DOCTOR OF PHILOSOPHY

CO2 Capture and Utilization Using Dual-Functional Catalysts

Sun, Hongman

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Hongman Sun  
Phone: +44 7902065443; E-mail: sunhongmanupc@gmail.com

EDUCATION
- Queen’s University Belfast, UK (QS Ranking 173)  PhD  Sep. 2016-Mar. 2020
  Chemical Engineering  Viva date: 19 March 2020
  Project: CO2 capture and utilization using multifunctional catalysts
- University of Sydney, Australia  Visiting student  Jan. 2018-Apr. 2018
- China University of Petroleum, China  MSc  Sep. 2014-Jun. 2017
  Materials Engineering
  Project: Preparation, scale up and catalytic applications of hierarchical ZSM-5 zeolite
- Dalian Polytechnic University, China  BSc  Sep. 2010-Jun. 2014
  Materials Science and Engineering

RESEARCH INTERESTS AND SKILLS
- The development of novel sorbents for carbon capture and heterogeneous catalysts to produce sustainable fuels and chemicals from carbon-based feedstock.
- CO2 in-situ capture during biomass gasification.
- Characterization techniques: fixed-bed reactor, BET, XRD, XAFS, XPS, XRF, ICP, SEM/EDX, TEM/HRTEM, FIB-SEM, TPD/TPR, In-situ FT-IR, GC, MS, TGA/DSC.

MAIN PUBLICATIONS

WORKING EXPERIENCE
- EU Project Coordinator  June 2019-Aug 2019
  Outcomes: Worked as the coordinator for the communication between the partners and helped to prepare the proposal during the EU project application.
Outcomes: Worked as the researcher in Dalian Institute of Chemical Physics, CAS, carried out the mechanism studies of dual functional catalysts and developed a direct method for the highly selectively conversion of captured CO₂.
• Teaching assistant  Sep.2017-Mar.2018
Assisted lecturer to demonstrate students with their project and final design
Demonstrated chemistry lab lectures for 1st and 2nd undergraduate students

CONFERENCE

AWARDS
• RSC Applied Catalysis Sponsored Oral Award, 2019.
• ACS Catalysis Award for Early Career Researcher, 2018.
• EU rise project for visiting student to the University of Sydney, 2018.
• China scholarship for overseas PhD students, 2016.
• National scholarship for postgraduates (Top 3%), 2015.
• Excellent graduates of Liaoning province (Top 5%), 2014.
• "Challenge Cup" college student academic science and technology competition, Second prize of Liaoning province (Top 5%), 2012.
• Government scholarship of Liaoning province (Top 5%), 2011.