acid and Chlorophylls as Potential Photosensitizers for Photodynamic Therapy
INO-04	MR. AHMAD ALIF SYAMSUDDIN MOHAMAD NASIR	NiO/CeO ₂ -Al ₂ O ₃ Mesoporous Catalyst Supported on Alumina Beads for Hydrogen Generation from Ammonia Decomposition

INO-05	MR. HII CHIONG HWEE	Seeking The Potentiality of Phenylphosphonate/HDPE/Graphene Oxide Composite: An Environmentally Friendly Flame Retardant
INO-06	MAS SYAZLIN MASBAH	Microwave-Assisted Synthesis and Characterisation of Zinc Oxide Quantum Dots for Detection of Antibiotics
INO-07	MUHAMMAD AMIR FIRDAUS MOHD ZULKFLY	Microwave-Assisted Synthesis of Carbon Quantum Dots from The Deactivated Cells of Pseudomonas Aeruginosa Usm-AR2
INO-08	MS. HANISAH ZAINAL ABIDIN	Effect of Tin Filler Composition on Porosity in Tin-Polydimethylsiloxane Composites
INO-09	NOVIYAN DARMAWAN	Enhanced Photocatalytic Degradation of Emerging Pollutants by Hybrid Metal-Organic Frameworks and Carbon Dots Composites
INO-10	MR. MUHAMMAD FATHURRAHMAN	Kinetic and Optimization Studies of Methylene Blue Photodegradation Over Fe-PTC MOF and H ₂ O ₂ using Response Surface Methodology
INO-11	SEOW CHING PHOON	Microwave-Assisted Synthesised SnO ₂ Quantum Dots Photocatalysts for The Removal of Antibiotics
INO-12	MS. NUR AMANINA JUNIASARI TUN NUR ISKANDAR	Sulfone-Centred Systems with Diverse Terminal Alkoxy Chains: Synthesis, Characterization, and Their Mesomorphic and Photoluminescence Behaviors
INO-13	MRS. LUTFIYA RIZQIYANIKA	Fe ₃ O ₄ @SiO ₂ Modified HDTMS Hydrophobic Coatings as Anti-Corrosion Coating on Steel
INO-14	ZI KANG KOI	Synthesis And Characterization of Layered Double Hydroxide

INO-15	AMAL NAYEF AL-MOMANI	Microwave-Assisted Synthesis of Laccase of <i>Trametes Hirsuta</i> -Derived Carbon Dots for Ciprofloxacin Detection
INO-16	DR. NOR HAFIZAH BERAHIM	Catalytic Hydrogenation of CO ₂ to Methanol Over Cu/ZnO Based Catalyst Supported on Various Types of Al ₂ O ₃ Pellet
INO-17	MS. JEESICA HERMAYANTI PRATAMA	Catalytic Study of CO/γ-Al ₂ O ₃ on The Deoxygenation of Palm Oil Biodiesel for Green Diesel Production
INO-18	MRS. NURUL ATIKAH NORDIN	Enhanced Photocatalytic Generation of H ₂ O ₂ via a Composite of ZIF-8 and Carbon-Doped g-C ₃ N ₄ Derived from Kapok Fiber
ORG-01	FIA FATHIANA WULAN	Evaluating Antimalarial Properties Via Chemical Modification of Furan-Based Chalcones: Insights from Biological Activity, DFT Calculations, Molecular Docking, and ADMET Study
ORG-02	MS. YAP PUI WING	Synthesis and Properties of Non-Linear Disulphide-Centered S-Shaped Oligomers Armed with Aromatic Azo Moieties
ORG-03	LIM XIN YI	TMPTA Crosslinker UV-Grafted BPADA-BAPP Polyimide Thin Films: Thermos-Chemical Stability and Structural Characterization
ORG-04	MS. NUR FATIN ATIKAH ABDUL MUTALIB	Acid-Activated Natural Zeolite Clinoptilolite Functionalized with Curcumin for Superior Methylene Blue Adsorption: Insights into Optimization, Characterization, and Adsorption Mechanisms
ORG-05	MS. DANA AINAKULOVA	Utilization of Poly(Glycidyl Methacrylate-Co-Butyl Acrylate) Reactive Dilutes to Improve

		The Properties of Epoxy Resin as Anticorrosion Coating
ORG-06	BUDI HASTUTI	Synthesis of Chitosan-Alginate-Montmorillonite Hydrogel Micro Composite for Paracetamol Adsorption in Aqueous Solutions
ORG-07	MR. AIDIEL MOHAMMAD	Isolation, <i>In-Vitro</i> Cytotoxicity and Molecular Docking of Polymethoxyflavones from <i>Kaempferia Parviflora</i> on Breast Cancer Cell Lines
ORG-08	BUDI ARIFIN	Effect of Solvent Polarity on Side-Chain Rearrangement in Bromination of Methyleugenol with Molecular Bromine
ORG-09	REYMARK EREJE	Synthesis, Molecular Docking and Quantitative Structure-Activity Relationship Analysis of Bioactive 2o-Alkylated Benzofuropyridines
ORG-10	MR. ABRAR MOHAMMAD SAYAF	Evaluation of 2-(1H-1,2,3-Triazol-1-yl)acetic Acid Derivatives as Potential Human Hypoxia Inducible Factor (HIF) Prolyl Hydroxylase Domain-2 (PHD2) Inhibitors
ORG-11	NAFISAH NAFISAH	Anti-inflammatory Activity of Biflavonoid from Genus <i>Araucaria</i> : <i>In Vitro</i> and <i>In Silico</i> Approach
ORG-12	DR. CHAPUIS HUBERT	Chemical Treatment of Flax Fibre Materials for Biocomposite Applications
PHY-01	MS. EARLY ZAHWA ALHARISSA	Remarkable Enhanced Visible Activity of TiO ₂ -N CO-DOPED with Cu from Electroplating Wastewater for Degradation of Amoxicillin Residual in Water Media

PHY-02	KELLY LOKE KAH YEE	Enhancing Plastic Pyrolysis: Predictive Analysis Integrated with Machine Learning
PHY-03	MR. GANAPATY MANICKAVASAGAM	Unlocking The Synthesis Tuning of Hydrochar-Based Catalysts for Enhanced Peroxymonosulfate Activation
PHY-04	EKA PRATISTA	Doping TiO ₂ with Cu from Electroplating Wastewater for Remarkable Improvement of Its Activity Under Visible Light for <i>E. Coli</i> Bacterial Disinfection in Water
PHY-05	MS. MARYAM ABDUL- RAHEEM	Fabrication of KOH Impregnation Pome Sludge Biochar-Based Photocatalyst Via Hydrothermal Synthesis for Photodegradation of Ciprofloxacin Antibiotic Pollutant Under Solar-Simulated Visible Light
PHY-06	MD MOKARRAM BADSHA	Predictive Analyses for The Dark Fermentative Hydrogen Production from Food Waste
PHY-07	MR. AHMAD ALIN BAFFA	Synthesis and Characterization of Graphene Oxide Zinc Metal-Organic Framework (BgO-ZnMOF) for The Removal of Bisphenol-A in Wastewater Via Adsorption Process
PHY-08	SUN YANLI	Enhanced Photodegradation of Ceftazidime by BIOBR(110)/BIOCL(110) Composite: Its Synthesis, Mechanism, and Degradation Pathways
PHY-09	PHILIP JOHN AMEJI	Integrated Ligand and Structure Based Approaches for The Design of Novel Antagonists of Estrogen Receptor Alpha (ER α) from Colchicine Amides and Sulfonamides
PHY-10	YUNG XIN KOH	Optimizing Curing Duration of Self-Healing Chitosan/Polyacrylamide Hydrogel Coating

		on Polyethersulfone Membrane for Enhanced Stability and Filtration Efficiency
PHY-11	MENGNAN WANG	Biosorption of Cu(II) onto Dried Activated Sludge: Equilibrium and Kinetic Studies
PHY-12	HENNY PURWANINGSIH	Characterization Of Food Freshness Indicator from Ganyong Flour Modified with The Addition of Nanocellulose from Corn Husk and Curcumin
PHY-13	RUT NOVALIA RAHMAWATI SIANIPAR	Indonesian Medicinal Plants Used for COPD Treatment Via Inhibition of Inflammatory Rules
PHY-14	RUT NOVALIA RAHMAWATI SIANIPAR	Virtual Screening Using Ensemble Docking Approaches for The Inhibition of Arcangelisia Flava Compounds to Janus Kinase-2 And Cyclooxygenase-2
PHY-15	NURFARHANA MOHD MUSTAFFARIZAN	Nitrogen-Doped Porous Carbon (NDPC) Sorbents from Biomass for Carbon Dioxide Capture
PHY-16	NURUL HUDA ABDUL HALIM	Removal of Rhodamine B Dye utilizing Graphene Oxide-Rubber Based Hydrogel as an Alternative for Water Treatment
ANA-01 (P)	HUI JING CHAM	Co ₂ Removal Via Aqueous Methyl-diethanolamine-Tetrabutylphosphonium P-Toluene Sulfonate ([MDEA]-[TBP][P-TSA]) Hybrid Solvent
ANA-02 (P)	RAHMAT HIDAYAT	Cutting-Edge Electrodialysis Methods for Analytical Separation
BIOCHEM-01 (P)	MUHAMMAD AZRI FAIZ ABD ZAKI	Design, Synthesis and Mechanistic Studies of Novel Benzimidazoles as A Novel Class of Therapeutics Against Drug-Resistant Oral Cancer Cells

IND-01 (P)	EJAZ HUSSAIN	Synthesis, Characterization, and Applications of Ambi-Functional PANI/GO/MOF-Fe ₃ O ₄ Magnetic Nanocomposite for Removing Industrial Dye and Emerging Contaminant
INO-01 (P)	YIXUAN DUAN	Activation of Persulfate by Zeolite Supported CuO Catalysts for Phenol Degradation
ORG-01 (P)	CHEAN HUI NG	Investigating The Potential of Prenylated and Geranylated Acylphloroglucinol-Based Xanthenones as Potent Soybean 15-Lipoxygenase Inhibitors: A Combined <i>In Vitro</i> and <i>In Silico</i> Approach
PHY- 01 (P)	MR. MUHAMMAD MUJAHID	Palm Oil Mill Effluent (POME): Environmental Challenges and Exploring Sustainable Applications for Eco-Friendly Solutions
PHY-02 (P)	MR. KAMALADDEEN ABDULLAHI	Photoluminescence Studies on Zinc-Neodymium Layered Double Hydroxide

SCHEDULED OVERVIEW

	Time	Programme		
Day 1	0745 - 0855	Registration Arrival of Guest & Participants		
	0900 - 0905	Welcome Address by Vice-Chairperson of ICYC 2024: Ms. Nur Fatin Atikah binti Abdul Mutalib		
	0910 - 1010	Plenary Lecture: Prof. Ts. Dr. Mohd Hafiz Dzarfan Othman (Ballroom)		
	1015 - 1045	Tea Break		
	1050 - 1055	Video Presentation (Ballroom)		
		Oral Session – 1 (Ballroom & Sri Perak 1-3)		
	ROOM	Sri Perak 1	Sri Perak 2	Sri Perak 3
	1100 – 1230	KN-01	IV-01	BIOCHEM-01
			INO-01	BIOCHEM-02
		PHY-01	INO-02	ORG-01
		PHY-02	INO-03	ORG-02
		PHY-03	INO-04	ORG-03
		PHY-04	INO-05	ORG-04
	1235 – 1435	Lunch		
1440 – 1455	Arrival of VIP			
1500 – 1600	Opening ceremony, <u>WELCOMING SPEECH BY:</u> Chairman of 9 th ICYC 2024 - ChM. Ganapaty Manickavasagam <u>OFFICIATING SPEECH BY:</u> Dean of School of Chemical Sciences - Prof. Dr. Rohana Adnan			

	1605 – 1900	High Tea (<i>Ballroom</i>)			
	0745 – 0855	Morning Tea Break			
	0900 – 1000	Plenary Lecture: Prof. Dr. Nicholas Brosse (<i>Ballroom</i>)			
		Oral Session – 2 (<i>Ballroom & Sri Perak 1-3</i>)			
	ROOM	Ballroom	Sri Perak 1	Sri Perak 2	Sri Perak 3
	1005 – 1135	KN-02	PHY-05	IV-02	IND-01
			PHY-06	ANA-01	IND-02
		INO-06	PHY-07	ANA-02	IND-03
		INO-07	IND-04	ANA-09	PHY-08
		-	ANA-18	ANA-02 (P)	-
		Oral Session – 3 (<i>Ballroom & Sri Perak 1-3</i>)			
	ROOM	Ballroom	Sri Perak 1	Sri Perak 2	Sri Perak 3
	1135 – 1235	KN-03	INO-08	ORG-05	PHY-09
			INO-09	ORG-06	PHY-10
		IV-03	INO-10	INO-12	INO-17
	1240 – 1410	Lunch			
		Oral Session – 4 and Poster Session – 1 (<i>Ballroom & Sri Perak 1-3</i>)			
	ROOM	Ballroom	Sri Perak 1	Sri Perak 2	Sri Perak 3
	1415 – 1615	KN-04	ANA-05	ANA-16	ORG-07
			ANA-06	PHY-11	ORG-08
		IND-05	ANA-07	PHY-14	ORG-09
		IND-06	INO-01 (P)	PHY-01(P)	ORG-10
		IND-07	ANA-01 (P)	PHY-02(P)	ORG-11
		ANA-08	IND-01 (P)	BIOCHEM -01 (P)	ORG-12
		-	-	-	ORG-01 (P)
		Oral Session and Poster – 5 (<i>Ballroom & Sri Perak 1-3</i>)			
	1620 – 1720	Ballroom	Sri Perak 1	Sri Perak 2	Sri Perak 3

		KN-05	BIOCHEM-04	INO-13	ANA-10
			INO-11	INO-14	ANA-11
		BIOCHEM-03	INO-16	INO-15	ANA-15
	1725 – 1900	Tea Break			
	0755 - 0855	Morning Tea Break			
		Oral Session – 6 (Sri Perak 1-3)			
	ROOM	Sri Perak 1	Sri Perak 2	Sri Perak 3	
Day 3	0900 – 1100	KN-06	ANA-03	ANA-04	
			ANA-13	ANA-12	
		PHY-12	PHY-13	ANA-14	
		PHY-15	PHY-16	INO-18	
		-	-	ANA-17	
	1125 – 1235	Award presentation & Closing Ceremony (<i>Ballroom</i>)			
1240 – 1400	Lunch				
1400 – 2000	Excursion (<i>Available as an add-on</i>)				

Note: Oral presenters will be allotted a maximum of **15 min** to present including Q&A session.

Research Areas:

Analytical Chemistry (ANA)	Inorganic Chemistry (INO)
Biochemistry (BCHEM)	Organic Chemistry (ORG)
Industrial Chemistry (IND)	Physical Chemistry (PHY)