

**Postdoctoral Researcher, Chemical and Biomolecular Engineering, University of Delaware**

**Doctor of Philosophy, Chemical and Biomolecular Engineering, Rice University**

Thesis Title: *“Investigation of Interfacial and Rheological Properties of Asphaltenes at Solid-Liquid and Liquid-Liquid Interfaces”*

**Bachelor of Science, Chemical Engineering, National Taiwan University**

**Research Interest:**

**Microfluidic Investigation on Stability of Colloidal Suspensions in Viscoelastic Fluids**

Colloidal products take the form of freshening sprays, detergents, cosmetics, and various other forms. These products, which are encapsulated particles/emulsions, must be delivered properly under flow (e.g. through a high-shear spray nozzle). I intend to use microfluidics to create a well-controlled platform for studying various physicochemical conditions relating to the flow of encapsulated particles/emulsions in viscoelastic fluids.

**Publications**

1. **Y.J. Lin**, A. Perrard, S.L. Biswal, R.M. Hill, S. Trabelsi. “Microfluidic Investigation of Asphaltenes-Stabilized Water-in-Oil Emulsions”, *EnergyFuels*, 32 (4), 4903-4910 (2018)
2. **Y.J. Lin**, S. Barman, P. He, Z. Zhang, G. Christopher and S.L. Biswal. “Combined Interfacial Shear Rheology and Microstructure Visualization of Asphaltenes at Air-Water and Oil-Water Interfaces”, *Journal of Rheology*, 62 (1), 1-10 (2018)
3. **Y.J. Lin**, P. He, M. Tavakkoli, Y.F. Yap, J. Chai, A. Goharzadeh, F. Vargas and S.L. Biswal. "Characterizing Asphaltene Deposition in the Presence of Chemical Dispersants in Porous Media Micromodels", *EnergyFuels*, 31 (11), 11660 – 11668 (2017)
4. Y. Zhuang, A. Goharzadeh, **Y.J. Lin**, Y.F. Yap, J.C. Chai, N. Mathew, F. Vargas and S.L. Biswal. “Experimental Study of Asphaltene Deposition in Transparent Microchannels Using Light Absorption Method”, *Journal of Dispersion Science and Technology*, 39 (5), 744-753 (2017)
5. **Y.J. Lin**, P. He, M. Tavakkoli, N. Mathew, Y.F. Yap, J. Chai, A. Goharzadeh, F. Vargas and S.L. Biswal. "Examining Asphaltene Solubility on Deposition in Model Porous Media", *Langmuir*, 32 (34), 8729 – 8734 (2016)
6. Y. Zhuang, A. Goharzadeh, **Y.J. Lin**, Y.F. Yap, J.C. Chai, N. Mathew, F. Vargas and S.L. Biswal. “Three Dimensional Measurements of Asphaltene Deposition in a Transparent Micro-channel”, *Journal of Petroleum Science and Engineering*, 145, 77–82 (2016)
7. P. He, Y. Zeng, D. Du, **Y.J. Lin**, Y. Wang and A. Abdel-Fattah. “A Review of Novel Materials and Technologies for the Sustainable Development of Microalgae Biofuel”, *Renewable Energy eJournal*, (2016), DOI: 10.2139/ssrn.2758331
8. C.W. Liang, C.H. Lee, **Y.J. Lin**, Y.T. Lee and C.K. Ni. “MALDI Mechanism of Dihydroxybenzoic Acid Isomers: Desorption of Neutral Matrix and Analyte”, *Journal of Physical Chemistry B*, 117 (17), 5058 – 5064 (2013)
9. C.Y. Kao, J.K. Lai, T.H. Lin, **Y.J. Lin**, J.S. Jan and S.S. Wang. “Examining the Inhibitory Actions of Copolypeptides against Amyloid Fibrillogenesis of Bovine Insulin.” *Biochemical Engineering Journal*, 78, 181-188 (2013)
10. C.W. Liang, P.J. Chang, **Y.J. Lin**, Y.T. Lee and C.K. Ni. “High Ion Yields of Carbohydrates from Frozen Solution by UV-MALDI”, *Analytical Chemistry*, 84 (8), 3493 – 3499 (2012)
11. W.S. Wen, J.K. Lai, **Y.J. Lin**, C.M. Lai, Y.C. Huang, S.S. Wang and J.S. Jan. ” Effects of Copolypeptides on Amyloid Fibrillation of Hen Egg-White Lysozyme”, *Biopolymers*, 97 (2), 107-116 (2012)