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Low-Dimensional Materials for Optoelectronic and Photovoltaic Fundamentals and Applications

Guest Editor:

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Deadline for manuscript submissions:

20 April 2025

Message from the Guest Editor

Dear Colleagues,

For this Special Issue, we invite the submission of original research articles and reviews on fundamental and applied research focused on low-dimensional materials for optoelectronics and photovoltaics, including, but not limited to, the following:

- Semiconductor and heterostructure optoelectronics and photovoltaics;
- Mesoscopic phenomena in nanostructures;
- Plasmonic and phononic systems;
- Energy conversion and energy-harvesting processes;
- Nonlinear optoelectronic processes;
- Optoelectronics of 2D materials and their heterostructures;
- Carrier dynamics in organic materials and interfaces;
- Ultra-fast optical phenomena at low dimensions;
- Optoelectronics of nanowires and quantum dots;
- Flexible optoelectronics and photovoltaics.



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Special issue



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Message from the Editor-in-Chief

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