

Special Issue

Thermodynamics and Phase Transitions in Magnetic Materials

Message from the Guest Editors

Several interesting and useful phenomena take place around magnetic phase transitions. For example, magnetic shape memory due to magnetostructural coupling in martensites may be exploited in sensors and actuators, large entropy and temperature changes in magnetocaloric materials may be used for heat pumping and power conversion, permanent magnets and superconductors are extensively utilized in several applications, from generators to laboratory devices to MRIs, etc.

In this issue, we would specially like to address the thermodynamic description of magnetic phase transitions which give rise to a variety of phenomena. Additionally, within the scope of this Special Issue are the design of novel thermomagnetic cycles and simulation of materials functional properties for, e.g., magnetic refrigeration.

Guest Editors

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Editor-in-Chief

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