IBS Center for Multidimensional Carbon Materials

Special Guest Seminar

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Controlled Preparation of Graphene and Its Electronic Properties

JULY 5th | Bldg. 101
THUR 2PM | Seminar Room on the 1st floor

Abstract: The controlled growth of graphene by chemical vapor deposition (CVD) method is vital for its various applications, however, high quality and reproducibility remain great challenges. The final goal for the control synthesis of graphene is to get large-size, single-crystal and monolayer (or the number of layers can be controlled) graphene. The CVD method has been recognized as a promising one since it combines high quality and large quantity of the product. A typical CVD process of graphene synthesis processes two basic stages, nucleation and growth, in which the randomly distributed graphene nuclei would continue to grow and eventually merge into film. Here, I will report the controllable synthesis of graphene by CVD and investigation of its electronic properties.

Reference:

1. Wei Guo, et al., *ACS Nano*, 2018, 12(2), 1778–1784.
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3. Jianyi Chen, et al., *Adv. Mater.*, 2014, 26(9), 1348–1353.
4. Lifeng Wang, et al., *Adv. Mater.*, 2014, 26(10), 1559–1564.
5. Dacheng Wei, et al., *Acc. Chem. Res.*, 2013, 46(1), 106–115.
6. Dechao Geng, et al., *Proc. Natl. Acad. Sci. USA*, 2012, 109(21), 7992–7996.

Yunqi Liu was graduated from Nanjing University in 1975, received a doctorate from Tokyo Institute of Technology, Japan in 1991. Presently, he is a Professor at the Institute of Chemistry, Chinese Academy of Sciences (CAS), an Academician of CAS, and a Fellow of The World Academy of Sciences (TWAS). He has published more than 600 papers in SCI journals (in which, over 140 of papers with IF>10), cited by other researchers for more than 30,000 times with an h-index >80. He was recognized as "Highly Cited Researchers" by Thomson Reuters in Materials Science from 2014 to 2017. In addition, he has obtained 70 of granted patents, published three books and 18 book chapters. He received the National Natural Science Award (2nd grade) in 2007 and 2016, and Beijing Science and Technology Award in 2017 (1st grade).

You are cordially invited to attend!