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Spin-Crossover in Molecular Complexes and Coordination Polymers

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Deadline for manuscript
submissions:

closed (31 August 2020)

Message from the Guest Editor

Dear Colleagues,

Modern concepts of using switchable molecular compounds in displays, sensing, and memory devices exploit an ability of some transition metal ions to reversibly switch their spin state in response to external stimuli, such as temperature, pressure, light irradiation, and electric or magnetic fields. Over the years, many molecular complexes and coordination polymers have been recognized for this spin-crossover phenomenon. Among possible spin-crossover behaviors found in their crystalline state (gradual, abrupt, stepwise or incomplete), abrupt spin transitions with a wide hysteresis occurring at temperatures close to the room temperature are preferred.

For this Special Issue, we invite researchers who are well versed in spin-crossover complexes or striving to expand their ‘tool-kit’ by searching among coordination polymers to share their efforts in gaining insight into the spin state behavior of these compounds and in applying such knowledge for rational design of new ‘switchable’ magnetic materials for future breakthrough applications.



mdpi.com/si/39174

Special Issue



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Message from the Editor-in-Chief

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