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## Structural Engineering of Low-Dimensional Materials for Desired Properties

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submissions:

**closed (20 August 2025)**

### Message from the Guest Editor

Dear Colleagues,

Unique properties can be exhibited by bulk (3D) materials when their dimensions are reduced. Representative examples include fullerenes (0D), carbon nanotubes (1D), graphene, transition metal dichalcogenides and MXenes (2D). There have been increasing research interests in tuning their properties by structural engineering, and viable approaches include defect control, phase transitions, elemental doping, self-assembly, hybridization, etc. Recent progress in the scientific understanding and technological advances in this field offers new opportunities to address several key challenges, thereby enabling a broader range of applications, such as electronic and optoelectronic devices, catalysts, batteries, supercapacitors, etc. The relevant topics have received widespread attention and publications on these topics are highly cited. Thus, this Special Issue, entitled “Structural Engineering of Low-Dimensional Materials for Desired Properties,” aims to provide reviews and perspectives that will inspire more scholars and industrial partners to become involved in the development and commercialization of these promising functional materials.



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## Editor-in-Chief

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## Message from the Editor-in-Chief

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