



Advanced Nanocomposites—Functional Ceramic/Graphene and Its Applications

Guest Editors:

Dr. Zhongquan Liao

Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Maria-Reiche-Straße 2, 01109 Dresden, Germany

Dr. Csaba Balázs

Centre for Energy Research ELKH, Konkoly Thege Str. 29-33, Budapest, Hungary

Prof. Dr. Ján Dusza

Institute of Materials Research, Slovak Academy of Sciences, Watsonova 47, 040 01 Košice, Slovakia

Deadline for manuscript submissions:

closed (31 December 2022)

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;





Editors-in-Chief

Prof. Dr. Wei Pan

State Key Laboratory of New
Ceramics and Fine Processing,
School of Materials Science &
Engineering, Tsinghua University,
Beijing 100084, China

Dr. Emerson Coy

NanoBioMedical Centre, Adam
Mickiewicz University in Poznań,
ul. Wszechnicy Piastowskiej 3, 61-
614 Poznań, Poland

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies 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 in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Surfaces, Coatings and Films*)

Contact Us

Coatings Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/coatings
coatings@mdpi.com
X@Coatings_MDPI