Special Issue

Aluminum Based Nanocomposite and Nanostructured Alloys

Message from the Guest Editor

Owing to the amazing combination of lightweight, high specific strength, excellent corrosion resistance and exceptional recyclability, non-ferrous aluminum-based metallic materials enjoy the leading position in load-bearing applications in industries including automobile and aerospace. In recent years, high-strength aluminum alloys with substantial ductility have been developed by the creation of ultrafine grain or nano-crystalline microstructure (nanostructured) and by the dispersion of extremely fine harder reinforcement particles (nanocomposites). These nanostructured metallic materials were processed thermo-mechanical process, while the nanocomposite metallic materials were processed using traditional ingot metallurgy and powder metallurgy processes. This Special Issue of *Nanomaterials* will attempt to cover the most recent advances in aluminum-based nanocomposites and nanostructured materials, from design, synthesis and characterization to their applications.

Guest Editor

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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