

# YIFAN GAO

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## EDUCATION

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**Xiamen University**

B.S. in Physics

Advisor: Prof. Cheng Li

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

Sep. 2020 - Present

Xiamen, Fujian, China

*\*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 [here](#) for the additional statement of the unstable academic performance*

## RESEARCH EXPERIENCE

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**Research assistant**

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

Feb. 2022 - Present

Xiamen, Fujian, China

- *Design of MoSe<sub>2</sub>/GeSn/Ge N-P-N Heterojunction 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

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- **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

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**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

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