



IBS Center for Multidimensional Carbon Materials



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Interfacial Engineering in Graphene

Tuesday, SEP 5 | Bldg. 101
4 PM | Seminar room on the 1st floor

Graphene is of only one atomic layer thick and its property is therefore very sensitive to the interfacial interaction with other materials. By designing and utilizing this interfacial interaction, we have lots of opportunity in engineering the growth and properties of graphene. In this talk I will introduce several our works on this topic, including ultrafast graphene growth [1], epitaxial graphene growth [2] and anticorrosion.

Reference:

[1] Xiaozhi Xu, Zhihong Zhang, Dapeng Yu, Enge Wang, Feng Ding*, Hailin Peng*, Kaihui Liu*, et al. "Ultrafast Growth of Single-crystal Graphene Assisted by a Continuous Oxygen Supply", Nature Nanotechnology 2016, 11, 930

[2] Xiaozhi Xu, Zhihong Zhang, Hailin Peng, Rodney Ruoff, Zhongfan Liu, Dapeng Yu, Enge Wang*, Feng Ding*, Kaihui Liu* and et al. "Ultrafast epitaxial growth of metre-sized single-crystal graphene on industrial Cu foil", Science Bulletin 2017, 62, 1074

About the Speaker. Dr. Kaihui Liu got his bachelor degree from Beijing Normal University in 2004 and his Ph. D degree from Institute of Physics, Chinese Academy of Sciences under Prof. Enge Wang in 2009. After that he worked as a postdoctoral fellow in Prof. Feng Wang's group at Department of Physics, UC Berkeley. In 2014, he joined Peking University as the National Thousand Youth Talents Plan Professor of China. Dr. Kaihui Liu's main research interests are the novel physical phenomena and controllable growth in nanoscale structures, especially in carbon nanotubes and graphene. He developed an advanced single nano-object level in-situ Nano-optics, TEM and CVD techniques to study structure-dependent physics and growth mechanism at nano scale. He has published more than 60 scientific journals, including first-authored or correspondence-authored Nature Nanotechnology (3), Nature Physics, Nature Communications (3), Light, PNAS, JACS (2), Advanced Materials (4), Nano Letters, and ACS Nano. He is currently the committee member for Development Society of Materials and Technique of China and editorial board member for IOP Nano and Nano Future.

You are cordially invited to attend!

Tuesday Colloquium