



Wide-Bandgap Semiconductors

Guest Editors:

Dr. Mingsheng Xu

Dr. Qiang Li

Dr. Giuseppe Greco

Dr. Vladimir M. Kaganer

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Message from the Guest Editors

Wide-bandgap semiconductor materials have unique electrical, optical, and magnetic properties. Their devices have excellent performance and broad application prospects in many fields, which can improve the working temperature limit of power devices and make them work in worse environments; improve the power and efficiency of devices and, consequently, the performance of equipment; and broaden the luminous spectrum and realize full-color displays. We know that 3rd-generation semiconductor materials are mainly wide-bandgap semiconductors represented by GaN and SiC. Ultrawide-bandgap semiconductor materials include AlN, Ga₂O₃, diamond, BN, and so on. The introduction of these new materials represents a significant development and supplements semiconductor systems. At this stage, the growth, fabrication, and characterization of wide-bandgap semiconductor materials and devices need to be strengthened and improved. It is also necessary to systematically summarize recent works so that researchers in this field can learn from each other and jointly promote the development of wide-bandgap semiconductor materials and devices.





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Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University of Pisa, 56126 Pisa, Italy

Message from the Editor-in-Chief

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Crystals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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