



Session Title: [TuP] 2026-07-14(Tue.)

Session Date: July 14 (Tue.), 2026

Session Time: 16:00-17:40

Session Room: Room C (Event Hall A)

[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 -Ga₂O₃-Based Solar-Blind UV Photodetectors via Inductively Coupled CF₄ Plasma Treatment

An-Na Cha¹, Gieop Lee¹, Sunjae Kim^{2,3}, Dae-Woo Jeon³, Ji-Hyeon Park³, Wan-Sik Hwang², and Jun-Seok Ha¹,
¹Chonnam National University, Korea, ²Korea Aerospace University, Korea, ³Korea Institute of Ceramic Engineering and Technology, Korea

[TuP-3] 16:00-17:40

Epitaxial Alignment and Substitutional Defect Control in Large-Area WS₂ 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 WS₂-MoSe₂ 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 Ji¹, Seokho Moon², Semi Im¹, Jawon Kim¹, Jaesub Song¹, S yeon Pak¹, and Jong Kyu Kim¹, ¹Pohang University of Science and Technology, Korea, ²Ajou University, Korea

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

Effect of Sn Doping Concentration on the Structural Properties of β -Ga₂O₃ Thin Films Grown on Off-Axis Sapphire by Mist-CVD

Jae-Hyeok LIM¹, Tae-Yong PARK¹, Yun-Ji SHIN¹, Seong-Min JEONG¹, Chang-Mo KANG², and Si-Young BAE³,
¹Korea Institute of Ceramic Engineering and Technology, Korea, ²Pusan National University, Korea, ³Pukyong National University, Korea

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



Improved Crystalline Quality and Surface Morphology of β -Ga₂O₃ Epilayer on Sapphire Enabled by Nucleation Layer

Sang Hyeon Ahn, Geop 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 -Ga₂O₃ 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 Lee¹, Su Jin Kim², Joonghoon Choi¹, Dong Hyun Cho², Jeongwon Park³, Kibum Kang^{3,4}, Hyun Seok Lee², and Young Joon Hong¹, ¹Sungkyunkwan University, Korea, ²Chungbuk National University, Korea, ³Korea Advanced Institute of Science and Technology, Korea, ⁴TDS Innovation Inc., Korea

[TuP-11]

16:00-17:40

Fabrication of Quasi-Vertical α -Ga₂O₃ 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 -Ga₂O₃ Single Crystals via a Two-Step Chemical Mechanical Polishing Process

Eun-Jeong An¹, Eun-Seo Lee¹, Sang-Jin Bae¹, Ho-Gyun Yun¹, Kwang-Hee Jung¹, Jung-Gon Kim¹, Mi-Seon Park¹, Dong-Jin Lee², Jin-Ki Kang², and Won-Jae Lee¹, ¹Dong-Eui University, Korea, ²Axel, 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 Lim¹, Tae-Hun Gu¹, A-Ran Shin¹, Jae-Hyuk Lim^{2,3}, and Si-Young Bae¹, ¹Pukyong National University, Korea, ²Korea Institute of Ceramic Engineering and Technology, Korea, ³Pusan 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 Pak¹, Seokho Moon², Jaesub Song¹, Semi Im¹, Jawon Kim¹, Changuk Ji¹, and Jong Kyu Kim¹, ¹Pohang University of Science and Technology, Korea, ²Ajou University, Korea

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

Enhancement of Breakdown Voltage in β -Ga₂O₃/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 -Ga₂O₃ (001) by MOCVD Using Plasma-Treated Substrates

Gieop Lee¹, An-Na Cha¹, Sang Hyeon Ahn¹, Sung Jin Son², Young-Boo Moon², Myung Sik Kim², and Jun-Seok Ha¹, ¹Chonnam National University, Korea, ²UJL 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 Wodzislowski, 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 Wyborski¹, Meng Xiong^{1,2}, Battulga Munkhbat¹, and Elizaveta Semenova

^{1,2}, ¹Technical University of Denmark, Denmark, ²Technical University of Denmark, Denmark



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

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

Junhyun Bae¹, Joonghoon Choi¹, Chang Soo Kim¹, Hak-Jong Choi², Hyungjun Lim², Youngyoon Lim², Jongwoo Kim², and Young Joon Hong¹, ¹Sungkyunkwan University, Korea, ²Korea 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 Kim¹, Min-Seok Lee¹, Sung-Un Kim¹, Jeong-Kyun Oh¹, Hussain Musharraf¹, Ji-Min Kang², Dae-Young Um², and Yong-Ho Ra¹, ¹Jeonbuk National University, Korea, ²Kumoh 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 Burungale¹, Chaewon Seong², Hyojung Bae³, Jin-woo Ju³, and Jun-Seok Ha¹, ¹Chonnam National University, Korea, ²Korea Institute of Industrial Technology, Korea, ³Korea 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 Kang¹, Bong Gi Lim¹, Do Hyoung Koo², Imhwan Kim¹, Da-gyeom Yoo³, Seong-gwang Lee³, Ji Hoon Jang¹, Jin Seok Kim¹, Ki Jae Jang¹, Dong Hyun Lee¹, Gyu-Chul Yi¹, Jongsun Lim³, Chang Gyoung Kim^{1,3} and Chul-Ho Lee, ¹Seoul National University, Korea, ²Korea University, Korea, ³Korea Research Institute of Chemical Technology, Korea, ⁴University 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 Chiu¹, Ting-Chuan Li¹, Wu-Yih Uen¹, Chiashain Chuang¹, Chih-Chang Hung³, Lung-Hsing Hsu², and Hao-Chung Kuo^{1,4}, ¹Chung Yuan Christian University, Taiwan
²Taiwan Semiconductor Research Institute, National Institutes of Applied Research, Taiwan, ³Bolite Co., Ltd., Taiwan, ⁴National 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 Kołkowski², and Włodzimierz Strupiński¹, ¹Warsaw University of Technology, Poland, ²Vigo Photonics SA, Poland



Session Title: [WeP] 2026-07-15(Wed.)

Session Date: July 15 (Wed.), 2026

Session Time: 17:10-18:40

Session Room: Room C (Event Hall A)

[WeP-1] 17:10-18:40

Selective-Area Growth of InGaAs Nanowires on SOI Using a SiON/W/SiO₂ Composite Mask

Keita Taniyama, Yuki Azuma, Kai Fujimoto, Doma Hachimiya, and Katsuhiko Tomioka, Hokkaido University, Japan

[WeP-2] 17:10-18:40

Characterization of Thermal Annealing Process in Selective-Area Growth of InGaAs Nanowires

Ryuta Nakamura, Keita Taniyama, Yuki Azuma, Doma Hachimiya, and Katsuhiko Tomioka, Hokkaido University, Japan

[WeP-3] 17:10-18:40

Reduced Subthreshold Swing and Improved Uniformity in p-GaN MOSFETs Enabled by Atomic Layer Etching

Zixian Jiang and Xiaohang Li, King Abdullah University of Science and Technology, Saudi Arabia

[WeP-4] 17:10-18:40

Room Temperature Exciton-Polariton in GaN Triangular Structure Grown by Metal Organic Chemical Vapor Deposition

Chan Young Sung¹, Hyun Gyu Song², and Yong-Hoon Cho¹, ¹Korea Advanced Institute of Science and Technology, Korea, ²Korea Institute of Science and Technology, Korea

[WeP-5] 17:10-18:40

First Demonstration of 200 mm AlGaIn/GaN HEMT Epitaxy on Semi-Insulating 4H-SiC by MOCVD for Power and RF Applications

Young-Hun Han^{1,2}, Yu-Hyeon Bak², Hyun-Chul Lim², Moon-Uk Cho¹, Min-Ki Hong¹, Hyung-Sun Yun¹, Sung-Nam Lee², Yoon-Seok Kim², and June-O Song¹, ¹Wavelord Inc., Korea, ²Tech University of Korea, Korea



[WeP-6]

17:10-18:40

Strain-Balanced InGaAs/InGaP Multiple Quantum Wells for the Intermediate Junction of Triple Junction Solar Cells

Jéssica de O. Lorenzi¹, Rudy M. S. Kawabata¹, Daniel N. Micha², Luciana D. Pinto¹, Mauricio P. Pires³, Patricia L. Souza³, and Guilherme M. Torelly¹, ¹Pontifícia Universidade Católica do Rio de Janeiro, Brazil, ²Centro Federal de Educação Tecnológica Celso Suckow da Fonseca, Brazil, ³Universidade Federal do Rio de Janeiro, Brazil

[WeP-7]

17:10-18:40

MOCVD Regrowth of Step-Graded n+-AlGaIn Contact Layers for Low-Resistance Ohmic Contacts in Al-Rich AlGaIn Channel HEMTs

Hyogeun Cho, Joocheol Jeong, Shyam Mohan, Jaejin Heo, Minyeong Kim, Mingoo Jo, and Okhyun Nam, Tech University of Korea, Korea

[WeP-8]

17:10-18:40

Investigation of Two-Dimensional Hole Gas (2DHG) Transport in p-(Al)GaIn/AlGaIn/AlIn Heterostructures Grown by MOCVD

Minyeong Kim, Joocheol Jeong, Shyam Mohan, Jaejin Heo, Hyogeun Cho, Mingoo Jo, and Okhyun Nam, Tech University of Korea, Korea

[WeP-9]

17:10-18:40

InGaIn Micro-LEDs Integrated with CsPbBr₃ Perovskite Nanocrystals for Dual-Wavelength Visible Light Communication

Tae-Yong Park^{1,3}, Yue Wang¹, Omar Alkhazragi¹, Jung-Hong Min², Tien Khee Ng¹, and Boon S. Ooi¹, ¹King Abdullah University of Science and Technology, Saudi Arabia, ²Korea Photonics Technology Institute, Korea, ³Korea Institute of Ceramic Engineering and Technology, Korea

[WeP-10]

17:10-18:40

Strain-Induced Band Structure Engineering in MOVPE-Grown NearInfrared VCSEL Structures

Justyna Olejnik¹, Mikołaj Badura¹, Wojciech Dawidowski¹, Jan M. Śmigiel¹, Damian Radziejewicz¹, Adriana Łozińska¹, Wojciech Kijaszek¹, Iwona Sankowska², Marcin Gębski³, Magdalena Marciniak³, Marta Więckowska³, Zofia Foryś³, Michał Wasiak³, Tomasz Czystanowski³, and Beata Ściana¹, ¹Wrocław University of Science and Technology, Poland, ²Łukasiewicz Research Network, Poland, ³Łódź University of Technology, Poland



[WeP-11]

17:10-18:40

Control of Areal Density and Emission Wavelength of MOVPE-Grown InAs/InP Quantum Dots

J. M. Śmigiel, M. Badura, A. Szyszka, D. Radziewicz, B. Ściana, P. Mrowiński, and M. Syperek, Wrocław University of Science and Technology, Poland

[WeP-12]

17:10-18:40

MOCVD Growth of Apex-Localized InGaN Quantum Dots on GaN Pyramid Structures for Directional Photon Emission

Jeongho Kim and Yong-Hoon Cho, Korea Advanced Institute of Science and Technology, Korea

[WeP-13]

17:10-18:40

InGaN Quantum Dots Red LED based on Post-Annealing of the Quantum Barrier

Anda Cheng, Haoxuan Yang, Lujing Wang, Changzheng Sun, Zhibiao Hao, Bing Xiong, Yanjun Han, Jian Wang, Hongtao Li, Lin Gan, Yi Luo, and Lai Wang, Tsinghua University, China

[WeP-14]

17:10-18:40

Efficiency Enhancement of InGaN/GaN Nanowire Emitters through Localized Laser Recrystallization

Ha-Neul Eom¹, Sung-Un Kim¹, Chandran Bagavath¹, Geon-Yeong Kim¹, Si-Won Park¹, Ui-Seong Hong¹, Dae-Young Um², and Yong-Ho Ra¹, ¹Jeonbuk National University, Korea, ²Kumoh National Institute of Technology, Korea

[WeP-15]

17:10-18:40

Enhancement of Color-Conversion Efficiency via Double-Sided Epitaxial Structure with Quantum Dots-Embedded Porous GaN

Jaeyoung Baik¹, Je-Sung Lee¹, Jeongwoon Kim¹, Hoe-Min Kwak², Jin-Soo Kim¹, Yu-Jin Park¹, Jaeyoung Kwon¹, Woo-Lim Jeong¹, Hyeondong Lee³, JoonSeop Kwak³, Chang-Mo Kang⁴, and Dong-Seon Lee¹, ¹Gwangju Institute of Science and Technology, Korea, ²Electronics and Telecommunications Research Institute, Korea, ³Korea Institute of Energy Technology, Korea, ⁴Pusan National University, Korea

[WeP-16]

17:10-18:40

In-Situ SiN_x Interlayer for Improved Ohmic Contacts in Al-Rich AlGaIn Channel HEMTs

Joocheol Jeong, Shyam Mohan, Hyogeun Cho, Minyeong Kim, Mingoo Jo, and Okhyun Nam, Tech University of Korea, Korea



[WeP-17]

17:10-18:40

Toward High Threshold Voltage, High Carrier Density p-GaN/AlGaIn/GaN HEMTs

Moon Uk Cho¹, Min-Ki Hong¹, Yuhyeon Bak^{1,2}, Hyunchul Lim¹, Young-Hun Han^{1,2}, and June-O Song¹, ¹Wavelord Inc., Korea, ²Tech University of Korea, Korea

[WeP-18]

17:10-18:40

Bright Room-Temperature Telecom-Band GaN Single-Photon Emitters on Patterned Sapphire Substrates

Hyemin Kim^{1,2}, Dong Seok Shin¹, Yong-Ho Song¹, Young-Ho Ko², and Yong-Hoon Cho¹

¹Korea Advanced Institute of Science and Technology, Korea, ²Electronics and Telecommunications Research Institute, Korea

[WeP-19]

17:10-18:40

Nano Voids Formed through Nano-Silica for Mechanical Lift-Off of III-Nitrides

Da-Young Kim, Tae-Hoon Chung, Sam-Seok Jang, and Jung-Hong Min, Korea Photonics Technology Institute, Korea

[WeP-20]

17:10-18:40

InGaIn-Based Red LEDs for All-Nitride R/G/B Micro-LEDs

Won Kwang Yang, Joonghoon Choi, Joochan Bae, and Young Joon Hong, Sungkyunkwan University, Korea

[WeP-21]

17:10-18:40

Fabrication of High-Brightness GaN Nanorod LEDs for AR Display Applications

Chang Soo Kim¹, Joonghoon Choi¹, Joochan Bae², Inseok Ju², Hak-Jong Choi³, and Young Joon Hong^{1,2}, ¹Sungkyunkwan University, Korea, ²Korea Institute of Machinery and Materials, Korea

[WeP-22]

17:10-18:40

Suppression of S-Droop in AlGaInP Micro-LEDs via Sidewall Native Oxide Substitution with Sulfide Layers

Je-Sung Lee¹, Jaeyong Kwon¹, Jaeyoung Baik¹, Seung Hyeok Lee¹, Sugyeong Cha¹, Chang-Mo Kang², and Dong-Seon Lee¹, ¹Gwangju Institute of Science and Technology, Korea, ²Pusan National University, Korea

[WeP-23]

17:10-18:40

Lg=60nm AlGaIn/GaN HEMTs on Si for 6G Applications

Ji-Seung Seo, Jin-sup Kim, and Hyeon-Bhin Jo, Korea Electronics Technology Institute, Korea



[WeP-24] 17:10-18:40

Selective Area Growth of InGaN/GaN Quantum Dots via Focused Ion Beam Patterning

Baul Kim and Yong-Hoon Cho, Korea Advanced Institute of Science and Technology, Korea

[WeP-25] 17:10-18:40

Processing Aspects of MOVPE Grown Monolithic High Contrast Grating VCSELs for Near-Infrared Applications

Joanna Prażmowska¹, Emilia Baczewska¹, Mikołaj Badura¹, Magdalena Marciniak², Marcin Gębski², Tomasz Czystanowski², and Regina Paszkiewicz¹, ¹Wrocław University of Science and Technology, Poland, ²Lodz University of Technology, Poland

[WeP-26] 17:10-18:40

Comparative Study of GaN-Based Planar Micro-LEDs and Nanorod LEDs Fabricated by Top-Down Etching

Joochan Bae¹ Chang Soo Kim, Joonghoon Choi, and Young Joon Hong, Sungkyunkwan University, Korea

[WeP-27] 17:10-18:40

Surface Protection by Temporary SiO₂ Passivation During High-Temperature Rapid Thermal Annealing Improves E-Mode AlGaIn/GaN HEMTs

Min-Ki Hong¹, Hyunchul Lim¹, Yuhyeon Bak^{1,2}, Moon Uk Cho¹, Young-Hun Han^{1,2}, and June-O Song¹, ¹Wavelord Inc., Korea, ²Tech University of Korea, Korea

[WeP-28] 17:10-18:40

DC Characteristics Depending on Device Dimension about Quasi-Vertical GaN Schottky Barrier Diodes

Seongmin Kang, Jinsup Kim, and Hyeon-bhin Jo, Korea Electronics Technology Institute, Korea

[WeP-29] 17:10-18:40

Suppression of Trap-Induced Kink Effect in RF AlGaIn/GaN HEMTs through Optimized Buffer Layer Engineering

Yuhyeon Bak^{1,2}, Moon Uk Cho¹, Min-Ki Hong¹, Hyunchul Lim¹, Young-Hun Han^{1,2}, Sung-Nam Lee², Yoon Seok Kim², and June-O Song¹, ¹WaveLord Inc., ²Tech University of Korea

[WeP-30] 17:10-18:40

Optimization of Thin Epi-Layer Structure for 200V-Class GaN-on-Si HEMTs with Enhanced Breakdown Characteristics

Hyunchul Lim¹, Young-Hun Han^{1,2}, Yuhyeon Bak^{1,2}, Moon Uk Cho¹, Min-Ki Hong¹, and June-O Song¹, ¹Wavelord Inc., Korea, ²Tech University of Korea, Korea



[WeP-31]

17:10-18:40

Growth and Characterization of In_2Te_3 Thin Films

Hoki Son¹, Wonjung Choi¹, Yeoson Sim², and Jinsung Kwak¹, ¹Changwon National University, Korea, ²Argonne National Laboratory, United States

[WeP-32]

17:10-18:40

High-Efficiency and Narrow Linewidth Green CdSe/CdZnS Quantum Dots via Steric Hindrance-Controlled Core Engineering

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

[WeP-33]

17:10-18:40

Al-Induced Self-Passivation for Enhanced Stability of CdSe/ZnS QD-Based QLEDs

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

[WeP-34]

17:10-18:40

Fabrication and Characterization of Resistive Memory Device based on Quantum Dots (QDs)/PVK Hybrid Nanocomposites

Sae-Wan Kim¹, Byoung-Ho Kang¹, Jae-Sung Lee¹, Sang-Hoon Jung¹, Se-Hyuk Yeom¹, Jin-Beom Kwon², Dong-Geon Jung³, and Wang-Hoon Lee¹, ¹Gumi Electronics and Information Technology Research Institute, Korea, ²Kyungwoon University, Korea, ³Korea Institute of Industrial Technology, Korea

[WeP-35]

17:10-18:40

Vibrational and Strain Properties of Semipolar (11-22) AlN Films on M-Sapphire

Bei Ma^{1,2}, Kensei Oya², Ryota Akaike², Yoshihiro Ishitani¹, and Hideto Miyake², ¹Chiba University, Japan, ²Mie University, Japan

[WeP-37]

17:10-18:40

Modeling Study of Composition and Thickness Uniformity of AlGaIn Layers in UVC LED Structures

Yury Shustrov and Aleksa Galić, Semiconductor Technology Research d.o.o. Beograd, Serbia



[WeP-38]

17:10-18:40

Structure-Property Relationship of Morphology-Controlled CuS Nanostructures on Cu-Modified Gas Diffusion Electrodes

Jiwon Heo¹, Vishal Burungale¹, Chaewon Seong², Pratik Mane³, Hyojung Bae¹, and Jun-Seok Ha¹, ¹Chonnam National University, Korea, ²Korea Institute of Industrial Technology, Korea, ³Korea Photonics Technology Institute, Korea

[WeP-39]

17:10-18:40

MOVPE-Grown InGaAs-Based Strain-Balanced Multi-Quantum-Well 0.66-eV Absorber Material for Thermophotovoltaics

D. Lackner¹, A. Darwish^{1,2}, A. W. Bett^{1,2}, and H. Helmers¹, ¹Fraunhofer Institute for Solar Energy Systems ISE, Germany, ²University of Freiburg, Germany

[WeP-40]

17:10-18:40

Semipolar (11-22) AlN-Based Schottky Diodes Grown by Metal-Organic Chemical Vapor Deposition

Junxue Ran, Yijian Song, Jiankun Yang, Junxi Wang, and Tongbo Wei, Institute of Semiconductors, Chinese Academy of Sciences, China

[WeP-41]

17:10-18:40

Etch Resistance of Nitride MOCVD Reactor Components

Tomoe Yamamoto¹, Takayuki Togawa¹, Neal Gaffin², Taohid bin nur Tuhser², Creighton Tomek², Wei Fan², Yani Sun², Bowen Dong², and Jon Leist², ¹Momentive Technologies Japan K.K, Japan, ²Momentive Technologies, Inc., USA

[WeP-42]

17:10-18:40

Interface-Engineered Van der Waals BN/AlN Templates for High-Performance AlGaIn/GaN HEMTs

Haidi Wu^{1,2}, Jing Ning^{1,2}, Yue Hao^{1,2}, and Jincheng Zhang^{1,2}, ¹The State Key Laboratory of Wide-Bandgap Semiconductor Devices and Integrated Technology, China, ²Xidian University, China

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A First Look of Arsenic Incorporation into AlN for Wurtzite AlAsN

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Quantum Barrier Height Optimization for Efficient Far-UVC AlGaIn MQW LEDs: A Comparison to the Thick Single-Layer Active Region Design

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Visible-InGaIn-Based Long-Single Nanowire Laser for Future Photonic Applications

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The Origin of Efficiency in III-Nitride Micro Light-Emitting Diodes

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