Special Issue

One- and Two-Dimensional Architectures for Electronic and Optoelectronic Devices

Message from the Guest Editors

Miniaturization and nano-building are the two most spoken words in preparation materials for electronic and optoelectronic applications. Even if the interest is in fabricating flexible electronic devices, thin-film transistors or sensing tools, or focus on the production of light-emitting diodes or photovoltaic structures, the main goals are small dimensions and high efficiency.

1D/2D architectures offer various possibilities to realize small size and high performance with large active areas, easily tunable processes, and numerous physical and chemical deposition/growth techniques (including but not limited to solution-based methods, thermal evaporation, magnetron sputtering and atomic layer deposition). Special consideration has been paid to the theoretical/computational path (the R-matrix method, density functional theory, SIESTA, etc.) as it provides valid optimization, validation and starting points for future studies.

This Special Issue is focused on (but not limited to) the relation between 1D/2D architectures and electronic and optoelectronic devices, including both experimental and theoretical approaches. It is my pleasure to invite you to submit a manuscript for this SI.

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Deadline for manuscript submissions

closed (10 November 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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