

Special Issue

Synthesis, Application and Magnetic Properties of Bi- and Polynuclear Metal Complexes

Message from the Guest Editors

Binuclear and polynuclear metal complexes, such as 3d, 3d-4f and 4f complexes, have found applications in many different fields of fundamental and applied research, such as optics, DNA binding and cleavage, catalysis and molecular nanomagnetism. For single-molecule magnets (SMMs), nowadays, people desire to improve their remanence and coercivity of the hysteresis loops, the effective energy barrier (U_{eff}) and the blocking temperature (T_B) by modulating the magnetic exchange couplings (for all polynuclear SMMs) and the axial symmetries and/or the charge distributions around LnIII ions (for binuclear and polynuclear 3d-4f and 4f SMMs, especially, containing Dy SMMs), which were verified many times by experimental and theoretical investigations. For catalysis, binuclear and polynuclear metal complexes offer the advantage of synthetic control over the steric and electronic properties in the vicinity of the active site. In this Special Issue, we wish to publish research papers and reviews concerning the experimental studies and/or theoretical studies of SMMs and catalysis, including the binuclear and polynuclear 3d, 3d-4f and 4f complexes.

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Deadline for manuscript submissions

closed (31 March 2023)



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Editor-in-Chief

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