



August 4-9, 2024  
Songdo Convensia, Incheon, Korea

Session Title:	[P1] Poster Session 1
Session Date:	August 6 (Tue.), 2024
Session Time:	14:00-16:00
Session Room:	Premier Ballroom C, 2F

#### [P1-001]

**Beam Pointing Instability of a Yb-doped Fiber Amplifier Induced by a Heated-optical Component**

Joonhoi Koo, Minkyu Park, Junsu Lee, Dong Joon Kim, Hwihyung Lee, Jong Won Lee, Junhan Park, Hansol Choi, Hwanseong Jeong, Kwang Hyun Lee, and Yong Seok Seo (Agency for Defense Development, Korea)

#### [P1-002]

**Digital Laser with Composite Resonator and its Application in Vortex Laser Generation**

Yuan-Yao Lin and Yan-Jyun Wang (Nat'l Sun Yat-sen Univ., Taiwan)

#### [P1-003]

**High Repetition Rate Mid-infrared Femtosecond Fiber Lasers based on Buffer Configuration**

Qi Kang (Shenzhen Univ., China), Yihuan Shi (The Hong Kong Polytechnic Univ., Hong Kong S.A.R), Shunxiang Liu (Shenzhen Univ., China), Dongmei Huang (The Hong Kong Polytechnic Univ., Hong Kong S.A.R), Hongfu Huang, and Qiao Wen (Shenzhen Univ., China)

#### [P1-004]

**Long-term Mode-hop-free Fiber Laser Based on Sub-cavity Tracking Feedback Control**

Shiyou Xiao, Jianming Shang, Shangshu Ding, Tianwei Jiang, Bin Luo, and Song Yu (Beijing Univ. of Posts and Telecommunications, China)

#### [P1-005]

**60 W Diamond Raman Laser at 607 nm**

A Sharp, H. Jasbeer, R. Pahlavani, D. J. Spence (Macquarie Univ., Australia), X. Yang (Univ. of Chinese Academy of Sciences, China), and R. P. Mildren (Macquarie Univ., Australia)

#### [P1-006]

**Massive Wideband Chaos Generation based on Microcomb Cascaded by Noise Phase**



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### Modulator and Dispersion Fiber

Yingjun Fang, Ning Jiang, Anran Li, Rui Wang, Jing Zhang, and Kun Qiu (Univ. of Electronic Science and Tech. of China, China)

[P1-007]

#### Passive Q-switched Microchip Er:Yb:glass Laser Toward Terahertz Parametric Generation

Yutaka Onodera, Ten Matano, and Kouji Nawata (Tohoku Inst. of Tech., Japan)

[P1-008]

#### 738 nm Deep-red Pulse Laser based on Stimulated Raman Scattering in H<sub>2</sub>-filled Hollow-core Fiber

Luohao Lei, Zhiyue Zhou, Zhixian Li, Meng Wang, Hu Xiao, Zilun Chen, Zefeng Wang, and Jinbao Chen (Nat'l Univ. of Defense Tech., China)

[P1-009]

#### Broadband Erbium Doped Aluminium Oxide Waveguide Amplifier in Thin Film Lithium Niobate

Renfei Kuang, Ling Luo, Xifa Liang, and Qingming Chen (Sun Yat-Sen Univ., China)

[P1-010]

#### Experimental Observation of Bright Pulses Embedded with Dark Solitons

Dian Duan and Xuewen Shu (Huazhong Univ. of Science and Tech., China)

[P1-011]

#### Generation of Structured 1 GHz Femtosecond Laser Pulses

Byungjoo Kim, Dohyun Kim, Yeong Gyu Kim, Ha-My Hoang, Jiyeon Choi, and Sanghoon Ahn (Korea Inst. of Machinery & Materials, Korea)

[P1-012]

#### 630 nm High-Power Pulsed Fiber Laser Based on Raman Amplification and Second Harmonic Generation

Dal Yong Lee, Kyungseung Kim, Chungman Lee (GIST, Korea), Jongwan Kim, Changjun Yoon (Hanwha Systems, Korea), and Changsu Jun (GIST, Korea)

[P1-013]



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### A Waveguide Laser with a Quantum Efficiency of 99%

Harsh Vaid, Sharashti Saxena (Indian Inst. of Tech. Delhi, India), Pradeesh Kannan (Government Victoria College, India), and Amol Choudhary (Indian Inst. of Tech. Delhi, India)

[P1-014]

#### Research on Multiwavelength High-performance Cascade Diamond Raman Lasers

Jie Ding (Hebei Univ. of Tech., China)

[P1-015]

#### Experimental Investigation of Stable Self-Q-switched Operation in a Diode-pumped Alexandrite Laser

Atsushi Sato (Tohoku Inst. of Tech., Japan)

[P1-016]

#### 1.4 W Narrow-linewidth Raman Laser in Methane-filled Hollow-core Fiber Operating at 1.5 $\mu\text{m}$

Wenxi Pei, Zhiyue Zhou, Zhixian Li, Meng Wang, Hu Xiao Zilun Chen, and Zefeng Wang (Nat'l Univ. of Defense Tech., China)

[P1-017]

#### All-PM Yb Fiber Mode-locked Femtosecond Lasers with a Nonlinear Amplifying Loop Mirror

Eun Kyoung Park, In Chul Park (Hanyang Univ., Korea), Jun Wan Kim, Ju Hee Yang (KERI, Korea), Hoon Jeong (Korea Inst. of Industrial Tech., Korea), and Ji Won Kim (Hanyang Univ., Korea)

[P1-018]

#### Frequency-Tripling of ns Pulsed Tm-Doped All-Fiber Laser for Multi-Watt Red Emission

Jinju Kim (KAERI, Korea), Woosang Yu (Univ. of Science and Tech., Korea), Kwang-Hoon Ko, and Yongho Cha (KAERI, Korea)

[P1-019]

#### High-Power Single-Frequency Nanosecond Pulsed All-Fiber Lasers for Coherent Beam Combination

Woosang Yu (Univ. of Science and Tech., Korea), Jinju Kim, Yong-Ho Cha, and Kwang-Hoon Ko (KAERI, Korea)

[P1-020]

**NALM-based Figure-8 All-PM Yb-doped Fiber Laser**

Junyeong Sung, Byungjoo Kim, Yeonggyu Kim, Jiyeon Choi, and Dohyun Kim (Korea Inst. of Machinery & Materials, Korea)

[P1-021]

**Sub-kHz Linewidth Single-Longitudinal-Mode Fiber Laser by Using Triple-Subring Resonators**

Zi Wang, Brian Pamukti, Shien-Kuei Liaw, Shih-Hsiang Hsu (Nat'l Taiwan Univ. of Science and Tech., Taiwan), and Hsiou-Hsin Tsai (Taipei Medical Univ., Taiwan)

[P1-022]

**Using the External Feedback Light to Control the Mode-locked Depth of a Q-switched Solid-state Laser**

Kai-Ting Yen, Ai-Ling Li, Pin-Hsun Wang, and Kuam-Wei Su (Nat'l Yang Ming Chiao Tung Univ., Taiwan)

[P1-023]

**Development of Ultrafast Laser System with Fixed CFBG and CVBG for Preclinical Study of Pigmented Lesions**

Jun Wan Kim, Seolwon Park, Guang-Hoon Kim, and Juhee Yang (KERI, Korea)

[P1-024]

**Bifurcate Transformation Path in an Ytterbium-doped Fiber Laser with Two Mode-locking Pulse States**

Xinxu Duan, Yuantong Liu, Zhengxin Gao, Hongbo Jiang, Xiaoyun Tang, and Lei Jin (Harbin Engineering Univ., China)

[P1-025]

**738 nm Deep-red Pulse Laser Based on Stimulated Raman Scattering in H<sub>2</sub>-filled Hollow-core Fiber**

Luohao Lei, Xuanxi Li, Wenxi Pei, Jing Shi, Zhiyue Zhou, Zefeng Wang, and Jinbao Chen (Nat'l Univ. of Defense Tech., China)

[P1-026]



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### Astigmatism Measurement Based on the Emergence of Structured Laser Beams

X. L. ZHENG, M. X. HSIEH, and Y. F. CHEN (Nat'l Yang Ming Chiao Tung Univ., Taiwan)

[P1-027]

**Q-switched Fiber Laser at 1.9  $\mu\text{m}$  Using a Mixture of Gold Nanorods and Polyvinyl Alcohol as a Saturable Absorber**

Varsha and Gautam Das (Lakehead Univ., Canada)

[P1-028]

**Simulation Study of a >14 W, 420 nm Laser Based on Second-harmonic Generation and Sum-frequency Generation**

Chungman Lee, Dalyong Lee, Kyoung-Seung Kim, and Changsu Jun (GIST, Korea)

[P1-029]

**Manipulation of Sub-pulse Sequence and High-order Vortex Beams for Actively Q-switched Pr:YLF Visible Lasers**

Shengbo Xu, Yunru Chen, Ran Xia, Yifang Li, Yu Xiao, Xiahui Tang, and Gang Xu (Huazhong Univ. of Science and Tech., China)

[P1-030]

**Dual-Wavelength Intracavity Diamond Raman Laser with High Peak Power**

Hui Chen, Xiaowei Li, Yufan Cui, Yulei Wang, Zhiwei Lu, and Zhenxu Bai (Hebei Univ. of Tech., China)

[P1-031]

**Stabilization of Spatiotemporal Solitons in Multimode Fiber Femtosecond Lasers**

Chenxin Gao, Chengjiu Wang, Zhenghao Jiao, Bo Cao, Chengying Bao, and Changxi Yang (Tsinghua Univ., China)

[P1-032]

**Characteristics of Chaos in a Whispering-Gallery Mode Semiconductor Microlasers**

Jin-Long Xiao, Chun-Guang Ma, Zhi-Xiong Xiao, Yue-De Yang, and Yong-Zhen Huang (Inst. of Semiconductors, Chinese Academy of Sciences, China)



#### [P1-033]

**Experimental Study of Two-Photon Absorption in High-Q Germanium WGM Optical Microresonators at 2.68 μm**

T.S. Tebeneva, V.E. Lobanov, D. A. Chermoshentsev, K.N. Min'kov (Russian Quantum Center, Russia), I.A. Kaplunov (Tver State Univ., Russia), I.I. Vinogradov (Space Research Inst. of the Russian Academy of Sciences, Russia), I.A. Bilenko, and A.E. Shitikov

#### [P1-034]

**Improvement of Fabrication Process for Highly Efficient Walk-off Compensated  $\beta$ -BaB<sub>2</sub>O<sub>4</sub> Wavelength-Conversion Devices Using Room-temperature Bonding**

Shion Naito, Tomoya Tanaka, and Ichiro Shoji (Chuo Univ., Japan)

#### [P1-035]

**Betatron Radiation Based on Laser Plasma Acceleration for High-resolution Medical Images**

Kyungnam Kim, Yonghun Hwangbo, Chur Kim, Seokgi Jeon, and Jaehoon Kim (KERI, Korea)

#### [P1-036]

**Simultaneous Generation of Structured Dual-NIR Optical Parametric Oscillators on chi(2) Nonlinear Mode Converter**

K.-H. Chang, J.-H. Lai, B.-W. Wu, T.-F. Pan, M.-S. Tsai, H.-H. Chiu, C.-C. Fan (Nat'l Taiwan Univ., Taiwan), S. Mohand Ousaid, A. Boudrioua (Universite Sorbonne Paris Nord, France), H. Yokoyama, E. Higurashi (Tohoku Univ., Japan), H. Akiyama (The Univ. of Tokyo, Japan), C.-M. Lai (Industrial Tech. Research Inst., Taiwan), and L.-H. Peng (Nat'l Taiwan Univ., Taiwan)

#### [P1-037]

**Nondestructive Detection of Low Concentrations Glucose via Broadband Background-Free Mid-Infrared Absorption Spectroscopy**

Shinta Ozawa, Neil Irvin Cabello (Toyota Technological Inst., Japan), Yue Zhao (Muroran Inst. of Tech., Japan), and Takao Fuji (Toyota Technological Inst., Japan)

#### [P1-038]

**Investigation of Nonlinear Optical Responses in MBE Growth Thin Film Chromium Telluride**

Mu-Hsuan Tsai, Jia-Chi Lan, Bo-Yi Chen (Nat'l Sun Yat-sen Univ., Taiwan), Tzu-Tai Huang, Jung-Chun-Andrew Huang (Nat'l Cheng Kung Univ., Taiwan), and Chao-Kuei Lee (Nat'l Sun Yat-sen Univ., Taiwan)



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#### [P1-039]

##### Demonstration of All-optical Multi-order Differentiator for Femtosecond Chirped Pulses

Yijian Zhang, Xian Zhou (Univ. of Science and Tech. Beijing, China), Hong-Guang Duan (Ningbo Univ., China), and Chao Mei (Univ. of Science and Technology Beijing, China)

#### [P1-040]

##### Double Abrupt Foci from Second Harmonic Generation of Circle Pearcey Beams

Yongzheng Yang, Zhenhang Xu, Anqi Liang, and Dongmei Deng (South China Normal Univ., China)

#### [P1-041]

##### Coherent Control through High-Intensity Excitation: A Simulation of Two-Dimensional Coherent Spectroscopy

Rishabh Tripathi, Krishna Kumar Maurya, and Rohan Singh (Indian Inst. of Science Education and Research Bhopal, India)

#### [P1-042]

##### A Quantitative Study of Excitonic Interactions Using Phenomenological Models

Pradeep Kumar, Bhaskar De, Rishabh Tripathi, and Rohan Singh (Indian Inst. of Science Education and Research Bhopal, India)

#### [P1-043]

##### Mid-Infrared Single-Photon Sources: The Potential of ZBLAN Glass Optical Fibers

Shruti Jain and Deepak Jain (Indian Inst. of Tech. Delhi, India)

#### [P1-044]

##### Time-Domain Characterization of Resonance-Band Dispersive Wave in an Ar-Filled Anti-Resonant Hollow-Core Fiber

Jinyu Pan, Zhiyuan Huang, Yifei Chen, Zhuozhao Luo (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China), Fei Yu, Dakun Wu (Univ. of Chinese Academy of Sciences, China), Tiandao Chen, Donghan Liu, Yue Yu (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China), Wenbin He, Xin Jiang (Univ. of Chinese Academy of Sciences, China), Meng Pang, Yuxin Leng, and Ruxin Li (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China)

**[P1-045]**

**GHz-rate, 56-fs Ultrafast Laser Generation based on Cascaded Nonlinear Pulse Compression**

X. Zhang (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China), W. He (Russell Centre for Advanced Lightwave Science, China), X. Wang (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China), B. Wang, Q. Huang (Russell Centre for Advanced Lightwave Science, China), Y. Zheng (iFiber Optoelectronics Tech. Co., Ltd., China), R. Yin (Russell Centre for Advanced Lightwave Science, China), Z. Huang (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China), X. Jiang (Russell Centre for Advanced Lightwave Science, China), Y. Leng (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China), and M. Pang (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China)

**[P1-046]**

**Experimental Investigation of an All-PM Dispersion-compensated Phase-biased Thulium-doped Fiber Laser**

Ni Feng, Huiting Tang, and Renlai Zhou (Harbin Engineering Univ., China)

**[P1-047]**

**Experimental Analysis of Inter-pulse Phase and Timing Relation in GHz-rate Harmonically Mode-locked Fiber Laser Using Dispersive Time-delay Interferometry**

B. Wang, X. Wang, W. He, X. Zhang, Q. Huang, Z. Huang, X. Jiang, and M. Pang (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China)

**[P1-048]**

**Multiple Pulsing Bistability within Covalent Organic Framework (COF) Saturable Absorber-based Fiber Lasers**

Hsuan-Sen Wang, Ahmed F. M. EL-Mahdy, Shiao-Wei Kuo (Nat'l Sun Yat-sen Univ., Taiwan), Gong-Ru Lin (Nat'l Taiwan Univ., Taiwan), Wen-Hsuan Kuan, Kuei Huei Lin (Univ. of Taipei, Taiwan), and Chao-Kuei Lee (Nat'l Sun Yat-sen Univ., Taiwan)

**[P1-049]**

**Efficient Pulse Amplification and Temporal Compression in a 1790 nm Femtosecond Thulium Fiber Amplifier**

Ibrahim H. Abughazaleh, Panuwat Srisamran, Matthew D. Gerard, Duanyang Xu, Yongmin Jung, David J. Richardson, and Lin Xu (Univ. of Southampton, UK)



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#### [P1-050]

### Observation of Breathing Solitons in a Three-dimensional Phase Space in a Mode-locked Fibre Laser

Q. Huang, W. He, X. Zhang, X. Wang, B. Wang, Z. Huang, X. Jiang, and M. Pang (Shanghai Inst. of Optics and Fine Mechanics, Chinese Academy of Sciences, China)

#### [P1-051]

### A Saturable Absorber Based on Nanomaterial Heterojunction and Its Application in Broadband Ultrafast Lasers

Tianguo Zhang (Nanjing Univ. of Information Science and Tech., China), Sibghat Ullah (Southeast Univ., China), Feng Zhang, and Xueming Liu (Nanjing Univ. of Information Science and Tech., China)

#### [P1-052]

### Composition-dependent Charge Carrier Dynamics in Bulk $\text{Mo}_{1-x}\text{W}_x\text{Se}_2$ Alloys

Junho Park, Seonggeon Gim, Yeongkwan Kim, and Fabian Rotermund (KAIST, Korea)

#### [P1-053]

### Utilizing the Short-Pulsed Laser on Integrated Circuits to Induce Single-Event Transient Phenomena

Chien-Ping Hung, Chun-Hao Liang, Jia-Han Li, and Hsin-Shu Chen (Nat'l Taiwan Univ., Taiwan)

#### [P1-054]

### Analysis of Shadowgram to Measure Sharp Density Profile for Laser Wakefield Accelerator

Yonghun Hwangbo, Kyungnam Kim, Chur Kim, Sukgi Jeon, and Jaehoon Kim (KERI, Korea)

#### [P1-055]

### Independent Phase and Amplitude Control of Second Harmonic Generation by Nonlinear Polaritonic Metasurface

Jaesung Kim, Jaeyeon Yu (UNIST, Korea), Gerhard Boehm, Mikhail Belkin (Technical Univ. of Munich, Germany), and Jongwon Lee (UNIST, Korea)

#### [P1-056]

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**Two-Dimensional Coherent Spectroscopy Simulations with Arbitrary Inhomogeneous Distribution**

Bhaskar De and Rohan Singh (Indian Inst. of Science Education and Research Bhopal, India)

**[P1-057]**

**Drifting Platicons in Normal-Dispersion Kerr Microresonators**

Valery E. Lobanov, Olga V. Borovkova, Alexander K. Vorobyev, Dmitry A. Chermoshentsev, and Igor A. Bilenko (Russian Quantum Center, Russia)

**[P1-058]**

**Time-Resolved Faraday Rotation in Magnetophotonic Metasurfaces**

A. I. Musorin, A. M. Chernyak, and A. A. Fedyanin (Lomonosov Moscow State Univ., Russia)

**[P1-059]**

**Application of Nonlinear Microscopy for Investigation of Magnetic Inhomogeneities and Domain Wall Motion**

Stepanov M.A., Guskov A.A., Mitetelo N.V., and Lavrov S.D. (MIREA – Russian Technological Univ., Russia)

**[P1-060]**

**Elucidating Electronic States in Monolayer WS<sub>2</sub> Through Broadband Nonlinear Optical Spectroscopy**

Jungseok Choi, Tayyaba Batool, Seungjae Lim, Jaeung Lee, and Dong-il Yeom (Ajou Univ., Korea)

**[P1-061]**

**70 nJ Kerr-lens Mode-locked Ti:Sapphire Oscillator with Herriott Multi-pass Cavity**

Ki Han Lee, In Hyung Baek, Hyun Woo Kim, Key Young Oang, Jun Heo, Kyu-Ha Jang, Kitae Lee (KAERI, Korea), Kyung Wan Kim (Chungbuk Nat'l Univ., Korea), and Young Uk Jeong (KAERI, Korea)

**[P1-062]**

**Fabry-Perot Resonance Enhanced Absorption of Hexagonal Boron Nitride**

Seong Joon Jeon, Su Beom Song (POSTECH, Korea), Kenji Watanabe, Takashi Taniguchi (Nat'l Inst. for Materials Sciences, Japan), Moon-ho Jo, and Jonghwan Kim (POSTECH, Korea)

[P1-063]

**Quantum Confined Excitons in MoSe<sub>2</sub> by Electrostatic Potentials**

Sera Yang, Taeho Kim (POSTECH, Korea), Kenji Watanabe, Takashi Taniguchi (Nat'l Inst. for Materials Science, Japan), Moon-ho Jo, and Jonghwan Kim (POSTECH, Korea)

[P1-064]

**Towards Deterministic Perfect Soliton Crystals in Microtoroids with Saturable Absorption**

Hayato Matsuyama, Atsushi Takano, Riku Imamura, Heng Wang, Shun Fujii, and Takasumi Tanabe (Keio Univ., Japan)

[P1-065]

**Anharmonic Behavior of Coherent Phonons within Bi<sub>2</sub>Te<sub>3</sub> Thin Film Excited by Femtosecond Laser Pulse**

Jia-Chi Lan, Jin-Wei Li (Nat'l Sun Yat-sen Univ., Taiwan), Tzu-Tai Huang, Jung-Chun-Andrew Huang (Nat'l Cheng Kung Univ., Taiwan), and Chao-Kuei Lee (Nat'l Sun Yat-sen Univ., Taiwan)

[P1-066]

**Generation of 300 GHz Waves Using an Electro-optic Modulation Comb**

Yasunori Yoshida, Mei Kuroiwa, Naoya Sano, Yamato Kitamura, Haruki Yaguchi, Yasuo Minami, and Atsushi Ishizawa (Nihon Univ., Japan)

[P1-067]

**Design of Multi-band Terahertz Metamaterial Absorbers Based on Symmetricity of Metallic Micro-particles**

Wei Jia and Jing Bai (Univ. of Minnesota Duluth, USA)

[P1-068]

**Controllable THz Emission from a Hybrid Heterostructure Co/WSe<sub>2</sub> with a Rashba-Interface**

A.V. Gorbatova, P.Yu. Avdeev, E.D. Lebedeva (MIREA – Russian Technological Univ., Russia), N.S. Gusev, M.V. Sapozhnikov (Inst. for Physics of Microstructures RAS, Russia), and A.M. Buryakov (MIREA – Russian Technological Univ., Russia)

[P1-069]



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### Real-time Non-destructive THz Imaging for Capsule Pill Inspection

Taehee Jeong and Yeong-Hwan Ahn (Ajou Univ., Korea)

[P1-070]

### Restricted Terahertz Dynamics of Two-Dimensional Water Layer

Gangseon Ji, Hyosim Yang, Min Choi (UNIST, Korea), Seondo Park (Seoul Nat'l Univ., Korea), Hyeonjun An, Hyoung-Taek Lee, Joonwoo Jeong (UNIST, Korea), Yun Daniel Park (Seoul Nat'l Univ., Korea), Kyungwan Kim (Chungbuk Nat'l Univ., Korea), Noejung Park (UNIST, Korea), Jeeyoon Jeong (Kangwon Nat'l Univ., Korea), Dai-Sik Kim, and Hyeong-Ryeol Park (UNIST, Korea)

[P1-071]

### Domain Structure of Ferroics after the Impact of Picosecond Terahertz Pulses

Zhemerov E. I., Brekhov K. A., and Mishina E. D. (MIREA – Russian Technological Univ., Russia)

[P1-072]

### Mechanical Control of Perovskite Phonon-Polaritons Using THz Flexible Fabry-Perot Cavity

Hwan Sik Kim and Yeong-Hwan Ahn (Ajou Univ., Korea)

[P1-073]

### Optimizing Terahertz Beam Splitting with Copper Sulfide (CuS) Nanosheet Film

JaeYeong Lee (Univ. of Ulsan, Korea), Sungsan Kang (Hongik Univ., Korea), Hyeongi Park, Su Jeong Park (Univ. of Ulsan, Korea), Sangyeon Pak (Hongik Univ., Korea), and Teun-Teun Kim (Univ. of Ulsan, Korea)

[P1-074]

### Intense THz Applications in the fs-THz Beamline at Pohang Accelerator Laboratory

Jeongmin Jang and Hee Jun Shin (POSTECH, Korea)

[P1-075]

### Self-injection Locking of a Mid-infrared DFB Laser to an External Cavity

Kwang-Hoon Ko, Byung Jae Chun, Yong-Ho Cha (KAERI, Korea), Fabian Rotermund, Hanseuk Lee (KAIST, Korea), and Hyunmin Park (KAERI, Korea)



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#### [P1-076]

### Humidity Detection of Terahertz Wave based on Surface-modified Polymer Mesh Membranes with Photografting PEGMA Brush

Borwen You, Shiun-Yun Chang, Yuan-Chi Wu, Pin-Jung Lu (Nat'l Changhua Univ. of Education, Taiwan), and Ja-Yu Lu (Nat'l Cheng Kung Univ., Taiwan)

#### [P1-077]

### Terahertz Fiber Waveguide with Enhanced Bending Flexibility: A Vaseline Core and PTFE Holey Cladding Approach

Yong Soo Lee, Mingyu Lee, Inhee Maeng, Seung Jae Oh, and Kyunghwan Oh (Yonsei Univ., Korea)

#### [P1-078]

### Anisotropic and Photosensitive Properties of PEDOT:PSS/PEDOT:NiTspC Using Terahertz Time-Domain Spectroscopy

Wei-Lin Shu (Nat'l Tsing Hua Univ., Taiwan), Wei-Tsung Chuang (Nat'l Synchrotron Radiation Research Center, Taiwan), and Yu-Chueh Hung (Nat'l Tsing Hua Univ., Taiwan)

#### [P1-079]

### Characterization of DNA Methylation with THz Time Domain Spectroscopy using Parallel-Plate Waveguide

Mun-Won Park, Sung-Woo Cho, and Tae-In Jeon (Korea Maritime and Ocean Univ., Korea)

#### [P1-080]

### Probing Terahertz Electric Potentials Across Ring-shaped Quantum Barriers

Taehee Kang (KIST, Korea), Richard H. J. Kim (Ames Nat'l Lab., USA), Jinwoo Lee, Minah Seo (KIST, Korea), and Dai-Sik Kim (UNIST, Korea)

#### [P1-081]

### Study on Demethylation of Cancer DNAs by High-power THz Radiation

Chaeyoon Kim (KAIST, Korea), Seung Won Jin (SMG-SNU Boramae Medical Center, Korea), Seong Cheol Lee, Donghak Oh, Soojeong Back, Bumki Min (KAIST, Korea), Joo-Hiuk Son (Univ. of Seoul), Hee-Jin Yang (SMG-SNU Boramae Medical Center, Korea), and Fabian Rotermund (KAIST, Korea)



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#### [P1-082]

**Anisotropic Transmission Behavior of Vertically-Aligned MXene Nanoplates as Terahertz Polarizer**

Eon-Taek Oh, Changjae Lee, Tae Gwan Park (KAIST, Korea), Seongeun Lee, Seon Joon Kim (KIST, Korea), Yun-Seok Choi (Los Alamos Nat'l Lab., USA), Dong Ki Yoon, and Fabian Rotermund (KAIST, Korea)

#### [P1-083]

**Terahertz Plasmonic Hollow-core Waveguide Based on a Metal-wire-woven Hole Array**

Borwen You, Liang-Cheng Yu, Hung-Yi Tsai, Yen-Shan Lin (Nat'l Changhua Univ. of Education, Taiwan), and Ja-Yu Lu (Nat'l Cheng Kung Univ., Taiwan)

#### [P1-084]

**Terahertz Plasmonic Sensor based on Metal-coated Plastic Woven Wire Mesh**

Ja-Yu Lu (Nat'l Cheng Kung Univ., Taiwan), Borwen You (Nat'l Changhua Univ. of Education, Taiwan), and Chien-Yu Chen (Nat'l Cheng Kung Univ., Taiwan)

#### [P1-085]

**THz Vector Beam Generation from ZnTe(100) Excited by Circularly Polarized Pulse**

Hiroaki Iwase and Seigo Ohno (Tohoku Univ., Japan)

#### [P1-086]

**A Universal Infrared Absorption Analysis System Using Deep Learning**

Eito Nakgawa, Hiroto Sasaki, and Yoshiaki Nishijima (Yokohama Nat'l Univ., Japan)

#### [P1-087]

**Sub Terahertz-wave Parametric Generation Frequency Controlled by Spectral Drill Cavity**

Shin'ichiro Hayashi (Nat'l Inst. of Information and Communications Tech., Japan), Seigo Ohno (Tohoku Univ., Japan), Katsuhiko Miyamoto (Chiba Univ., Japan), Yoshiharu Urata (PHLUXi, Inc., Japan), Kouji Nawata (Tohoku Inst. of Tech., Japan), and Norihiko Sekine (Nat'l Inst. of Information and Communications Tech., Japan)

#### [P1-088]

**High-Peak-Power Femtosecond Pulses from Passively Mode-Locked Vertical External-Cavity**



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### Surface-Emitting Laser

Yu-Hsin Hsu (Nat'l Yang Ming Chiao Tung Univ., Taiwan)

#### [P1-089]

##### Analysis of Atmospheric Turbulence on a High-Power Laser Beam in Laboratory Environment

Juan Coronel, Asma AlAhmadi, Aaesha Alteneiji, Jawaher Alameri, Karim Elayoubi, Guillaume Matras, and Chaouki Kasmi (Tech. Innovation Inst., UAE)

#### [P1-090]

##### Investigation of Coherent Beam Combining Employing Spatial-Dependent Active SPGD Algorithm

Jong-Won Lee, Hwihyeong Lee, Seung Won Jun, Byung Suh Park, Hwanseong Jeong, and Yong Seok Seo (Agency for Defense Development, Korea)

#### [P1-091]

##### 25-TW Ti:sapphire Laser with Fiber Oscillator

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