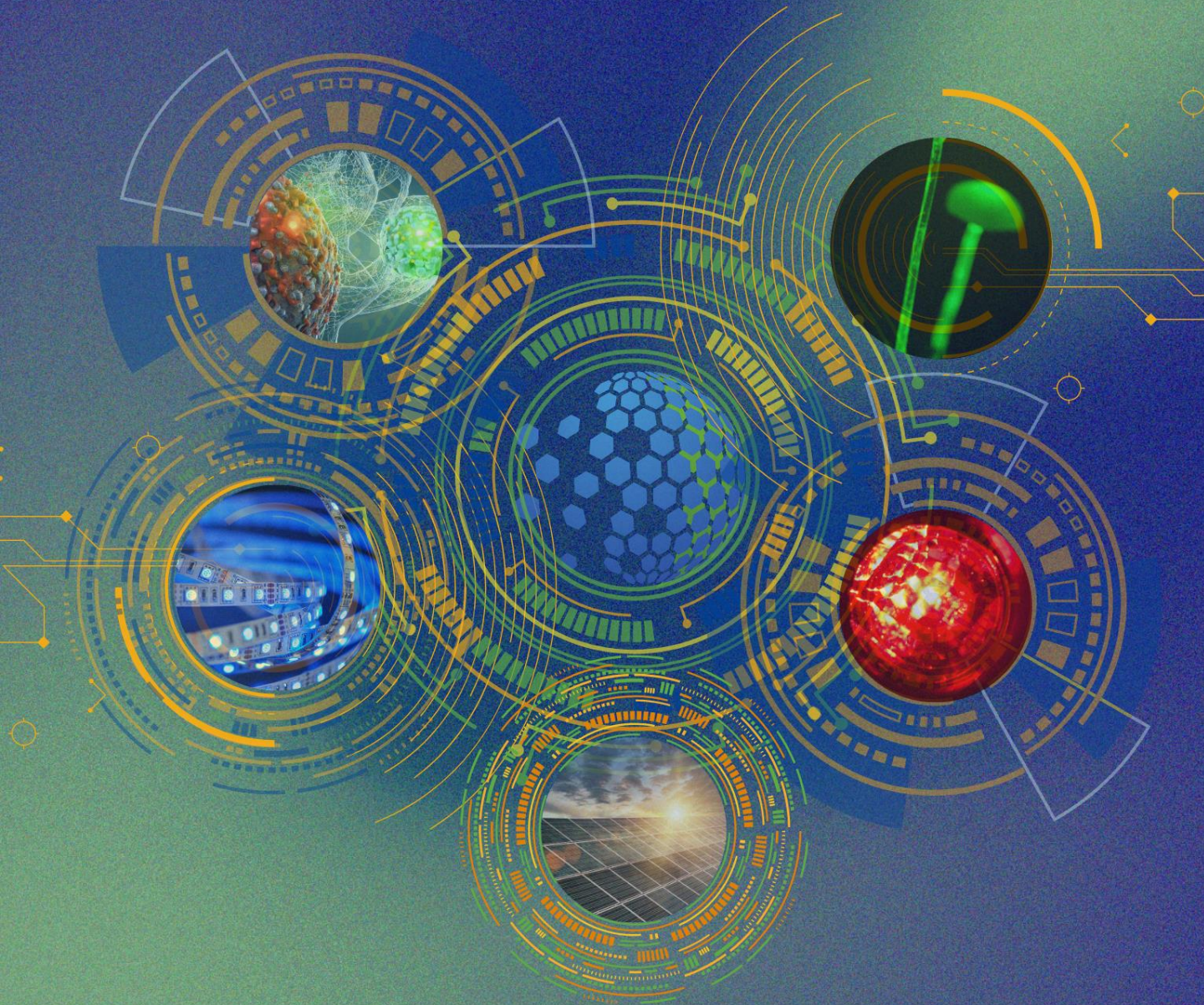




# PHOSPHOR SAFARI 2024

The 13<sup>th</sup> International Symposium for Luminescent Materials

## Program Book



GIS Taipei Tech Convention Center  
National Taipei University of Technology, Taipei, Taiwan  
July 30 - August 02, 2024

Organizer



Co-organizers



NTU ARC-GMST



# Acknowledgment



## Organizer:

- Department of Molecular Science and Engineering, National Taipei University of Technology



## Co-organizers:

- National Science and Technology Council
- Chemical Society Located in Taipei
- Advanced Research Center for Green Materials Science and Technology, National Taiwan University



## Sponsors:



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# General Information



Dear Phosphor Safari 2024 Participants,

With the aim of promoting interaction and knowledge exchange between scientists and researchers of the phosphor field, the Phosphor Safari (International Symposium for Luminescent Materials) was first founded by Prof. Kenji Toda, Prof. Hajime Yamamoto, and Prof. Dae Ho Yoon in 2009. In the past 14 years, the Phosphor Safari has been successfully held in Niigata (2009, 2011, 2015), Suwon (2010), Hsinchu (2012), Jeju (2013), Kunming (2014), Hong Kong (2016), Gdansk (2017), Seoul (2018), Xiamen (2019), Lanzhou (2020, 2022), which enhanced the development of science, technology, and industry of phosphors. In 2024, the honor of hosting this great event will be passed to Taipei, a city with many delicacies and full of human touch in northern Taiwan.

In the past few years, suffering from COVID-19 health and safety issues, the 12<sup>th</sup> international symposium has been postponed from August 1-5, 2020, to July 31-August 4, 2021, and then to July 30-August 3, 2022. Unfortunately, Phosphor Safari 2022 (The 12<sup>th</sup> International Symposium for Luminescent Materials) was held at Lanzhou University as an online meeting. Thankfully, owing to the global pandemic has been controlled. We have an opportunity to invite colleagues and friends from both academics and industries worldwide to attend Phosphor Safari 2024 (The 13<sup>th</sup> International Symposium for Luminescent Materials) held at the National Taipei University of Technology; the date is July 30-August 2, 2024.

The topics of Phosphor Safari 2024 include (but not limited) to:

- **Infrared Luminescence Materials**
- **Nano-bio-Luminescence Materials**
- **LEDs, Mini LEDs, Micro LEDs**
- **Luminescence Materials used in Solar Photon Conversion**
- **Plant Growth Luminescence Materials**
- **Others**

We will continue the role of previous conferences in promoting the advanced development and industrial integration of phosphor materials and establish a place for communication and exchange of knowledge worldwide. Sincerely welcome you to participate in the event!

Chun Che Lin  
Chairman  
Phosphor Safari 2024  
Associate Professor  
National Taipei University of Technology  
Taiwan

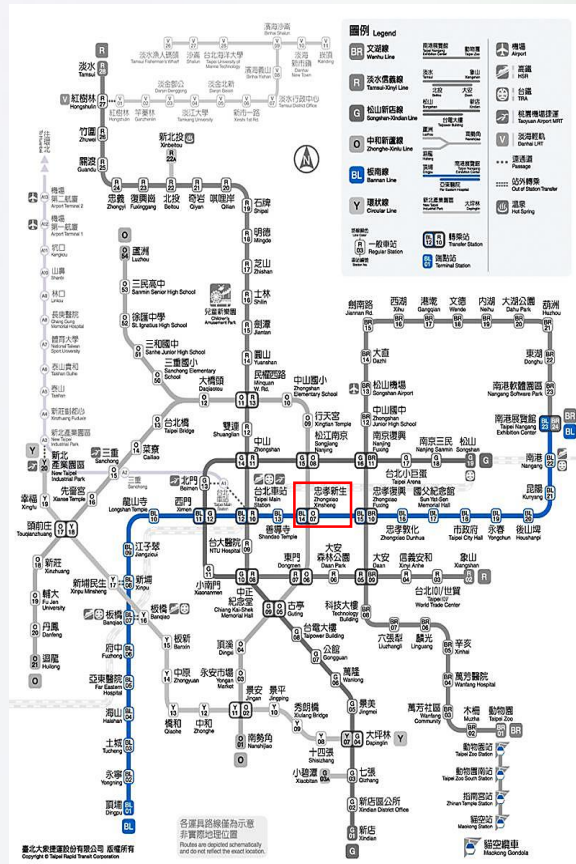


Ru-Shi Liu  
Co-chairman  
Phosphor Safari 2024  
Distinguished Professor  
National Taiwan University  
Taiwan



## Taoyuan Airport MRT (桃園機場捷運)

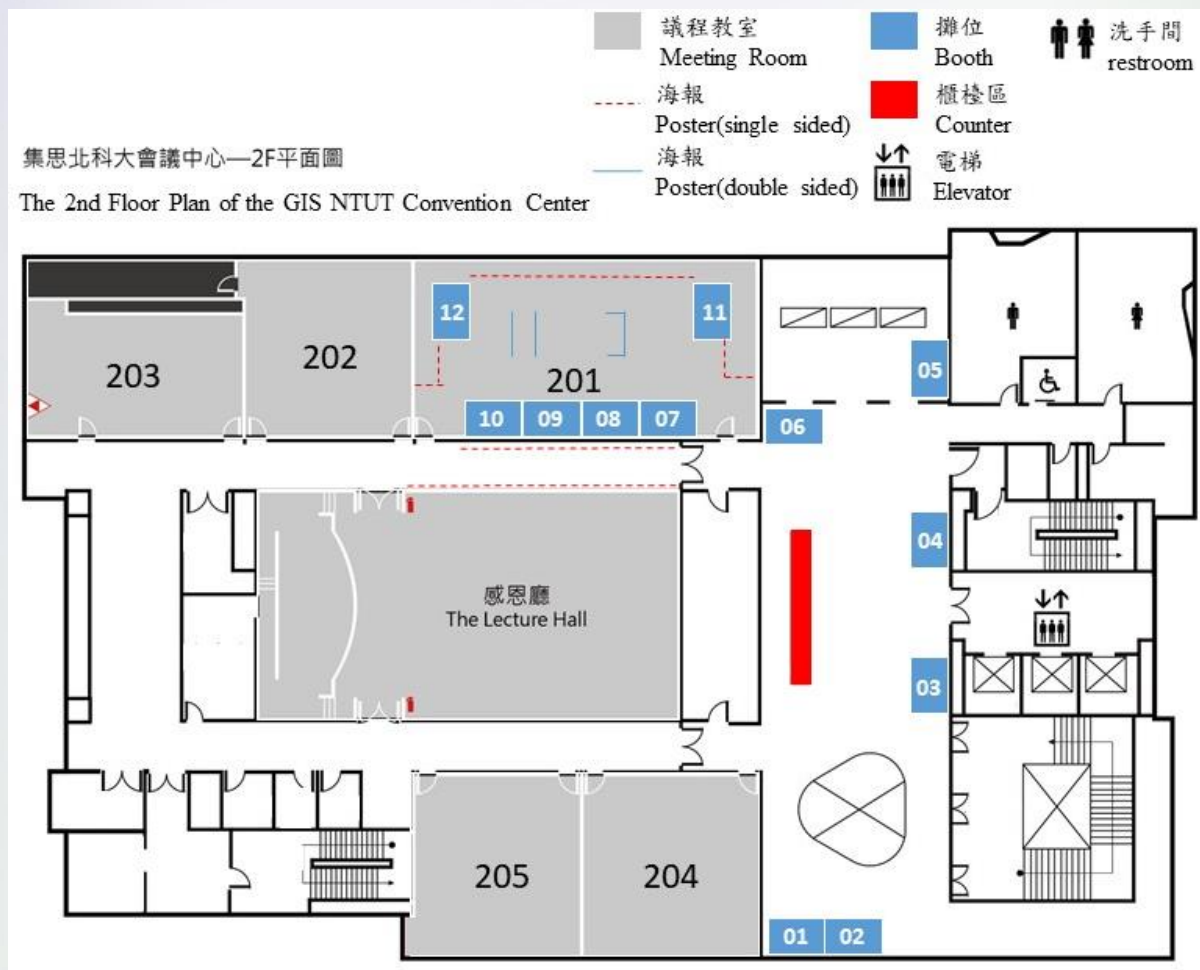
## Taipei MRT (台北捷運)



- If you plan to take public transportation, the suggested routes are as follows:
1. For international participants, please follow the signs to Taoyuan Airport MRT (B2) upon arrive.
  2. Take the Taoyuan Airport MRT from the airport to the Taipei Main Station.
  3. Transfer to the Taipei MRT.
  4. Take the Taipei MRT (Bannan line, blue line) from Taipei Main Station (BL12) to Zhongxiao Xinseng Station (BL14, EXIT 4).
  5. Walk along Zhongxiao East Road to reach the GIS Taipei Tech Convention Center.



## GIS Taipei Tech Convention Center 2F 集思北科大會議中心



01: Rightek Co., Ltd.

07: Sinodynamics Corporation

02: Park Systems Corp.

08: ACS Publications

03: AST Science Corp/AST Scitech Corp

09: AUORS BIOTECH CO., LTD.

04: AST Instruments Corporation

10: Sunbloom Technology Inc.

05: LABGUIDE CO., LTD.

11: Level Biotechnology Inc.

06: Jie Dong Co., Ltd.

12: Utek Material Co., Ltd.

## The Lecture Hall

July 31 (Wednesday)	
09:00-09:30	Opening Ceremony
Chairman	Kenji Toda
09:30-10:10	Shie-Ming Peng
10:10-10:30	Coffee Break
Chairman	Qing-Hua Xu
10:30-11:10	Andries Meijerink
11:10-11:50	Chihaya Adachi
11:50-12:30	Ru-Shi Liu
12:30-13:30	Lunch
Chairman	Chun-Guey Wu
13:30-14:10	Pi-Tai Chou
14:10-14:50	Xiaogang Liu
14:50-15:30	Chain-Shu Hsu
15:30-15:50	Coffee Break
Chairman	Dae Ho Yoon
15:50-16:20	Xueyuan Chen
16:20-16:50	Rong-Jun Xie
16:50-17:20	Jing Zhao
17:30-18:10	Ben Zhong Tang
18:10	Dinner box supplied



## The Lecture Hall

August 1 (Thursday)	
Chairman	Wei Chen
09:00-09:30	Chun-Guey Wu
09:30-10:00	Dae Ho Yoon
10:00-10:30	Chin-Ti Chen
10:30-10:50	Coffee Break
12:30-13:30	Lunch
Chairman	Chaochin Su
13:30-13:50	Marie Anne van de Haar
13:50-14:20	Hsiu-Hui Chen
14:20-14:40	Miki Hasegawa
14:40-15:00	Yu-Jung Lu
15:00-15:20	Rocío E. Rojas-Hernandez
15:20-15:40	Shu-Mei Chang
15:40-16:00	Coffee Break
Chairman	Ken-Tsung Wong
16:00-16:30	Ka-Leung Wong
16:30-17:00	Won Bin Im
17:00-17:30	Hong-Cheu Lin
18:30-21:00	Banquet (Miramar Garden Hotel)



## The Lecture Hall

<b>August 2 (Friday)</b>	
Chairman	Xiaojun Wang
09:00-09:30	Kenji Toda
09:30-10:00	Wai-Yeung Wong
10:00-10:30	Ching-Ting Lee
10:30-10:50	Coffee Break
Chairman	Won Bin Im
10:50-11:20	Takatoshi Seto
11:20-11:50	Ling Dong Sun
11:50-12:30	Kanyi Pu
12:30-13:30	Lunch
Chairman	Gilles Ledoux
13:30-14:10	Yen-Hsiang Fang
14:10-14:50	Sheng-Yuan (Neo) Sun
14:50-15:30	Dayong Jin
15:30-15:50	Coffee Break
15:50~16:30	Awarding & Closing Ceremony



## Room 201

<b>July 31 (Wednesday) ~ August 2 (Friday)</b>	
9:00-18:00	Vendor Booth
<b>August 1 (Thursday)</b>	
10:50-12:30	Poster Competition

## Room 202

<b>July 31 (Wednesday)</b>	
Chairman	Jean-Claude G. Bünzli
15:50-16:10	Jumpei Ueda
16:10-16:30	Mu-Huai Fang
16:30-16:50	Ji-Guang Li
16:50-17:10	Kwang-Ming Lee
18:10	Dinner box supplied

<b>August 1 (Thursday)</b>	
Chairman	Marie Anne van de Haar
09:00-09:20	Shihui Wen
09:20-09:40	Su-Hua Yang
09:40-10:00	Candy C. Mercado
10:00-10:20	Fuh-Shyang Juang
10:30-10:50	Coffee Break
10:50-12:30	Oral
12:30-13:30	Lunch
Chairman	Luis Humberto da Cunha Andrade
13:30-13:50	Hsiao-Hua Yu
13:50-14:10	Qing-Hua Xu
14:10-14:30	Chia-Yen Huang
14:30-14:50	Kentaro Nishida
14:50-15:10	Zhen Bao
15:10-15:30	Zhen Shen
15:40-16:00	Coffee Break



## Room 202

August 1 (Thursday)	
Chairman	Chin-Ti Chen
16:00-16:20	Feng Wang
16:20-16:40	Chong-Geng Ma
16:40-17:00	Chunxia Li
17:00-17:20	Yuhai Zhang
17:20-17:40	Lei Chen
18:30-21:00	Banquet (Miramar Garden Hotel)



# Conference Schedule and Venue

## Room 204

<b>July 31 (Wednesday)</b>	
Chairman	Candy C. Mercado
15:50-16:20	Wei Chen
16:20-16:50	Yu-Chiang Chao
16:50-17:20	Fan Zhang
18:10	Dinner box supplied

<b>August 1 (Thursday)</b>	
Chairman	Jumpei Ueda
09:00-09:30	Heesun Yang
09:30-10:00	Ken-Tsung Wong
10:00-10:30	Chen Bing Shian
10:30-10:50	Coffee Break
10:50-12:30	Oral
12:30-13:30	Lunch
Chairman	Heesun Yang
13:30-14:00	Manuel Nuño
14:00-14:30	Xiaojun Wang
14:30-14:50	Yi-Ting Lee
14:50-15:20	Jean-Claude G. Bünzli
15:20-15:40	Wei-Ren Liu
15:40-16:00	Coffee Break



## Room 204

<b>August 1 (Thursday)</b>	
Chairman	Miki Hasegawa
16:00-16:20	Yu-Ching Huang
16:20-16:40	Yohei Hattori
16:40-17:00	Che-Jen Lin
17:00-17:30	Yu-Chen Chen
18:30-21:00	Banquet (Miramar Garden Hotel)

<b>August 2 (Friday)</b>	
Chairman	Chih-Hsin Chen
09:00-09:20	Fang-Chung Chen
09:20-09:40	Pakkirisamy Thilagar
09:40-10:00	Jiun-Haw Lee
10:00-10:20	Ming-Hsien Chan
10:30-10:50	Coffee Break
Chairman	Andrzej Suchocki
10:50-11:10	Ching-Cherng Sun
11:10-11:30	Gilles Ledoux
11:30-11:50	Chih-Hsin Chen
12:30-13:30	Lunch

## Room 205

<b>July 31 (Wednesday)</b>	
Chairman	Yu-Jung Lu
15:50-16:10	Eakgapon Kaewnuam
16:10-16:30	Yang-Hsiang Chan
16:30-16:50	Andrzej Suchocki
16:50-17:10	Jung-Yao Chen
17:10-17:30	Shunsuke Kurosawa
18:10	Dinner box supplied

<b>August 1 (Thursday)</b>	
Chairman	Rocío E. Rojas-Hernandez
09:00-09:20	Tien-Lin Wu
09:20-09:40	Abhishek Kumar Srivastava
09:40-10:00	Hung-Ju Yen
10:00-10:20	Luis Humberto da Cunha Andrade
10:30-10:50	Coffee Break
10:50-12:30	Oral
12:30-13:30	Lunch



## Room 205

August 1 (Thursday)	
Chairman	Mamoru Kitaura
13:30-13:50	Fadjar Mulya
13:50-14:10	Chieh-Ting Lin
14:10-14:30	Chu-Chen Chueh
14:30-14:50	Jakrapong Kaewkhao
14:50-15:10	Jian Xu
15:10-15:40	Jun Lin Chen
15:40-16:00	Coffee Break
Chairman	Wei-Ren Liu
16:00-16:20	Meng-Lin Tsai
16:20-16:40	Mamoru Kitaura
16:40-17:00	Chih-Chien Chu
17:00-17:30	Chih-Ping Chen
18:30-21:00	Banquet (Miramar Garden Hotel)

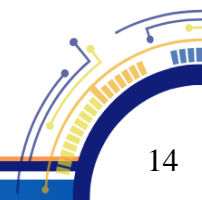




## July 31 (Wednesday)

### The Lecture Hall

Speaker	Speech title
Shie-Ming Peng	From Metal-Metal Multiple Bonds to Helical Metal Strings
Andries Meijerink	NextGen Doping Dots
Chihaya Adachi	Comprehensive molecular design aimed at high-performance OLED and organic lasers
Ru-Shi Liu	Shining a New Light: Innovative Approaches to NIR Phosphor Design for Cutting-Edge LED Technology
Pi-Tai Chou	Intra- and Inter- Molecular Interactions and Their Cutting-Edge Applications in Lighting
Xiaogang Liu	X-photonics: energy harvesting for imaging and assistive technology
Chain-Shu Hsu	Achieving high performance organic solar cells with ladder-type conjugated polymers and non-fullerene acceptors
Ben Zhong Tang	Clusteroluminescence: A Conceptionally New Luminescence System Emergent from Non-luminescent Molecules





## August 2 (Friday)

The Lecture Hall	
Speaker	Speech title
Kanyi Pu	Addressing Optical Imaging Challenges for Biomedical Research
Yen-Hsiang Fang	Development of augmented reality system by micro LED solution
Sheng-Yuan (Neo) Sun	Challenges in Commercializing MicroLED
Dayong Jin	Upconversion nanophotonic systems

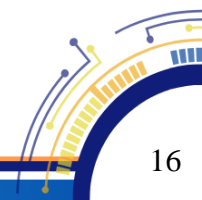


# Keynote Speaker

**July 31 (Wednesday)**

<b>The Lecture Hall</b>	
<b>Speaker</b>	<b>Speech title</b>
Xueyuan Chen	Near-Infrared Luminescent I-III-VI Quantum Dots
Rong-Jun Xie	Data-driven discovery of luminescent materials for lighting and displays
Jing Zhao	Speech title Mechanical Response Luminescence in Hybrid Metal Halides

<b>Room 204</b>	
<b>Speaker</b>	<b>Speech title</b>
Wei Chen	The Invention of Copper Cysteamine Illumination Many Areas
Yu-Chiang Chao	Chiroptical Properties of Chiral Perovskites and Related Optoelectronic Devices
Fan Zhang	NIR-II Fluorescent Probes for in vivo Multiplexed Biodetection





## August 1 (Thursday)

The Lecture Hall	
Speaker	Speech title
Chun-Guey Wu	Photochromic dyes for dye-sensitized solar cells
Dae Ho Yoon	Method for manufacturing phosphor in glass via an eco-friendly route for lighting application
Chin-Ti Chen	Molecular Engineering to Enhance EQE up to 7% on Near UV and Deep Blue Classic Fluorophores-Based OLEDs
Hsiu-Hui Chen	Photochromic Organic Solar Cells Based on Dithienylcyclopentene (DTCP) Liquid Crystals
Ka-Leung Wong	A little something new– Energy Transfer from Antenna to Lanthanide
Won Bin Im	Exploration and applications of Pb-free metal halide nano crystals
Hong-Cheu Lin	Tunable Nano-Bending Structures of Loosened/Tightened Lassos with Bi-Stable Vibration-Induced Emissions for Multi-Manipulations of White-Light Emissions and Sensor Applications

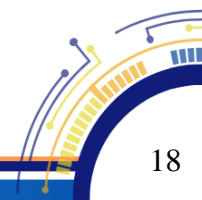


# Keynote Speaker

**August 1 (Thursday)**

## Room 204

<b>Speaker</b>	<b>Speech title</b>
Heesun Yang	Eco-Friendly Colloidal Quantum Dot Visible Emitters for Display Devices
Ken-Tsung Wong	Intramolecular or Intermolecular Charge Transfer Approach for High Efficiency OLED Emitter
Xiaojun Wang	Phosphorescence glowing-in-the-daylight and ambient influence
Jean-Claude G. Bünzli	Lanthanide photonics: From gas lighting to optical computers





## August 2 (Friday)

The Lecture Hall	
Speaker	Speech title
Kenji Toda	Luminescence Properties of Halide Phosphors synthesized by Novel Water-Assisted Solid-State Reaction method
Wai-Yeung Wong	Phosphorescent Soft Salts: Properties and Applications
Ching-Ting Lee	Metal-oxide based luminescent materials and devices
Takatoshi Seto	Unique large Stokes shift unrelated to nephelauxetic effect or crystal field splitting
Ling Dong Sun	Low Threshold Concentrated Lanthanide Upconverters



# Invited Speaker

## July 31 (Wednesday)

Room 202	
Speaker	Speech title
Jumpei Ueda	Highly Thermal Stable NIR Luminescence in Ni <sup>2+</sup> -Doped Perovskites
Mu-Huai Fang	Temperature/Pressure-Induced Transformation between Short-Wave Infrared and Near-Infrared Phosphors
Ji-Guang Li	NIR luminescence of (Gd,Ca) <sub>3</sub> (Hf,Sc,Al) <sub>5</sub> O <sub>12</sub> :Cr <sup>3+</sup> phosphors
Kwang-Ming Lee	Endosome-bioinspired Self-assembled-induced Fluorescent Organic Nanoparticles or Vesicles and Their Applications

Room 205	
Speaker	Speech title
Eakgapon Kaewnum	The development of Ln <sup>3+</sup> doped borate glasses for photonic materials
Yang-Hsiang Chan	The applications of NIR-II Emission in Bioimaging and Translational Medicine
Andrzej Suchocki	High-pressure luminescence studies of Fe <sup>3+</sup> in LiGaO <sub>2</sub> crystalline powders
Jung-Yao Chen	Non-Volatile Photomemory with Ultrafast and Multi-Level Memory Behavior
Shunsuke Kurosawa	Development of Infrared Emitting Scintillator for the Ultra High-Dose Rate Monitor



## August 1 (Thursday)

### The Lecture Hall

Speaker	Speech title
Marie Anne van de Haar	Nano-engineered narrow-band phosphors for LED applications
Miki Hasegawa	The Helical Molecular Design for Luminescence of Rare Earths
Yu-Jung Lu	Lead Halide Perovskite Plasmonic Nanolasers with Ultralow Threshold
Rocío E. Rojas-Hernandez	Advanced functional and luminescent ceramic materials
Shu-Mei Chang	Colour Study of Cholesteric Liquid Crystal on Flexible Substrates

### Room 202

Speaker	Speech title
Shihui Wen	Morphology Control of Upconversion Nanoparticles for Nanophotonics
Su-Hua Yang	Versatile Phosphors: Synthesis, Characteristics and Applications
Candy C. Mercado	Phase transformation and photoluminescence studies on europium incorporation into calcite
Fuh-Shyang Juang	Top emission organic light emitting diodes on stainless-steel foil
Hsiao-Hua Yu	Smart PEDOTs for Bioimaging, Biodetection, and Biosensors





## August 1 (Thursday)

### Room 202

Speaker	Speech title
Qing-Hua Xu	Aggregation Induced Emission of Plasmonic Metal Nanoparticles
Chia-Yen Huang	Interplay of dislocation and epitaxial strain in ultraviolet-C light-emitting diode epitaxy
Kentaro Nishida	Photothermal scattering control in silicon nanostructures
Zhen Bao	Melt recrystallization process for sintering silica-coated perovskite nanocrystals through mesoporous silica
Zhen Shen	Molecular Engineering of Corrole Radicals by Polycyclic Aromatic Ring Fusion
Feng Wang	Exploring the host effects on dopant luminescence
Chong-Geng Ma	Unraveling luminescence behavior of 3d <sup>3</sup> ions in solids: Navigating from crystal-field theory to first-principles analysis
Chunxia Li	Photofunctional Nanomaterials for Synergistic Tumor Therapy
Yuhai Zhang	High-loading Luminescent Nanocomposite for X-ray Imaging and Full-color Display
Lei Chen	A super broadband near-infrared phosphor $Zn_2InGaO_5:Cr^{3+}$ and LED device ——Also giving some talks on photoluminescence, photomedicine, and phototherapy



## August 1 (Thursday)

### Room 204

Speaker	Speech title
Chen Bing Shian	Flow reactor for nano materials synthesis
Manuel Nuño	Synthesis of nanoparticles and advanced materials in continuous flow
Yi-Ting Lee	The application of multi-resonance materials in organic light-emitting diodes and organic lasers
Wei-Ren Liu	Synthesis and Characterizations of Enhancing the Stability of All-Inorganic Perovskite Quantum Dots and Their Applications in White LEDs
Yu-Ching Huang	High-Efficiency 4-Terminal Perovskite/Si Tandem Solar Cell
Yohei Hattori	Effects of benzene donors on luminescent properties of stable diphenylpyridylmethyl radicals
Che-Jen Lin	Real-Time Flow Sensing Using Morphology-Dependent Fluorescence in Complex Emulsions
Yu-Chen Chen	NIR, Phosphorescence and Upconversion with Fluorolog-QM



# Invited Speaker

## August 1 (Thursday)

### Room 205

Speaker	Speech title
Tien-Lin Wu	Design and Synthesis of Helical Structures with Circularly Polarized Luminescence and Thermally Activated Delayed Fluorescence
Abhishek Kumar Srivastava	Quantum Rods LEDs For Efficient Displays and Lighting
Hung-Ju Yen	Bottom-up Synthesis of Luminescent Nanographenes
Luis Humberto da Cunha Andrade	Optical properties and development of white light LEDs with high quantum efficiency based on potassium chloride crystals doped with $\text{Yb}^{2+}/\text{CN}^-$
Fadjar Mulya	DFT Modeling of Phosphor Materials: From Metalloporphyrin to Quantum Dots
Chieh-Ting Lin	Optimizing Hole Transport Layers to Minimize VOC Loss in Hybrid Sn-Pb Perovskite Solar Cells
Chu-Chen Chueh	Organic-Inorganic Hybrid Perovskites for Optoelectronic Applications beyond Photovoltaics
Jakrapong Kaewkhao	Glass Scintillator by lanthanide doping: Properties and applications
Jian Xu	Discovery of new (oxy)nitride phosphors by single-particle-diagnosis approach and time-resolved spectroscopy
Jun Lin Chen	Photoluminescence Spectrum and Image Camera



## August 1 (Thursday)

### Room 205

Speaker	Speech title
Meng-Lin Tsai	Halide Perovskite/Cellulose Nanocrystal Papers for High Stability Optoelectronic Applications
Mamoru Kitaura	Charge compensation in lanthanide doping of $\text{Ca}_2\text{Al}_2\text{SiO}_7$
Chih-Chien Chu	Redox and pH-gated optical modulation of the TPIPP-based organic fluorophores
Chih-Ping Chen	Enhancing Performance of Organic Photodetectors and Perovskite Solar Cells via Interfacial or Surface Defect Passivation



# Invited Speaker

## August 2 (Friday)

### Room 204

Speaker	Speech title
Fang-Chung Chen	Photopatternable Perovskite Quantum Dots for Light-Emitting Devices
Pakkirisamy Thilagar	BN/CC Isostere: Circularly Polarized Luminescence Switching and Stimuli-Induced Phase Change Materials
Jiun-Haw Lee	Anthracene Decorated with Dibenzofuran and Naphthalene as the Emitting Layer of Blue Organic Light-emitting Diode
Ming-Hsien Chan	Extracellular Vesicles with Persistent Luminescent-Based Light-Controlled Probes for the Intelligent Diagnosis of Lung Cancer
Ching-Cherng Sun	Optical Modeling of Phosphor for High-quality Solid-state Lighting
Ledoux Gilles	Strategies to enhance solar upconversion for photocatalysis
Chih-Hsin Chen	Cyano-Substituted Bis((benzothiophen-2-yl)pyridine)(acetylacetonate) Iridium Complexes for Efficient and Stable Deep Red Organic Light-Emitting Diodes



## August 1 (Thursday)

Room 202	
10:50~11:05 OA001	Lanthanide-Activated Phosphors for Enhanced Plastic Recycling Efficiency via Tracerbased Sorting
	Andrey Turshatov, Institute of Microstructure Technology, Karlsruhe Institute of Technology, Germany
11:05~11:20 OA002	Enabling Visible-Light-Charged Near-Infrared Persistent Luminescence in Organics
	Lin Cunjian, Japan Advanced Institute of Science and Technology, Japan
11:20~11:35 OA003	Reconsideration of the luminescent properties of $\text{Pr}^{3+}$ , $\text{Er}^{3+}$ , $\text{Tm}^{3+}$ and $\text{Ho}^{3+}$ doped $\text{Bi}_4\text{Ge}_3\text{O}_{12}$ crystals for visible and mid-infrared laser operation
	Yannick GUYOT, Institute Light Matter (ILM), France
11:35~11:50 OA004	Plastic Identification by Using Energy Transfer Enhanced Broadband Short-wave Infrared Phosphor $\text{Mg}_3\text{Ga}_2\text{GeO}_8:\text{Cr}^{3+}, \text{Ni}^{2+}$
	Jing-Hong, Lu, National Taipei university of Technology, Taiwan
11:50~12:05 OB001	Imaging and Sensing Extreme Ultraviolet Radiation with Nanodiamonds
	Yuen Yung HUI, Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan



# Oral Presentation List

## August 1 (Thursday)

Room 204	
10:50~11:05 OC001	Recent Progress & Developments in Wearable Optoelectronics
	Loganathan Veeramuthu, Institute of Organic & Polymeric Materials, Department of Molecular Science & Engineering, National Taipei University of Technology, Taiwan
11:05~11:20 OC002	Facile rod-coil bio-block copolymers one-pot synthesis and unveiling their properties for the fabrication of robust stretchable touch-responsive light emitting diodes
	BENAS Jean-Sébastien, Institute of Organic and Polymeric Materials, National Taipei University of Technology, Taiwan
11:20~11:35 OC003	Next-Generation Touch Responsive Stretchable Perovskite Light-Emitting Diodes (LEDs)
	Amirthavarshini Muthuraman, Institute of Organic and Polymeric Materials, Department of Molecular Science and Engineering, National Taipei University of Technology, Taiwan
11:35~11:50 OC004	Polymeric Nanothick Interlayer-Assisted Grain Control Process for Enhanced Perovskite LED
	Archana Pandiyan, Institute of Organic and Polymeric Materials, Department of Molecular Science and Engineering, National Taipei University of Technology, Taiwan
11:50~12:05 OF001	Development of Efficient CsI(Na) Scintillation Crystal via Sr Co-doping for Radiation Detection
	Yaowaluk Tariwong, Center of Radiation Research and Medical Imaging, Department of Radiologic Technology, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand
12:05~12:20 OF002	Dual-Emitting Gadolinium Borogermanate Glasses Doped with Dy <sup>3+</sup> for Laser and Scintillato
	Nuanthip Wantana, Physics Program, Faculty of Science and Technology, Nakhon Pathom Rajabhat University, Thailand



## August 1 (Thursday)

Room 205	
10:50~11:05 OF003	Nanofoam 2D/2D Heterostructure Sensors for Enhanced NH <sub>3</sub> Detection
	TOTON HALDAR, Department of Engineering Science, National Cheng Kung University, Taiwan
11:05~11:20 OF004	Self-cleanable, ultraviolet resistive, surface enhanced fully nanofiber based triboelectric energy harvester for wearable smart garments
	Jayashree Chandrasekar, Department of Molecular Science and Engineering, Institute of Organic and Polymeric Materials, National Taipei University of Technology, Taiwan
11:20~11:35 OF005	CsZn <sub>0.75</sub> Pb <sub>0.25</sub> I <sub>3</sub> /CNC doped High-Performance Piezoelectric Nanogenerator for Mechanical Sensing and Piezo photocatalytic Applications.
	Manikandan Venkatesan, Department of Molecular Science and Engineering, Institute of Organic and Polymeric Materials, National Taipei University of Technology, Taiwan
11:35~11:50 OF006	Design and Synthesis of Photochromic Liquid Crystalline Dithienylcyclopentene Derivatives
	You-Sheng Du, National Taipei university of Technology, Taiwan
11:50~12:05 OF007	Development of Photochromic Dithienylcyclopentene (DTCP) Liquid Crystalline Derivatives
	Pei-Hsuan Tsung, National Taipei university of Technology, Taiwan
12:05~12:20 OF008	Defect engineering technique for beyond utilization of metal-organic framework and halide perovskite as fluorescence sensing substance
	Andi Magattang Gafur Muchlis, Organic and Polymeric Materials, National Taipei University of Technology, Taiwan
12:20~12:35 OF009	Synthesis and optical applications of organic-inorganic multi-coating-layer encapsulation of formamidine-based perovskite quantum dots
	Ling-Hsuan Chung, National Taipei university of Technology, Taiwan





# Poster Presentation List

## August 1 (Thursday)

Room 201	10:50-12:30
PA001	Exosomes and near-infrared sustained-luminescence nanoparticles merge as new specific diagnostics for non-small cell lung cancer
	TSAI LAN LIAO, Department of Biomedical Imaging and Radiological Sciences, National Yang Ming Chiao Tung University, Taiwan
PA002	Revolutionizing Phosphor Design: Enhancing Shortwave Infrared Emission via Cr <sup>3+</sup> -Cr <sup>3+</sup> Pairs and Cr <sup>3+</sup> Clusters to Ni <sup>2+</sup> Energy Transfer Pathways
	Kuan-Chun Chen, Department of Chemistry, National Taiwan University, Taiwan
PA003	Cation Substitution-Induced Partial Inversion to Pervade Short-Wave Infrared Light for Improving the Accuracy of Artificial Intelligence Image Recognition System
	Yu-Kai, Huang, National Taipei University of Technology, Taiwan
PA004	Plastic Identification by Using Energy Transfer Enhanced Broadband Short-wave Infrared Phosphor Mg <sub>3</sub> Ga <sub>2</sub> GeO <sub>8</sub> :Cr <sup>3+</sup> , Ni <sup>2+</sup>
	Wan Yun, Chu; Chia Lun, Wang, National Taipei University of Technology, Taiwan
PB001	Upconversion Nanoparticle-Mediated Neutron Capture Therapy Lu-177 Treatment in Oral Cancer
	Kai-Hung, Lin, Department of Biomedical Imaging and Radiological Sciences, National Yang Ming Chiao Tung University, Taiwan
PC001	Stable and high QE nano-YAG:Ce <sup>3+</sup> phosphors for photonic applications
	Vasilii Khanin, Seaborough B.V., Matrix VII Innovation Center, the Netherlands
PC002	Crystal Structure Determination of Eu <sup>2+</sup> -doped BaMgSi <sub>3</sub> O <sub>8</sub> : Actual Luminescent Phase of Blue-emitting Phosphor BaMgSi <sub>4</sub> O <sub>10</sub> :Eu <sup>2+</sup>
	Wataru Hikita, Graduate School of Science and Technology, Niigata University, Japan
PC003	High Performance Hole-Transporting-Layer Free Perovskite Light-Emitting Diodes by Incorporating Self-Assembled Molecules
	Yin-Ti Lai, Department of Chemical Engineering, National Taiwan University, Taiwan



## August 1 (Thursday)

Room 201	10:50-12:30
PC004	Magnetically induced circularly polarized luminescence and circularly polarized electroluminescence from an achiral perovskite
	Yoshitane Imai, Graduate School of Science and Engineering, Kindai University, Japan
PC005	High-Efficiency Perovskite Quantum Dots for Micro-LED Applications
	Wen-Tse Huang, Department of Chemistry, National Taiwan University, Taiwan
PC006	Flexible Light-Emitting Diodes and Pressure Sensors with Human Skin-Like Durability and Strain Insensitive Performance
	Chung Ya-Xuan, Institute of Organic and Polymeric Materials, Department of Molecular Science and Engineering, National Taipei University of Technology, Taiwan.
PC007	Enhanced Stability and Performance of Perovskite LEDs via Poly(4-vinylpyridine) and Chitin-Derived Graphene Quantum Dot Doping
	FANG, MENG-XIU, Institute of Organic and Polymeric Materials, Research and Development Center of Smart Textile Technology, National Taipei University of Technology, Taiwan
PC008	The Ni <sub>x</sub> O <sub>y</sub> Hole Transport Layer Modification by Oxygen-Plasma Treatment to Enhance the Emission Stability of Blue Perovskite Light-Emitting Diodes
	HSU TZU-MING, Institute of Organic and Polymeric Materials, Research and Development Center of Smart Textile Technology National Taipei University of Technology, Taiwan
PC009	Repaired the defect and enhanced the ligand stability of Perovskites with silver ions for light-emitting diodes
	HUANG YU-HANG, Institute of Organic and Polymeric Materials, National Taipei University of Technology, Taiwan
PC010	Optimization of crystal orientation in quasi-two-dimensional perovskites through silver ion doping for high-performance light-emitting diodes
	LIN, KAI-WEI, Institute of Organic and Polymeric Materials, Research and Development Center of Smart Textile Technology, National Taipei University of Technology, Taiwan

## August 1 (Thursday)

Room 201	10:50-12:30
PC011	Ultra-Durable and Rapidly Self-Healing Elastomer for Submersible Wearable Electronics
	WANG, YU-CHEN, Institute of Organic and Polymeric Materials, Department of Molecular Science and Engineering, National Taipei University of Technology, Taiwan
PC012	Quasi-2D Perovskite with Ligand Engineering to Improve the Stability of Phototransistor Memory with a Floating Gate
	Yu Pei-Zhen, Institute of Organic and Polymeric Materials, Department of Molecular Science and Engineering, National Taipei University of Technology, Taiwan
PC013	High stability FAPbBr <sub>3</sub> perovskite quantum dots with polymer encapsulation by low carbon green technology
	Po-Chun, Li, National Taipei University of Technology, Taiwan
PC014	FAPbBr <sub>3</sub> Nanocrystal Stability Improvement by Trace Among Doping on the Base of Particle Cohesion Effect Ignorance
	Yan Chung Lai, National Taipei University of Technology, Taiwan
PC015	Synthesis and optical applications of organic-inorganic multi-coating-layer encapsulation of formamidine-based perovskite quantum dots
	YUAN-HONG, CHEN, National Taipei University of Technology, Taiwan
PC016	The Study on Red Light Emitting Diodes Using Quasi-Two Dimensional Cs-Based Perovskite Nanomaterials
	Liang-Wei Chuang, Department of Chemical Engineering, National Taiwan University of Science and Technology, Taiwan
PD001	Development of innovative polymeric nanofibers by doping cellulose nanocrystal with perovskite
	SYU, ZIH-SYUAN, National Taipei University of Technology Department of Molecular Science and Engineering, Taiwan
PD002	Photosynaptic Transistor: Enhancing Efficiency with Diketopyrrolopyrrole-based Conjugated Polymers and Perovskite Quantum Dots
	WU, JING-YANG, National Taipei University of Technology, Department of Molecular Science and Engineering, Taiwan



## August 1 (Thursday)

Room 201	10:50-12:30
PE001	New Deep-red Emitting Phosphor SrCa <sub>2</sub> Ga <sub>2</sub> O <sub>6</sub> :Mn <sup>4+</sup> for plant growth
	YUKO NASUDA, Fuso Chemical Co., Ltd., Japan
PF001	Characterization of Cs <sub>3</sub> MnBr <sub>5</sub> Sub-micron particles for Micro-LED and Photodetector applications
	JungHyeon Yoo, School of Advanced Materials Science and Engineering, SungKyunKwan University, Republic of Korea
PF002	Alkylation-enhancement on the luminescent lanthanide complexes with bipyridine valinamide skeletons
	Reo Ohno, College of Science and Engineering, Aoyama Gakuin University, Japan
PF003	pH-driven luminescence changes of platinum(II) complexes with salophen having carboxy groups
	Shun Fujii, College of Science and Engineering, Aoyama Gakuin University, Japan
PF004	Quadrupling the PLQY of Tetraphenylethylene by Covalently Linking it with Isosteric Tetraarylamino borane: A Potential Candidate for Multicolor Live Cell Imaging
	Muhammed Munthasir Akkarakaran Thayyil, Department of Inorganic and Physical Chemistry, Indian Institute of Science, India
PF005	Isolated Organic Chromophore Showing Efficient Blue Room Temperature Phosphorescence from Up-converted Triplet Excited State
	Subhajit Ghosh, Department of Inorganic and Physical Chemistry, Indian Institute of Science, India
PF006	Fully Nanofiber Self-Cleaning Ultraviolet-Resistant Triboelectric Energy Harvester
	HSU, YUNG-CHI, National Taipei University of Technology, Department of Molecular Science and Engineering, Taiwan
PF007	Controlling Morphology and Alignment Transition of Hexabenzocoronene (HBC) Mesogen Films by Bar Coating
	Yan-Liang, Yeh, National Taipei University of Technology, Taiwan



# Poster Presentation List

## August 1 (Thursday)

Room 201	10:50-12:30
PF008	Design of Low-Temperature Unsymmetrical Photochromic Dithienylcyclopentene (DTCP) Liquid Crystalline Derivatives
	Yu-Xiang Huang, National Taipei University of Technology, Taiwan
PF009	Structures and halogen substitution effect on the fluorescence properties of tetrazole-base compounds
	Yang-Pei Zheng, National Taipei University of Technology, Taiwan
PF010	Structures and fluorescent properties study on terpyridine-base compounds
	Tzu-Jing Lin, National Taipei University of Technology, Taiwan
PF011	Enhanced Room Temperature CO <sub>2</sub> Sensing with Urchin-like TiO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> (MXene) Nanocomposites
	Hsin-Ting, Wu, National Taipei University of Technology, Taiwan



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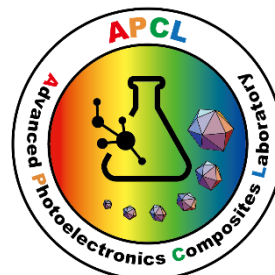
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# PHOSPHOR SAFARI 2024

The 13<sup>th</sup> International Symposium for Luminescent Materials

## travel guidebook

### 2024/08/03 Saturday



**Limited spots available,  
enthusiastic registrations are welcome!**

*Shifen Waterfall*



*Shifen*

# *Explore the Treasures of Northern Taiwan: Shifen, Jiufen, and Yehliu*



*Sky Lantern*



*A-Mei Teahouse*



*Jiufen*



*Candlestick Rock*



*Grandma Lai's Sweet  
Taro Balls*



*Queen's Head Rock*



*Yehliu*



# Sightseeing



**Time: Saturday, August 3, 2024**

**Precautions: Please bring an umbrella and wear comfortable shoes**

- 1 Taipei Tech** (Sec. 3, Zhongxiao E. Rd., Taipei Tech. main gate)  
**7:30 – 8:00**  
Please check in with the staff wearing Phosphor Safari 2024 clothing.



- 2 Shifen Old Street**  
**9:00 – 10:30**  
Walk for 10 mins.



- 3 Jiufen Old Street**  
**11:30 – 14:00**  
(Bus transfer required)  
(Enjoy local cuisine)



- 4 Yehliu Geopark**  
**15:00 – 16:30**



- 5 Ximending**  
**17:30**  
End of the itinerary.

