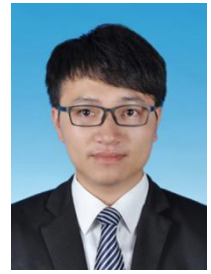


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Education & Research Experience

CHINAINSTRU & QUANTUMTECH (HEFEI) CO., LTD. **Solution Manager, Oversea Department** **Jul 2025-Present**

- As an Electron Microscopy Solutions Manager in the Overseas Business Department, I am responsible for communicating with international customers and distributors to understand their research and industrial application needs in fields such as materials science, semiconductors, energy and life sciences, and for designing tailored SEM/FIB/TEM system configurations and application solutions. My duties include preparing technical proposals and tender documents, drafting detailed specification compliance tables, coordinating remote and on-site demonstrations, and providing technical presentations and training on instrument structure, imaging capabilities and typical workflows.

Zhejiang University, Electron Microscopy Center **Postdoctoral Fellow, Materials Physics and Chemistry** **Jul 2021-Sep 2025**

- Research Focus: High-resolution transmission electron microscopy (HRTEM) study of critical interfacial structures in carbon-based materials and devices (Jul 2021 – Sep 2025).
- Achievements: Published two first-author SCI papers.

Xiamen University, College of Materials **Ph.D. in Materials Physics and Chemistry** **Sep 2015 – Jun 2021**

- Research Focus: Growth mechanisms and structure–property relationships of nitride phosphors for LED applications (Sep 2015 – Sep 2016).
- Achievements: Published one first-author SCI paper.

Zhejiang University **Joint Ph.D. Student in Materials Physics and Chemistry** **Nov 2016 – Jun 2021**

- Research Focus: High-resolution transmission electron microscopy of one-dimensional materials (atomic chains, carbon nanotubes, MoS₂ nanotubes) and two-dimensional materials (defective black phosphorus, graphene grain boundaries, and heterostructures).
- Achievements: Published two first-author SCI papers.

Xiamen University, College of Materials **B.Eng. in Inorganic Materials** **Sep 2011 – Jun 2015**

- Overall Ranking: 18 / 93 (GPA: 3.20 / 4.0).

Publications

- (1) **Yao, F.**; Wang, L.; Lv, Y.; Zhuang, Y.; Zhou, T.-L.; Xie, R.-J., Composition-dependent thermal degradation of red-emitting (Ca_{1-x}Sr_x)AlSiN₃:Eu²⁺ phosphors for high color rendering white LEDs. *Journal of Materials Chemistry C*, 2018, 6, 890-898.
- (2) **Yao, F.**; Cai, Y.; Xiao, Z.; Zhang, G.; Xie, R.-J.; Jin, C., In situ transmission electron microscopy study of the formation and migration of vacancy defects in atomically thin black phosphorus. *2D Materials*, 2020, 8, 025004.
- (3) **Yao, F.**; Xiao, Z.; Qiao, J.; Ji, W.; Xie, R.-J.; Jin, C., In situ TEM study of edge reconstruction and evolution in monolayer black phosphorus. *Nanoscale*, 2021, 13, 4133-4139.
- (4) **Yao, F.**; Xia, M.; Zhang, Q.; Wu, Q.; Terasaki, O.; Gao, J.; Jin, C., Confinement effect induced conformation change of one-dimensional phosphorus chains filled in carbon nanotubes, *Craon*, 2023, 189, 467-473.
- (5) **Yao, F.**; Li, W.; Zhang, Y.; Jin, C., Atomic-scale visualization of spontaneous bilayer MoS₂ nanoribbon scrolling via coupled rotation-bending within carbon nanotubes. *ACS Nano*, 2025, 19, 34418-34428.