



## **PUBLICATIONS AND CONFERENCE**

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1. Wu, Jiangbin, Xin Cong, Shanyuan Niu, Fanxin Liu, Huan Zhao, **Zhonghao Du**, Jayakanth Ravichandran, Ping-Heng Tan, and Han Wang. "Linear Dichroism Conversion in Quasi-1D Perovskite Chalcogenide." *Advanced Materials* 31, no. 33 (2019): 1902118.
2. Xiao, Ming, **Zhonghao Du**, Jinqiao Xie, Edward Beam, Xiaodong Yan, Kai Cheng, Han Wang, Yu Cao, and Yuhao Zhang. "Lateral p-GaN/2DEG junction diodes by selective-area p-GaN trench-filling-regrowth in AlGaIn/GaN." *Applied Physics Letters* 116, no. 5 (2020): 053503.
3. Xiao, M., Y. Ma, **Z. Du**, X. Yan, R. Zhang, K. Cheng, K. Liu et al. "5 kV multi-channel AlGaIn/GaN power Schottky barrier diodes with junction-fin-anode." In *2020 IEEE International Electron Devices Meeting (IEDM)*, pp. 5-4. IEEE, 2020.
4. Ma, Yunwei, Ming Xiao, **Zhonghao Du**, Xiaodong Yan, Kai Cheng, Michael Clavel, Mantu K. Hudait, Ivan Kravchenko, Han Wang, and Yuhao Zhang. "Tri-gate GaN junction HEMT." *Applied Physics Letters* 117, no. 14 (2020): 143506.
5. Ma, Yunwei, Ming Xiao, **Zhonghao Du**, Han Wang, and Yuhao Zhang. "Tri-Gate GaN Junction HEMTs: Physics and Performance Space." *IEEE Transactions on Electron Devices* 68, no. 10 (2021): 4854-4861.
6. Liu, Hefei, Tong Wu, Xiaodong Yan, Jiangbin Wu, Nan Wang, **Zhonghao Du**, Hao Yang et al. "A tantalum disulfide charge-density-wave stochastic artificial neuron for emulating neural statistical properties." *Nano Letters* 21, no. 8 (2021): 3465-3472.
7. Ma, Yunwei, Ming Xiao, Yuhao Zhang, **Zhonghao Du**, Xiaodong Yan, Han Wang, Kai Cheng et al. "Kilovolt tri-gate GaN junction HEMTs with high thermal stability." In *2021 33rd International Symposium on Power Semiconductor Devices and ICs (ISPSD)*, pp. 139-142. IEEE, 2021.
8. Xiao, M., Y. Ma, **Z. Du**, V. Pathirana, K. Cheng, A. Xie, E. Beam et al. "Multi-Channel Monolithic-Cascade HEMT (MC 2-HEMT): A New GaN Power Switch up to 10 kV." In *2021 IEEE International Electron Devices Meeting (IEDM)*, pp. 5-5. IEEE, 2021.
9. Wu, Jiangbin, Yu Yao, Miao-Ling Lin, Malte Rösner, **Zhonghao Du**, Kenji Watanabe, Takashi Taniguchi, Ping-Heng Tan, Stephan Haas, and Han Wang. "Spin-Phonon Coupling in Ferromagnetic Monolayer Chromium Tribromide." *Advanced Materials* (2022): 2108506.
10. Zhang, Yuhao, Ming Xiao, Yunwei Ma, **Zhonghao Du**, Han Wang, Andy Xie, Edward Beam, Yu Cao, and Kai Cheng. "Multi-Channel AlGaIn/GaN Power Rectifiers: Breakthrough Performance up to 10 kV." *ECS Transactions* 104, no. 4 (2021): 51.
11. Ma, Yunwei, Ming Xiao, **Zhonghao Du**, Lei Wang, Eric Carlson, Louis Guido, Han Wang, Lai Wang, Yi Luo, and Yuhao Zhang. "Activating Thick Buried p-GaN for Device Applications." *IEEE Transactions on Electron Devices* 69, no. 8 (2022): 4224-4230.

## **SERVICE EXPERIENCE**

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### **Teaching Assistant**

Jan. 2019 - Present

- Hold the discussion session and grade the homework as well as presentations

### **Journal Reviewing**

- *Highly transparent and conductive metal oxide/metal/polymer composite electrodes for high-efficiency flexible organic light-emitting devices* reviewed for Nanophotonics
- *High-efficiency organic photovoltaage cells with an antimony quantum sheet modified hole extraction layer* reviewed for Nanophotonics