

Special Issue on
**Two-Dimensional Optoelectronic Materials: Synthesis,
Properties, and Applications**

CALL FOR PAPERS

Optoelectronic materials are the foundation of modern civilization and expected a wide range of applications in information, energy, environment, and other high-tech fields, particularly valuable for the increasing world demand and declining energy reserves. Recent advances in optoelectronic materials have introduced diverse two-dimensional (2D) members (graphene, MoS₂, black phosphorus, etc.) and present the tendency to merge constantly with currently available techniques. Meanwhile, the interaction and conversion between photons and electrons, the key concern for optoelectronic materials and devices, become complexity in the two-dimensionality; thus new nanofabrication, processing, and characterization techniques are extremely essential.

In this special issue, we plan to present the cutting edge research focusing on the synthesis, novel properties, and potential applications of novel 2D optoelectronic nanostructures. We invite investigators to contribute original research articles as well as review articles that will stimulate the continuing efforts to synthesize novel 2D materials, understand underlying physics of light propagation and interaction, and develop characterization strategies for treating these conditions and the evaluation of outcomes.

Potential topics include but are not limited to the following:

- ▶ Novel 2D materials and engineered structures
- ▶ Advances in nanofabrication, processing, and characterization techniques
- ▶ New technologies and strategies to enhance light trapping efficiency
- ▶ Physics of light propagation, interaction, and behavior in 2D structures
- ▶ Applications of 2D optoelectronic materials and nanostructures

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/aoe/tdom/>.

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