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ICC JEJU, Jeju Island, Korea

Session Title:	[WeP] 2026-07-15(Wed.)
Session Date:	July 15 (Wed.), 2026
Session Time:	17:20-19:00
Session Room:	Room C (Event Hall A)
Session Chairs	

[WeP-1] 17:20-19:00

Selective-Area Growth of InGaAs Nanowires on SOI Using a SiON/W/SiO_2 Composite Mask

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

[WeP-2] 17:20-19:00

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

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

[WeP-3] 17:20-19:00

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] 17:20-19:00

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

Chan Young Sung[1], Hyun Gyu Song[2], and Yong-Hoon Cho[1], [1] Korea Advanced Institute of Science and Technology, Korea, [2] Korea Institute of Science and Technology, Korea

[WeP-5] 17:20-19:00

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

Young-Hun Han[1,2], Yu-Hyeon Bak[2], Hyun-Chul Lim[2], Moon-Uk Cho[1], Min-Ki Hong[1], Hyung-Sun Yun[1], Sung-Nam Lee[2], Yoon-Seok Kim[2], and June-O Song[1], [1] Wavelord Inc., Korea, [2] Tech University of Korea, Korea

[WeP-6] 17:20-19:00

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

Jéssica de O. Lorenzi[1], Rudy M. S. Kawabata[1], Daniel N. Micha[2], Luciana D. Pinto[1], Mauricio P. Pires[3], Patricia L. Souza[3], and Guilherme M. Torelly[1], [1] Pontifícia Universidade Católica do Rio de Janeiro, Brazil, [2] Centro Federal de Educação Tecnológica Celso Suckow da Fonseca, Brazil, [3] Universidade Federal do Rio de Janeiro, Brazil

[WeP-7] 17:20-19:00

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

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

[WeP-8] 17:20-19:00

Investigation of Two-Dimensional Hole Gas (2DHG) Transport in p-(Al)GaN/AlGaN/AlN 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] 17:20-19:00

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

Tae-Yong Park[1],[3], Yue Wang[1], Omar Alkhazragi[1], Jung-Hong Min[2], Tien Khee Ng[1], and Boon S. Ooi[1], [1] King Abdullah University of Science and Technology, Saudi Arabia, [2] Korea Photonics Technology Institute, Korea, [3] Korea Institute of Ceramic Engineering and Technology, Korea

[WeP-10] 17:20-19:00

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

Justyna Olejnik[1], Mikołaj Badura[1], Wojciech Dawidowski[1], Jan M. Śmigiel[1], Damian Radziewicz[1], Adriana Łozińska[1], Wojciech Kijaszek[1], Iwona Sankowska[2], Marcin Gębski[3], Magdalena Marciniak[3] , Marta Więckowska[3], Zofia Foryś [3],Michał Wasiak[3], Tomasz Czyszanowski[3], and Beata Ściana[1], [1] Wrocław University of Science and Technology, Poland, [2] Łukasiewicz Research Network, Poland, [3] Łódź University of Technology, Poland

[WeP-11] 17:20-19:00

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] 17:20-19:00

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] 17:20-19:00

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] 17:20-19:00

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

Ha-Neul Eom[1], Sung-Un Kim[1], Chandran Bagavath[1], Geon-Yeong Kim[1], Si-Won Park[1], Ui-Seong Hong[1], Dae-Young Um[2], and Yong-Ho Ra[1], [1] Jeonbuk National University, Korea, [2] Kumoh National Institute of Technology, Korea

[WeP-15] 17:20-19:00

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

Jaeyoung Baik[1], Je-Sung Lee[1], Jeongwoon Kim[1], Hoe-Min Kwak[2], Jin-Soo Kim[1], Yu-Jin Park[1], Jaeyong Kwon[1], Woo-Lim Jeong[1], Hyeondong Lee[3], JoonSeop Kwak[3], Chang-Mo Kang[4], and Dong-Seon Lee[1], [1] Gwangju Institute of Science and Technology, Korea, [2] Electronics and Telecommunications Research Institute, Korea, [3] Korea Institute of Energy Technology, Korea, [4] Pusan National University, Korea

[WeP-16] 17:20-19:00

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

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

[WeP-17] 17:20-19:00

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

Moon Uk Cho[1], Min-Ki Hong[1], Yuhyeon Bak[1,2], Hyunchul Lim[1], Young-Hun Han[1,2], and June-O Song[1], [1] Wavelord Inc., Korea, [2] Tech University of Korea, Korea

[WeP-18] 17:20-19:00

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

Hyemin Kim[1], Dong Seok Shin[2], Yong-Ho Song[1], Young-Ho Ko[2], and Yong-Hoon Cho[1], [1] Korea Advanced Institute of Science and Technology, Korea, [2] Electronics and Telecommunications Research Institute, Korea

[WeP-19] 17:20-19:00

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] 17:20-19:00

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

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

[WeP-21] 17:20-19:00

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

Chang Soo Kim[1], Joonghoon Choi[1], Joohan Bae[2], Inseok Ju[2], Hak-Jong Choi[3], and Young Joon Hong[1,2], [1] Sungkyunkwan University, Korea, [2] Korea Institute of Machinery and Materials, Korea

[WeP-22] 17:20-19:00

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

Je-Sung Lee[1], Jaeyong Kwon[1], Jaeyoung Baik[1], Seung Hyeok Lee[1], Sugyeong Cha[1], Chang-Mo Kang[2], and Dong-Seon Lee[1], [1] Gwangju Institute of Science and Technology, Korea, [2] Pusan National University, Korea

[WeP-23] 17:20-19:00

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

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

[WeP-24] 17:20-19:00

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] 17:20-19:00

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

Joanna Prażmowska[1], Emilia Baczewska[1], Mikołaj Badura[1], Magdalena Marciniak[2], Marcin Gębski[2], Tomasz Czyszanowski[2], and Regina Paszkiewicz[1], [1] Wrocław University of Science and Technology, Poland, [2] Lodz University of Technology, Poland

[WeP-26] 17:20-19:00

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

Joohan Bae[1] Chang Soo Kim, Joonghoon Choi, and Young Joon Hong, Sungkyunkwan University, Korea

[WeP-27] 17:20-19:00

Surface Protection by Temporary SiO_2 Passivation During High-Temperature Rapid Thermal Annealing Improves E-Mode AlGaN/GaN HEMTs

Min-Ki Hong[1], Hyunchul Lim[1], Yuhyeon Bak[1,2], Moon Uk Cho[1], Young-Hun Han[1,2], and June-O Song[1], [1] Wavelord Inc., Korea, [2] Tech University of Korea, Korea

[WeP-28] 17:20-19:00

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] 17:20-19:00

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

Yuhyeon Bak[1,2], Moon Uk Cho[1], Min-Ki Hong[1], Hyunchul Lim[1], Young-Hun Han[1,2], Yoon Seok Kim[2], and June-O Song[1], [1] WaveLord Inc., Korea, [2] Tech University of Korea, Korea

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[WeP-30] 17:20-19:00

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

Hyunchul Lim[1], Young-Hun Han[1,2], Yuhyeon Bak[1,2], Moon Uk Cho[1], Min-Ki Hong[1], and June-O Song[1], [1] Wavelord Inc., Korea, [2] Tech University of Korea, Korea

[WeP-31] 17:20-19:00

Growth and Characterization of In_2Te_3 Thin Films

Hoki Son[1] and Jinsung Kwak[1,2], [1] Changwon National University, Korea, [2] Changwon National University, Korea

[WeP-32] 17:20-19:00

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

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

[WeP-33] 17:20-19:00

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

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

[WeP-34] 17:20-19:00

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

Sae-Wan Kim[1], Byoung-Ho Kang[1], Jae-Sung Lee[1], Sang-Hoon Jung[1], Se-Hyuk Yeom[1], Jin-Beom Kwon[2], Dong-Geon Jung[3], and Wang-Hoon Lee[1], [1] Gumi Electronics and Information Technology Research Institute, Korea, [2] Kyungwoon University, Korea, [3] Korea Institute of Industrial Technology, Korea

[WeP-35] 17:20-19:00

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

Bei Ma[1,2], Kensei Oya[2], Ryota Akaike[2], Yoshihiro Ishitani[1], and Hideto Miyake[2], [1] Chiba University, Japan, [2] Mie University, Japan

[WeP-36] 17:20-19:00

Development and Validation of $MoCl_5$ Delivery Simulations: From Canister to Deposition Chamber

J.E. Maslar, V.B. Khromchenko, and B. Kalanyan, National Institute of Standards and Technology, USA

[WeP-37] 17:20-19:00

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

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

[WeP-38] 17:20-19:00

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

Jiwon Heo[1], Vishal Burungale[1], Chaewon Seong[2], Pratik Mane[3], Hyojung Bae[1], and Jun-Seok Ha[1],
[1] Chonnam National University, Korea, [2] Korea Institute of Industrial Technology, Korea, [3] Korea Photonics Technology Institute, Korea