ISEPD 2024

THE 22nd INTERNATIONAL SYMPOSIUM ON ECO-MATERIALS PROCESSING AND DESIGN

21-24 January 2024

CENTARA KORAT
NAKHON RATCHASIMA, THAILAND

Organized by Suranaree University of Technology and The Materials Research Society of Thailand

Supported by

Table of Contents

Overview Program

Tentative Overview Program

Ballroom	
Time	**Room**
Sunday 21 January 2024	
13:00 – 18:00	Registration at 1st floor Lobby Exhibition Set up at Korat ballroom
Monday 22 January 2024	
08:00 – 08:30	Registration at Korat ballroom
08:30 – 09:30	**Welcome speech** by Assoc. Prof. Dr. Anan Tongra-ar (Rector of Suranaree University of Technology)
	Opening remark by Prof. Dr. Soohwan Lee, Prof. Dr. Tohru Sekino, Prof. Dr. Wenbin Cao, Prof. Dr. Sanjay Mathur (Executive Board members of ISEPD 2024)
	ISEPD 2024 Reported by Prof. Dr. Santi Maensiri (ISEPD 2024 Chairperson & Dean of Institute of Science, Suranaree University of Technology)
	Opening speech by Dr. Kitipong Promwong (Director of Policy Research and Management, National Science Technology and Innovation Policy Office)
	Special show: Traditional/Local Thai dance
09:30 – 10:05	Special Talk (Dr. Kitipong Promwong): (Thailand in Transition 2030: Science, Technology and Innovation Policy)
10:05 – 10:20	**Coffee break**
10:20 – 10:55	**Plenary talk 1 (Prof. Dr. Zhengyi Fu):** Bioprocessing-inspired Synthesis and Processing for Functional Materials

Time	Room
10:55 – 11:30	**Plenary talk 7 (Prof. Dr. Sanjay Mathur):** Catalysts of Change: Functional Materials Steering Green Hydrogen Production
11:30 – 12:05	**Plenary talk 3 (Prof. Dr. Ru-Shi Liu):** Advanced Light Conversion Materials
12:05 – 13:00	**Lunch**
Tuesday 23 January 2024	
08:30 – 09:05	**Plenary talk 4 (Assoc. Prof. Dr. Oratai Jongprateep):** Innovative Sustainability: Revealing the Capabilities of Solution Combustion Synthesis in Advancing Material Development
09:05 – 09:40	**Plenary talk 5 (Prof. Dr. Ravi Kumar):** Electrocatalytic Potential of Self-supported Tantalum-based Nitrides & Compositionally Complex Ceramics
09:40 – 10:15	**Plenary talk 6 (Prof. Dr. Sike Christiansen)** Context Microscopy and Spectroscopy in Energy Research
10:15 – 10:30	**Coffee break**
10:30 – 11:05	**Plenary talk 2 (Prof. Dr. Hiromi Yamashita):** Design of Nanostructured Catalysts and Photocatalysts for Renewable Energy and Environmental Uses
11:05 – 11:40	**Plenary talk 8 (Prof. Dr. Byungha Shin):** Monolithic Photoelectrochemical Tandem Devices Consisting of Tunnel Oxide Passivated Contact Silicon and BiVO4 Enabling Unassisted Water Splitting
11:40 – 12:15	**Plenary talk 9 (Assoc. Prof. Dr. Worawat Meevasana)** Quantum Technology for Energy Storage and Electricity Grid Optimization
18:30 – 22:00	**Banquet/Closing Ceremony**

Symposia

Symposium 1	Green Manufacturing and Processing of Materials
Symposium 2	Advanced Eco-Materials
Symposium 3	Energy Conversion and Storage
Symposium 4	Environmental Protection Materials
Symposium 5	Surface Coatings, Additive Manufacturing and Long-Term Use Materials
Symposium 6	Bioinspired and Biocompatible materials for health care
Symposium 7	Artificial Intelligence-Based Computational and Data-Driven Materials Engineering
Symposium 8	Special symposium 1: Material Intelligence: Highly-efficiency in-material AI computing
Symposium 9	Special Symposium 2: Hydrogen production and Applications
Symposium 10	Special Symposium 3: Materials Education Forum: Education Today, Innovation Tomorrow

Meeting Rooms Summary

Meeting Room	Time	Jan 22nd
Chom Phon	13:00 – 15:30	Symposium 2
	15:45 – 19:00	Symposium 2
Phon Lan	13:00 – 15:30	Symposium 1
	15:45 – 19:00	Symposium 1
Phon Saen	13:00 – 15:30	Symposium 8
	15:45 – 17:45	Symposium 10
Chainarong	13:00 – 15:30	Symposium 5
	15:45 – 16:45	Symposium 5
	16:45 – 17:15	Symposium 3
	17:15 – 17:45	Symposium 9
	17:45 – 18:30	Symposium 9
Korat Ballroom	13:00 – 15:30	Symposium 3
	15:45 – 19:00	Symposium 3
Meeting Room	**Time**	**Jan 23rd**
Chom Phon	14:30 – 18:30	Symposium 3
Phon Lan	14:30 – 16:30	Symposium 7
Phon Saen	14:30 – 17:00	Symposium 4
Chainarong	14:30 – 18:15	Symposium 6

Overall Program of ISEPD 2024

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11:30 – 12:05	**Plenary talk 3** (Prof. Dr. Ru-Shi Liu): Advanced Light Conversion Materials				
12:05 – 13:00	**Lunch**				
	Chum Phon	Phon Lan	Phon Saen	Chainarong	Korat Ballroom
Chair	Prof. Dr. Sanjay Mathur	Prof. Dr. Tohru Sekino, Assoc. Prof. Dr. Sirithan Jiemsirilers	Prof. Dr. Hirofumi Tanaka	Prof. Dr. Xiaolu Pang	Dr. Adisorn Tuantranont
Co-chair	Prof. Dr. Jatuporn Wittayakun	Assoc. Prof. Dr. Sineenat Siri	Prof. Dr. Hakaru Tamukoh	Prof. Dr. Wisanu Pecharapa	Dr. Pinit Kidkhunthod
13:00 – 13:30	KN-S2_O25	KN-S1_O7	(13:00 – 13:20) KN-S8_Tamukoh	(13:00 – 13:25) KN-S5_Jyh-Wei Lee (13:25 – 13:50) KN-S5_O6 (13:50 – 14:15) KN-S5_O9 (14:15 – 14:40) KN-S5_O2 (14:40 – 15:05) KN-S5_O7	KN-S3_O15
13:30 – 14:00	KN-S2_O28	INV-S1_O8	(13:20 – 13:40) KN-S8_O1		KN-S3_O17
14:00 – 14:15	S2_O3	S1_O9	(13:40 – 14:00) KN-S8_O2		INV-S3_O19
14:15 – 14:30	S2_O13	S1_O11	(14:00 – 14:15) INV-S8_O4		
14:30 – 14:45	S2_O15	S1_O10	(14:15 – 14:30) INV-S8_O5		S3_O10
14:45 – 15:00	S2_O5	S1_O4	(14:30 – 14:45) INV-S8_O6		S3_O11

Time	Room				
	Chum Phon	Phon Lan	Phon Saen	Chainarong	Korat Ballroom
15:00 – 15:15	S2_O19	S1_O6	(14:45 – 15:00) INV-S8_O7	(15:05 – 15:20) S5_O5	S3_O12
15:15 – 15:30		S1_O2	(15:00 – 15:15) S8_O3	(15:20 – 15:35) S5_O4	S3_O5
			(15:15 – 15:30) S8_O8		
15:30 – 15:45	Coffee break				
Chair	Assoc Prof. Dr. Pakorn Opaprakasit	Prof. Dr. Supree Pinitsoontorn	Prof. Dr. Webin Cao	S5: Prof. Dr. Jyh-Wei Lee S9: Prof. Dr. Jae Sung Lee	Prof. Dr. Shu Yin
Co-chair	Dr. Pongtanawat Khemthong	Prof. Dr. Oratai Jongprateep	Prof. Dr. Santi Maensiri	S5: Dr. Anchalee Manonukul S9: Assoc. Prof. Dr. Rapee Utke	Assoc. Prof. Dr. Worawat Meevasana
15:45 – 16:15	INV-S2_O24	KN-S1_Kobayashi	(15:45 – 16:05) KN-S10_O5	(15:45 – 16:10) KN-S5_O8	KN-S3_O28
16:15 – 16:45	INV-S2_Khemthong	(online) KN-S1_O13	(16:05 – 16:25) KN-S10_O2	(16.10 – 16:25) S5_O1	KN-S3_O20
16:45 – 17:00	S2_O8	KN-S1_O15	(16:25 – 16:45) KN-S10_O3	KN-S3_O1	INV-S3_O6
17:00 – 17:15	S2_O23		(16:45 – 17:05) KN-S10_O4		
17:15 – 17:30	S2_O20	S1_O12	(17:05 – 17.25) KN-S10_O5	(online) KN-S9_O3	INV-S3_O21
17:30 – 17:45	S2_O14	S1_O3	(17:25 – 17:45) KN-S10_O7		
17:45 – 18:00	S2_O17	S1_O1	ISEPD Board Meeting	KN-S9_O2	S3_O2
18:00 – 18:15	S2_O18				S3_O3
18:15 – 18:30	S2_O6			S9_O1	S3_O8
18:30 – 18:45	S2_O7				
Dinner on your own					

	Tuesday 23 January 2024				
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08:30 – 09:05	**Plenary talk 4** (Assoc. Prof. Dr. Oratai Jongprateep): Innovative Sustainability: Revealing the Capabilities of Solution Combustion Synthesis in Advancing Material Development				
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11:40 – 12:15	**Plenary talk 9** (Assoc. Prof. Dr. Worawat Meevasana): Quantum Technology for Energy Storage and Electricity Grid Optimization				
12:10 – 13:00	Lunch				
	Chum Phon	Phon Lan	Phon Saen	Chainarong	Korat Ballroom
13:00 – 14:00					Poster
14:00 – 14:30	Coffee break				
Chair	Assoc. Prof. Dr. Anucha Watcharapasorn	Acssoc. Prof. Dr. Sirichok Jungthawan	Prof. Dr. Soo Wohn Lee	Prof. Dr. Bih-Show Lou	
Co-chair	Assoc. Prof. Dr. Soorathep Kheawhom	Dr. Ittipon Fongkaew	Assoc. Prof. Dr. Theeranun Siritanon	Assoc. Prof. Dr. Dr. Anyanee Kamkaew	
14:30 – 15:00	KN-S3_O26	KN-S7_O6	KN-S4_O3	(online) KN-S6_O7	
15:00 – 15:30	KN-S3_O27	INV-S7_O2	KN-S4_O5	KN-S6_Lou	
15:30 – 15:45	INV-S3_O22	S7_O4	KN-S4_O6	KN-S6_O1	
15:45 – 16:00		S7_O8			
16:00 – 16:15	INV-S3_O23	S7_O5	KN-S4_Wenbin CAO	KN-S6_O5	
16:15 – 16:30		S7_O3			
16:30 – 17:00	INV-S3_O24		INV-S4_O2	(16:30 - 16.50) INV-S6_O2	
17:00 – 17:15	S3_O13		S4_O1	(16:50 – 17:10) INV-S6_O3	
17:15 – 17:30	S3_O4		S4_O4	(17:10 – 17:30) INV-S6_O6	
17:30 – 17:45	S3_O7			(17:30 – 17:50) INV-S6_O8	
17:45 – 18:00	S3_O9			(17:50 – 18.05) S6_O4	
18:00 – 18:05					
18:30 – 22:00	Banquet/Closing Ceremony				

	Wednesday 24 January 2024
09:00 – 10:00	MRS-Thailand board member meeting
10:00	Excursion

Program of Poster Presentation

Monday, 23rd January 2024, Room Korat Ballroom		
Code	**Title**	**Presenter**
S1. Green Manufacturing and Processing of Materials		
S1_P1	Densification of Silicon Nitride Using Cold Sintering Process	Master Masaya Minehira
S1_P2	Cold Sintering of Ag2Se: Tailoring Microstructure for Superior Thermoelectric Properties	Mr. Dejwikom Theprattanakorn
S1_P3	Enhancing environmental performance: the impact of foaming agent and sugarcane bagasse ash on the properties of cellular lightweight concrete	Assoc. Prof. Dr. Thanongsak Nochaiya
S1_P4	Phases composition and microstructure control of the novel Al-Al2O3 composite refractory	Dr. Chenhong Ma
S1_P5	A study on effective dry etching of InGaZnO thin films under capacitively coupled plasma-reactive ion etching with a non-fluorine-based etching gas	Mr. Myeong Woo Ju
S1_P6	Synthesis of Ni nanoparticles at low temperature by sonochemical decomposition and reduction of Nickelocene	Mr. Tatsuya Shishido
S1_P7	Development of high heat sink of direct metallization process technology through catalyst coating	Mr. Hohyeong Kim
S2. Advanced Eco-Materials		
S2_P1	Activated Carbon Derived from Gamma-Pretreated Water Hyacinth	Mr. Bordin Weerasuk
S2_P10	Study on hydrophobic properties of stainless steel mesh modified by BN nanotube-sheet composite structure	Prof. Dr. Kezheng Sang
S2_P11	Synthesis and optical properties based on Ni doped Zn2SiO4 blue pigments with high-NIR reflectance	Prof. Peng Jiang

Code	Title	Presenter
S2_P12	Microstructure and deformation behavior of friction-stir welded 7075 aluminum alloy	Prof. Dr. Jun Hyun Han
S2_P13	Formation of photo-reactive heterostructure from a multicomponent amorphous alloy with atomically random distribution	Prof. Dr. Hae Jin Park
S2_P14	Fabrication of SiC Nanowire-based Elastic Aerogel	Prof. Dr. Hongjie Wang
S2_P15	Novel nanogenerator for harvesting solar energy and people moving energy	Prof. Dr. Shuhai Jia
S2_P16	Enhanced Dielectric Performance in Na-Ca-Dy Copper Titanate Ceramics: Unveiling Colossal Permittivity	Miss Pannaphat Srithong
S2_P2	Characterization of Tri-Sodium Phosphate as By Product from Monazite Concentrate Processing and Its Utilization as Catalyst for Biodiesel Production	Dr. Dussadee Rattanaphra
S2_P3	Fabrication of Printable Colorimetric Food Sensor based on Hydrogel at Low Concentration of Ammonia	Prof. Hyunjung Lee
S2_P4	Synthesis and characterizations of	Mr. Tachgiss Jampreecha
S2_P5	Improved electrical, magnetic, and multiferroic properties of Ba0.80Ca0.20Ti(1-x) O3 ceramics with co-doping of Fe and Mn synthesized by the solid-state combustion technique	Asst. Prof. Dr. Chittakorn Kornphom
S2_P6	Innovation and Development of New Radiation Shielding Glasses in Coal Bottom Ash Based System	Asst. Prof. Dr. Sunantasak Ravangvong
S2_P7	Synthesis of Two-Dimensional BiVO4-Based Composite Photocatalysts for Energy Applications	Ms. Bina Chaudhary Kshetri
S2_P8	Graphene Supercapacitor with High Energy Density and Mechanical Flexibility	Prof. Li Yan
S2_P9	Photocatalytic and electrochemical properties of lead-free BCTS powders synthesized via the solid-state reaction technique	Prof. Dr. Theerachai Bongkarn

Code	Title	Presenter
S3. Energy Conversion and Storage		
S3_P10	Enhanced Electrochemical Performance of Sugarcane Bagasse-derived Activated Carbon via a High-Energy Ball Milling Treatment	Dr. Likkhasit Thabtham
S3_P11	Advancements in 3D Printed Supercapacitor Electrodes: Overcoming Challenges and Enhancing Performance with Direct Ink Writing	Mr. Niwat Hemha
S3_P12	Flexible Ni2P nanosheets /Nip porous catalytic electrode constructed from paper fiber for methanol and urea electrooxidation	Prof. Dr. Guang-Ya HOU
S3_P13	Photo-effect and structural defects by Chlamydomonas reinhardtii on hematite surface	Dr. Vikash Kumar
S3_P14	Synthesis and characterization of Ga-Doped Li7La3Zr2O12 Solid Electrolyte for Enhanced Ionic Conductivity in All-Solid-State Batteries	Mr. Jonghyun Park
S3_P15	Increased perovskite solar cells efficiency: verification of NIP module architecture	Dr. Somporn Thaowankaew
S3_P16	Fire retardant properties of Zeolite beta hydrogen/decabromodiphenyl ethane composite polymer electrolytes	Dr. Jae Hyun Kim
S3_P17	Phase Control and Heteroatom Doping of Iron-Based Supercapacitor Electrode Materials for Boosted Charge Transfer	Ms. Jaemin Lee
S3_P18	Structural, Ferroelectric, Piezoelectric, and Electrical Conductivity Properties in Nb5+ doped BNT–BT Lead-free Piezoceramics	Mr. pathit premwichit
S3_P19	Effects of phosphoric acid on activation efficiency for applications involving supercapacitors	Dr. Somchai Sonsupap
S3_P2	In-situ XPS study for Photocatalytic Variations of ZnIn2S4 Nanoparticles	Ms. Vy Pham
S3_P3	Revealing of Photocatalytic activity Enhancement in Li-doped Metal Oxides Nanoparticles through Controlling Oxygen Vacancy	Ms. Dung Hoang

Code	Title	Presenter
S3_P4	Simple Fabrication of Micropatterned Reduced-Graphene Oxide/ Polydimethylsiloxane Composites using Au Nanoparticles-decorated DVD Templates for Triboelectric layer Applications	Assoc. Prof. Dr. Winadda Wongwiriyapan
S3_P5	Enhanced electrochemical performance for Ni-doped AgFeO2 as electrode material for energy storage application	Mr. Choulong Veann
S3_P6	Hydrothermal synthesis of NiCo2O4 microsheets electrode for supercapacitor applications	Mr. Rewat Maensiri
S3_P7	Structure and Electrochemical Properties of Ag2CuMnO4 Nanoflakes	Miss Wanwisa Butcharee
S3_P8	Influence of Ni doping on the structural, magnetic, and electrochemical properties of FeVO4 nanoparticles	Dr. Jessada Khajonrit
S3_P9	Efficiency Comparative Analysis: Thermoelectric Generator of n-Bi2Te3 and p-Sb2Te3 Experimental and Simulation	Mr. Surasak Ruamruk
S4. Environmental Protection Materials		
S4_P1	Effect of fly ash to alkali activator ratios on pore properties of porous fly ash-based geopolymer under curing by microwave irradiation	Komchan Meecharoen
S4_P2	Gas Sensing Properties of Electrospun Pd- and Pt-Co3O4 Nanofibers	Assoc. Prof. Dr. Sun-Woo Choi
S4_P3	Porous Structures and Their Gas Sensing Properties: Based on Carbon Nanofibers Synthesized via Electrospinning	Mr. Jaehyung Park
S4_P4	Photocatalytic Property of Peroxo-modified Titanate Nanotubes with Cu2+ species	Dr. Hisataka Nishida
S4_P5	Modified Biochar Derived from Grass Jelly Tree Waste as a Potential Adsorbent for the Removal of Ibuprofen Drug	Assoc. Prof. Dr. Yuvarat Ngernyen

Code	Title	Presenter
S4_P6	Physical and Optical Properties of Al /Yb-dually incorporated CuS Particles Prepared by Facile Co-precipitation Process	Mister Pakkawat Nimitnopphasit
S4_P7	Graphene Oxide-Coated Ceramic Membranes: A Sustainable Approach to Seawater Desalination	Mr. Piyachai Malin
S4_P8	Synthesis and Characterization of Vertically Aligned CuO Nanorods for NO Gas Sensor Application	Prof. Dr. Hyojin Kim
S5. Surface Coatings, Additive Manufacturing and Long-Term Use Materials		
S5_P1	The insulation coating technology of the Iron-based soft magnetic composites	Ph.D. candidate Cheng-Hsien Yeh
S5_P2	Effect of nitric acid on SiO2 nanoparticles from Greater Club Rush	Mr. Anuchit Sawangprom
S5_P3	Mechanical and adhesion properties of SWCNTs based flexible and transparent electrodes by Cu adhesive ink	M.S. Kyeong-Hwan Kim
S5_P4	Atomic Layer Deposition of ZrO2 for Surface Coating	Ms. Ae Rim Choi
S5_P5	Development of silver-plated substrate manufacturing technology using copper diffusion prevention layer	Mr. Minsu Lee
S5_P6	A New Ferritic Stainless Steel for SOFC Interconnect and Performance Characterization of its Protective Coating	Prof. Dr. Chengxin Li
S5_P7	Development of an intumescent fire shield paint with nano rutile mineral for steel structure	Mr. prasan chaisaenrith
S6. Bioinspired and Biocompatible materials for health care		
S6_P1	Synthesis of Eco-Friendly, Water-Soluble Conjugated Polymer and Fabrication of Its Nanoparticles for Biological Sensing	Prof. Dr. Taek Seung Lee
S6_P2	Colorimetric Breath Analyzer using Inverse Opal Photonic Gel	Prof. Dr. Wonmok Lee

Code	Title	Presenter
S6_P3	Highly Sensitive Flexible Pressure Sensor with Asymmetric Microdome Structure for Wearable Electronics	Ms. Yeoul Kang
S6_P4	Image mapping of biological assessment on electrospun fiber by using synchrotron micro-FTIR	Miss Atchara Chinnakorn
S8. Special symposium 1: Material Intelligence: Highly-efficiency in-material AI computing		
S8_P1	Correlation Between the Reservoir Computing Performance and Nonlinear Property of An Ag/Ag2S Nanoparticle Random Network	Mr. Thien Tan Dang
S9. Special Symposium 2: Hydrogen production and Applications		
S9_P1	Boosting the Electrochemical Activity Cobalt based Bimetallic Sulfide through Interface Engineering with Metallic Phase MoS2 for overall Water Splitting	Mr. Mikiyas Mekete Meshesha
S9_P2	1T'-Phase WS2 Nanosheets with Stabilized Ti3C2 MXene for Enhanced Hydrogen Evolution in PEM Water Electrolyzers	Dr. Debabrata chanda
S9_P3	Effect of plasma treatment on cobalt sulfide electrocatalysts for hydrogen evolution reaction	Master's course Ki-Hyun Park

Program of Oral Presentation

S1. Green Manufacturing and Processing of Materials			
Monday, 22nd January 2024, Room Phon Lan			
Chair:	Prof. Dr. Tohru Sekino, Assoc. Prof. Dr. Sirithan Jiemsirilers		
Co-chair:	Assoc. Prof. Dr. Sineenat Siri		
Time	**Code**	**Title**	**Presenter**
13:00 – 13:30	KN-S1_O7	Eco-cementitious materials for use as binders and aggregate in concrete	Prof. Dr. Arnon Chaipanich
13:30 – 14:00	INV-S1_O8	Utilization of Mirror Waste as a Raw Material in Ceramic Glazes	Asst. Prof. Dr. Niti Yongvanich
14:00 – 14:15	S1_O9	Research on Fabrication of Silicon Carbide Ceramics with Very Low Residual Silicon Content through Reaction Sintering	Prof. Dr. Yang Jianfeng
14:15 – 14:30	S1_O11	Hollow-Grained “Voronoi Foam” Ceramics with High Strength and Thermal Superinsulation	Prof. Dr. Chang-An Wang
14:30 – 14:45	S1_O10	Preparation of unidirectional porous AlN ceramics via the combination of freeze casting and combustion synthesis	Dr. Zhilei Wei
14:45 – 15:00	S1_O4	A Green Mechanochemical Manufacturing of Silicon Quantum Dots with Wavelength-tunable Emission	Dr. Yuping Xu
15:00 – 15:15	S1_O6	Porous lithium disilicate glass-ceramics prepared by cold sintering process associated with post-annealing technique	Mr. Xigeng Lyu
15:15 – 15:30	S1_O2	Looking inside the silicate network structure forming on surface/interface of activated coal ash particles	Mr. Takumi Sangu
Chair:	Prof. Dr. Supree Pinitsoontorn		
Co-chair:	Prof. Dr. Oratai Jongprateep		
15:45 – 16:15	KN-S1_Kobayashi	Waste resources and technologies for building a sustainable society - Upcycled wastes toward advanced materials	Prof. Dr. Takaomi Kobayashi

Time	Code	Title	Presenter
16:15 – 16:45	KN-S1_O13	Green processes for the development of sustainable materials	Asst. Prof. Dr. Andrew Hunt
16:45 – 17:15	KN-S1_O15	Flame Spray Pyrolysis: A Hybrid Strategy of Functionalized-Metal Oxide Nanoparticulate Design for Gas Sensors	Assoc. Prof. Dr. Chaikarn Liewhiran
17:15 – 17:30	S1_O12	Sustainable processing in nano metal related materials for SDGs	Assoc. Prof. Dr. Yamato Hayashi
17:30 – 17:45	S1_O3	Turning Biomass into Ultrabright Carbon Nano Onion through Microwave-Driven Pyrolysis in Seconds	Asst. Prof. Dr. Yunzi Xin
17:45 – 18:00	S1_O1	Synthesis of tungsten oxide/carbon based NIR-driven photocatalysts via microwave-assisted reaction for water purification	Dr. Kunihiko Kato

S2. Advanced Eco-Materials			
Monday, 22nd January 2024, Room Chum Phon			
Chair:	Prof. Dr. Sanjay Mathur		
Co-chair:	Prof. Dr. Jatuporn Wittayakun		
Time	**Code**	**Title**	**Presenter**
13:00 – 13:30	INV-S2_O24	Ultra–low tand and colossal dielectric constant with excellent temperature-humidity stability of TiO2 doped with isovalent-pentavalent ions	Prof. Dr. Prasit Thongbai
13:30 – 14:00	INV-S2_Khemthong	Selective Catalytic Conversion of Xylose for producing Bio-based Lactic Acid over Aluminium-based Catalysts	Dr. Pongthanawat Khemthong
14:00 – 14:15	S2_O3	Gamma and Electron Beam Irradiation: Pioneering Activated Carbon Modifications for Advanced Energy and Environmental Applications	Dr. tanagorn sangtawesin
14:15 – 14:30	S2_O13	Tungsten oxide film and its photoelectrochemical property	Prof. Dr. Jinshu Wang

Time	Code	Title	Presenter
14:30 – 14:45	S2_O15	In Situ Transmission Electron Microscopy Study on the Structures and Phase Transitions of 2D TMDs	Prof. Dr. Junjie Qi
14:45 – 15:00	S2_O5	Functionalization of poly (butylene succinate-co-adipate) via microwave-assisted alcoholysis technique for green paper coating applications	Mr. Zaw Winn Kyaw
15:00 – 15:15	S2_O19	Chemical Recycling of Post-consumer Polylactide Products by Microwave-Assisted Aminolysis	Mr. Jetawat Wadputi
Chair:	Assoc. Prof. Dr. Pakorn Opaprakasit		
Co-chair:	Dr. Pongtanawat Khemthong		
15:45 – 16:15	KN-S2_O25	Hydrogen Technology Beyond the Fuel Cell Cars	Prof. Sammy L. Chan
16:15 – 16:45	KN-S2_O28	Chemical Upcycling of Post-consumer Plastic Products for Value-added Functional Materials	Assoc. Prof. Dr. Pakorn Opaprakasit
16:45 – 17:00	S2_O8	Surface modification of cotton coated with silver nanoparticles for antimicrobial property.	Miss Jaruwan Thepsiri
17:00 – 17:15	S2_O23	FABRICATION OF MICROCRYSTALLINE CELLULOSE PARTICLES CONTAINING LAVENDER OIL VIA FACILE PASSIVE LOADING METHOD	Ms. GONE YI THAW MAUNG
17:15 – 17:30	S2_O20	Effects of TiC content on the microstructure and properties of B4C–TiB2–graphite composites by reactive hot pressing	Prof. wang weimin
17:30 – 17:45	S2_O14	Synthesis and Thermal Management Performance of High Thermal Conductive Boron Phosphide	Assoc. Pro. Hongyan Xia
17:45 – 18:00	S2_O17	Co-precipitation synthesis and characterization studies of maganese oxide doped with Nickel for high	Mr. Rattanapat Jareanwat

Time	Code	Title	Presenter
		performance energy storage supercapacitor application.	
18:00 – 18:15	S2_O18	Devolopment of Co doped Fe2O3 nanoparticles for electrochemical supercapacitor.	Miss Aridtha Chaloemram
18:15 – 18:30	S2_O6	Luminescence modulation ability in Bi2MoO6: Eu phosphors triggered by H2S gas	Ph. D. Taisei Hangai
18:30 – 18:45	S2_O7	Plasmon Enhancement of Photodetectors based on CsPbBr_3 Quantum Dots	Mr. Zar Ni Thein Htay

S3. Energy Conversion and Storage			
Monday, 22nd January 2024, Room Korat Ballroom			
Chair:	Dr. Adisorn Tuantranont		
Co-chair:	Dr. Pinit Kidkhunthod		
Time	**Code**	**Title**	**Presenter**
13:00 – 13:30	KN-S3_O15	Materials and Molecular Modeling, Imaging, Informatics, and Integration (M3I3)	Prof. Seungbum Hong
13:30 – 14:00	KN-S3_O17	Toward stable and reproducible metal halide perovskite solar cells	Prof. Dr. Jin-Wook Lee
14:00 – 14:30	INV-S3_O19	Development of Triboelectric Nanogenerator from Cement Materials for Energy Harvesting and Sensing Applications	Assoc. Prof. Dr. Viyada Harnchana
14:30 – 14:45	S3_O10	Atomic-scale in situ investigation of crystal nucleation, growth and structural evolution	wangrongming Rongming Wang
14:45 – 15:00	S3_O11	Designing Na+ Superionic Conductor (NASICON) for Wide-Temperature Solid-State Sodium Batteries	Prof. Dr. Haibo Jin
15:00 – 15:15	S3_O12	S-scheme SnO/TiO2 heterojunction with high hole mobility for boosting photocatalytic degradation of gaseous benzene	Dr. Shuo Yang

Time	Code	Title	Presenter
15:15 – 15:30	S3_O16	Structural design and catalytic enhancement of photocatalytic materials	Prof. Dr. Wenjun Dong
Chair:	Prof. Dr. Shu Yin		
Co-chair:	Assoc. Prof. Dr. Worawat Meevasana		
15:45 – 16:15	KN-S3_O17	Toward stable and reproducible metal halide perovskite solar cells	Prof. Dr. Jin-Wook Lee
16:15 – 16:45	KN-S3_O20	Visualizing Chemical Reactions at Atomic Resolution	Assoc. Prof. Dr. Wenpei Gao
16:45 – 17:15	INV-S3_O6	Identifying Upconversion-Emitting Phase in Complex Composites: Insight from Single-Particle-Level Upconversion Imaging and Density Functional Theory Calculations	Dr. Yuwaraj Kshetri
17:15 – 17:45	INV-S3_O21	Energy storage application and facility at XAS beamline	Dr. Wanwisa Limphirat
17:45 – 18:00	S3_O5	Hydrothermal Synthesis of Vanadium Oxides and Their Novel Applications as Smart Window and VOC Gas Sensor	Prof. Dr. Shu Yin
18:00 – 18:15	S3_O2	Binder-free hierarchical nickel and cobalt sulfides supercapacitor electrode	Miss Praphaiphon Phonsuksawang
18:15 – 18:30	S3_O3	Improved Electricity Application Cycle in Energy Harvesting Using Thermoelectric Cycles with Pulsed Electric Field	Prof. Dr. Tadachika Nakayama
18:30 – 18:45	S3_O8	Study of electrochromic properties of PEDOT: PSS for tunable filter optics with Lithium salt electrolyte	Miss Nisakon Janthajam

S3. Energy Conversion and Storage			
Tuesday, 23rd January 2024, Room Chum Phon			
Chair:	Assoc. Prof. Dr. Anucha Watcharapasorn		
Co-chair:	Assoc. Prof. Dr. Soorathep Kheawhom		
Time	**Code**	**Title**	**Presenter**
14:30 – 15:00	KN-S3_O26	Zinc-Based Batteries: A Promising Horizon for Large-Scale Applications	Assoc. Prof. Dr. Soorathep Kheawhom

Time	Code	Title	Presenter
15:00 – 15:30	KN-S3_O27	X-ray Absorption Spectroscopy: The State of The Art Synchrotron-based Characterization	Dr. Pinit Kidkhunthod
15:30 – 16.00	KN-S3_O28	Novel Graphene/CNT Synthesis from Wasted Gases and Carbon dioxide toward Net-zero Carbon Society	Dr. Adisorn tuantranont
16:00 – 16:30	INV-S3_O22	Unraveling the Dynamics of Aqueous Zinc-Ion Battery Electrolytes: Insights from Molecular Dynamics Simulations	Dr. Manaswee Suttipong
16:30 – 17:00	INV-S3_O23	Polymer and Polymer Composites Electrolyte for Zn ion Battery	Dr. Manunya Okhawilai
17:00 – 17:30	INV-S3_O24	Bamboo-derived hard carbon/carbon nanotube composites as anode material for long-life sodium-ion batteries with high charge/discharge capacities	Dr. Chatwarin Poochai
17:30 – 17:45	S3_O4	Strong adhesion electrocatalyst for large-scale hydrogen production in AEM electrolyzer	Miss Yanita Devi
17:45 – 18:00	S3_O7	Effects of Co Concentration on Structure and Thermoelectric Properties of PrBa2(Cu1-xCox)3O7-y Ceramics	Ms. Marisa Takong
18:00 – 18:15	S3_O9	Biobased Activated Carbon from Palm Biomass Enhancing with Acid Treatment as Supercapacitor Electrode Material	Miss Vituruch Goodwin

S4. Environmental Protection Materials			
Tuesday, 23rd January 2024, Room Phon Saen			
Chair:	Prof. Dr. Soo Wohn Lee		
Co-Chair:	Assoc. Prof. Dr. Theeranun Siritanon		
Time	**Code**	**Title**	**Presenter**
14:30 – 15:00	KN-S4_O3	Modulation of the Internal Electric Field in Bi2MoO6 Nanosheets through Te Substitution for Enhanced Photocatalytic Performance	Assoc. Prof. Dr. Theeranun Siritanon

Time	Code	Title	Presenter
15:00 – 15:30	KN-S4_O5	Increasing Added Value of Nickel to become NMC Cathode for Lithium Ion Battery from Indonesia Local Mineral Resources	Prof. Dr. rer. nat. Evvy Kartini
15:30 – 16.00	KN-S4_O6	Optically functional materials derived from natural-based materials	Prof. Dr. Wisanu Pecharapa
16:00 – 16:30	KN-S4_Wenbin Cao	TiO2 Photocatalysis: Crystal Phase Engineering, Heterojunction Construction and Applications	Prof. Dr. Wenbin CAO
16:30 – 17:00	INV-S4_O2	Surface modifications for enhancing sensing performance of chemiresistive-type gas sensors	Prof. Dr. Sang Sub Kim
17:00 – 17:15	S4_O1	Al-based metal-organic frameworks for photocatalytic production of hydrogen peroxide	Dr. Yoshifumi Kondo
17:15 – 17:30	S4_O4	Photocatalysis in water treatment: disinfection, antibiotics degradation and antibiotic resistance removal	Assoc. Prof. Zhou Xiaoqin

S5. Surface Coatings, Additive Manufacturing and Long-Term Use Materials			
Monday, 22nd January 2024, Room Chainarong			
Chair:	Prof. Dr. Xiaolu Pang		
Co-chair:	Prof. Dr. Wisanu Pecharapa		
Time	**Code**	**Title**	**Presenter**
13:00 – 13:25	KN-S5_Jyh-Wei Lee	Recent Development of High Entropy Alloy Nitride Coatings for Corrosion, Oxidation, and Wear Resistance Applications	Prof. Jyh-Wei Lee
15:25 – 15:50	KN-S5_O6	Research on nanotwinned ceramic sputtering coatings	Prof. Dr. Xiaolu Pang
15:50 – 16:15	KN-S5_O9	Improvement of corrosion and oxidation resistance of steel by nitride coatings prepared by PVD	Assoc. Prof. Dr. Patama Visuttipitukul

Time	Code	Title	Presenter
16:15 – 16:40	KN-S5_O2	Environmental Barrier Coatings: Towards Sustainable Production Solutions	Asst. Prof. Dr. Peerawatt Nunthavarawong
16:40 – 15:05	KN-S5_O7	Material Design and Industrial Applications of High-Entropy Alloy Films	Prof. Dr. Chuan-Feng Shih
15:05 – 15:20	S5_O5	Anisotropic, biomorphic cellular Si3N4 ceramics with directional well-aligned nanowhisker arrays based on wood-mimetic architectures	Prof. Dr. Bo Wang Wang
15:20 – 15:35	S5_O4	Light-weight, Ultra-strong, Biomorphic SiC Ceramics from Wood-derived Precursors	Mr. Xiao-Nan Zhou
Chair:	Prof. Dr. Jyh-Wei Lee		
Co-chair:	Dr. Anchalee Manonukul		
15:45 – 16:10	KN-S5_O8	Material Extrusion Additive Manufacturing for Metal and Properties	Dr. Anchalee Manonukul
16:10 – 16:25	S5_O1	Additive Manufacturing for Heterogeneous Metallic Architectured Materials	Prof. Dr. Hyoung Seop Kim
16:25 – 16:40	S5_O3	Biomimetic Cellular-Structured MCMB@WC Composites with Excellent Mechanical Properties	Miss Wenqi Xie

S6. Bioinspired and Biocompatible materials for health care			
Tuesday, 23rd January 2024, Room Chainarong			
Chair:	Prof. Dr. Bih-Show Lou		
Co-chair:	Assoc. Prof. Dr. Dr. Anyanee Kamkaew		
Time	**Code**	**Title**	**Presenter**
14:30 – 15.00	KN-S6_O7	Accurately probing the excited state reaction dynamics through time-dependent GW molecular dynamics simulations: A case study of methane photolysis	Prof. Dr. Yoshiyuki Kawazoe
15:00 – 15:30	KN-S6_Lou	Cold atmospheric plasma jet treatment in medical applications	Prof. Dr. Bih-Show Lou

Time	Code	Title	Presenter
15:30 – 16.00	KN-S6_O1	Single-Wall Carbon Nanotubes as In Vivo Short-Wave Infrared Imaging Agents	Dr. Ching-Wei Lin
16:00 – 16:30	KN-S6_O5	ORGANIC NANOTHERANOSTICS FOR IMAGE-GUIDED PHOTOTHERAPY	Assoc. Prof. Dr. Anyanee Kamkaew
16:30 – 16:50	INV-S6_O2	Control of Crystal Structure and Polarization of Biomolecular Piezoelectric Materials using Self-Assembly Process	Prof. Dr. Ju-Hyuck Lee
16:50 – 17:10	INV-S6_O3	Biomimetic Design Paradigms for Bionanomaterial-Based Systems	Prof. Dr. Ju Hun Lee
17:10 – 17:30	INV-S6_O6	Copper-based electrochemical sensors for healthcare applications	Assoc. Prof. Dr. Kamonwad Ngamchuea
17:30 – 17:50	INV-S6_O8	Biomimetic Design Paradigms for Bionanomaterial-Based Systems	Prof. Dr. Juhun Lee
17:50 – 18:05	S6_O4	Soft Bio-integrated Electronics for Unconventional Brain-machine Interfaces	Prof. Ki Jun Yu

S7. Artificial Intelligence-Based Computational and Data-Driven Materials Engineering			
Tuesday, 23rd January 2024, Room Phon Lan			
Chair:	Acssoc. Prof. Dr. Sirichok Jungthawan		
Co-chair:	Dr. Ittipon Fongkaew		
Time	Code	Title	Presenter
14:30 – 15:00	KN-S7_O6	Understanding and controlling static electricity from theory	Prof. Dr. Yong-Hyun Kim
15:00 – 15:30	INV-S7_O2	Modeling the Structure Evolution of Defective MoS2	Asst. Prof. Dr. Cheng-chau Chiu
15:30 – 15.45	S7_O4	Application of first-principles calculations in the research of photocatalytic materials	Prof. Junying ZHANG
15:45 – 16:00	S7_O8	Design of refractory high-entropy alloys via machine learning and high-throughput calculations	Prof. Haiqing YIN
16:00 – 16:15	S7_O5	Feasibility Study on Application Artificial Intelligence Techniques to Identifying the Casting Defectives	Lecturer Chutimon Makee

Time	Code	Title	Presenter
16:15 – 16:30	S7_O3	Hysteresis compensation of conductive elastomers using LSTM	Mr. Taishi Ueyama

S8. Special symposium 1: Material Intelligence: Highly-efficiency in-material AI computing			
Monday, 22nd January 2024, Room Phon Saen			
Chair:	Prof. Dr. Hirofumi Tanaka		
Co-chair:	Prof. Dr. Hakaru Tamukoh		
13:00 – 13:20	KN-S8_Tamukoh	Hardware/Material Reservoir Computing for Home Service Robots	Prof. Dr. Hakaru Tamukoh
13:20 – 13:40	KN-S8_O1	Material reservoir device: Highly efficiency AI computing device made of nanomaterials	Prof. Dr. Hirofumi Tanaka
13:40 – 14:00	KN-S8_O2	Towards More Efficient and Sustainable Machine Intelligence with Brain-inspired Nanomaterial Networks	Prof. Dr. Zdenka Kuncic
14:00 – 14:15	INV-S8_O4	Application of in-material reservoirs for edge computing: In-material-reservoir-based convolutional neural network	Dr. Yuichiro Tanaka
14:15 – 14:30	INV-S8_O5	Optical neural network hardware using self-referential holography	Assoc. Prof. Dr. Masanori Takabayashi
14:30 – 14:45	INV-S8_O6	Analog Neuromorphic Hardware for a Chaotic Boltzmann Machine Working as a Reservoir	Prof. Dr. Osamu Nomura
14:45 – 15:00	INV-S8_O7	In-material computing with electrochemical dynamics	Dr. Yuki Usami
15:00 – 15:15	S8_O3	In-sensor computing device made of CNT-PDMS nanocomposites	Mr. KOUKI KIMIZUKA
15:15 – 15:30	S8_O8	Object recognition using CNT-PDMS nanocomposite sensor on a robot hand	Mr. Shoshi Tokuno

Time	Code	Title	Presenter
S9. Special Symposium 2: Hydrogen production and Applications			
Monday, 22nd January 2024, Room Chainarong			
Chair:	Prof. Dr. Jae Sung Lee		
Co-chair	Assoc. Prof. Dr. Rapee Utke		
Time	**Code**	**Title**	**Presenter**
16:45 – 17:15	KN-S3_O1	Towards solar hydrogen production at practical scale	Prof. Dr. Jae Sung Lee
17:15 – 17:45	KN-S9_O3	Recycling as the key for developing sustainable hydrogen storage materials	Dr. rer. nat. habil. Claudio Pistidda
17:45 – 18:15	KN-S9_O2	Stationary hydrogen-based energy storage systems	Assoc. Prof. Dr. Rapee Utke
18:15 – 18:30	S9_O1	Hydrogen embrittlement of precipitation hardening martensitic stainless steel	Prof. Dr. Kewei Gao

S10. Special Symposium 3: Materials Education Forum: Education Today, Innovation Tomorrow			
Monday, 22nd January 2024, Room Phon Saen			
Chair:	Prof. Dr. Webin Cao		
Co-chair	Prof. Dr. Santi Maensiri		
15:45 – 16:05	KN-S10_O6	How to be a good materials engineer	Prof. Dr. Sooh Won Lee
16:05 – 16:25	KN-S10_O2	Education of Materials Science and Engineering @ USTB	Prof. Dr. Wenbin CAO
16:25 – 16:45	KN-S10_O3	Overview on the Materials Education in Indonesia and Networking in Asia	Prof. Dr. rer. nat. Evvy Kartini
16:45 – 17:05	KN-S10_O4	Materials Engineering at Silpakorn University: Attempts toward boundary crossing among disciplines	Assist. Prof. Dr. Niti Yongvanich
17:05 – 17:25	KN-S10_O5	Challenges of Materials Science Future Education	Assoc. Prof. Dr. Sirithan Jiemsirilers
17:25 – 17:45	KN-S10_O7	Materials Science and Technology Education Towards Global Goals @Chiang Mai University	Assoc. Prof. Dr. Anucha Watcharapasorn

Program 22nd January 2024

Room Chum Phon				
Time	**Code**	**Symposium**	**Title**	**Presenter**
Chair:	Prof. Dr. Sanjay Mathur			
Co-chair:	Prof. Dr. Jatuporn Wittayakun			
13:00 – 13:30	INV-S2_O24	Symposium 2	Ultra–low tand and colossal dielectric constant with excellent temperature-humidity stability of TiO2 doped with isovalent-pentavalent ions	Prof. Dr. Prasit Thongbai
13:30 – 14:00	INV-S2_Khemthong	Symposium 2	Selective Catalytic Conversion of Xylose for producing Bio-based Lactic Acid over Aluminium-based Catalysts	Dr. Pongthanawat Khemthong
14:15 – 14:30	S2_O3	Symposium 2	Gamma and Electron Beam Irradiation: Pioneering Activated Carbon Modifications for Advanced Energy and Environmental Applications	Dr. tanagorn sangtawesin
14:30 – 14:45	S2_O13	Symposium 2	Tungsten oxide film and its photoelectrochemical property	Prof. Dr. Jinshu Wang
14:45 – 15:00	S2_O15	Symposium 3	In Situ Transmission Electron Microscopy Study on the Structures and Phase Transitions of 2D TMDs	Prof. Dr. Junjie Qi
15:00 – 15:15	S2_O5	Symposium 2	Functionalization of poly (butylene succinate-co-adipate) via microwave-assisted alcoholysis technique for green paper coating applications	Mr. Zaw Winn Kyaw
15:15 – 15:30	S2_O19	Symposium 2	Chemical Recycling of Post-consumer Polylactide Products by Microwave-Assisted Aminolysis	Mr. Jetawat Wadputi

Time	Code	Symposium	Title	Presenter
18:30 – 18:45	S2_O7	Symposium 2	Plasmon Enhancement of Photodetectors based on CsPbBr_3 Quantum Dots	Mr. Zar Ni Thein Htay

Room Phon Lan				
Chair:	Prof. Dr. Tohru Sekino, Assoc. Prof. Dr. Sirithan Jiemsirilers			
Co-chair:	Assoc. Prof. Dr. Sineenat Siri			
13:00 – 13:30	KN-S1_O7	Symposium 1	Eco-cementitious materials for use as binders and aggregate in concrete	Prof. Dr. Arnon Chaipanich
13:30 – 14:00	INV-S1_O8	Symposium 1	Utilization of Mirror Waste as a Raw Material in Ceramic Glazes	Asst. Prof. Dr. Niti Yongvanich
14:00 – 14:15	S1_O9	Symposium 1	Research on Fabrication of Silicon Carbide Ceramics with Very Low Residual Silicon Content through Reaction Sintering	Prof. Dr. Dr Yang Jianfeng
14:15 – 14:30	S1_O11	Symposium 1	Hollow-Grained “Voronoi Foam” Ceramics with High Strength and Thermal Superinsulation	Prof. Dr. Chang-An Wang
14:30 – 14:45	S1_O10	Symposium 1	Preparation of unidirectional porous AlN ceramics via the combination of freeze casting and combustion synthesis	Dr. Zhilei Wei
14:45 – 15:00	S1_O4	Symposium 1	A Green Mechanochemical Manufacturing of Silicon Quantum Dots with Wavelength-tunable Emission	Dr. Yuping Xu
15:00 – 15:15	S1_O6	Symposium 1	Porous lithium disilicate glass-ceramics prepared by cold sintering process associated with post-annealing technique	Mr. Xigeng Lyu

Time	Code	Symposium	Title	Presenter
15:15 – 15:30	S1_O2	Symposium 1	Looking inside the silicate network structure forming on surface/interface of activated coal ash particles	Mr. Takumi Sangu
Chair:	Prof. Dr. Supree Pinitsoontorn			
Co-chair:	Prof. Dr. Oratai Jongprateep			
15:45 – 16:15	KN-S1_Kobayashi	Symposium 1	Waste resources and technologies for building a sustainable society - Upcycled wastes toward advanced materials	Prof. Dr. Takaomi Kobayashi
16:15 – 16:45	KN-S1_O13	Symposium 1	Green processes for the development of sustainable materials	Asst. Prof. Dr. Andrew Hunt
16:45 – 17:15	KN-S1_O15	Symposium 1	Flame Spray Pyrolysis: A Hybrid Strategy of Functionalized-Metal Oxide Nanoparticulate Design for Gas Sensors	Assoc.Prof.Dr. Chaikarn Liewhiran
17:15 – 17:30	S1_O12	Symposium 1	Sustainable processing in nano metal related materials for SDGs	Assoc. Prof. Dr. Yamato Hayashi
17:30 – 17:45	S1_O3	Symposium 1	Turning Biomass into Ultrabright Carbon Nano Onion through Microwave-Driven Pyrolysis in Seconds	Asst. Prof. Dr. Yunzi Xin
17:45 – 18:00	S1_O1	Symposium 1	Synthesis of tungsten oxide/carbon based NIR-driven photocatalysts via microwave-assisted reaction for water purification	Dr. Kunihiko Kato

Time	Code	Symposium	Title	Presenter
Room Phon Saen				
Chair:	Prof. Dr. Hirofumi Tanaka			
Co-chair:	Prof. Dr. Hakaru Tamukoh			
13.00 – 13.20	KN-S8_Tamukoh	Symposium 8	Hardware/Material Reservoir Computing for Home Service Robots	Prof. Dr. Hakaru Tamukoh
13.20 – 13.40	KN-S8_O1	Symposium 8	Material reservoir device: Highly efficiency AI computing device made of nanomaterials	Prof. Dr. Hirofumi Tanaka
13.40 – 14.00	KN-S8_O2	Symposium 8	Towards More Efficient and Sustainable Machine Intelligence with Brain-inspired Nanomaterial Networks	Prof. Dr. Zdenka Kuncic
14.00 – 14.15	INV-S8_O4	Symposium 8	Application of in-material reservoirs for edge computing: In-material-reservoir-based convolutional neural network	Dr. Yuichiro Tanaka
14.15 – 14.30	INV-S8_O5	Symposium 8	Optical neural network hardware using self-referential holography	Assoc. Prof. Dr. Masanori Takabayashi
14.30 – 14.45	INV-S8_O6	Symposium 8	Analog Neuromorphic Hardware for a Chaotic Boltzmann Machine Working as a Reservoir	Prof. Dr. Osamu Nomura
14.45 – 15.00	INV-S8_O7	Symposium 8	In-material computing with electrochemical dynamics	Dr. Yuki Usami
15.00 – 15.15	S8_O3	Symposium 8	In-sensor computing device made of CNT-PDMS nanocomposites	Mr. KOUKI KIMIZUKA
15.15 – 15.30	S8_O8	Symposium 8	Object recognition using CNT-PDMS nanocomposite sensor on a robot hand	Mr. Shoshi Tokuno

Time	Code	Symposium	Title	Presenter
Chair:	Prof. Dr. Webin Cao			
Co-chair:	Prof. Dr. Santi Maensiri			
15:45 – 16:05	KN-S10_O6	Symposium 10	How to be a good materials engineer	Prof. Dr. Soo Wohn Lee
16:05 – 16:25	KN-S10_O2	Symposium 10	Education of Materials Science and Engineering @ USTB	Prof. Dr. Wenbin CAO
16:25 – 16:45	KN-S10_O3	Symposium 10	Overview on the Materials Education in Indonesia and Networking in Asia	Prof. Dr. rer. nat. Evvy Kartini
16:45 – 17:05	KN-S10_O4	Symposium 10	Materials Engineering at Silpakorn University: Attempts toward boundary crossing among disciplines	Assist. Prof. Dr. Niti Yongvanich
17:05 – 17:25	KN-S10_O5	Symposium 10	Challenges of Materials Science Future Education	Assoc. Prof. Dr. Sirithan Jiemsirilers
17:25 – 17:45	KN-S10_O7	Symposium 10	Materials Science and Technology Education Towards Global Goals @Chiang Mai University	Assoc. Prof. Dr. Anucha Watcharapasorn
17:45-18:45	ISEPD Board Meeting			

Room Chainarong

Time	Code	Symposium	Title	Presenter
Chair:	Prof. Dr. Xiaolu Pang			
Co-chair:	Prof. Dr. Wisanu Pecharapa			
13:00 – 13:25	KN-S5_Jyh-Wei Lee	Symposium 5	Recent Development of High Entropy Alloy Nitride Coatings for Corrosion, Oxidation, and Wear Resistance Applications	Prof. Jyh-Wei Lee
13:25 – 13:50	KN-S5_O6	Symposium 5	Research on nanotwinned ceramic sputtering coatings	Prof. Dr. Xiaolu Pang

Time	Code	Symposium	Title	Presenter
13:50 – 14:15	KN-S5_O9	Symposium 5	Improvement of corrosion and oxidation resistance of steel by nitride coatings prepared by PVD	Assoc. Prof. Dr. Patama Visuttipitukul
14:15 – 14:40	KN-S5_O2	Symposium 5	Environmental Barrier Coatings: Towards Sustainable Production Solutions	Asst. Prof. Dr. Peerawatt Nunthavarawong
14.40 – 15:05	KN-S5_O7	Symposium 5	Material Design and Industrial Applications of High-Entropy Alloy Films	Prof. Dr. Chuan-Feng Shih
15:05 – 15:20	S5_O5	Symposium 5	Anisotropic, biomorphic cellular Si3N4 ceramics with directional well-aligned nanowhisker arrays based on wood-mimetic architectures	Prof. Dr. Bo Wang Wang
15:20 – 15:35	S5_O4	Symposium 5	Light-weight, Ultra-strong, Biomorphic SiC Ceramics from Wood-derived Precursors	Mr Xiao-Nan Zhou
Chair:	Prof. Dr. Jyh-Wei Lee			
Co-chair:	Dr. Anchalee Manonukul			
15:45 – 16:10 16:10 – 16:25	KN-S5_O8	Symposium 5	Material Extrusion Additive Manufacturing for Metal and Properties	Dr. Anchalee Manonukul
16:10 – 16:25	S5_O1	Symposium 5	Additive Manufacturing for Heterogeneous Metallic Architectured Materials	Prof. Dr. Hyoung Seop Kim
16:25 – 16:40	S5_O3	Symposium 5	Biomimetic Cellular-Structured MCMB@WC Composites with Excellent Mechanical Properties	Miss Wenqi Xie
16:45 – 17:15	KN-S3_O1	Symposium 9	Towards solar hydrogen production at practical scale	Prof. Dr. Jae Sung Lee
17:15 – 17:45	KN-S9_O3 **(online)**	Symposium 9	Recycling as the key for developing sustainable hydrogen storage materials	Dr. rer. nat. habil. Claudio Pistidda

Time	Code	Symposium	Title	Presenter
17:45 – 18:15	KN-S9_O2	Symposium 9	Stationary hydrogen-based energy storage systems	Assoc. Prof. Dr. Rapee Utke
18:15 – 18:30	S9_O1	Symposium 9	Hydrogen embrittlement of precipitation hardening martensitic stainless steel	Prof. Dr. Kewei Gao

Room Korat Ballroom				
Chair:	Dr. Adisorn Tuantranont			
Co-chair:	Dr. Pinit Kidkhunthod			
13:00 – 13:30	KN-S3_O15	Symposium 3	Materials and Molecular Modeling, Imaging, Informatics, and Integration (M3I3)	Prof. Seungbum Hong
13:30 – 14:00	KN-S3_O17	Symposium 3	Toward stable and reproducible metal halide perovskite solar cells	Prof. Dr. Jin-Wook Lee
14:00 – 14:30	INV-S3_O19	Symposium 3	Development of Triboelectric Nanogenerator from Cement Materials for Energy Harvesting and Sensing Applications	Assoc. Prof. Dr. Viyada Harnchana
14:30 – 14:45	S3_O10	Symposium 3	Atomic-scale in situ investigation of crystal nucleation, growth and structural evolution	wangrongming Rongming Wang
14:45 – 15:00	S3_O11	Symposium 3	Designing Na+ Superionic Conductor (NASICON) for Wide-Temperature Solid-State Sodium Batteries	Prof. Dr. Haibo Jin
15:00 – 15:15	S3_O12	Symposium 3	S-scheme SnO/TiO2 heterojunction with high hole mobility for boosting photocatalytic degradation of gaseous benzene	Dr. Shuo Yang
15:15 – 15:30	S3_O16	Symposium 3	Structural design and catalytic enhancement of photocatalytic materials	Prof. Dr. Wenjun Dong

Time	Code	Symposium	Title	Presenter
Chair:	Prof. Dr. Shu Yin			
Co-chair:	Assoc. Prof. Dr. Worawat Meevasana			
15:45 – 16:15	KN-S3_O17	Symposium 3	Toward stable and reproducible metal halide perovskite solar cells	Prof. Dr. Jin-Wook Lee
16:15 – 16:45	KN-S3_O20	Symposium 3	Visualizing Chemical Reactions at Atomic Resolution	Assoc. Prof. Dr. Wenpei Gao
16:45 – 17:15	INV-S3_O6	Symposium 3	Identifying Upconversion-Emitting Phase in Complex Composites: Insight from Single-Particle-Level Upconversion Imaging and Density Functional Theory Calculations	Dr. Yuwaraj Kshetri
17:15 – 17:45	INV-S3_O21	Symposium 3	Energy storage application and facility at XAS beamline	Dr. Wanwisa Limphirat
17:45 – 18:00	S3_O5	Symposium 3	Hydrothermal Synthesis of Vanadium Oxides and Their Novel Applications as Smart Window and VOC Gas Sensor	Prof. Dr. Shu Yin
18:00 – 18:15	S3_O2	Symposium 3	Binder-free hierarchical nickel and cobalt sulfides supercapacitor electrode	Miss Praphaiphon Phonsuksawang
18:15 – 18:30	S3_O3	Symposium 3	Improved Electricity Application Cycle in Energy Harvesting Using Thermoelectric Cycles with Pulsed Electric Field	Prof. Dr. Tadachika Nakayama
18:30 – 18:45	S3_O8	Symposium 3	Study of electrochromic properties of PEDOT: PSS for tunable filter optics with Lithium salt electrolyte	Miss Nisakon Janthajam

Program 23rd January 2024

Room Chum Phon				
Tuesday, 23rd January 2024				
Time	**Code**	**Symposium**	**Title**	**Presenter**
Chair:	Assoc. Prof. Dr. Anucha Watcharapasorn			
Co-chair:	Assoc. Prof. Dr. Soorathep Kheawhom			
14:30 – 15:00	KN-S3_O26	Symposium 3	Zinc-Based Batteries: A Promising Horizon for Large-Scale Applications	Assoc. Prof. Dr. Soorathep Kheawhom
15:00 – 15:30	KN-S3_O27	Symposium 3	X-ray Absorption Spectroscopy: The State of The Art Synchrotron-based Characterization	Dr. Pinit Kidkhunthod
15:30 – 16.00	KN-S3_O28	Symposium 3	Novel Graphene/CNT Synthesis from Wasted Gases and Carbon dioxide toward Net-zero Carbon Society	Dr. Adisorn tuantranont
16:00 – 16:30	INV-S3_O22	Symposium 3	Unraveling the Dynamics of Aqueous Zinc-Ion Battery Electrolytes: Insights from Molecular Dynamics Simulations	Dr. Manaswee Suttipong
16:30 – 17:00	INV-S3_O23	Symposium 3	Polymer and Polymer Composites Electrolyte for Zn ion Battery	Dr. Manunya Okhawilai
17:00 – 17:30	INV-S3_O24	Symposium 3	Bamboo-derived hard carbon/carbon nanotube composites as anode material for long-life sodium-ion batteries with high charge/discharge capacities	Dr. Chatwarin Poochai
17:30 – 17:45	S3_O4	Symposium 3	Strong adhesion electrocatalyst for large-scale hydrogen production in AEM electrolyzer	Miss Yanita Devi
17:45 – 18:00	S3_O7	Symposium 3	Effects of Co Concentration on Structure and Thermoelectric Properties of PrBa2(Cu1-xCox)3O7-y Ceramics	Ms. Marisa Takong

Time	Code	Symposium	Title	Presenter
18:00 – 18:15	S3_O9	Symposium 3	Biobased Activated Carbon from Palm Biomass Enhancing with Acid Treatment as Supercapacitor Electrode Material	Miss Vituruch Goodwin
18:15 – 18:30	S3_O13	Symposium 3	Acidic Redox-assisted Deposition: The New Opportunity of Multi-metal Oxide Materials for Energy Applications	Prof. Dr. Chun Hu Chen

Room Phon Lan				
Chair:	Acssoc. Prof. Dr. Sirichok Jungthawan			
Co-chair:	Dr. Ittipon Fongkaew			
14:30 – 15:00	KN-S7_O6	Symposium 7	Understanding and controlling static electricity from theory	Prof. Dr. Yong-Hyun Kim
15:00 – 15:30	INV-S7_O2	Symposium 7	Modeling the Structure Evolution of Defective MoS2	Asst. Prof. Dr. Cheng-chau Chiu
15:30 – 15.45	S7_O4	Symposium 7	Application of first-principles calculations in the research of photocatalytic materials	Prof. Junying ZHANG
15:45 – 16:00	S7_O8	Symposium 7	Design of refractory high-entropy alloys via machine learning and high-throughput calculations	Prof. Haiqing YIN
16:00 – 16:15	S7_O5	Symposium 7	Feasibility Study on Application Artificial Intelligence Techniques to Identifying the Casting Defectives	Lecturer Chutimon Makee
16:15 – 16:30	S7_O3	Symposium 7	Hysteresis compensation of conductive elastomers using LSTM	Mr. Taishi Ueyama

Time	Code	Symposium	Title	Presenter
Room Phon Saen				
Chair:	Prof. Dr. Soo Wohn Lee			
Co-chair:	Assoc. Prof. Dr. Theeranun Siritanon			
14:30 – 15:00	KN-S4_O3	Symposium 4	Modulation of the Internal Electric Field in Bi2MoO6 Nanosheets through Te Substitution for Enhanced Photocatalytic Performance	Assoc. Prof. Dr. Theeranun Siritanon
15:00 – 15:30	KN-S4_O5	Symposium 4	Increasing Added Value of Nickel to become NMC Cathode for Lithium Ion Battery from Indonesia Local Mineral Resources	Prof. Dr. rer. nat. Evvy Kartini
15:30 – 16.00	KN-S4_O6	Symposium 4	Optically functional materials derived from natural-based materials	Prof. Dr. Wisanu Pecharapa
16:00 – 16:30	KN-S4_Wenbin CAO	Symposium 4	TiO2 Photocatalysis: Crystal Phase Engineering, Heterojunction Construction and Applications	Prof. Dr. Wenbin CAO
16:00 – 16:30	INV-S4_O2	Symposium 4	Surface modifications for enhancing sensing performance of chemiresistive-type gas sensors	Prof. Dr. Sang Sub Kim
16:30 – 16:45	S4_O1	Symposium 4	Al-based metal-organic frameworks for photocatalytic production of hydrogen peroxide	Dr. Yoshifumi Kondo
16:45 – 17:00	S4_O4	Symposium 4	Photocatalysis in water treatment: disinfection, antibiotics degradation and antibiotic resistance removal	Assoc. Prof. Zhou Xiaoqin

Room Chainarong				
Chair:	Prof. Dr. Bih-Show Lou			
Co-chair:	Assoc. Prof. Dr. Dr. Anyanee Kamkaew			
14:30 – 15.00	KN-S6_O7 **(online)**	Symposium 6	Accurately probing the excited state reaction dynamics through	Prof. Dr. Yoshiyuki Kawazoe

Time	Code	Symposium	Title	Presenter
			time-dependent GW molecular dynamics simulations: A case study of methane photolysis	
15:00 – 15:30	KN-S6_Lou	Symposium 6	Cold atmospheric plasma jet treatment in medical applications	Prof. Dr. Bih-Show Lou
15:30 – 16.00	KN-S6_O1	Symposium 6	Single-Wall Carbon Nanotubes as In Vivo Short-Wave Infrared Imaging Agents	Dr. Ching-Wei Lin
16:00 – 16:30	KN-S6_O5	Symposium 6	ORGANIC NANOTHERANOSTICS FOR IMAGE-GUIDED PHOTOTHERAPY	Assoc. Prof. Dr. Anyanee Kamkaew
16:30 – 16:50	INV-S6_O2	Symposium 6	Control of Crystal Structure and Polarization of Biomolecular Piezoelectric Materials using Self-Assembly Process	Prof. Dr. Ju-Hyuck Lee
16:50 – 17:10	INV-S6_O3	Symposium 6	Biomimetic Design Paradigms for Bionanomaterial-Based Systems	Prof. Dr. Ju Hun Lee
17.10 – 17.30	INV-S6_O6	Symposium 6	Copper-based electrochemical sensors for healthcare applications	Assoc. Prof. Dr. Kamonwad Ngamchuea
17:30 – 17.50	INV-S6_O8	Symposium 6	Biomimetic Design Paradigms for Bionanomaterial-Based Systems	Prof. Dr. Juhun Lee
17:50 – 18:05	S6_O4	Symposium 6	Soft Bio-integrated Electronics for Unconventional Brain-machine Interfaces	Prof. Ki Jun Yu

Room Korat Ballroom				
13:00 – 14:00	S1_P1	Symposium 1	Densification of Silicon Nitride Using Cold Sintering Process	Master Masaya Minehira
	S1_P2	Symposium 1	Cold Sintering of Ag2Se: Tailoring Microstructure for Superior Thermoelectric Properties	Mr. Dejwikom Theprattanakorn
	S1_P3	Symposium 1	Enhancing environmental performance: the impact of foaming agent and sugarcane	Assoc. Prof. Dr. Thanongsak Nochaiya

Time	Code	Symposium	Title	Presenter
			bagasse ash on the properties of cellular lightweight concrete	
	S1_P4	Symposium 1	Phases composition and microstructure control of the novel Al-Al2O3 composite refractory	Dr. Chenhong Ma
	S1_P5	Symposium 1	A study on effective dry etching of InGaZnO thin films under capacitively coupled plasma-reactive ion etching with a non-fluorine-based etching gas	Mr. Myeong Woo Ju
	S1_P6	Symposium 1	Synthesis of Ni nanoparticles at low temperature by sonochemical decomposition and reduction of Nickelocene	Mr. Tatsuya Shishido
	S1_P7	Symposium 1	Development of high heat sink of direct metallization process technology through catalyst coating	Mr. Hohyeong Kim
	S2_P1	Symposium 2	Activated Carbon Derived from Gamma-Pretreated Water Hyacinth	Mr. Bordin Weerasuk
	S2_P10	Symposium 2	Study on hydrophobic properties of stainless steel mesh modified by BN nanotube-sheet composite structure	Prof. Dr. Kezheng Sang
	S2_P11	Symposium 2	Synthesis and optical properties based on Ni doped Zn2SiO4 blue pigments with high-NIR reflectance	Prof. Peng Jiang
	S2_P12	Symposium 2	Microstructure and deformation behavior of friction-stir welded 7075 aluminum alloy	Prof. Dr. Jun Hyun Han
	S2_P13	Symposium 2	Formation of photo-reactive heterostructure from a multicomponent amorphous alloy with atomically random distribution	Prof. Dr. Hae Jin Park

Time	Code	Symposium	Title	Presenter
	S2_P14	Symposium 2	Fabrication of SiC Nanowire-based Elastic Aerogel	Prof. Dr. Hongjie Wang
	S2_P15	Symposium 2	Novel nanogenerator for harvesting solar energy and people moving energy	Prof. Dr. Shuhai Jia
	S2_P16	Symposium 2	Enhanced Dielectric Performance in Na-Ca-Dy Copper Titanate Ceramics: Unveiling Colossal Permittivity	Miss Pannaphat Srithong
	S2_P2	Symposium 2	Characterization of Tri-Sodium Phosphate as By Product from Monazite Concentrate Processing and Its Utilization as Catalyst for Biodiesel Production	Dr. Dussadee Rattanaphra
	S2_P3	Symposium 2	Fabrication of Printable Colorimetric Food Sensor based on Hydrogel at Low Concentration of Ammonia	Prof. Hyunjung Lee
	S2_P4	Symposium 2	Synthesis and characterizations of	Mr. Tachgiss Jampreecha
	S2_P5	Symposium 2	Improved electrical, magnetic, and multiferroic properties of Ba0.80Ca0.20Ti(1-x)O3 ceramics with co-doping of Fe and Mn synthesized by the solid-state combustion technique	Asst. Prof. Dr. Chittakorn Kornphom
	S2_P6	Symposium 2	Innovation and Development of New Radiation Shielding Glasses in Coal Bottom Ash Based System	Asst. Prof. Dr. Sunantasak Ravangvong
	S2_P7	Symposium 2	Synthesis of Two-Dimensional BiVO4-Based Composite Photocatalysts for Energy Applications	Ms. Bina Chaudhary Kshetri

Time	Code	Symposium	Title	Presenter
	S2_P8	Symposium 2	Graphene Supercapacitor with High Energy Density and Mechanical Flexibility	Prof. Li Yan
	S2_P9	Symposium 2	Photocatalytic and electrochemical properties of lead-free BCTS powders synthesized via the solid-state reaction technique	Prof. Dr. Theerachai Bongkarn
	S3_P10	Symposium 3	Enhanced Electrochemical Performance of Sugarcane Bagasse-derived Activated Carbon via a High-Energy Ball Milling Treatment	Dr. Likkhasit Thabtham
	S3_P11	Symposium 3	Advancements in 3D Printed Supercapacitor Electrodes: Overcoming Challenges and Enhancing Performance with Direct Ink Writing	Mr. Niwat Hemha
	S3_P12	Symposium 3	Flexible Ni2P nanosheets /Nip porous catalytic electrode constructed from paper fiber for methanol and urea electrooxidation	Prof. Dr. Guang-Ya HOU
	S3_P13	Symposium 3	Photo-effect and structural defects by Chlamydomonas reinhardtii on hematite surface	Dr. Vikash Kumar
	S3_P14	Symposium 3	Synthesis and characterization of Ga-Doped Li7La3Zr2O12 Solid Electrolyte for Enhanced Ionic Conductivity in All-Solid-State Batteries	Mr. Jonghyun Park
	S3_P15	Symposium 3	Increased perovskite solar cells efficiency : verification of NIP module architecture	Dr. Somporn Thaowankaew
	S3_P16	Symposium 3	Fire retardant properties of Zeolite beta hydrogen/decabromodiphenyl	Dr. Jae Hyun Kim

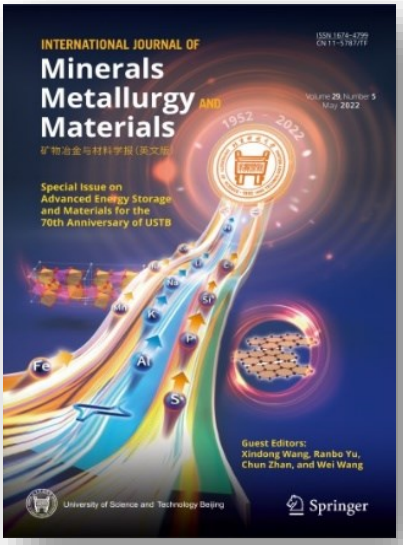
Time	Code	Symposium	Title	Presenter
			ethane composite polymer electrolytes	
	S3_P17	Symposium 3	Phase Control and Heteroatom Doping of Iron-Based Supercapacitor Electrode Materials for Boosted Charge Transfer	Ms. Jaemin Lee
	S3_P18	Symposium 3	Structural, Ferroelectric, Piezoelectric, and Electrical Conductivity Properties in Nb5+ doped BNT–BT Lead-free Piezoceramics	Mr. pathit premwichit
	S3_P19	Symposium 3	Effects of phosphoric acid on activation efficiency for applications involving supercapacitors	Dr. Somchai Sonsupap
	S3_P2	Symposium 3	In-situ XPS study for Photocatalytic Variations of ZnIn2S4 Nanoparticles	Ms. Vy Pham
	S3_P3	Symposium 3	Revealing of Photocatalytic activity Enhancement in Li-doped Metal Oxides Nanoparticles through Controlling Oxygen Vacancy	Ms. Dung Hoang
	S3_P4	Symposium 3	Simple Fabrication of Micropatterned Reduced-Graphene Oxide/ Polydimethylsiloxane Composites using Au Nanoparticles-decorated DVD Templates for Triboelectric layer Applications	Assoc. Prof. Dr. Winadda Wongwiriyapan
	S3_P5	Symposium 3	Enhanced electrochemical performance for Ni-doped AgFeO2 as electrode material for energy storage application	Mr. Choulong Veann
	S3_P6	Symposium 3	Hydrothermal synthesis of NiCo2O4 microsheets electrode for supercapacitor applications	Mr. Rewat Maensiri

Time	Code	Symposium	Title	Presenter
	S3_P7	Symposium 3	Structure and Electrochemical Properties of Ag2CuMnO4 Nanoflakes	Miss Wanwisa Butcharee
	S3_P8	Symposium 3	Influence of Ni doping on the structural, magnetic, and electrochemical properties of FeVO4 nanoparticles	Dr. Jessada Khajonrit
	S3_P9	Symposium 3	Efficiency Comparative Analysis: Thermoelectric Generator of n-Bi2Te3 and p-Sb2Te3 Experimental and Simulation	Mr. Surasak Ruamruk
	S4_P1	Symposium 4	Effect of fly ash to alkali activator ratios on pore properties of porous fly ash-based geopolymer under curing by microwave irradiation	Komchan Meecharoen
	S4_P2	Symposium 4	Gas Sensing Properties of Electrospun Pd- and Pt-Co3O4 Nanofibers	Assoc. Prof. Dr. Sun-Woo Choi
	S4_P3	Symposium 4	Porous Structures and Their Gas Sensing Properties: Based on Carbon Nanofibers Synthesized via Electrospinning	Mr. Jaehyung Park
	S4_P4	Symposium 4	Photocatalytic Property of Peroxo-modified Titanate Nanotubes with Cu2+ species	Dr. Hisataka Nishida
	S4_P5	Symposium 4	Modified Biochar Derived from Grass Jelly Tree Waste as a Potential Adsorbent for the Removal of Ibuprofen Drug	Assoc. Prof. Dr. Yuvarat Ngernyen
	S4_P6	Symposium 4	Physical and Optical Properties of Al /Yb-dually incorporated CuS Particles Prepared by Facile Co-precipitation Process	Mister Pakkawat Nimitnopphasit

Time	Code	Symposium	Title	Presenter
	S4_P7	Symposium 4	Graphene Oxide-Coated Ceramic Membranes: A Sustainable Approach to Seawater Desalination	Mr. Piyachai Malin
	S4_P8	Symposium 4	Synthesis and Characterization of Vertically Aligned CuO Nanorods for NO Gas Sensor Application	Prof. Dr. Hyojin Kim
	S5_P1	Symposium 5	The insulation coating technology of the Iron-based soft magnetic composites	Ph.D. candidate Cheng-Hsien Yeh
	S5_P2	Symposium 5	Effect of nitric acid on SiO2 nanoparticles from Greater Club Rush	Mr. Anuchit Sawangprom
	S5_P3	Symposium 5	Mechanical and adhesion properties of SWCNTs based flexible and transparent electrodes by Cu adhesive ink	M.S. Kyeong-Hwan Kim
	S5_P4	Symposium 5	Atomic Layer Deposition of ZrO2 for Surface Coating	Ms. Ae Rim Choi
	S5_P5	Symposium 5	Development of silver-plated substrate manufacturing technology using copper diffusion prevention layer	Mr. Minsu Lee
	S5_P6	Symposium 5	A New Ferritic Stainless Steel for SOFC Interconnect and Performance Characterization of its Protective Coating	Prof. Dr. Chengxin Li
	S5_P7	Symposium 5	Development of an intumescent fire shield paint with nano rutile mineral for steel structure	Mr. prasan chaisaenrith
	S6_P1	Symposium 6	Synthesis of Eco-Friendly, Water-Soluble Conjugated Polymer and Fabrication of Its Nanoparticles for Biological Sensing	Prof. Dr. Taek Seung Lee

Time	Code	Symposium	Title	Presenter
	S6_P2	Symposium 6	Colorimetric Breath Analyzer using Inverse Opal Photonic Gel	Prof. Dr. Wonmok Lee
	S6_P3	Symposium 6	Highly Sensitive Flexible Pressure Sensor with Asymmetric Microdome Structure for Wearable Electronics	Ms. Yeoul Kang
	S6_P4	Symposium 6	Image mapping of biological assessment on electrospun fiber by using synchrotron micro-FTIR	Miss Atchara Chinnakorn
	S8_P1	Symposium 8	Correlation Between the Reservoir Computing Performance and Nonlinear Property of An Ag/Ag2S Nanoparticle Random Network	Mr. Thien Tan Dang
	S9_P1	Symposium 9	Boosting the Electrochemical Activity Cobalt based Bimetallic Sulfide through Interface Engineering with Metallic Phase MoS2 for overall Water Splitting	Mr. Mikiyas Mekete Meshesha
	S9_P2	Symposium 9	1T'-Phase WS2 Nanosheets with Stabilized Ti3C2 MXene for Enhanced Hydrogen Evolution in PEM Water Electrolyzers	Dr. Debabrata chanda
	S9_P3	Symposium 9	Effect of plasma treatment on cobalt sulfide electrocatalysts for hydrogen evolution reaction	Master's course Ki-Hyun Park

Journal Publications



International Journal of Minerals, Metallurgy and Materials
https://www.springer.com/journal/12613

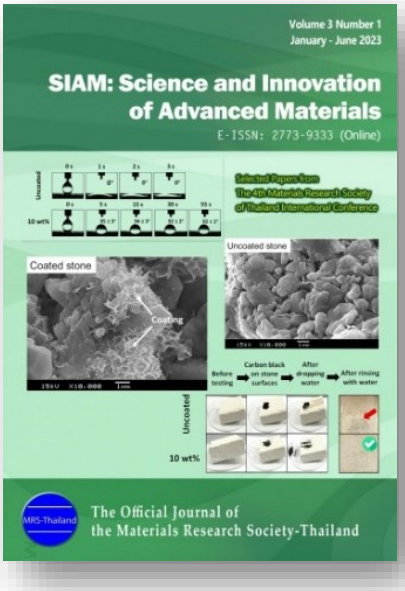
Discover Materials (Springer)
https://link.springer.com/journal/43939

Nano Express (IoP) JIF = 3.0
https://iopscience.iop.org/journal/2632-959X

Chiang Mai Journal of Science
https://epg.science.cmu.ac.th/ejournal/

Journal of Metals, Materials and Minerals (JMMM)
https://jmmm.material.chula.ac.th/index.php/jmmm/about/submissions

Current Applied Science and Technology
https://li01.tci-thaijo.org/index.php/cast



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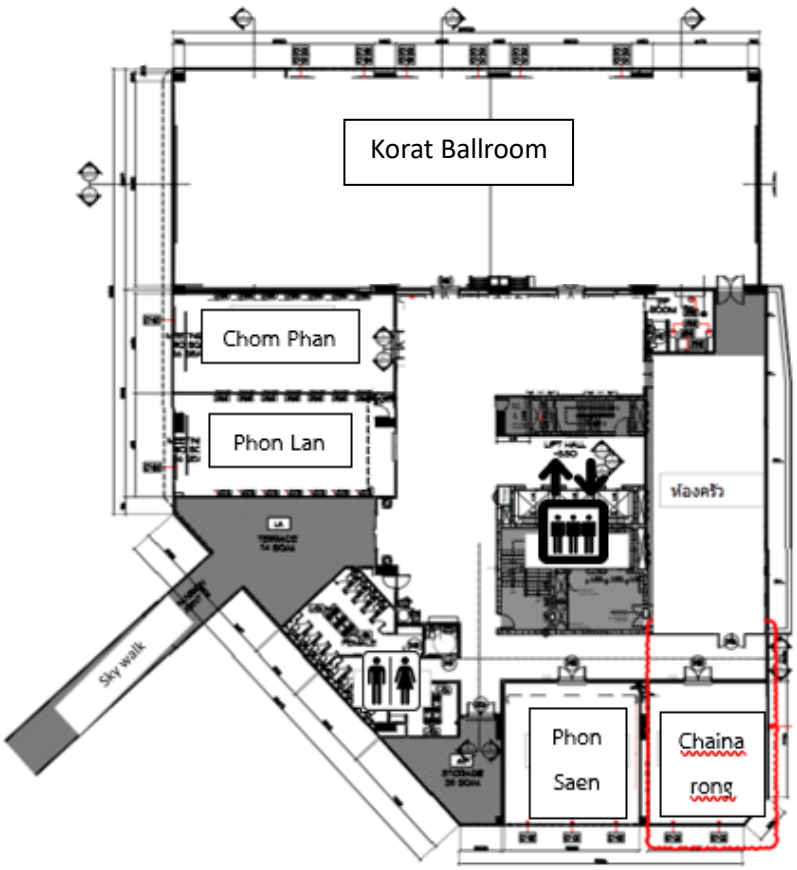
Map


Korat Ballroom
Chom Phan
Phon Lan
ห้องครัว
Sky walk
Phon Saen
Chaina rong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