NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

School of Materials Science and Engineering
College of Engineering

MSE Faculty Seminar:

Functionalization of Polymeric Carbon Nitride for Solar Fuels Production

Associate Professor Xue Can

Abstract

As a low-cost metal-free photocatalyst, polymeric carbon nitride (PCN) has attracted tremendous research attention due to its visible light activities and tailorable molecular and electronic structures. In this talk, I will share some of our work on the development of solvothermal approaches for PCN synthesis with facile introduction of conjugating functional groups which allow efficient photocatalytic CO_2 reduction with concurrent olefin oxidation. In addition, I will also talk about our recent efforts on doping PCN with single atom catalysts for photocatalytic hydrogen generation and selective CO_2 reduction.

Biography

Dr. Xue Can received B.Sc degree from University of Science and Technology of China (USTC) in 2002, and obtained PhD degree from Northwestern University (IL, USA) in 2007. Afterwards, he moved to Singapore in 2008 as a recipient of the Lee Kuan Yew Research Fellowship and was appointed as assistant professor in November 2009 at Nanyang Technological University, where he got promotion to tenured associate professor in September 2015.

Wednesday, 30 August 2023 ǁ Time: 2.00 pm – 3.00 pm ǁ
MSE Meeting Room (N4.1-01-28)
Hosted by: Associate Professor Andrew Clive Grimsdale

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