

WISE

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FOR SUSTAINABLE ENERGY



LECTURE SERIES

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BUILDINGS | CARBON CAPTURE AND STORAGE | FUEL CELLS | NUCLEAR | POLICY | PLANNING
RENEWABLES | SMART GRID | STORAGE | SUSTAINABLE MOBILITY | SUSTAINABILITY ANALYSES

A WEBINAR PRESENTED BY
**THE WATERLOO INSTITUTE
FOR SUSTAINABLE ENERGY**

**Wednesday Sep 30, 2020
2:30 pm – 3:30 pm**

[How to Join the Zoom Meeting](#)

EFFICIENT HYDROGEN PRODUCTION IN OXYGEN TRANSPORT MEMBRANE REACTORS

Dr. XiaoYu Wu, is an assistant professor in the Department of Mechanical and Mechatronics Engineering at the University of Waterloo.

Hydrogen, as an energy carrier and chemical feedstock, has an essential role in a sustainable future. Our group has been developing oxygen transport membranes (OTMs) for hydrogen production from water splitting, reforming and gasification to improve the production efficiency and decrease the carbon footprint. In this talk, I will focus on the application on gasification, and discuss how the H₂S-tolerant OTMs can significantly reduce the energy penalty of carbon capture in an integrated gasification combined cycle (IGCC). Both experimental and system modelling results will be presented.

Biography



Dr. XiaoYu Wu is an assistant professor in the Department of Mechanical and Mechatronics Engineering at the University of Waterloo. He received his B.Sc. and M.Sc. degrees from Zhejiang University, and Ph.D. from MIT. His research group, Greener Production @ Waterloo, combines expertise in thermal science, material engineering and techno-economics to develop sustainable technologies for energy conversion and chemical production.

ALL ARE WELCOME!

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