

Special Issue

Advanced Materials for Aerospace: Polymer Nanocomposites

Message from the Guest Editors

Over the last three decades, the availability of a different typology of nanoparticles has increased enormously, giving a concrete chance to develop tunable materials for specific structural and functional applications.

Adding nanoparticles to a polymer matrix can enhance its performance, at the same time tailoring specific properties. This approach is particularly effective in applications for which specific functionalities are needed, such as conductive polymer, enhanced thermal conductive matrix, high performance composites, functional coating, nanocomposite foams or “smart” materials for sensing. This Special Issue aims to publish original research, which will add knowledge to the current understanding on polymer nanocomposites, including fundamental structure/property relationships, property characterization, and numerical modeling and manufacturing techniques. At the same, review work reporting the current state of the art for a specific feature of polymer nanocomposites with main interests for aeronautical and space applications is welcome.

Guest Editors

Dr. Mauro Zarrelli

Institute of Polymers, Composites and Biomaterials, National Research Council of Italy, 80055 Portici, Italy

Dr. Anna Borriello

Institute for Polymers, Composites and Biomaterials, National Research Council of Italy, P.le Fermi, 1, 80055 Portici, NA, Italy

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Nanomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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.

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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