CURRICULUM VITAE

QI YING

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WORK EXPERIENCE

Associate Professor	Texas A&M University, College Station	2013/09 - present
Adjunct Professor	Zhengzhou University	2019/05 – present
Visiting Professor	Tsinghua University	2017/08 - 2018/07
Adjunct Professor	Nanjing University of Information Science and Technology	2015/09 - 2018/08
Assistant Professor	Texas A&M University, College Station	2007/09 - 2013/08
Engineer	California Air Resources Board	2005/12 - 2007/08
Post-doc	University of California, Davis	2004/08 - 2005/11

Research areas: Air quality modeling and atmospheric chemistry, especially (1) mechanistic modeling of air pollution in urban and regional scales with a particular focus on source apportionment; (2) multiscale modeling of criteria and toxic air pollutants for exposure assessment in epidemiology studies; (3) modeling secondary organic aerosol and their chemical constituents in chemical transport models.

Citation impact:

Citation: 7225 (Web of Science); 7897 (Scopus); 9398 (Google Scholar)

Last 5 years citation: 7336 (Google Scholar)

H-index: 43 (Web of Science); 46 (Scopus); 53 (Google Scholar)

Last 5 years H-index: 43 (Google Scholar)

i10-index: 128 (Google Scholar)

Last 5 years i10-index: 124 (Google Scholar)

Associate Editor, *Atmospheric Environment* (2022 – present)

Associate Editor, Frontiers of Environmental Science & Engineering (2020 – present)

Associate Editor, Aerosol and Air Quality Research (2018 – present)

EDUCATION

Ph.D. Environmental Engineering, University of California, Davis 2004/08

Mentor: Professor Michael J. Kleeman

Dissertation: Regional source-oriented air quality model for the apportionment of secondary particulate matter and visibility.

B.S. Environmental Engineering, Tsinghua University 2000/07

Mentor: Professor Zhanpeng Jiang

Thesis: Removal of chemical oxygen demand in domestic wastewater

using a TiO₂ thin film photocatalytic reactor.

REFEREED PUBLICATIONS

Summary of Published Refereed Papers

Total peer-reviewed publications: 165

Journal	Subject Category	Ranking*	IF	Publicat
			(2021)	ions
Atmos. Environ.	Environ. Science (misc)	10%	4.798	43
Sci. Total. Environ.	Environ. Engineering	5%	7.963	29
Atmos. Chem. Phys.	Atmospheric Science	5%	6.133	14
Environ. Sci. Technol.	Environ. Chemistry	5%	9.028	15
Environ. Int.	Environ. Science (misc)	3%	9.621	6
Environ. Pollut.	Pollution	6%	8.071	6
Air Qual. Atmos. Health	Atmospheric Science	36%	3.763	5
Chemosphere	Environ. Chemistry	16%	7.086	4
Resour. Conserv. Recycl.	Waste Manag. And Disposal	3%	10.204	3
Environ. Sci. Technol. Lett.	Environmental Chemistry	6%	7.653	3
NPJ Clim. Atmos. Sci.	Atmospheric Sciences	4%	9.448	3
Transp. Res. Part D	Civil and Structural Engr.	5%	5.495	2
Environ. Res.	Environ. Science (misc)	11%	6.498	2
J. Geophys. Res. Atmos.	Atmospheric Science	14%	4.261	2
Aerosol Air Qual. Res.	Environ. Chemistry	29%	3.063	2
Ann. Epidemiol.	Epidemiology	38%	3.000	2
Chem. Rev.	Chemistry	0%	60.622	1
Natl. Sci. Rev.	Multidisciplinary	3%	17.275	1
Geophys. Res. Lett.	Earth and Planetary Sciences	5%	4.720	2
J. Environ. Manage.	Environ. Engr.	6%	6.789	2
ACS Earth and Space Chem.	Atmospheric Sciences	34%	3.475	1
J. Allergy Clin. Immunol.	Immunology and Allergy	8%	14.11	1
Heart	Cardio. & Cardiovascular Med.	9%	5.994	1
J. Infect.	Infectious Diseases	10%	6.072	1
Front Environ. Sci. Eng.	Environ. Science (misc)	15%	4.357	1
Atmos. Res.	Atmospheric Science	18%	5.369	1
Transp. Res. Rec.	Civil and Structural Engr.	30%	1.560	1
Infect. Control Hosp. Epidemiol.	Epidemiology	31%	3.254	1
J. Air Waste Manag. Assoc.	Pollution	31%	2.260	1
Aerosol Sci. Tech.	Environmental Chemistry	35%	2.908	1
Atmos. Pollut. Res.	Atmospheric Science	39%	4.352	1
Health and Place	Public Health	13%	4.078	1
Am. J. Epidemiol.	Epidemiology	16%	4.897	1
Chinese Sci. Bull.	Multidisciplinary (in Chinese)			1
J. Nanjing Univ. Info. Sci. Tech.	Multidisciplinary (in Chinese)			1

^{*} Ranking is based on data from the 2019 Scimago Journal and Country Rank (https://www.scimagojr.com/)

Publications are listed in reverse chronological order and grouped by years. To help clarify my role in multiauthor papers, the right column indicates my contributions: lead, co-lead, major or minor. "Lead" indicates that I am the corresponding or first author, reflecting my role as a leader or principal investigator. "Co-Lead" indicates that I am the co-corresponding author with an equal leadership role in the publication. "Major" indicates a large contribution, equivalent to a co-principal investigator or senior advisor; my contribution is less than the principal investigator but is second or third in importance. "Minor" denotes all other articles; my contribution is not among the top three investigators for that article. Publications with me taking the "Lead" or "Co-Lead" role are listed first.

* Denotes current and past graduate students, ^ denotes undergraduate students; & denotes post-docs and visiting scholars; # denotes the corresponding author.

Under review

1. Choi*, M.; Zhang*, J.; Ying*, Q. Impact of wildfire brown carbon emissions on the photochemical formation of ozone and secondary particulate matter in Southeast Texas. Under review.

Lead

2. Zhang*, J.; Choi*, M.; Bennett, E.; Park, E.S.; Power, M.; Smith, R.; Stewart J.; Whitsel, E.; Xu, X.; **Ying***, Q. Impact of Spatial and Temporal Resolutions of a Regional Air Quality on the Long-term Air Pollution Exposure Assessments. Under review.

Lead

3. Kang[&], M.; Zhang, H.; **Ying**[#], Q. Enhancement of background O₃ in China due to anthropogenic emissions. Under review.

Lead

4. Xie, X.; Hu, J.; Qin, M.; Guo, S.; Hu, M.; Ji, D.; Wang, H.; Lou, S.; Huang, C.; Liu, C.; Zhang*, H.; **Ying, Q.**; Liao, H.; Zhang, Y. Evolution of atmospheric age distribution of particles and its implications for the formation of the sever haze event in eastern China. Under review

Minor

2023 (3*/5†)

1. Su, F.; Xu, Q.; Yin, S.; Wang, K.; Liu, G.; Wang*, P.; Kang*, M.; Zhang*, R.; **Ying***, Q. Contributions of Local Emissions and Regional Background to Summertime Ozone in Central China. *Journal of Environmental Management* 2023, *338*, 117778.

Co-Lead

2. Fu, Y.; Tang, Y.; Shu, X.; Hopke, P.; He, L.; **Ying, Q.**; Xia, Z.; Lei, M.; Qiao[&], X. Changes of atmospheric metal (loid) deposition from 2017 to 2021 at Mount Emei under China's air pollution control strategy. *Atmospheric Environment*, 2023, 302, 119714.

Minor

3. Liao[&], K.; Zhang*, J.; Chen, Y.; Lu, X.; **Ying***, **Q.**; Yu*, J.Z. Source apportionment of trace metals in fine particulate matter in the Pearl River Delta region using observation-constrained mass fractions. *npj Climate and Atmospheric Science*, 2023, 6(1), 65.

Co-Lead

4. Zhang*, J.; Liu, J.; Ding, X.; He, Xiao; Zhang, T.; Zheng, M.; Choi*, M.; Isaacman-VanWertz, G.; Yee, L.; Zhang, H.; Misztal, P.; Goldstein, A.; Guenther, A.; Budisulistiorini, S.H.; Surratt, J.; Stone, E.; Shrivastava, M.; Wu, D.; Yu, J.Z.; Ying*, Q. New Formation and Fate of Isoprene SOA Markers Revealed by Field Data-Constrained Modeling. *npj Climate and Atmospheric Science*, Accepted for publication

Co-Lead

5. Shu, X.; Xia, Z.; Ying, Q.; Fu, Y.; Qiao[&], X.; Tang, Y. Investigating the Causes of O3 Pollution in the Western Rim of Sichuan Basin, Southwestern China. *Atmospheric Pollution Research*, 2023, 14 (7), 101803.

Minor

2022 (4/14)

6. Xie, X.; Ying, Q.; Zhang, H.; Hu, J. Spatial and Temporal Variations in the Atmospheric Age Distribution of Primary and Secondary Inorganic Aerosols in China. *Engineering* 2022. https://doi.org/10.1016/j.eng.2022.03.013.

Major

^{*} Number of "Lead" and "Co-Lead" publications

[†] Number of total publications

7. Zhao, Y.; Li, Y.; Kumar, A.; **Ying, Q.**; Vandenberghe, F.; Kleeman, M. J. Separately Resolving NOx and VOC Contributions to Ozone Formation. *Atmospheric Environment* 2022, 285, 119224.

- 8. Zhao, J.; Lv, Z.; Qi, L.; Zhao, B.; Deng, F.; Chang, X.; Wang, X.; Luo, Z.; Zhang, Z.; Xu, H.; Ying, Q.; Wang, S.; He, K.; Liu, H. Comprehensive Assessment for the Impacts of S/IVOC Emissions from Mobile Sources on SOA Formation in China. *Environ. Sci. Technol.* 2022, 56 (23), 16695–16706
- Technol. 2022, 56 (23), 16695–16706.
 9. Zhang, J.; Wang, J.; Sun, Y.; Li, J.; Ninneman, M.; Ye, J.; Li, K.; Crandall, B.; Mao, J.; Xu, W.; Schwab, M. J.; Li, W.; Ge, X.; Chen, M.; Ying, Q.; Zhang, Q.; Schwab, J. J. The emission controls influenced ozone and particulate matter co-occurrence in New York City

Minor

10. Zhang, Y.; Han, Z.; Li, X.; Zhang, H.; Yuan, X.; Feng, Z.; Wang*, P.; Mu, Z.; Song, W.; Blake, D. R.; **Ying, Q.**; George, C.; Sheng, G.; Peng, P.; Wang, X. Plants and Related Carbon Cycling under Elevated Ground-Level Ozone: A Mini Review. *Applied Geochemistry* 2022, 144, 105400.

and Beijing and their discrepancy. *npj Climate and Atmospheric Science* 2022, 5 (1), 1-7

- 11. Li*, J.; Xie, X.; Li, L.; Wang. X.; Wang, H.; Jing S.; **Ying, Q.**; Qin, M.; Hu[#], J. The fate of oxygenated volatile organic compounds in the Yangtze River Delta Region: Source contributions and impacts on the atmospheric oxidation capacity. *Environ. Sci. Technol.* 56(16), 11212-11224
- 12. Kang[&], M.; Zhang^{*}, J.; Cheng, Z.; Guo, S.; Su, F.; Hu, J.; Zhang^{*}, H.; **Ying**[#], **Q.** Assessment of sectoral NO_x emission reductions during COVID-19 lockdown using combined satellite and surface observations and source-oriented model simulations. *Geophys. Res. Lett.* 2022, 49(3), e2021GL095339. (4.720[‡]; 0[§])
- 13. Kang^{&,#}, M.; Hu, J.; Zhang*, H.; **Ying**[#], **Q.** Evaluation of a highly condensed SAPRC chemical mechanism and two emission inventories for ozone source apportionment and emission control strategy assessments in China. *Sci. Total Environ.* 2022, *813*, 151922. (7.963; 0)
- 14. Wang, X., Yin[#], S., Zhang, R., Yuan, M., **Ying**[#], **Q.** Assessment of Summertime O₃ Coformation and the O₃-NOx-VOC Sensitivity in Zhengzhou, China using an Observation-based Model. *Sci. Total Environ.* 2022, *813*, 152449. (7.963; 1)
- 15. Zhang*, J.; He, X.; Ding, X.; Yu, J.Z.; **Ying***, **Q.** Modeling Secondary Organic Aerosol Tracers and Tracer-to-SOA Ratios for Monoterpenes and Sesquiterpenes using a Chemical Transport Model. *Environ. Sci. Technol.* 2022, *56*(2), 804-813. (9.028; 1).
- 16. Shen, J.; Zhao, Q.; **Ying, Q.**; Cheng[#], Z.; Xu, J.; Zhang, H.; Fu, Q. An Explainable Integrated Optimization Methodology for Source Apportionment of Ambient Particulate Matter Components. *J. Environ. Manage.* 2022, 310, 114789. (6.789; 0)
- 17. Bennett, E. E.; Lynch, K. M.; Xu, X.; Park, E. S.; **Ying, Q.**; Wei, J.; Smith, R. L.; Stewart, J. D.; Whitsel, E. A.; Power*, M. C. (In press). Characteristics of movers and predictors of residential mobility in the Atherosclerosis Risk in Communities (ARIC) cohort. *Health & Place*, 74, 102771. (4.078; 0)

[‡] Journal Impact Factor, based on Journal Citation Reports (Clarivate Analytics, 2021)

[§] Citation count (Web of Science)

18. Han, F; Sharma, S.; Zhang*, J.; **Ying, Q.**; Zhang*, H.; Kota*.#, S.H. Modeling polycyclic aromatic hydrocarbons in India: seasonal variations, sources, and associated health risks. Environmental Pollution, Accepted for publication

Minor

19. Wei, J.; Giannattasio, K.Z.; Bennett, E.E.; Xu, X.; Park, E.S.; Smith, R.L.; Stewart, J.; **Ying, Q.**; Whitsel, E.A.; Power, M.C. The associations of dietary copper with neurocognitive outcomes: The ARIC Study. *Am. J. Epidemiol.*, Accepted for publication. https://doi.org/10.1093/aje/kwac040 (4.897; 0)

Minor

2021 (10/17)

20. Dong, Z.; Jiang[#], N.; Zhang, R.; Xu, Q.; **Ying**[#], **Q.**; Li, Q.; Li, S. Molecular Characteristics, Source Contributions, and Exposure Risks of Polycyclic Aromatic Hydrocarbons in the Core City of Central Plains Economic Region, China: Insights from the Variation of Haze Levels. *Sci. Total Environ.* 2021, 757, 143885. (7.963; 2)

Co-Lead

21. Kang*, M.; Zhang*, J.; Zhang*, H.; Ying*, Q. On the Relevancy of Observed Ozone Increase during COVID-19 Lockdown to Summertime Ozone and PM2.5 Control Policies in China. *Environ. Sci. Technol. Lett.* 2021, 8(4), 289-294. (7.653; 7)

Lead

22. Li*, J.; Zhang, N.; Wang*, P.; Choi*, M.S.; **Ying***, **Q.**; Guo, S.; Lu, K.; Qiu, X.; Wang, S.; Hu, M.; Zhang, Y.; Hu, J. Impacts of Chlorine Chemistry and Anthropogenic Emissions on Secondary Pollutants in the Yangtze River Delta Region. *Environ. Pollut.* 2021, 287, 117624. (8.071; 2)

Lead

23. Liao[&], K.; Park, E. S.; Zhang*, J.; Cheng, L.; Ji, D.; **Ying***, **Q.**; Yu*, J. Z. A Multiple Linear Regression Model with Multiplicative Log-Normal Error Term for Atmospheric Concentration Data. *Sci. Total Environ.* 2021, 767, 144282. (7.963; 7)

Co-Lead

24. Qiao[&], X.; Tang, Y.; Guo, H.; Seyler, B.C.; Duan L.; Xiao, Y.; Ying[#], Q.; Zhang[#], H. Atmospheric Deposition of Sulfur and Nitrogen in the West China Rain Zone: Fluxes, Concentrations, Ecological Risks and Source Apportionment. *Atmos. Res.* 2021, 256, 105569. (5.369; 3)

Co-Lead

25. Su, F.; Xu, Q.; Wang, K.; Yin, S.; Wang, S.; Zhang[#], R.; Tang, X.; Ying[#], Q. On the Effectiveness of Short-Term Intensive Emission Controls on Ozone and Particulate Matter in a Heavily Polluted Megacity in Central China. *Atmos. Environ.* 2021, 246, 118111. (4.798; 5)

Co-Lead

26. **Ying***, **Q.**; Zhang*, J.; Zhang*, H.; Hu, J.; Kleeman, M.J. Modeling Atmospheric Age Distribution of Primary and Secondary Aerosols. *Environ. Sci. Technol.* 2021, *55*(9), 5668-5676. (9.028; 3).

Lead

Lead

27. Zhang*, J.; He X.; Gao, Y.; Zhu, S.; Jing, S.; Wang, H.; Yu, J.Z.; **Ying***, **Q.** Evaluation of Regional Model Predictions of Wintertime Secondary Organic Aerosol from Aromatic Compounds and Monoterpenes with Source-Specific Tracers. *Aerosol Air Qual. Res.* 2021, 21(12), 210233. (3.063; 0)

Lead

28. Zhang*, J.; Choi*, M.S.; Ji.; Y.; Zhang, R.; Zhang, R.; Ying*, Q. Assessing the Uncertainties in Ozone and SOA Predictions due to Different Branching Ratios of the Cresol Pathway in the Toluene-OH Oxidation Mechanism. *ACS Earth and Space Chem.* 2021, *5*(8), 1958-1970. (3.475; 1).

Lead

29. Zhang*, J; He, X.; Zhu, S.; Jing, S.; Wang, H.; Yu, J.Z.; **Ying***, Q. Estimation of Aromatic Secondary Organic Aerosol Using a Molecular Tracer – A Chemical Transport Model Assessment. *Environ. Sci. Technol.* 2021, *55(19)*, 12882-12892. (9.028; 0). **Media coverage** (TAMU Engineering Research News; phys.org; EurekAlert!; Technology

Networks; Mirage News)

30. Gong, K.; Li, L.; Li*, J.; Qin, M.; Wang, X.; **Ying, Q.**; Liao, H.; Guo, S.; Hu, M.; Zhang, Y.; Hu, J. Quantifying the Impacts of Inter-City Transport on Air Quality in the Yangtze River Delta Urban Agglomeration, China: Implications for Regional Cooperative Controls of PM_{2.5} and O₃. *Sci. Total Environ.* 2021, 779, 146619. (7.963; 0)

Minor

31. Li, L.; Hu[#], J.; Li*, J.; Gong, K.; Wang, X.; **Ying, Q.**; Qin, M.; Liao, H.; Guo, S.; Hu, M. Modelling Air Quality during the EXPLORE-YRD Campaign—Part II. Regional Source Apportionment of Ozone and PM2.5. *Atmos. Environ.* 2021, 247, 118063. (4.798; 7)

Minor

32. Qiao^{&,#}, X.; Yuan, Y.; Tang, Y.; **Ying, Q.**; Guo, H.; Zhang, Y.; Zhang^{*,#}, H. Revealing the Origin of Fine Particulate Matter in the Sichuan Basin from a Source-Oriented Modeling Perspective. *Atmos. Environ.* 2021, 244, 117896. (4.798; 4)

Major

33. Qiao[&], X.; Liu, L.; Yang, C.; Yuan, Y.; Zhang, M.; Guo, H.; Tang, Y.; **Ying, Q.**; Zhu, S.; Zhang^{*,#}, H. Responses of Fine Particulate Matter and Ozone to Local Emission Reductions in the Sichuan Basin, Southwestern China. *Environ. Pollut.* 2021, *277*, 116793. (8.071; 0)

Major

34. Wang, Y.; Li, X.; Shi, Z.; Huang, L.; Li*, J.; Zhang*, H.; Ying, Q.; Wang, M.; Ding, D.; Zhang, X.; Hu*, J. Premature Mortality Associated with Exposure to Outdoor Black Carbon and Its Reduction Efficiency in China. *Resour. Conserv. Recycl.* 2021, *170*, 105620. (10.204; 5)

Minor

35. Wang*, P., Zhu S., Zhang, M., Shao, T., **Ying, Q.**, Zhang*, H. Atmospheric oxidation capacity and its contribution to secondary pollutants formation. *Chin. Sci. Bull.* 2021. https://doi.org/10.1360/TB-2021-0761. (In Chinese) (1.716; 0)

Major

36. Xie, X.; Shi, Z.; Ying, Q.; Zhang*, H.; Hu, J. Age-resolved source and region contributions to fine particulate matter during an extreme haze episode in China. *Geophys. Res. Lett.* 2021, 48, e2021GL095388. (4.720; 0)

Major

2020 (5/19)

37. Bai, L.; Huang, L.; Wang*, Z.; Ying*, Q.; Zheng, J.; Shi, X.; Hu*, J. Long-term Field Evaluation of Low-cost Particulate Matter Sensors in Nanjing. *Aerosol Air Qual. Res.* 2020, 20, 242-253. (3.063; 18)

Co-Lead

38. Choi*, M.S.; Qiu, X.; Zhang*, J.; Wang, S.; Li, X.; Sun, Y.; Chen, J.; **Ying***, **Q.** Study of Secondary Organic Aerosol Formation from Chlorine Radical Initiated Oxidation of Volatile Organic Compounds in a Polluted Atmosphere using a 3D Chemical Transport Model. *Environ. Sci. Technol.* 2020, *54*(21), 13409-13418. (9.028; 6)

Lead

39. Li*, J.; Zhang, H.; **Ying***, **Q.**; Wu, Z.; Zhang, Y.; Wang, X.; Li, X.; Sun, Y.; Hu, M.; Zhang, Y.; Hu*, J. Impacts of water partitioning and polarity of organic compounds on secondary organic aerosol over eastern China. *Atmos. Chem. Phys.* 2020, *20*, 7291-7306. (6.133; 4)

Co-Lead

40. Qiu, X.; Wang[#], S.; Ying[#], Q.; Duan, L.; Xing, J.; Cao, J.; Wu, D.; Li, X.; Xing, C.; Yan, X.; Liu, C.; Hao, J. Importance of Wintertime Anthropogenic Glyoxal and Methylglyoxal Emissions in Beijing and Implications for Secondary Organic Aerosol Formation in Megacities. *Environ. Sci. Technol.* 2020, *54*(19), 11809-11817. (9.028; 11)

Co-Lead

41. Wang*, P.; Wang, T.; **Ying***, **Q.** Regional source apportionment of summertime ozone and its precursors in the megacities of Beijing and Shanghai using a source-oriented chemical transport model. *Atmos. Environ.* 2020, 224, 117337. (4.798; 14)

Lead

42. Cao, Y.; Qiao[&], X.; Hopke, P.K.; **Ying, Q.**; Zhang, Y.; Zeng, Y.; Yuan, Y.; Tang[#], Y. Ozone pollution in the west China rain zone and its adjacent regions, Southwestern China: Concentrations, ecological risk, and Sources. *Chemosphere* 2020, 256, 127008. (7.086; 6)

Minor

43. Fu[#], X.; **Ying**, **Q.**; Zeng, T.; Long, T.; Wang, Y. Simulating and forecasting the cumulative confirmed cases of SARS-CoV-2 in China by Boltzmann function-based regression analyses. *J. Infect.* 2020, *80*, 578-606. (6.072; 42)

Major

44. Gao*, M.; Gao, J.; Zhu, B.; Kumar, R.; Lu, X.; Song, S.; Zhang, Y.; Jia, B.; Wang*, P.; Beig, G.; Hu, J.; **Ying, Q.**; Zhang*, H.; Sherman, P.; McElroy, M.B. Ozone pollution over China and India: seasonality and sources. *Atmos. Chem. Phys.* 2020, 20, 4399-4414. (6.133; 39)

Minor

45. Gao, Y.; Zhang, Z.; Yao, W.; **Ying, Q.**; Long[#], C.; Fu[#], X. Forecasting the cumulative number of COVID-19 deaths in China: a Boltzmann function-based modeling study. *Infect. Control Hosp. Epidemiol.* 2020, *41*(7), 841-843. (3.254; 31)

Major

46. Han, F.; Guo, H.; Hu, J.; Zhang*, J.; **Ying, Q.**; Zhang*, H. Sources and health risks of ambient polycyclic aromatic hydrocarbons in China. *Sci. Total Environ.* 2020, 698, 134229. (7.963; 30)

Major

47. Liu, J.; Shen, J.; Cheng[#], Z.; Wang^{*,#}, P.; **Ying**, **Q**.; Zhao, Q.; Zhang, Y.; Zhao, Y.; Fu, Q.; Source apportionment and regional transport of anthropogenic secondary organic aerosol during winter pollution periods in the Yangtze River Delta, China. *Sci. Total Environ*. 2020, 710, 135620. (7.963; 14)

Major

48. Lv, Z.; Wang, X.; Deng, F.; **Ying, Q.**; Archibald, A. T.; Jones, R. L.; Ding, Y.; Cheng, Y.; Fu, M.; Liu, Y. Source–Receptor Relationship Revealed by the Halted Traffic and Aggravated Haze in Beijing during the COVID-19 Lockdown. *Environ. Sci. Technol.* 2020, *54* (24), 15660–15670. (9.028; 33)

Minor

49. Park*, E.S.; Sullivan, D.W.; Kang, D.H.; **Ying, Q.**; Spiegelman, C.H. Assessment of mobile source contributions in El Paso by PMF receptor modeling coupled with wind direction analysis. *Sci. Total Environ.* 2020, 720, 137527. (7.963; 3)

Major

50. Sahu, S.K.; Sharma, S.; Zhang*, H.; Chejarla, V.; Guo, H.; Hu, J.; **Ying, Q.**; Xing, J.; Kota**, S.H. Estimating ground level PM2.5 concentrations and associated health risk in India using satellite based AOD and WRF predicted meteorological parameters. *Chemosphere* 2020, 255, 126969. (7.086; 16)

Minor

51. Shen, J.; Zhao, Q.; Cheng*, Z.; Wang**, P.; **Ying, Q.**; Liu, J.; Duan, Y.; Fu, Q. Insights into source origins and formation mechanisms of nitrate during winter haze episodes in the Yangtze River Delta. *Sci. Total Environ.* 2020, 741, 140187. (7.963; 9)

Major

52. Shi, Z.; Huang, L.; Li*, J.; **Ying, Q.**; Zhang*, H.; Hu*, J. Sensitivity Analysis of the Surface Ozone and Fine Particulate Matter to Meteorological Parameters in China. *Atmos. Chem. Phys.* 2020, *20*, 13455-23466. (6.133; 16)

Major

53. Xu[&], Y.; Chen, Y.; Gao, J.; Zhu, S.; **Ying, Q.**; Hu, J.; Wang*, P.; Feng, L.; Kang, H.; Wang*, D. Contribution of biogenic sources to secondary organic aerosol in the summertime in Shaanxi, China. *Chemosphere* 2020, 254, 126815. (7.086; 2)

Minor

54. Zhang, H.; Li*, J.; Li, L., Ying, Q.; Hu, J. Summertime ozone and atmospheric oxidation capacity over the Yangtze River Delta using the CMAQ-MCM model. *J. of Nanjing University of Information Science & Technology* (Natural Science Edition) 2020, 12(6), 686-694. (In Chinese, doi: 10.13878/j.enki.jnuist.2020.06.005)

Minor

55. Zhang, Y.; Cao, Y.; Tang, Y.; Ying, O.; Hopke, P.; Zeng, Y.; Xu, X.; Xia, Z.; Oiao^{&,#}, X. Wet deposition of sulfur and nitrogen at Mt. Emei in the West China Rain Zone, southwestern China: Status, inter-annual changes, and sources. Sci. Total Environ. 2020, 713, 136676. (7.963; 11)

2019 (8/22)

- 56. Li, X.; Han, J.; Hopke, P.K.; Hu, J.; Shu, Q.; Chang, Q.; Ying*, Q. Quantifying primary | Lead and secondary humic-like substances in urban aerosol based on emission source characterization and a source-oriented air quality model. Atmos. Chem. Phys. 2019, 19, 2327-2341. (6.133; 34)
- 57. Qiao[&], X.; Guo, H.; Tang, Y.; Wang, P.; Deng, W.; Zhao, X.; Hu, J.; **Ying**[#], **Q.**; Zhang[#], H. Local and regional contributions to fine particulate matter in the 18 cities of Sichuan Basin, southwestern China. Atmos. Chem. Phys. 2019, 19, 5791-5803. (6.133; 36)
- Co-Lead
- 58. Qiao[&], X.; Wang, P.; Zhang, J.; Zhang, H.; Tang, Y.; Hu, J.; Ying[#], Q. Spatial-temporal variations and source contributions to forest ozone exposure in China. Sci. Total Environ. 2019, 674, 189-199. (7.963; 9)
- Lead
- 59. Qiu, X.; Ying*, Q.; Wang*, S.; Duan, L.; Wang, Y.; Lu, K.; Wang*, P.; Xing, J.; Zheng, M.; Zhao, M.; Zheng, H.; Zhang, Y.; Hao, J. Significant impact of heterogeneous reactions of reactive chlorine species on summertime atmospheric ozone and free-radical formation in north China. Sci. Total Environ. 2019, 693, 133580. (7.963; 15)
- Co-Lead
- 60. Qiu, X.; Ying*, Q.; Wang*, S.; Duan, L.; Zhao, J.; Xing, J.; Ding, D.; Sun, Y.; Liu, B.; Shi, A.; Yan, X.; Xu, Q.; Hao, J. Modeling the impact of heterogeneous reactions of chlorine on summertime nitrate formation in Beijing, China. Atmos. Chem. Phys. 2019, 19, 6737-6747. (6.133; 9)

Co-Lead

61. Wang*, P.; Chen*, Y.; Hu, J.; Zhang*, H.; Ying*, Q. Attribution of Tropospheric Ozone to NO_x and VOC Emissions: Considering Ozone Formation in the Transition Regime. Environ. Sci. Technol. 2019, 53, 1404-1412. (9.028; 44)

Lead

62. Wang*, P.; Chen*, Y.; Hu, J.; Zhang*, H.; Ying*, Q. Source apportionment of summertime ozone in China using a source-oriented chemical transport model. *Atmos. Environ.* 2019. 211, 79-90. (4.798; 30)

Lead

Lead

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^{§§§} European Commission, Joint Research Centre, Belis, C., Pirovano, G., Mircea, M. European guide on air pollution source apportionment for particulate matter with source oriented models and their combined use with receptor models, Publications Office, 2020. https://data.europa.eu/doi/10.2760/470628

^{*****} Fine particulate matter (PM2.5) in the UK. https://www.gov.uk/government/publications/fine-particulate-matter-pm2-5-inthe-uk.

148. Chen, J.J.; **Ying, Q.**; Kleeman*, M.J. Source apportionment of wintertime secondary organic aerosol during the California regional PM₁₀/PM_{2.5} air quality study. *Atmos. Environ.* 2010, 44, 1331-1340. (4.798; 54)

Major

149. Zhang[#], Y.; Lv, J.; **Ying, Q.** Traffic assignment considering air quality. *Transp. Res. Part D* 2010, *15*, 497-502. (5.495; 51)

Major

2009 (2/4)

150. **Ying, Q.;** Lu, J.; Kleeman*, M.J. Modeling air quality during the California Regional PM10/PM2.5 Air Quality Study (CRPAQS) using the UCD/CIT source-oriented air quality model – part III. Regional source apportionment of secondary and total airborne particulate matter. *Atmos. Environ.* 2009, *43*, 419-430. (4.798; 67)

Lead

151. **Ying, Q.;** Kleeman*, M.J. Regional contributions to airborne particulate matter in central California during a severe pollution episode. *Atmos. Environ.* 2009, *43*, 1218-1228. (4.798; 48)

Lead

152. Livingstone[#], P.L.; Magliano, K.; Gürer, K.; Allen, P.D.; Zhang, K.M.; **Ying, Q.;** Jackson, B.S.; Kaduwela, A.; Kleeman, M.; Woodhouse, L.F.; Turkiewicz, K.; Horowitz, L.W.; Scott, K.; Johnson, D.; Taylor, C.; O'Brien, G.; DaMassa, J.; Croes, B.E.; Binkowski, F.; Byun, D. Simulating PM concentration during a winter episode in a subtropical valley: Sensitivity simulations and evaluation methods. *Atmos. Environ.* 2009, *43*, 5971-5977. (4.798; 13)

Minor

153. Chen, J.J.; **Ying, Q.**; Kleeman[#], M.J. Source apportionment of visual impairment during the California regional PM₁₀/PM_{2.5} air quality study. *Atmos. Environ.* 2009, *43*, 6136-6144. (4.798; 32)

Major

2008 (2/2)

154. **Ying, Q.;** Lu, J.; Kaduwela, A.; Kleeman[#], M. Modeling air quality during the California Regional PM₁₀/PM_{2.5} Air Quality Study (CPRAQS) using the UCD/CIT Source Oriented Air Quality Model - Part II. Regional source apportionment of primary airborne particulate matter. *Atmos. Environ.* 2008, *42*, 8967-8978. (4.798; 31)

Lead

155. **Ying, Q.;** Lu, J.; Allen, P.; Livingstone, P.; Kaduwela, A.; Kleeman[#], M.J. Modeling air quality during the California Regional PM₁₀/PM_{2.5} Air Quality Study (CRPAQS) using the UCD/CIT source-oriented air quality model – Part I. Base case model results. *Atmos. Environ.* 2008, *42*, 8954-8966. (4.798; 62)

Lead

2007 (1/2)

156. **Ying, Q.;** Fraser, M.P.; Griffin, R.J.; Chen, J.J.; Kleeman[#], M.J. Verification of a source-oriented externally mixed air quality model during a severe photochemical smog episode. *Atmos. Environ.* 2007, *41*, 1521-1538. (4.798; 49)

Lead

157. Kleeman[#], M.J.; **Ying, Q.;** Lu, J.; Mysliwiec, M.J.; Griffin, R.J.; Chen, J.J.; Clegg, S. Source apportionment of secondary organic aerosol during a severe photochemical smog episode. *Atmos. Environ.* 2007, *41*, 576-591. (4.798; 61)

Minor

2003-2006 (4/8)

158. **Ying, Q.;** Kleeman[#], M.J. Source contributions to the regional distribution of secondary particulate matter in California. *Atmos. Environ.* 2006, *40*, 736-752. (4.798; 141)

Ying, O.; Mysliwiec, M.; Kleeman[#], M.J. Source apportionment of visibility 159. Lead impairment using a three-dimensional source-oriented air quality model. Environ. Sci. *Technol.* 2004, *38*, 1089-1101. (9.028; 56) Ying, O.; Kleeman[#], M.J. Efficient source apportionment of airborne particulate 160. Lead matter using an internally mixed air quality model with artificial tracers. Environ. Sci. *Eng.* (China) 2004, 1, 91-99. (6) Ying, O.; Kleeman[#], M.J. Effects of aerosol UV extinction on the formation of ozone Lead and secondary particulate matter. *Atmos. Environ.* 2003, 37, 5047-5068. (4.798; 24) Held, T.; Ying, Q.; Kaduwela, A.; Kleeman[#], M.J. Modeling particulate matter in the 162. Major San Joaquin Valley with a source-oriented externally mixed three-dimensional photochemical grid model. *Atmos. Environ.* 2004, 38, 3689-3711. (4.798; 75) Held, T.; Ying, Q.; Kleeman#, M.J.; Schauer, J.J.; Fraser, M.P. A comparison of the 163. Minor UCD/CIT air quality model and the CMB source-receptor model for primary airborne particulate matter. Atmos. Environ. 2005, 39, 2281-2297. (4.798; 81) (Policy citation: State of New York^{††††}) 164. Herner, J.D.; Ying, O.; Aw, J.; Gao, O.; Chang, D.P.Y.; Kleeman[#], M.J. Dominant Major mechanisms that shape the airborne particle size and composition distribution in central California. Aerosol Sci. Tech. 2006, 40, 827-844. (2.908; 85) Kleeman[#], M.J.; Ying, Q.; Kaduwela, A. Control strategies for the reduction of 165. Major airborne particulate nitrate in California's San Joaquin Valley. Atmos. Environ. 2005, 39,

EXTENDED CONFERENCE ABSTRACTS AND CONFERENCE PAPERS

5325-5341. (4.798; 49)

- 1. Askariyeh*, M.H.; Kota*, S.H.; Vallamsundar, S.; Zietsman, J.; **Ying, Q.** Evaluation of AERMOD for Near-Road Pollutant Dispersion using Data from the General Motors Sulfur Dispersion Experiment, Transportation Research Board 95th Annual Meeting, Washington D.C., January 2017.
- 2. Kota*, S.H., **Ying, Q.**; Zhang, H.; Schade, G.W. Evaluation of CO and NOx emissions from MOVES and MOBILE6.2 in Southeast Texas using a Source-Oriented CMAQ model, Transportation Research Board 91th Annual Meeting, Washington D.C.; January 2013.
- 3. Li*, J.; Ying, Q.; Yi, B.; Yang, P. Direct Radiative Forcing due to Regional Formation of Sulfate from Reactions of SO2 with Criegee Biradicals, International Conference: Aerosol and Atmospheric Optics: Visibility and Air Pollution, Air and Waste Management Association, September 24-28, 2012.
- 4. Kota*, S.H.; Zhang, H*; **Ying, Q.**; Wang, Y.; Hopke, P.K. Black Carbon Emission from Barbeque Activities during College Football Games, International Conference: Aerosol and Atmospheric Optics: Visibility and Air Pollution, Air and Waste Management Association, September 24-28, 2012.
- 5. Hale, M.; Schade, G.W.; Kota*, S.H.; **Ying, Q.** Emission Model vs. Reality: Volatile Organic Hydrocarbon Fluxes in Urban Houston. A&WMA's 105th Annual Conference and Exhibition.
- 6. Kota*, S.H.; **Ying, Q.**; Zhang, Y. MOVES vs. Mobile6.2: Differences in Emission Factors and Regional Air Quality Predictions. Transportation Research Board 90th Annual Meeting, Washington D.C.,

^{††††} Assessment of Carbonaceous PM2.5 for New York and the Region. Energy Research and Development Authority, New York State. Final Report 08-01. March 2008. <a href="https://www.nyserda.ny.gov/Publications/Research-and-Development-Technical-Reports/Environmental-Reports/EMEP-Publications/-/media/Files/Publications/Research/Environmental/EMEP/Carbonaceous-PM25-Volume-II.ashx

- January 2012.
- 7. Cureño*, I.V.; Bravo, H. A.; Chen*, G.; **Ying, Q.**; Sosa, R. Comparison of two different air quality models (CALPUFF vs. CMAQ) to assess the air quality impact for the operation of a thermoelectric power plant. A&WMA's 104th Annual Conference and Exhibition, Orlando, FL, June 21-24, 2011.
- 8. Ali*, S.; Chen*, G.; Zhang, H*; **Ying, Q.**; Cureño*, I.V.; Marín*, A.; Bravo, H.A; Sosa, R. High Resolution Air Quality Modeling for the Mexico City Metropolitan Zone using a Source-Oriented CMAQ model Part I: Emission Inventory and Base Case Model Results. 9th Annual CMAS Conference, Chapel Hill, NC, October 11-13, 2010.
- 9. Chen, J.J.; Ying, Q.; Kleeman, M. Source Apportionment of Wintertime Secondary Organic Aerosol During the California Regional Particulate Matter Study, Proceedings of the 30th NATO/SPS International Technical Meeting on Air Pollution Modeling and Its Application, p613-616, San Francisco, California. May 18-22, 2009.
- 10. **Ying, Q.**; Krishnan*, A. Source Contribution of Volatile Organic Compounds to Ozone Formation in Southeast Texas, 2009 CMAS Conference, University of North Carolina at Chapel, Hill's Friday Center. October 19-21, 2009.
- 11. Kleeman, M.J. and **Ying, Q.** Modeling particulate matter in central California, Air and Waste Management Association Symposium on Air Quality Measurement Methods and Technology 2007, 184-187.

TECHNICAL REPORTS

1. Russell, A.; Bhaganagar, K.; Croes, B.; de Gouw, J.; Yamartino, R.; **Ying, Q.** Review of the Bureau of Ocean Energy Management "Air Quality Modeling in the Gulf of Mexico Region" Study. National Academy Press, Washington DC, 2019. https://doi.org/10.17226/25600.

CONFERENCE PRESENTATIONS AND INVITED LECTURE

International Invited Lectures

- 1. "Modeling the regional distribution of biogenic SOA marker compounds" Invited lecture (online), Fudan University, December 10, 2021.
- 2. "Modeling study of secondary organic aerosol marker compounds from aromatics and terpenes." Invited lecture (online), Nanjing University of Information Science and Technology, September 28, 2021.
- 3. "Atmospheric chemistry of gaseous and particulate pollutants" Invited lecture series for graduate students (online), Zhengzhou University, July-August 2021.
- 4. "Secondary Organic Aerosol Formation from Chlorine Radical Initiated Oxidation of Volatile Organic Compounds in a Polluted Atmosphere." Invited lecture (online), Nanjing University of Information Science and Technology, September 2020.
- 5. "Advances and challenges in modeling detailed particle compositions using lumped and detailed chemical mechanisms." Invited lecture, School of Energy and Environment, City University of Hong Kong, December 21, 2018.
- 6. "Advances and challenges in modeling detailed particle compositions using lumped and detailed chemical mechanisms." Invited lecture, Prof. Jianzhen Yu's research group, Hong Kong University of

- Science and Technology, December 19, 2018.
- 7. "Selected Topics in Advanced Air Quality Modeling and Source Apportionment" An invited six-hour lecture, Chinese Academy of Science, Guangzhou Institute of Geochemistry, December 17, 2018.
- 8. "Selected Topics in Air Quality Modeling." A series of six two-hour lectures invited by Dr. Xinghua Li of the Department of Environmental Science and Engineering, Beihang University, July 2018.
- 9. "Selected Topics in Air Quality Modeling." A series of six two-hour lectures invited by Dr. Shuxiao Wang in Tsinghua University between October and November 2017
- "Improve Regional Distribution and Source Apportionment of PM2.5 Trace Elements in China using Inventory-Observation Constrained Emission Factors". Invited lecture, School of Environmental Engineering and Science, Nanjing University of Information Science and Technology. Nanjing, China, November 27, 2017
- 11. "A Modeling Study of Regional Distribution and Source Apportionment of Secondary Organic Aerosol in China." Invited lecture, the Institute of Atmospheric Physics Chinese Academy of Science. Beijing, China, September 13, 2017
- 12. "Source Contributions to Excess Mortality due to Long Term Exposure of Airborne Particulate Matter in China." Invited lecture at the Department of Environmental Science and Engineering, Beihang University. Beijing, China, September 27, 2017.
- 13. "Introduction to Source-Oriented Air Quality Modeling: Basic principles and applications." Invited lecture at the Chinese Research Academy of Environmental Sciences. Beijing, China, November 14, 2017.
- 14. "Introduction to Source-Oriented Air Quality Modeling: Basic principles and applications." Invited lecture at the Beijing Municipal Environment Protection Bureau. Beijing, China, November 3, 2017.
- 15. "Regional Distribution and Source Apportionment of Secondary Organic Aerosol in China." Invited Keynote Speech at the 5th International Conference on Environmental Simulation and Pollution Control. Beijing, China. November 9, 2017
- 16. "Regional Distribution and Source Apportionment of Secondary Organic Aerosol in China." Platform presentation. Japanese Geoscience Union American Geophysical Union Joint Meeting 2017, May 24, 2017.
- 17. "Modeling Secondary Organic Aerosol in China and the United States." Invited lecture at the College of Environmental Sciences and Engineering, Peking University, July 2016
- 18. "Modeling Secondary Organic Aerosol in China and the United States." Invited lecture at the China University of Science and Technology, July 2016
- 19. "Source Contributions to Excess Mortality due to Long Term Exposure of Airborne Particulate Matter in China." Invited lecture at Sichuan University, January 2016.
- 20. "Source Apportionment of Airborne Particulate Matter using 3D Source-oriented Air Quality Models." Invited lecture at the School of Environment, Nanjing University, June 19, 2015.
- 21. "Source Apportionment of Airborne Particulate Matter using 3D Source-oriented Air Quality Models." Invited lecture at the School of Environmental Engineering and Science Nanjing University of Information Science and Technology, June 18, 2015.
- 22. "Source Apportionment of Airborne Particulate Matter using 3D Source-oriented Air Quality Models." Invited lecture at the College of Environmental Science and Engineering, Nankai University, June 11, 2015.
- 23. "Source Apportionment of Airborne Particulate Matter using 3D Source-oriented Air Quality Models."

- Invited lecture at the Sichuan Environmental Protection Research Institute, May 25, 2015.
- 24. "Source Apportionment of Airborne Particulate Matter using 3D Source-oriented Air Quality Models." Invited lecture at the College of Architecture and Environment, Sichuan University, May 24, 2015.
- 25. "Source Apportionment Gaseous and Particulate Pollutants using 3D Air Quality Model." Invited lecture at the Institute of Earth Environment, Chinese Academy of Science, July 12, 2013
- 26. "Source Apportionment Gaseous and Particulate Pollutants using 3D Air Quality Model." Invited lecture at the School of Environment, Tsinghua University, July 10, 2013
- 27. "Source Apportionment Gaseous and Particulate Pollutants using 3D Air Quality Model." Invited lecture at College of Civil Engineering, Tongji University July 15, 2013.
- 28. "Source Apportionment Gaseous and Particulate Pollutants using 3D Air Quality Model." Invited lecture at the School of Environmental Science and Engineering, Shanghai Jiao Tong University, July 15, 2013.
- 29. "Source-Oriented Air Quality Modeling." Invited lecture at Shanghai Environmental Monitoring Center (SEMC), Shanghai, China, January 2012.
- 30. "Source Apportionment of Secondary Air Pollutants using 3D Air Quality Models." Invited lecture at East China University of Science and Technology, Shanghai, China, January 11, 2011

National Invited Lectures

- 27. "Advances and challenges in modeling detailed particle compositions using lumped and detailed chemical mechanisms," Invited lecture at the Department of Mechanical Engineering, Colorado State University (graduate seminar series), February 7, 2019.
- 28. "Premature Mortality Attributable to Particulate Matter in China Source Contributions and Responses to Reductions," Invited lecture at Department of Atmospheric Sciences (graduate seminar series). Texas A&M University, February 1, 2017.
- 29. "Application of the Master Chemical Mechanism in a 3D Eulerian Air Quality Model", Invited presentation at Atmospheric Chemistry and Air Quality in Texas: Challenges and Opportunities. Annenberg Presidential Center, College Station, Texas, April 22-23, 2010.
- 30. "Application of the Master Chemical Mechanism in a 3D Eulerian Air Quality Model", Invited lecture at Texas Commission on Environmental Quality (TCEQ). Austin, Texas, August 11, 2010.
- 31. "Source apportionment of O₃ and particulate matter in Southeast Texas during TexAQS 2000 using 3D source-oriented air quality models". Invited lecture at Rice University (graduate seminar series), December 2, 2009.
- 32. "Source contributions of VOCs and NOx to ozone formation in Southeast Texas." Invited lecture, Research Division of the California Resources Board. Sacramento, California, December 16, 2009.
- 33. "Source Oriented Air Quality Modeling in California and Texas" Invited lecture, Biological and Agriculture Engineering and Environmental and Water Resources Division (fall graduate seminar series), Texas A&M University, October 1, 2008.

Conference Presentations

(* Denotes graduate students; & denotes post-docs and visiting scholars)

Platform Presentations

34. **Ying, Q.**; Xu, Xiaohui; Park, Eun Sug; Smith, Richard; Whistle, Eric; Stewart, James; Power, Malinda. "Air Quality Modeling for Exposure Assessment". 2022 Joint Statistical Meetings, Washington D.C., August 6 – 11, 2022.

- 35. Xu, Xiaohui; Whistle, Eric; **Ying, Q.**; Smith, Richard; Stewart, James; Park, Eun Sug; Bennett, Erin; Lynch, Katie; Power, Malinda; Fang, Vixey. "Understanding the critical windows of exposure in longitudinal analysis of air pollution and cognitive function". 2022 Joint Statistical Meetings, Washington D.C., August 6 11, 2022.
- 36. Park, Eun Sug; Smith, Richard; Xu, Xiaohui; Whistle, Eric; Stewart, James; **Ying, Q.**; Lynch, Katie; Bennett, Erin; Power, Malinda. "Accounting for exposure measurement error in air pollution and neuroimaging analysis". 2022 Joint Statistical Meetings, Washington D.C., August 6 11, 2022.
- 37. Zhang*, J.; **Ying.**, **Q.** "Evaluation of Regional Model Predictions of Secondary Organic Aerosol from Aromatic Compounds and Monoterpenes with Precursor-Specific Tracers" Online Video Presentation. American Association of Aerosol Research 39th Annual Conference, Virtual Event, October 18-22, 2021.
- 38. Han, F.; Guo. H.; Hu, J.; Kota*, S.H.; Zhang*, J.; **Ying, Q.**; Zhang*, H. "Sources and Health Risks of Ambient Polycyclic Aromatic Hydrocarbons in India" Platform presentation. American Association of Aerosol Research 37th Annual Conference, Portland, Oregon, October 14-18, 2019.
- 39. **Ying, Q.;** Li*, J.; Hu, J. "Aqueous Formation of Low Volatile Organic Compounds using Coupled CMAQ-MCM-CAPRAM" Platform presentation at the 10th International Aerosol Conference, Saint Louis, Missouri, September 2-7, 2018.
- 40. Qiao[&], X.; Deng, W.; Guo, H.; Tang, Y.; Hu, J.; **Ying, Q.**; Zhang*, H. "How Much Emission Reduction is Needed to Meet Ambient PM2.5 Standards in the Cities of Sichuan Basin?" Platform presentation. 10th International Aerosol Conference, Saint Louis, Missouri, September 2-7, 2018.
- 41. Javed, W.; Guo, B; Iakovides, M.; **Ying, Q.**; Stephanou, E. "Characteristics and Origins of Carbonaceous Aerosols at an Urban Site of Qatar Peninsula" Platform presentation. 10th International Aerosol Conference, Saint Louis, Missouri, September 2-7, 2018.
- 42. Gou, H.; Kota*, S.H.; Sahu, S.; Hu, J.; **Ying, Q.**; Zhang*, H. "Source Contributions to Premature Mortality Attributable to Particulate Matter in India" Platform presentation. Association for Aerosol Research 37th Annual Conference, Raleigh, North Carolina, USA, October 16-20, 2017.
- 43. **Ying, Q.** "Modeling Regional Secondary Organic Aerosol from Oxygenated Organic Compounds in the Aqueous Phase with Detailed Chemical Mechanisms." Texas Air Research Center Annual Symposium, Lamar University, August 5, 2016.
- 44. **Ying, Q.;** Hu, J.; Zhang*, H. "Premature Mortality in China Due to Exposure of Outdoor Fine Airborne Particulate Matter: Source Contributions and Responses to Concentration Reductions." Platform presentation. American Association of Aerosol Research 35th Annual Conference, Portland, Oregon, October 17-21, 2016.
- 45. Wang*, P.; Zhang*, H.; Hu, J.; **Ying, Q.** "A Modeling Study of Secondary Organic Aerosol in China: Spatial and Temporal Variations and Precursor Contributions." Platform presentation. American Association of Aerosol Research 34th Annual Conference, Minneapolis, Minnesota, October 12-16, 2015.
- 46. Li*, J. and **Ying, Q.** "Modeling Regional Secondary Organic Aerosol from Isoprene in Southeast United States Using the Master Chemical Mechanism." Platform presentation. American Association of Aerosol Research 33rd Annual Conference, Orlando, Florida, October 20-24, 2014.
- 47. Zhang*, H.; Chen*, G.; Hu, J.; Chen, S.H.; Kleeman, M.J.; **Ying, Q.** "Source Apportionment of Primary Particulate Matter and its Carbonaceous and Trace Elemental Components in the Eastern US." Platform

- presentation. American Association of Aerosol Research 32nd Annual Conference, Portland, Oregon, September 30 October 4, 2013.
- 48. Zhang*, H.; **Ying, Q.**; Wang, D. Source Contributions to Primary and Secondary Particulate Matter during a Severe PM_{2.5} Pollution Event in Xi'an, China. Platform presentation. American Association of Aerosol Research 32nd Annual Conference, Portland, Oregon, September 30 October 4, 2013.
- 49. Kota*, S.H.; **Ying, Q.;** Zhang*, H. and Schade, G.W. "Evaluation of CO and NOx emissions from MOVES and MOBILE6.2 in Southeast Texas using a Source-Oriented CMAQ Model." Transportation Research Board 91st Annual Meeting, Washington D.C., January 2013.
- 50. Zhang*, H.; Li*, J.; Ying, Q.; Yu, J.Z.; Wu, D.; Yuan, C.; He, K.; Jiang, J. "Source Apportionment of PM_{2.5} Nitrite and Sulfate in China using a Source-Oriented Chemical Transport Model." Platform presentation. American Association of Aerosol Research 31th Annual Conference, Minneapolis, Minnesota, October 8-12, 2012.
- 51. Li*, J. and **Ying, Q.** "Effect of Criegee Biradical Reactions on Regional Secondary Inorganic and Organic Aerosol." Platform presentation. American Association of Aerosol Research 31st Annual Conference, Minneapolis, Minnesota, October 8-12, 2012.
- 52. Zhang*, H.; Chen*, G.; **Ying, Q.**; Hu, J.; Kleeman, M.J. "Evaluation of a 7-Year Air Quality Simulation Study for Eastern United States." Platform presentation. American Association of Aerosol Research 31st Annual Conference, Minneapolis, Minnesota, October 8-12, 2012.
- 53. **Ying, Q.** and Li*, J. "Predicting Secondary Organic Aerosol using the Master Chemical Mechanism" Platform presentation. International Aerosol Modeling Algorithms (IAMA) Conference, University of California, Davis, November 30 December 2, 2011.
- 54. Zhang*, H.; **Ying, Q.**; "Source apportionment of secondary fine particulate matter for 7 eastern US cities using CMAQ" Platform presentation. American Association of Aerosol Research 30th Annual Conference, Orlando, Florida, September 28–October 2, 2011.
- 55. **Ying, Q.**; Li*, J. "Predicting Regional Formation Secondary Organic Aerosol using the Master Chemical Mechanism" Platform presentation. American Association of Aerosol Research 29th Annual Conference, Portland, Oregon, March 22-26, 2010.
- 56. Hu, J.; **Ying, Q.**; Chen, S.H.; Kleeman, M.J. "Enhanced Air Quality Exposure Estimates Using a 3D Source Oriented Air Quality Model" American Association of Aerosol Research Specialty Conference Air Pollution and Health: From Sources to Outcomes, San Diego, California, March 22-26, 2010.
- 57. Kota*, S.H.; **Ying, Q.**; Zhang, Y. "TAMNROM-3D: A Three-Dimensional Eulerian Model to Simulate Air Quality near Highways", Transportation Research Board 89th Annual Meeting, Washington D.C., January 10-14, 2010.
- 58. **Ying, Q**. "Regional Source Apportionment of Airborne Particulate Matter in Central California using a Source-Oriented Air Quality Model." Invited platform presentation. 1st International Aerosol Modeling Algorithms Conference. UC Davis, December 2007.
- 59. **Ying, Q.**; Kleeman, M.J. "Regional Transport of Particulate Matter in California with Source Contribution Analysis." Platform presentation. American Association for Aerosol Research 27th Annual Conference, Reno, NV, September 24-28, 2007.
- 60. **Ying, Q.;** Kleeman, M.J.; Kaduwela, A. "Modeling Air Quality during the California Regional Particulate Air Quality Study (CRPAQS) Using the CIT/UCD Source-Oriented Air Quality Model Part I: Model Performance Evaluation." Platform presentation. American Association for Aerosol Research 24th Annual Conference, Austin, Texas, October 17-21, 2005.

61. **Ying, Q.**; Held, A.E.; Kleeman, M.J. "Source Contributions to the Regional Distributions and Secondary Particulate Matter." Platform presentation. American Association for Aerosol Research 23rd Annual Conference, Atlanta, GA, October 4-8, 2004.

- 62. **Ying, Q.**; Kleeman, M.J. "Total Source Apportionment of Visibility in Southern California Using a Three Dimension Source-Oriented Air Quality Model." Platform presentation. American Association for Aerosol Research 22nd Annual Conference, Anaheim, California, October 20-24, 2003.
- 63. **Ying, Q.**; Kleeman, M.J. "Modeling UV Radiative Feedback Effects for Ozone and Secondary Particulate Matter Formation." Platform presentation. American Association for Aerosol Research 21st Annual Conference, Portland, October 2002.

Poster Presentations

- 64. Zhang*, J.; Ying, Q,; Yu, Jianzhen. "Modeling Isoprene-derived 2-methyltetrols and 2-methylglyceric Acid in Urban, Rural, and Remote Atmospheres" Poster presentation. 2022 Asia Oceania Geosciences Society Annual Meeting, Virtual Meeting, August 1-5, 2022.
- 65. **Ying, Q.**; Zhang*, H.; Hu, J. "Investigating the Atmospheric Age Distribution of Primary and Secondary PM during a Severe Wintertime Pollution Episode." Poster presentation. American Association for Aerosol Research 37th Annual Conference, Portland, Oregon, USA, October 12-16, 2019.
- 66. Li*, J.; Ying, Q.; Hu, J.; Chen, J.; Zhang, H. "Impacts of Water Partitioning and Polarity of Organic Compounds on Secondary Organic Aerosols over Eastern China." Poster presentation. American Association for Aerosol Research 37th Annual Conference, Portland, Oregon, USA, October 12-16, 2019.
- 67. Wang, P.; Guo, H.; Wang, Y.; Wang*, P.; **Ying***, **Q**; Zhang*, H. "Simulation of Air Pollution and Its Meteorological Feedbacks in Africa." Poster presentation. American Association for Aerosol Research 37th Annual Conference, Portland, Oregon, USA, October 12-16, 2019.
- 68. Hu, J.; Shi, Z.; Li*, J.; Zhang*, H.; **Ying, Q.** "Investigation of the Driving Forces for the Recent Trends in Surface Fine Particulate Matter Concentrations in Nanjing, China." Poster presentation. American Association for Aerosol Research 37th Annual Conference, Portland, Oregon, USA, October 12-16, 2019.
- 69. Peng*, W.; Wu*, L.; **Ying, Q.**; Hu, J.; Zhang*, H. "Formation of Sulfate during Winter High Pollution Events in Beijing." Poster presentation. 10th International Aerosol Conference, Saint Louis, Missouri, September 2-7, 2018.
- 70. Sun, J.; Liang, M.; Hu, J.; **Ying, Q.**; Zhang*, H. "Study of the PM2.5 Growth Processes in Two Key Regions of China." Poster presentation. 10th International Aerosol Conference, Saint Louis, Missouri, September 2-7, 2018.
- 71. Han, F.; Zhang*, J.; **Ying, Q.**; Hu, J.; Kota*, S.H.; Zhang*, H. "Comparison of PAHs Levels and Health Risks in China, India and the United States." Poster presentation. 10th International Aerosol Conference, Saint Louis, Missouri, September 2-7, 2018.
- 72. Hu, J.; Zhu, Y.; Huang, L.; Zhang*, H.; **Ying, Q.** "Unintentional Ozone Increase Due to Particulate Matter Controls in China" Poster presentation. Association for Aerosol Research 37th Annual Conference, Raleigh, North Carolina, USA, October 16-20, 2017.
- 73. **Ying, Q.**; Hu, J.; Qiao[&], X.; Zhang*, H. "Evaluation of a Low-Cost Monitor for PM2.5 in Two Chinese Cities" Poster presentation. Association for Aerosol Research 37th Annual Conference, Raleigh, North Carolina, USA, October 16-20, 2017.

74. Wang, P.; Kota*, S.H.; Hu, J.; **Ying, Q.**; Zhang*, H. "Effects of Meteorology Changes on Reduction of Air Pollutants Concentrations" Poster presentation. Association for Aerosol Research 37th Annual Conference, Raleigh, North Carolina, USA, October 16-20, 2017.

- 75. Hu, J.; Chen, J.J.; **Ying, Q.**; Zhang*, H. "Evaluation of the Performance of WRF-CMAQ in Predicting Air Quality in China" Poster presentation. Asia Oceania Geosciences Society 13th annual meeting. Beijing, China, July 31 August 5, 2016.
- 76. Zhang*, H.; Hu, J.; **Ying, Q**. "Yearlong Air Quality Simulation and Population Exposure Estimation in China" Poster presentation, American Association for Aerosol Research 34th Annual Conference, Minneapolis, Minnesota, USA, October 12-16, 2015.
- 77. Li*, J.; **Ying, Q.** "Regional Multi-generation Secondary Organic Aerosol Production from Major Anthropogenic and Biogenic Precursors" Poster presentation, American Association for Aerosol Research 31st Annual Conference, Minneapolis, Minnesota, October 8-12, 2012.
- 78. Zhang*, H.; **Ying, Q.**; Kleeman, M.J. Modeling Regional Age Distribution of Black Carbon. Poster presentation, American Association for Aerosol Research 31st Annual Conference, Minneapolis, Minnesota, October 8-12, 2012.
- 79. Zhang*, H.; **Ying, Q**. "Secondary Organic Aerosol from Polycyclic Aromatic Hydrocarbons in Southeast Texas" Poster presentation, American Association for Aerosol Research 30th Annual Conference, Orlando, Florida, September 28 October 2, 2011.
- 80. **Ying, Q.**; Li*, J. "Explicit regional secondary organic aerosol simulation using CMAQ with Master Chemical Mechanism v3.2", Poster presentation. American Association for Aerosol Research 30th Annual Conference, Orlando, Florida, September 28 October 2, 2011.
- 81. **Ying, Q.**; Li*, J. "Application of the Master Chemical Mechanism in a 3D Eulerian Air Quality Model" Poster presentation. International Conference on Atmospheric Chemical Mechanisms. UC Davis, December 8-10, 2010.
- 82. Zhang*, H.; **Ying, Q.** "Source Apportionment of Secondary Organic Aerosol in Southeastern Texas using a Source-Oriented CMAQ Model." Poster presentation. American Association for Aerosol Research 29th Annual Conference, Portland, Oregon, October 22-26, 2010.
- 83. **Ying, Q**. "Tagged-species approach to determine the contributions of VOCs to ozone formation in Southeast Texas" Poster presentation. American Geophysical Union 2009 Fall Meeting, San Francisco, California, December 14-18, 2009.
- 84. **Ying, Q.** "Source Apportionment of Secondary Organic Aerosol in Southeast Texas during the 2000 Texas Air Quality Study" Poster presentation. International Conference on Atmospheric Chemical Mechanisms. UC Davis, December 9-11, 2009.
- 85. **Ying, Q.**; Anupama Krishnan*. "Source Contribution of Volatile Organic Compounds to Ozone Formation in Southeast Texas" Poster presentation. 2009 Community Modeling and Analysis System (CMAS) Conference, the University of North Carolina at Chapel, October 19-21, 2009.
- 86. **Ying, Q.**; Zhang*, H. "Source Apportionment of Airborne Particulate Matter in Eastern Texas", Poster presentation. American Association for Aerosol Research 28th Annual Conference, Minneapolis, Minnesota, October 26-30, 2009.
- 87. **Ying, Q.** "Regional Process Analysis of a Wintertime Particulate Pollution Episode in Central California" Poster presentation. American Association for Aerosol Research 27th Annual Conference, September 24-28, 2007.

88. **Ying, Q.**; Lu, J.; Kleeman, M.J. "The effect of N2O5 accommodation coefficient on the nighttime nitrate formation in California" Poster presentation. International Conference on Atmospheric Chemical Mechanisms. UC Davis, 2006.

- 89. **Ying, Q.**; Lu, J.; Kaduwela, A.; Kleeman, M.J. Modeling Air Quality during the California Regional Particulate Air Quality Study (CRPAQS) Using the CIT/UCD Source-Oriented Air Quality Model Part II: Base Case Model Results and Regional Source Apportionment of PM_{2.5}. Poster presentation. 7th International Aerosol Conference and American Association for Aerosol Research 25th Annual Conference, September 10-15, 2006.
- 90. Kleeman, M.J.; **Ying, Q.** "Source Contributions to SOA Concentrations during a Severe Photochemical Smog Event" Poster presentation. American Association for Aerosol Research 24th Annual Conference, September 10-15, 2005.
- 91. **Ying, Q.**; Kleeman, M.J. "Coagulation Algorithms for Source-Oriented Air Quality Models." Poster presentation. American Association for Aerosol Research 23rd Annual Conference, October 4-8, 2004.
- 92. Held, A.E.; **Ying, Q.**; Kleeman, M.J. "Inter-Comparison of Source-Oriented and Receptor-Oriented Models for the Apportionment of Airborne Particulate Matter" Poster presentation. American Association for Aerosol Research 23rd Annual Conference, October 4-8, 2004.

FUNDED RESEARCH PROJECTS

Total project funding: \$7.58 million; My share: \$2.02 million

Externally Funded Projects

- 1. "Pilot Study: Improving the Characterization of Cloud Formation Properties and Hygroscopicity of Aerosol Particles in the Southeastern U.S. Region" Department of Energy, September 2023 August 2025, Co-PI. My share: \$138,437. Total funding: \$581,194.
- 2. "Climate-LEAD: Climate Effects on Localized Environmental Health Disparities in Overburdened Texas Communities along Gulf Coast" National Academies, May 2023 April 2026, Co-PI. My share: \$138,531. Total funding: \$1,499,990.
- 3. "Mapping Air Pollution Burdens in Dallas-Fort Worth" Environmental Justice Data Fund, October 2022 October 2024, PI. My share: \$140,000. Total funding: \$250,000.
- 4. "NASA's NPP and JPSS Global Water Reservoir Product Suite: Continued Support and Maintenance", 2022-2025, Co-I. My share: \$30,082. Total funding: \$649,887.
- 5. "Quantify the Real Impact of Transportation Activity on Regional Ozone and Near-Road PM Concentrations" Texas Department of Transportation. September 2021 April 2024, Co-I. My share: \$132,173. Total funding: \$432,254.
- 6. "Assessing Ozone Impacts on Electric Vehicle (EV) Adoption in Texas" Texas Department of Transportation, May 2019 June 2023, Co-I. My share: \$91,034. Total funding: \$455,170.
- 7. "Air pollution and Alzheimer's disease and related outcomes" National Institutes of Health (NIH), R01 program, September 2018 August 2022, Co-PI. My share: \$296,250. Total funding: \$797,656.
- 8. "Assessing the Impact of Brown Carbon on Ozone and Secondary Aerosol Formation using a Regional Chemical Transport Model" Texas Air Research Center, April 2020 June 2021, PI. My share: \$9,308. Total funding: \$9,308.
- 9. "Widening and Deepening of the Houston Ship Channel: Air Quality and Health" Houston Advanced Research Center/Public Citizen, April 2020 September 2020, PI. My share: \$24,000. Total funding: \$24,000. (Administrative cost waived)

10. "A Synthesis Study of the Role of Mesoscale and Synoptic-scale Wind on the Concentrations of Ozone and its Precursors in Houston" Air Quality Research Program, Texas Commission on Environmental Quality, September 2018 – August 2019, PI. My share: \$74,187. Total funding: \$121,000.

- 11. "Modeling Regional Secondary Organic Aerosol from Oxygenated Organic Compounds in the Aqueous Phase with Detailed Chemical Mechanisms." Texas Air Research Center, August 2015 June 2017. PI. My share: \$56,900. Total funding: \$56,900.
- 12. "Investigate the Air Quality Benefits of Nighttime Construction in Non-Attainment Counties" Texas Department of Transportation, February 2015 July 2017, Co-I. My share: \$19,288. Total funding: \$450,900.
- 13. "Improving Modeled Biogenic Isoprene Emissions under Drought Conditions and Evaluating Their Impact on Ozone Formation" Texas Commission on Environmental Quality, July 2014 June 2015. PI. My share: \$59,789. Total funding: \$176,109.
- 14. "Environmental Chamber experiments and CMAQ Modeling to Improve Mechanisms to Model Ozone Formation from HRVOCs" Texas Commission on Environmental Quality, September 2012 August 2013. Co-PI. My share: \$44,494. Total funding: \$146,259.
- 15. "Improving Emission Inventories Using Direct Flux Measurements and Modeling" US EPA, Science To Achieve Results (STAR) Program. January 2010 December 2014. Co-PI. My share: \$150,000. Total \$499,992.
- 16. "A 3D Eulerian Modeling Study of Ozone and Secondary Organic Aerosol Formation in Texas using the Master Chemical Mechanism" Texas Air Research Center, September 2009 August 2013. PI. My share: \$74,872. Total \$74,872. (Three-year project, renewed yearly; Administrative cost waived)
- 17. "Estimating the Effect of Modeled Air Pollution Exposure on Ovarian Function and Complications of Labor and Delivery" National Institute of Child Health & Human Development (NICHD)/National Institutes of Health (NIH). September 2011 March 2013. PI. My share: \$197,043. Total \$197,043.
- 18. "Enhanced Air Pollution Epidemiology using a Source-Oriented Chemical Transport Model" US EPA, Science To Achieve Results (STAR) Program. November 2008 October 2013. Co-PI. My share: \$175,000. Total \$900,000.
- 19. "Source Apportionment of Airborne Particulate Matter and Ozone Precursors in Texas Using a Source-Oriented 3D Mechanistic Air Quality Model" Texas Air Research Center (TARC). August 2007 August 2009, PI. My share: \$59,000. Total \$59,000 (Two-year project, renewed yearly; Administrative cost waived)
- 20. "Methodology and Guideline for Regulating Traffic Flows under Air Quality Constraints in Metropolitan Areas" University Transportation Center for Mobility (UTCM). January 2008 August 2009. Co-PI. My share: \$40,000. Total \$80,000.

Internal and International Collaborative Projects

- 21. "Innovation on Real-time Characterizing and Modeling of Airborne Microplastic Particles" Innovation[X] Program, 2022-2023. Texas A&M University, 2022-2023. Co-PI. My share: \$10,000. Total funding: \$20,000.
- 22. "Enhancing Airborne Particle Measurement Capabilities of Center for Atmospheric Chemistry and the Environment (CACE) " Research Development Fund, Texas A&M University (Internal), 2020. Key participant. Lead: Sarah Brooks (ATMO). Total: \$939,608.
- 23. "Research on Atmospheric Acid Deposition, Nutrient Nitrogen Deposition, and Ozone in the Western China Rain Belt" National Natural Science Foundation of China (NSFC), January 2020 December 2023. PI. \$238,800 (USD equivalent) Suspended per instructions from TEES

24. "Spatial And Temporal Air Pollution Mapping In Bryan/College Station Area" Triads for Transformation (T3) Program, January 2020 – December 2021. Co-I. My share: \$10,000. Total: \$32,000.

- 25. "The Fluxes and Ecological Risk of Atmospheric Sulfur and Nitrogen Deposition in the Rain Zone of Western China" National Natural Science Foundation of China (NSFC), January 2017 December 2018. PI. My share: \$30,000. Total \$30,000. (USD equivalent)
- 26. "Development of a Portable, Solar-powered, Low-cost PM2.5 Monitor", Jiangsu Key Laboratory of Atmos. Environ. Monitoring and Pollution, January 2016-December 2016. PI. My share: \$7,800. Total \$7,800. (USD equivalent)
- 27. "Quantifying the Contribution of Major Emission Sources of Volatile Organic Compounds to Ozone Air Pollution in the Mexico City Air Basin" Texas A&M University-CONACyT: Collaborative Research Grant Program (Internal). August 2009 August 2010. PI. My share: \$12,000. Total \$24,000. (Administrative cost waived)

TEACHING EXPERIENCE

Classes Taught

Undergraduate Level

- 1. CVEN 301 Introduction to Environmental Engineering and Science (F07, F08, F10, F11, F12, F13, F14, F16)
- 2. CVEN 302 Computer Applications in Engineering and Construction (Numerical Analysis using MATLAB/Python) (S11, S12, F18, S19, F19, S20, S21, F21)
 - MATLAB-based before S20; Python-based Since S20.
- 3. CVEN/EVEN 413 Natural Environmental Systems (S13-S17, S21, S22)

Graduate Level

- 1. CVEN 619 Environmental Engineering Processes I Physical Processes (S09, F09-F16, F20)
- 2. CVEN 607 Air Quality (\$08, \$09, \$10, \$19, \$20, \$22) [new course development]
- 3. CVEN 681 Graduate Student Seminar (F11)
- 4. CVEN 689 Air Quality Modeling (S10, S15) [new course development]

Undergraduate Student Advised

- 1. Megan Malloy (USRG program, University of Missouri, Kansas City), Summer 2012. Project: CMAQ modeling of stabilized Criegee radicals.
- 2. Amanda Beeck (Civil Engineering, TAMU), Fall 2018 Fall 2019. Project: Air quality forecasting using source-oriented air quality models.
- 3. Tong Li (Civil Engineering, TAMU), Fall 2022 present. Project: Air quality trend in Texas based on satellite and ground observations.

Mater of Engineering Students Advised with Project

1. Devkota Ashok, Fall 2011. Project: Measuring UV absorbing organics and black carbon emission from Asian cooking in a small apartment.

2. David Infortunio, Spring 2011. Project: Source apportionment of PM_{2.5} in the Houston area using Positive Matrix Factorization

3. Ajay Kumar Shrivastav, Fall 2016. Project: Air quality prediction in New Delhi, India using multilinear regression and artificial neural network

Master of Science Students Advised with Thesis

- 1. Sri Harsha Kota, Summer 2009. Thesis: Modeling air quality near freeways using a three-dimensional Eulerian model
- 2. Krishnan, Anupama, Spring 2010. Thesis: Source contribution of VOCs to ozone formation in Texas using a source-oriented air quality model
- 3. Jingyi Li, Fall 2010. Thesis: Implementation and application of SAPRC07 and MCM mechanisms in the Community Multi-scale Air Quality model
- 4. Sajjad Ghulam Ali, Fall 2010. Thesis: Using a regional chemical transport model for the analysis of gaseous and particulate air pollutants in the Mexico City Metropolitan Area
- 5. Li Wu, Spring 2015, Thesis: Regional contributions to primary and secondary PM_{2.5} components in China
- 6. Jie Zhang, December 2015, Thesis: Modeling and source apportionment of PAH
- 7. Yuan Chen, Spring 2017, Thesis: Incremental reactivity of VOCs on ozone and secondary organic aerosol formation under high background pollutant conditions in China
- 8. Zhenglu (Michael) Wang, Summer 2018, Thesis: Design and field calibration of a low-cost PM monitor
- 9. Min Su Choi, Summer 2020, Thesis: A study on secondary organic aerosol formation from chlorine radical initiated oxidation of volatile organic compounds in a polluted atmosphere using a 3D chemical transport model

Ph.D. Students Advised

Graduate students currently holding tenured/tenure-track academic positions in other research institutions are marked in bold.

- 1. **Dr. Hongliang Zhang**, Graduated in Spring 2012. Dissertation: Source and age resolved mechanistic air quality models: model development and application in Southeast Texas. Past appointment: Tenure-track Assistant Professor, Louisiana State University. Current appointment: Tenured Professor, Fudan University (Department of Environmental Engineering and Sciences).
- 2. **Dr. Sri Harsha Kota**, Graduated in Summer 2014. Dissertation: Using local and regional air quality modeling and source apportionment tools to evaluate vehicles and biogenic emission factors. Past appointment: Tenure-track Assistant Professor Indian Institute of Technology, Guwahati. Current appointment: Tenured Associate Professor, Indian Institute of Technology, Delhi (Department of Civil and Environmental Engineering).
- 3. **Dr. Jingyi Li**, Graduated in Summer 2014. Dissertation: Modeling regional air quality using the near-explicit Master Chemical Mechanism. Past appointment: Post-doctoral researcher, Princeton University. Current appointment: Tenured Associate Professor, Nanjing University of Information Science and Technology, China (School of Environmental Science and Engineering).
- 4. **Dr. Peng Wang**, Graduated in Spring 2018. Dissertation: Source apportionment of ozone and secondary organic aerosol. Past appointment: Post-doctoral fellow at Hong Kong University of Science

- and Technology. Current appointment: Associate Research Professor, Fudan University (Department of Atmospheric and Ocean Sciences)
- 5. Dr. Jie Zhang, Graduated in Fall 2021. Dissertation: Modeling study of precursor-specific secondary organic aerosol and organic tracers. Current appointment: Postdoctoral researcher, Pacific Northwest National Laboratory.
- 6. Min Su Choi, Started in Fall 2020. Passed qualifying exam February 2021. Dissertation: Modeling secondary organic aerosol and brown carbon in a polluted atmosphere.
- 7. Heewon Yim, Started in Fall 2022. Passed qualifying exam February 2022. Formation and fate of small organic acids in polluted and remote atmospheres.
- 8. Weihao Ye, Started in Fall 2022. Passed qualifying exam February 2022. Secondary organic aerosol formation from major biogenic precursors and its interactions with other aerosol chemical components (tentative).
- 9. Alan Gonzalez, Start in Fall 2023. Evaluation of greenhouse gas emission inventory using global and regional chemical transport models. (tentative).

Unfinished

- 10. Gang Chen^{‡‡‡‡}, Started in Spring 2010. Dissertation topic: Air quality modeling for air pollution epidemiology studies.
- 11. Mohammad Hashem Askariyeh §§§§ , Ph.D., Started in Fall 2015. Dissertation topic: Modeling transportation emissions and air quality impacts.

Post-docs and Visiting Scholars Advised

Scholars currently holding tenured/tenure-track academic positions in other research institutions are marked in bold

- 1. **Dr. Mingjie Kang**, Fudan University, visiting post-doc scholar, January 2020 March 2021. Current appointment: Lecturer at Nanjing University of Information Science and Technology (Yale NUIST Center on Atmospheric Environment)
- 2. Kezheng Liao, Hong Kong University of Science and Technology, visiting Ph.D. student, October 2019 March 2020.
- 3. Fengbin Sun, Beijing Forestry University, visiting Ph.D. student, 2014 2015
- 4. Yong Xu, Northwest A&F University, visiting Ph.D. student, 2015
- 5. **Dr. Xue Qiao**, Sichuan University, Visiting post-doc scholar, 2014. Currently: Associate Professor, Sichuan University, China. (Institute of New Energy and Low-Carbon Technology)
- 6. Iris V. Cureño, M.S. student, National Autonomous University of Mexico, visiting M.S. student, 2011
- 7. Adrian Marín Hernandez, M.S. student, National Autonomous University of Mexico, visiting M.S. student, 2011
- 8. Monica Jaimes Palomero, CDMX government, visiting Ph.D. student, 2011

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^{*****} Gang Chen started in September 2010 for his PhD. In September 2013, he decided to quit the program to pursue a degree in Industrial Engineering. We have published several papers together (one with Gang as the first author).

Mohammad H. Askariyeh started his Ph.D. in my group in Spring 2015, and I was his committee Chair until August 2018. Since we disagreed on how his research should progress (after he passed his Qualifying Exam), we decided to have Dr. Autenrieth take over the Chair position. He eventually graduated in Fall 2019 with Dr. Autenrieth as his committee Chair and I remained as a member of the Committee. He published one first-author paper with me.

Ph.D. Dissertation Committee Member

- 1. Kai Cheng, Environmental Engineering, 2022 (Chair: Garrett McKay)
- 2. Allen Hu, Atmospheric Sciences, 2022 (Chair: Xiaohong Liu)
- 3. Hua Xie, Atmospheric Sciences, 2021 (Chair: Xiaohong Liu)
- 4. El Jirie Baticados, Biological and Agriculture Engineering, 2020 (Chair: Sergio C. Capareda)
- 5. Xiaoxuan Wang, Civil Engineering, 2020 (Chair: Samuel Ma)
- 6. Meng Zhang, Atmospheric Sciences, 2020 (Chair: Xiaohong Liu)
- 7. Kai Lyu, Atmospheric Sciences, 2020 (Chair: Xiaohong Liu)
- 8. Xiaokang Wu, Atmospheric Sciences, 2019 (Chair: Yangyang Xu)
- 9. Bowen Pan, Atmospheric Sciences, 2017 (Chair: Renyi Zhang)
- 10. Weilan Zhang, Civil Engineering, 2015 (Chair: Samuel Ma)
- 11. Geoffrey Roest, Atmospheric Sciences, 2015 (Chair: Gunnar Schade)
- 12. Misti E. Levy, Atmospheric Sciences, 2014 (Chair: Renyi Zhang)
- 13. Yun Lin, Atmospheric Sciences, 2013 (Chair: Renyi Zhang)
- 14. Yuhang Duan, Civil Engineering, 2013 (Chair: Bill Batchelor)
- 15. Manasi Mahish, Atmospheric Sciences, 2012 (Chair: Don Collins)
- 16. Myung-Hoon Ko, Civil Engineering, 2010 (Chair: Dominique Lord)
- 17. Chunhua Deng, Atmospheric Sciences, 2010 (Chair: Sarah Brooks)
- 18. Xu Liu, Civil Engineering, 2010 (Chair: Bill Batchelor)
- 19. Yingjie Tang, Mechanical Engineering, 2010 (Chair: Bing Guo)
- 20. Yoon So Kang, Atmospheric Sciences, 2010 (Chair: John Nielsen-Gammon)
- 21. Bhanuprakash Vellanki, Civil Engineering, 2010 (Chair: Bill Batchelor)
- 22. Nathan Frank Taylor, Atmospheric Sciences, 2009 (Chair: Don Collins)
- 23. Yuan Wang, Atmospheric Sciences, 2009 (Chair: Renyi Zhang)
- 24. Naser D. Alenzi, Petroleum Engineering, 2008 (Chairs: Christine Ehlig-Economides and Zhengdong Cheng)

Master of Science Thesis Committee Member

- 1. Lai, Zhenli, Atmospheric Sciences, 2022 (Chair: Yue Zhang)
- 2. Woo Jin Park, Civil Engineering, 2021 (Chair: Kung-Hui Chu)
- 3. Bo Chen, Atmospheric Sciences, 2020 (Chair: Sarah Brooks)
- 4. Yoon So Kang, Atmospheric Sciences, 2020 (Chair: John Nielsen-Gammon)
- 5. Chenyu Huang, Landscape Architecture and Urban Planning, 2019 (Chair: Wei Li)
- 6. Cassandra Lange, Atmospheric Sciences, 2017 (Chair: Don Collins)
- 7. El Jirie N. Baticados, Biological and Agriculture Engineering, 2016 (Chair: Sergio C. Capareda)

- 8. Cheyenne Stowers, Civil Engineering, 2016 (Chair: Samuel Ma)
- 9. John P. Zenker, Atmospheric Sciences, 2015 (Chair: Gunnar Schade)
- 10. William Carter, Biological and Agriculture Engineering, 2015 (Chair: William Brock Faulkner)
- 11. Zhiming Cao, Civil Engineering, 2015 (Chair: Bella Chu)
- 12. Vishakha Kaushik, Civil Engineering, 2015 (Chair: Bill Batchelor)
- 13. Fahad Asiri, Civil Engineering, 2014 (Chair: Bella Chu)
- 14. John Orcutt, Atmospheric Sciences, 2014 (Chair: Sarah Brooks)
- 15. Bowen Pan, Atmospheric Sciences, 2014 (Chair: Renyi Zhang)
- 16. Brittany Turner, Atmospheric Sciences, 2014 (Chair: Renyi Zhang)
- 17. Hala A. Hassan, Chemical Engineering Qatar, 2013 (Chair: Konstantinos Kakosimos)
- 18. Samarpita S. Roy, Civil Engineering, 2013 (Chair: Bill Batchelor)
- 19. Jonathan E. Sanders, Civil Engineering, 2013 (Chair: Gretchen Miller)
- 20. Martin Hale, Atmospheric Sciences, 2011 (Chair: Gunnar Schade)
- 21. Jonathan M. Vogel, Atmospheric Sciences, 2011 (Chair: Renyi Zhang)
- 22. Misti E. Levy, Atmospheric Sciences, 2011 (Chair: Renyi Zhang)
- 23. Vinita Lal, Atmospheric Sciences, 2010 (Chair: Renyi Zhang)
- 24. Zhen Yang, Biological and Agriculture Engineering, 2010 (Chair: Yongheng Huang)
- 25. Venkata Sai Vamsi, Biological and Agriculture Engineering, 2008 (Chair: Calvin Parnell)

HONORS

- Editor's Citation for Excellence in Referencing for Journal of Geographical Research-Atmospheres, 2011
- "College of Engineering Faculty Retention and Excellence Initiative" award for excellent research. September 2015, College of Engineering, Texas A&M University
- Zachary Department of Civil and Environmental Engineering Truman R. Jones Excellence in Graduate Teaching Award, 2022.
- Texas Engineering Experimental Station (TEES) Research Impact Award, 2022. Nominated. (Only 4 faculty members (~5%) from Civil and Environmental Engineering were nominated)
- Top 2% most cited researchers in the Meteorology and Atmospheric Sciences field in the world for single year citation impact based on the lists published by Elsevier, 2019-2021.

PROFESSIONAL SERVICES

Editorship

1. Editor, Aerosol and Air Quality Research (AAQR; Impact factor: 2.735)*****. 2018 - present

^{*****} The journal has two editors-in-chief and the editors are acting as associate editors in the traditional sense.

2. Editor, Frontiers of Environmental Science & Engineering (FESE; Impact factor: 4.503)†††††. 2020 – present

- 3. Associated Editor, Atmospheric Environment (Impact factor: 4.798). 2022 present
- 4. Topic Board Editor^{‡‡‡‡‡}, Atmosphere (Impact factor: 2.397). 2020 present.
- 5. Editorial Board, Environmental Science and Technology Letters (Impact factor: 7.653). 2020 present
- 6. Editorial Board, Journal of Environmental Management (Impact factor: 4.175). 2019 present
- 7. Guest Editor, Environmental Science: Atmospheres, Royal Society of Chemistry. Themed collection on "*Urban Air*" Co-editors: Prof. Hang Su (Max Planck), Prof. Zongbo Shi (University of Birmingham), Prof. Wei Nie (Nanjing University), Prof. Jingkun Jiang (Tsinghua University)

Technical Committee

- Member, Advisory Committee of China India Association of Atmospheric Scientists (CIAAS). Committee meets annually to discuss CIASS annual conference themes and research priorities, 2018 – present.
- Member, Committee for Ozone Pollution Control, Chinese Society of Environmental Sciences, 2021present

Session Chair/Co-Chair

- 1. Session Co-Chair (Aerosol, Clouds, and Climate), American Association for Aerosol Research 39th Annual Conference, Virtual Event, October 18-22, 2021.
- 2. Session Chair (Atmospheric Chemistry), 11th Asian Aerosol Conference, May 27–30, 2019, City University of Hong Kong, Hong Kong, China
- 3. Session Chair (Aerosol Modeling), 10th International Aerosol Conference, September 2–7, 2018, Saint Louis, Missouri, USA
- 4. Session Chair (Session E: Remote Sensing and Measurement), Joint International Conference on ABaCAS and CMAS-Asia-Pacific, May 21–23, 2018, Beijing, China.
- 5. Session Chair, American Geophysical Union 2017 Fall Meeting, December 11–15, 2017. Session A21J: Progress in Modeling and Observation of Atmospheric Chemistry During High Ozone and Particulate Pollution Events.
- 6. Session Chair, JpGU-AUG Joint Meeting, May 2017, Chiba, Japan. Session A-AS05: Contributions of Local and Long-range Transport to Air Pollutants in Megacities
- 7. Session Co-Chair (Source Apportionment), American Association for Aerosol Research 34th Annual Conference, October 2015, Minneapolis, Minnesota
- 8. Session Co-Chair (Remote and Regional Aerosols), American Association for Aerosol Research 33rd Annual Conference, October 2014, Orlando, Florida
- 9. Session Co-Chair (Source Apportionment), American Association for Aerosol Research 31st Annual Conference, October 2012, Minnesota

Conference Session Convener/Co-Convener

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^{†††††} The journal has two chief-editors and the editors are acting as associate editors in the traditional sense.

^{####} Responsibilities include 1) leading special issues/nominating guest editors; 2) promote the journal at conferences; 3) providing support on special issues

1. Co-Convener, Asia Oceania Geosciences Society 19th Annual Conference, August 1-5, 2022. Virtual Conference. Session AS37: "Biogenic VOCs: Emissions, Atmospheric Oxidation, and Impacts"

- 2. Co-Convener, American Chemical Society 259th National Meeting and Exposition, May 22-26, 2020, Philadelphia, PA. Division of Environmental Chemistry Program Symposium: "Applications of Artificial Intelligence, Machine Learning & Data Analytics in Environmental Science & Engineering"
- 3. Co-Convener, 16th Annual Meeting Asia Oceania Geosciences Society (AOGS), July 2019, Singapore. Session: "Atmospheric Chemistry in Highly Polluted Environments: Emissions, Fate, and Impacts"
- 4. Co-Convener, 15th Annual Meeting Asia Oceania Geosciences Society (AOGS), June 2018, Honolulu, HI. Session: "Atmospheric Chemistry in Highly Polluted Environments: Emissions, Fate, and Impacts"
- 5. Co-Convener, American Geophysical Union (AGU) 2017 Fall Meeting. December 2017, New Orleans, LA. Session: "Progress in Modeling and Observation of Atmospheric Chemistry During High Ozone and Particulate Pollution Events"
- 6. Co-Convener, 14th Annual Meeting Asia Oceania Geosciences Society (AOGS), August 2017, Singapore. Session: "Atmospheric Chemistry in Highly Polluted Environments"

Review of Journal and Conference Papers

Regularly review manuscripts in a variety of journals, including the following:

- 1. ACS Omega
- 2. ACS Earth and Space Chemistry
- 3. Atmospheric Environment
- 4. Environmental Science and Technology
- 5. Environmental Science and Technology Letters
- 6. Atmospheric Chemistry and Physics
- 7. Atmospheric Research
- 8. Aerosol and Air Quality Research
- 9. Chemosphere
- 10. Environment International
- 11. Environmental Pollution
- 12. Geoscientific Model Development
- 13. Industrial & Engineering Chemistry Research
- 14. Journal of Aerosol Science
- 15. Journal of Applied Meteorology and Climatology
- 16. Journal of Geophysical Research-Atmosphere
- 17. Journal of Transportation Research Board
- 18. Remote Sensing of the Environment
- 19. Industrial & Engineering Chemistry Research
- 20. Science of the Total Environment
- 21. Transportation Research, Part D

Review of External Research Proposals

- 1. Swiss National Science Foundation (SNSF), 2022, 2023
- 2. United States Environmental Protection Agency (US EPA) People, Prosperity and the Planet (P3) Air Quality Panel, 2020 2021
- 3. United Kingdom Research and Innovation Strategic Priorities Fund, Clean Air Consortia, 2021
- 4. Research Grants Council \$\\$\\$\\$\\$\\$, Hong Kong, China, 2015 2022
- 5. User Support Program Space Research, Netherlands Space Office (NSO), Netherland, 2020
- 6. National Fund for Scientific and Technological Research (FONDECYT) of the National Research and Development Agency of the Science, Technology, Knowledge, and Innovation Ministry, Chile, 2020
- 7. Netherlands Organization for Scientific Research (NWO)******, 2018 2019
- 8. University Coalition for Fossil Energy Research (UCFER)†††††, 2016
- 9. NSF Graduate Research Fellowship Program (GRFP Environmental Chemistry. National Science Foundation (NSF) and American Society for Engineering Education (ASEE), 2010 and 2011
- 10. Science, Mathematics and Research for Transformation Scholarship (SMART) Program, Department of Defense (DOD) and American Society for Engineering Education (ASEE), 2008 2010

Review of Technical Reports

- 1. Bureau of Ocean Energy Management (BOEM) "Air Quality Modeling in the Gulf of Mexico Study" National Academies of Sciences, Engineering, and Medicine, Review Committee Member, 2019.
- 2. Health Canada Technical Report "Human Health Risk Assessment for Diesel Exhaust" External Review Committee Member, 2015

Department, College, University Services

Department

Current

1. Member, Department Faculty Search Committee (Chair: Huilin Gao), 2022 - present

- 2. Graduate and Undergraduate Advisor, Environmental and Water Resources Division, Zachry Department of Civil Engineering, 2022 present
- 3. Chair, Departmental subcommittee for Accountability, Climate, Equity, and Scholarship (ACES) Faculty Fellow Hiring Program, 2021 present
- 4. Member, Department Faculty Search Committee (Chair: Yunlong Zhang), 2021 present

^{*****} The RGC is an advisory board on research matters to the University Grants Committee (UGC), a non-statutory advisory committee which is also responsible for advising the Hong Kong government on the needs of higher education institutions in Hong Kong, including both research and education.

^{*******} NWO funds the personnel and material cost for scientific research and knowledge exchange and impact activities of Dutch universities and public research institutes.

^{††††††} UCFER is established to advance basic and applied fossil energy research through mechanisms that promote collaboration among the Department of Energy (DOE) and the universities (Texas A&M is one of the 9 member universities).

- 5. Faculty advisor, Chi Epsilon Civil Engineering Honor Society, 2021 present
- 6. Member, Environmental Engineering (EVEN) Entry to a major (ETAM) review committee, 2020 present
- 7. Member, Department Distance Learning Committee, 2020 present
- 8. Faculty advisor, Association of Environmental Engineering Students, TAMU, 2017 present
- 9. Course manager, CVEN/EVEN 399 (Professional Development), 2021 present
- 10. Course coordinator, CVEN 302, 2021 present
- 11. Course coordinator, CVEN/EVEN 413, 2013 present
- 12. Member, Ph.D. Qualifier Exam Committee, 2007 present

<u>Past</u>

- 13. Member, Writing Instructor Search Committee (Chair: Mara London), 2021
- 14. Faculty presenter, Department Information (DI) Saturday, 2021
- 15. Course reviewer, EVEN 301, 304, 405, and 413, EVEN ABET review, 2021
- 16. Member, Department Honors and Awards Committee, 2019
- 17. Guest seminar speaker, Topics on Transportation Air Quality for CVEN 456, 2012 2019
- 18. Graduate and Undergraduate Advisor, Environmental and Water Resources Division, Zachry Department of Civil Engineering, September 2013 2016.
- 19. Member, Division Curriculum Transformation Team, 2013 2014

College

- 20. Reviewer, College, and University Diversity Fellowships, 2021
- 21. Member, College of Engineering Big Data Hiring Committee, 2015
- 22. Internal Executive Committee Representative, Center for Atmospheric Chemistry and Environment (CACE, https://cace.tamu.edu/), 2007 2010

University

- 23. Reviewer, Texas A&M-CONACYT Research Grant Program, 2020
- 24. Faculty Search Committee Member (Department of Atmospheric Sciences, Chair: Andrew Dessler), 2018 2019
- 25. Faculty Search Committee Member (Department of Atmospheric Sciences, Chair: Anita D. Rapp), 2019
- 26. Reviewer, Water Seed Grant Program, Texas A&M AgriLife Research and Texas Engineering Experimental Station, 2014 2015

Community Services

- 1. Blue Ribbon Award Judge, Texas Science and Engineering Fair (TXSEF), 2021-2023
- 2. Judge, Texas Science and Engineering Fair, 2020

PROFESSIONAL AFFILIATIONS

- 1. American Association for Aerosol Research (AAAR)
- 2. Japanese Geoscience Union (JpGU)
- 3. American Geophysical Union (AGU)
- 4. Association of Environmental Engineering and Science Professors (AEESP)
- 5. American Chemical Society (ACS)

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