[TuP] Poster 1	
Session Date	July 14 (Tue.), 2026
Session Time	16:00–17:40
Session Room	Room C (Event Hall A, 1F)

[TuP–1] 16:00–17:40

Evolution of Surface Morphology of AlN on Low Dimensional Carbon Material Grown by HVPE

Hae–Gon Oh, Young–Jun Choi, and Hae–Yong Lee, LumiGNtech Co., Ltd., Korea

[TuP–2] 16:00–17:40

Enhanced Responsivity of β–Ga_2O_3–Based Solar–Blind UV Photodetectors via Inductively Coupled CF4 Plasma Treatment

An–Na Cha[1], Gieop Lee[1], Sunjae Kim[2,3], Dae–Woo Jeon[3], Ji–Hyeon Park[3], Wan–Sik Hwang[2], and Jun–Seok Ha[1], [1]Chonnam National University, Korea, [2]Korea Aerospace University, Korea, [3]Korea Institute of Ceramic Engineering and Technology, Korea

[TuP–3] 16:00–17:40

Epitaxial Alignment and Substitutional Defect Control in Large–Area WS_2 Monolayers

Yunjung Cho, Wonchan Lee, Seohee Park, and Seunguk Song, Sungkyunkwan University, Korea

[TuP–4] 16:00–17:40

Two–Step Growth of Spatially Controlled WS_2–$MoSe_2$ Heterostructure

Chaehui Lim, Wonchan Lee, Yunjung Cho, Seohee Park, Taeyoung Jeon, and Seunguk Song, Sungkyunkwan University, Korea

[TuP–5] 16:00–17:40

The Growth of Hexagonal Boron Nitride on Graphene by Metal–Organic Chemical Vapor Deposition

Changuk Ji[1], Seokho Moon[2], Semi Im[1], Jawon Kim[1], Jaesub Song[1], Seonghyeon Pak[1], and Jong Kyu Kim[1], [1]Pohang University of Science and Technology, Korea, [2]Ajou University, Korea

[TuP-6] 16:00-17:40

Effect of Sn Doping Concentration on the Structural Properties of β-Ga_2O_3 Thin Films Grown on Off-Axis Sapphire by Mist-CVD

Jae-Hyeok LIM[1], Tae-Yong PARK[1], Yun-Ji SHIN[1], Seong-Min JEONG[1], Chang-Mo KANG[2], and Si-Young BAE[3], [1]Korea Institute of Ceramic Engineering and Technology, Korea, [2]Pusan National University, Korea, [3]Pukyong National University, Korea

[TuP-7] 16:00-17:40

Improved Crystalline Quality and Surface Morphology of β-Ga_2O_3 Epilayer on Sapphire Enabled by Nucleation Layer

Sang Hyeon Ahn, Gieop Lee, An-Na Cha, Sung Jin Son, Young-Boo Moon, Myung Sik Kim, and Jun-Seok Ha, Chonnam National University, Korea

[TuP-8] 16:00-17:40

Low-Temperature Transfer-Free Graphene Formation via Catalytic Metal-Assisted Graphitization for Remote Epitaxy

Soohyun Kim, Joonghoon Choi, Won Kwang Yang, and Young Joon Hong, Sungkyunkwan University, Korea

[TuP-9] 16:00-17:40

Control of α-Ga_2O_3 Growth Mode via Surface Energy Modulation for Enhanced UV Photodetection

Hee Won Shin, Jang Hyeok Park, and You Seung Rim, Sejong University, Korea

[TuP-10] 16:00-17:40

Localized Strain Control of MoS2 Using GaN Pyramidal Structures for Single Photon Emission

Jun Woo Lee[1], Su Jin Kim[2], Joonghoon Choi[1], Dong Hyun Cho[2], Jeongwon Park[3], Kibum Kang[3,4], Hyun Seok Lee[2], and Young Joon Hong[1], [1]Sungkyunkwan University, Korea, [2]Chungbuk National University, Korea, [3]Korea Advanced Institute of Science and Technology, Korea, [4]TDS Innovation Inc., Korea

[TuP-11] 16:00-17:40

Fabrication of Quasi-Vertical α-Ga_2O_3 Schottky Barrier Diodes on Sapphire

Jang Hyeok Park, Kanghee Shin, and You Seung Rim, Sejong University, Korea

[TuP-12] 16:00-17:40

Complete Removal of Subsurface Damage in (010)β-Ga_2O_3 Single Crystals via a Two-Step Chemical Mechanical Polishing Process

Eun-Jeong An[1], Eun-Seo Lee[1], Sang-Jin Bae[1], Ho-Gyun Yun[1], Kwang-Hee Jung[1], Jung-Gon Kim[1], Mi-Seon Park[1], Dong-Jin Lee[2], Jin-Ki Kang[2], and Won-Jae Lee[1], [1]Dong-Eui University, Korea, [2]Axel, Korea

[TuP-13] 16:00-17:40

Metalorganic Vapor Phase Epitaxy of Van Der Waals Indium Selenides

Jihwan Jeon, Yerin So, Kyungwu Kwon, and Seunguk Song, Sungkyunkwan University, Korea

[TuP-14] 16:00-17:40

Ga Pre-Deposition Assisted Heteroepitaxial Growth of Gallium Oxide Thin Films on Sapphire Substrates by MOCVD

Mi-Rim Lim[1], Tae-Hun Gu[1], A-Ran Shin[1], Jae-Hyuk Lim[2,3], and Si-Young Bae[1], [1]Pukyong National University, Korea, [2]Korea Institute of Ceramic Engineering and Technology, Korea, [3]Pusan National University, Korea

[TuP-15] 16:00-17:40

Low-Temperature MOCVD Growth of Hexagonal Boron Nitride for High-Performance Memristors with CMOS Compatibility

Seonghyeon Pak[1], Seokho Moon[2], Jaesub Song[1], Semi Im[1], Jawon Kim[1], Changuk Ji[1], and Jong Kyu Kim[1], [1]Pohang University of Science and Technology, Korea, [2]Ajou University, Korea

[TuP-16] 16:00-17:40

Enhancement of Breakdown Voltage in β-Ga_2O_3/NiO Heterojunction Diodes by Modulating p-NiO/p+NiO Widths

SangHun Kim, TaiYoung Kang, YuSup Jung, TaeJun Park, JoonHui Park, and SinSu Kyoung, Powercubesemi Inc., Korea

[TuP-17] 16:00-17:40

Improved Homoepitaxial Growth of β-Ga_2O_3 (001) by MOCVD Using Plasma-Treated Substrates

Gieop Lee[1], An-Na Cha[1], Sang Hyeon Ahn[1], Sung Jin Son[2], Young-Boo Moon[2], Myung Sik Kim[2], and Jun-Seok Ha[1], [1]Chonnam National University, Korea, [2]UJL Inc., Korea

[TuP-18] 16:00-17:40

Improving Heat Dissipation of the GaN HEMTs Using a Nanocrystalline Diamond Capping Layer

Han-Hsin Shih, Yi-An Chen, and WenCheng Ke, National Taiwan University of Science and Technology, Taiwan

[TuP-19] 16:00-17:40

Nanoporous Aluminum Anodic Oxide Chip-Based Optical Immunosensor

Sehyuk Yeom, Byoungho Kang, Sanghoon Jung, Jaesung Lee, Sae-Wan Kim, and Wang-Hoon Lee, Gumi Electronics and Information Technology Research Institute, Korea

[TuP-20] 16:00-17:40

Highly Sensitive UV Photodetectors based on PVK/ZnO Hybrid Layers via Doping-Controlled Charge Dynamics

Sanghoon Jung, Byoungho Kang, Jaesung Lee, Saewan Kim, Sehyuk Yeom, and Wanghoon Lee, Gumi Electronics and Information Technology Research Institute, Korea

[TuP-21] 16:00-17:40

TGV-to-PCB Interconnect for Flip-Chip Micro-LED FSA Transfer with Transparent Backside Polarity Inspection

Yoonmo Koo, Jae Min Jung, and Daewon Lee, Hanyang University, Korea

[TuP-22] 16:00-17:40

PDMS-Based Thermal Control Platform for Improving Reliability of 3D Integrated Si Photonics Packages

Hyunjun Kim, SeungSu Kim, Kyeongmin Ryu, and Daewon Lee, Hanyang University, Korea

[TuP-23] 16:00-17:40

Photoresist-Assisted Sequential Fluidic Self-Assembly for Heterogeneous Particles

Jaesung Park, Jubin Lee, and Daewon Lee, Hanyang University, Korea

[TuP-24] 16:00-17:40

Photoresist-Defined Selective Heterogeneous MicroLED Assembly via Sequential Fluidic Self-Assembly

Jimin Park, Chaewon Kim, and Daewon Lee, Hanyang University, Korea

[TuP-25] 16:00-17:40

Two-Step Dip-Soldering Strategy for Reliable Fluidic Self-Assembly of Micro-LED Displays

Yongjae Song, Hyunjun Kim, Siyun Song, and Daewon Lee, Hanyang University, Korea

[TuP-26] 16:00-17:40

Selective Area Epitaxy of Ge Nanowires for Active Photonics Applications

Ludovica Lunghi, Nuño Amador-Mendez, Santhanu Panikar Ramanandan, Thomas Vincent Bour, Kamil Artur Wodzislawski, Alok Rudra, and Anna Fontcuberta i Morral, École polytechnique fédérale de Lausanne, Switzerland

[TuP-27] 16:00-17:40

Fundamental Study of Gallium Nitride Epitaxial Growth Behavior on Non-Circular Substrates toward Advanced Epitaxial Processes

Samseok Jang, Da-Young Kim, and Tae-Hoon Chung, Korea Photonics Technology Institute, Korea

[TuP-28] 16:00-17:40

Site-Selective InAs/InP Quantum Dots Epitaxy with Engineered Low Fine Structure Splitting

Christian C. Ruiz Madera[1,2], Paweł Holewa[1,2], Paweł Wyborski[1], Meng Xiong[1,2], Battulga Munkhbat[1], and Elizaveta Semenova[1,2], [1]Technical University of Denmark, Denmark, [2]Technical University of Denmark, Denmark

[TuP-29] 16:00-17:40

Fabrication of InGaN/GaN Core–Shell Nanorod LEDs through Hybrid Etch/Regrowth Method

Junhyun Bae[1], Joonghoon Choi[1], Chang Soo Kim[1], Hak-Jong Choi[2], Hyungjun Lim[2], Youngyoon Lim[2], Jongwoo Kim[2], and Young Joon Hong[1], [1]Sungkyunkwan University, Korea, [2]Korea Institute of Machinery & Materials, Korea

[TuP-30] 16:00-17:40

Selective Area Growth of Strain-Relaxed GaN Nanorods for Blue-to-Green Pixels on a Single Substrate

Jong-Su Kim[1], Min-Seok Lee[1], Sung-Un Kim[1], Jeong-Kyun Oh[1], Hussain Musharrof[1], Ji-Min Kang[2], Dae-Young Um[2], and Yong-Ho Ra[1], [1]Jeonbuk National University, Korea, [2]Kumoh National Institute of Technology, Korea

[TuP-31] 16:00-17:40

8-Inch Wafer-Scale Uniform Growth of GaN-on-Silicon Epilayers for Near-Eye Micro-Displays

Shenyu Xu, Chenxue Li, Zhe Zhuang, and Bin Liu, Nanjing University, China

[TuP-32] 16:00-17:40

Safety Protocols and Environmental Sustainability in Emerging Low-Cost MOVPE Systems: A Systematic Review of Best Practices

Dhanashri Burungale[1], Chaewon Seong[2], Hyojung Bae[3], Jin-woo Ju[3], and Jun-Seok Ha[1], [1]Chonnam National University, Korea, [2]Korea Institute of Industrial Technology, Korea, [3]Korea Photonics Technology Institute, Korea

[TuP-33] 16:00-17:40

Lithography-Free Metal Droplet Patterning for Multi-Color Core-Shell InGaN/GaN Nanorod LEDs

In-Seo Na, Jae-Hong Ju, Jeong-Kyun Oh, Sung-Un Kim, Min-Seok Lee, Seo-Gyeong Eun, Woo-Hyuk Choi, and Yong-Ho Ra, Jeonbuk National University, Korea

[TuP-34] 16:00-17:40

Preparation of Graphene Transparent Conductive Layers on Nanohole-Patterned UVC-LEDs

Han-Hsin Shih, Zih-Siang Chien, and WenCheng Ke, National Taiwan University of Science and Technology, Taiwan

[TuP-35] 16:00-17:40

Layer-Controlled Epitaxial 2D InSe Thin Films via Kinetically Controlled MOCVD

Jung Hoon Kang[1], Bong Gi Lim[1], Do Hyoung Koo[2], Imhwan Kim[1], Da-gyeom Yoo[3], Seong-gwang Lee[3], Ji Hoon Jang[1], Jin Seok Kim[1], Ki Jae Jang[1], Dong Hyun Lee[1], Gyu-Chul Yi[1], Jongsun Lim[3], and Chang Gyoun Kim[1,3], [1]Seoul National University, Korea, [2]Korea University, Korea, [3]Korea Research Institute of Chemical Technology, Korea, [4]University of Science and Technology, Korea

[TuP-36] 16:00-17:40

Pattern-Engineered Selective Lateral Growth of Low-Defect High-Ge-Content Epitaxial Layers on Si(111) for Silicon Photonics

Ching-Hsueh Chiu[1], Ting-Chuan Li[1], Wu-Yih Uen[1], Chiashain Chuang[1], Chih-Chang Hung[3], Lung-Hsing Hsu[2], and Hao-Chung Kuo[1,4], [1]Chung Yuan Christian University, Taiwan, [2]Taiwan Semiconductor Research Institute, National Institutes of Applied Research, Taiwan, [3]Bolite Co., Ltd., Taiwan, [4]National Yang Ming Chiao Tung University, Taiwan

[TuP-37] 16:00-17:40

MOVPE Growth of InAs/InP Quantum Dots via Droplet Epitaxy for Telecom-Wavelength Applications

Justyna Kurek[1,2], Walery Kołkowski[2], and Włodzimierz Strupiński[1], [1]Warsaw University of Technology, Poland, [2]Vigo Photonics SA, Poland