

厦门大学物理学系

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Chinese, Simplified
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研究领域: 石墨烯; 二维层状材料与器件;
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导体材料与器件

教育和工作经历

2020至今 任物理学系副教授（特任研究员）、博士生导师

2019 入选厦门大学南强青年拔尖人才计划B类人才

2018~2020 新加坡国立大学先进二维材料研究中心（CA2DM），研究员

2014~2018 新加坡-伯克利可持续能源研究中心（SinBeRISE），研究员

2012~2014 美国伯克利加州大学材料科学与工程系，博士后

2009~2012 美国伯克利加州大学材料科学与工程系，访问博士生

2012 南京大学电子科学与工程学院获工学博士学位

（毕业论文获评2013年度江苏省优秀博士学位论文）

2006 厦门大学物理学系获理学学士学位

代表性文章或专著

(详见Researcher ID:

<https://publons.com/researcher/2800947/deyi-fu/> 和Google

Scholar: [https://scholar.google.com/citations?](https://scholar.google.com/citations?user=xOjION4AAAAJ&hl=zh-CN)

[user=xOjION4AAAAJ&hl=zh-CN](https://scholar.google.com/citations?user=xOjION4AAAAJ&hl=zh-CN))

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2. Deyi Fu, et. al. Molecular Beam Epitaxy of Highly-Crystalline Monolayer Molybdenum Disulfide on Hexagonal Boron Nitride, *J. Am. Chem. Soc.* 139, 9392 (2017)
3. Xiaoxu Zhao*, Deyi Fu*, et. al. Mo-terminated Edge Reconstructions in Nanoporous Molybdenum Disulfide Film, *Nano Letters* 18, 482 (2017) (*并列一作)
4. JH Kim, D Fu, et. al. Crossing Thermal Lubricity and Electronic Effects in Friction: Vanadium Dioxide under the Metal–Insulator Transition, *Advanced Materials Interfaces* 3, 1500388 (2016)
5. Mahmut Tosun*, Deyi Fu*, et. al. MoS₂ Heterojunctions by Thickness Modulation, *Scientific Reports* 5, 10990 (2015) (*并列一作)
6. Zhiwen Shi, Chenhao Jin, Wei Yang, Long Ju, Jason Horng, Xiaobo Lu, Hans A Bechtel, Michael C Martin, Deyi Fu, Junqiao Wu, Kenji Watanabe, Takashi Taniguchi, Yuanbo Zhang, Xuedong Bai, Enge Wang, Guangyu Zhang, Feng Wang, Gate-dependent pseudospin mixing in graphene/boron nitride moire superlattices, *Nature Physics* 10, 743 (2014)
7. Deyi Fu, et. al. Comprehensive study of the metal-insulator transition in pulsed laser deposited epitaxial VO₂ thin films, *Journal of Applied Physics*, 113, 043707 (2013) (被引近100次)

8. Deyi Fu, et. al. Mechanically Modulated Tunneling Resistance in Monolayer MoS₂, *Applied Physics Letters* 103, 183105 (2013)
9. Kai Liu*, Deyi Fu*, et. al. Dense Electron System from Gate-Controlled Surface Metal-Insulator Transition, *Nano Letters* 12, 6272 (2012) (*并列一作)
10. J. Seidel, D. Fu, et. al. Efficient photovoltaic current generation at ferroelectric domain walls, *Physics Review Letters* 107, 126805 (2011) (被引200余次)
11. Deyi Fu, et. al. Electrothermal dynamics of semiconductor nanowires under local carrier modulation, *Nano Letters* 11, 3809 (2011)
12. D. Fu, et. al. Electrothermally Driven Current Vortices in Inhomogeneous Bipolar Semiconductors, *Physical Review B* 84, 045205 (2011) (获APS "Physical Review Focus"专题报道)
13. D. Fu, et. al. Exploring optimal UV emission windows for AlGa_N and AlIn_N alloys grown on different templates, *Physica Status Solidi B-Basic Solid State Physics* 248, 2816 (2011)
14. D. Fu, et. al. Investigation of structural and optical anisotropy of m-plane In_N films grown on γ -LiAlO₂(100) by metal organic chemical vapour deposition, *Journal of Physics D: Applied Physics* 44, 245402 (2011)
15. D. Fu, et. al. Ultraviolet emission efficiencies of Al_xGa_{1-x}N films pseudomorphically grown on AlyGa_{1-y}N template (x

科研基金

“一维三族氮化物半导体微腔结构中激子极化激元和受激辐射研究”，国家自然科学基金面上项目，2013-2016，参与

“宽禁带半导体极化诱导能带调控原理及器件应用”，国家自然科学基金重大项目，2010-2013，参与

“用于制作高效太阳能电池的III族氮化物和稀释氮化物研究”，江苏省普通高校研究生科研创新计划（自然科学类：16人），2009-2011，主持

“非极性III族氮化物半导体异质结构能带理论及光电子器件研究”，南京大学优秀博士学位论文培育基金（入选总数：15人），2008-2010，主持