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Editorial

Magnetic Functional Materials: Synthesis, Characterization and Application: A New Open Special Issue in Materials

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Magnetic Functional Materials: Synthesis, Characterization and Application is a new open Special Issue of *Materials*, which aims to publish original and review papers on new scientific and applied research, and make great contributions to the finding and understanding of magnetic functional materials and related synthesis, fundamentals, characterization, and applications.

The early magnetic materials were mainly silicon steel and ferrite. Since the 1960s, a series of high-performance magnetic functional materials such as amorphous soft magnets, nanocrystalline soft magnets and rare-earth permanent magnets have appeared one after another [1]. Driven by contemporary advanced science and technology, new properties and new phenomena of magnetic functional materials are emerging, and their fields are becoming wider and wider.

In the contemporary information society, energy, information, and materials are the important foundation of production, life, and high technology. Magnetic functional materials are widely used in energy, information, and materials science and technology. There are many kinds of magnetic functional materials, and their progress is rapid. Magnetic functional materials have attracted a great deal of attention regarding their applications. Magnetic behaviors are widespread in a variety of materials, such as metals, ceramics, organics, and emerging 2D materials. Applications of magnetic materials include memories, sensors, magnetic refrigeration, drug delivery, electrochemistry, environmental protection, energy storage, and more.

The research interest of the section *Magnetic Functional Materials: Synthesis, Characterization and Application* includes, but is not limited to, the following: permanent magnets; magnetic functional materials; magnetism in correlated electron systems; memories and sensors devices; magnetic refrigeration; environmental protection; and devices based on magnetic materials.

Funding: This work was supported by the National Natural Science Foundation of China (No. 11604067).

Conflicts of Interest: The authors declare no conflict of interest.

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Citation: Wang, H.; Wang, Y.; Yang, D. Magnetic Functional Materials: Synthesis, Characterization and Application: A New Open Special Issue in Materials. *Materials* **2022**, *15*, 2999. https://doi.org/10.3390/ma15092999

Received: 18 April 2022
Accepted: 19 April 2022
Published: 20 April 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Short Biography of Authors

Haiou Wang is an associate professor in the Department of Materials Science and Engineering at Hangzhou Dianzi University in China as of 2018. Wang was awarded his Ph.D. degree in Materials Science and Engineering from Nanjing University of Science and Technology and his bachelor's degree in Applied Physics from Jiangsu Normal University in China. After obtaining his Ph.D. degree, he joined Hangzhou Dianzi University in 2014. Over the last two decades, he dedicated all his efforts to the synthesis of magnetic functional materials and their applications to magnetic devices. To date, he has published over 50 peer-reviewed articles.

Dexin Yang is currently an associate professor at Hangzhou Dianzi University, and a visiting scholar at the College of Optical Science and Engineering, Zhejiang University. He received his B.Sc. in 2012 and Ph.D. in 2016 from China University of Geosciences (Beijing). He was a visiting student at the University of Cambridge, UK (2014–2015). He was a postdoctoral research fellow at the same department at Zhejiang University from 2019 to 2021. His research concerns the roles of strain and elastic relaxation in functional materials, as well as the phase transition, ferroelasticity, and magnetic and optoelectronic properties of perovskite semiconductors. He has published over 20 peer-reviewed articles as first or corresponding author, including Nature Communications; Physical Review B; and Advanced Functional Materials.

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