



## Paramagnetic Metal Ion-Containing Polyoxometalates

Guest Editor:

**Dr. Masooma Ibrahim**

Karlsruhe Institute of  
Technology, Institute of  
Nanotechnology (INT), 76344  
Eggenstein-Leopoldshafen,  
Germany

Deadline for manuscript  
submissions:

**closed (20 November 2021)**

### Message from the Guest Editor

Dear Colleagues,

Research shows that the electronic and topological structures of POM (polyoxometalate) systems can be tuned by incorporation of transition metal ions or groups of transition metal ions at specific sites of the various lacunary POM ligands. Thus, the resultant properties directed by the structure–property relationship allows for a bottom-up approach to the development of multifunctional materials. Within the class of transition metal-substituted POMs, the paramagnetic metal ion-containing POMs represents the largest subclass due to their remarkable structural diversities, different chemical compositions, and potential applications in the field of molecular magnetism, magnetocaloric refrigerants, magnetic resonance imaging (MRI), magnetic sensing, molecular spintronics, and quantum computing.

This Special Issue invites research papers covering all research areas related to paramagnetic metal ion-containing POMs (magnetic POMs with 3d-transition metals ions, lanthanide ions, actinide ions, main group elements, heterometallic ions, and organic–inorganic hybrids), their preparation, characterization, and various applications.

