

S0101. Oral Session I

🕒 Nov 27, Wednesday, 13:30-15:00

📍 Room 507

🗣️ **Presider:** Prof. Hsuen-Li Chen (National Taiwan University, Taiwan)
Prof. Yu-Jung Lu (Academia Sinica, Taiwan)

13:30

2024-WED-S0101-I001

Invited

Metasurfaces for sensing applications

Prof. Takuo Tanaka, RIKEN (Japan)

14:00

2024-WED-S0101-O001

High-extinction Photonic Filters by Cascaded Mach–Zehnder Interferometer Coupled Resonators

Hao-Zhong Chen, Kuan-Lin Ho, National Central University (Taiwan); Pei-Hsun Wang, National Yang Ming Chiao Tung University (Taiwan)

14:15

2024-WED-S0101-O002

Meta-microlens-array based confocal fluorescence microscopy

Surag Athippillil Suresh, National Tsing Hua University (Taiwan); Sunil Vyas, Cheng Hung Chu, National Taiwan University (Taiwan); J. Andrew Yeh, National Tsing Hua University (Taiwan); Yuan Luo, National Taiwan University (Taiwan)

14:30

2024-WED-S0101-O003

Green Quantum Dot Light Emitting Diodes with NiOx Hole Injection Layers Prepared by Different Methods

Jin-Yu Lin, You-Huei Jhang, Hsin-Chieh Yu, National Yang Ming Chiao Tung University (Taiwan)

14:45

2024-WED-S0101-O004

Directionally Asymmetric Janus Metasurface Hologram

Yu-Chuan Chang, Chang-Yi Lin, Yao-Wei Huang, National Yang Ming Chiao Tung University (Taiwan)

S0101. Oral Session I

🕒 Nov 27, Wednesday, 13:30-15:00

📍 Room 534

🗣️ **Presider:** Prof. Hui-Hsin Hsiao (National Taiwan University, Taiwan)
Prof. Hsu-Cheng Hsu (National Cheng Kung University, Taiwan)

13:30

2024-WED-S0101-O005

High-Q Metasurface with 2D Topology Optimization for Color Selection

Chih-Yao Hsu, Huan-Teng Su, Yao-Wei Huang, National Yang Ming Chiao Tung University (Taiwan)

13:45

2024-WED-S0101-O006

Light beam twisting metasurfaces with inverse design

Wei-Cheng Tsai, Po-Cheng Yang, An-Ru Yen, Yao-Wei Huang, National Yang-Ming Chiao Tung University (Taiwan)

14:00

2024-WED-S0101-O007

Cost-Effective and Eco-Friendly Nanoimprinting Techniques for Metasurface Fabrication: A Simplified Approach for Reconstruction Spectrometers

Yu-Heng Hung, Tsai-Yu Hsieh, Chung-Hung Lin, National Cheng Kung University (Taiwan)

14:15

2024-WED-S0101-O008

Topology Optimization Enables Freeform Matrix Fourier Optics

Yu-Tzu, Liu, Yun-Chien, Wu, Yao-Wei, Huang, National Yang Ming Chiao Tung University (Taiwan)

14:30

2024-WED-S0101-O009

Synergistic SERS Enhancement of α -Fe₂O₃ Snowflakes and Ag Nanospheres for Ultra-Sensitive Antibiotic Detection

K M Arun Kumar, Thangavelu Kokulnathan, Tzyy-Jiann Wang, Yu-Hsu Chang, National Taipei University of Technology (Taiwan)

14:45

2024-WED-S0101-O010

Narrow Bandpass Filter Made by Dielectric Metasurface

Chung-An Wang, Guo-Dung Su, National Taiwan University (Taiwan)

S0102. Oral Session II

🕒 Nov 27, Wednesday, 15:15-16:45

📍 Room 507

🗣️ **Presider:** Prof. Hsuen-Li Chen (National Taiwan University, Taiwan)
 Prof. Ming-Lun Tseng (National Yang Ming Chiao Tung University, Taiwan)

15:15

2024-WED-S0102-1001

Invited

Lightwave control using free-standing dielectric nanomembrane structures

Prof. Kuniaki Konishi, University of Tokyo (Japan)

15:45

2024-WED-S0102-O001

Directly Inserted Hybrid Integration between III-V Photonic Crystal Nanobeam Laser and Silicon Waveguide

Jia-Wei Chen, Huai-Chang Chen, Tsan-Wen Lu, Po-Tsung Lee, National Yang Ming Chiao Tung University (Taiwan)

16:00

2024-WED-S0102-O002

Monolithic meta-surface collimator on blue micro-light-emitting-diode

Yu-Kuan Hsieh, Yu-Min Chang, Teng-Li Shao, Shing-Hong Hou, Yan-Hong Lin, Yi-Lin Yang, Yao-Wei Huang, Chia-Yen Huang, National Yang Ming Chiao Tung University (Taiwan)

16:15

2024-WED-S0102-O003

Unveiling the Identity of Single Photon Emitters in hBN with Nano-FTIR

Chia-Hung Wu, National Yang Ming Chiao Tung University (Taiwan); Po-Sheng Shi, National Tsing Hua University (Taiwan); Satoshi Ishii, National Institute for Materials Science (Japan); Kuo-Ping Chen, National Tsing Hua University (Taiwan)

16:30

2024-WED-S0102-O004

Enhancing Photon Avalanche Upconversion Luminescence Performance in Tm³⁺ Ions Doped NaYF₄ Upconversion Nanoparticles

Thanh-Thu Le-Vu, Jia-Rong Chang, Jiunn-Yuan Lin, Hung-Chih Kan, Chia-Chen Hsu, National Chung Cheng University (Taiwan)

S0102. Oral Session II

🕒 Nov 27, Wednesday, 15:15-16:45

📍 Room 534

🗣️ **Presider:** Prof. Hsu-Cheng Hsu (National Cheng Kung University, Taiwan)
 Prof. Yin-Jung Chang (National Central University, Taiwan)

15:15

2024-WED-S0102-O005

High-Efficiency Aluminum Nitride Metalens in the Deep Ultraviolet

Kuan-Heng Chen, Yu Chieh Peng, Yu Jie Wang, Yu Hung Lin, Bo Ray Lee, National Yang Ming Chiao Tung University (Taiwan); Kuniaki Konishi, The University of Tokyo (Japan); Ray-Hua Horng, Ming Lun Tseng, National Yang Ming Chiao Tung University (Taiwan)

15:30

2024-WED-S0102-O006

Metastructured snowflakes for all-day radiative cooling

Wen-Hsin Chang, Pei-Rong Lai, Sih-Wei Chang, Yen-Jen Chen, National Taiwan University (Taiwan); Ming-Chung Liu, Hsiao-Wen Tu, Industrial Technology Research Institute (Taiwan); Hsuen-Li Chen, National Taiwan University (Taiwan)

15:45

2024-WED-S0102-O007

Vortex Beam Conversion with Arbitrary Spin using Dielectric Metasurfaces

Yu-Liang Yeh, Shu-Ming Chang, and Yao-Wei Huang, National Yang Ming Chiao Tung University (Taiwan)

16:00

2024-WED-S0102-O008

Growth of sp²-Bonded Boron Nitride Films on Silicon Substrates for Molybdenum Disulfide Deposition

Tsai-Chieh Chen, Chun-Han Wu, Sheng De Weng, Sheng-Hui Chen, National Central University (Taiwan)

16:15

2024-WED-S0102-O009

Optical and Structural Effects of Sb-Containing InAs/InGaAs Quantum Dots for Achieving 1.38 μm Emission on GaAs Substrates

Jih-Han Lin, Pin-Chih Liu, Bhavya. K, Yung-Jyun Liao, Hou-Yi Chen, Min-Jie Zhang, Yuan Ze University (Taiwan); Hsiang You Cheng, National Central University (Taiwan); Wei-Sheng Liu, Yuan Ze University (Taiwan); Jen-Inn Chyi, National Central University (Taiwan)

16:30

2024-WED-S0102-O010

Designer Scalable Color Router for High-Efficiency Image Sensor

Cheng-Feng Pan, Hao Wang, Bochang Wu, Joel K.W. Yang, Singapore University of Technology and Design (Singapore)

S0103. Oral Session III

🕒 Nov 28, Thursday, 10:45-12:00

📍 Room 507

🗣️ **Presider:** Prof. Ming-Lun Tseng (National Yang Ming Chiao Tung University, Taiwan)
Prof. Yu-Jung Lu (Academia Sinica, Taiwan)

10:45

2024-THU-S0103-1001

Invited

3D Printing with Light for Light

Prof. Joel Yang, Singapore University of Technology and Design (Singapore)

11:15

2024-THU-S0103-0001

Ultra-Low-Threshold Lasing in All-Group-IV GeSn-on-Si Micro-Ring Resonators

Yu-Cheng Yeh, Wei-Cheng Hsu, and Guo-En Chang, National Chung Cheng University (Taiwan)

11:30

2024-THU-S0103-0002

CoCrFeNiMo_{0.5} High Entropy Alloy Under Shock Compression

Hsin-hui Huang, Swinburne University of Technology (Australia); Meguya Ryu, National Institute of Advanced Industrial Science and Technology (Japan); Andrew Ang, Swinburne University of Technology (Australia); Junko Morikawa, Tokyo Institute of Technology (Japan); Saulius Juodkazis, Swinburne University of Technology (Australia)

11:45

2024-THU-S0103-0003

Separate Light Absorption and Carrier Transport in Avalanche 2D Material Photodetectors Using Graphene/Multi-layer MoS₂ Hetero-structures

Cheng-Yu Chen, Yu-Han Huang, Chao-Hsin Wu, National Taiwan University (Taiwan); Shih-Yen Lin, Academia Sinica (Taiwan)

S0103. Oral Session III

🕒 Nov 28, Thursday, 10:45-12:00

📍 Room 534

🗣️ **Presider:** Prof. Hsuen-Li Chen (National Taiwan University, Taiwan)
Prof. Jiunn-Woei Liaw (Chang Gung University, Taiwan)

10:45

2024-THU-S0103-0004

Novel TiN Metal-Insulator-Metal Linear Polarized Absorber

Pei-Ling Chang, Zheng-Zhe Chen, Tzu-Hsin Hsu, Tzu-Yu Peng, Yu-Jung Lu, Min-Hsiung Shih, Academia Sinica (Taiwan)

11:00

2024-THU-S0103-0005

Silver-Decorated Periodic Zinc Oxide Nanograin Patterned by Nanoimprint Lithography for SERS Applications

Kuan-Ting Kuo, National Cheng Kung University (Taiwan); Hsiang Chen, National Chi Nan University (Taiwan); Wen-Huei Chang, National Pingtung University (Taiwan); Chun-Hung Lin, National Cheng Kung University (Taiwan)

11:15

2024-THU-S0103-0006

Site-controlled and Localized Strain Engineering in Monolayer WS₂

Yu-Han Chen, National Tsing Hua University (Taiwan); Chia-Hung Wu, National Yang Ming Chiao Tung University (Taiwan); Jin-Syuan Chen, Horng-Tay Jeng, Kuo-Ping Chen, National Tsing Hua University (Taiwan)

11:30

2024-THU-S0103-0007

Reducing the Schottky Barrier and photocurrent improvement in monolayers WS₂ via PET Transfer

Hung-I I Hsiao, Lu-Hsing Chen, Kuo-Ping Chen, National Tsing Hua University (Taiwan)

11:45

2024-THU-S0103-0008

Gate-Tunable Plexciton Emission in Monolayer MoS₂ Coupled with Nitride-Based Plasmonic Heterostructures

Tzu-Yu Peng, National Taiwan University (Taiwan); Cheng-Han Lin, Jia-Wern Chen, Chen-Yu Wang, Academia Sinica (Taiwan); Kai Qi, Jui-Han Fu, The University of Tokyo (Japan); Zheng-Zhe Chen, Min-Hsiung Shin, Academia Sinica (Taiwan); Vincent Tung, The University of Tokyo (Japan); Yu-Jung Lu, Academia Sinica (Taiwan)

S0104. Oral Session IV

🕒 Nov 28, Thursday, 13:30-14:45

📍 Room 507

🗣️ **Presider:** Prof. Ming-Lun Tseng (National Yang Ming Chiao Tung University, Taiwan)
Prof. Chao-Hsin Wu (National Taiwan University, Taiwan)

13:30

2024-THU-S0104-I001

Invited

Metasurface-based depth sensing and topology optimized high-Q metasurfaces

Prof. Yao-Wei Huang, National Yang Ming Chiao Tung University (Taiwan)

14:00

2024-THU-S0104-O001

High-Performance and Dielectric-Free Molybdenum Disulfide Transistors with In-plane Gates

Shih-Jie Chen, National Yang Ming Chiao Tung University (Taiwan); Che-Jia Chang, National Taiwan University (Taiwan); Po-Tsung Lee, National Yang Ming Chiao Tung University (Taiwan); Shih-Yen Lin, Academia Sinica (Taiwan)

14:15

2024-THU-S0104-O002

High-Performance Near-Infrared Surface Emitting Lasers Utilizing Plasmonic Surface Lattice Resonance

Yu-Chen Ho, Cheng-Chin Li, Wen-Hsuan Hsieh, Chia-Jui Chang, Tien-Chang Lu, National Yang Ming Chiao Tung University (Taiwan)

14:30

2024-THU-S0104-O003

Wafer-scale and Layer Number Controllable Molybdenum Disulfide Films for Light Sensing Devices

Yu-Han Huang, National Taiwan University (Taiwan); Zhi-Wei Chen, Academia Sinica (Taiwan); Chao-Hsin Wu, National Taiwan University (Taiwan); Po-Tsung Lee, National Yang Ming Chiao Tung University (Taiwan); Shih-Yen Lin, Academia Sinica (Taiwan)

S0105. Oral Session V

🕒 Nov 28, Thursday, 15:00-16:00

📍 Room 507

🗣️ **Presider:** Prof. Ming-Lun Tseng (National Yang Ming Chiao Tung University, Taiwan)
Prof. Chang-Hua Liu (National Tsing Hua University, Taiwan)

15:00

2024-THU-S0105-I001

Invited

Membrane Nanophotonic Platform for Enhancing Light-Matter Coupling in 2D Transition Metal Dichalcogenides

Dr. Ya-Lun Ho, National Institute for Materials Science (Japan)

15:30

2024-THU-S0105-O001

The Optimization of 623 nm Resonant-cavity LEDs by Quantum Wells Position Adjustment

Theeradech Sutheebanjerd, Natchanon Prechatavanich, Chee-Keong Yee, Ming-June Wu, Yi-Tzu Tseng, Chao-Hsin Wu, National Taiwan University (Taiwan)

15:45

2024-THU-S0105-O002

Physical Unclonable Function Constructed with a Silicon Photonic Actively-tuned Waveguide Array

Gow-Zin Yiu, Chung-Yu Hsu, National Yang Ming Chiao Tung University (Taiwan); Chia-Heng Sun, Pai-Yen Chen, University of Illinois Chicago (United States); You-Chia Chang, National Yang Ming Chiao Tung University (Taiwan)

S0106. Oral Session VI

🕒 Nov 29, Friday, 09:00-11:00

📍 Room 507

🗣️ Presider: Prof. Hai-Pang Chiang (National Taiwan Ocean University, Taiwan)
Prof. Hui-Hsin Hsiao (National Taiwan University, Taiwan)**09:00** 2024-FRI-S0106-0001**Carrier Injection Engineering for Balanced Emission from Dual Color 2D Semiconductor Electroluminescent Device**

Konhoujam James Singh, Academia Sinica (Taiwan); Mi-Hsueh Wu, Purdue University (United States); Iris Lin, University of Toronto (Canada); Min-Hsiung Shih, Academia Sinica (Taiwan)

09:15 2024-FRI-S0106-0002**A Multi-resonant High-Q Metasurface Platform for Wavefront Engineering**

Shih-Hsiu Huang, Chao-Yun Chen, Yu-Chun Lin, National Cheng Kung University (Taiwan); Zijin Yang, Tsinghua University (China); Yuzhi Shi, Tongji University (China); Qinghua Song, Tsinghua University (China); Pin Chieh Wu, National Cheng Kung University (Taiwan)

09:30 2024-FRI-S0106-0003**Harnessing Dark Excitons in Two-dimensional Transition Metal Dichalcogenides**

Shao-Yu Chen, National Taiwan University (Taiwan); Yi-Hsun Chen, The University of Queensland (Australia); Ping-Yuan Lo, Shun-Jen Cheng, National Yang Ming Chiao Tung University (Taiwan); Michael Fuhrer, Monash University (Australia)

09:45 2024-FRI-S0106-0004**Modelling Purcell Enhancement by Metasurfaces with Spectral Parameters**

Joshua T. Y. Tse, Shunsuke Murai, Katsuhisa Tanaka, Kyoto University (Japan)

10:00 2024-FRI-S0106-I001**Invited****Enhancing Light-Matter Interactions in 2D Materials with Nanophotonics**

Prof. Kuo-Ping Chen, National Tsing Hua University (Taiwan)

10:30 2024-FRI-S0106-0005**Structural, Optical, and Electrical Properties of Multilayer $\text{SnS}_{2(1-x)}\text{Se}_{2(x)}$ Compounds for Energy, Thermoelectric, and Photocatalytic Applications**

Thalita Maysha Herninda, Ching-Hwa Ho, National Taiwan University of Science and Technology (Taiwan)

10:45 2024-FRI-S0106-0006**Fluorescent Nanodiamond Coating for Extreme Ultraviolet and Soft X-Ray Beam Diagnostics**

Yuen Yung Hui, Chen-Yu Ho, Academia Sinica (Taiwan); Teng-I Yang, National Applied Research Laboratories (Taiwan); Tzu-Ping Huang, National Synchrotron Radiation Research Center (Taiwan); Bing-Ming Cheng, Hualien Tzu Chi Hospital (Taiwan); Yin-Yu Lee, National Synchrotron Radiation Research Center (Taiwan); Huan-Cheng Chang, Academia Sinica (Taiwan)

S0106. Oral Session VI

🕒 Nov 29, Friday, 10:30-11:00

📍 Room 503

🗣️ Presider: Prof. Yu-Jung Lu (Academia Sinica, Taiwan)

10:30 2024-FRI-S0106-I002**Invited****Substrate Effect on the Whispering-Gallery Modes in π -Conjugated Polymer Microspheres**

Prof. Jer-Shing Huang, Leibniz Institute of Photonic Technology in Jena (Germany)

S1. Poster Session I

🕒 Nov 27, Wednesday, 13:30-16:00

📍 Room 500

2024-WED-P0101-P001

Neuromorphic and Security Devices Utilizing SnO₂/PVK Heterojunctions on Paper Substrates

Wangmyung Choi, Gachon University (Korea, South); Jihyun Shin, Max Planck Institute for Polymer Research (Germany); Hocheon Yoo, Gachon University (Korea, South)

2024-WED-P0101-P002

Inherent Randomness of the DNTT/ZnGa₂O₄ with Security Platforms by Device-to-Device and Time-to-Noise Variation

Seungme Kang, Wangmyung Choi, Hocheon Yoo, Gachon University (Korea, South)

2024-WED-P0101-P003

Effects of Temperature and Gas Flux on the Growth Mechanism of CsPbBr₃ Epi-films and Their Lasing Behaviors

Hsiang-Yen Liu, Yu-Fan Hsu, Hsin-Ming Cheng, Chia-Kai Lin, Ze-Chien Liu, Hsu-Cheng Hsu, National Cheng Kung University (Taiwan)

2024-WED-P0101-P004

Metal Oxide/Small Molecule Heterojunction N-Shape Switching Transistors for Random Number Generation and Spiking Neural Networks

Juhyung Seo, Seungme Kang, Hocheon Yoo, Gachon University (Korea, South)

2024-WED-P0101-P005

Metalens-Integrated Augmented Reality Waveguides for Imaging and Eye-Tracking

Wen-Teng Liang, Peichen Yu, Chuan-En Lin, I-Hsuan Chuang, Hsueh-li Liu, National Yang Ming Chiao Tung University (Taiwan)

2024-WED-P0101-P006

Photo Stimulation-based Off-current Regulated Synaptic Transistor

Seungme Kang, Hocheon Yoo, Gachon University (Korea, South)

2024-WED-P0101-P007

Fabry-Pérot Lasing of CsPbBr₃ Perovskitewires Fabricated by Solution-Based Thermal Imprinting Process

Huang Wen-Chi, Lo Fang-Chi, National Cheng Kung University (Taiwan)

2024-WED-P0101-P008

Solution Pattern-Based Zinc Tin Oxide Thin-Film Transistors for Dual-Gate Operation and Configurable Logic

Juhyung Seo, Hocheon Yoo, Gachon University (Korea, South)

2024-WED-P0101-P009

High Power Dual-Junction PCSELS: Leveraging Higher-Order Modes to Overcome Tunnel Junction Challenges

Shih-Ming Chen, Chia-Jui Chang, Lih-Ren Chen, Tien-Chang Lu, National Yang Ming Chiao Tung University (Taiwan)

2024-WED-P0101-P010

Improving surface structures of Al-doped zinc oxide thin films to apply in CO gas sensing property by oxygen plasma etching

Yen-Sheng Lin, Po-Wei Yeh, I-Shou University (Taiwan)

2024-WED-P0101-P011

Slotted Photonic Crystal Nanolaser with 20 nm Slot Width Assembled via Transfer Printing

Hsi-Wen Huang, Chang-Chi Chung, Tsan-Wen Lu, Po-Tsung Lee, National Yang Ming Chiao Tung University (Taiwan)

2024-WED-P0101-P012

Improving the uniform distribution of nano-Ag in Al-doped ZnO film by oxygen plasma etching to apply in soft touch sensing

Yen-Sheng Lin, Jia-You Gao, I-Shou University (Taiwan)

2024-WED-P0101-P013

The fabrication and characterization of perovskite solar cells with the stacked bromine containing MAPbI₃ layers

Manjunatha Nanjappa, Chia-Lung Tsai, Cheng-Ka Xu, Chang Gung University (Taiwan); Ying-Chang Li, Mukta Sharma, National Chin-Yi University of Technology (Taiwan)

2024-WED-P0101-P014

Whispering Gallery Mode Lasing from Single Suspended Dye-Doped Polymer fiber

Ze-Chien Liu, Wen-Cheng Tsai, Chia-Kai Lin, Hsin-Ming Cheng, Hsu-Cheng Hsu, National Cheng Kung University (Taiwan)

S1. Poster Session I

🕒 Nov 27, Wednesday, 13:30-16:00

📍 Room 500

2024-WED-P0101-P015

Comparative Simulation of Absorption Characteristics in Ultrawide Band of a Multi-layer Metasurface Fabricated with Various Dielectric Materials

Meng-Long Hong, Dun-Yu Huang, Wei-Hao Lee, Guan-Jhen Wang, Jia-Hao Zhang, National Chi Nan University (Taiwan); Cheng-Fu Yang, National University of Kaohsiung (Taiwan); Jing-Jenn Lin, National Chi Nan University (Taiwan)

2024-WED-P0101-P016

Asymmetric TiO₂ Nanoparticle Arrays prepared by Glancing Angle Deposition for Oblique Photoluminescence

Taisuke Enomoto, Shunsuke Murai, Katsuhisa Tanaka, Kyoto University (Japan)

2024-WED-P0101-P017

Simulation of the HOE-based AR Display System by Deep Learning-based Convolutional Neural Network

Zih Fan Chen, Shiuan Huei Lin, National Yang Ming Chiao Tung University (Taiwan); Vera Marinova, Bulgarian Academy of Sciences (Bulgaria); Ken Y Hsu, National Yang Ming Chiao Tung University (Taiwan)

2024-WED-P0101-P018

Investigation of WO₃ Nanorods NO Gas Sensors with Composite Nanostructures

Tun-Hui Yang, Wei-Cheng Hsia, Hsin-Ying Lee, Ching-Ting Lee, National Cheng Kung University (Taiwan)

2024-WED-P0101-P019

Photocatalytic Study of Ag₂MoO₄ with Different Ag/Mo Ratio in Precursor by Spray Pyrolysis

Cheng-Hsun Wang, Ming-Chang Shih, Hsin-Hui Kuo, David Jui-Yang Feng, Wen-How Lan, National University of Kaohsiung (Taiwan)

2024-WED-P0101-P020

Photothermal Nonlinearity Enhanced Resolution of Resonance Mode inside Silicon Nitride Nanowire

Yu-An Chen, Te-Hsin Yen, Kentaro Nishida, Chih-Wei Chang, Shi-Wei Chu, National Taiwan University (Taiwan)

2024-WED-P0101-P021

1-D Ultra-compact Spatial Noise Filter Based on an All-dielectric High-contrast Grating

Sheng-Hong He, Hsin-Yu Yao, National Chung Cheng University (Taiwan)

2024-WED-P0101-P022

One-way polarization beam splitting based on an exceptional point and finite periodicity of non-Hermitian PT-symmetry

Jeng Yi Lee, National Dong Hwa University (Taiwan)

2024-WED-P0101-P023

Lens Design for a Depth Camera

Yi-Lun Su, Wen-Shing Sun, Ching-Cherng Sun, National Central University (Taiwan)

2024-WED-P0101-P024

Investigation on Single Modification of the Hole Transport Layer and Simultaneous Improve Surface Hydrophilicity and dual Modification of the Active Layer to Engance the Efficiency of Perovskite Solar Cells

Wen-Chieh Chiang, Zhi-Wen Lin, Lung-Chien Chen, National Taipei University of Technology (Taiwan)

2024-WED-P0101-P025

Low-Roughness Patterned Silver Nanowire Electrodes for Quantum Dot Light-Emitting Diodes

Jun-Ting Lin, Tsai-Ti Tung, Jun-Feng Hou, Chun-Yuan Huang, National Taitung University (Taiwan)

2024-WED-P0101-P026

Comparison of Thermo-optic Effect of 3D Printable Composites with Conductive and Semi-conductive Particles in Terahertz Spectrum

Po-jen Yu, Seyed Mostafa Latifi, Shang-Hua Yang, National Tsing Hua University (Taiwan)

2024-WED-P0101-P027

Design of a reflective-type optical limiter based on broadband Si-SiO₂ grating mirrors and a nonlinear Si₃N₄ absorber

Cheng-En Hsiao, Hsin-Yo Yao, National Chung Cheng University (Taiwan)

S1. Poster Session I

🕒 Nov 27, Wednesday, 13:30-16:00

📍 Room 500

2024-WED-P0101-P028

Synthesis of $g\text{-C}_3\text{N}_4/\text{TiO}_2\text{-x}/\text{Ag}$ Heterostructure Using Photoreduction on Ferroelectric Templates for High-Sensitivity Antibiotic SERS Detection

Yun-Yun Tsai, Kai-Jiun Chen, Geng-Jhih Wu, Tzyy-Jiann Wang, National Taipei University of Technology (Taiwan)

2024-WED-P0101-P029

Digital Scanning Lightsheet Microscopy (DSLIM) for Drosophila Whole Brain Functional Imaging

Heng Chang, Li-An Chu, National Tsing Hua University (Taiwan)

2024-WED-P0101-P030

Solvent-Mediated Crystallization and Energy Transfer Dynamics in Quasi-2D Perovskite Thin Films for Enhanced Random Lasing

Yi-Fang Ting, Chia-Kai Lin, Hsin-Ming Cheng, National Cheng Kung University (Taiwan); Hsiao-Ching Chen, Chun-Hao Li, Shang-Da Yang, National Tsing Hua University (Taiwan); Hsu-Cheng Hsu, National Cheng Kung University (Taiwan)

2024-WED-P0101-P031

A Process-Integrated Surface Acoustic Wave Resonator on Lithium Niobate Substrate Using Phononic Crystals

Ying-Pin Tsai, Fathur Rahman Alhadi, Fu-Li Hsiao, National Changhua University of Education (Taiwan)

2024-WED-P0101-P032

Highly Sensitive Biosensing for Early Diabetes Diagnosis by Means of Hybrid Plasmon Coupling in a Photonic-Crystal Structure

Hung-Che Chou, Sheng-Hsiung Yang, National Yang Ming Chiao Tung University (Taiwan); Mon-Juan Lee, Chang Jung Christian University (Taiwan); Wei Lee, National Yang Ming Chiao Tung University (Taiwan)

2024-WED-P0101-P033

Development and Research of an Automatic Endoscopic Image Detection System for Esophageal Lesions

Yung-Chi Chen, Yu-Cheng Lin, Hsiang-Chen Wang, National Chung Cheng University (Taiwan)

2024-WED-P0101-P034

Arrays of Split-Ring Resonator embedded in a Free-Standing Gold Membrane for Surface-Enhanced Infrared Absorption Biosensing Platform

Chieh-Chun Chang, National Taiwan University (Taiwan); Yun-Chorng Chang, Academia Sinica (Taiwan)

2024-WED-P0101-P035

Optoelectronic Properties of BOSe/Si High Performance Heterojunction

Tzu-Pu Hung, Wei-Han Chen, Yi-Jyun Chen, Yu-Hao Du, National Tsing Hua University (Taiwan); Zhi-Hao Huang, Chang Gung University (Taiwan); Yu-Lun Chueh, National Tsing Hua University (Taiwan); Cheng-Ying Chen, National Taiwan Ocean University (Taiwan); Ying-Hao Chu, National Tsing Hua University (Taiwan)

2024-WED-P0101-P036

Influence of Positional and Angular Errors on Mode Sorting for Orbital Angular Momentum Optical Beam

Kotaro Mitani, Hiroki Kishikawa, Tokushima University (Japan)

2024-WED-P0101-P037

Sequential Transferring and Epitaxially Grown Bi-layer MoS_2 Films for Electronic Device Applications

Hao-Yu Wang, Academia Sinica (Taiwan); Yu-Han Huang, National Taiwan University (Taiwan); Po-Tsung Lee, National Yang Ming Chiao Tung University (Taiwan); Shih-Yen Lin, Academia Sinica (Taiwan)

2024-WED-P0101-P038

Fabrication of TiO_2 Metasurface Stickers with a refined sacrificial layer amorphous- GeO_2

Taiki Takashima, Shunsuke Murai, Kyoto University (Japan)

2024-WED-P0101-P039

Efficiency Optimization Analysis of MoOx -based Solar Cells

Bo-Xue Huang, Chu-Hsuan Lin, National Dong Hwa University (Taiwan)

2024-WED-P0101-P040

Enhancing up-conversion photoluminescence of nanoparticles with tailored symmetry-protected bound states in the continuum using an all-dielectric high-contrast grating

Chi-Lin Tung, Hsin-Yu Yao, National Chung Cheng University (Taiwan)

2024-WED-P0101-P041

A Study on Age-Related Macular Degeneration Detection Using Deep Learning and Hyperspectral Imaging Techniques

Wei Yang Zhao, Yu Yin Lin, Hsiang-Chen Wang, National Chung Cheng University (Taiwan)

S1. Poster Session I

🕒 Nov 27, Wednesday, 13:30-16:00

📍 Room 500

2024-WED-P0101-P042

Ultrathin Immersion Huygens' Meta-Devices in the Visible

Jia-Hua Lee, Pei Ying Ho, Yu Chia Chung, Hsing-Yi Wang, Bo-Ray Lee, Yao-Wei Huang, Ray-Hua Horng, Ming Lun Tseng, National Yang Ming Chiao Tung University (Taiwan)

2024-WED-P0101-P043

Study of Gold Nanocube on Thin Film Using a Reflective Dark-Field Hyperspectral Imaging System

Kai-Hsuan Tsai, Fu-Qiang Xiao, Wan-Shao Tsai, National Chung Hsing University (Taiwan)

2024-WED-P0101-P044

Thermo-optically Tunable Huygens Metasurfaces

Yi-Chen Lin, Chung-Yu Hsu, Jian-Nan Gao, You-Chia Chang, National Yang Ming Chiao Tung University (Taiwan)

2024-WED-P0101-P045

Dynamic Switching Between a Mirror and a Window by Modulating Metal Thickness and Morphology Using Nanosphere Lithography and Electrochemistry

Xiao Cheng-Yuan, Huang Tsung-Yu, Ming Chi University of Technology (Taiwan)

2024-WED-P0101-P046

Linear Modulation of Strain Engineering in TMDCs via Polymer Encapsulation

Siang-Yu Chuang, National Tsing Hua University (Taiwan); Chia-Hung Wu, National Yang Ming Chiao Tung University (Taiwan); Jin-Syuan Chen, Horng-Tay Jeng, Kuo-Ping Chen, National Tsing Hua University (Taiwan)

2024-WED-P0101-P047

Dirac bound states in the continuum in honeycomb photonic crystal slabs

Yi-Chi Kao, Ruey-Lin Chern, National Taiwan University (Taiwan)

2024-WED-P0101-P048

Study of Localization Using Drone Imagery in GNSS-Denied Environments

Hsuan-Hsin Wu, National Kaohsiung University of Science and Technology (Taiwan); Hsin-Yi Ma, Minghsin University of Science and Technology (Taiwan); Hsiao-Yi Lee, National Kaohsiung University of Science and Technology (Taiwan)

2024-WED-P0101-P049

Enhanced Performance of Wide bandgap Perovskite Solar Cells Using Grinded SnO₂ (G-SnO₂) and Cs₂CO₃-Doped Grinded SnO₂ as Electron Transport Layers via Spray Coating Technique

Wajidullah, Pi-Tai Chou, National Taiwan University (Taiwan); Chih-Wei Chu, Academia Sinica (Taiwan)

2024-WED-P0101-P050

Design of Photonic Crystals in a Bird's Feather with the Assistance of an Optimization Method

Zhao-Fu Yen, Ming-Yao Chung, Shih-Wen Chen, National Taipei University of Technology (Taiwan)

S1. Poster Session I

🕒 Nov 27, Wednesday, 13:30-16:00

📍 Room 521

2024-WED-P0101-P051

Plasma-engineered Paper-Based Core-Shell Plasmonic Nanoparticles for Ultrasensitive SERS performance

Yi-Jui Yeh, National Taiwan University (Taiwan); Wei-Hung Chiang, National Taiwan University of Science and Technology (Taiwan)

2024-WED-P0101-P052

Non-blocking contact behavior between Ag and (PEA)₂PbBr₃Cl perovskite-like on AlN/sapphire substrate heterostructure

Yu-Hsien Lin, Jing-Suei Ni, Lung-Chien Chen, National Taipei University of Technology (Taiwan)

2024-WED-P0101-P053

Electrical Properties of AlGaInP Micro-LEDs with Different Ion Implantations

Shiang-Jiun Lo, Yu-Chih Hsu, Wei-Hsiang Chiang, National Chung Hsing University (Taiwan); Dong-Sing Wu, National Chi Nan University (Taiwan); Anoop Kumar Singh, Hsin-Yu Chou, Yen-Ru Chen, Po-Liang Liu, National Chung Hsing University (Taiwan)

2024-WED-P0101-P054

Enhanced Performance and Functionality of PBTTT-Based Thin-Film Transistors by Microstructure Modulation

Li-Yun Wang, Yu-Ting Chen, Zhi-Ming Chen, Fu-Chiao Wu, Wei-Yang Chou, Horng-Long Cheng, National Cheng Kung University (Taiwan)

2024-WED-P0101-P055

E. coli-mediated field effect to enhance the performance of organic transistor synapse

Bo-Cheng Lu, Po-Hsiang Fang, Chun-Bin You, Horng-Long Cheng, Ching-Hao Teng, Jrjeng Ruan, Wei-Yang Chou, National Cheng Kung University (Taiwan)

2024-WED-P0101-P056

Plasmonic Terahertz Extremely Large Area Emitter for Intense Terahertz Broadband Generation

Yi-Jie Wang, Pouya Torkaman, Shang-Hua Yang, National Tsing Hua University (Taiwan)

2024-WED-P0101-P057

Photothermal optical bistability in silicon nanostructure

Kentaro Nishida, Po-Hsueh Tseng, Yu-Chieh Chen, National Taiwan University (Taiwan); Mihail Petrov, ITMO University (Russia), ITMO University (Taiwan); Kuo-Ping Chen, National Tsing Hua University (Taiwan); Shi-Wei Chu, National Taiwan University (Taiwan)

2024-WED-P0101-P058

Design and fabrication of topological photonic resonators

Yu-Chuan Lin, National Yunlin University of Science and Technology (Taiwan); Ting-Chieh Shen, Wen-Jeng Hsueh, National Taiwan University (Taiwan)

2024-WED-P0101-P059

Fabricating SiC nanohole-array stickers for Mie-tronics

Hiroya Maruyama, Shunsuke Murai, Katsuhisa Tanaka, Kyoto University (Japan)

2024-WED-P0101-P060

Transmission Gate-tunable Metasurfaces with Inverse Design

Yu-Hong Xie, Yi-Hsuan Huang, Yao-Wei Huang, National Yang Ming Chiao Tung University (Taiwan)

2024-WED-P0101-P061

Enhanced Efficiency Through Dual-Pulse Injection from 2D Semiconductor Light Emitting Device

James Singh Konthoujam, Yen-Shou Lin, Zheng-Zhe Chen, Academia Sinica (Taiwan); Chiao-Yun Chang, National Taiwan Ocean University (Taiwan); Yu-Wei Zhang, Shih-Yen Lin, Academia Sinica (Taiwan); Hao-Chung Kuo, National Yang Ming Chiao Tung University (Taiwan); Min-Hsiung Shih, Academia Sinica (Taiwan)

2024-WED-P0101-P062

Lasing in Quasi-2D Lead Halide Perovskite

Chia-Kai Lin, Li-Chung Tsai, Yi-Fang Ting, Ying-Chi Yu, Shao-Zhi Wu, Pai-Chun Wei, Hsu-Cheng Hsu, National Cheng Kung University (Taiwan)

2024-WED-P0101-P063

Gold Nanoparticles Inter-Spacing Effects on the Responsivity Spectrum of Plasmon Thin Film Transistors

Guan-Ting Li, Yu-Cheng Hung, Cheng-En Ho, Tsong-Sheng Lay, National Chung Hsing University (Taiwan)

S1. Poster Session I

🕒 Nov 27, Wednesday, 13:30-16:00

📍 Room 521

2024-WED-P0101-P064

Vacuum deposition inorganic γ -CsPbI₃-GAI perovskite solar cells

Yu-Chen Huang, National Taiwan University of Science and Technology (Taiwan); Shun-Wei Liu, Ming Chi University of Technology (Taiwan)

2024-WED-P0101-P065

Dual-band Perfect Absorber with Graphene Metamaterial

Yan-Hong Lai, Chih-Hsien Lai, National Yunlin University of Science and Technology (Taiwan)

2024-WED-P0101-P066

Structural and Optical Characterization of Al-doped ZnO Nanorods

Zhe-Yu Lee, Hui-Pin Hsu, Yuan-Ze University (Taiwan); Jui-Fu Yang, Fang-I Lai, Shou-Yi Kuo, Chang Gung University (Taiwan)

2024-WED-P0101-P067

Innovative Vertical Metamaterial Perfect Absorber with Generalized Kerker Condition: Achieving Zero Backscattering and High Directivity

Chun-Yen Chen, National Tsing Hua University (Taiwan); Che-Chin Chen, Taiwan Instrument Research Institute, NARlabs (Taiwan); Ta-Jen Yen, National Tsing Hua University (Taiwan)

2024-WED-P0101-P068

Experimental Study on the Reorganization of Metal Particles and Topological Defects in Liquid Crystal-Metal Systems Induced by Heating

Wei-Ting Wang, Yu-Ju Hung, National Sun Yat-Sen University (Taiwan)

2024-WED-P0101-P069

Simulation on three-dimensional metallic grating

Yan-Ting Guo, Yu-Ju Hung, National Sun Yat-sen University (Taiwan)

2024-WED-P0101-P070

Effect of Ag doping on the morphology and crystal structure of Cu₂Zn-SnS₄ film

Kuan-Fu Liu, Hui-Pin Hsu, Yuan Ze University (Taiwan); Jui-Fu Yang, Chang Gung University (Taiwan); Fang-I Lai, Yuan Ze University (Taiwan); Shou-Yi Kuo, Chang Gung University (Taiwan); Shou-Yi Kuo, Chang Gung Memorial Hospital (Taiwan)

2024-WED-P0101-P071

Surface-Enhanced Raman Scattering Detection of DNBF by Sputtering Silver Film

Chang-Han Yang, Fu Jen Catholic University (Taiwan); Chia-Hsuan Lee, National Taiwan University (Taiwan); Hsing-Yu Wu, Taiwan Space Agency (Taiwan); Jin-Cherng Hsu, Fu Jen Catholic University (Taiwan)

2024-WED-P0101-P072

Non-specific Reflection Broadening of Cholesteric Liquid Crystal under Inclined Incidence

Jin Yu Chen, Li Min Chang, Duan Yi Guo, Kuan Wu Lin, Cheng Chang Li, Ting Mao Feng, Hung Chang Jau, Chun Ta Wang, Tsung Hsien Lin, National Sun Yat-sen University (Taiwan)

2024-WED-P0101-P073

Photocatalytic Performance of Oxygen-deficient TiO₂:Al Thin Films Prepared by Pulsed Laser Deposition

Chih-Yi Chen, Siou-Ci Lyu, Wei-Kuan Hung, National Taipei University of Technology (Taiwan)

2024-WED-P0101-P074

Circularly-Polarized Photonic-Crystal Surface-Emitting Laser

Chi-Ti Hsieh, Shu-Wei Chang, Academia Sinica (Taiwan)

2024-WED-P0101-P075

Fabrication of Silver Nanodendrites on Gold Film Using Femtosecond Laser and Application in SERS

Yi-Han Kuo, Jiunn-Woei Liaw, Chang Gung University (Taiwan)

2024-WED-P0101-P076

Investigation of Growth Temperature Effects on Strain and Defects in InAs/GaSb Type-II Superlattice Structures

Hou-Yi Chen, Yung-Jyun Liao, Balaji. G, Pin-Chih Liu, Jih-Han Lin, Bhavya. K., Min-Jie Zhang, Wei Sheng Liu, Yuan Ze University (Taiwan); Jen-Inn Chyi, National Central University (Taiwan)

S1. Poster Session I

🕒 Nov 27, Wednesday, 13:30-16:00

📍 Room 521

2024-WED-P0101-P077

Optical Sensing with Metal-Insulator-Metal Nanohole Arrays Integrated with Silver Nanoparticles

Cheng Hung Chu, National Taiwan University (Taiwan); Gu Yu Lin, Yi-Ching Wang, National Taiwan Ocean University (Taiwan); Pin Chieh Wu, Wei-Yang Chou, National Cheng Kung University (Taiwan); Sy-Hann Chen, National Chiayi University (Taiwan); Hsing-Chih Liang, National Yang-Ming Chiao Tung University (Taiwan); Hai-Pang Chiang, National Taiwan Ocean University (Taiwan)

2024-WED-P0101-P078

Fabrication of TiO₂ Penrose Tile Nanoantenna

Sinji Yoon, Shunsuke Murai, Katsuhisa Tanaka, Graduate School of Engineering, Kyoto University (Japan)

2024-WED-P0101-P079

Two phase-shifted linear polarizations in the far field become a circular polarization

Chia-Hung Lin, National Yang Ming Chiao Tung University (Taiwan); Chi-Ti Hsieh, Academia Sinica (Taiwan); Jui-Tse Tsai, Chao-Chieh Cheng, Shu-Wei Chang, Min-Hsiung Shih, National Yang Ming Chiao Tung University (Taiwan)

2024-WED-P0101-P080

Dual-Contact High-Power Two-Section Cascaded Partially-Corrugated-Grating DFB Lasers

Siti Sulikhah, San-Liang Lee, National Taiwan University of Science and Technology (Taiwan)

2024-WED-P0101-P081

Linear Polarized WSe₂ Monolayer Light Emitting Diode

Tzu-Hsin Hsu, Zheng-Zhe Chen, Pei-Ling Chang, Po-Cheng Tsai, Shih-Yen Lin, Min-Hsiung Shih, Academia Sinica (Taiwan)

2024-WED-P0101-P082

Thermal Properties of QW-HBLETs and Dynamic Performance in the QW-HBLET Darlington Pair

Lucas Yang, Po-Yen Tseng, Yun-Jue Huang, Chao-Hsin Wu, National Taiwan University (Taiwan)

2024-WED-P0101-P083

Fabrication of MXenes-Ti₃C₂ via a Novel Procedure assisting with Supercritical CO₂ Technology

Chun-Hung Wang, National Yang Ming Chiao Tung University (Taiwan); JUIYANG FENG, National Univ. of Kaohsiung (Taiwan)

2024-WED-P0101-P084

Circularly Polarized Emission from Photonic Crystals: A Machine Learning Approach to Exceptional Point Optimization

Che-Cheng Kuan, Pi-Ju Cheng, Yung-Ping Chen, Wei-Nian Chen, Chung Yuan Christian University (Taiwan); Tzy-Rong Lin, National Taiwan Ocean University (Taiwan); Shu-Wei Chang, Academia Sinica (Taiwan)

2024-WED-P0101-P085

High Resolution InGaN-based Micro-LEDs Display by B⁺ Ion Implantation

Po-Chiao Wang, Yu-Hsuan Hsu, Ray-Hua Horng, National Yang Ming Chiao Tung University (Taiwan)

S1. Poster Session II

🕒 Nov 28, Thursday, 13:30-16:00

📍 Room 500

2024-THU-P0102-P001

Low-Temperature Fabrication of 2D Material MoS₂ on Silicon

Wei-Cheng Lin, Yi-Ching Ou Yang, Sheng De Weng, National Central University (Taiwan); Gui-Sheng Zeng, NARLabs (Taiwan); Sheng-Hui Chen, National Central University (Taiwan)

2024-THU-P0102-P002

Optimizing Interfaces and Carrier Dynamics for High-Performance Organometallic Halide Perovskite Solar Cells

Anjali Thakran, National Taiwan University (Taiwan); Chih Wei Chu, Academia Sinica (Taiwan)

2024-THU-P0102-P003

Optical and electrical properties of Mn doped SnO₂ thin films grown by Pulsed Laser Deposition

Yi-Te Li, Zi-Cheng Zheng, Wei Kuan Hung, Taipei Tech University (Taiwan); Da-Ren Liu, Taiwan Instrument Research Institute (Taiwan)

2024-THU-P0102-P004

Characteristics of low resistivity Li-N co-doped P-type ZnO thin films prepared by Pulsed Laser Deposition

Tien-Cheng Tsai, Cheng-Hao Hung, Wei-Kuan Hung, National Taipei University of Technology (Taiwan); Da-Ren Liu, Taiwan Instrument Research Institute (Taiwan)

2024-THU-P0102-P005

Impacts of Top-Gate Dielectrics on Dual-Gate a-IGZO Thin-Film Transistors

Yih-Shing Lee, Kai-Ching Ma, Minghsin University of Science and Technology (Taiwan); Tsung-Cheng Tien, National Yang Ming Chiao Tung University (Taiwan); Vo Truong-Thao Nguyen, Minghsin University of Science and Technology (Taiwan)

2024-THU-P0102-P006

Asymmetric meta-deflector in blue spectral region for circular polarization extraction

Li-Sheng Hu, Chia-Yen Huang, Yong-Wei Lai, Po-Yang Chang, Tien-Chiu Chen, Teng-Li Shao, Wen-Hsuan Hsieh, National Yang Ming Chiao Tung University (Taiwan)

2024-THU-P0102-P007

Photocatalytic study of bismuth-doped Zinc oxide thin films by Pulsed laser deposition

Jui Kai Hsu, Wei Kuan Hung, Bo Jing Wu, National Taipei University of Technology (Taiwan)

2024-THU-P0102-P008

Photoreduction of Ag Nanoparticles on MoO₃ Microbelts with Oxygen Vacancies by Ferroelectric Template for Sensitive SERS Detection

Murugavel Aruna, Cheng-Yao Weng, Tzzy-Jiann Wang, National Taipei University of Technology (Taiwan)

2024-THU-P0102-P009

Enhancing the fluorescence properties of surface defects using hBN protective layers

Po-sheng Shi, National Tsing Hua University (Taiwan); Chia-hung Wu, National Yang Ming Chiao Tung University (Taiwan); Kuo-Ping Chen, National Tsing Hua University (Taiwan)

2024-THU-P0102-P010

Ultra-sensitive SERS Detection of Nitrophenol Using CoFe-Layered Double Hydroxide Needle Balls with Ag Nanospheres by Plasmonic Coupling and Charge Transfer

Karthikeyan Vijayaragaventhiran, Thangavelu Kokulnathan, Tzzy-Jiann Wang, National Taipei University of Technology (Taiwan)

2024-THU-P0102-P011

Enhancement of Amplified Spontaneous Emission in All-Inorganic Quantum Dots by PMMA Polymer

Yan-Rung Huang, Shun-Wen Zheng, Cheng-Xuan Wu, Bo-Xin Cai, Tsu-Ning Li, Jing-Jie Lin, Ja-Hon Lin, National Taipei University of Technology (Taiwan)

2024-THU-P0102-P012

Temperature-controlled dye-doped cholesteric polymer liquid crystal laser

Huang Hsuan-Li, Liao Chen- Chung, National Taipei University of Technology (Taiwan); Chiung-Cheng Huang, Tatung University (Taiwan); Ja-Hon Lin, National Taipei University of Technology (Taiwan)

S1. Poster Session II

🕒 Nov 28, Thursday, 13:30-16:00

📍 Room 500

2024-THU-P0102-P013

Enhanced Amplified Spontaneous Emission in Organic-Inorganic Perovskite nanocrystals Encapsulated by PMMA Layers

Yu-Ming Li, Jyun-Jhong Chen, Chen-yu Li, Ja-Hon Lin, National Taipei University of Technology (Taiwan)

2024-THU-P0102-P014

Advanced Confocal Raman Laser Scanning System for Silicon Photonic Devices Analysis

Tzu-Yu Chen, National Tsing Hua University (Taiwan); Chia-Hung Wu, National Yang Ming Chiao Tung University (Taiwan); Kuo-Ping Chen, National Tsing Hua University (Taiwan)

2024-THU-P0102-P015

Room-temperature Photon Emitters with Bound States in the Continuum Metasurfaces and hBN

Mu-Rong Huang, Wen-Hsiang Wu, Kuo-Ping Chen, National Tsing Hua University (Taiwan)

2024-THU-P0102-P016

The Interface States and Zak Phase Analysis of Quasi-One-Dimensional Photonic Crystals with Space Inversion Symmetry

Chien-Ho Wang, Po-Yu Wang, Pi-Gang Luan, National Central University (Taiwan)

2024-THU-P0102-P017

Structural and Optoelectronic Properties of Multilayer $\text{GaTe}_{1-x}\text{Se}_x$ for Photodetection Applications

Luthviah Muhimmah, Ching-Hwa Ho, National Taiwan University of Science and Technology (Taiwan)

2024-THU-P0102-P018

Nonlinear Optics at Epsilon-Near-Zero: Purcell Enhanced Emission Rate in PQDs Coupled to Transition Metal Nitrides

Sheng-Jhe Shen, Chih-Ang Lin, Academia Sinica (Taiwan); Chia-Chi Tung, National Yang Ming Chiao Tung University (Taiwan); Feng-Yang Tsai, Tzu-Yu Peng, National Taiwan University (Taiwan); Yen-Yu Wang, Jia-Wern Chen, Academia Sinica (Taiwan); Chen-Yu Wang, National Taiwan University (Taiwan); Yu-Jung Lu, Academia Sinica (Taiwan)

2024-THU-P0102-P019

Fabrication of porous counter electrodes for recyclable monolithic substrate utilizing polystyrene microspheres for perovskite solar cells

Che-Wei Yeh, Chin-Ting Chin, Peter Chen, National Cheng Kung University (Taiwan)

2024-THU-P0102-P020

Material Properties and Device Performance of $\text{Ga}_x\text{In}_{1-x}\text{Se}$ ($0 \leq x \leq 1$) Mixed-Alloys Layered Semiconductors

Yu-Hung Peng, Ching-Hwa Ho, National Taiwan University of Science and Technology (Taiwan)

2024-THU-P0102-P021

Structural and Lasing Characteristics of Large-Area CsPbBr_3 Epitaxial Film on Mica via Vapor-Phase Epitaxy

Yu-Fan Hsu, Hsu-Cheng Hsu, Hsiang-Yen Liu, Chia-Kai Lin, Ze-Chien Liu, Wen-Cheng Tsai, Yi-Fang Ting, Hsin-Ming Cheng, National Cheng Kung University (Taiwan)

2024-THU-P0102-P022

SERS Active Composite of Cu_2O Microspheres and Silver Nanoparticles Photoreduced on Ferroelectric Templates for Sensitive Dye Detection

Yin-Ting Chen, Kai-Jiun Chen, Bo-Yao Liao, Tzzy-Jiann Wang, National Taipei University of Technology (Taiwan)

2024-THU-P0102-P023

The Impact of Large-Area Femtosecond Laser Annealing on 2-D Semiconductor Materials

Ying-Kai Chen, Wei-Jie Lin, Ting-Hua Lu, Yann-Wen Lan, Chan-Shan Yang, National Taiwan Normal University (Taiwan)

2024-THU-P0102-P024

High Q-factor terahertz grating structure based on bound state in the continuum

Tung-Yang Chao, Chan-Shan Yang, Yi-An Wei, Bo-Chien Peng, Fang-Jou Wang, Chin-Pao Cheng, National Taiwan Normal University (Taiwan)

S1. Poster Session III

🕒 Nov 29, Friday, 09:00-11:00

📍 Room 500

2024-FRI-P0103-P001

Grating Structures of Semiconductor Oxide Materials with Tunable Optical Properties for Application in THz Optical Devices

Rui-Zhe Hou, Po-Yun Hsiao, Chin-Pao Cheng, Chan-Shan Yang, National Taiwan Normal University (Taiwan)

2024-FRI-P0103-P002

The Noise like pulse Suppression via the evolution of SA/RSA by using covalent-organic frameworks saturable absorber

Hsuan-Sen Wang, National Sun Yat-Sen University (Taiwan); Shiao-Wei Kao, National Sun Yat-sen University (Taiwan); Ahmed F. M. EL-Mahdy, National Sun Yat-Sen University (Taiwan); Gong-Ru Lin, Chao-Kuei Lee, National Sun Yat-sen University (Taiwan)

2024-FRI-P0103-P003

Optimization of Perovskite Quantum Dots for Quantum Dot Laser Applications

Yen-Ting Lin, Jui-Ting Hsieh, Li-Cheng Chen, Fang-Jou Wang, Fan-Hsuan Yeh, Chan-Shan Yang, National Taiwan Normal University (Taiwan)

2024-FRI-P0103-P004

Stacked Metasurfaces Utilizing Out-of-Plane Quadrupolar Surface Lattice Resonance for Photoluminescence control

Tien Yang Lo, Shunsuke Murai, Taiki Takashima, Katsuhisa Tanaka, Graduate School of Engineering, Kyoto University (Japan)

2024-FRI-P0103-P005

Quantifying Optical Energy States in Conjugated Polymers and Their Interaction with Aluminum Nanodisks Plasmons for Fluorescence Modulation

Bei Liu, Mochamad Januar, Aris Rismansyah, Chang Gung University (China); Cheng-Yu Lu, Tsung-Yu Huang, Ming Chi University of Technology (Taiwan); Kou-Chen Liu, Chang Gung University (Taiwan)

2024-FRI-P0103-P006

Differentiating Substrate-Plasmon Interactions in Planar Al Nanodisk Arrays through Polarization Techniques

Aris Rismansyah, Bei Liu, Mochamad Januar, Chang Gung University (Taiwan); Cheng-Yu Lu, Tsung-Yu Huang, Ming Chi University of Technology (Taiwan); Kou-Chen Liu, Chang Gung University (Taiwan)

2024-FRI-P0103-P007

Plasmonic-Photonic Polaritons Improved Sensing Performance

Hong-Jhang Syu, Shu-Cheng Lo, Pei-Kuen Wei, Academia Sinica (Taiwan)

2024-FRI-P0103-P008

Changing the Calcination Temperature of Co_3O_4 to Improve Its Photocatalytic Degradation Rate

Yi-Cheng Lin, Chi-Chia Haung, National Cheng Kung University (Taiwan)

2024-FRI-P0103-P009

$\text{Sb}_2(\text{Se,S})_3$ -based Photocathodes for Solar-Powered Hydrogen Generation Applications

Chen Hong-Yu, National Taiwan Normal University (Taiwan); Tsai Yu-Hsiang, Li Juan-Xuan, Yang Tsuan-Hsuan, Yang Chan-Shan, Chen Cheng-Ying, National Taiwan Ocean University (Taiwan)

2024-FRI-P0103-P010

Fabrication of Flexible Resistors Using Silver Nanowire Polymer Composite and its Bionic application

Hsin Yuan Chang, Yu Wu Wang, National Changhua University of Education (Taiwan)

2024-FRI-P0103-P011

A process integration study between 4H silicon carbide substrate and homoepitaxial film thickness for 150 mm high voltage power device epi-wafer development

Chi Hsiang Hsieh, National Yang Ming Chiao Tung University (Taiwan); Chiao Yang Cheng, Hua Hsu Silicon Materials Corporation (Taiwan); Chang Ching Tu, National Central University (Taiwan); Chao Chang Chen, National Taiwan University of Science and Technology (Taiwan); Hao Chung Kuo, Po Tsung Lee, National Yang Ming Chiao Tung University (Taiwan)

2024-FRI-P0103-P012

Polarization-Controlled Meta-Holography via Single Layer Metasurface

You Chia Chang, Peichen Yu, National Yang Ming Chiao Tung University (Taiwan)

2024-FRI-P0103-P013

The Structural Color Analysis of a Spider

Yin-Cheng Lee, Sridharan Balu, Shih-Wen Chen, National Taipei University of Technology (Taiwan)

S1. Poster Session III

🕒 Nov 29, Friday, 09:00-11:00

📍 Room 500

2024-FRI-P0103-P014

A Dual-Functional Biosensing Chip Based on High Diffraction Order Grating-coupled Surface Plasmon Resonance and SERS

Yan-Yu Chen, Yuan-Yu Huang, Ta-Jen Yen, National Tsing Hua University (Taiwan)

2024-FRI-P0103-P015

Color-Center Emission White Light LED with GaON Active Layer Grown by PEALD

Jyun-Min Wang, Lung-Han Peng, Pei Lin Wu, National Taiwan university (Taiwan)

2024-FRI-P0103-P016

Super-Radiative Pattern with Dirac-form

Ya Yuan Chang, Jeng Yi Lee, National Dong Hwa University (Taiwan)

2024-FRI-P0103-P017

Impact of AlGaInN Superlattice Electron Blocking Layer on AlGaIn Deep Ultraviolet Light-Emitting Diodes

Kuan-Yu Chen, Geng-Lin Li, Man-Fang Huang, Jih-Yuan Chang, Lin Lin, National Changhua University of Education (Taiwan)

2024-FRI-P0103-P018

FDTD Simulation of Photonics Topological Waveguides and Resonators by Quantum Valley Hall Effect

Kai-Chieh Chen, En-Ci Gu, Shih-Hui Chang, National Cheng Kung University (Taiwan)

2024-FRI-P0103-P019

A Novel Multi-Frequency Modulated White Light Source for Rapid Hyperspectral Imaging

Zhi-Yun Wang, Yen-Yun Lin, Yu-Peng Chen, Yi-Xian Peng, Hung-Chih Hsieh, National United University (Taiwan)

2024-FRI-P0103-P020

Tunable mid-infrared light emitters based on black phosphorus

Ching Kuo, Chia-Jui Hsu, Po-Liang Chen, Chung-Chun Lu, Jia-Xin Li, Wei-Qing Li, Chang-Hua Liu, National Tsing Hua University (Taiwan)

2024-FRI-P0103-P021

Effects of growth conditions on the material and structural properties of GaAsBi epilayers grown on GaAs by MBE

Hsuan-I Chang, Shi-Zhe Zhang, Hao-Hsiung Lin, National Taiwan University (Taiwan)

2024-FRI-P0103-P022

Temperature compensation Strategies in Silicon-MIOC Fiber Optic Gyroscopes Systems for Enhanced Accuracy

Jen-Shu Lo, Ting-Hsuan Kuo, Wei-Xuan Chen, Yung-Jr Hung, National Sun Yat-sen University (Taiwan)

2024-FRI-P0103-P023

Generic and Meta-DiffuserCam: A Comparative Study

Chung-Lin Chao, Hsuehli Liu, National Yang Ming Chiao Tung University (Taiwan); Chaujern Cheng, National Taiwan Normal University (Taiwan); Peichen Yu, National Yang Ming Chiao Tung University (Taiwan)

2024-FRI-P0103-P024

Developing novel electron beam nano-stencil to achieve large-area Electron-Beam Lithography

Sung-Ting Sia, National Taiwan University (Taiwan); Yun-Chorng Chang, academia sinica (Taiwan)

2024-FRI-P0103-P025

The impact of etching solution on the profile of through-glass vias

Chi-Feng Lin, National Taiwan University (Taiwan); Po-Yu Chen, Guang Liu, National United University (Taiwan); Nan-Hao Lin, Loughwa University of Science and Technology (Taiwan)

2024-FRI-P0103-P026

A Robust Wavelength Selection Method for Minimizing OVL Errors in Asymmetric Structures

Ray-Ming Zheng, Hung-Chih Hsieh, National United University (Taiwan)

2024-FRI-P0103-P027

Germanium Selenide Nanoparticles as Novel Dopants for Enhanced Electro-Optical Performance in Liquid Crystals

Yu Chen Xiao, Bhupendra Pratap Singh, Shug-June Hwang, National United University (Taiwan)

S1. Poster Session III

🕒 Nov 29, Friday, 09:00-11:00

📍 Room 500

2024-FRI-P0103-P028

Application of Deep Neural Networks for Accurate Determination of Refractive Index and Absorption Coefficient in Ellipsometry Analysis

Min-Yan Chen, Hung-Chih Hsieh, National United University (Taiwan)

2024-FRI-P0103-P029

Enhanced Valley Polarization in Monolayer WS₂ at Room Temperature through Optical Doping

Lu Chung-Chun, Lui Chang-Hua, National Tsing Hua University (Taiwan)

2024-FRI-P0103-P030

Electron beam excited radiation from periodic metal rings with slits that varying with azimuthal angle

Chih-Xuan Chang, Yung-Chiang Lan, National Cheng Kung University (Taiwan)

2024-FRI-P0103-P031

Study on Image Quality Enhancement by Multiple Imaging with Random Displacements

Yu-Chi Chen, Ching-Cherng Sun, Tsung-Hsun Yang, Yeh-Wei Yu, Ming-Yuan Chen, National Central University (Taiwan)

2024-FRI-P0103-P032

AlGaN-based HEMT and MSM Detectors on SiC Substrates

Kai-Wei Chien, Kun-Pin Huang, Yu-Cheng Kao, Chia-Feng Lin, National Chung Hsing University (Taiwan)

2024-FRI-P0103-P033

Unlimited number of periodic decagonal tiling with a 2(3)-D atom sites quasi quasi-crystal model

Chung-Yuan Kung, Chu-Yang Chao, Han-Wen Liu, National Chung Hsing University (Taiwan)

2024-FRI-P0103-P034

Relationship between Bulk Sensitivity and Surface Sensitivity of Metal-Covered Relief Grating and PMMA Protection Layer thickness

Po-Kai Pan, National Taiwan Normal University (Taiwan); Hong-Jhang Syu, Bu-Mei Liu, Pei-Kuen Wei, Academia Sinica (Taiwan)

2024-FRI-P0103-P035

Cavity Engineering for Strong Exciton-Photon Couplings in Quasi-2D Perovskite Materials

Shih Chung Chen, Tsung Sheng Kao, Li Ming Chiang, National Yang Ming Chiao Tung University (Taiwan)

2024-FRI-P0103-P036

Injection Molded Double-Sided Nanostructured Meta Lenses for Enhanced Optical Performance

Devesh Barshilia, Hsun-Yuan Li, Wen-Hsin Hsieh, Guo-En Chang, National Chung Cheng University (Taiwan)

2024-FRI-P0103-P037

Tunable Plasmonics Based on Self-Assembled Gallium Nanoparticles Embedded in Polymer Substrates

You-Le Lin, Wei-Ting Chao, Yung-Ling Kao, National Central University (Taiwan); Cheng-Wen Kuo, Ta-Ming Kuan, Cheng-Yeh Yu, TSEC Corporation (Taiwan); I-Chen Chen, National Central University (Taiwan)

2024-FRI-P0103-P038

Colloidal Quantum Dot LEDs Package with Porous Silica Microspheres

Yan-ke Chen, Tzu-Chia Huang, Chien-Chung Lin, Ching Chang, National Taiwan University (Taiwan); Guan-Teng Lin, Chung-Ping Huang, National Yang Ming Chiao Tung University (Taiwan)

2024-FRI-P0103-P039

Small-Sized Indium Gallium Nitride Micro-LED Array With plasma-enhanced chemical vapor deposition

Yu-Hsien Wen, Yu-Long Zhong, Hao-Jen Chang, Ke-Hsi Chiang, Chien-Chung Lin, National Taiwan University (Taiwan)

2024-FRI-P0103-P040

Measurement of MgCl₂ Electrolyte Using Metamaterials and Evaluation of the Feasibility of Measuring Thickness of Polar Liquids

Chin Lin Lin, Pei-Jung Wu, Chan-Shan Yang, National Taiwan Normal University (Taiwan)

2024-FRI-P0103-P041

Enhanced Adsorption Layers in Dye-Sensitized Solar Cells using Self-Synthesized TiO₂ Hollow Spheres and P90

Chung Hsuan Hsieh, Chun Yu Li, Hsueh Tao Chou, National Yunlin University of Science and Technology (Taiwan)

S1. Poster Session III

🕒 Nov 29, Friday, 09:00-11:00

📍 Room 500

2024-FRI-P0103-P042

Research on the Light Field of Quantum Dot Color Conversion-Based MicroLED Displays

Bing-Han Wu, National Yunlin University of Science and Technology (Taiwan); Kuan-An Chen, SynthEdge Advanced Materials Corp. Ltd. (Taiwan); Hung-Chen Kou, Otsuka Tech Electronics Corp. Ltd. (Taiwan); Chih-Jung Chen, Taiwan Nanocrystals Corp. Ltd. (Taiwan); Chun-Yu Li, National Yunlin University of Science and Technology (Taiwan)

2024-FRI-P0103-P043

Anti-reflection of holey Metalens for high efficiency Thermal imaging

Cheng-Yu Lee, Qiu-Chun Zeng, Yen-Chun Chen, Chen-Yi Yu, Chih-Ming Wang, National Central University (Taiwan)

2024-FRI-P0103-P044

Structural and electrical properties of PEDOT:NiTsPc resistive switching devices

Ji-En Wu, Pin-Hsiang Huang, Yu-Chueh Hung, National Tsing Hua University (Taiwan); Wei-Tsung Chuang, National Synchrotron Radiation Research Center (Taiwan)

2024-FRI-P0103-P045

Study on Active Vehicle Sun Visors Incorporated with Human-Eye Extraction Model

You-Ting Guo, Ching-Cherng Sun, Tsung-Hsun Yang, Yeh-Wei Yu, Chi-Shou Wu, Zong-Han Yang, National Central University (Taiwan)