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Faculty of Science and Technology

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**Interface Engineering of Low Dimensional Materials: The Future of
Electronic Devices**

By

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Venue: E12- 1022

Abstract

Our daily life relies on electronic devices on many aspects. However, current silicon industry is rushing into its limit to provide better products. Development on both new materials and technologies are highly desired. We discuss the development of nanomaterials (carbon nanotube, graphene) and technology (three dimensional integrated circuits, 3D-IC) for the future electronic devices. In particular, this topic will involve separation of semiconducting carbon nanotube arrays, site selective doping of graphene, nanoprint technology and thermal management in 3D-IC system.

Biography

Dr. Guo Hong is a postdoctoral researcher in the Department of Mechanical and Process Engineering at Swiss Federal Institute of Technology Zurich (ETHZ), Switzerland. Prior to joining ETHZ, he was a postdoctoral researcher in the Department of Physics and Materials Science at City University of Hong Kong, Hong Kong SAR. He obtained the Ph.D. degree in the College of Chemistry and Molecular Engineering at Peking University, China in 2011.

Dr. Guo Hong's research is in the area of nanomaterials, including carbon nanotube, graphene and silicon nanowire, with a host of applications. These work has been published in top peer reviewed journals, such as *J. Am. Chem. Soc.*, *Angew. Chem. - Int. Edit.*, *Nano Today*. He also served as a contributor in the *Graphene Science Handbook*, published by CRC press Taylor & Francis Group France in 2016. During his research career, he has been involved in 9 research projects and taken the major roles in the collaboration with Samsung Electronics and IBM. Among the awards and recognitions, he has received an excellent graduate award of Peking University and AsiaNano Young Researcher Award.

All are Welcome!