Special Issue

Single-Ion Magnets: Design and Syntheses

Message from the Guest Editor

In the recent past, great efforts have been made to develop various strategies for the construction of new single-molecule magnets (SMMs) with high energy barriers and blocking temperatures. These great endeavors result in great and fast development of molecular nanomagnets. In particular, one of the most successful strategies is to design and synthesize SMMs with one metal center (known as single-ion magnets, SIMs). To date, a myriad of SIMs based on transition metal ions, lanthanide ions, and actinide ions have been reported. Some of them exhibit outstanding SMM behaviors, especially the Ln-SMMs. However, this field is still full of challenges, such as the lack of clarity with respect to the relationship between blocking temperatures and relaxation mechanisms, how to rationally design stable high-performance SIMs, etc. The Special Issue "Single-Ion Magnets: Design and **Syntheses**" proposed here aims to publish new results and perspectives from both synthetic and theoretical chemists to promote the development of SIMs.

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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