

## Waste Shell Biorefinery: sustainable production of organonitrogen chemicals from chitin biomass

Assoc. Prof. Xi Chen

(China-UK Low Carbon College, Shanghai Jiao Tong University)

2025年8月22日(金) 15:00–16:00

(創成科学研究棟 4階 会議室BC)

<http://www.cat.hokudai.ac.jp/access.html>



### Abstract

Organonitrogen chemicals are essential in many aspects of modern life. At present, the prevailing industrial processes for manufacturing organonitrogen chemicals start from nonrenewable fossil resources. Integrating biomass into the organonitrogen chemical supply chain will mitigate the carbon footprint, diversify the product stream, and enhance the economic competitiveness of biorefinery. In the talk, the different transformation strategies to convert ocean-based chitin biomass that naturally containing nitrogen into a variety of valuable organonitrogen compounds will be discussed, including the catalysis, solvent effect and pretreatment.

### Biography

Xi Chen is currently an associate professor in the China-UK Low Carbon College (LCC) at Shanghai Jiao Tong University (SJTU). She obtained her B.S. & M.S. in Chemistry from Wuhan University in 2010 and 2012 respectively. She then obtained her Ph.D. in 2016 from the National University of Singapore (NUS) with Prof. Ning Yan, and stayed at the same group as postdoctoral researcher. She joined SJTU in 2018 as an assistant professor and then became associate professor in 2020. She serves as the associate editor for *RSC Advances* and young editorial board member for *Carbon Neutrality*. She has published 45 peer-reviewed papers and 3 book chapters with 4,930 citations and h-index of 30 (from Scopus). She is the team leader of biomass utilization lab at LCC, and her research interest is focused on the efficient utilization of biomass resources to produce high-value chemicals and materials for application in biomedical and environmental fields.

問合せ先: 触媒科学研究所・福岡淳 特任教授 ([fukuoka@cat.hokudai.ac.jp](mailto:fukuoka@cat.hokudai.ac.jp)・011-706-9121)

共催: 触媒科学計測共同研究拠点, 学際統合物質科学研究機構