# YIFAN GAO

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#### **EDUCATION**

Xiamen University

Sep. 2020 - Present

B.S. in Physics

Xiamen, Fujian, China

Advisor: Prof. Cheng Li

GPA\*: Overall 3.1/4.0, Major 3.6/4.0

\*Transcript has been submitted to World Education Service for evaluation, the GPA here is calculated manually and will be updated once the evaluation result come out. Besides, please refer to my website for the additional statement of the unstable academic performance.

#### RESEARCH EXPERIENCE

Research assistant

Feb. 2022 - Present

Si-based Optoelectronic Material & Device Research Group, Xiamen University

Xiamen, Fujian, China

- Design of MoSe<sub>2</sub>/GeSn/Ge N-P-N Heterojuction Phototransistor
  - Theoretically assisted with the data curating and simulation refinements.
  - Practical research engagement in lab devices and techniques.
  - Manuscript has been submitted to Advanced Optical Materials for peer review.
- Design of p-GaSe/n-Si van der Waals Heterojunction Phototransistor with a Schottky collector
  - Idea conceptualization, device design along with simulation using Silvaco and Sentaurus TCAD.
  - Extensive practical experiences relating to device fabrication and characterization.
  - Scientific manuscript drafting, emendation and responding to peer review.

## **PUBLICATION**

• Yifan Gao, Xinwei Cai, Shuo Li, Qiang Wu, Guangyang Lin, Cheng Li; High responsivity p-GaSe/n-Si van der Waals heterojunction phototransistor with a Schottky barrier collector for ultraviolet to near-infrared band detection. Appl. Phys. Lett. 21 August 2023; 123 (8): 081102. https://doi.org/10.1063/5.0155877

### TEACHING EXPERIENCE

Teaching Assistant Xiamen University

Feb. 2022 - Feb. 2023 Xiamen, Fujian, China

- Assisted the teaching for courses Advanced Technology in Physics (2022-2), Principles of Laser (2023-1) and Thermodynamics and Statistical Physics A (2023-1).
- Held mid-term and end-term seminars in **Principles of Laser** for 70 students.

### AWARDS

• Silver Medal Winner in Xiamen University Physics Competition, Xiamen University, Summer 2021.