Yu-Ning Wang

Homepage: ynwang97.github.io
Address: Suzhou, Jiangsu, 215123, P.R.China
Mobile: (+86)15855700300
Email: ynwang2020@sinano.ac.cn

Education

- **University of Science and Technology of China** — Suzhou, Jiangsu, China
  Ph.D of Electronic Science and Technology — *Sept 2021 - Present*
  - **Research interest**: Electronic Science and Technology
  - **Supervisor**: Ke Xu, Xiong-Hui Zeng, Yu Xu
- **University of Science and Technology of China** — Suzhou, Jiangsu, China
  Master of Electronics and Communication Engineering — *Sept 2019 - Jun 2021*
  - **Research interest**: Electronics and Communication Engineering
  - **Supervisor**: Ke Xu, Xiong-Hui Zeng, Yu Xu
- **Anhui University of Finance and Economics** — hefei, Anhui, China
  Bachelor of Materials Physics — *Sept 2015 - Jun 2019*

Relevant coursework/ skills

- **Physics**: Solid State Physics, Semiconductor Physics, Material Physical Properties, Quantum Mechanics, Atomic Physics, Principles of Semiconductor Devices, VLSI Technology.
- **Programming Skills**: Python, LaTeX.
- **Software**: 3DMax, Origin, Blender.
- **Laboratory Equipment**: MOVCD, SEM, XRD, Raman, AFM.

Projects

- **National Key R&D Program**, "New Display and Strategic Electronic Materials" project, "AlN single crystal substrate preparation and key technology of homoepitaxy" project, subject 4: 4-inch AlN template substrate industrialization key technology, 2022.12-2025.12, 5.535 million yuan.

- **National Natural Science Foundation of China**, general project, 62174173, research on scientific issues of high-quality AlN thin film interface based on graphene remote epitaxy, 2022.01-2025.12, 580,000 yuan.

Honors and Awards

- Nanonova Scholarship - 2023
- Academic First Class Scholarship - 2020
- Excellent Student Scholarship - 2018

Publications

- **Wang Y N**, Qu Y P, Xu Y, Li D D, Lu Z Q, Li J J, Su X J, Wang G B, Shi L, Wang J F, Cao B, Xu K. Modulation of Remote Epitaxial Heterointerface by Graphene-assisted Attenuative Charge Transfer[J]. **ACS Nano**, 2023, 17 (4): 4023-4033.

- Lu Z Q, **Wang Y N**, Wang C, Wang F, Xu K, Liu Y H, Cathodoluminescence studies of point defects in aluminum nitride[J]. **AIP Advances**, 2023, 13, 035133.

- Qu Y P, Xu Y, **Wang Y N**, Wang J F, Shi L, Cao B, Xu Ke. The essential difference between remote epitaxy and van der Waals epitaxy: long-range orbital hybridization at the GaN/graphene/AlN interface[J]. **Journal of Crystal Growth**, 2023, 609, 127073.

- Qu Y P, Xu Y, Cao B, **Wang Y N**, Wang J F, Shi L, Xu K. Long-Range Orbital Hybridization in Remote Epitaxy: The Nucleation Mechanism of GaN on Different Substrates via Single-Layer Graphene[J]. **ACS Applied Materials & Interfaces**, 2022. 14(1): 2263–2274.

- Xu Y, Cao B, Zhao E, Qu Y P, **Wang Y N**, Zhang Y M, Wang J F, Wang C H, Xu K. Direct van deer Waals epitaxy of multiband-emitting InGaN-based LEDs on graphene for phosphor-free white light illumination[J]. **Journal of Alloys and Compounds**, 2022, 902: 163712.

- Xu J X, **Wang Y N**, Xu Y, Wang J F, Xu K. Research on Heterogeneous Remote Epitaxy of GaN on Graphene [J]. **Journal of Synthetic Crystals**, 2023, 52(5): 894-900. (In Chinese)

Patents

• **Wang Y N**, Xu Y, Xu J X, Wang J F, Xu K. 2023, Nitride epitaxy structure and its preparation method and application, national invention patent. (Published)

• **Wang Y N**, Xu Y, Wang J F, Xu K. 2022, A silicon nitride single crystal and its preparation method and application, national invention patent, authorization number: CN 113122925 B. (Authorized)

• Qu Y P, Xu Y, **Wang Y N**, Wang J F, Xu K. 2022, Nitride single crystal thin film and its preparation method and application, national invention patent, publication number: CN 114277443 A. (Authorized)

Academic Activities

• **Wang Y N**, Qu Y P, Xu Y, Li D D, Lu Z Q, Su X J, Wang G B, Shi L, Wang J F, Cao B, Xu K. The 17th National MOCVD Conference, 2022, Taiyuan, poster.

• **Wang Y N**, Qu Y P, Xu Y, Li D D, Lu Z J, Li J J, Su X J, Wang G B, Shi L, Zeng X H, Wang J F, Cao B, Xu K, 19th China International Forum on Solid State Lighting & 2022 International Forum on Wide Bandgap Semiconductors China (SSLChina: IFWS), 2022, Suhzou, poster.