

# 学术报告

## Nanostructured Materials for Energy Conversion and Storage

报告人: Prof. Xueliang(Andy) Sun  
University of Western Ontario, Canada

时间: 5月4日 (周一) 上午 10: 00

地点: 化四-112 报告厅

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固体表面物理化学国家重点实验室  
化学化工学院  
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Xueliang (Andy) Sun

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## Abstract

There is a growing awareness that nanotechnology will have a profound impact on energy generation, storage, and utilization by exploiting the significant differences of energy states and transport in nanostructures and macrostructures. Nanotechnology-based solutions are being developed for a wide range of energy solutions such as solar cells, hydrogen generation and storage, batteries, and fuel cells. Dr. Sun and his group are focusing on synthesis of various low-dimensional nanomaterials to address challenges in fuel cells and Li batteries.

In this talk, Dr. Sun will report their progresses how to apply various nanomaterials to solve problems in fuel cells and Li ion batteries.

## Brief bio

Dr. Sun is a Canada Research Chair in the development nanomaterials and clean energy, and a Professor at University of Western Ontario, Canada. Specifically, his research activities are currently focused on developing various approaches to synthesize nanomaterials such as nanotubes, nanowires, nanoparticles and thin films as well as exploring their applications for clean energy including fuel cells, Li-ion batteries and Li-Air batteries.

Dr. Sun received his Ph.D degree in Materials Chemistry at the University of Manchester, UK, in 1999. After his Ph.D in UK, he worked as a post-doctoral fellow in the University of British Columbia, Canada, during 1999-2001. He was a Research Associate at the National Institut de la Recherche Scientifique (INRS), Quebec, Canada, during 2001-2004. Dr. Sun joined as an Assistant Professor the University of Western Ontario in 2004. He was awarded tenure and promoted Associate Professor in 2007 and Full Professor in 2012.

Dr. Sun is an author and co-author of over 220 refereed-journals, two books and 13 book chapters, including *Nature Communications*, *Advanced Materials*, *Angewandte Chemie International Edition*、*J. Am. Chem. Soc.(JACS)*、 and *Energy & Environmental Science*. He holds ten US patents. Dr. Sun is actively collaborating with industries and government labs such as Ballard Power Systems, General Motors, Lithium Phostech Inc., and Canadian National Defence. Dr. Sun received various awards such as Early Researcher Award (2006), Canada Research Chair (2007) and University Faculty Scholar Award (2010) and Western Engineering Prize for Achievement in Research (2013).

