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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [Home](https://xitanghkust.github.io/index.htm)  People  [Projects](https://xitanghkust.github.io/projects.htm)  [Publications](https://xitanghkust.github.io/publications.htm)  [Teaching](https://xitanghkust.github.io/teaching.htm)  [Contact](https://xitanghkust.github.io/contact.htm) | **Research Interests**  **Wide-bandgap power device technology:**  device physics, design, process technology, characterization, and reliability test   |  |  | | --- | --- | |  |  | |  |   **III-nitride optoelectronic device technology**   1. UV-light source based on AlGaN/GaN heterostructure 2. High-speed UV detectors  |  |  |  | | --- | --- | --- | |  |  |  |   **Material Growth and Property Characterizations**   1. A theoretical study based on first-principle calculations   图形用户界面  低可信度描述已自动生成 图表, 条形图  描述已自动生成  **Research Grants**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Funding agency | Participant  Type | Amount (CNY) | Years | Project Title | | BICI/Hong Kong Technology Transfer Center | PI (2/3) | 800,000 | 2021-23 | Metal-Heterostructure-Metal Photodetectors and All-GaN Integrated UV Sensing and Amplifying Integrated Circuits | | Anhui Innovation Project for Returned Overseas | CI | 50,000 | 2021-23 | Development on the method to improve the reliability of GaN HEMTs | | National Natural Science Foundation of China | PI (2/3) | 550,000 | 2021-24 | Device Technology for Next Generation p-GaN gate HEMTs with High Gate Reliability and Stability | | Anhui University High-level Research Funding | CI | 500,000 | 2020-24 | Development of Advanced Power Electronics | | China Postdoctoral Science Foundation | CI | 400,000 | 2018-20 | High Performance Power Diodes Based on AlN Single Crystal | | Shenzhen Science and Technology Innovation Commission | PI (2/5) | 2,500,000 | 2017-21 | Investigation on Single Photon Emission Based on AlGaN/GaN Heterostructures | | Shenzhen Science and Technology Innovation Commission | PI (2/2) | 500,000 | 2017-19 | Development of Power Devices Based on AlN/AlO heterostructure | |
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