

YANG LI

School of Engineering and Applied Sciences
Harvard University
29 Oxford St, Cambridge, MA 02138
yangli@seas.harvard.edu

PROFESSIONAL EXPERIENCE

- 2018 **Harvard University**, Cambridge, MA, US
Postdoctoral fellow in Atmospheric Chemistry Modeling Group Advisor: Loretta Mickley
Research topic:
- Understand current and future scenarios of Dust and Wildfire
 - Investigate the interactions between climate change and atmospheric chemistry
- 2017 **University of Michigan**, Ann Arbor, MI, US
Postdoctoral fellow Advisor: Mark G. Flanner
Research topic: Impact of aerosol deposition on snow melt over Greenland

EDUCATION

- 2017 **University of Michigan**, Ann Arbor, MI, US
Ph.D. in Atmospheric Sciences and Meteorology, GPA 4.0/4.0 Advisor: Allison L. Steiner
Thesis: VOC oxidation in the atmospheric boundary layer
- 2009 **Peking University**, Beijing, China
M.Sc. in Environmental Science, GPA 3.8/4.0, Rank 3/54 Advisor: Min Shao
Thesis: Variation and source attribution of ambient formaldehyde in urban and rural regions in China

HONORS and FELLOWSHIPS

- 2016 NCAR ASP Graduate Student Visitor Program, Boulder, CO, US
- 2016 Barbour Scholarship, University of Michigan, Ann Arbor, MI, US – *one of the six selected university-wide*
- 2016 Outstanding Student Achievement Award, University of Michigan, Ann Arbor, MI, US – *one of the four selected department-wide*
- 2016 Rackham Interdisciplinary Workshop Grant for initiating Michigan Earth Science Women's Network (M-ESWN), University of Michigan, Ann Arbor, MI, US – *a very competitive university social activity grant*
- 2015 NCAR ASP Graduate Student Visitor Program, Boulder, CO, US
- 2013–2016 NASA Earth and Space Science Fellowship, and renewed in 2014 and 2015 – *a highly competitive award selected from a pool of 330 applicants*
- 2014 Honor Society of Phi Kappa Phi, University of Michigan chapter, Ann Arbor, MI, US
- 2013 Rackham Graduate Student Research Grant, University of Michigan, Ann Arbor, MI, US

PUBLICATIONS

- Y. Li and M. G. Flanner (in preparation), Investigating the impact of aerosol deposition on snow melt over the Greenland ice sheet using a large-ensemble kernel.
- Y. Li, M. C. Barth, A. L. Steiner (in preparation), Comparing turbulent mixing of atmospheric oxidants across model scales.
- Y. Li, M. C. Barth, E. G. Patton, and A. L. Steiner (2017), Impact of in-cloud aqueous processes on the chemistry and transport of biogenic volatile organic compounds, *Journal of Geophysical Research: Atmospheres*, 122(20), 11131-11153.
- Y. Li, M. C. Barth, G. Chen, E. G. Patton, S. W. Kim, A. Wisthaler, T. Mikoviny, A. Fried, R. Clark, and A. L. Steiner (2016), Large-eddy simulation of biogenic VOC chemistry during the DISCOVER-AQ 2011 campaign, *Journal of Geophysical Research: Atmospheres*, 121(13), 8083-8105.
- Y. Li, M. Shao, S. Lu, C.-C. Chang, and P. K. Dasgupta (2010), Variations and sources of ambient formaldehyde for the

- 2008 Beijing Olympic games, *Atmospheric Environment*, 44(21–22), 2632-2639.
- Y. Li, M. Shao, S. Lu (2009), Measurement of Ambient Carbonyls by Thermal Desorption-GC/MS Method, *Environmental Chemistry (Chinese)*, 28(5), 630-635.
- Y. Liu, B. Yuan, X. Li, M. Shao, S. Lu, Y. Li, C. C. Chang, Z. Wang, W. Hu, X. Huang, L. He, L. Zeng, M. Hu, T. Zhu (2015), Impact of pollution controls in Beijing on atmospheric oxygenated volatile organic compounds (OVOCs) during the 2008 Olympic Games: observation and modeling implications, *Atmospheric Chemistry and Physics*, 15(6), 3045-3062, doi:10.5194/acp-15-3045-2015.
- Q. Zhang, M. Shao, Y. Li, S. Lu, B. Yuan, W. Chen (2012), Increase of ambient formaldehyde in Beijing and its implication for VOC reactivity, *Chinese Chemical Letters*, 23(9), 1059-1062.

CONFERENCE PRESENTATIONS

- 2017 Y. Li and M. G. Flanner, Investigating the impact of aerosol deposition on snow melt over the Greenland ice sheet using a large-ensemble kernel. *2017 Fall Meeting, American Geophysical Union*, New Orleans, LA, US
- 2016 Y. Li, M. C. Barth, A. L. Steiner, Comparison of vertical mixing scheme on VOC simulation between LES and WRF-Chem. *2016 Fall Meeting, American Geophysical Union*, San Francisco, CA, US
- 2016 Y. Li, M. C. Barth, E. G. Patton, A. L. Steiner, Impacts of cloud aqueous processes on chemistry and transport of biogenic VOC. *International Global Atmospheric Chemistry Project 2016 Science Conference*, Breckenridge, CO, US
- 2015 Y. Li, M. C. Barth, G. Chen, E. G. Patton, S. W. Kim, A. Wisthaler, T. Mikoviny, A. Fried, R. Clark, and A. L. Steiner, Large-eddy simulation of BVOC chemistry during the 2011 DISCOVER-AQ campaign. *16th Annual WRF Users' Workshop*, Boulder, CO, US
- 2015 Y. Li, M. C. Barth, G. Chen, E. G. Patton, S. W. Kim, A. Wisthaler, T. Mikoviny, A. Fried, R. Clark, and A. L. Steiner, Large-eddy simulation of atmospheric chemistry during the DISCOVER-AQ 2011 campaign. *NASA 2015 DISCOVER-AQ data analyzing conference*, Boulder, CO, US
- 2015 Y. Li, M. C. Barth, G. Chen, E. G. Patton, S. W. Kim, A. Wisthaler, T. Mikoviny, A. Fried, R. Clark, and A. L. Steiner, Investigating key BVOC vertical distributions and oxidation in atmospheric boundary layer. *2015 Michigan Geophysical Union*, Ann Arbor, MI, US
- 2014 Y. Li, M. C. Barth, G. Chen, and A. L. Steiner, Investigating BVOC vertical distributions and oxidation in the atmospheric boundary layer in the 2011 DISCOVER-AQ campaign. *2014 Engineering Graduate Symposium Program*, Ann Arbor, MI, US
- 2014 Y. Li, M. C. Barth, G. Chen, and A. L. Steiner, A study of BVOC vertical distributions in the atmospheric boundary layer in the DISCOVER-AQ campaign. *2014 Engineering Graduate Symposium Program*, Ann Arbor, MI, US
- 2014 Y. Li, M. C. Barth, G. Chen, and A. L. Steiner, Investigating vertical profiles of isoprene and its oxidation products. *Gordon Research Conference 2014 on Biogenic Hydrocarbons & the Atmosphere*, Girona, Spain
- 2014 DISCOVER-AQ 2011 and 2013 measurement data discussion. *NASA 2014 DISCOVER-AQ data analyzing conference*, NASA Langley Research Center, Hampton, VA, US
- 2013 Y. Li, and A. L. Steiner, Investigating the direct climatic effect of pollen and subpollen particles using Regional Climate Model. *2013 Fall Meeting, American Geophysical Union*, San Francisco, CA, US

OTHER RESEARCH EXPERIENCES

University of Michigan

- Flint Lead Level Prediction, Michigan Data Science Team, University of Michigan, Ann Arbor, MI, US
- Investigating ozone formation over the Great Lakes region using WRF-Chem, Multidisciplinary Design Program, University of Michigan, Ann Arbor, MI, US
- Regional Climate Model Training in International Center of Theoretical Physics, Trieste, Italy

Peking University

- Measurement and analysis of formaldehyde and other trace carbonyls in rural region in the Campaign of Synthesized Prevention Techniques for Air Pollution Complex and Integrated Demonstration in Key City-Cluster Regions, Jiangmen, Guangdong, China
- Observation of ambient oxygenated VOC in a megacity with heavy traffic pollution in the Campaign of Assessment and Forecast of Olympic Air Quality, Beijing, China
- Instrument Training of Online Formaldehyde Monitor, University of Texas at Arlington, Arlington, TX, US

PROGRAMMING SKILLS

- Modeling in FORTRAN, e.g., LES, WRF-Chem, RegCM, CESM; Data analysis using NCL, Python, Matlab, and R.

TEACHING EXPERIENCES

- 2017 Guest lecturer for Atmospheric Chemistry (CLIMATE 479), University of Michigan, Ann Arbor, MI, US
- Design and teach lecture with topic of Biosphere-atmosphere interactions
- 2017 Guest lecturer for Climate Physics (CLIMATE 473), University of Michigan, Ann Arbor, MI, US
- Design and teach lecture with topic of Atmospheric general circulation and climate
- 2017 Grader for Instrumentation for Atmospheric & Space Sciences, University of Michigan, Ann Arbor, MI, US
- 2016 Organizer and Instructor for the first M-ESWN Professional Development Workshop
- Designer and lead presenter on Elevator Pitch workshop
 - Lead discussion sessions for participants with different backgrounds
- 2016 Grader for Atmospheric Chemistry, University of Michigan, Ann Arbor, MI, US
- 2016 Grader for Regional Scale Climate, University of Michigan, Ann Arbor, MI, US
- 2015 Grader for Climate Physics, University of Michigan, Ann Arbor, MI, US

LEADERSHIP EXPERIENCES

- 2016–2017 Co-founder of M-ESWN professional development workshop, University of Michigan, Ann Arbor, MI, US
- Graduate student lead workshop with the goal of bridging departmental and disciplinary boundaries and providing a safe, inclusive forum for environmental scientists
 - Provided peer mentoring, professional development and community building opportunity for self-identified female graduate students in the earth and environmental science
 - Built network and collaboration with other student organizations
 - Designed workshop series and promoted events
- 2016–2017 Department representative, College of Engineering Graduate Student Advisory Committee (GSAC), University of Michigan, Ann Arbor, MI, US – *the only student selected department-wide*
- 2013–2017 Graduate student officer, Graduate Undergraduate Student Organization (GUSO), University of Michigan, Ann Arbor, MI, US
- Designed and organized graduate and undergraduate activities
 - Facilitated culture communication and created a diverse and inclusive platform
- 2016 Graduate student outreach chair, Graduate Rackham International (GRIn), University of Michigan, Ann Arbor, MI, US
- Created opportunities to enrich international graduate students' university experiences
 - Organized social activities and helped students make connection and transition well to University life and US culture
- 2014–2015 International student representative, International Center Student Council (ICSC), University of Michigan, Ann Arbor, MI, US – *one of the 10 students selected university-wide*
- 2009 Captain of College Female Basketball Team, Peking University, Beijing, China