

# Curriculum Vitae

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## Jinxia Fu, Ph.D.

Assistant Researcher, Hawai'i Natural Energy Institute  
University of Hawai'i at Mānoa

1680 East West Road, Honolulu, HI 96822

(808) 956-5944, jinxiayu@hawaii.edu

### Education

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| 2013 | <i>Ph.D. Brown University, Providence, RI</i><br>Chemistry                           |
| 2012 | <i>M.A. Brown University, Providence, RI</i><br>Chemistry                            |
| 2011 | <i>M.S. Brown University, Providence, RI</i><br>Chemical Engineering                 |
| 2007 | <i>B.S. Tongji University, Shanghai, China</i><br>Applied Chemistry, Summa Cum Laude |

### Professional Experience

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| 2014-Present | <i>Assistant Researcher, Alternative Fuels</i><br>Hawai'i Natural Energy Institute, University of Hawai'i at Mānoa |
| 2012-2014    | <i>Postdoctoral Fellow, Alternative Fuels</i><br>Hawai'i Natural Energy Institute, University of Hawai'i at Mānoa  |
| 2008-2012    | <i>Research Assistant, Chemical Engineering</i><br>School of Engineering, Brown University                         |

### Publications

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#### ***Chapters in Books:***

1. Fu, J.; Rice, J. W.; Suuberg, E. M., Phase Behavior and Thermochemical Properties of Polycyclic Aromatic Hydrocarbons and their Derivatives, In *Polycyclic Aromatic Hydrocarbons: Chemistry, Occurrence and Health Issues*. Nova Science Publishers, Inc.: 2013; pp 349-368.
2. Rice, J. W.; Fu, J.; Suuberg, E. M., Thermodynamics and Phase Behavior of Polycyclic Aromatic Hydrocarbon Mixtures, In *Polycyclic Aromatic Hydrocarbons: Chemistry, Occurrence and Health Issues*. Nova Science Publishers, Inc.: 2013; pp 169-195.

3. Fu, J.; Rice, J. W.; Suuberg, E. M., Phase Behavior and Crystal Structure of Binary Polycyclic Aromatic Compound Mixtures, In *Advances in Crystallization Processes*. InTech: 2012; pp 515-538.

**Peer-Reviewed Articles:**

1. Fu, J.\*; Flash points measurements and prediction of biofuels and biofuel blends with aromatic fluids, *Fuel*, 2019, 241, 892-900
2. Fu, J. \*; Turn, S. Q., Characteristics and stability of biofuels used as drop-in replacement for NATO marine diesel, *Fuel*, 2019, 236, 516-524
3. Dong, X.; Lv, L.; Wang, W; Liu, Y.; Yin, C.; Xu, Q.; Yan, H.; Fu, J.\*; Liu, X.\*, Differences in Distribution of Potassium-Solubilizing Bacteria in Forest and Plantation Soils in Myanmar. *International Journal of Environmental Research and Public Health*, 2019, 16 (5), 700
4. Xu, Y.; Liu, G.; Fu, J.; Kang, SM.; Xiao, Y.; Yang, P.; Liao W., Catalytic hydrolysis of cellulose to levulinic acid by partly replacing sulfuric acid with Nafion® NR50 catalyst, *Biomass Conversion and Biorefinery*, 2019, 1-8
5. Kang, SM.; Fu, J.; Zhang, G., From lignocellulosic biomass to levulinic acid: A review on acid-catalyzed hydrolysis, *Renewable and Sustainable Energy Reviews*, 2018, 94, 340-362
6. Fu, J. \*; Turn, S. Q., Effects of Aromatic Fluids on Properties and Stability of Alternative Marine Diesels, *Fuel*, 2018, 216, 171-180
7. Kang, SM.; Fu, J.; et al., Valorization of biomass hydrolysis waste: Activated carbon from humins as exceptional sorbent for wastewater treatment, *Sustainability*, 2018, 10 (6), 1795
8. Kang, SM.; Fu, J.; et al., Concentrated Levulinic Acid Production from Sugar Cane Molasses, *Energy & Fuels* 32 (3), 3526-353
9. Kang, SM.; Fu, et al., One-Pot Production of Hydrocarbon Oils from  $\gamma$ -Valerolactone, *Fuel* 2018, 216, 747-751
10. Kang SM.; Fu, J.; et al., Synthesis of Humin-Phenol-Formaldehyde Adhesive, *POLYMERS*, 9 (2017)
11. Fu, J.\*; Hue, BTB; Turn, S.Q., Oxidation Stability of Biodiesel Derived from Waste Catfish Oil, *Fuel* 2017, 202, 455-463
12. Fu, J. \*; Turn, S. Q.; Takushi, B. M.; Kawamata, C. L., Storage and Oxidation Stabilities of Biodiesel Derived from Waste Cooking Oil. *Fuel* 2016, 167, 89-97
13. Fu, J. \*; Turn, S. Q., Effects of Biodiesel Contamination on Oxidation and Storage Stability of Neat and Blended Hydroprocessed Renewable Diesel. *Energy Fuels* 2015, 29 (8), 5176-5186.
14. Rice, J. W.; Fu, J.; Sandstrom, E.; Ditto, J. C.; Suuberg, E. M., Thermodynamic Study of (Anthracene + Phenanthrene) Solid State Mixtures. *J. Chem. Thermodyn.* 2015, 90, 79-86.
15. Fu, J. \*; Turn, S. Q., Characteristics and Stability of Neat and Blended Hydroprocessed Renewable Diesel. *Energy Fuels* 2014, 28 (6), 3899-3907.

16. Fu, J. \*; Suuberg, E. M., Thermochemical and Vapor Pressure Behavior of Anthracene and Brominated Anthracene Mixtures. *Fluid Phase Equilib.* 2013, *342*, 60-70.
17. Fu, J. \*; Suuberg, E. M., Thermochemical Properties and Phase Behavior of Halogenated Polycyclic Aromatic Hydrocarbons. *Environ. Toxicol. Chem.* 2012, *31* (3), 486-493.
18. Fu, J. \*; Suuberg, E. M., Vapor Pressure of Three Brominated Flame Retardants Determined by Using the Knudsen Effusion Method. *Environ. Toxicol. Chem.* 2012, *31* (3), 574-578.
19. Rice, J. W.; Fu, J.; Suuberg, E. M., Thermodynamics of Multicomponent PAH Mixtures and Development of Tarlike Behavior. *Ind. Eng. Chem. Res.* 2011, *50* (6), 3613-3620.
20. Fu, J. \*; Suuberg, E. M., Solid Vapor Pressure for Five Heavy PAHs via the Knudsen Effusion Method. *J. Chem. Thermodyn.* 2011, *43* (11), 1660-1665.
21. Fu, J. \*; Suuberg, E. M., Vapor Pressure of Solid Polybrominated Diphenyl Ethers Determined via Knudsen Effusion Method. *Environ. Toxicol. Chem.* 2011, *30* (10), 2216-2219.
22. Rice, J. W.; Fu, J.; Suuberg, E. M., Anthracene + Pyrene Solid Mixtures: Eutectic and Azeotropic Character. *J. Chem. Eng. Data* 2010, *55* (9), 3598-3605.
23. Fu, J. \*; Rice, J. W.; Suuberg, E. M., Phase Behavior and Vapor Pressures of the Pyrene + 9,10-Dibromoanthracene System. *Fluid Phase Equilib.* 2010, *298* (2), 219-224.

## Presentations

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1. Flash Points Measurements and Prediction of Biofuels and Biofuel Blends with Aromatic Fluids, IASH 2019, Long Beach, CA
2. Flash Points Measurements and Prediction of Biofuels and Biofuel Blends with Aromatic Fluids, 257th American Chemical Society National Meeting & Exposition, Orlando, FL, 2019
3. Stabilities of Biodiesel Derived from Rubber Seed Oil, 256th American Chemical Society National Meeting & Exposition, Boston, MA, 2018
4. Oxidation Stability of Biodiesel Derived from Waste Catfish Oil, 255th American Chemical Society National Meeting & Exposition, New Orleans, LA, 2018
5. Fit-for-Purpose Drop-In Replacement Biofuel (Invited), Hannan University, Haikou, Hainan, China, 2018
6. Effects of Aromatic Type and Concentration On Properties and Stability Of Alternative Marine Diesel, 15th International Conference on Stability, Handling and Use of Liquid Fuels, Rome, Italy, 2017
7. Long-term Storage and Oxidation Stabilities of Second Generation Biofuels Used as Drop-in Replacement for Marine Diesel, 254th American Chemical Society National Meeting & Exposition, Washington, DC, 2017

8. Potential Additives to Improve Biofuels Properties and their Effects on Fuel Characteristics, *253rd ACS National Meeting & Exposition*, San Francisco, CA, 2017
9. Characteristics and Stability of Second Generation Biofuels Used as Drop-in Replacement for Marine Diesel, 5th International Congress on Sustainability Science & Engineering, Suzhou, Jiangsu, China, 2016
10. Overview of Drop-In Replacement Fuel for Marine Diesel and Their Stability, Petroleum Quality Meeting and Training Event, Naval Supply Systems Command, Pearl Harbor, HI, 2016
11. Storage and Oxidation Stabilities of Biodiesel and its Blends with ULSD and NATO F-76, *252nd ACS National Meeting & Exposition*, Philadelphia, PA, 2016.
12. Effects of Aromatic Type and Concentration on Hydroprocessed Renewable Diesel, *Pacificchem 2015*, Honolulu, HI, 2015.
13. Effects of Biodiesel Contamination on Oxidative and Storage Stability of Neat and Blended Hydroprocessed Renewable Diesel. *International Symposium on Stability, Handling and Use of Liquid Fuels*, Charleston, SC, 2015.
14. Effects of Biodiesel Contamination on Oxidative and Storage Stability of Neat and Blended Hydroprocessed Renewable Diesel, *American Institute of Chemical Engineers Annual Meeting*, Atlanta, GA, 2014.
15. Characteristics and Storage Stability of Neat and Blended Hydrotreated Renewable Diesel, *247th ACS National Meeting & Exposition*, Dallas, TX, 2014.
16. Characteristics of Neat and Blended Hydrotreated Renewable Diesel under Storage and Seawater Ballasting Conditions, *13th International Symposium on Stability, Handling and Use of Liquid Fuels*, Rhodes, Greece, 2013.
17. Vapor Pressure of Brominated Flame Retardants Determined via Knudsen Effusion Method, *The 13<sup>th</sup> Workshop on Brominated and other Flame Retardants*, Winnipeg, MB Canada, 2012.
18. Vapor Pressure of Brominated Flame Retardants Determined via Knudsen Effusion Method, *The Society of Environmental Toxicology and Chemistry North America 32<sup>nd</sup> Annual Meeting*, Boston, MA, 2011.
19. Prediction of Aqueous Solubility and Vapor Pressure of Polycyclic Aromatic Compounds, *American Institute of Chemical Engineers Annual Meeting*, Minneapolis, MN, 2011.
20. Phase and Vapor Pressure Behavior of Binary Systems of Polycyclic Aromatic Compounds, *241st ACS National Meeting & Exposition*, Anaheim, CA, 2011.

## Teaching Experience

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Thermodynamics, Fluid Mechanics, Thermodynamics and Statistical Mechanics, Biosystems Unit Operations.

## Service

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### **University Service**

Lecture, BE437 Biosystems Unit Operations (2017, 2018)  
Judge, Undergraduate Showcase, University of Hawai'i at Mānoa  
Faculty Mentor, undergraduate and graduate students, University of Hawai'i at Mānoa (2013-Present)

### **Professional Service:**

Academic Editor, PLOS ONE, 2018-present  
Executive Committee member, American Chemical Society, Energy and Fuel Division, 2018-present  
Symposium Organizer, Energy & Fuel Division, 257th American Chemical Society National Meeting & Exposition, August, 2019, Orlando, FL  
Symposium Organizer, Energy & Fuel Division, 256th American Chemical Society National Meeting & Exposition, August, 2018, Boston, MA  
Symposium Organizer, Energy & Fuel Division, 255th American Chemical Society National Meeting & Exposition, March, 2018, New Orleans, LA  
Symposium Organizer, Energy & Fuel Division, 253rd American Chemical Society National Meeting & Exposition, April, 2017, San Francisco, CA  
Treasurer, American Chemical Society, Hawai'i Local Section, 2017  
Symposium Organizer, The International Chemical Congress of Pacific Basin Societies, December, 2015, Honolulu, HI

### **Public Service:**

Mentor Judge, 2019 Society for Advancement of Chicanos/Hispanics & Native Americans in Science Conference  
Judge, Hawai'i State Science & Engineering Fair, Honolulu, HI (2015-present)

## Honors and Awards

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2016	National Science Foundation Travel Award, International Congress on Sustainability Science & Engineering
2015	John Bacha Award, International Association for Stability, Handling and Use of Liquid Fuels
2013	Potter Prize, Department of Chemistry, Brown University

## Professional Affiliations

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Committee Members, Energy & Fuel Division, American Chemical Society (2017-Present)  
Member, The International Association for the Stability, Handling and Use of Liquid Fuels (2013-Present)  
Member, American Institute of Chemical Engineers (2011-Present)  
Member, The Society of Environmental Toxicology and Chemistry (2011-Present)  
Member, American Chemical Society (2010-Present)