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Core-Shell Nanostructures for Functional Applications

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Message from the Guest Editors

Dear Colleagues,

It is known that the properties of a surface are different from those of the bulk material. For macroscopic objects, contribution of the surface characteristics to overall behavior of the material often can be neglected. Nanostructures, in contrast, have high surface-to-volume ratio and their properties are strongly affected by a few atomic layers at the surface. Therefore, even a very thin coating can drastically influence the properties and overall behavior of the nanoscale materials. This opens a route for fine-tuning the characteristics of nanostructures by combining two or more materials in a single core-shell heterostructure.

This Special Issue aspires to collect regular and review articles focusing on the synthesis, characterization, and modelling of functional core-shell nanostructures aimed at potential applications in emerging technologies.