

WANG, YIFEI

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EDUCATION

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| Texas A&M University | College Station, TX |
| <i>PhD in Materials Sciences&Engineering</i> | 08/2019-present |
| Case Western Reserve University | Cleveland, OH |
| <i>MS in Chemistry</i> | 08/2017-05/2019 |
| Jilin University | Changchun, CHN |
| <i>B.S. in Pharmacy</i> | 09/2013-07/2017 |

RESEARCH EXPERIENCE

Ionic Liquid (IL)-Containing Pickering Emulsions Stabilized by 2D Particle Surfactants

(Department of Chemistry in CWRU, Advisor: **Dr. Emily Pentzer**) 12/2017-05/2019

- Used 2D particle surfactants to form IL/water and IL/oil emulsions
- Evaluated the impact of particle concentration, fluid-fluid ratio, and acid/base on emulsion formation and stability
- Prepared capsules of ILs using different polymers as cross-linkers
- Evaluated the impact of different ILs and cross-linkers on capsule morphology, shell strength, etc
- Characterized morphology, composition, and stability of IL capsules

Undergraduate Innovative Experiment Program-Anti-cancer Activity of the Ruthenium Complexes Taking Aryl Alkyl Acid as the Ligand

(Pharmaceutical Chemistry in Jilin University, Advisor: **Dr. Zhou, Xiaoping**) 07/2015-05/2017

- Synthesized and characterized Ruthenium complexes taking NSAIDs as ligands

Undergraduate Innovative Experiment Program-Mechanism of Autophagy and Apoptosis of Lung Cancer Cell A549 by Pseudoginsenoside Rh2

(Pharmacology in Jilin University, Advisor: **Dr. Xu, Huali**) 05/2015-05/2016

- Learned how to cultivate cells and plank beds

PUBLICATIONS

- Qinmo Luo[§], **Yifei Wang**[§], Esther Yoo, Peiran Wei, Emily Pentzer*. Ionic Liquid-Containing Pickering Emulsions Stabilized by Graphene Oxide-Based Surfactants. *Langmuir* 2018, 34 (34), 10114-10122.
§Indicates equal contribution
- Qinmo Luo, **Yifei Wang**, Zehao Chen, Peiran Wei, Esther Yoo, Emily Pentzer*. Pickering Emulsion-Templated Encapsulation of Ionic Liquids for Contaminant Removal. *ACS Appl. Mater. Interfaces* 2019, 11(9), 9612-9620.
- Qianwen Huang, Qinmo Luo, **Yifei Wang**, Emily Pentzer*, Burcu Gurkan*. Hybrid Ionic Liquid Capsules for Rapid CO₂ Capture. *Ind. Eng. Chem. Res.* 2019, 58, 24, 10503-10509.

PRESENTATIONS

Case Western Reserve University Research Showcase 2018 21/04/2018

- Poster presentation on Capsules of Ionic Liquid Prepared from Pickering Emulsions Stabilized by 2D Particle Surfactants

AWARDS

- Excellent College Student Awarded by School of Pharmaceutical Sciences of Jilin University,

2015

- Special Prize in National English Competition for College Students Awarded by Advisory Board for College Foreign Language Teaching and College English Teaching & Research Association of China, 2014
- Third Prize in “FLTRP CUP” English Public Speaking Contest Awarded by Jilin University, 2013