Special Issue

Spin and Charge Transport in Novel Quantum and Topological Materials

Message from the Guest Editors

One of the most striking properties of emerging quantum/topological materials is their transport properties, where the intricate quantum/topological properties of electrons in the material lead to novel electronic states or phenomena (e.g., topological surface/edge states, correlated insulator to superconductor transition). Since electrons carry electric charge as well as spin angular momentum, quantum or topological materials often host interesting magnetotransport properties due to the coupling between charge, spin, and band topology (high linear magnetoresistance, anomalous quantum Hall, chiral-anomaly-induced negative magnetoresistance, etc.). These novel quantum effects may be exploited in future electronic, memory, or computing devices with high performance and low dissipation. This Special Issue reviews the current status and future perspectives of different quantum/topological materials (in either bulk, thin film, or nanostructure form) and devices with a focus on the electronic and spin transport properties.

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Message from the Editor-in-Chief

Magnetochemistry constitutes a multidisciplinary field where chemists and physicists not only study magnetic properties but also design and synthesize chemical compounds with desired magnetic properties. *Magnetochemistry* is inviting contributions in any field related with this area, such as theoretical models, crystal engineering, molecular magnetism, SMM, SIM, SCM, SCO, magnetic nanostructures, magnetic MOFs, magnetic recording, qubits, magneto-caloric materials, etc. Our goal is to share your contribution in a timely fashion and in a manner that will be valued by the scientific community.

Editor-in-Chief

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