

Special Topic on Deep Ultraviolet Light-Emitting Materials and Devices

■ RESEARCH HIGHLIGHTS

Magnetic LEGO: van der Vaals interlayer magnetism 120201

[1 page] Lifeng Yin

■ COMMENTS AND OPINIONS

Research status and prospects of deep ultraviolet devices 120301

[4 pages] Hideki Hirayama

NEWS AND VIEWS

120401 Laser fabrication of graphene-based soft robots

Bing Han and Yong-Lai Zhang [2 pages]

III-nitride based ultraviolet laser diodes 120402

Degang Zhao [2 pages]

■ EDITORIAL

Preface to the Special Topic on Deep Ultraviolet Light-Emitting Materials and Devices 120101

Jinmin Li, Xinqiang Wang, Dabing Li, and Tongbo Wei [1 page]

REVIEWS

Deep-ultraviolet integrated photonic and optoelectronic devices: A prospect of the 121801 hybridization of group III-nitrides, III-oxides, and two-dimensional materials

Nasir Alfaraj, Jung-Wook Min, Chun Hong Kang, Abdullah A. Alatawi, Davide Priante, [48 pages]

Ram Chandra Subedi, Malleswararao Tangi, Tien Khee Ng, and Boon S. Ooi

Recent progress of SiC UV single photon counting avalanche photodiodes 121802

Linlin Su, Dong Zhou, Hai Lu, Rong Zhang, and Youdou Zheng [11 pages]

The fabrication of AIN by hydride vapor phase epitaxy 121803

Maosong Sun, Jinfeng Li, Jicai Zhang, and Wenhong Sun [12 pages]

ARTICLES

Growth properties of gallium oxide on sapphire substrate by plasma-assisted pulsed laser 122801 deposition

Congyu Hu, Katsuhiko Saito, Tooru Tanaka, and Qixin Guo [5 pages]

A contrivance of 277 nm DUV LD with B_{0.313}Ga_{0.687}N/B_{0.40}Ga_{0.60}N QWs and Al_xGa_{1-x}N 122802 heterojunction grown on AIN substrate

Mussaab I. Niass, Muhammad Nawaz Sharif, Yifu Wang, Zhengqian Lu, Xue Chen, Yipu Qu, Zhongqiu Du, [4 pages]

Fang Wang, and Yuhuai Liu



122803 Study of the morphology evolution of AIN grown on nano-patterned sapphire substrate

[5 pages] Zhuohui Wu, Jianchang Yan, Yanan Guo, Liang Zhang, Yi Lu, Xuecheng Wei, Junxi Wang, and Jinmin Li

■ ARTICLES

■ ARTICLES	
122101 [5 pages]	Hot electron effects on the operation of potential well barrier diodes M. Akura, G. Dunn, and M. Missous
122201	Improved efficiency and photo-stability of methylamine-free perovskite solar cells via cadmium doping
[5 pages]	Yong Chen, Yang Zhao, Qiufeng Ye, Zema Chu, Zhigang Yin, Xingwang Zhang, and Jingbi You
122401	Analytical model for the effects of the variation of ferrolectric material parameters on the minimum subthreshold swing in negative capacitance capacitor
[5 pages]	Raheela Rasool, Najeeb-ud-Din, and G. M. Rather
122402	Contact etch process optimization for RF process wafer edge yield improvement
[4 pages]	Zhangli Liu, Bingkui He, Fei Meng, Qiang Bao, Yuhong Sun, Shaojun Sun, Guangwei Zhou, Xiuliang Cao, and Haiwei Xin
122403	Selection of DBO measurement wavelength for bottom mark asymmetry based on FDTD method
[6 pages]	Buqing Xu, Qiang Wu, Lisong Dong, and Yayi Wei
122404	Column readout circuit with improved offset mismatch and charge sharing for CMOS image sensor
[5 pages]	Zhongjie Guo, Ningmei Yu, and Longsheng Wu
122701	Simulation and application of external quantum efficiency of solar cells based on spectroscopy
[9 pages]	Guanlin Chen, Can Han, Lingling Yan, Yuelong Li, Ying Zhao, and Xiaodan Zhang
122901	A compact two-dimensional analytical model of the electrical characteristics of a triple-material double-gate tunneling FET structure
[7 pages]	C. Usha and P. Vimala
122902 [4 pages]	Improvement of tunnel compensated quantum well infrared detector Chaohui Li, Jun Deng, Weiye Sun, Leilei He, Jianjun Li, Jun Han, and Yanli Shi
129501 [pages]	Annual List of Contents to Volume 40

129901 [pages]

Annual Index to Volume 40