

	姓名	马超	学历	博士研究生	职称	副教授
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教师简介

马超，男，1989年12月生，山东泰安人。博士，副教授。

2008.09-2012.06，山东大学，信息科学与工程学院，光信息科学与技术专业，理学学士；2012.09-2018.06，中国科学院物理研究所，凝聚态物理专业，理学博士。

目前主要从事功能钙钛矿氧化物、多铁材料、极化金属等体系物理性质的理论模拟和第一性原理计算。在 Advanced Materials、Physical Review B、Journal of Material Chemistry C、Applied Physics Letters、ACS Applied Materials & Interfaces 等国际权威期刊发表 SCI 论文 11 篇。其中以第一作者身份发表 SCI 论文 4 篇。

教学工作

承担本科生课程：《大学物理学 B2》、《大学物理学实验》等。

研究方向

1. 铁电材料表面电荷动力学、多种离子参与的电致电阻模型等的理论模拟；
2. 功能钙钛矿氧化物、多铁材料、极化金属等体系的第一性原理计算与理论设计。

科研项目

学术论文

1. Chao Ma, Xu He, Kui-juan Jin. Polar instability under electrostatic doping in tetragonal SnTiO₃. Phys. Rev. B 96, 035140 (2017).

(SCI, IF=3.813) (第一作者)

2. Jingting Yang*, Chao Ma*, Chen Ge, Qing-hua Zhang, Jian-yu Du, Jian-kun Li, He-yi Huang, Meng He, Can Wang, Sheng Meng, Lin Gu, Hui-bin Lu, Guo-zhen Yang and Kui-juan Jin. Effects of line defects on the electronic and optical properties of strain-engineered WO₃ thin films. J. Mater. Chem. C 5, 11694 (2017).

(SCI, IF=5.976) (*共同一作, 封面文章)

3. Chao Ma, Kui-juan Jin, Chen Ge, Guo-zhen Yang. Strain-engineering stabilization of BaTiO₃-based polar metals. Phys. Rev. B 97, 115103 (2018).

(SCI, IF=3.813) (第一作者)

4. Chao Ma, and Kui-juan Jin. Design strategy for ferroelectric-based polar metals with dimensionality-tunable electronic states. Sci. China-Phys. Mech. Astron. 61(9), 097011 (2018).

(SCI, IF=2.754) (第一作者)

5. Ying Liu, Chao Ma, Qinghua Zhang, Wei Wang, Pengfei Pan, Lin Gu, Dongdong Xu, Jianchun Bao, and Zhihui Dai. 2D Electron Gas and Oxygen Vacancy Induced High Oxygen Evolution Performances for Advanced Co₃O₄/CeO₂ Nanohybrids. Adv. Mater. 1900062, (2019).

(SCI, IF=21.950)

6. Li-tong Jiang, Kui-juan Jin, Chao Ma, Chen Ge, Guo-zhen Yang, Xu He. Biaxial strain engineering of charge ordering and orbital ordering in HoNiO₃. Phys. Rev. B 97, 195132 (2018).

(SCI, IF=3.813)

7. Jun-xing Gu, Kui-juan Jin, Chao Ma, Qing-hua Zhang, Lin Gu, Chen Ge, Jie-su Wang, Can Wang, Hai-zhong Guo, and Guo-zhen Yang. Coexistence of polar distortion and metallicity in PbTi_{1-x}Nb_xO₃, Phys. Rev. B 96, 165206 (2017).

(SCI, IF=3.813)

8. Zhong Sun, Yonggang Zhao, Min He, Lin Gu, Chao Ma. Deterministic Role of Concentration Surplus of Cation Vacancy over Anion Vacancy in Bipolar Memristive NiO, ACS Appl. Mater. Interfaces 8, 11583–11591 (2016).

(SCI, IF=8.097)

9. Jian-kun Li, Chao Ma, Kui-juan Jin, Chen Ge, Lin Gu, Xu He, Wen-jia Zhou, Qing-hua Zhang, Hui-bin Lu, and Guo-zhen Yang. Temperature-dependent resistance switching in SrTiO₃, Appl. Phys. Lett. 108, 242901 (2016).

(SCI, IF=3.495)

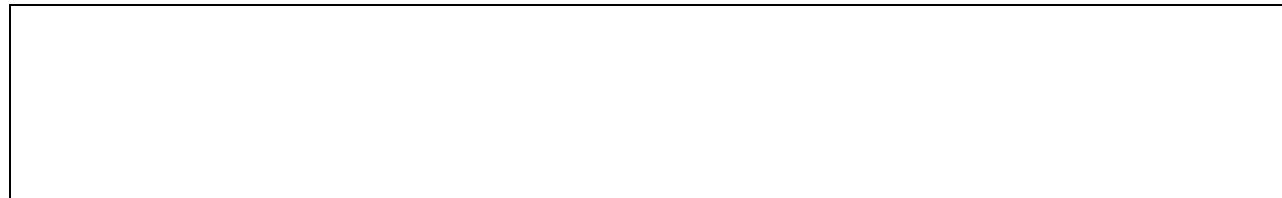
10. Jun-xing Gu, Kui-juan Jin, Chen Ge, **Chao Ma**, and Guo-zhen Yang. Dynamics of surface screening charges on domains of BiFeO₃ films, AIP Adv. 6, 015220 (2016).

(SCI, IF=1.653)

11. Le Wang, Kui-juan Jin, Jun-xing Gu, **Chao Ma**, Xu He, Jiandi Zhang, Can Wang, Yu Feng, Qian Wan, Jin-an Shi, Lin Gu, Meng He, Hui-bin Lu, and Guo-zhen Yang. A new non-destructive readout by using photo-recovered surface potential contrast. Sci. Rep. 4, 6980 (2014).

(SCI, IF=4.122)

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发明专利

