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# Advanced Nanocomposites—Functional Ceramic/Graphene and Its Applications

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## Message from the Guest Editors

Dear Colleagues,

It is well known that ceramics are widely used for biomedical, electronic, automotive and space applications due to their attractive properties such as high stiffness, strength, and stability at high temperatures. To further extend their applications, forming nanocomposites are increasingly of interest to tailor both the mechanical and functional properties of ceramics. Graphene, one of most studied materials in the last two decades, has extremely high electrical, mechanical, and thermal properties. The very high surface area is another advantage compared to other carbon-based materials. Therefore, incorporating graphene into ceramics to produce advanced ceramic nanocomposites has great potential for versatile applications. The topics of interest for this Special Issue include (but are not limited to):

- Advanced ceramic/graphene nanocomposites;
- Innovative synthesis and sintering process;
- Applications of ceramic/graphene nanocomposites, e.g., energy harvesting, water filtration, catalysis, functional coating, batteries, etc.;
- Novel characterization for ceramic nanocomposites;
- Structure and properties of ceramic nanocomposites;

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## Message from the Editorial Board

Now more than ever, research is called for to produce technologies and improve knowledge to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed at the center of most contemporary research. Surface science and engineering play a key role in this regard. Refining surfaces and their modifications provides new materials, architectures and processes with a huge potential to aid most societal challenges. *Coatings* is a well-established, peer-reviewed, online journal that focuses on the dissemination of publications in the field of surface science and engineering. *Coatings* publishes original research articles that report cutting-edge results and review papers on the hottest topics.

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