

ISGD-5

5th INTERNATIONAL SYMPOSIUM ON GRAPHENE DEVICES

Graphene oxide optoelectronic devices by 3D laser printing

Associate Professor Baohua Jia

Centre for Micro-Photonics, Faculty of Science, Engineering and Technology, Swinburne University of Technology, John Street, Hawthorn, Vic 3122, Australia

Graphite oxide, prepared by chemical oxidation of graphite and subsequent exfoliation in water, has emerged as an intense research interest due to its role as a promising precursor for the cost-effective and mass production of graphene-based materials and devices. The monolayer sheet of graphite oxide, namely graphene oxide, is not only an important raw material to synthesize graphene, but also shows excellent physical and chemical properties that find important applications in electronics and optics. Meanwhile, existence of various oxygen-containing functional groups also enables graphene oxide promising prospects in energy and environmental science, as well as biotechnology. In this talk I will introduce our recent progress on 3D laser printed graphene oxide film for highly-integrated optoelectronics devices towards energy, information technology and aerospace applications.

Short Bio:

Associate Professor Baohua Jia is a Research Leader at Swinburne University of Technology. She received her BSc (2000) and MSc (2003) degrees from Nankai University, China and a PhD (2007) from Swinburne University of Technology, Australia. She is now the Honorary Treasurer of Australian Optical Society.

Dr Jia's research focuses on ultrafast laser imaging, spectroscopy and nanofabrication of novel photonic nanostructures and employment of nanostructures and nanomaterials for clean energy related research.

Dr. Jia has co-authored more than 200 scientific publications in highly ranked journals and prestigious international conferences including Nature Photonics, Advanced Materials and Nano Letters. She has delivered more than 30 invited talks at prestigious international conferences and serves multiples professional committees. She has received numerous prizes and awards including, for example, the 2013 Young Tall Poppy Science Award, L'Oréal Australia and New Zealand for Women in Science Fellowship (2012), Discovery Early Career Researcher Award (DECRA) from the Australian Research Council (2012), Vice-Chancellor's Industry Engagement Award (2011), Victoria Fellowship from the Victorian Government (2010), French Fellowship from the Australian French Association for Science and Technology (2010).