

No Show List

MoP-GR-3

11:50 - 13:40

Epitaxial growth of high quality GaN layer on boron nitride nanotubes as intermediate layerGun Hee Lee,¹ Chil-Hyoung Lee,² Jae Won Jeong,² Su Jin Kim,² Eun Mi Kim,² Young-Baek Kim,² Gi-Seok Heo,² Jongho Lee,² Eun-Kyung Suh,¹ and Tae Hoon Seo^{*,2}¹School of semiconductor and Chemical Engineering, Chonbuk National University, Republic of Korea, ²Nano-Photonics Convergence Technology Group, Korea Institute of Industrial Technology, Republic of Korea

MoP-GR-7

11:50 - 13:40

Study on Transferable GaN Grown on Improved AlN/Graphene Composite SubstrateYanqing Jia,^{*} Jing Ning, Chaochao Yan, Jincheng Zhang, and Yue Hao

Department of Micro Electronic, Xidian University, China

MoP-CH-3

11:50 - 13:40

Intersubband optical absorption in InGaN/GaN quantum dot with hydrogenic impurity

Yan Xing

School of Physical Science and Technology, Inner Mongolia University, China

MoP-CH-5

11:50 - 13:40

Sub-quantum-well effect on radiative dynamics of Dislocation-free DUV AlGaIn/AlGaIn-based Multiple-Quantum-WellsIdris Ajja,¹ Dhaifallah Almalawi,¹ Zhiqiang Liu,² and Iman S. Roqan^{*,1}¹Physical Science and Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal 23955, Saudi Arabia, Saudi Arabia, ²Institute of Semiconductors, Chinese Academy of Science, Beijing 100083, China, China

MoP-CH-6

11:50 - 13:40

Optical Phonons and Their Transformation in Cylindrical Wurtzite Nitride Core-Multishell Nanowires with Ternary Mixed Crystal EffectJianXia Wang, Yuan Qu,^{*} and Shiliang Ban

Inner Mongolia University, China

MoP-OD-1

11:50 - 13:40

Effect of p-AlGaIn / GaIn superlattice on InGaIn/GaIn multiple quantum wells light-emitting diodeswenkai yue,^{*} zhimin li, peixian li, xiaowei zhou, and xiaoshun luo

School of Advanced Materials and Nanotechnology, Xidian University, China

MoP-OD-3

11:50 - 13:40

Study of Light Field Distribution in GaIn Triangular RidgeCheng Ge,^{*,1} Menghan Liu,¹ Ru Xu,¹ Jing Zhou,¹ Yunfei Yang,¹ Yimeng Li,¹ Haocheng Peng,¹ Peng Chen,^{1,2} Bin Liu,¹ Zili Xie,¹ Rong Zhang,¹ and Youdou Zheng¹¹Jiangsu Province Key Laboratory of Advanced Photonic and Electronic Materials and School of Electronic Science and Engineering, Nanjing University, China, ²Institute of Optoelectronics of Yangzhou, Nanjing University, China

MoP-OD-12

11:50 - 13:40

Vertical Hybrid Heterojunction for Broadband, Self-powered and Transparent PhotodetectorKrishnendu Sarkar,¹ Pooja Devi,^{*,2} and Praveen KUMAR¹¹Indian Association for the Cultivation of Science, Kolkata, 700032, India, India, ²Central Scientific Instruments Organization, Sector-30C, Chandigarh- India-160030, India, India

MoP-OD-16

11:50 - 13:40

Full-duplex light communication system with OFDM modulation using InGaN/GaN multiple-quantum-well diodes and waveguideYan Jiang,* Linning Wang, Mingyuan Xie, Zheng Shi, Yuan Jiang, and Yongjin Wang
Peter Grünberg Research Centre, Nanjing University of Posts and Telecommunications, China

MoP-ED-4

11:50 - 13:40

Irradiation traps induced by 2060-MeV $^{86}\text{Kr}^{26+}$ ions in AlGaIn/GaN HEMTsXiao yan Yan,* Ling Lv, and Zheng zhao Lin
Department of Materials Science and Engineering, Xidian University, China

MoP-ED-6

11:50 - 13:40

Normally-Off AlGaIn/GaN MISHEMT Using Charge Storage TechniquePing-Cheng Han,*¹ Zong-Zheng Yan,² Jui-Sheng Wu,² Chia-Hsun Wu,² and Edward Yi Chang^{1,2}
¹International College of Semiconductor Technology, National Chiao Tung University, Taiwan, ²Department of Materials Science & Engineering, National Chiao Tung University, Taiwan

MoP-ED-10

11:50 - 13:40

Investigation of Tri-gate and Dual-gate AlGaIn/GaN Fin-HEMTsMeng Zhang,* Ling Yang, Minhan Mi, Bin Hou, Mei Wu, Qing Zhu, Sheng Wu, Yunlong He, and Xiaohua Ma
Xidian University, China

TuP-GR-11

12:40 - 14:30

AlN Epitaxial Growth with Very High Growth Rate by HT MOCVDByoungtak Lee, Sain Hong, Hwanuk Shin, Taesanbukdoo Lim, and Minho Choi*
TOP Engineering, Republic of Korea

TuP-GR-16

12:40 - 14:30

Solid-liquid interface control and optimization of Ga_2O_3 crystal growth by EFG methodZhitai Jia,* Wenxiang Mu, Bo Fu, Jin Zhang, and Xutang Tao
State key lab of crystal materials, Shandong Univeristy, China

TuP-CH-1

12:40 - 14:30

Optical characterization of light extraction behaviors on the light emitting diodes grown on the different patterning substratesSangMook KIM* and Jong Hyeob Baek
Korea Photonics Technology Institute, Republic of Korea

TuP-CH-2

12:40 - 14:30

Modulation of nanochannel geometry on self-heating in Tri-gate Nanowire GaN HEMTs on Silicon SubstrateMei Wu,* Qing Zhu, Meng Zhang, Xinchuang Zhang, Ling Yang, Xiaohua Ma, and Yue Hao
State Key Discipline Laboratory of Wide Band-Gap Semiconductor Technology, Xidian University, China

TuP-CH-3

12:40 - 14:30

Carrier Dynamics of Removing Excitation Pulse in InGaIn Quantum DotsMing Tian,*^{1,2} Honghui Liu,¹ Jianping Liu,³ Hui Yang,³ and Zhe Chuan Feng^{1,2}
¹Laboratory of optoelectronic materials & detection technology, Guangxi Key Laboratory for the Relativistic Astrophysics, School of Physics Science & Technology, Guangxi University, China, ²Center on Nanoenergy Research, Guangxi University, China, ³Suzhou Institute of Nano-tech and Nano-bionics, Chinese Academy of Sciences, China

TuP-CH-5

12:40 - 14:30

Carrier dynamics in enhanced MQW light emitting diode structures via V-pitsIdris Ajjia,¹ Zhiqiang Liu,² Paul Edwards,³ Robert W. Martin,³ and Iman S. Roqan^{*1}¹Physical Science and Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal 23955, Saudi Arabia, Saudi Arabia, ²Institute of Semiconductors, Chinese Academy of Science, Beijing 100083, China, China, ³Department of Physics, SUPA, University of Strathclyde, Glasgow, G4 0NG, United Kingdom, United Kingdom

TuP-OD-15

12:40 - 14:30

Dual-functional InGaN/GaN MQW Diode for Auto Brightness ControlXumin Gao,^{*} Xinyu Xu, Kang Fu, Linning Wang, Yuan Jiang, and Yongjin Wang

College of Telecommunications and Information Engineering, Nanjing University of Posts and Telecommunications, China

TuP-ED-2

12:40 - 14:30

Enhancement of channel conductivity and suppression of current collapse in C-doped GaN buffer by using the Si δ -doped AlGaN back barrierLing Yang,^{*1} Meng Zhang,¹ Bin Hou,² Minhan Mi,² Mei Wu,² Qing Zhu,¹ Jiejie Zhu,² Xiaohua Ma,² and Yue Hao²¹School of advanced materials and nanotechnology, Xidian University, China, ²School of Microelectronics, Xidian University, China

TuP-ED-4

12:40 - 14:30

Fin-Gated Nanochannel Array GaN-based Metal-Oxide-Semiconductor High-Electron Mobility TransistorsChing-Ting Lee^{*1,2} and Hsin-Ying Lee²¹Department of Electrical Engineering, Yuan Ze University, Taoyuan 320, Taiwan, Republic of China, Taiwan, ²Department of Photonics, National Cheng Kung University, Tainan 701, Taiwan, Republic of China, Taiwan

TuP-ED-10

12:40 - 14:30

Comparison of device characteristics between recessed and regular AlGaN/GaN SBDsGe Liu,^{*} Jincheng Zhang, Shenglei Zhao, Weihang Zhang, and Yue Hao

Key Laboratory of Wide Band Gap Semiconductor Materials and Devices, School of Microelectronics, Xidian University, China

TuP-ED-15

12:40 - 14:30

Hybrid Conductive Filaments Characteristic of the (In, N) co-doped ZnO Memory DeviceSih-Sian Li^{1,2} and Yan-Kuin Su^{*1,2}¹Institute of Microelectronics, Department of Electrical Engineering, Department of Photonics, National Cheng Kung University, Taiwan, ²Green Energy Technology Research Center, Department of Electrical Engineering, Kun Shan University, Taiwan

TuP-ED-16

12:40 - 14:30

Electrical and photocurrent properties of polycrystalline Sn-doped β -Ga₂O₃ thin film with thickness of 100 nmYounbin Yoon,^{*1} Sunjae Kim,² In Gye Lee,² Byung Jin Cho,³ Myunghun Shin,¹ and Wan Sik Hwang²¹Department of Electronics and Information Engineering, Korea Aerospace University, Republic of Korea, ²Department of Materials Engineering, Korea Aerospace University, Republic of Korea, ³School of Electrical Engineering, KAIST, Republic of Korea

TuP-ED-18

12:40 - 14:30

Al₂O₃/TiO₂-Passivated In_{0.17}Al_{0.83}N/AlN/GaN Γ -Gate MOS-HFETsChing-Sung Lee Lee,^{*1} Wei-Chou Hsu,² Yun-Jung Lin,¹ and Xue-Cheng Yao¹¹Department of Electronic Engineering, Feng Chia University, Taiwan, ²Institute of Microelectronics, National Cheng Kung University, Taiwan

ThP-CH-2

12:30 - 14:20

Studies on Internal Quantum Efficiency and Carrier Dynamics of AlGaN Ultraviolet Radiation B introduced by Lateral-Polarity StructureYingda Qian,^{*1} Wei Guo,² Kaiyan He,¹ and Zhe Chuan FENG¹¹School of Physical Science & Technology, Guangxi University, China, ²Ningbo Institute of Materials Technology and Engineering (NIMTE), Chinese Academy of Sciences, China

ThP-CH-15

12:30 - 14:20

The Change of Band Gap Energy for the WS_xSe_y Monolayer

Yung-Huang Chang,^{*1} Yuan-Tsung Chen,² Chien-Sheng Huang,³ and Cheng-Jia Tang³

¹Bachelor Program in Interdisciplinary Studies, National Yunlin University of Science and Technology, Taiwan, ²Graduate School of Materials Science, National Yunlin University of Science and Technology, Taiwan, ³Department of Electronic Engineering, National Yunlin University of Science and Technology, Taiwan

ThP-OD-11

12:30 - 14:20

Modified III-nitrides Nanostructures for Next-generation Energy Harvesters

Praveen KUMAR^{*1} and Pooja Devi²

¹Indian Association for the Cultivation of Science-Kolkata, India, ²CSIR-Central Scientific Instruments Organisation, Chandigarh, India

ThP-OD-15

12:30 - 14:20

Dual-functioning subwavelength vertical-structure LED

Kang Fu,^{*} Xumin Gao, Jialei Yuan, Linning Wang, Xinyu Xu, and Yongjin Wang

College of Telecommunications and Information Engineering, Nanjing University of Posts and Telecommunications, China

ThP-ED-8

12:30 - 14:20

An enhancement mode MOSFET on GaN-on-silicon for monolithic OEIC

Jiabin Yan,^{*} Jinlong Piao, and Yongjin Wang

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