Special Issue

New Horizons in Antiferromagnetic Spintronics: Exotic Ground States and Device Prospects

Message from the Guest Editors

This Special Issue aims to highlight recent advances in the design, understanding, and manipulation of novel antiferromagnetic orders. Research areas may include (but are not limited to) the following:

- Synthesis and characterizations of antiferromagnetic materials with nontrivial spin textures;
- Modelling phase transition mechanisms and dynamic behaviours of exotic spin textures;
- Transport phenomena arising from the antiferromagnetic ground states such as anomalous/spin Hall effects, magnetoelectric effects, thermospin effects, etc.;
- Spin torque switching and ultrafast control of antiferromagnetic order;
- Proof-of-concept spintronic devices based on antiferromagnetic materials;
- Dynamics of synthetic antiferromagnetic spin textures;
- Comparison between antiferromagnetic and altermagnetic material systems.

We look forward to receiving your contributions.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

New phenomena and technological applications of magnetism are fascinating topics. The *Magnetism* journal aims to establish an international forum where both basic and applied developments in this field can be shared, on a budget-level peer-review publishing platform with other experts and non-specialists. The journal is inviting contributions from authors who wish to share their original work in any field related within this area, including fundamental mechanisms, theoretical models, novel magnetic materials and devices, magnetic nanostructures, magnetic recording, biomagnetism, etc. The journal will facilitate the author's process of submission and the peerreview steps for a high-quality and timely publication in order to reach the widest audience.

Editor-in-Chief

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