Special Issue

Magnetic Properties of Nanomaterials

Message from the Guest Editor

Now, these nanomaterials (new magnetic materials, hard, semi-hard and soft magnetic nanomaterials) play a key role in concerning the reduction of fossil fuel consumption and climate change. Nanomaterials offer a wide range of possibilities in terms of both synthesis and characterization. In the field of magnetism, several characteristic dimensions are found at the nanoscale, such as the domain wall thickness and the exchange length in hard magnetic phases. In the case of magnetic recording media, nanoscaling allows the increasing of the surface density of the data storage. As for permanent magnets, the energy product has been successfully improved through using nanocomposite phases. This special issue focuses on many areas of magnetic nanomaterial applications (giant magnetoresistance, automotive applications, high density recording media, magnetic refrigeration, biomedicine...). Contributions may cover topics but are not limited, such as theoretical work and ab initio calculations, the characterization of magnetic compounds, spintronic materials, magnetic nanoparticles for recording media, and magnetocaloric effects.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Magnetochemistry constitutes a multidisciplinary field where chemists and physicists not only study magnetic properties but also design and synthesize chemical compounds with desired magnetic properties. *Magnetochemistry* is inviting contributions in any field related with this area, such as theoretical models, crystal engineering, molecular magnetism, SMM, SIM, SCM, SCO, magnetic nanostructures, magnetic MOFs, magnetic recording, qubits, magneto-caloric materials, etc. Our goal is to share your contribution in a timely fashion and in a manner that will be valued by the scientific community.

Editor-in-Chief

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