



### Seminar

## Graphene Nanoelectronics and Nanophotonics



### Zhaohui Zhong

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**Time: 11:00am, June. 20, 2014 (Friday)**

**时间: 2014年6月20日 (周五) 上午11:00**

**Venue: Room 607, Science Building 5**

**地点: 理科五号楼607会议室**

#### Abstract

Carbon nanomaterials, such as graphene and carbon nanotubes, offer unparalleled opportunities for next generation electronic and optoelectronic devices which not only have smaller sizes but often exhibit unique functionalities. The research in our group aims at exploiting material properties and device applications enabled uniquely by these low dimensional carbon nanomaterials. In this talk, I will discuss our group's recent works on these fascinating nanomaterials. Topics will include: 1) investigation of photocarrier generation and extraction on graphene optoelectronic devices using scanning photocurrent spectroscopy; 2) graphene heterostructure based ultra-broadband and high responsivity photodetector; and 3) graphene nanoelectronic heterodyne sensors offering high speed and high sensitivity vapor detection.

#### About the Speaker

Zhaohui Zhong is currently an Associate Professor (with tenure) of Electrical Engineering and Computer Science at the University of Michigan. He received his B.S. and M.S. in Chemistry from Nanjing University in 1998 and 2000, and his Ph.D. in Chemistry from Harvard University in 2005. From 2005 to 2008, he was a postdoctoral associate at Cornell Center for Nanoscale Systems. He joined the faculty of EECS at the University of Michigan in 2008. He is a recipient of ACS Petroleum Fund Doctoral New Investigator (2011), and NSF CAREER award (2013). His research lies on the frontiers of nanoelectronics and nanophotonics, and has been cited for more than 4000 times.