



Yangjie Li

Postdoctoral Scholar, Chemistry

Bio

BIO

- Stanford scholar and Purdue PhD seeking for faculty position in analytical chemistry
- Research of reaction acceleration studied by mass spectrometry highlighted in multiple international news (Chemistry World, C&EN, X-MOL)
- Leadership experience as an elected president in local chapter of national chemistry honor society

HONORS AND AWARDS

- ASMS Postdoctoral Career Development Award, American Society for Mass Spectrometry (2022 Jul 1)
- Purdue InnovatED Award, The Purdue Graduate School (2022 Jan)
- Interviewed and highlighted in C&EN, 99(25), American Chemical Society (2021 Jul 8)
- Interviewed and highlighted in Chemistry World, The Royal Society of Chemistry (2021 Jul 7)
- ASMS Graduate Student Travel Award, American Society for Mass Spectrometry (2021 Jul 29)
- Purdue Graduate Student Government Travel Grant, PGSG, Purdue University (2021 Apr 23)
- Highlighted in Chemistry World, The Royal Society of Chemistry (2020 Nov 30)
- Highlighted in Purdue News, Department of Chemistry, Purdue University (2020 Nov 12)
- Thomas W. Keough Graduate Scholarship, Department of Chemistry, Purdue University (2020 Apr 16)
- Women in Science Program Travel Grant, College of Science, Purdue University (2019 Apr 4)
- Featured in C&EN, 96 (35), Chemical & Engineering News, American Chemical Society (2018 Sep 3)
- Henry Bohn Hass Memorial Fellowship, Department of Chemistry, Purdue University (2018 May 5)
- National Phi Lambda Upsilon Travel Grant, Phi Lambda Upsilon, National Chemistry Honor Society (2018 Jun 14)
- Excellent Graduate Thesis Award, Beijing Normal University (2016 Jun)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- President, Phi Lambda Upsilon, Nu Chapter (2019 - 2020)
- Vice President, Phi Lambda Upsilon, Nu Chapter (2018 - 2019)
- Treasurer, Phi Lambda Upsilon, Nu Chapter (2017 - 2018)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Purdue University (2021)
- Bachelor of Science, Beijing Normal University, Chemistry (2016)

STANFORD ADVISORS

- Richard Zare, Postdoctoral Faculty Sponsor

PATENTS

- R. Graham Cooks, Roy Helmy, Yangjie Li, Yong Liu. "United States Patent US16/245,703 Methods for Analyzing Stability of an Active Pharmaceutical Ingredient", Purdue Research Foundation, Jan 11, 2019

LINKS

- Yangjie Li's LinkedIn profile: <https://www.linkedin.com/in/yangjie-li/>
- Yangjie Li's twitter: <https://twitter.com/YangjieLi1>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Yangjie Li received a Bachelor of Science in chemistry with Excellent Graduation Thesis Award in Organic Chemistry from Beijing Normal University in 2016. After graduation, Yangjie began her graduate studies and earned a PhD degree in 2021 focusing on Analytical Chemistry at Purdue University under the supervision of Professor R. Graham Cooks. In Aston Labs for Mass Spectrometry, Yangjie has contributed to multiple research projects with a focus on droplet chemistry at interfaces as well as high throughput experimentation by ambient ionization mass spectrometry under Merck-Purdue Center for Measurement Science, National Science Foundation, and Defense Advanced Research Projects Agency. Her research studies using mass spectrometry for synthesis and analysis, focusing on both the applications and the mechanisms of reaction acceleration at air/solution and solid/solution interfaces, were highlighted by CEN and Chemistry World. With a keen eye for detail, Yangjie continues to look for new discoveries in droplet chemistry and mass spectrometry now in Zarelab at Stanford University as a Postdoctoral Scholar.

Publications

PUBLICATIONS

- **Glass surface as strong base, 'green' heterogeneous catalyst and degradation reagent** *CHEMICAL SCIENCE*
Li, Y., Huang, K., Morato, N. M., Cooks, R.
2021; 12 (28): 9816-9822
- **Reaction Acceleration at Solid/Solution Interfaces: Katritzky Reaction Catalyzed by Glass Particles** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*
Li, Y., Mehari, T., Wei, Z., Liu, Y., Cooks, R.
2021; 60 (6): 2929-2933
- **High-Throughput Screening of Reductive Amination Reactions Using Desorption Electrospray Ionization Mass Spectrometry** *ORGANIC PROCESS RESEARCH & DEVELOPMENT*
Logsdon, D. L., Li, Y., Sobreira, T., Ferreira, C. R., Thompson, D. H., Cooks, R.
2020; 24 (9): 1647-1657
- **Reaction acceleration at air-solution interfaces: Anisotropic rate constants for Katritzky transamination** *JOURNAL OF MASS SPECTROMETRY*
Li, Y., Mehari, T. F., Wei, Z., Liu, Y., Cooks, R.
2021; 56 (4): e4585
- **Accelerated Forced Degradation of Therapeutic Peptides in Levitated Microdroplets** *PHARMACEUTICAL RESEARCH*
Li, Y., Hu, Y., Logsdon, D. L., Liu, Y., Zhao, Y., Cooks, R.
2020; 37 (7): 138
- **Accelerated Reaction Kinetics in Microdroplets: Overview and Recent Developments** *ANNUAL REVIEW OF PHYSICAL CHEMISTRY, VOL 71*
Wei, Z., Li, Y., Cooks, R., Yan, X., Johnson, M. A., Martinez, T. J.
2020; 71: 31-51
- **A BODIPY-carbazole hybrid as a fluorescent probe: the design, synthesis, and discrimination of surfactants and the determination of the CMC values** *ANALYST*
Niu, X., Xu, Q., Li, A., Li, Y., Zhang, X., Zhang, Y., Xing, G.

2019; 144 (23): 6866-6870

● **Accelerated Forced Degradation of Pharmaceuticals in Levitated Microdroplet Reactors** *CHEMISTRY-A EUROPEAN JOURNAL*

Li, Y., Liu, Y., Gao, H., Helmy, R., Wuelfing, W., Welch, C. J., Cooks, R.

2018; 24 (29): 7349-7353

● **Recent Progresses on Mitochondria-Targetable Fluorescent Probes** *CHINESE JOURNAL OF ORGANIC CHEMISTRY*

Li, Y., Lu, Z., Liu, M., Xing, G.

2016; 36 (5): 962-975

● **A pyrene-functionalized Zinc(II)-BPEA complex: sensing and discrimination of ATP, ADP and AMP** *RSC ADVANCES*

Xu, Q., Lv, H., Lv, Z., Liu, M., Li, Y., Wang, X., zhang, Y., Xing, G.

2014; 4 (88): 47788-47792