



Magnetic Properties of Complexes of Actinide Elements

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Message from the Guest Editor

Dear Colleagues,

Magnetic properties of actinide complexes are borne by 5f open shell orbitals. These orbitals have a marked inner shell character, as in lanthanides, but interact more with the chemical environment than the 4f of lanthanides, leading to unique magnetic properties.

The magnetic properties of actinide complexes may be approached using very different spectroscopic techniques, which provide complementary information.

This Special Issue aims to collect mini-reviews on the following domains, presenting a brief state of the art, outlining the specificities of magnetic properties of actinide as compared to the lanthanides and transition metals, and concluding with some perspectives.

- Synthesis and characterization of actinide based Single Molecule Magnets and magnetic complexes.
- Magnetic coupling between actinide and another magnetic center
- Spectroscopies as a probe of magnetic properties of actinides: EPR, pNMR, MCD, XAS, XANES, XPS, etc.
- Theoretical approaches for magnetic properties of actinide complexes.





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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.

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