

Prof. Shi CHEN's Publications:

1. K. Wang, H. Li*, Z. Xu, Y. Liu, M. Ge, H. Wang, H. Zhang, Y. Lu, J. Liu, Y. Zhang, Y. Tang*, S. Chen*, An Iodine-Chemisorption Binder for High-Loading and Shuttle-Free Zn-Iodine Batteries, *Adv. Energy Mater.*, 14, 2304110, **2024**.
2. Z. Xu, J. Zhu, Z. Shu, Y. Xia, R. Chen*, S. Chen, Y. Wang, L. Zeng, J. Wang, Y. Cai*, S. Chen*, F. Huang*, H.L. Wang*, Phosphorus-induced anti-growth of ruthenium clusters-single atoms for ultra-stable hydrogen evolution over 100,000 cycles, *Joule*, 8, 1790-1803, **2024**.
3. Z. Xu, C. Jiao, Z. Shu, Y. Xia, S. Chen, S. Chen*, H.L. Wang*, Hydrophobic-aerophilic composite catalysts enable the fast-charging Zn-air battery to operate 1200 h at 50 mA cm⁻², *Chem. Eng. J.*, , 481, 148798, **2024**.
4. Z. Xu, K. Wang, H. Li*, H. Wang, M. Ge, Y. Zhang, Y. Tang*, S. Chen*, Critical Effects of Insoluble Additives in Liquid Electrolytes for Metal Batteries, *Small*, 2312124, **2024**.
5. Luo, L.; Wen, Z.; Hong, G.*; Chen, S.*; Reliable lateral Zn deposition along (002) plane by oxidized PAN separator for zinc-ion batteries, *RSC Advances*, 13, 2306939, **2023**.
6. Wen, Z.; Liang, C.; Li, S.; Wang, G.; He, B.; Gu, H.; Xie, J.; Pan, H.; Su, Z.; Gao, X.; Hong, G.*; Chen, S.*; High-Quality van der Waals Epitaxial CsPbBr₃ Film Grown on Monolayer Graphene Covered TiO₂ for High-Performance Solar Cells, *Energy & Environ. Mater.*, 15, e12680, **2023**.
7. B. He, T. Liu, C. Wang, Z. Wen, B. Sun, W. Wen, G. Xing, X. Gao*, S. Chen*, Improving Crystallinity and Out-of-Plane Orientation in Quasi-2D Ruddlesden-Popper Perovskite by Fluorinated Organic Salt for Light-Emitting Diodes, *Small*, 19, 2303255, **2023**.
8. He, B.; Wang, C.; Li, J.; Su, Z.*; Xing, G.; Gao, X.*; Chen, S.*; In Situ and Operando Characterization Techniques in Stability Study of Perovskite-Based Devices, *Nanomaterials*, 13, 1983, **2023**.
9. Xu, Z.; Li, H.*; Liu, Y.; Wang, K.; Wang, H.; Ge, M.; Xie, J.; Li, J.; Wen, Z.; Pan, H.; Qu, S.; Liu, J.; Zhang, Y.; Tang, Y.*; Chen, S.*; Durable modulation of Zn (002) plane deposition via reproducible zincophilic carbon quantum dots towards low N/P ratio Zinc-Ion Batteries, *Mater. Horizons*, 10, 3680-3693, **2023**.
10. Li, S.; Xia, J.; Wen, Z.; Gu, H.; Guo, J.; Liang, C.; Pan, H.; Wang, X.; Chen, S.*; The Formation Mechanism of (001) Facet Dominated α -FAPbI₃ Film by Pseudohalide Ions for High-Performance Perovskite Solar Cells, *Adv. Sci.*, 10, 2300056, **2023**.
11. Wang, K.; Xu, Z.; Li, H.*; Wang, H.; Ge, M.; Liu, J.; Li, S.; Hu, Z.; Zhu, M.; Zhang, Y.; Tang, Y.*; Chen, S.*; Realizing the highly reversible Zn²⁺ and Na⁺ dual ions storage in high-crystallinity nickel hexacyanoferrate microcubes for aqueous zinc-ion batteries, *J. Mater. Sci. Technol.*, 164, 102-110, **2023**.

12. Z. Wen, Y. Zhong, B. He, G. Wang, S. Li, Z. Mu, J. Li, J. Xie, Y. Zheng, G. Xing, G. Hong*, and S. Chen*, Graphene induced structure and doping level tuning of evaporated CsPbBr₃ on different substrates, *Chemical Engineering Journal*, 452, 139243, **2023**.
13. S. Li, J. Xia, C. Liang, Z. Wen, Z. Mu, H. Gu, S. Mei, H. Pan, J. Chen, G. Xing*, and S. Chen*, Anion induced bottom surface passivation for high performance perovskite solar cell, *Chemical Engineering Journal*, 442, 135895, **2022**.
14. B. He, T. Liu, B. Wang, Z. Wen, X. Yu, G. Xing*, and S. Chen*, Boosting the efficiency of quasi-2D perovskite light-emitting diodes via tailoring the PEDOT:PSS hole transport layer, *Applied Surface Science*, 585, 152692, **2022**.
15. Li, H.; Wang, H.; Chan, D.; Xu, Z.; Wang, K.; Ge, M.; Zhang, Y.; Chen, S.*; Tang, Y.*, Nature-inspired materials and designs for flexible lithium-ion batteries, *Carbon Energy*, 1-23, **2022**.
16. H. Li, H. Wang, Z. Xu, K. Wang, M. Ge, L. Gan, Y. Zhang, Y. Tang*, S. Chen*, Thermal-Responsive and Fire-Resistant Materials for High-Safety Lithium-Ion Batteries, *Small*, 17, 2103679, **2021**.
17. T. C. Sum*, S. Chen, G. Xing, X. Liu and B. Wu; Energetics and Dynamics in Organic-Inorganic Halide Perovskite Photovoltaics and Light Emitters (Invited Topical Review), *NANOTECHNOLOGY*, 26, 342001, **2015**.
18. Shi Chen, Teck Wee Goh, Dharani Sabba, Julianto Chua, Nripan Mathews, Cheng Hon Alfred Huan* and Tze Chien Sum*; Energy level alignment at the Methylammonium Lead Iodide/Copper Phthalocyanine Interface, *APL MATERIALS*, 2, 081512 **2014**.
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