

Claire Roa Pu Shen

Affiliation: Department of Chemical Engineering, National Tsing Hua University

Address: 101, Section 2, Kuang-Fu Road, 30013, Taiwan

E-mail: crshen@mx.nthu.edu.tw



Education

2011 PhD University of California Los Angeles

2006 B.S. University of California Los Angeles

Professional Experience

2018-Present Associate Professor, Department of Chemical Engineering, National Tsing Hua University

2014-2018 Assistant Professor, Department of Chemical Engineering, National Tsing Hua University

2011-2013 Post-Doc, Institute for Genomics and Proteomics, University of California Los Angeles

Selected Publications

Ryan S Wang, Siang-Wun Siao, Jessica C Wang, Patrick Y Lin, Claire R Shen, Engineering thioesterase as a driving force for novel itaconate production via its degradation scheme. *Metabolic Engineering Communications*, 2024. 19.

Ziyi Yang, Ryan S Wang, Billy Y Cheng, Vincent Ruan, Piju Yang, Chen-Hsien Liang, Claire R Shen, Key residues identified by random mutagenesis enhanced indole hydroxylation efficiency of the flavin-containing monooxygenase from *Corynebacterium glutamicum*. *Biochemical Engineering Journal*, 2023. 199, 109064.

Ken W Lu, Chris T Wang, Hengray Chang, Ryan S Wang, Claire R Shen, Overcoming glutamate auxotrophy in *Escherichia coli* itaconate overproducer by the Weimberg pathway. *Metabolic Engineering Communications*, 2021. 13.

Eric S Fan, Ken W Lu, Rex C Wen, Claire R Shen, Photosynthetic reduction of xylose to xylitol using cyanobacteria. *Biotechnology Journal*, 2020. 15 (6), 1900354.

Keming Liang, Claire R Shen, Selection of an endogenous 2, 3-butanediol pathway in *Escherichia coli* by fermentative redox balance. *Metabolic Engineering*, 2017. 39, 181-

191.

Rex C Wen, Claire R Shen, Self-regulated 1-butanol production in *Escherichia coli* based on the endogenous fermentative control, *Biotechnology for biofuels*. 2016. 9, 1-15.

Yi-Xin Huo, Kwang Myung Cho, Jimmy G Lafontaine Rivera, Emma Monte, Claire R Shen, Yajun Yan, James C Liao, Conversion of proteins into biofuels by engineering nitrogen flux. *Nature biotechnology*, 2011. 29(4), 346-351.