

## Special Issue on Towards High Performance Ga<sub>2</sub>O<sub>3</sub> Electronics: Epitaxial Growth and Power Devices ( I )

Guest editors: Genquan Han, Shibing Long, Yuhao Zhang, Yibo Wang, and Zhongming Wei

### ■ COMMENTS AND OPINIONS

060301 **Heterogeneous integration technology for the thermal management of Ga<sub>2</sub>O<sub>3</sub> power devices**

[3 pages] Genquan Han, Tianguai You, Yibo Wang, Zheng-Dong Luo, Xin Ou, and Yue Hao

### ■ EDITORIAL

060101 **Preface to Special Issue on Towards High Performance Ga<sub>2</sub>O<sub>3</sub> Electronics: Epitaxial Growth and Power Devices ( I )**

[3 pages] Genquan Han, Shibing Long, Yuhao Zhang, Yibo Wang, and Zhongming Wei

### ■ REVIEWS

061801 **A comprehensive review of recent progress on enhancement-mode β-Ga<sub>2</sub>O<sub>3</sub> FETs: Growth, devices and properties**

[17 pages] Botong Li, Xiaodong Zhang, Li Zhang, Yongjian Ma, Wenbo Tang, Tiwei Chen, Yu Hu, Xin Zhou, Chunxu Bian, Chunhong Zeng, Tao Ju, Zhongming Zeng, and Baoshun Zhang

061802 **Recent advances in NiO/Ga<sub>2</sub>O<sub>3</sub> heterojunctions for power electronics**

[15 pages] Xing Lu, Yuxin Deng, Yanli Pei, Zimin Chen, and Gang Wang

### ■ ARTICLES

062801 **Homoepitaxial growth of (100) Si-doped β-Ga<sub>2</sub>O<sub>3</sub> films via MOCVD**

[7 pages] Wenbo Tang, Xueli Han, Xiaodong Zhang, Botong Li, Yongjian Ma, Li Zhang, Tiwei Chen, Xin Zhou, Chunxu Bian, Yu Hu, Duanyang Chen, Hongji Qi, Zhongming Zeng, and Baoshun Zhang

062802 **Exploring heteroepitaxial growth and electrical properties of α-Ga<sub>2</sub>O<sub>3</sub> films on differently oriented sapphire substrates**

[6 pages] Wei Wang, Shudong Hu, Zilong Wang, Kaisen Liu, Jinfu Zhang, Simiao Wu, Yuxia Yang, Ning Xia, Wenrui Zhang, and Jichun Ye

062803 **Rapid epitaxy of 2-inch and high-quality α-Ga<sub>2</sub>O<sub>3</sub> films by mist-CVD method**

[7 pages] Xiaojie Wang, Wenxiang Mu, Jiahui Xie, Jinteng Zhang, Yang Li, Zhitai Jia, and Xutang Tao

062804 **Investigation of β-Ga<sub>2</sub>O<sub>3</sub> thick films grown on c-plane sapphire via carbothermal reduction**

[6 pages] Liyuan Cheng, Hezhi Zhang, Wenhui Zhang, and Hongwei Liang

062805 **Preparation of Sn-doped Ga<sub>2</sub>O<sub>3</sub> thin films and their solar-blind photoelectric detection performance**

[10 pages] Lijun Li, Chengkun Li, Shaoqing Wang, Qin Lu, Yifan Jia, and Haifeng Chen

062806 **Preparation and photodetection performance of high crystalline quality and large size  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> microwires**

[5 pages] Yuefei Wang, Yurui Han, Chong Gao, Bingsheng Li, Jiangang Ma, Haiyang Xu, Aidong Shen, and Yichun Liu