

## Special Issue

# Advanced Electronics and Optoelectronics Based on 2D Materials and vdW Heterostructures

### Message from the Guest Editor

Two-dimensional (2D) materials have created a new paradigm in atomic-scale devices. Numerous applications such as logic devices and advanced optoelectronics have been extensively explored in relation to 2D materials owing to their compelling properties, including atomically thin thicknesses, dangling bond-free surfaces, and appropriate band gaps, etc. Moreover, the weak vdW interaction between the layers means that 2D materials can be easily exfoliated, and offers great flexibility to stack a wide variety of 2D materials to construct artificial vdW heterostructures without the constraint of atomically precise commensurability. These 2D vdW heterostructures have emerged as promising way of further engineering the electronic and optoelectronic properties of 2D materials, showing great promise for a variety of novel functional devices, including advanced transistors, multilevel inverters, memory devices, photodetectors, photovoltaics, etc. Motivated by the rapid progresses in 2D materials, this Special Issue highlights the material preparation, property modulation, device design, and their device explorations towards advanced electronics and optoelectronics.

### Guest Editor

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### Deadline for manuscript submissions

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### Message from the Editor-in-Chief

*Electronics* is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

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### Editor-in-Chief

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