

Title	<b>Design highly active solar light photocatalyst by nanostructure control</b>
Speaker	Dr. Songmei Sun International Institute for Carbon-Neutral Energy Research (I <sup>2</sup> CNER) Molecular Photoconversion Devices Research Division
Date & Time	Tuesday, July 18, 2017 3:00 - 4:30 p.m.
Place	Entrance lobby, I <sup>2</sup> CNER building 1
<b>Abstract</b>	
<p>Heterogeneous photocatalysis can provide a green chemical route for environmental purification and solar energy conversion. Issues remain with lack of design principle for catalysts which have high activity under solar light. For semiconductor photocatalyst, the activity is usually limited by the crystal structure and the electronic structure of the photocatalysts. In quantum confinement semiconductor, the crystal structure and the electronic structure very differ from that in conventional material, proving the opportunity to improve the photocatalytic activity by nanostructure control. In this seminar, the improved photocatalytic activities of some bismuth based oxide semiconductors are overviewed.</p>	
<b>About the Speaker</b>	
<p>Dr. Songmei Sun has been working as an associate professor at molecular photoconversion devices research division in International Institute for Carbon-Neutral Energy Research (I<sup>2</sup>CNER) since 2016. She holds a PhD degree in Materials Chemistry &amp; Physics from Shanghai Institute of Ceramics, Chinese Academy of Sciences (2010). She has published more than 60 peer-reviewed research papers in the area of semiconductor photocatalyst up to the present. Her current research is focused on the rational synthesis and mechanism exploration of atomic scale semiconductor photocatalyst for solar fuels production.</p>	