

## Special Issue

# Nanocomposites for Bio-MEMS/NEMS Applications

### Message from the Guest Editor

This Special Issue intends to advocate the revolution on the advancements and applications of various nanocomposites in the development of robust and reliable Bio-MEMS/NEMS devices. Nanocomposites have recently achieved impetus in the context of micro/nano-electro-mechanical systems (MEMS/NEMS) development due to their exceptional physiochemical properties. The nanocomposites are known for their greater electrical, mechanical, and tribological properties at the nanoscale. Particularly, the advancements enable the incorporation of excellent properties of nanocomposites at the interface of Bio-MEMS/NEMS devices. This novel approach is the best solution for common nanotribology and nanomechanics problems in Bio-MEMS/NEMS system development which drastically compromises the device performance and reliability. Moreover, the large surface area of nanocomposites also helps to significantly enhance the bio-adhesion, biocompatibility and facilitate reaction kinetics through reduction of frictions on the bio-MEMS/NEMS surfaces. For more detailed information please see the Special Issue webpage.

### Guest Editor

Prof. Dr. Fatimah Binti Ibrahim

Department of Biomedical Engineering, Centre for Innovation in Medical Engineering, Faculty of Engineering, University Malaya, Kuala Lumpur, Malaysia

### Deadline for manuscript submissions

closed (31 March 2023)



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*Nanomaterials*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[nanomaterials@mdpi.com](mailto:nanomaterials@mdpi.com)

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### Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano–alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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### Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of  
Birmingham, Birmingham B15 2TT, UK

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