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Education:

PhD (2009/10~2013/11) Chemical Engineering, University of Cambridge, UK

B.A. and M.Eng (2005/10~2009/6) Chemical Engineering, University of Cambridge, UK

Experience:

Postdoc (2013/11~2014/9) Department of Engineering, University of Cambridge, UK

Postdoc (2014/9~2016/8) CREATE-C4T, Nanyang Technological University, Singapore

Assistant Professor (2016/8~2018/5) Newcastle University, Singapore Campus, Singapore

Assistant Professor (2018/5-2024/9) Nanyang Technological University, Singapore

Selective Honors & Awards:

1. Catalysis Development Excellence Award, Asian-Pacific Association of Catalysis Societies (2023)
2. Runner up, College of Engineering Young Faculty Research Award, Nanyang Technological University (2023)
3. Emerging Investigator, RSC Reaction Chemistry and Engineering (2022)
4. Outstanding Young Principal Investigator Award, American Institute of Chemical Engineers, Singapore Local Section (2021)
5. Danckwert-Pergamon Prize for best PhD thesis, University of Cambridge (2013)

Research Areas:

Reaction engineering for thermal catalytic chemical conversions, CO₂ capture and utilisation

Selective Publications:

1. Halite-structured (MgCoNiMnFe)O_x high entropy oxide (HEO) for chemical looping dry reforming of methane. *Applied Catalysis B: Environment and Energy*. **355**, 124191.
2. Synthesis of uniform Fe₂O₃@Y₂O₃ yolk-shell nanoreactors as chemical looping oxygen carriers. *Applied Catalysis B: Energy and Environmental*. **350**, 123935.
3. An investigation of the Ni/carbonate interfaces on dual function materials in integrated CO₂ capture and utilisation cycles. *Applied Catalysis B: Environmental*. **338**, 123053.
4. Modulating Lattice Oxygen Activity of Ca₂Fe₂O₅ for the Co-production of Syngas and High

Purity Hydrogen via Chemical Looping Steam Reforming of Toluene. *Applied Catalysis B: Environmental*. **320**, 122010.

5. CO₂ Hydrogenation to methanol on tungsten-doped Cu/CeO₂ catalysts. *Applied Catalysis B: Environmental*. **306**, 121098.