

## Special Issue

# Advances in Magnetic Semiconductor Materials

### Message from the Guest Editor

Magnetic semiconductor materials have emerged as a pivotal platform for integrating the charge, spin, and lattice degrees of freedom, enabling transformative advances in next-generation electronics and quantum technologies. The material landscape has expanded dramatically to include dilute magnetic III–V and II–VI alloys, oxide semiconductors, transition metal chalcogenides, van der Waals magnets, and half-metallic Heusler compounds, each offering distinct exchange mechanisms and tunable Curie temperature ranges. For this Special Issue, we welcome contributions that bridge fundamental material innovation and device performance improvements, focusing on topics such as spin-FETs, magnetic tunnel junctions, spin-orbit torque memories, neuromorphic skyrmion-based synapses, and qubit architectures leveraging long-lived spin coherence in magnetic semiconductors. Of particular interest are studies demonstrating multi-field control of the magnetic order, spin textures, and topological states using electric gating, the strain, intercalation, optical excitation, or magnetic fields, highlighting the achievability of dynamic tuning across the picosecond to steady-state timescales.

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### Guest Editor

Prof. Dr. Yilin Wang

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### Deadline for manuscript submissions

30 September 2026



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## About the Journal

### Message from the Editor-in-Chief

I am delighted to introduce the new online open access journal *Electronic Materials* (ISSN 2673-3978). The aim of *Electronic Materials* is to publish high-quality and high-impact research papers, as well as review articles addressing recent advances in fundamental science, engineering, and practical applications of electronic materials. The interdisciplinary topics of the journal include materials science, device engineering, and the physics of electronic and magnetic properties. *Electronic Materials* also welcomes Special Issue proposals from academics and industrial researchers from all related fields. We encourage scientists and engineers worldwide to publish their innovative ideas and cutting-edge developments and technologies in the field of electronic materials.

The journal is now open for submission and the Editorial Team welcomes your manuscripts for publication.

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### Editor-in-Chief

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