

Special Issue

Graphene Nanoribbons: Synthesis, Characterization and Applications

Message from the Guest Editor

The effects of electronic bonding and the state of the electronic edges are important for graphene properties that depend crucially on the ribbon width and the nature of the edge of the ribbon. One of the main challenges towards GNR's synthesis is the preservation of their properties upon device integration. Several top-down and bottom-up approaches have been used for the synthesis of atomically accurate GNRs by means of lithographic, catalytic cutting, chemical, and epitaxial growth methods. Moreover, GNR transparent conductive thin films can be obtained by liquid deposition methods. GNRs have a variety of applications in next-generation nanoelectronics like transistors, logic circuits, and spintronic devices due to their tunable electronic properties. They are also used in energy applications such as transparent conductive films, supercapacitors, and thermoelectric generators. Additionally, GNRs show promise in sensing applications such as chemical and gas sensing, biosensing and bioimaging.

Guest Editor

Dr. George Kliros

Division of Electronics, Electric Power and Telecommunications,
Department of Aeronautical Sciences, Hellenic Air Force Academy,
Dekelia Air Force Base, Acharnes, Greece

Deadline for manuscript submissions

20 July 2026



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/263900

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
appls-ci@mdpi.com

mdpi.com/journal/

[appls-ci](https://appls-ci.mdpi.com)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)