# Guiqian Tang

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/4493474/publications.pdf

Version: 2024-02-01

| | | | |
|---|---|---|---|
| 125 papers | 6,876 citations | 61984 43 h-index | 66911 78 g-index |
| 137 all docs | 137 docs citations | 137 times ranked | 4995 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Influence of circulation types on temporal and spatial variations of ozone in Beijing. Journal of Environmental Sciences, 2023, 130, 37-51. | 6.1 | 4 |
| 2 | Progress in quantitative research on the relationship between atmospheric oxidation and air quality. Journal of Environmental Sciences, 2023, 123, 350-366. | 6.1 | 5 |
| 3 | Multilevel air quality evolution in Shenyang: Impact of elevated point emission reduction. Journal of Environmental Sciences, 2022, 113, 300-310. | 6.1 | 4 |
| 4 | Annual nonmethane hydrocarbon trends in Beijing from 2000 to 2019. Journal of Environmental Sciences, 2022, 112, 210-217. | 6.1 | 14 |
| 5 | The dynamic multi-box algorithm of atmospheric environmental capacity. Science of the Total Environment, 2022, 806, 150951. | 8.0 | 8 |
| 6 | Vertical evolution of black and brown carbon during pollution events over North China Plain. Science of the Total Environment, 2022, 806, 150950. | 8.0 | 6 |
| 7 | How do aerosols above the residual layer affect the planetary boundary layer height?. Science of the Total Environment, 2022, 814, 151953. | 8.0 | 30 |
| 8 | Unexpected Increases of Severe Haze Pollution During the Post COVIDâ€19 Period: Effects of Emissions, Meteorology, and Secondary Production. Journal of Geophysical Research D: Atmospheres, 2022, 127, . | 3.3 | 18 |
| 9 | Environmental effects of China's coal ban policy: Results from in situ observations and model analysis in a typical rural area of the Beijing-Tianjin-Hebei region, China. Atmospheric Research, 2022, 268, 106015. | 4.1 | 10 |
| 10 | Model analysis of vertical exchange of boundary layer ozone and its impact on surface air quality over the North China Plain. Science of the Total Environment, 2022, 821, 153436. | 8.0 | 9 |
| 11 | Oscillation cumulative volatile organic compounds on the northern edge of the North China Plain: Impact of mountain-plain breeze. Science of the Total Environment, 2022, 821, 153541. | 8.0 | 9 |
| 12 | Effect of Different Combustion Processes on Atmospheric Nitrous Acid Formation Mechanisms: A Winter Comparative Observation in Urban, Suburban and Rural Areas of the North China Plain. Environmental Science & Technology, 2022, 56, 4828-4837. | 10.0 | 6 |
| 13 | Low-molecular-weight carbonyl volatile organic compounds on the North China Plain. Atmospheric Environment, 2022, 275, 119000. | 4.1 | 5 |
| 14 | Decadal changes in ozone in the lower boundary layer over Beijing, China. Atmospheric Environment, 2022, 275, 119018. | 4.1 | 11 |
| 15 | Submicron-scale aerosol above the city canopy in Beijing in spring based on in-situ meteorological tower measurements. Atmospheric Research, 2022, 271, 106128. | 4.1 | 4 |
| 16 | Is Urban Greening an Effective Solution to Enhance Environmental Comfort and Improve Air Quality?. Environmental Science & Technology, 2022, 56, 5390-5397. | 10.0 | 14 |
| 17 | The Levels and Sources of Nitrous Acid (HONO) in Winter of Beijing and Sanmenxia. Journal of Geophysical Research D: Atmospheres, 2022, 127, . | 3.3 | 9 |
| 18 | Significant decline in aerosols in the mixing layer in Beijing from 2015 to 2020: Effects of regional coordinated air pollution control. Science of the Total Environment, 2022, 838, 156364. | 8.0 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Vertically Resolved Aerosol Chemistry in the Low Boundary Layer of Beijing in Summer. Environmental Science & Technology, 2022, 56, 9312-9324. | 10.0 | 6 |
| 20 | Characteristics of PM2.5 pollution in Beijing after the improvement of air quality. Journal of Environmental Sciences, 2021, 100, 1-10. | 6.1 | 59 |
| 21 | Analysis of differences between thermodynamic and material boundary layer structure: Comparison of detection by ceilometer and microwave radiometer. Atmospheric Research, 2021, 248, 105179. | 4.1 | 16 |
| 22 | Unexpected deep mixing layer in the Sichuan Basin, China. Atmospheric Research, 2021, 249, 105300. | 4.1 | 7 |
| 23 | Vertically increased NO3 radical in the nocturnal boundary layer. Science of the Total Environment, 2021, 763, 142969. | 8.0 | 20 |
| 24 | Source apportionment of PM2.5 and visibility in Jinan, China. Journal of Environmental Sciences, 2021, 102, 207-215. | 6.1 | 38 |
| 25 | Impact of residual layer transport on air pollution in Beijing, China. Environmental Pollution, 2021, 271, 116325. | 7.5 | 21 |
| 26 | Detailed budget analysis of HONO in Beijing, China: Implication on atmosphere oxidation capacity in polluted megacity. Atmospheric Environment, 2021, 244, 117957. | 4.1 | 39 |
| 27 | Significant changes in autumn and winter aerosol composition and sources in Beijing from 2012 to 2018: Effects of clean air actions. Environmental Pollution, 2021, 268, 115855. | 7.5 | 43 |
| 28 | Bypassing the NOx titration trap in ozone pollution control in Beijing. Atmospheric Research, 2021, 249, 105333. | 4.1 | 46 |
| 29 | A 3D study on the amplification of regional haze and particle growth by local emissions. Npj Climate and Atmospheric Science, 2021, 4, . | 6.8 | 23 |
| 30 | Vertical Evolution of Boundary Layer Volatile Organic Compounds in Summer over the North China Plain and the Differences with Winter. Advances in Atmospheric Sciences, 2021, 38, 1165-1176. | 4.3 | 13 |
| 31 | Three-dimensional Thermal and Dynamic Structure in Synoptic and Local Scale and its Influence on Haze Formation during Autumn in Beijing. Aerosol and Air Quality Research, 2021, 21, 200593. | 2.1 | 0 |
| 32 | Vertical Distributions of Primary and Secondary Aerosols in Urban Boundary Layer: Insights into Sources, Chemistry, and Interaction with Meteorology. Environmental Science & Technology, 2021, 55, 4542-4552. | 10.0 | 16 |
| 33 | The impact threshold of the aerosol radiative forcing on the boundary layer structure in the pollution region. Atmospheric Chemistry and Physics, 2021, 21, 5739-5753. | 4.9 | 27 |
| 34 | The thermodynamic structures of the planetary boundary layer dominated by synoptic circulations and the regular effect on air pollution in Beijing. Atmospheric Chemistry and Physics, 2021, 21, 6111-6128. | 4.9 | 10 |
| 35 | ROx Budgets and O3 Formation during Summertime at Xianghe Suburban Site in the North China Plain. Advances in Atmospheric Sciences, 2021, 38, 1209-1222. | 4.3 | 8 |
| 36 | Simulated Sensitivity of Ozone Generation to Precursors in Beijing during a High O3 Episode. Advances in Atmospheric Sciences, 2021, 38, 1223-1237. | 4.3 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Exploring the inorganic and organic nitrate aerosol formation regimes at a suburban site on the North China Plain. Science of the Total Environment, 2021, 768, 144538. | 8.0 | 26 |
| 38 | Evaluation and Evolution of MAX-DOAS-observed Vertical NO2 Profiles in Urban Beijing. Advances in Atmospheric Sciences, 2021, 38, 1188-1196. | 4.3 | 14 |
| 39 | Boundary layer structure characteristics under objective classification of persistent pollution weather types in the Beijing area. Atmospheric Chemistry and Physics, 2021, 21, 8863-8882. | 4.9 | 16 |
| 40 | Significant contribution of spring northwest transport to volatile organic compounds in Beijing. Journal of Environmental Sciences, 2021, 104, 169-181. | 6.1 | 20 |
| 41 | Elucidating the quantitative characterization of atmospheric oxidation capacity in Beijing, China. Science of the Total Environment, 2021, 771, 145306. | 8.0 | 27 |
| 42 | Effects of different stagnant meteorological conditions on aerosol chemistry and regional transport changes in Beijing, China. Atmospheric Environment, 2021, 258, 118483. | 4.1 | 4 |
| 43 | Low particulate nitrate in the residual layer in autumn over the North China Plain. Science of the Total Environment, 2021, 782, 146845. | 8.0 | 17 |
| 44 | A comprehensive evaluation of aerosol extinction apportionment in Beijing using a high-resolution time-of-flight aerosol mass spectrometer. Science of the Total Environment, 2021, 783, 146976. | 8.0 | 5 |
| 45 | The difference in the boundary layer height between urban and suburban areas in Beijing and its implications for air pollution. Atmospheric Environment, 2021, 260, 118552. | 4.1 | 14 |
| 46 | Aggravated ozone pollution in the strong free convection boundary layer. Science of the Total Environment, 2021, 788, 147740. | 8.0 | 33 |
| 47 | Trends of Planetary Boundary Layer Height Over Urban Cities of China From 1980â€“2018. Frontiers in Environmental Science, 2021, 9, . | 3.3 | 7 |
| 48 | Evaluation of a Method for Calculating the Height of the Stable Boundary Layer Based on Wind Profile Lidar and Turbulent Fluxes. Remote Sensing, 2021, 13, 3596. | 4.0 | 5 |
| 49 | High gaseous carbonyl concentrations in the upper boundary layer in Shijiazhuang, China. Science of the Total Environment, 2021, 799, 149438. | 8.0 | 11 |
| 50 | Atmospheric ammonia and its effect on PM2.5 pollution in urban Chengdu, Sichuan Basin, China. Environmental Pollution, 2021, 291, 118195. | 7.5 | 21 |
| 51 | Reduced volatility of aerosols from surface emissions to the top of the planetary boundary layer. Atmospheric Chemistry and Physics, 2021, 21, 14749-14760. | 4.9 | 6 |
| 52 | Insight into the formation and evolution of secondary organic aerosol in the megacity of Beijing, China. Atmospheric Environment, 2020, 220, 117070. | 4.1 | 34 |
| 53 | Rapid formation of intense haze episodes via aerosolâ€“boundary layer feedback in Beijing. Atmospheric Chemistry and Physics, 2020, 20, 45-53. | 4.9 | 36 |
| 54 | Distinction of two kinds of haze. Atmospheric Environment, 2020, 223, 117228. | 4.1 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Effectively controlling hazardous airborne elements: Insights from continuous hourly observations during the seasons with the most unfavorable meteorological conditions after the implementation of the APPCAP. Journal of Hazardous Materials, 2020, 387, 121710. | 12.4 | 16 |
| 56 | Highly time-resolved chemical characterization and implications of regional transport for submicron aerosols in the North China Plain. Science of the Total Environment, 2020, 705, 135803. | 8.0 | 18 |
| 57 | Observation and modeling of vertical carbon dioxide distribution in a heavily polluted suburban environment. Atmospheric and Oceanic Science Letters, 2020, 13, 371-379. | 1.3 | 10 |
| 58 | Different HONO Sources for Three Layers at the Urban Area of Beijing. Environmental Science & Technology, 2020, 54, 12870-12880. | 10.0 | 52 |
| 59 | Haze pollution under a high atmospheric oxidization capacity in summer in Beijing: insights into formation mechanism of atmospheric physicochemical processes. Atmospheric Chemistry and Physics, 2020, 20, 4575-4592. | 4.9 | 31 |
| 60 | The Stove, Dome, and Umbrella Effects of Atmospheric Aerosol on the Development of the Planetary Boundary Layer in Hazy Regions. Geophysical Research Letters, 2020, 47, e2020GL087373. | 4.0 | 73 |
| 61 | Contrasting trends of PM2.5 and surface-ozone concentrations in China from 2013 to 2017. National Science Review, 2020, 7, 1331-1339. | 9.5 | 284 |
| 62 | Different roles of nitrate and sulfate in air pollution episodes in the North China Plain. Atmospheric Environment, 2020, 224, 117325. | 4.1 | 20 |
| 63 | Vertically decreased VOC concentration and reactivity in the planetary boundary layer in winter over the North China Plain. Atmospheric Research, 2020, 240, 104930. | 4.1 | 32 |
| 64 | Meteorological mechanism for a large-scale persistent severe ozone pollution event over eastern China in 2017. Journal of Environmental Sciences, 2020, 92, 187-199. | 6.1 | 63 |
| 65 | Evaluation and uncertainty investigation of the NO<sub>2</sub>, CO and NH<sub>3</sub> modeling over China under the framework of MICS-AsiaÂIII. Atmospheric Chemistry and Physics, 2020, 20, 181-202. | 4.9 | 41 |
| 66 | Nitrate-dominated PM<sub>2.5</sub> and elevation of particle pH observed in urban Beijing during the winter of 2017. Atmospheric Chemistry and Physics, 2020, 20, 5019-5033. | 4.9 | 70 |
| 67 | The interaction between urbanization and aerosols during a typical winter haze event in Beijing. Atmospheric Chemistry and Physics, 2020, 20, 9855-9870. | 4.9 | 18 |
| 68 | Trends in particulate matter and its chemical compositions in China from 2013â€“2017. Science China Earth Sciences, 2019, 62, 1857-1871. | 5.2 | 111 |
| 69 | Mixing layer transport flux of particulate matter in Beijing, China. Atmospheric Chemistry and Physics, 2019, 19, 9531-9540. | 4.9 | 29 |
| 70 | Decreased gaseous carbonyls in the North China plain from 2004 to 2017 and future control measures. Atmospheric Environment, 2019, 218, 117015. | 4.1 | 12 |
| 71 | Vertical characterization of aerosol optical properties and brown carbon in winter in urban Beijing, China. Atmospheric Chemistry and Physics, 2019, 19, 165-179. | 4.9 | 73 |
| 72 | Assessment of dicarbonyl contributions to secondary organic aerosols over China using RAMS-CMAQ. Atmospheric Chemistry and Physics, 2019, 19, 6481-6495. | 4.9 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Characteristics of chemical composition and seasonal variations of PM2.5 in Shijiazhuang, China: Impact of primary emissions and secondary formation. Science of the Total Environment, 2019, 677, 215-229. | 8.0 | 84 |
| 74 | Evolution of boundary layer ozone in Shijiazhuang, a suburban site on the North China Plain. Journal of Environmental Sciences, 2019, 83, 152-160. | 6.1 | 50 |
| 75 | Case study of the effects of aerosol chemical composition and hygroscopicity on the scattering coefficient in summer, Xianghe, southeast of Beijing, China. Atmospheric Research, 2019, 225, 81-87. | 4.1 | 10 |
| 76 | Secondary organic aerosols in Jinan, an urban site in North China: Significant anthropogenic contributions to heavy pollution. Journal of Environmental Sciences, 2019, 80, 107-115. | 6.1 | 15 |
| 77 | The spatial representativeness of mixing layer height observations in the North China Plain. Atmospheric Research, 2018, 209, 204-211. | 4.1 | 16 |
| 78 | Two-year continuous measurements of carbonaceous aerosols in urban Beijing, China: Temporal variations, characteristics and source analyses. Chemosphere, 2018, 200, 191-200. | 8.2 | 48 |
| 79 | Vertical characteristics of VOCs in the lower troposphere over the North China Plain during pollution periods. Environmental Pollution, 2018, 236, 907-915. | 7.5 | 43 |
| 80 | Vertically resolved characteristics of air pollution during two severe winter haze episodes in urban Beijing, China. Atmospheric Chemistry and Physics, 2018, 18, 2495-2509. | 4.9 | 69 |
| 81 | Investigating missing sources of glyoxal over China using a regional air quality model (RAMS-CMAQ). Journal of Environmental Sciences, 2018, 71, 108-118. | 6.1 | 9 |
| 82 | Mixing layer height on the North China Plain and meteorological evidence of serious air pollution in southern Hebei. Atmospheric Chemistry and Physics, 2018, 18, 4897-4910. | 4.9 | 78 |
| 83 | Characterization of submicron particles during autumn in Beijing, China. Journal of Environmental Sciences, 2018, 63, 16-27. | 6.1 | 26 |
| 84 | Thermal internal boundary layer and its effects on air pollutants during summer in a coastal city in North China. Journal of Environmental Sciences, 2018, 70, 37-44. | 6.1 | 29 |
| 85 | Vertical Characterization of Aerosol Particle Composition in Beijing, China: Insights From 3â€Month Measurements With Two Aerosol Mass Spectrometers. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,016. | 3.3 | 16 |
| 86 | Water-soluble ions in PM2.5 during spring haze and dust periods in Chengdu, China: Variations, nitrate formation and potential source areas. Environmental Pollution, 2018, 243, 1740-1749. | 7.5 | 49 |
| 87 | Assessment of the impacts of aromatic VOC emissions and yields of SOA on SOA concentrations with the air quality model RAMS-CMAQ. Atmospheric Environment, 2017, 158, 105-115. | 4.1 | 35 |
| 88 | Modelling study of boundary-layer ozone over northern China - Part II: Responses to emission reductions during the Beijing Olympics. Atmospheric Research, 2017, 193, 83-93. | 4.1 | 14 |
| 89 | Mortality and air pollution in Beijing: The long-term relationship. Atmospheric Environment, 2017, 150, 238-243. | 4.1 | 69 |
| 90 | Modelling study of boundary-layer ozone over northern China - Part I: Ozone budget in summer. Atmospheric Research, 2017, 187, 128-137. | 4.1 | 76 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | The PM2.5 threshold for aerosol extinction in the Beijing megacity. Atmospheric Environment, 2017, 167, 458-465. | 4.1 | 25 |
| 92 | Quantification of the impact of aerosol on broadband solar radiation in North China. Scientific Reports, 2017, 7, 44851. | 3.3 | 45 |
| 93 | Chemical characterization and source identification of PM<sub>2.5</sub> at multiple sites in the Beijingâ€“Tianjinâ€“Hebei region, China. Atmospheric Chemistry and Physics, 2017, 17, 12941-12962. | 4.9 | 178 |
| 94 | Evaluating the Effects of Springtime Dust Storms over Beijing and the Associated Characteristics of Sub-Micron Aerosol. Aerosol and Air Quality Research, 2017, 17, 680-692. | 2.1 | 17 |
| 95 | VOC characteristics, emissions and contributions to SOA formation during hazy episodes. Atmospheric Environment, 2016, 141, 560-570. | 4.1 | 161 |
| 96 | Analysis of a long-term measurement of air pollutants (2007â€“2011) in North China Plain (NCP); Impact of emission reduction during the Beijing Olympic Games. Chemosphere, 2016, 159, 647-658. | 8.2 | 30 |
| 97 | Regional pollution and its formation mechanism over North China Plain: A case study with ceilometer observations and model simulations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 14,574. | 3.3 | 69 |
| 98 | Vehicular emissions in China in 2006 and 2010. Journal of Environmental Sciences, 2016, 48, 179-192. | 6.1 | 41 |
| 99 | Investigating the evolution of summertime secondary atmospheric pollutants in urban Beijing. Science of the Total Environment, 2016, 572, 289-300. | 8.0 | 28 |
| 100 | The observationâ€based relationships between PM<sub>2.5</sub> and AOD over China. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,701. | 3.3 | 47 |
| 101 | Spatial oscillation of the particle pollution in eastern China during winter: Implications for regional air quality and climate. Atmospheric Environment, 2016, 144, 100-110. | 4.1 | 46 |
| 102 | Mixing layer height and its implications for air pollution over Beijing, China. Atmospheric Chemistry and Physics, 2016, 16, 2459-2475. | 4.9 | 335 |
| 103 | Redefining the importance of nitrate during haze pollution to help optimize an emission control strategy. Atmospheric Environment, 2016, 141, 197-202. | 4.1 | 90 |
| 104 | Characteristics, source apportionment and reactivity of ambient volatile organic compounds at Dinghu Mountain in Guangdong Province, China. Science of the Total Environment, 2016, 548-549, 347-359. | 8.0 | 125 |
| 105 | Impact of emission controls on air quality in Beijing during APEC 2014: lidar ceilometer observations. Atmospheric Chemistry and Physics, 2015, 15, 12667-12680. | 4.9 | 159 |
| 106 | Organic composition of gasoline and its potential effects on air pollution in North China. Science China Chemistry, 2015, 58, 1416-1425. | 8.2 | 25 |
| 107 | The Campaign on Atmospheric Aerosol Research Network of China: CARE-China. Bulletin of the American Meteorological Society, 2015, 96, 1137-1155. | 3.3 | 115 |
| 108 | The heaviest particulate air-pollution episodes occurred in northern China in January, 2013: Insights gained from observation. Atmospheric Environment, 2014, 92, 546-556. | 4.1 | 212 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Haze insights and mitigation in China: An overview. Journal of Environmental Sciences, 2014, 26, 2-12. | 6.1 | 91 |
| 110 | Mechanism for the formation of the January 2013 heavy haze pollution episode over central and eastern China. Science China Earth Sciences, 2014, 57, 14-25. | 5.2 | 626 |
| 111 | Mineral dust and NOx promote the conversion of SO2 to sulfate in heavy pollution days. Scientific Reports, 2014, 4, 4172. | 3.3 | 426 |
| 112 | Evaluation of tropospheric SO<sub>2</sub> retrieved from MAX-DOAS measurements in Xianghe, China. Atmospheric Chemistry and Physics, 2014, 14, 11149-11164. | 4.9 | 64 |
| 113 | Ozone weekend effects in the Beijingâ€“Tianjinâ€“Hebei metropolitan area, China. Atmospheric Chemistry and Physics, 2014, 14, 2419-2429. | 4.9 | 70 |
| 114 | Characteristics of ozone and its precursors in Northern China: A comparative study of three sites. Atmospheric Research, 2013, 132-133, 450-459. | 4.1 | 44 |
| 115 | The vertical distribution of PM2.5 and boundary-layer structure during summer haze in Beijing. Atmospheric Environment, 2013, 74, 413-421. | 4.1 | 116 |
| 116 | Inversion of CO emissions over Beijing and its surrounding areas with ensemble Kalman filter. Atmospheric Environment, 2013, 81, 676-686. | 4.1 | 49 |
| 117 | Spatial distribution and temporal variations of atmospheric sulfur deposition in Northern China: insights into the potential acidification risks. Atmospheric Chemistry and Physics, 2013, 13, 1675-1688. | 4.9 | 66 |
| 118 | Spatial-temporal variations in surface ozone in Northern China as observed during 2009â€“2010 and possible implications for future air quality control strategies. Atmospheric Chemistry and Physics, 2012, 12, 2757-2776. | 4.9 | 178 |
| 119 | Wet and dry deposition of atmospheric nitrogen at ten sites in Northern China. Atmospheric Chemistry and Physics, 2012, 12, 6515-6535. | 4.9 | 230 |
| 120 | Reductions of PM2.5 in Beijing-Tianjin-Hebei urban agglomerations during the 2008 Olympic Games. Advances in Atmospheric Sciences, 2012, 29, 1330-1342. | 4.3 | 48 |
| 121 | Analysis of heavy pollution episodes in selected cities of northern China. Atmospheric Environment, 2012, 50, 338-348. | 4.1 | 152 |
| 122 | Variability and reduction of atmospheric pollutants in Beijing and its surrounding area during the Beijing 2008 Olympic Games. Science Bulletin, 2010, 55, 1937-1944. | 1.7 | 70 |
| 123 | Study on dissolved organic carbon in precipitation in Northern China. Atmospheric Environment, 2010, 44, 2350-2357. | 4.1 | 88 |
| 124 | Surface ozone trend details and interpretations in Beijing, 2001â€“2006. Atmospheric Chemistry and Physics, 2009, 9, 8813-8823. | 4.9 | 192 |
| 125 | Evaluation of continuous ceilometer-based mixing layer heights and correlations with PM 2.5 concentrations in Beijing. Proceedings of SPIE, 2009, , . | 0.8 | 3 |