A LOW-COST PHOTOVOLTAIC TECHNOLOGY: FROM DYE-SENSITIZED TO PEROVSKITE SOLAR CELLS

Date:
Friday, September 11, 2015 -12:00pm to1:30pm
Location:
W122 Eng. Bldg. 2, University of Houston

Center for Integrated Bio and Nano Systems Houston Chapter of IEEE Nanotechnology Council and Houston Chapter of IEEE Magnetics Society

Friday, September 11, 2015
12:30 p.m. (Refreshments served at 12:00 pm)
Room: W122 Eng. Bldg. 2

A LOW-COST PHOTOVOLTAIC TECHNOLOGY: FROM DYE-SENSITIZED TO PEROVSKITE SOLAR CELLS

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Abstract: Over the past five years, the rapid emergence of a new class of solar cell based on mixed organic?inorganic halide perovskite semiconductors has captured the attention of scientists and researchers in the field of energy conversion.受益于优化的钙钛矿薄膜沉积方法，新型材料体系的设计，以及器件概念的多样性，钙钛矿太阳能电池（PSCs）的效率从2007年的2.19%提升至2014年的20.1%，成为迄今为止发展最快的光伏技术。我们的研究兴趣主要集中在低温处理的平面异质结PSCs。通过溶剂工程，钙钛矿活性层的平滑、紧凑和均匀形态已被很好地控制。也，钙钛矿相变从中间相到钙钛矿相的变化被调查。中间相的结构表征和相变的控制对理解钙钛矿晶体生长以及高性能平面异质结PSCs的制造至关重要。
Bio of Dr. Rong: Dr. Yaoguang Rong received his BS degree in Material Physics from Wuhan University in 2009, and PhD degree in Optics Engineering from Huazhong University of Science and Technology in 2014. Since then, he has been working as a postdoctoral researcher in the Department of Electrical and Computer Engineering in University of Houston. His current research interests include perovskite solar cells, dye-sensitized solar cells, and mesoscopic-structure materials.

Contact Prof. Jiming Bao (jbao [at] uh [dot] edu) if you would like to arrange for a time to meet with Dr. Rong.