# Chuanxu Ma

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## **Education and research background**

Post-doc.	Oak Ridge National Laboratory	Mar.2015-present
Post-doc.	University of Science and Technology of China	Jun.2014-Feb. 2015
Ph.D.	University of Science and Technology of China	Sep.2008-Jun. 2014
	Condensed Matter Physics, Single-molecular Scien	ce
B.S.	University of Science and Technology of China	Sep.2008- Jul.2004
	Material Physics	

## **Rewards**

Post-doc. AVS 2016 Art Zone Contest, third place.

- Ph.D. GE-USTC scholarship (2010); Chinese Academy of Science Award of Excellence (2014); Outstanding poster award in Chinese Physical Society Fall Meeting of 2013.
- B.S. Outstanding student scholarship-Cooper award twice, Silver award once; Minlong Huang scholarship; Outstanding graduated student of USTC; Outstanding graduated student of Anhui Province.

## **Publications**

 <u>Chuanxu Ma</u>, Haifeng Sun, Yeliang Zhao, Bin Li, Qunxiang Li, Aidi Zhao, Xiaoping Wang, Yi Luo, Jinlong Yang, Bing Wang,\* and J. G. Hou,\* Evidence of van Hove singularities in ordered grain boundaries of graphene, PRL 112, 226802 (2014). (C.X.M. and H.F.S. contribute to this article equally.)

- <u>Chuanxu Ma</u>, Haifeng Sun, Hongjian Du, Jufeng Wang, Aidi Zhao, Qunxiang Li, Bing Wang,\* and J. G. Hou, Structural and electronic properties of an ordered grain boundary formed by separated (1,0) dislocations in graphene, Nanoscale 7, 3055–3059 (2015).
- <sup>3.</sup> Shijing Tan, Yan Zhao, Jin Zhao, Zhuo Wang, <u>Chuanxu Ma</u>, Aidi Zhao, Bing Wang,\* Yi Luo, Jinlong Yang, and J. G. Hou,\* CO<sub>2</sub> dissociation activated through electron attachment on reduced rutile TiO<sub>2</sub>(110)-1 × 1 surface, **PRB** 84, 155418 (2011).
- 4. Corentin Durand, X.-G. Zhang, Saban M. Hus, <u>Chuanxu Ma</u>, Michael A. McGuire, Yong P. Chen & An-Ping Li, Differentiation of surface and bulk conductivities in topological insulator via four-probe spectroscopy. Under Review in Nano Letters.
- 5. Hong-Hai Zhang, <u>Chuanxu Ma</u>, Jiahua Zhu, Bobby G. Sumpter, Peter V. Bonnesen, Jan-Michael Y. Carrillo, Panchao Yin, Yangyang Wang, An-Ping Li, and Kunlun Hong, Helical poly(5-alkyl-2,3-thiophene)s: controlled synthesis and structure characterization. **Submitted to JACS.**
- 6. <u>Chuanxu Ma</u>, Jewook Park, Lei Liu, Yong-Sung Kim, Mina Yoon, Arthur P. Baddorf, Gong Gu, An-Ping Li, Interplay between intercalated oxygen superstructures and monolayer h-BN on Cu(100). **In preparation**.
- 7. Chuanxu Ma, Hongjian Du, Jufeng Wang, Mingyang Tian, Aidi Zhao, Bing Wang,\* and J. G. Hou, Landau quantization in a narrow doubly folded wrinkle of graphene. **In preparation**.
- 8. Chuanxu Ma, Haifeng Sun, Yeliang Zhao, Aidi Zhao, Qunxiang Li, Bing Wang,\* and J. G. Hou, Identifying N dopants in N-doped graphene: Structure, electronic properties and doping effect. **In preparation**.

# **Presentations**

1.	Fall meeting of Chinese Physical Society in 2011	Hangzhou, China
	Oral presentation: STM study of defects in graphene	
2.	Fall meeting of Chinese Physical Society in 2012 <b>Oral presentation</b> : The structural and electronic propert boundaries in graphene	Guangzhou, China ies of ordered grain
3.	Fall meeting of Chinese Physical Society in 2013	Xiamen, China
	<b>Poster</b> : Tuning the doping type of graphene with single element of N	
	th	

4. 62<sup>th</sup> American Vacuum Society Meeting in 2016 San Jose, CA, USA

**Oral presentation**: Interplay between novel oxygen superstructures and the interface of h-BN/Cu(100)

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# Academic references

# J. G. Hou

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## **An-Ping Li**

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## Aidi Zhao

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