

# Xiuju Song (宋秀菊)

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## Education

- Sep. 2017 ~ Current**    **Postdoctoral researcher**  
Department of Materials Science & Engineering, Rutgers University, New Jersey, USA  
**Supervisor:** Prof. Manish Chhowalla  
**Thesis:** Synthesis of transition metal dichalcogenides for optoelectronics and energy storage applications
- Sep. 2016 ~ Current**    **Postdoctoral researcher**  
SZU-NUS Collaborative Innovation Center for Optoelectronic Science & Technology, Shenzhen University  
**Supervisor:** Prof. Wenjing Zhang;  
**Thesis:** Synthesis of transition metal dichalcogenides for optoelectronics and energy storage applications
- Sep. 2011 ~ Jul. 2016**    **Ph.D. in Physical Chemistry**  
Center for Nanochemistry, Academy for Advanced Interdisciplinary Studies, College of Chemistry & Molecular Engineering, Peking University  
**Supervisors:** Prof. Zhongfan. Liu and Prof. Yanfeng Zhang  
**Ph.D. Thesis:** Large domain sized hexagonal boron nitride on copper foils Growth of high-quality graphene on h-BN for electronic applications.
- Sep. 2007 ~ Jul. 2011**    **Bachelor in Materials Chemistry**  
School of Materials Science & Engineering, Shandong University  
**Project mentor:** Prof. Yujun Bai  
**B.S. Thesis:** Preparation of hollow carbon nano-polyhedrons

## Publications

1. **Xiuju Song**, Teng Gao, Yufeng Nie, Jingyu Sun, Donglin Ma, Feng Ding, Yanfeng Zhang, Zhongfan Liu. Seeded growth of high quality graphene on hexagonal boron nitride towards high-performance graphene electronics. *Nano Lett.* 2016, *16*, 6109.
2. **Xiuju Song**, Jingyu Sun, Yue Qi, Teng Gao, Yanfeng Zhang, Zhongfan Liu. Graphene/h-BN Heterostructures: Recent Advances in Controllable Preparation and Functional Applications. *Adv. Energy Mater.* 2016, 1600541.
3. **Xiuju Song**, Junfeng Gao, Yufeng Nie, Teng Gao, Jingyu Sun, Donglin Ma, Qiucheng Li, Yubin Chen, Chuanhong Jin, Alicja Bachmatiuk, Mark H. Rümmeli, Feng Ding, Yanfeng Zhang, Zhongfan Liu. Chemical vapor deposition growth of large-scale hexagonal boron nitride with controllable orientation, *Nano Res.* 2015, *8*, 3164.
4. Teng Gao, **Xiuju Song**, Huiwen Du, Yubin Chen, Qingqing Ji, Jingyu Sun, Yanlian Yang, Yanfeng Zhang, Zhongfan Liu. Temperature-triggered chemical switching growth of in-plane and vertically stacked graphene-boron nitride heterostructures. *Nat. Commun.* 2015, *6*, 6835.
5. Zhiyu Zou, **Xiuju Song**, Ke Chen, Qingqing Ji, Yanfeng Zhang, Zhongfan Liu, "Uniform single-layer

graphene growth on recyclable tungsten foils. *Nano Res.* 2015, 8, 592.

6. Zhiyu Zou, Lei Fu, **Xiuju Song**, Yanfeng Zhang and Zhongfan Liu. Carbide-Forming Groups IVB-VIB Metals: A New Territory in the Periodic Table for CVD Growth of Graphene. *Nano Lett.* 2014, 14, 3832.
7. Jingyu Sun, Teng Gao, **Xiuju Song**, Yanfei Zhao, Yuanwei Lin, Huichao Wang, Donglin Ma, Yubin Chen, Wenfeng Xiang, Jian Wang, Yanfeng Zhang and Zhongfan Liu. Direct Growth of High-Quality Graphene on High- $\kappa$  Dielectric SrTiO<sub>3</sub> Substrates. *J. Am. Chem. Soc.* 2014, 136, 66574.
8. Jingyu Sun, Yubin Chen, Manish Priyadarshi, Zhang Chen, Alicja Bachmatiuk; Zhiyu Zou, Zhaolong Chen, **Xiuju Song**, Yanfeng Gao, Mark Rummeli, Yanfeng Zhang, Zhongfan Liu, Direct CVD-derived graphene glasses targeting wide ranged applications. *Nano Lett.*, 2015, 15, 5846.
9. Yubin Chen, Jingyu Sun, Junfeng Gao, Feng Du, Qi Han, Yufeng Nie, Zhaolong Chen, Alicja Bachmatiuk, Manish Priyadarshi, Donglin Ma, **Xiuju Song**, Xiaosong Wu, Chunyang Xiong, Mark Rummeli, Feng Ding, Yanfeng Zhang, Zhongfan Liu, Direct CVD-derived graphene glasses targeting wide ranged applications. *Adv. Mater.* 2015, 27, 7839.
10. Jianping Shi, Donglin Ma, Gao-Feng Han, Yu Zhang, Qingqing Ji, Teng Gao, Jingyu Sun, **Xiuju Song**, Cong Li, Yanshuo Zhang, Xing-You Lang, Yanfeng Zhang and Zhongfan Liu. Controllable Growth and Transfer of Monolayer MoS<sub>2</sub> on Au Foils and Its Potential Application in Hydrogen Evolution Reaction. *ACS Nano* 2014, 8, 10196.
11. Yu Zhang, Yanfeng Zhang, Qingqing Ji, Jing Ju, Hongtao Yuan, Jianping Shi, Teng Gao, Donglin Ma, Mengxi Liu, Yubin Chen, **Xiuju Song**, Harold Y. Hwang, Yi Cui and Zhongfan Liu, Controlled Growth of High-Quality Monolayer WS<sub>2</sub> Layers on Sapphire and Imaging Its Grain Boundary. *ACS Nano* 2013, 7, 8963.
12. Jianping Shi, Yang Yang, Yu Zhang, Donglin Ma, Wei Wei, Qingqing Ji, Yanshuo Zhang, **Xiuju Song**, Teng Gao, Cong Li, Xinhe Bao, Zhongfan Liu, Qiang Fu, Yanfeng Zhang, Monolayer MoS<sub>2</sub> Growth on Au Foils and On - Site Domain Boundary Imaging. *Adv. Funct. Mater.*, 2015, 25, 842.
13. Jianping Shi, Xiaona Zhang, Donglin Ma, Jianbao Zhu, Yu Zhang, Zhenxi Guo, Yu Yao, Qingqing Ji, **Xiuju Song**, Yanshuo Zhang, Cong Li, Zhongfan Liu, Wenguang Zhu, Yanfeng Zhang, Substrate Facet Effect on the Growth of Monolayer MoS<sub>2</sub> on Au Foils. *ACS Nano*, 2015, 9, 4017.
14. Jingyu Sun, Yubin Chen, Xin Cai, Bangjun Ma, Zhaolong Chen, Manish Kr Priyadarshi, Ke Chen, Teng Gao, **Xiuju Song**, Qingqing Ji, Xuefeng Guo, Dechun Zou, Yanfeng Zhang, Zhongfan Liu, Direct low-temperature synthesis of graphene on various glasses by plasma-enhanced chemical vapor deposition for versatile, cost-effective electrodes. *Nano Res.* 2015, 8, 3496.
15. Jianping Shi, Yang Yang, Yu Zhang, Donglin Ma, Wei Wei, Qingqing Ji, Yanshuo Zhang, **Xiuju Song**, Teng Gao, Cong Li, Xinhe Bao, Zhongfan Liu, Qiang Fu, Yanfeng Zhang, Monolayer Films: Monolayer MoS<sub>2</sub> Growth on Au Foils and On - Site Domain Boundary Imaging. *Adv. Funct. Mater.*, 2015, 25, 826.
16. Donglin Ma, Jianping Shi, Qingqing Ji, Ke Chen, Jianbo Yin, Yuanwei Lin, Yu Zhang, Mengxi Liu, Qingliang Feng, **Xiuju Song**, Xuefeng Guo, Jin Zhang, Yanfeng Zhang, Zhongfan Liu, A universal etching-free transfer of MoS<sub>2</sub> films for applications in photodetectors. *Nano Res.* 2015, 8, 3662.
17. Donglin Ma, Mengxi Liu, Teng Gao, Cong Li, Jingyu Sun, Yufeng Nie, Qingqing Ji, Yu Zhang, **Xiuju Song**, Yanfeng Zhang, Zhongfan Liu, High-Quality Monolayer Graphene Synthesis on Pd Foils via the Suppression of Multilayer Growth at Grain Boundaries. *Small*, 2014, 10, 4003.

## **References**

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