

| | |
|----------------|-------------------------|
| Session Title: | [P3] Poster Session 3 |
| Session Date: | August 8 (Thu.), 2024 |
| Session Time: | 14:00-16:00 |
| Session Room: | Premier Ballroom BC, 2F |

[P3-001]

Structural and Optical Analysis of Samarium-Doped Novel Niobate-Based Phosphors for W-LED

Kanishk Poria (Panjab Univ., India), Nisha Deopa (Chaudhary Ranbir Singh Univ., India), and Jangvir Singh Shahi (Panjab Univ., India)

[P3-002]

Low-loss Lithium Niobate Integrated Photonic Devices Fabricated on Wafer-scale

Reinhard Geiss (Fraunhofer Inst., Germany), Mohammadreza Younesi (Friedrich Schiller Univ. Jena, Germany), Johannes Mühlenstädt, Thomas Käsebier (Friedrich Schiller Univ. Jena, Germany), Frank Setzpfandt (Fraunhofer Inst., Germany), Thomas Siefke (Friedrich Schiller Univ. Jena, Germany), Thomas Pertsch, and Falk Eilenberger (Fraunhofer Inst., Germany)

[P3-003]

Responsivity Enhancement of Metal-Semiconductor-Metal Structure Using Surface Plasmon Effect

Tae-Hoon Sohn and Ki-Ju Yee (Chungnam Nat'l Univ., Korea)

[P3-004]

Low-loss Tantalum Pentoxide Photonics based on Damascene Process

Ruixuan Yi, Jinlong Lu, Xiaotong Zhang, and Xuetao Gan (Northwestern Polytechnical Univ., China)

[P3-005]

Theoretical and Experimental Investigation of Oscillations in The Laser Gain Medium

D. M. Sokol, D.A. Chermoshentsev, A.E. Shitikov, N.Yu. Dmitriev, V.E. Lobanov, A. V. Masalov, and I.A. Bilenko (Russian Quantum Center, Russia)

[P3-006]

On-chip Time Lens via the Optical Pushbroom Effect

Boyi Zhang, Maurice Pfeiffer (Hamburg Univ. of Tech., Germany), He Li, Xinlun Cai (Sun Yat-Sen Univ., China), Hagen Renner (Hamburg Univ. of Tech., Germany), Steevy Cordette (Tech. Innovation Inst., UAE), Juntao Li (Sun Yat-Sen Univ., China), Manfred Eich, Alexander Yu. Petrov (Hamburg Univ. of Tech., Germany), and Mahmoud A. Gaafar (Tech. Innovation Inst., UAE)

[P3-007]

Broadband Multimode Couplers for Micro-transfer Printed III-V-on-SiN Platform

Yihui Wei, Martijn J.R. Heck, and Yuqing Jiao (Eindhoven Univ. of Tech., The Netherlands)

[P3-008]

Electrical Evidence of Segregation and Recovery in Mixed Halide Perovskites

Apurva Yadav, Ayush Kumar Saxena, Srest Somay, Durgesh Banswar, Ankur Goswami, and Krishna B. Balasubramanian (Indian Inst. of Tech. Delhi, India)

[P3-009]

Robust, Compact Microring Resonator Based on Optimized N-adjustable Curvature

Wenhan Zhang, Debin Meng, Chujun Wu, Bin-Kai Liao, and Xiaoke Yi (The Univ. of Sydney, Australia)

[P3-010]

Quantum Anti-reflection for Electron Transport

Gwangjin Shin and Q-Han Park (Korea Univ., Korea)

[P3-011]

Laser Activated Streak Camera to Measure Bunch Length of Poly-energetic Electrons Source

Sonali Khanna (Tata Inst. of Fundamental Research Hyderabad, India), Deepak Kumar Sahu (Tata Inst. of Fundamental Research Mumbai, India), Sourabh Singh, Sagar Salve, Ram Gopal, and M Krishnamurthy (Tata Inst. of Fundamental Research Hyderabad, India)

[P3-012]

Scalable Silicon Nitride Planar Guided Mode Resonators for Enhanced Raman Spectroscopy

Sushma Gali (Indian Inst. of Science, India), Dipak Rout (Government College Sundargarh, India), and Shankar Kumar Selvaraja (Indian Inst. of Science, India)

[P3-014]

Pulse Shape and Width Dependent Amplification in Photonic Time Crystals

Snehashis Sadhukhan (Indian Inst. of Tech. Jodhpur, India), Piyali Biswas (Hanbat Nat'l Univ., Korea), and Somnath Ghosh (Indian Inst. of Tech. Jodhpur, India)

[P3-015]

Transmittance Spectrum Asymmetry by Photonic Crystals with Vertical Symmetry Breaking

Zhaoxiang Zhu, Jiaqi Li, Xin Gu, Zhouxin Liang, Bo Wang, Yuhang Lin, and Yujie Chen (Sun Yat-sen Univ., China)

[P3-016]

Racetrack Resonators Based III-V/Si Laser with Cu Metal Pad

Sushil Tandukar, Jaeseong Jeon, and Il-Sug Chung (UNIST, Korea)

[P3-017]

Rapid Adiabatic Couplers Based on Lithium Niobate-on-Insulator Platform

Sunghyun Moon, Jinil Lee, Youngseo Koh, Hyeong-Soon Jang, Hojoong Jung, and Hyoungchan Kwon (KIST, Korea)

[P3-018]

Optimal Conditions for Squeezed States of Light Generation in Bichromatically Pumped Optical Microresonators

Nadezhda S. Tatarinova, Anatoly V. Masalov, Artem E. Shitikov, Igor A. Bilenko, Valery E. Lobanov, and Dmitry A. Chermoshentsev (Russian Quantum Center, Russia)

[P3-019]

Huge and Tunable Optoelectronic Chromatic Dispersion in PN and PIN Photodiodes

Ayuushi Dutta, Sapna Mudgal (Ariel Univ., Israel), Egor Liokumovitch (PerCiv Ltd., Isarel), Ziv Glasser, and Shmuel Sternklar (Ariel Univ., Israel)

[P3-020]

High-speed Electrical Control System for 532 nm Silicon Nitride Optical Phased Array

Xiaoqun Yu, Jiaqi Li, Zhaoyang Wu, Yanfeng Zhang, Xinlun Cai, and Siyuan Yu (Sun Yat-sen Univ., China)

[P3-021]

High-Q/V Lithium Niobate Photonic Crystal Nanobeam Cavity Using Focused Ion Beam

Joowon Lee, Sanghee Yun, Haneul Lee, Chun-Ho Lee, Han-Suek Lee, and Min-Kyo Seo (KAIST, Korea)

[P3-022]

Enhanced High Frequency Response of Long Ge-on-Si Waveguide PIN Photodetectors under Deep Saturation

Siyi Jiang, Yaxuan Zheng, Xinxuan Ma, Yuhang Wan, Xin Zhao, and Zheng Zhe (Beihang Univ., China)

[P3-023]

Graded GeSn based Vertical p-i-n Waveguide Photodetector Operating in Mid-Infrared Region.

Radhika Bansal and Guo-En Chang (Nat'l Chung Cheng Univ., Taiwan)

[P3-024]

Dual-Pumped Degenerate Optical Parametric On-Chip Oscillator

Alexander K. Vorobyev, Nikolay A. Kapridov, Timur R. Yunusov, Artem E. Shitikov, Dmitry A. Chermoshentsev, Valery E. Lobanov, and Igor A. Bilenko (Russian Quantum Center, Russia)

[P3-025]

On-chip Temperature Sensor Based on Waveguide Birefringence Effect

Zhijuan Gu, Jinling Guo, Hongjun Cai, and Yu Yu (Huazhong Univ. of Science and Tech., China)

[P3-026]

Monolithically Photoelectric Conversion Circuit Utilizing QW Heterojunction Phototransistors

Shu-Jui Hsu, Sung-Pu Yang, Yun-Jie Huang, Kuang-Yu Hsueh, Shu-Yun Ho, and Chao-Hsin Wu (Nat'l Taiwan Univ., Taiwan)

[P3-027]

Measurement of AlGaInP-based Red Micro-LED Arrays with Surface Roughness for Light Extraction Efficiency

Chee-Keong Yee, Natchanon Prechatavanich, Ming-June Wu, Yi-Tzu Tseng, Theeradech Sutheebanjerd, and Chao-Hsin Wu (Nat'l Taiwan Univ., Taiwan)

[P3-028]

Efficient Continuous-wave Wavelength Conversion in a Silicon Microring Resonator for the 2- μ m Band

Zhiwei Yan, Qiyuan Yi, Qiyuan Li, Guanglian Cheng, Shuai Cui, Xinzhe Xiong, Zengfan Shen, Yuan Yu, and Li Shen (Huazhong Univ. of Science and Tech., China)

[P3-029]

Photon-pair Generation using Inverse-designed Thin-film Lithium Niobate Mode Converters

Kiwon Kwon (POSTECH, Korea), HyungJun Heo (KIST, Korea), Dongjin Lee, Hyeongpin Kim (POSTECH, Korea), Hyeong-Soon Jang (KIST, Korea), Woncheol Shin (POSTECH, Korea), Hyang-Tag Lim, Yong-Su Kim, Sang-Wook Han (KIST, Korea), Sangin Kim (Ajou Univ., Korea), Heedeuk Shin (POSTECH, Korea), Hyoungghan Kwon, and Hojoong Jung (KIST, Korea)

[P3-030]

MHz to GHz Bandwidth Tunable Integrated Brillouin Microwave Photonic Filter

Reena Parihar (Indian Inst. of Tech., India), Choon Kong Lai, and Ziqian Zhang (The Univ. of Sydney, Australia), Duk-Yong Choi, Stephen J. Madden (The Australian Nat'l Univ., Australia), Benjamin J. Eggleton, Moritz Merklein (The Univ. of Sydney, Australia), Amol Choudhary (Indian Inst. of Tech., India)

[P3-031]

A Mach-Zehnder Modulator Based on Silicon Nitride Loaded Waveguide in Z-cut Thin Film Lithium Niobate

Xifa Liang, Zhekang Zhang, Ruqi Wang, Renfei Kuang, and Qingming Chen (Sun Yat-Sen Univ., China)

[P3-032]

Vector Beam Generation using On-chip Subwavelength Holographic Surface Grating

Caoyi Qian, Senyu Zhang, Tiange wu, Deming Liu, Shuang Zheng, and Minming Zhang (Huazhong Univ. of Science and Tech., China)

[P3-033]

Ultra-shallow Junctions for Deep UV Si Photodiodes by Atomic Layer Deposition and Flash Lamp Annealin

Shuwen Gu, Zhengfang Fa, Zhijuan Su, and Yaping Dan (Shanghai Jiao Tong Univ., China)

[P3-034]

All-dielectric Fiber Meta-tip for Generating Bessel and Airy Beams

Jinke Li, Hongliang Li, Xie Zou, and Sang-Shin Lee (Kwangwoon Univ., Korea)

[P3-035]

Design of Si-ITO Heterogeneously Integrated Microring Modulators on SOI Platform

Huayou Liu and Yaping Dan (Shanghai Jiao Tong Univ., China)

[P3-036]

Structured Light Projection Devices Based on Metasurface Optoelectronic Integration

Xianzi Pei, Lei Bao, Pan Fu, Bo Wu, and Yiyang Xie (Beijing Univ. of Tech., China)

[P3-037]

InAs/InGaAs Dual-band Infrared Thin-film Photodetector

Seungwan Woo (Seoul Nat'l Univ., Korea), Eungbeom Yeon, Eungbeom Yeon, Ho Won Jang, Daehwan Jung, and Won Jun Choi (KIST, Korea)

[P3-038]

Solid-State Beam Steering using Optical Phased Array for LiDAR Applications

Toijam Sunder Meetei and Nan Ei Yu (GIST, Korea)

[P3-039]

Experimental and Numerical Evaluation of High Power Fabry-Perot Semiconductor Lasers with Considerations of Thermal Effects

Bo-Ming Huang, Chung-Chen Cheng, Yu-Xiang Chen, Chien-Yu Lu, and Chien-Chung Lin (Nat'l Taiwan Univ., Taiwan)

[P3-040]

Mode Stabilizing Mechanism in Anti-phase Wire-like Active-region Membrane Distributed Reflector Lasers

Chongrui Zhang, Kiyoto Takahata (Waseda Univ., Japan), Taturou Hiraki, Shinji Matsuo (NTT Corp., Japan), and Takaaki Kakitsuka (Waseda Univ., Japan)

[P3-041]

MMI-based Ge/Si Hybrid Compact Inline Optical Power Monitor

Xinxuan Ma, Yuhang Wan, and Zheng Zheng (Beihang Univ., China)

[P3-042]

Performance Comparison of Single-Photon Detection using InGaAs/InP APD under Geiger-Mode Operations through Sin-Wave-Gating and Pulse-Gating Techniques

Yen-Ting Cheng, Chi-Hung Lee, Lung-Chien Chen, and Wen-Jeng Ho (Nat'l Taipei Univ. of Tech., Taiwan)

[P3-043]

High-performance MoS₂ Photodetectors by Photogating

Seyed Saleh Mousavi Khaleghi, Jianyong Wei, Kenneth B. Crozier (The Univ. of Melbourne, Australia), and Yaping Dan (Univ. of Michigan-Shanghai Jiao Tong Univ. Joint Inst., China)

[P3-044]

Vertical-Cavity Laser with Integrated-Photonic External Mirror for Surface-Mount Packaging

Shogo Ura, Akari Watanabe, Shunsuke Teranishi, Keisuke Ozawa, Hongxu Chen, Junichi Inoue, Kenzo Nishio (Kyoto Inst. of Tech., Japan), and Kenji Kintaka (AIST, Japan)

[P3-045]

Inverse Design of Compact Multimode Waveguide Bends Leveraging Enhanced Bezier Curve Techniques

Jae-Yong Kim, Seokjin Hong, Jinhyeong Yoon, Hyo-Hoon Park, and Hamza Kurt (KAIST, Korea)

[P3-046]

Impact of Optical Loss on the Ground-state Power Quenching in Dual-state Lasing Epitaxial Quantum Dot Lasers on Silicon

Zihan He, Qi Chu, Zhiyong Jin, Feng He, Yong Yao, Xiaochuan Xu, and Jianan Duan (Harbin Inst. of Tech., China)

[P3-047]

Detection of Charged Particles in a Vacuum Using a Photonic Crystal Waveguide

Kosei Otsuka, Takeki Higashiguchi (Osaka Metropolitan Univ., Japan), Rikuto Hojo (Kyushu Inst. of Tech., Japan), Kazuya Kikunaga (AIST, Japan), Kazuhiro Toyoda (Kyushu Inst. of Tech., Japan), and Yasushi Takahashi (Osaka Metropolitan Univ., Japan)

[P3-048]

Miniaturizing Spectroscopy with “Undetected Photons”: Quantum Light Source Concept and First Results

P. Hildenstein, A. Maaßdorf, D. Feise, A. Sahm (Ferdinand-Braun-Institut, Germany), A. Sherwani, S. Ramelow (Humboldt-Universität zu Berlin, Germany), G. Blume, and K. Paschke (Ferdinand-Braun-Institut, Germany)

[P3-049]

An Integrated Large Dispersion Optical Delay Line Based on Cladding-modulated Chirped Grating

Shuangqing Li, Yaoshuai Li, Chi Zhang, and Xinliang Zhang (Huazhong Univ. of Science and Tech., China)

[P3-050]

Low-Intensity Noise of Dual-State Quantum Dot Lasers with Optical Injection Locking

Qi Chu, Zhiyong Jin, Feng He, Jiawei Wang, Mingyu Zhang, Yong Yao, Xiaochuan Xu, and Jianan Duan (Harbin Inst. of Tech., China)

[P3-051]

MoS₂/Si Heterojunction Device Stacked Utilizing an All-Transfer-Printing Method

Pin-Ruei Huang, Bo-Yan Chen, Yi-Chieh Huang, Po-Cheng Kuo, Tsan-Wen Lu (Nat'l Yang Ming Chiao Tung Univ., Taiwan), Shih-Yen Lin (Academia Sinica, Taiwan), and Po-Tsung Lee (Nat'l Yang Ming Chiao Tung Univ., Taiwan)

[P3-052]

Sub-Bandgap Si-Schottky Photodetectors with Cavity-Enhanced Pyramidal Absorbers

L. Augel (Brandenburg Univ. of Tech. Cottbus-Senftenberg, Germany) and J. Knobbe (Fraunhofer Inst. for Photonic Microsystems, Germany)

[P3-053]

620 nm Resonant-Cavity LEDs for High Color Purity and Light Output Power Enhancement

Natchanon Prechatavanich, Theeradech Sutheebanjerd, Yee Chee Keong, Ming-June Wu, Yi-Tzu Tseng, and Chao-Hsing Wu (Nat'l Taiwan Univ., Taiwan)

[P3-054]

The Accurate Determination of Grating Coupling Coefficient of DFB Lasers by a Novel Approach

Bo Chen, Xiguang Liang, and Yanchao Zhong (Pinghu Boke Lasers Co., Ltd., China)

[P3-055]

Study of Lateral Mesa Scaling and Contact Width of Light-Emitting Transistors with FEM Simulation

Lucas Yang, Yun-Jie Huang, Kuang-Yu Hsueh, and Chao-Hsin Wu (Nat'l Taiwan Univ., Taiwan)

[P3-056]

An Ultra Compact Micro-ring Modulator with High Bandwidth and Large Free Spectral Range

Shiao Zhao, Xiaoyang Zhao, Zhipeng Ma, and Yu Zhang (Huazhong Univ. of Science and Tech., China)

[P3-057]

Large Free Spectral Range Optical Filtering with Engineered Multi-Mode Asymmetric Grating

Sourabh Jain (The Univ. of Texas at Austin, USA), Niraj Kumar (Inha Univ., Korea), Mukesh Kumar (Indian Inst. of Tech., India), and Ray T Chen (The Univ. of Texas at Austin, USA)

[P3-058]

Sampled Gratings on InP Membrane Platform for Tunable Narrow Linewidth Laser

Xiao Li, Aleksandr Zozulia, Sander Reniers, Kevin Williams (Eindhoven Univ. of Tech., The Netherlands), Sailing He (Zhejiang Univ., China), and Yuqing Jiao (Eindhoven Univ. of Tech., The Netherlands)

[P3-059]

Green Resonant-Cavity Light-Emitting Diodes Based on a GaN-on-Si Wafer

Yu-Hsiang Kao, Yu-Liang Hsia, Min-Hung Li, Che-Chia Chang, Pinghui Sophia Yeh, Jung-Chieh Su (Nat'l Taiwan Univ. of Science and Tech., Taiwan), and Sheng-Lung Huang (Nat'l Taiwan Univ., Taiwan)

[P3-060]

Erbium-Ytterbium Co-doped Tantalum Pentoxide as a Gain Material for Silicon-based Optoelectronics

Xiwen He (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China), Zheng Zhang, Rongping Wang (Ningbo Univ., China), Weibiao Chen (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China), and Zhiping Zhou (Peking Univ., China)

[P3-061]

Compact and Low-Loss Silicon Photonic Mode Demultiplexer Designed by Auto-Differentiation

Haruhisa Soda (Independent Consultant, Japan)

[P3-062]

High-Temperature 53.12 Gb/s PAM4 Transmission of 1.3- μ m DFB Lasers for 400 GbE Optical Communication

Te-Hua Liu, Siang-Ting Huang, Yun-Cheng Yang, and Chao-Hsin Wu (Nat'l Taiwan Univ., Taiwan)

[P3-063]

Experimental Demonstration on the Feasibility of 800GHz-Spaced Bidirectional 100GBASE-ER1 Transceivers for X-Haul Application

Hao Liu, Xia Sheng (China Telecom Research Inst., China), Nengnian Zhu (ZTE Corp., China), Kai Lv, Lipeng Feng, Yuyang Liu, Xishuo Wang, Anxu Zhang (China Telecom Research Inst., China), Rui Zhang, Fei Xu, Xue Kang (ZTE Corp., China), and Xiaoli Huo (China Telecom Research Inst., China)

[P3-064]

Ultra-Wideband Edge Coupler Based on SubWavelength Grating Slot Waveguide (SWGS)

Yuanjian Wan, Yu Zhang, and Jian Wang (Huazhong Univ. of Science and Tech., China)

[P3-065]

O-Band Low Loss and Polarization Insensitivity Edge Coupler

Yuanjian Wan and Jian Wang (Huazhong Univ. of Science and Tech., China)

[P3-068]

Dual Wavelength Generation by Reflectivity Modification in Buried Heterostructure Laser

Soumi Pal, Arpit Khandelwal, and Nitin Bhatia (Indian Inst. of Tech. Jodhpur, India)

[P3-069]

Band Structure of Luminal Gratings

Minjoon Kim, Minwook Kyung, Kyungmin Lee, and Bumki Min (KAIST, Korea)

[P3-070]

THz to Optical Carrier Conversion Using Electro-optic Polymer Modulators and Optical Combs

Y. Matsumura, E. Hase, Y. Tokizane, N. Kuse, J. Fujikata, H. Kishikawa, M. Haraguchi, Y. Okamura (Tokushima Univ., Japan), T. Kaji, A. Otomo, I. Morohashi, A. Kanno (Nat'l Inst. of Information and Communications Tech., Japan), S. Hisatake (Gifu Univ., Japan), and T. Yasui (Tokushima Univ., Japan)

[P3-071]

A Phase Noise Optimizer for LFM Signal based on a Microwave Photonic Phase Detector

Penghui Gao, Kunlin Shao, Yamei Zhang, Jijun He, and Shilong Pan (Nanjing Univ. of Aeronautics and Astronautics, China)

[P3-072]

Baseband Modulation in Terahertz Wave Communication using Micro-optical Comb

T. Kikuhara, Y. Makimoto, Y. Tokizane, N. Kuse, E. Hase, Y. Matsumura, H. Kishikawa (Tokushima Univ., Japan), Y. Okamura (Univ. of Yamanashi, Japan), A. Kanno (Nagoya Inst. of Tech., Japan), S. Hisatake (Gifu Univ., Japan), and T. Yasui (Tokushima Univ., Japan)

[P3-073]

Soliton Comb Generation using a Small Prism Coupling Module

Yuta Mototani, Shun Fujii (Keio Univ., Japan), Shota Kimura, Yosuke Hashimoto (Japan Aerospace Exploration Agency, Japan), Tomoya Yamakawa, Riku Imamura, and Takasumi Tanabe (Keio Univ., Japan)

[P3-074]

Narrowband Chirping of Microwave Waveforms using Stimulated Brillouin Scattering

Sumana De, Reena Parihar, and Amol Choudhary (Indian Inst. of Tech. Delhi, India)

[P3-075]

Ultrawideband Optoelectronic Frequency Response Measurement Employing Frequency Doubling

Yuqing Heng, Keji Chen, Min Xue (Nanjing Univ. of Aeronautics and Astronautics, China) Jianbin Fu, Qi Wang, Lugang Wu (Suzhou LiuYaoSi Information Technologies Co., Ltd., China), and Shilong Pan (Nanjing Univ. of Aeronautics and Astronautics, China)

[P3-076]

A High Frequency, Non-intrusive Electro-Optic Field Sensor Utilizing an Erbium-Doped Fiber Amplification Method

Dong Ho Wu (U.S. Naval Research Lab., USA)

[P3-077]

Dual-band FMCW Signals Generation Using Optoelectronic Oscillators

Seungbae Ahn (Agency for Defense Development, Korea), Junhyung Cho, Seonu Beak, Seungeui Lee (Yongin R&D Center, Hanwha Systems, Korea), and Youngseok Bae (Agency for Defense Development, Korea)

[P3-078]

Photonic Generation of Microwave Waveforms with Tunability and Anti-dispersion Capability

Xinyan Zhang (Inst. of Semiconductors, Chinese Academy of Sciences, China), Sha Zhu (Beijing Univ. of Tech., China), Huashun Wen, Kunpeng Zhai, Yu Liu, and Ninghua Zhu (Inst. of Semiconductors, Chinese Academy of Sciences, China)

[P3-079]

Parity-Time Symmetric Optoelectronic Oscillator Based on Asymmetrical Phase Modulation

Zhigang Tang, Pei Zhou, Jinyang Hu, and Nianqiang Li (Soochow Univ., China)

[P3-080]

Mechanical and Chemical Analysis of Lipid Molecules in MASLD by Using Brillouin-Raman Scattering Microscopy

Naoya Okubo, Eiji Hase, Kazuki Yasumaru, Yu Tokizane, Takeshi Yasui (Tokushima Univ., Japan), and Takeo Minaminakawa (Osaka Univ., Japan)

[P3-081]

Tendon and Sciatic Nerve Characterisation Using Low Coherence Interferometry

Richa Parihar, Nilesh J Vasa (Indian Inst. of Tech. Madras, India), and Joy Mammen (Christian Medical College Vellore, India)

[P3-082]

Edge Driven Unsupervised Phase-to-H&E Virtual Staining

Jongho Kim, Hyesuk Chae, Joonsung Jeon, Kyung Chul Lee, and Seung Ah Lee (Yonsei Univ., Korea)

[P3-083]

Spectral Sensitivity of Silicone Pigments in 400-1000 nm for fabrication of Multi-spectral Fitted Phantom

Hyunseon Yu, Donghwan Ko, and Byungjo Jung (Yonsei Univ., Korea)

[P3-084]

Infrared Spectroscopy-based Classification of Oral Pre-cancer

P.J. Talukdar, K. Bharti (Indian Inst. of Tech., India), M. Pal, R. R. Paul (Guru Nanak Inst. of Dental Sciences and Research, India), P. Lahiri (Indian Inst. of Technology, India), and B. Lahiri (Indian Inst. of Tech., India)

[P3-085]

Utilizing High-Resolution Display Screens for Fourier Ptychographic Microscopy Illumination

Kyungwon Lee, Kyung Chul Lee, Jaewoo Jung, Hyesuk Chae, and Seung Ah Lee (Yonsei Univ., Korea)

[P3-086]

Exploiting Multiple Scattering Tracing Algorithm for Deep Optical Imaging

Jaecheol Cho, Sungsam Kang, Yongwoo Kwon (Korea Univ., Korea), Seokchan Yoon (Pusan Nat'l Univ., Korea), Jinhee Hong, and Wonshik Choi (Korea Univ., Korea)

[P3-087]

Depth Resolved Optical Analysis for Skin Characterization Using Spatially-resolved Diffuse Reflectance Spectroscopy

Jaehyeok Park and Ki-Hun Jeong (KAIST, Korea)

[P3-088]

Hyperspectral Tomography Imaging of Transparent Sample Using Dispersive Geometric Phase Lens

Hyun Sung Kim, Seung Seok Lee, and Eun Seo Choi (Chosun Univ., Korea)

[P3-089]

Assembly Formation by Opto-thermal Manipulation with 3 μm Er:ZBLAN Fiber Laser

Masaya Shimizu, Roukuya Mamuti, Takao Fuji, and Tetsuhiro Kudo (Toyota Technological Inst., Japan)

[P3-091]

Head Mounted Display Endoscope for Point of Care Diagnostics

Minseok Kwon, Hyunmo Yang, Nurbolat Aimakov, Myeonghoon Choi, and Woonggyu Jung (UNIST, Korea)

[P3-092]

Photoacoustic and Ultrasonic Dual-mode Endoscopy Applying Independent Gains for Each Signal Modes

Minjae Kim and Joon-Mo Yang (UNIST, Korea)

[P3-093]

Real-time Rolling Shutter Speckle Imaging of Tissue Perfusion Using Physics-guided Neural Networks

Sangjun Byun, Changyoon Yi, Donggeon Bae, and Seung Ah Lee (Yonsei Univ., Korea)

[P3-094]

Deep Learning Enhanced Fluorescence Fluctuations Super-Resolution Microscopy

Yanru Li, Lixin Liu (Xidian Univ., China), and Lin Wang (Rutherford Appleton Lab., UK)

[P3-095]

Advanced Waveguide Biosensor for Highly Sensitive and Cost-Effective DNA Detection.

Devesh Barshilia and Guo-En Chang (Nat'l Chung Cheng Univ., Taiwan)

[P3-096]

Real Time B-mode Imaging FPGA-Based Spectral Domain Optical Coherence Tomography

Cheng-You Chiang (Nat'l Taiwan Univ., Taiwan), Meng-Tsan Tsai (Chang Gung Univ., Taiwan), and Hao-Li Liu (Nat'l Taiwan Univ., Taiwan)

[P3-097]

Mimicking Organisms' Phototaxis Behavior of p-Si:H/n-Ga₂O₃ Dual-channel Synaptic Phototransistor

Youngbin Yoon, Youngki Kim (Korea Aerospace Univ., Korea), Soowon Choi, Jungdae Kwon (Korea Inst. of Materials Science, Korea), and Myunghun Shin (Korea Aerospace Univ., Korea)

[P3-098]

Multiplexed Lateral Flow Assay using Quantum Beads for Multiple Virus Detection

Myeonghoon Choi, Jungsik Park, Hyunmo Yang (UNIST, Korea), Yoonji Bae (UNIQDOT, Korea), Jongnam Park, and Woonggyu Jung (UNIST, Korea)

[P3-099]

High-Speed DNA Analysis Platform Based on Lasing Silica Microsphere

Wonsuk Lee (KIST, Korea)

[P3-100]

Digital Staining of Optical Coherence Microscopy for Histological Slide

Eunji Lee, Sangjin Lee, Hyunmo Yang, Kibeom Park (UNIST, Korea), Eunjung Min (Korea Photonics Tech. Inst., Korea), and Woonggyu Jung (UNIST, Korea)

[P3-101]

Miniaturized Two-photon Fiber Endoscopy for Mice Deep-brain Functional Imaging

Chung-En Huang and Chi-Kuang Sun (Nat'l Taiwan Univ., Taiwan)

[P3-102]

Comprehensive Spatiotemporal Speckle Correlation Model for Rolling Shutter Speckle Imaging

Changyoon Yi, Sangjun Byun, Yujin Lee, and Seung Ah Lee (Yonsei Univ., Korea)

[P3-103]

Cost-effective Laser Diode-based Transmission-mode Photoacoustic Microscopy

Haneul Lee, Jin Young Youm, and Joon-Mo Yang (UNIST, Korea)

[P3-104]

Raman Spectroscopic Analysis of Lipid Composition of Lipid Droplets Accumulated in MASLD Model Mice and Cells

Tsuyoshi Takashina, Katsuya Sato, Takeshi Yasui (Tokushima Univ., Japan), and Takeo Minamikawa (Osaka Univ., Japan)

[P3-105]

Reconstruction based Acoustic Resolution Photoacoustic Microscopy

KiSik Kim, Oleksandra Gulenko, and Joon-Mo Yang (UNIST, Korea)

[P3-106]

Capsule-based Photoacoustic Endomicroscope Developed for Colorectal Cancer Imaging Study

Jin Young Youm and Joon-Mo Yang (UNIST, Korea)

[P3-107]

Ultra-low Limit-of-detection Label-free Biosensing Utilizing Mode Splitting in Subwavelength Grating Metamaterial Microring Resonators

Wanxin Li, Jiewen Li, Rui Li, Ke Li, Yong Yao, Jianan Duan, and Xiaochuan Xu (Harbin Inst. of Tech., China)

[P3-108]

Development of OCT Probe for Neuroendoscopy Imaging Based on STC Structurec

Junyoung Hwang, Sucbei Moon (Kookmin Univ., Korea), Chnaho Kong, and Won Seok Chang (Yonsei Univ., Korea)

[P3-109]

Intravital Longitudinal Cellular-Level Visualization of Pancreatic Ductal Adenocarcinoma Tumor Microenvironment

Stephani Edwina Lucia, Sarah(Eun-Kyung) Song, and Pilhan Kim (KAIST, Korea)

[P3-110]

Real-time Intravital Imaging of Cellular and Vascular Dynamics in Mouse Cerebral Microinfarction

Jieun Choi and Pilhan Kim (KAIST, Korea)

[P3-111]

Direct and Real-time Measurement of Cerebrospinal Fluid Flow Rate in a Hydrocephalus Shunt Tube using Indocyanine Green Fluorescence

Yuto Shimizu, Shunki Kikuchi (Chuo Univ., Japan), Yasuo Aihara (Tokyo Women's Medical Univ., Japan), and Ichiro Shoji (Chuo Univ., Japan)

[P3-112]

Longitudinal In Vivo Imaging Reveals Cellular-level Pathological Progressions in Acute Kidney Injury and Chronic Kidney Disease

Yumi Byun, Jieun Choi, and Pilhan Kim (KAIST, Korea)

[P3-113]

Temperature Sensor Integrated Laser Ablation Optical Fiber Probe with Beam Expander

Hideki Fukano and Ryoma Hiromatsu (Okayama Univ., Japan)

[P3-114]

Attenuation Coefficient Extraction by Image Segmentation in Spectroscopic Optical Coherence Tomography

Zhang Jianran, Jiqiang Kang, and Kenneth K. Y. Wong (The Univ. of Hong Kong, Hong Kong)

[P3-115]

Investigating the Mechanisms of Cartilage Degradation by Polarization-resolved Second Harmonic Generation Imaging

Nirmal Mazumder, Kausalya Neelavara Makkithaya (Manipal School of Life Sciences, India), Ming-Chi Chen, Wei-Hsun Wang (China Medical Univ., Taiwan), Ming-Che Chan (Nat'l Yang Ming Chiao Tung Univ., Taiwan), and Guan-Yu Zhuo (China Medical Univ., Taiwan)

[P3-116]

Towards Skin Lesion Classification Using Machine Learning Algorithms and Stokes Imaging Polarimetry

Oscar I. Rodríguez-Cortés and Geminiano Martínez-Ponc (Centro de Investigaciones en Optica, A.C, Mexico)

[P3-117]

Investigation of Light Propagation in Human Skin Using Zemax OpticStudio

Satya Prasanna Mallick, Parishkrith A, Angitha Sajeevan, Sooraj R S, Vandana Sharma (Inst. of Tech. Hyderabad, India), and Ram Gopal (Tata Inst. of Fundamental Research Hyderabad, India)

[P3-118]

Enhancing Precision in Surface Plasmon Resonance Microscopy via Optical Frequency Filtering

Inseop Byeon, Gwiyeong Moon, Hajun Yoo, and Donghyun Kim (Yonsei Univ., Korea)

[P3-119]

Label-free Large-field Fluorescence Lifetime Imaging for Evaluating Thyroid Cancer

Soonyong Kwon, Jeongmoo Han, Hyeong Soo Nam (KAIST, Korea), Jae Yeon Seok (Yonsei Univ., Korea), and Hongki Yoo (KAIST, Korea)

[P3-120]

Co-Stimulation with Red Light and Pulsed Electrical Signals on Neurite Growth of Neuroblastoma Cells in 3D Culture

Yu-Chiu Kao, Her-Bang Huang, and Chau-Hwang Lee (Academia Sinica, Taiwan)

[P3-121]

Wide-field Super-resolution Imaging of Live Cells on Disordered Plasmonic Substrate

Hajun Yoo, Hongki Lee, Woo Joong Rhee, Gwiyeong Moon, Changhun Lee, Jeon-Soo Shin, and Donghyun Kim (Yonsei Univ., Korea)

[P3-122]

Terahertz Metamaterial Multi-Functional Biosensor for Simultaneous Detection of Lactic Acid Biomarker and Microenvironmental Changes

Taeyeon Kim (Korea Univ., Korea), Jisung Kwak (KIST, Korea), Yeeun Roh (Univ. of Cambridge, UK), Sang Jun Sim (Korea Univ., Korea), Hyun Seok Song (KIST, Korea), and Minah Seo (Korea Univ., Korea)

[P3-123]

Quantitative Comparison of EGFR Expression Levels of Optically Trapped Individual Cells Using a Capacitance Biosensor

Tae Young Kang, Soojung Kim, Taeyeon Kim, Heesang Ahn, Yoon-Hwae Hwang, and Kyujung Kim (Pusan Nat'l Univ., Korea)

[P3-124]

Ocean's Dissolved Hydrocarbon Sensing Using SPR Sensor

R. Ismaeel, Z. Wang (Univ. of Southampton, UK), S. Steigenberger, E. Papadimitriou (Nat'l Oceanography Center, UK), T. Brotin (Univ. de Lyon, France), F. Siracusa, and M. Mowlem (Nat'l Oceanography Center, UK)

[P3-125]

Meta-fiber Sensor based on Structural-asymmetry Induced Quasi Bound States in the Continuum

Yue Wang (The Hong Kong Polytechnic Univ., Hong Kong), Zhuo Wang (South China Normal Univ., China), Yadong Deng (Univ. of Southern Denmark, Denmark), Li Wang, and Changyuan Yu (The Hong Kong Polytechnic Univ., Hong Kong)

[P3-126]

Discrete Energy Transfer Through Metallic Antenna Shaped in I, T and Y

Hyerin Song, Heesang Ahn, and Kyujung Kim (Pusan Nat'l Univ., Korea)

[P3-127]

Plasmonic Photosensor Based on Two-Dimensional MoS₂ with High Sensitivity to Linear Polarization.

Guskov A.A., Stepanov M.A., and Lavrov S.D. (MIREA - Russian Technological Univ., Russia)

[P3-128]

Visualizing Surface Lattice Resonance in Two-dimensional Gold Nanorod Arrays via Fourier-Plane Measurement

Jae-Eon Shim, Chang Won Seo, and Teun-Teun Kim (Univ. of Ulsan, Korea)

[P3-129]

Intersubband Polaritonic Metasurfaces using InAs/AlSb Multiple Quantum Wells in Short-Wavelength Infrared

Mingyun Kim and Jongwon Lee (UNIST, Korea)

[P3-130]

High-efficiency and Broadband THz Metamaterial Polarizer for Precise Polarization Measurement

Hyeonggi Park, Hyunwoo Park, Jaeyeong Lee, Jae-Eon Shim (Univ. of Ulsan, Korea), Soojeong Baek (KAIST, Korea), and Teun-Teun Kim (Univ. of Ulsan, Korea)

[P3-131]

Exceptional Points in Electrically Tunable Intersubband Polaritonic Metasurfaces

Hyeongju Chung, Beomjoon Kim (UNIST, Korea), Gerhard Boehm, Mikhail A. Belkin (Technical Univ. of Munich, Germany), and Jongwon Lee (UNIST, Korea)

[P3-132]

Reconfigurable Topological Charge in Silicon Gratings

Yeonjun Kim and Q-Han Park (Korea Univ., Korea)

[P3-133]

Singular Flat Bands in Metallic Kagome Lattices

Dongho Lee, Donghak Oh, Yung Kim, Soojeong Baek, and Bumki Min (KAIST, Korea)

[P3-134]

Zepto Molar Conductive Biomolecules Detection with Exceptional Phase Transitions on Non-Hermitian Metasurfaces

Hyunwoo Park, Sodam Jeong, Hyeji Son, Teun-Teun Kim (Univ. of Ulsan, Korea), and Soojeong Baek (KAIST, Korea)

[P3-135]

Visualization of Light-matter Interaction Spatial Regime in Molecular Excitons and Plasmonic Nanowires Coupled System

BinChan Joo, DongHee Park, KyuRi Choi, and YeonUi Lee (Chungbuk Nat'l Univ., Korea)

[P3-136]

Optimization and Performance Analysis of the Randomly Distributed Particle Structure for Radiative Cooling

Changgyun Noh and Jonghwa Shin (KAIST, Korea)

[P3-137]

Negative-to-Positive Photoconductance in Plasmonic Nanostrip with Anisotropic Conductivity

Yin-Jung Chang and Kuan-Ting Lai (Nat'l Central Univ., Taiwan)

[P3-138]

Computation of Emitter-plasmon Interactions using an Axis-symmetric Model for Off-axis Dipoles

Tadele Orbula Otomalo and Cristian Cirac`ı (Istituto Italiano di Tecnologia, Italy)

[P3-139]

Hafnium Oxide Metasurfaces as Waveplates for Few Femtosecond Pulses at Deep Ultraviolet Wavelengths

Junyeob Song, Shatha Kaassamani, Kyle Chapkin, Amit Agrawal, Henri Lezec, and Wenqi Zhu (Nat'l Inst. of Standards and Tech., USA)

[P3-140]

Remote Plasmonic-enhanced Raman Spectroscopy with High Mechanical Robustness

Sora Yamamoto, Sota Inoue, Daisuke Yonekura, Takeshi Yasui (Tokushima Univ., Japan), Masahiro Kawasaki, Mitsuo Kawasaki (Kyoto Univ., Japan), and Takeo Minamikawa (Osaka Univ., Japan)

[P3-141]

Plasmonic Multispectral Mid-infrared Imaging Chips

Shiyu Yang, Zhijuan Su, and Yaping Dan (Shanghai Jiao Tong Univ., China)

[P3-142]

Single-layer Metasurfaces for Color and Polarization Image Sensors Achieved Through Inverse Design

Beom Jin Jin and Soo Jin Kim (Korea Univ., Korea)

[P3-143]

One-dimensional Beam Tuning with Laterally Shifting Moiré Metasurface

Jun Seok Yoon, Byeong Je Jeon, and Soo Jin Kim (Korea Univ., Korea)

[P3-144]

Light Manipulation with Highly Efficient Dielectric Metalens for Optimal Phase Control

Talem Rebeda Roy and Nan Ei Yu (GIST, Korea)

[P3-145]

Design of Flexible Terahertz Dual Band Metamaterial Absorber

Himanshu Bhatt, Sukhvinder Kaur, and Ravendra Kumar Varshney (Indian Inst. of Tech. Delhi, India)

[P3-146]

Dynamically Tunable Terahertz Metamaterial Filter

Sukhvinder Kaur, Sayyam Gadhok, and Ravendra Kumar Varshney (Indian Inst. of Tech. Delhi, India)

[P3-147]

Design of Single-layer Metasurface Router for Sorting Spectral, Polarized Light in Mid-infrared Regions

Do Eun Lee, Yu Geun Ki, and Soo Jin Kim (Korea Univ., Korea)

[P3-148]

Multifunctional Metasurface Enabling Polarization Control and Vortex Beam Generation

Hongliang Li and Sang-Shin Lee (Kwangwoon Univ., Korea)

[P3-149]

On-chip Integrated Plasmonic Chiral Sensor

Hae-Seok Jeong, Soon-Jae Lee, Su-Hyun Gong, and Q-Han Park (Korea Univ., Korea)

[P3-150]

Near-infrared Chiral Metasurfaces Designed with Rectangular Arrays

Wensheng Jiao (Dalian Univ. of Tech., China), Lin Wang (Central Hospital of Dalian Univ. of Tech., China), Kaizhu Liu, and Hsiang-Chen Chui (Dalian Univ. of Tech., China)

[P3-151]

Fabrication of Lattice Nanoislands for Improved Transmission in the Near-Infrared

Sukhyeon Ka, Hajun Yoo, Hyunwoong Lee, and Donghyun Kim (Yonsei Univ., Korea)

[P3-152]

THz Metamaterial-based Encryption and Decryption with Utilization of Metallic Composite

Eui Young Rho (KU-KIST Graduate School of Converging Science and Tech., Korea), Jinwoo Lee, Hoon Yeub Jeong (KIST, Korea), Seungjun Chung (Korea Univ., Korea), and Minah Seo (KIST, Korea)

[P3-153]

Metasurface with C-shaped Resonators for High-sensitivity Refractive Index Sensing

Ze Zheng Zhan, Xudong Guo, and Kenneth K. Y. Wong (The Univ. of Hong Kong., Hong Kong S.A.R)

[P3-154]

Improved Retrieval of Effective Parameters in Hyperbolic Metamaterials for Oblique Incidence

Jusung Park, Seungkyun Park, Kyuho Kim, Sunkyu Yu, and Namkyoo Park (Seoul Nat'l Univ., Korea)

[P3-155]

Optimized 1D and 2D Plasmonic Metagratings to Detect SARS-CoV-2 Virus

Vaswati Biswas and R. Vijaya (Indian Inst. of Tech. Kanpur, India)

[P3-156]

Thermal Radiation Control by MIM Metasurfaces

Tsuyoshi Kawaida, Megumi Tanaka, Kazuma Sekiya, and Yoshiaki Nishijima (Yokohama Nat'l Univ., Japan)

[P3-157]

Structured Illumination Microscopy Using Epsilon-near Zero Organic Films

Dong Hee Park, Bin Chan Joo, Kyu Ri Choi, and Yeon Ui Le (Chungbuk Nat'l Univ., Korea)

[P3-158]

Tunable Beam-steering Metasurface at Broadband Visible Frequencies

Junkyeong Park, Younghwan Yang, and Junsuk Rho (POSTECH, Korea)

[P3-159]

Doublet Metalens for Multifunctional Imaging

Minseok Choi, Seong-Won Moon, Joohoon Kim, and Junsuk Rho (POSTECH, Korea)

[P3-160]

Quantum Dot Integration for Bulk Light Emission in Nanoimprinted Structures

Minsu Jeong, Byoungsu Ko, Chunghwan Jung, Jaekyung Kim (POSTECH, Korea), Sejeong Kim (The Univ. of Melbourne, Australia), and Junsuk Rho (POSTECH, Korea)

[P3-161]

Quasi-Trapped Characteristics in a Metasurface Waveguide for Tuning of Multiple Nonlocal Modes

Dongmin Jeon and Junsuk Rho (POSTECH, Korea)

[P3-162]

Demultiplexing Distorted OAM by Optical Neural Network

Seokho Lee, Cherry Park, and Junsuk Rho (POSTECH, Korea)

[P3-163]

Humidity-responsive Metaholography and Structural Coloration using Polyvinyl Alcohol

Younghwan Yang, Byoungsu Ko, Jeakyung Kim, Trevon Badloe, and Junsuk Rho (POSTECH, Korea)

[P3-164]

Cellular-Resolution and Long-Depth-Imaging Spatially Coherent Full-Field Optical Coherence Microscope with Computational Refocusing

Nobuhisa Tateno (Univ. of Tsukuba, Japan), Yue Zhu (Nanjing Univ. of Science and Tech., China), Shuichi Makita (Univ. of Tsukuba, Japan), Ibrahim Abd El-Sadek (Damietta Univ., Egypt), Rion Morishita, Atsuko Furukawa, Satoshi Matsusaka, and Yoshiaki Yasuno (Univ. of Tsukuba, Japan)

[P3-165]

Speckle-Pattern-Preserved Denoising by Deep Learning for Dynamic Optical Coherence Tomography

Hsin-Jou Wang (Nat'l Yang Ming Chiao Tung Univ., Taiwan), Thitiya Seesan, Shuichi Makita, Rion Morishita (Univ. of Tsukuba, Japan), Chia-Wei Sun (Nat'l Yang Ming Chiao Tung Univ., Taiwan), and Yoshiaki Yasuno (Univ. of Tsukuba, Japan)

[P3-166]

Receiver (Rx) for CV-QKD Using Waveguide Integrated Balanced Ge PDs

Tapani Vehmas, Yisbel Marin Vasquez, George Thomas, Henrik Forsten, Ben Wälchli, Mika Prunnila, Olli-Pekka Kilpi (VTT Technical Research Centre of Finland, Finland), Samael Sarmiento, Jeison Tabares, Sebastian Etcheverry (LuxQuanta, Spain), and Sara Pourjamal (VTT Technical Research Centre of Finland, Finland)