

# Ke-Bin He

## List of Publications by Year in descending order

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Version: 2024-02-01

113  
papers

14,549  
citations

36303

51  
h-index

20358

116  
g-index

117  
all docs

117  
docs citations

117  
times ranked

10260  
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of haze pollution in Zibo, China: Temporal series, secondary species formation, and PM <sub>x</sub> distribution. <i>Chemosphere</i> , 2022, 286, 131807.	8.2	3
2	Primary nature of brown carbon absorption in a frigid atmosphere with strong haze chemistry. <i>Environmental Research</i> , 2022, 204, 112324.	7.5	6
3	New open burning policy reshaped the aerosol characteristics of agricultural fire episodes in Northeast China. <i>Science of the Total Environment</i> , 2022, 810, 152272.	8.0	17
4	Exploring chemical changes of the haze pollution during a recent round of COVID-19 lockdown in a megacity in Northeast China. <i>Chemosphere</i> , 2022, 292, 133500.	8.2	2
5	Constructing a Raman and surface-enhanced Raman scattering spectral reference library for fine-particle analysis. <i>Journal of Environmental Sciences</i> , 2022, 118, 1-13.	6.1	2
6	Reduction of Global Life Expectancy Driven by Trade-Related Transboundary Air Pollution. <i>Environmental Science and Technology Letters</i> , 2022, 9, 212-218.	8.7	13
7	Tracking PM <sub>2.5</sub> and O <sub>3</sub> Pollution and the Related Health Burden in China 2013–2020. <i>Environmental Science &amp; Technology</i> , 2022, 56, 6922-6932.	10.0	113
8	Unbalanced emission reductions and adverse meteorological conditions facilitate the formation of secondary pollutants during the COVID-19 lockdown in Beijing. <i>Science of the Total Environment</i> , 2022, 838, 155970.	8.0	10
9	The long-term trend of PM <sub>2.5</sub> -related mortality in China: The effects of source data selection. <i>Chemosphere</i> , 2021, 263, 127894.	8.2	25
10	Strong biomass burning contribution to ambient aerosol during heating season in a megacity in Northeast China: Effectiveness of agricultural fire bans?. <i>Science of the Total Environment</i> , 2021, 754, 142144.	8.0	33
11	Characteristics and sources of water-soluble organic aerosol in a heavily polluted environment in Northern China. <i>Science of the Total Environment</i> , 2021, 758, 143970.	8.0	18
12	Model vs. observation discrepancy in aerosol characteristics during a half-year long campaign in Northeast China: The role of biomass burning. <i>Environmental Pollution</i> , 2021, 269, 116167.	7.5	15
13	Formation of secondary inorganic aerosol in a frigid urban atmosphere. <i>Frontiers of Environmental Science and Engineering</i> , 2021, 16, 1.	6.0	10
14	Pathways of China's PM <sub>2.5</sub> air quality 2015–2060 in the context of carbon neutrality. <i>National Science Review</i> , 2021, 8, nwab078.	9.5	142
15	Surface-enhanced Raman scattering for mixing state characterization of individual fine particles during a haze episode in Beijing, China. <i>Journal of Environmental Sciences</i> , 2021, 104, 216-224.	6.1	6
16	Changes in China's anthropogenic emissions and air quality during the COVID-19 pandemic in 2020. <i>Earth System Science Data</i> , 2021, 13, 2895-2907.	9.9	176
17	Stronger secondary pollution processes despite decrease in gaseous precursors: A comparative analysis of summer 2020 and 2019 in Beijing. <i>Environmental Pollution</i> , 2021, 279, 116923.	7.5	26
18	Comparison of Current and Future PM <sub>2.5</sub> Air Quality in China Under CMIP6 and DPEC Emission Scenarios. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093197.	4.0	15

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19	Drivers of PM <sub>2.5</sub> air pollution deaths in China 2002–2017. <i>Nature Geoscience</i> , 2021, 14, 645-650.	12.9	197
20	Characteristics and sources of non-methane VOCs and their roles in SOA formation during autumn in a central Chinese city. <i>Science of the Total Environment</i> , 2021, 782, 146802.	8.0	25
21	Tracking Air Pollution in China: Near Real-Time PM <sub>2.5</sub> Retrievals from Multisource Data Fusion. <i>Environmental Science &amp; Technology</i> , 2021, 55, 12106-12115.	10.0	205
22	Variation characteristics of fine particulate matter and its components in diesel vehicle emission plumes. <i>Journal of Environmental Sciences</i> , 2021, 107, 138-149.	6.1	10
23	Source apportionment of atmospheric particle number concentrations with wide size range by nonnegative matrix factorization (NMF). <i>Environmental Pollution</i> , 2021, 289, 117846.	7.5	8
24	Investigating the effect of sources and meteorological conditions on wintertime haze formation in Northeast China: A case study in Harbin. <i>Science of the Total Environment</i> , 2021, 801, 149631.	8.0	20
25	Combined solar power and storage as cost-competitive and grid-compatible supply for China's future carbon-neutral electricity system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	70
26	Trade-linked shipping CO <sub>2</sub> emissions. <i>Nature Climate Change</i> , 2021, 11, 945-951.	18.8	43
27	Health co-benefits of climate change mitigation depend on strategic power plant retirements and pollution controls. <i>Nature Climate Change</i> , 2021, 11, 1077-1083.	18.8	49
28	How aging process changes characteristics of vehicle emissions? A review. <i>Critical Reviews in Environmental Science and Technology</i> , 2020, 50, 1796-1828.	12.8	20
29	Mixed and intensive haze pollution during the transition period between autumn and winter in Beijing, China. <i>Science of the Total Environment</i> , 2020, 711, 134745.	8.0	25
30	Near-real-time monitoring of global CO <sub>2</sub> emissions reveals the effects of the COVID-19 pandemic. <i>Nature Communications</i> , 2020, 11, 5172.	12.8	420
31	Satellite-based estimates of decline and rebound in China's CO <sub>2</sub> emissions during COVID-19 pandemic. <i>Science Advances</i> , 2020, 6, .	10.3	136
32	Efficient data preprocessing, episode classification, and source apportionment of particle number concentrations. <i>Science of the Total Environment</i> , 2020, 744, 140923.	8.0	20
33	Secondary inorganic aerosol during heating season in a megacity in Northeast China: Evidence for heterogeneous chemistry in severe cold climate region. <i>Chemosphere</i> , 2020, 261, 127769.	8.2	12
34	Characteristics and seasonal variations of high-molecular-weight oligomers in urban haze aerosols. <i>Science of the Total Environment</i> , 2020, 746, 141209.	8.0	5
35	Weakening aerosol direct radiative effects mitigate climate penalty on Chinese air quality. <i>Nature Climate Change</i> , 2020, 10, 845-850.	18.8	32
36	Characteristics and the Potential Influence of Fugitive PM <sub>10</sub> Emissions from Enclosed Storage Yards in Iron and Steel Plant. <i>Atmosphere</i> , 2020, 11, 833.	2.3	2

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37	Changes in spatial patterns of PM <sub>2.5</sub> pollution in China 2000â€“2018: Impact of clean air policies. <i>Environment International</i> , 2020, 141, 105776.	10.0	118
38	Source apportionment of fine organic carbon (OC) using receptor modelling at a rural site of Beijing: Insight into seasonal and diurnal variation of source contributions. <i>Environmental Pollution</i> , 2020, 266, 115078.	7.5	19
39	Effect of N fertilizer types on N <sub>2</sub> O and NO emissions under drip fertigation from an agricultural field in the North China Plain. <i>Science of the Total Environment</i> , 2020, 715, 136903.	8.0	15
40	Sulfateâ€“nitrateâ€“ammonium as double salts in PM <sub>2.5</sub> : Direct observations and implications for haze events. <i>Science of the Total Environment</i> , 2019, 647, 204-209.	8.0	38
41	Physicochemical analysis of individual atmospheric fine particles based on effective surface-enhanced Raman spectroscopy. <i>Journal of Environmental Sciences</i> , 2019, 75, 388-395.	6.1	15
42	Impact of Chinaâ€™s Air Pollution Prevention and Control Action Plan on PM <sub>2.5</sub> chemical composition over eastern China. <i>Science China Earth Sciences</i> , 2019, 62, 1872-1884.	5.2	105
43	Characteristics and formation mechanisms of winter haze in Changzhou, a highly polluted industrial city in the Yangtze River Delta, China. <i>Environmental Pollution</i> , 2019, 253, 377-383.	7.5	30
44	Energy and emission pathways towards PM <sub>2.5</sub> air quality attainment in the Beijing-Tianjin-Hebei region by 2030. <i>Science of the Total Environment</i> , 2019, 692, 361-370.	8.0	45
45	Rapid improvement of PM <sub>2.5</sub> pollution and associated health benefits in China during 2013â€“2017. <i>Science China Earth Sciences</i> , 2019, 62, 1847-1856.	5.2	146
46	Emissions and health impacts from global shipping embodied in USâ€“China bilateral trade. <i>Nature Sustainability</i> , 2019, 2, 1027-1033.	23.7	78
47	Impacts of climate change on future air quality and human health in China. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 17193-17200.	7.1	219
48	Inequality of household consumption and air pollution-related deaths in China. <i>Nature Communications</i> , 2019, 10, 4337.	12.8	114
49	Air pollution characteristics and their relationship with emissions and meteorology in the Yangtze River Delta region during 2014â€“2016. <i>Journal of Environmental Sciences</i> , 2019, 83, 8-20.	6.1	123
50	Parameterization of heterogeneous reaction of SO <sub>2</sub> to sulfate on dust with coexistence of NH <sub>3</sub> and NO <sub>2</sub> under different humidity conditions. <i>Atmospheric Environment</i> , 2019, 208, 133-140.	4.1	37
51	Biotoxicity of water-soluble species in PM <sub>2.5</sub> using <i>Chlorella</i> . <i>Environmental Pollution</i> , 2019, 250, 914-921.	7.5	5
52	A psychophysical measurement on subjective well-being and air pollution. <i>Nature Communications</i> , 2019, 10, 5473.	12.8	50
53	Drivers of improved PM <sub>2.5</sub> air quality in China from 2013 to 2017. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 24463-24469.	7.1	1,193
54	Analysis of the origins of black carbon and carbon monoxide transported to Beijing, Tianjin, and Hebei in China. <i>Science of the Total Environment</i> , 2019, 653, 1364-1376.	8.0	14

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55	Underreported coal in statistics: A survey-based solid fuel consumption and emission inventory for the rural residential sector in China. <i>Applied Energy</i> , 2019, 235, 1169-1182.	10.1	77
56	Uncertainties in thermal-optical measurements of black carbon: Insights from source and ambient samples. <i>Science of the Total Environment</i> , 2019, 656, 239-249.	8.0	16
57	Haze formation indicator based on observation of critical carbonaceous species in the atmosphere. <i>Environmental Pollution</i> , 2019, 244, 84-92.	7.5	7
58	Infrastructure Shapes Differences in the Carbon Intensities of Chinese Cities. <i>Environmental Science &amp; Technology</i> , 2018, 52, 6032-6041.	10.0	30
59	Rapid decline in carbon monoxide emissions and export from East Asia between years 2005 and 2016. <i>Environmental Research Letters</i> , 2018, 13, 044007.	5.2	95
60	Simulation and synthesis of Fe <sub>3</sub> O <sub>4</sub> Au satellite nanostructures for optimised surface-enhanced Raman scattering. <i>Journal of Materials Chemistry C</i> , 2018, 6, 2252-2257.	5.5	18
61	Targeted emission reductions from global super-polluting power plant units. <i>Nature Sustainability</i> , 2018, 1, 59-68.	23.7	215
62	Comparison and evaluation of anthropogenic emissions of SO <sub>2</sub> and NO <sub>x</sub> over China. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 3433-3456.	4.9	51
63	Trends in China's anthropogenic emissions since 2010 as the consequence of clean air actions. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 14095-14111.	4.9	1,613
64	Impacts of shipping emissions on PM <sub>2.5</sub> pollution in China. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 15811-15824.	4.9	87
65	Current Emissions and Future Mitigation Pathways of Coal-Fired Power Plants in China from 2010 to 2030. <i>Environmental Science &amp; Technology</i> , 2018, 52, 12905-12914.	10.0	122
66	Sizing of Ambient Particles From a Single Particle Soot Photometer Measurement to Retrieve Mixing State of Black Carbon at a Regional Site of the North China Plain. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 12,778.	3.3	24
67	The characteristics of carbonaceous aerosol in Beijing during a season of transition. <i>Chemosphere</i> , 2018, 212, 1010-1019.	8.2	5
68	Corrigendum to Anthropogenic emission inventories in China: a review. <i>National Science Review</i> , 2018, 5, 603-603.	9.5	12
69	Case study of spring haze in Beijing: Characteristics, formation processes, secondary transition, and regional transportation. <i>Environmental Pollution</i> , 2018, 242, 544-554.	7.5	22
70	TiO <sub>2</sub> -based satellite structured surface enhanced Raman scattering sensor for Hg <sub>2+</sub> detection. <i>Journal of Raman Spectroscopy</i> , 2018, 49, 1575-1580.	2.5	17
71	Review of receptor-based source apportionment research of fine particulate matter and its challenges in China. <i>Science of the Total Environment</i> , 2017, 586, 917-929.	8.0	159
72	Source apportionment of Pb-containing particles in Beijing during January 2013. <i>Environmental Pollution</i> , 2017, 226, 30-40.	7.5	36

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73	Development of PM <sub>2.5</sub> and NO <sub>2</sub> models in a LUR framework incorporating satellite remote sensing and air quality model data in Pearl River Delta region, China. <i>Environmental Pollution</i> , 2017, 226, 143-153.	7.5	70
74	Brown and black carbon in Beijing aerosol: Implications for the effects of brown coating on light absorption by black carbon. <i>Science of the Total Environment</i> , 2017, 599-600, 1047-1055.	8.0	92
75	Characteristics of the secondary water-soluble ions in a typical autumn haze in Beijing. <i>Environmental Pollution</i> , 2017, 227, 296-305.	7.5	89
76	Typical winter haze pollution in Zibo, an industrial city in China: Characteristics, secondary formation, and regional contribution. <i>Environmental Pollution</i> , 2017, 229, 339-349.	7.5	64
77	Transboundary health impacts of transported global air pollution and international trade. <i>Nature</i> , 2017, 543, 705-709.	27.8	737
78	Important fossil source contribution to brown carbon in Beijing during winter. <i>Scientific Reports</i> , 2017, 7, 43182.	3.3	111
79	Anthropogenic emission inventories in China: a review. <i>National Science Review</i> , 2017, 4, 834-866.	9.5	580
80	NO <sub>x</sub> and SO <sub>2</sub> emission trends over Chinese cities estimated from OMI observations during 2005 to 2015. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 9261-9275.	4.9	146
81	Impact of spatial proxies on the representation of bottom-up emission inventories: A satellite-based analysis. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 4131-4145.	4.9	61
82	Resolution dependence of uncertainties in gridded emission inventories: a case study in Hebei, China. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 921-933.	4.9	88
83	MIX: a mosaic Asian anthropogenic emission inventory under the international collaboration framework of the MICS-Asia and HTAP. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 935-963.	4.9	1,069
84	Fusing Observational, Satellite Remote Sensing and Air Quality Model Simulated Data to Estimate Spatiotemporal Variations of PM <sub>2.5</sub> Exposure in China. <i>Remote Sensing</i> , 2017, 9, 221.	4.0	55
85	Characteristics and mixing state of S-rich particles in haze episodes in Beijing. <i>Frontiers of Environmental Science and Engineering</i> , 2016, 10, 1.	6.0	10
86	Assessment of regional air quality by a concentration-dependent Pollution Permeation Index. <i>Scientific Reports</i> , 2016, 6, 34891.	3.3	7
87	Reactive nitrogen chemistry in aerosol water as a source of sulfate during haze events in China. <i>Science Advances</i> , 2016, 2, e1601530.	10.3	820
88	Global climate forcing of aerosols embodied in international trade. <i>Nature Geoscience</i> , 2016, 9, 790-794.	12.9	79
89	Health and climate impacts of ocean-going vessels in East Asia. <i>Nature Climate Change</i> , 2016, 6, 1037-1041.	18.8	272
90	The "Parade Blue" effects of short-term emission control on aerosol chemistry. <i>Faraday Discussions</i> , 2016, 189, 317-335.	3.2	35

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91	Seasonal variations and source estimation of saccharides in atmospheric particulate matter in Beijing, China. <i>Chemosphere</i> , 2016, 150, 365-377.	8.2	86
92	Review on recent progress in observations, source identifications and countermeasures of PM2.5. <i>Environment International</i> , 2016, 86, 150-170.	10.0	262
93	Vehicular volatile organic compounds losses due to refueling and diurnal process in China: 2010–2050. <i>Journal of Environmental Sciences</i> , 2015, 33, 88-96.	6.1	38
94	Gas-to-particle conversion of atmospheric ammonia and sampling artifacts of ammonium in spring of Beijing. <i>Science China Earth Sciences</i> , 2015, 58, 345-355.	5.2	38
95	Uncertainties in observational data on organic aerosol: An annual perspective of sampling artifacts in Beijing, China. <i>Environmental Pollution</i> , 2015, 206, 113-121.	7.5	7
96	Organic nitrogen in PM2.5 in Beijing. <i>Frontiers of Environmental Science and Engineering</i> , 2015, 9, 1004-1014.	6.0	11
97	Development of database of real-world diesel vehicle emission factors for China. <i>Journal of Environmental Sciences</i> , 2015, 31, 209-220.	6.1	48
98	Vehicular air pollutant emissions in China: evaluation of past control policies and future perspectives. <i>Mitigation and Adaptation Strategies for Global Change</i> , 2015, 20, 719-733.	2.1	36
99	Revealing the Hidden Health Costs Embodied in Chinese Exports. <i>Environmental Science &amp; Technology</i> , 2015, 49, 4381-4388.	10.0	88
100	Reduced carbon emission estimates from fossil fuel combustion and cement production in China. <i>Nature</i> , 2015, 524, 335-338.	27.8	1,185
101	Source contributions and regional transport of primary particulate matter in China. <i>Environmental Pollution</i> , 2015, 207, 31-42.	7.5	142
102	Humidity plays an important role in the PM 2.5 pollution in Beijing. <i>Environmental Pollution</i> , 2015, 197, 68-75.	7.5	170
103	Transcriptomic Analyses of the Biological Effects of Airborne PM2.5 Exposure on Human Bronchial Epithelial Cells. <i>PLoS ONE</i> , 2015, 10, e0138267.	2.5	72
104	Neighborhood form and CO2 emission: evidence from 23 neighborhoods in Jinan, China. <i>Frontiers of Environmental Science and Engineering</i> , 2014, 8, 79-88.	6.0	5
105	China's international trade and air pollution in the United States. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 1736-1741.	7.1	391
106	Determinants of stagnating carbon intensity in China. <i>Nature Climate Change</i> , 2014, 4, 1017-1023.	18.8	157
107	Investigation on sampling artifacts of particle associated PAHs using ozone denuder systems. <i>Frontiers of Environmental Science and Engineering</i> , 2014, 8, 284-292.	6.0	11
108	Source of atmospheric heavy metals in winter in Foshan, China. <i>Science of the Total Environment</i> , 2014, 493, 262-270.	8.0	88

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109	The characteristics of Beijing aerosol during two distinct episodes: Impacts of biomass burning and fireworks. <i>Environmental Pollution</i> , 2014, 185, 149-157.	7.5	80
110	PM <sub>2.5</sub> emissions from light-duty gasoline vehicles in Beijing, China. <i>Science of the Total Environment</i> , 2014, 487, 521-527.	8.0	52
111	PM <sub>2.5</sub> mass, chemical composition, and light extinction before and during the 2008 Beijing Olympics. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 12,158.	3.3	32
112	Satellite remote sensing of changes in NO <sub>x</sub> emissions over China during 1996–2010. <i>Science Bulletin</i> , 2012, 57, 2857-2864.	1.7	113
113	Recent large reduction in sulfur dioxide emissions from Chinese power plants observed by the Ozone Monitoring Instrument. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	147