

PART 2

PART 2				
	Session 2: Advanced Materials Innovation: Design meets Application Room: Mandarin A Chair: Asst. Prof. Wipark Anutrasakda (Chemistry, Chulalongkorn University)	Session 2: Advanced Materials Innovation: Design meets Application Room: Rodsukon Chair: Assoc. Prof. Oratai Jongprateep (Kasetsart University)	Session 3: Energy Landscape Transformation-Renewable Generation, Storage, and Conversion Room: Karaked Chair: Assoc. Prof. Prasert Reubroycharoen (Chemical Technology, Chulalongkorn University)	Session 4: AI Alchemy & Optimization: Harnessing Digital Tools for Materials & Energy Room: Pornphairin Chair: Dr. Phuwadej Pornaroontham (Chemical Technology, Chulalongkorn University)
10.10–10.40	“Flux Crystal Growth Innovation of Functional Crystals and Composites toward Energy and Environmental Application” Prof. Katsuya Teshima Shinshu University	“Room-temperature autonomous self-healing glassy polymers” Prof. Wu Jinrong Sichuan University	“Investigating the Effects of Relative Permeability Hysteresis on CO2 Alternating Water Injection” Assoc. Prof. Shuoshi Wang State Key Lab Of Oil And Gas Reservoir Geology And Exploitation, Southwest Petroleum University (ZOOM)	“Advanced Hydrogen Liquefaction for Enhancing Hydrogen Value Chain” Prof. Moonyong Lee Yeungnam University
10.40–10.55	“Development of Efficient Adsorbents for Removal of Perfluorinated Carboxylic Acid (PFOA) from Aqueous Solution” Dr. Mongkol Tipplook Shinshu University	“3D Printed Flexible Polyurethane/Carbon Nanotube Composites for High-Sensitivity Strain Sensors” Dr. Chuanchom Aumnate Metallurgy and Materials Science Research Institute, CU	“Design of Nanoparticle-based Gel Formulations Potential for Geological Storage Operations and Leakage Prevention” Prof. Ben Shiau University of Oklahoma	“Impurities prediction using machine learning in distillation columns” Asst. Prof. Riezqa Andika University of Indonesia
10.55–11.10				
11.10–11.25	“Nano Hydroxyapatite-Filled E-Glass Fiber-Reinforced Polyester Matrix Laminated Composites for Industrial Applications” Dr. Rajitha Gunaratne University of Sri Jayawardenepura	“Tetracycline hydrochloride photodegradation by Ag/Pumice supported photocatalyst with UVA + H2O2” Satit Phiyanalimat, CMU AMO-2	“Activated Carbon from Oil-palm Biomass as Supercapacitor Electrode Material in Organic Electrolyte” Vituruch Goodwin, NSTDA ELO-1	“Utility Optimization via Multi-Section Heat Integration Approach for Multi-Period Operations” Ariyachai Silprasert, Chulalongkorn University AIO-1
11.25–11.45			“Propylene Epoxidation in a Low-Temperature Parallel-Plate Dielectric Barrier Discharge Reactor with Two Frosted Glass Plates: Effects of Separate Propylene Feed” Nitikorn Dithawat, PPC ELO-4	“Overcoming Renewable Energy Integration Challenges in Palm Oil Refining with A Machine Learning-Enabled Solar Irradiation Forecasting Approach” Thanatip Satjeenphong, KU AIO-2
11.45–12.00			“Polymer design for 3d printing applications” Nattapol Risangud, PPC	“AI-Driven solvent selection in CO ₂ absorption: insights on aqueous amine system” Apri Wahyudi, PPC ELO-5
12.00–13.00	Lunch			