

Special Issue

Synthesis and Characterization of Various Nanomaterials Based on Graphene Derivatives

Message from the Guest Editors

Graphene derivatives, modified versions of graphene with tailored properties, offer enhanced functionality and versatility. Their synthesis involves the functionalization, doping, or hybridization of graphene with other materials to impart the desired properties. Their applications span a wide range of sectors, including electronics, energy storage, catalysts, and environmental remediation. Topics include, but are not limited to, the following:

- Novel synthesis approaches for graphene derivatives;
- Functionalization and doping strategies to tailor graphene properties;
- Characterization techniques for assessing graphene derivative properties;
- Advanced applications of graphene derivatives in organic chemistry, catalysts, electronics, energy, biomedicine, and environmental computational modelling and theoretical studies of graphene derivative behaviour;
- Challenges and opportunities for scaling up the production of graphene derivatives for commercialization;
- Environmental, health, and safety considerations of graphene derivative use.

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