Special Issue

New Trends in Spintronic Materials and Devices

Message from the Guest Editors

This Special Issue of Magnetochemistry is on the theme of "New Trends in Spintronic Materials and Devices". Spintronics is one of the major research directions that holds potential beyond the von Neumann architecture, which makes use of the spin and magnetic moment of the electron to create high-performance materials and useful sensors and memory and logic devices with properties not possible with charge-based devices. This Special Issue covers the theoretical simulation, preparation, and physical understanding of spintronic materials: the design and physical mechanism of spintronic devices including sensors, isolators, and memory devices; as well as their applications. We hope this Special Issue will initiate and promote wider academic communication in advanced spintronic materials and devices as well as their relevant frontier research areas.

Spin-orbit torque (SOT) is an emerging technology that enables the efficient manipulation of spintronic devices. This Special Issue reviews the current status and future perspectives of the field of spin-orbit torque.

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