



## Transition Metal (3d,4d,5d) Single-Ion Magnets

Guest Editor:

**Dr. Javier Cepeda**

Department of Applied  
Chemistry, Chemistry Faculty,  
University of the Basque Country  
(UPV/EHU), Paseo Manuel de  
Lardizabal, no. 3, Donostia-San  
Sebastián, Spain

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### Message from the Guest Editor

Dear Colleagues,

Single-ion magnets (SIMs) are, in theory, the smallest possible components for spin-based electronic devices, among which data storage is one of the most laureate applications. Taking into account that the energy barrier ( $U_{eff}$ ) is governed by the magnetic anisotropy of the complex and the spin ground state, transition metals (TM) have proven to be good candidates to give rise to SIMs since, coordinated to adequate ligands, their d orbitals are propitiously split by the field while they are spatially arranged into isolated molecules or 1, 2 and 3-dimensional materials which present interesting structural and physical properties. This Special Issue of the open access journal *Magnetochemistry*, devoted to SIMs, provides an excellent opportunity for researchers working in the field to publish their most recent discoveries.

### Keywords

- Transition metal ions
- Slow relaxation of the magnetization
- SIMs based on isolated molecules
- SIMs consisting of coordination polymers
- Alternating current (ac) susceptibility

