

Special Issue

Surface Engineering to Create Composite Nanomaterials with Improved Functional Properties

Message from the Guest Editors

One of the important tasks of modern materials science is the development of new composite materials with improved functional properties. Currently, research is being actively carried out related to the development of combined approaches in the synthesis of new-generation composites by structuring them both in bulk and on the surface to improve functional properties (magnetic, mechanical, biomedical, catalytic, etc.). Requirements for the structure and physicochemical properties of composites, including nanomaterials, vary depending on the specific application. Therefore, the role of the surface in controlling the properties of composites cannot be overestimated. By studying the influence of the surface of the reinforcing phase on the structure and properties of the composite, it is possible to achieve a deeper understanding of the processes of formation of metal and ceramic composites and further directionally predict their properties. This Special Issue will present the latest work on the synthesis and modification of materials, including nanomaterials, to form new composites, from nanostructure to modeling and practical applications.

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