

S0901. Oral Session I

🕒 Nov 27, Wednesday, 13:30-15:00

📍 Room 501

🗣️ **Presider:** Prof. Shien-Kuei Liaw (National Taiwan University of Science and Technology, Taiwan)
Prof. Peng-Chun Peng (National Taipei University of Technology, Taiwan)

13:30

2024-WED-S0901-I001

Invited

Large-Scale and High-Capacity Sensing Systems Utilizing Free-Space Optics

Prof. Peng-Chun Peng, National Taipei University of Technology (Taiwan)

14:00

2024-WED-S0901-O001

Modeling of Scattering Intensity in Transmission-Small Angle X-ray Metrology Using Elements of Fourier Optics to Simplify the Modeling of Critical Features at the FEOL Stage of Emerging IC designs

Gaurav Pandey, National Taipei University of Technology (Taiwan); Chun-Yu Liu, Wei-en Fu, Industrial Technology Research Institute (Taiwan); Chao-Ching Ho, Liang-Chia Chen, National Taipei University of Technology (Taiwan); National Taiwan University (Taiwan)

14:15

2024-WED-S0901-O002

Investigation of CsPbBr₃ Perovskite X-ray Detector with Spray-coated Method under Atmospheric Conditions

Ting-Chun Chang, Ching-Ting Lee, Hsin-Ying Lee, National Cheng Kung University (Taiwan)

14:30

2024-WED-S0901-O003

ITO Gated p-GaN HEMT UV Photodetector: A TCAD Simulation Study

Catherine Langpoklakpam, National Yang-Ming Chiao Tung University (Taiwan); Chang-Ching Tu, National Central University (Taiwan); Hao-Chung Kuo, National Yang-Ming Chiao Tung University (Taiwan)

14:45

2024-WED-S0901-O004

Air-backed Mandrel Fiber Optic Hydrophone design using Φ -OTDR system for Underwater Acoustic Sensing

Ting-Kuan Lin, Hung-Yi Chen, Jui-Ting Yu, National Sun Yat-sen University (Taiwan); Chia-Ming Tsai, National Chung-Shan Institute of Science and Technology (Taiwan); Yu-Han Hung, National Sun Yat-sen University (Taiwan)

S0902. Oral Session II

🕒 Nov 27, Wednesday, 15:15-16:45

📍 Room 501

🗣️ **Presider:** Prof. Ja-Yu Lu (National Cheng Kung University, Taiwan)
Dr. Fu-Liang Yang (Academia Sinica, Taiwan)

15:15

2024-WED-S0902-I001

Invited

Outlook for pulse oximeter applications

Dr. Fu-Liang Yang, Academia Sinica (Taiwan)

15:45

2024-WED-S0902-O001

Effects of Sputtering Temperature on β -Ga₂O₃-Based Deep UV Detector Prepared by RF Magnetron Sputtering

Sheng-Hsiang Kao, Ting-Rui Hsu, Balaji G, Venkatesh N, Deveshwar Sasikumar, Wei-Sheng Liu, Yuan Ze University (Taiwan)

16:00

2024-WED-S0902-O002

MIMO random-modulated pulsed lidar system based on gain-switched semiconductor laser with a self-delayed homodyne interferometer

Zhi-Xian Wang, Cheng-Ting Lee, Fan-Yi Lin, National Tsing Hua University (Taiwan)

16:15

2024-WED-S0902-O003

Digital Color Local Surface Plasmon Resonance Detection of Interleukin-6 from Human Plasma Sample

Ting-Wei Chang, Academia Sinica (Taiwan); Ting-Hao Chuang, National Taipei University of Technology (Taiwan); Sheng-Hann Wang, Academia Sinica (Taiwan); Wing Kiu Yeung, National Taipei University of Technology (Taiwan); Pei-Kuen Wei, Academia Sinica (Taiwan)

16:30

2024-WED-S0902-O004

Analyses and Measurement of Hybrid Optical Fiber Communication and Fiber Vibration Sensing System

Yang-En Zou, Shien-Kuei Liaw, Qian-Hui Jian, Ping-Han Wu, National Taiwan University of Science and Technology (Taiwan); Ya-Mei Yang, Bo-Heng Lee, Industrial Technology Research Institute (Taiwan); Zi Wang, National Taiwan University of Science and Technology (Taiwan)

S0903. Oral Session III

🕒 Nov 28, Thursday, 10:45-12:00

📍 Room 501

🗣️ Presider: Dr. Yi-Chung Tung (Academia Sinica, Taiwan)
Prof. Chengkuo Lee (National University of Singapore, Singapore)

10:45

2024-THU-S0903-I001

Invited

CMOS Photonics Platform – Sensing and Computation

Prof. Chengkuo Lee, National University of Singapore (Singapore)

11:15

2024-THU-S0903-O001

A New-type Vibration Sensor Based on a Fiber Bragg Grating

Guan-Jun Liu, Yun-Jheng Liang, Wen-Fung Liu, Wei-Chen Li, Feng Chia University (Taiwan)

11:30

2024-THU-S0903-O002

Photomultiplication type Two-in-One Non-fullerene Narrowband/Broadband Organic photodetectors

Gajendra Suthar, National Yang Ming Chiao Tung University (Taiwan); Chih-Wei Chu, Academia Sinica (Taiwan); Yi-Ming Chang, Raynergy Tek Incorporation (Taiwan); Fang-Chung Chen, National Yang Ming Chiao Tung University (Taiwan)

11:45

2024-THU-S0903-O003

GeSn Waveguide Photodetectors for Cryogenic Silicon Photonics operating in 2 μm band

Radhika Bansal, Guo-En Chang, National Chung Cheng University (Taiwan)

S0904. Oral Session IV

🕒 Nov 28, Thursday, 13:30-14:45

📍 Room 501

🗣️ Presider: Prof. Shiuan-Yeh Chen (National Cheng Kung University, Taiwan)
Prof. Wanvisa Talataisong (Suranaree University of Technology, Thailand)

13:30

2024-THU-S0904-I001

Invited

Optical fiber sensing device: Future technology for environmental monitoring

Dr. Wanvisa Talataisong, Suranaree University of Technology (Thailand)

14:00

2024-THU-S0904-O001

Enhancing Resolution for Flash Time-of-Flight Lidar with Multi-view Acquisition Optical System and Range Image Tiling

Jui-Hsiang Yen, Shao-Jung Li, Zih-Ying Fang, Cheng-Huan Chen, National Yang Ming Chiao Tung University (Taiwan)

14:15

2024-THU-S0904-O002

Ultra-sensitive refractive index sensing based on an accidental-bound state in continuum of an ultra-thin dielectric grating metasurface

Ya-Ting Kang, Hsin-Yu Yao, National Chung Cheng University (Taiwan)

14:30

2024-THU-S0904-O003

FPGA Parallel Architecture for Environmental Adaptation in Real-Time Edge Enhancement on MWIR Images

Chih-Chuan Tsai, Yung-Jhe Yan, Chi-Han Lin, Yi-Ting Huang, Mang Ou-Yang, National Yang Ming Chiao Tung University (Taiwan)

S0905. Oral Session V

🕒 Nov 28, Thursday, 15:00-16:00

📍 Room 501

🗣️ Presider: Prof. Nai-Hsiang Sun (I-Shou University, Taiwan)
Prof. Yih-Fan Chen (National Yang Ming Chiao Tung University, Taiwan)

15:00

2024-THU-S0905-O001

Characterization of Light-addressable Potentiometric Sensors using Mini-LED

Aravind Satheesh, Chia-Ming Yang, Chang Gung University (Taiwan)

15:15

2024-THU-S0905-O002

Low Dark Current Lateral PIN Silicon Photodetector with High Responsivity and High Gain

Wei-Han Fang, Guan-Yu Chen, National Chung Hsing University (Taiwan); Ching-Yu Hsu, National Yang Ming Chiao Tung University (Taiwan); Zingway Pei, National Chung Hsing University (Taiwan)

15:30

2024-THU-S0905-O003

Chip-Scale Mid-Infrared Comb Cavity Ring-Down Spectroscopy for Gas Sensing

Tzu-Ling Chen, National Yang-Ming Chiao-Tung University (Taiwan); Charles Markus, Douglas Ober, California Institute of Technology (United States); Lukasz Sterczewski, Wroclaw University of Science and Technology (Poland); Yi-Jan Huang, National Yang-Ming Chiao-Tung University (Taiwan); Mahmood Bagheri, Jet Propulsion Laboratory (United States); Mitchio Okumura, California Institute of Technology (United States)

15:45

2024-THU-S0905-O004

Terahertz Imaging of PTFE Filter with Ammonium Salt Particles

Tai-Ying Lin, Chih-Ting Lin, Yu-Hsiang Cheng, National Taiwan University (Taiwan)

S0906. Oral Session VI

🕒 Nov 29, Friday, 09:30-11:00

📍 Room 501

🗣️ Presider: Prof. Cheng-Ling Lee (National United University, Taiwan)
Prof. Wen-Fung Liu (Feng Chia University, Taiwan)

09:30

2024-FRI-S0906-O001

PVC detection through bifunctional metamaterial perfect absorbers

Wei-Zhi Weng, Tsung-Yu Huang, Ming Chi University of Technology (Taiwan)

09:45

2024-FRI-S0906-O002

Influence of Sputtering Power on the Crystalline Structure and Optoelectronic Properties of P-type CuCrO_2 Thin Films

Yun-Jui Yeh, Yu-En Chen, Bhavya. K, Tsung-An Yang, Yuan Ze University (Taiwan)

10:00

2024-FRI-S0906-O003

A distributed vibration system using digital demodulation algorithm for precise position identification

Jui-Ting Yu, Ting-Kuan Lin, Yu-Han Hung, National Sun Yat-sen University (Taiwan)

10:15

2024-FRI-S0906-O004

Determining the Cytotoxicity of Anti-cancer Drugs Using Spectral Contrast Images in Nanoplasmonic Biochips

Hsien-San Hou, Ting-Jui Tu, Ji-Yen Cheng, Academia Sinica (Taiwan); Kuang-Li Lee, National Chi Nan University (Taiwan); Pei-Kuen Wei, Academia Sinica (Taiwan)

10:30

2024-FRI-S0906-O005

A near-infrared module for moisture content of soybean residue in the drying process

, National Taiwan Normal University (Taiwan); Meng-Jen Tsai, Food Industry Research and Development Institute (Taiwan); Jen-Jie Chieh, National Taiwan Normal University (Taiwan)

10:45

2024-FRI-S0906-O006

Enhanced SERS Sensitivity on Polymer Gratings with Obliquely Deposited Silver Split-Tube Metasurfaces

Yi-Jun Jen, Meng-Jie Lin, National Taipei University of Technology (Taiwan)

S9. Poster Session I

🕒 Nov 27, Wednesday, 13:30-16:00

📍 Room 500

2024-WED-P0901-P001

Optoelectronic: $ZnGa_2O_4$ /p-Si Heterojunction-based Photodetector and Security Device Applications

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

2024-WED-P0901-P002

Open-cavity Fiber FPI Sensor Based on SMF-HCF Structure with Double-bevel Pencil-shaped Fiber

Min-Kai Tsai, Chin-Ping Yu, National Sun Yat-sen University (Taiwan)

2024-WED-P0901-P003

CdZnTe/Si type II heterojunction photoconductive photodetectors with large linear dynamic range and fast response operating in the UV to SWIR

H. W. Wang, Y. W. Kee, T. W. Hsu, K. I. Chiang, Chung Yuan Christian University (Taiwan); J. H. Wu, National Taiwan University of Science and Technology (Taiwan); H. C. Wu, Chung Yuan Christian University (Taiwan); T. W. Tsai, R. S. Chen, National Taiwan University of Science and Technology (Taiwan); J. S. Wang, Chung Yuan Christian University (Taiwan)

2024-WED-P0901-P004

Polarization Interferometry for Roll and Pitch Angular Displacement Measurement

Shu-Han Chang, Kuan-Yu Hsu, Ju-Yi Lee, National Central University (Taiwan)

2024-WED-P0901-P005

Design of Monolithic Wavelength Division Sensor for Polystyrene Spectral Reconstruction and Plastic Sensing Applications

Yu-Ru Shih, National Chung Hsing University (Taiwan); Ching-Yu Hsu, National Yang Ming Chiao Tung University (Taiwan); Zingway Pei, National Chung Hsing University (Taiwan)

2024-WED-P0901-P006

Broadband Mid-Infrared Detection Enhancement in Silicon-Based Detectors using Upright and Inverted Pyramid Structures

Ting-Kai Chang, Du-Ting Cheng, Han-Shi Weng, Ching-Fuh Lin, National Taiwan University (Taiwan)

2024-WED-P0901-P007

High-Sensitivity Roll Angle Measurement Based on Birefringent Polarization Interferometry

Wun-Yan Chen, Han-Hao Tseng, Ju-Yi Lee, National Central University (Taiwan)

2024-WED-P0901-P008

Enhanced MWIR Response in Silicon Schottky Detectors through Nanoparticle-Driven Morphology Optimization

Han-Shi Weng, Po-Hsien Chiang, Yao-Han Dong, Ching-Fuh Lin, National Taiwan University (Taiwan)

2024-WED-P0901-P009

Linearization of Wavelength Sweeping Lasers for 4-D FMCW LiDAR using Baseband Beat Note Signals

Yu-Kuan Tsai, National Yang Ming Chiao Tung University (Taiwan); Zheng-Xiang Liao, National Central University (Taiwan); Tetsuro Okuda, Bo-Hong Chen, LandMark Optoelectronics Corporation (Taiwan); Andrew Chen, Win Semiconductors Corp. (Taiwan); Pei-Hsun Wang, National Yang Ming Chiao Tung University (Taiwan); Chia-Chien Wei, National Sun Yat-Sen University (Taiwan); You-Chia Chang, National Yang Ming Chiao Tung University (Taiwan); Yung-Jr Hung, National Sun Yat-Sen University (Taiwan); Jin-Wei Shi, National Central University (Taiwan)

2024-WED-P0901-P010

Ultraviolet photodetectors based on zinc oxide nanorods and indium gallium zinc oxide thin films

Bohr-Ran Huang, Nien-Ping Yang, National Taiwan University of Science and Technology (Taiwan)

2024-WED-P0901-P011

Deep Learning Accelerated Optical Aberration Analysis with Shack-Hartmann Wavefront Sensor

Chi-Hau Chen, Po-Jen Ting, Chia-Yuan Chang, National Cheng Kung University (Taiwan)

2024-WED-P0901-P012

Preparation and Characterization of CdS Nanostructured Thin Film for UV-Blue Photodetector Application

Chien-Ju Lai, Fang-Hsing Wang, Zhi-Xian Lin, National Chung Hsing University (Taiwan)

2024-WED-P0901-P013

Hybrid nanostructures of Zinc oxide nanorods and $ZnGa_2O_4$ for UV photodetectors Studies

Bohr-Ran Huang, ZIH-CHEN LIN, National Taiwan University of Science and Technology

2024-WED-P0901-P014

Optical Sensing of Single Aerosol Motion in an Optical Trap

Chun-Yen Wen, Yang-Yi Lee, Chung-Lin Chao, Tzu-Ling Chen, National Yang-Ming Chiao Tung University (Taiwan)

S9. Poster Session I

🕒 Nov 27, Wednesday, 13:30-16:00

📍 Room 500

2024-WED-P0901-P015

Performance Improvement for Distributed Fiber Sensing System by using Fixed Trigger Level Methodology

Chen-Yu Chang, Kai-Sheng Chen, Shien-Kuei Liaw, National Taiwan University of Science and Technology (Taiwan); Chun-Chung Chen, National Yang Ming Chiao Tung University (Taiwan); Chi-Wen Liao, National Central University (Taiwan)

2024-WED-P0901-P016

Liquid Refractive Index Measurement Using Polished Fiber Bragg Gratings Combined with PAAM

Chia-Cheng Cheng, Wen-Fung Liu, Siao-Yu Chang Jian, Kun-Huang Chen, Feng Chia University (Taiwan)

2024-WED-P0901-P017

Swept-Source Resampling in Silicon-based Optical Coherence Tomography through Low Chromatic Dispersion

Min-Yang Hung, Jia-Yan Huang, Cheng-Chi Hsiao, Pei-Cheng Tsai, Yu-Chia Lin, Shih-Hsiang Hsu, National Taiwan University of Science and Technology (Taiwan)

2024-WED-P0901-P018

Using Deep Learning to Compare Bladder Cancer Stage with Hyperspectral and White Light Imaging

Yu-You Liu, Jay-Lun Hsieh, Hsiang-Chen Wang, National Chung Cheng University (Taiwan)

2024-WED-P0901-P019

High Gain Silicon Based Germanium Heterojunction Infrared Photodetector with Responsivity beyond 2.5 A/W at 1550 nm Wavelength

Ching-Yu Hsu, National Yang Ming Chiao Tung University (Taiwan); Guan-Yu Chen, Ssu-Tung Chen, Guan-Yu Li, Zingway Pei, National Chung Hsing University (Taiwan)

2024-WED-P0901-P020

MBE growth of $(\text{Cd}_{1-x}\text{Zn}_x)_3\text{As}_2$ films for broadband self-powered photodetection applications

K. I. Chiang, Y. W. Kee, T. W. Hsu, H. W. Wang, Chung Yuan Christian University (Taiwan); H. C. Wu, T.W. Tsai, C.L. Chang, R. S. Chen, National Yang Ming Chiao Tung University of Science and Technology (Taiwan); J. S. Wang, Chung Yuan Christian University (Taiwan)

S9. Poster Session II

🕒 Nov 28, Thursday, 13:30-16:00

📍 Room 521

2024-THU-P0902-P001

Under-display Lensless Imaging Facial Recognition System

Min-Hsuan Chung, Sih-Wei Chen, Chieh-En Lee, Chung-Hao Tien, National Yang Ming Chiao Tung University (Taiwan)

2024-THU-P0902-P002

Noise suppression of molecular absorption spectra noise suppression based on fast Fourier transform

Po-Chang Chen, Che-Chung Chou, Tyson Lin, Sheng-Hua Lu, Feng Chia University (Taiwan)

2024-THU-P0902-P003

ZnGa₂O₄-based Phototransistor grown by RF Sputtering

En-Min Huang, National Cheng Kung University (Taiwan); Sheng-Po Chang, National Kaohsiung University of Science and Technology (Taiwan); Shouu-Jinn Chang, Wei-Chi Lai, National Cheng Kung University (Taiwan)

2024-THU-P0902-P004

Silicon Illuminance Sensor

Fuh-Cheng Jong, Southern Taiwan University of Science and Technology (Taiwan); Wen-Ching Hsieh, Li-Hang Ho, Minghsin University of Science and Technology (Taiwan)

2024-THU-P0902-P005

Electronic and Optical Properties of Various Layer on 2D Structure SnS₂ based Photodetector

Qi-Rui Qiu, National Cheng Kung University (Taiwan); Sheng-Po Chang, National Kaohsiung University of Science and Technology (Taiwan); Shouu-Jinn Chang, Jone-Fang Chen, Wei-Chi Lai, National Cheng Kung University (Taiwan)

2024-THU-P0902-P006

Characterization of Display Elements Using Hyperspectral Imaging

Guo-Hao Lu, Yu-Hsing Lin, Teng-I Yang, Chao-Feng Liu, Chun-Jen Weng, National Applied Research Laboratories (Taiwan)

2024-THU-P0902-P007

The glucose concentration measurement with polarization interferometer

Chun-Yi Chang, Cheng-Chih Hsu, Tzu-Yung Lin, Yi-Ju Chen, National United University (Taiwan)

S9. Poster Session II

🕒 Nov 28, Thursday, 13:30-16:00

📍 Room 521

2024-THU-P0902-P008

The Investigation of Vertical β -Ga₂O₃ Schottky Barrier Deep UV Photodetectors with Ni/Au Metal Contact at Different Annealing Temperatures

Chun-Kai Wang, National Kaohsiung University of Science and Technology (Taiwan); Rong-Quan Jiang, Yu-Zung Chiou, Southern Taiwan University of Science and Technology (Taiwan)

2024-THU-P0902-P009

Exploring deep learning solutions for distortions and noise in fiber optic interferometric sensors

Hsu-Chih Cheng, Cheng-Feng Li, Wen-Long Wu, Chun-Ming Huang, National Formosa University (Taiwan)

2024-THU-P0902-P010

Optical camera communication image demodulation technology based on coaxial superposition orbital angular momentum (OAM) beam and YOLO model

Ming-Hung Chou, Yu-Sheng Wu, Xue-Yan Lu, Hsu-Chih Cheng, Chun-Ming Huang, National Formosa University (Taiwan)

2024-THU-P0902-P011

An Optical FBG-Based Sensor System Applying in Fiber and Wireless Link Paths

Tsu-Hsin Wu, Chien-Yu Liao, Yuan-Wen Chen, Sung-Yi Lin, Yu-Hsin Kao, Yu-Heng Lin, Feng Chia University (Taiwan); Chi-Wai Chow, National Yang Ming Chiao Tung University (Taiwan); Chien-Hung Yeh, Feng Chia University (Taiwan)

2024-THU-P0902-P012

Highly efficient SERS substrate based on sandwich nanostructure of silver/perovskite/silver

Mao-Cheng Huang, National Taiwan University of Science and Technology (Taiwan); Iskandar Johan, Chih-Yi Liu, Shun-Wei Liu, Ming Chi University of Technology (Taiwan); Chih-Chien Lee, National Taiwan University of Science and Technology (Taiwan)

2024-THU-P0902-P013

Modeling of Multi-Core Photonic Crystal Fiber Coupler

Jung-Sheng Chiang, Kai-Wei Liu, Meng-Han Sie, Tsai-Hsuan Chen, Cheng-Han Jian, Nai-Hsiang Sun, I-Shou University (Taiwan)

2024-THU-P0902-P014

Enhanced Wavelength Selectivity in Organic Phototransistors Using Selective Wavelength Reflective Encapsulating Layers

Hea-Lim Park, Seoul National University of Science and Technology (Korea, South)

S9. Poster Session III

🕒 Nov 29, Friday, 09:00-11:00

📍 Room 500

2024-FRI-P0903-P001

Leaky-Guided Hollow Core Fiber Mach-Zehnder Interferometer for Ultrahigh Extinction Ratio based on Connecting a Large Core Hollow Fiber

Yan-Han LU, Wei-Cheng Lin, Jing-Yuan Fan, Cheng-Ling Lee, National United University (Taiwan)

2024-FRI-P0903-P002

UV Light on Submicron-Al Mixed Polymer in Fiber Fabry-Pérot Interferometer for Hot-Wire Anemometry

Yi-Kai Chiu, Che-En Chuang, Tzu-Chieh Lin, Cheng-Ling Lee, Jia-Jing Tian, Tsai-Chuan Chiu, National United University (Taiwan)

2024-FRI-P0903-P003

Novel fiber optic plasmonic nicotine sensor based on dual-channel and molecular imprinting

Chang-Yue Chiang, National Changhua University of Education (Taiwan); CHIEN-HSING CHEN, National Pingtung University of Science and Technology (Taiwan)

2024-FRI-P0903-P004

CFRP defect detection using lock-in thermography

Zong-Yi Ling, Te-Yuan Chung, National Central University (Taiwan)

S9. Poster Session III

🕒 Nov 29, Friday, 09:00-11:00

📍 Room 500

2024-FRI-P0903-P005

Diffraction Analysis on Transmissive Optical Encoder

Yu-Hsun Cheng, Ching-I Tai, Yung-Jhe Yan, Chun-Chieh Liao, Tse-Yu Cheng, Mang Ou-Yang, National Yang Ming Chiao Tung University (Taiwan)

2024-FRI-P0903-P007

Photoelectric Characteristics of Gallium Oxide Deep Ultraviolet Photodetectors

Jian-Ying Chen, Yu-Hao Zhong, Sheng-Hui Chen, National Central University (Taiwan)

2024-FRI-P0903-P008

A Fiber Optics Sensor to Measure a Slight Electrostatic Force

Ting-Kuan Chen, Jun-Feng Ni, Chi-Fang Ding, Sin-Yu Sie, Yen-Chang Lee, Cheng-Ling Lee, National United University (Taiwan)

2024-FRI-P0903-P009

Creating hot spots within air for better sensitivity through design of oblique-wire-bundle metamaterial perfect absorbers

Kai-Lin Hsiao, Tsung Yu Huang, Ming Chi University of Technology (Taiwan)

2024-FRI-P0903-P010

Development of Chemical Vapor Deposition Fluorescent Diamond based Scintillator for Extreme Ultraviolet and Soft X-ray Imaging

Yu-Hsin Yang, National Taiwan University (Taiwan); Ya-Ting Kang, National Chung Cheng University (Taiwan); Pei-Jie Wu, National Taiwan Normal University (Taiwan); Yuen-Yung Hui, Academia Sinica (Taiwan); Tzu-Ping Huang, Yin-Yu Lee, National Synchrotron Radiation Research Center (Taiwan); Guo-Hao Lu, Chun-Jen Weng, Taiwan Instrument Research Institute, National Applied Research Laboratories (Taiwan); Huan-Cheng Chang, Academia Sinica (Taiwan); Teng-I Yang, Taiwan Instrument Research Institute, National Applied Research Laboratories (Taiwan)

2024-FRI-P0903-P011

Fabrication and Measurement of Concentric Circular Grating Guided-Mode Resonance Sensor

Wen-Ling Chang, Yi-Jyun Zeng, Wen Kai Kuo, National Formosa University (Taiwan)

2024-FRI-P0903-P012

Surface Plasmon-Assisted Nanodendritic Gold-Based Photoelectrochemical Sensor for Glucose Detection

Wang Po-Yang, Hsu Yu-Kuei, National Dong Hwa University (Taiwan)

2024-FRI-P0903-P013

Graphene Foam/Li and Zn-Doped Nickel Oxide Flexible UV Photodetectors

Xiu-Qi Yu, Ya-Yun Huang, Yuan-Jin Lin, Wei-Chen Tu, National Cheng Kung University (Taiwan)

2024-FRI-P0903-P014

Detection of Bed Entry and Exit Using Infrared Sensor Array Camera and Infrared Motion Sensor

Raheem Qaiser, Jonathon David White, Yuan-Ze University (Taiwan)

2024-FRI-P0903-P015

All-Optical Temperature Measurement of Electronic Devices with Fluorescent Nanodiamonds

Yi Mu Tsui, Yuen-Yung Hui, Chen-Yu Ho, Yi-Xiu Tang, Huan-Cheng Chang, Academia Sinica (Taiwan)

2024-FRI-P0903-P016

Enhancing Cross-Process Defect Classification Using Multi-Modal Deep Learning with Descriptive Information in TFT-LCD Manufacturing

Yi Liu, Hung-Wen Chen, National Tsing Hua University (Taiwan)

2024-FRI-P0903-P017

Lead-free inorganic halide perovskite thick films for X-ray detection under ambient spray coating with environmental-friendly solvent

Zi-Xiang Wen, Yu-Shan Feng, Chen-Fu Lin, Peter Chen, National Cheng Kung University (Taiwan)

2024-FRI-P0903-P018

Study of optical fiber nanoplasmonic biosensor based on gold and silver nanoparticles

Yi-Da Hsieh, National United University (Taiwan); Chien-Hsing Chen, National Pingtung University of Science and Technology (Taiwan); Chang-Yue Chiang, National Changhua University of Education (Taiwan); Cheng-Ling Lee, National United University (Taiwan); Jian-Neng Wang, National Yunlin University of Science and Technology (Taiwan)

S9. Poster Session III

🕒 Nov 29, Friday, 09:00-11:00

📍 Room 500

2024-FRI-P0903-P019

Development of Thermo-Optic Coefficient Measurement System

Song-Ying Hou, Ruey-ching Twu, Southern Taiwan University of Science and Technology (Taiwan)

2024-FRI-P0903-P020

Terahertz integrated-plasmonic sensors based on metal-wire-woven hole arrays

Chin-Lun Kuo, National Cheng Kung University (Taiwan); Yen-Shan Lin, National Changhua University of Education (Taiwan); Jayu Lu, National Cheng Kung University (Taiwan); Borwen You, National Changhua University of Education (Taiwan)

2024-FRI-P0903-P021

Effective Liquid-filled fiber leaky-guided Mach-Zehnder interferometer base on a side-polished fiber

Yu-Xin Jiang, Chun-Yu Yeh, Cheng-Ling Lee, National United University (Taiwan)

2024-FRI-P0903-P022

Tapered-fiber Bragg grating pH sensor

Li-Hsuan Chu, He-En Yang, Feng Chia University (Taiwan); Wen-Fung Liu, Southampton University (Taiwan)

2024-FRI-P0903-P023

High Sensitivity Fiber Bragg Grating Gas Pressure Sensor

Yi-Ying Wu, Hsiang-Yi Kuo, Feng Chia University (Taiwan); Wen-Fung Liu, Southampton University (Taiwan)

2024-FRI-P0903-P025

A Novel Diffraction-Based Overlay Metrology Using a Moving Reference Grating for Precise OVL Measurement

Jun-Jie Li, Hung-Chih Hsieh, National United University (Taiwan)

2024-FRI-P0903-P026

Atmospheric plasma growth porous nanostructured zinc oxide

Lo Yu-Cheng, Chen Hsiang, National Chi Nan University (Taiwan)

2024-FRI-P0903-P027

The Study of Internet of Portable Loop-Mediated Isothermal Amplification Meter Using Real Time Monitor of Turbidity and Fluorescence Spectrum

Yi-Cheng Hsu, Kuei-Ting Chen, National Pingtung University of Science and Technology (Taiwan)

2024-FRI-P0903-P028

Surface Reconstruction Based on the Optical 3D Point Cloud Acquisition System

Wei-Zhe Zhang, Tung-Chen Chao, Hsi-Fu Shih, National Chung Hsing University (Taiwan)

2024-FRI-P0903-P030

Solution-processable and Photo-programmable Logic Gate for In-memory Computation

Shin-hau Ke, Yu-Dao Lu, Chan-Rung Hsu, Jung-Yao Chen, National Cheng Kung University (Taiwan)

2024-FRI-P0903-P031

Cholesteric Liquid Crystal-Based Interpenetrating Polymer Network Photonic Film and Enzyme-Immobilized Hydrogel Biosensor Array for Urea Detection

Bhupendra Pratap Singh, Qi-Jia Hong, Shug-June Hwang, National United University (Taiwan)

2024-FRI-P0903-P032

Liquid Crystal Inspired Metamaterial Resonator for Urea Detection

Chun-Hsin Su, Yi-Ching Huang, Bo-Kai Chen, National United University (Taiwan); Piyush Mishra, National Physical Laboratory (Taiwan); Shug-June Hwang, National United University (Taiwan)

2024-FRI-P0903-P033

Electrical Field Dependent Photoexcited Spin Polarized Electron Transportation of the Topological Insulator Bi_2Se_3 Thin Film

Kuan-Han Wu, Chen-Wei Hua, Jian-Jang Huang, National Taiwan University (Taiwan)

S9. Poster Session III

🕒 Nov 29, Friday, 09:00-11:00

📍 Room 500

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Development of a Low-cost and large-area Plasmonic Biosensing Platform using Angled Nanosphere Lithography

Zih-Yuan Lin, National Yang Ming Chiao Tung University (Taiwan); Yun-Chorng Chang, Academia Sinica (Taiwan)

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[2024-FRI-P0903-P035](#)

Tunable Graphene-Integrated Photonic Crystal with Bound Defect State in Continuum

Chang-Yu Wang, Pi-Ju Cheng, Yen-Chen Lin, Liang-Chuan Lin, Chien-Heng Chang-Chien, Chia-Yu Lee, Chung Yuan Christian University (Taiwan)

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[2024-FRI-P0903-P036](#)

The Hydrophone Design Based on Fiber Bragg Grating

Chang-Chun Kuo, Feng Chia University (Taiwan); Shian-Ming Liu, Feng Chia University/National Central University (Taiwan); Wen-Fung Liu, Feng Chia University (Taiwan)

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[2024-FRI-P0903-P037](#)

Gas Pressure Fiber Sensor

Wei-Chen Li, Feng Chia University (Taiwan); Wen-Fung Liu, I-Nan Chang, Feng-Chia University (Taiwan)