Ke-Bin He

List of Publications by Year
in descending order

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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	Trends in China's anthropogenic emissions since 2010 as the consequence of clean air actions. Atmospheric Chemistry and Physics, 2018, 18, 14095-14111.	4.9	1,613
2	Drivers of improved PM _{2.5} air quality in China from 2013 to 2017. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24463-24469.	7.1	1,193
3	Reduced carbon emission estimates from fossil fuel combustion and cement production in China. Nature, 2015, 524, 335-338.	27.8	1,185
4	MIX: a mosaic Asian anthropogenic emission inventory under the international collaboration framework of the MICS-Asia and HTAP. Atmospheric Chemistry and Physics, 2017, 17, 935-963.	4.9	1,069
5	Reactive nitrogen chemistry in aerosol water as a source of sulfate during haze events in China. Science Advances, 2016, 2, e1601530.	10.3	820
6	Transboundary health impacts of transported global air pollution and international trade. Nature, 2017, 543, 705-709.	27.8	737
7	Anthropogenic emission inventories in China: a review. National Science Review, 2017, 4, 834-866.	9.5	580
8	Near-real-time monitoring of global CO2 emissions reveals the effects of the COVID-19 pandemic. Nature Communications, 2020, 11, 5172.	12.8	420
9	Chinaâ€™s international trade and air pollution in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1736-1741.	7.1	391
10	Health and climate impacts of ocean-going vessels in East Asia. Nature Climate Change, 2016, 6, 1037-1041.	18.8	272
11	Review on recent progress in observations, source identifications and countermeasures of PM2.5. Environment International, 2016, 86, 150-170.	10.0	262
12	Impacts of climate change on future air quality and human health in China. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17193-17200.	7.1	219
13	Targeted emission reductions from global super-polluting power plant units. Nature Sustainability, 2018, 1, 59-68.	23.7	215
14	Tracking Air Pollution in China: Near Real-Time PM_{2.5} Retrievals from Multisource Data Fusion. Environmental Science & Technology, 2021, 55, 12106-12115.	10.0	205
15	Drivers of PM2.5 air pollution deaths in China 2002â€“2017. Nature Geoscience, 2021, 14, 645-650.	12.9	197
16	Changes in China's anthropogenic emissions and air quality during the COVID-19 pandemic in 2020. Earth System Science Data, 2021, 13, 2895-2907.	9.9	176
17	Humidity plays an important role in the PM 2.5 pollution in Beijing. Environmental Pollution, 2015, 197, 68-75.	7.5	170
18	Review of receptor-based source apportionment research of fine particulate matter and its challenges in China. Science of the Total Environment, 2017, 586, 917-929.	8.0	159

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19	Determinants of stagnating carbon intensity in China. Nature Climate Change, 2014, 4, 1017-1023.	18.8	157
20	Recent large reduction in sulfur dioxide emissions from Chinese power plants observed by the Ozone Monitoring Instrument. Geophysical Research Letters, 2010, 37, .	4.0	147
21	NO_{<i>x</i>} emission trends over Chinese cities estimated from OMI observations during 2005 to 2015. Atmospheric Chemistry and Physics, 2017, 17, 9261-9275.	4.9	146
22	Rapid improvement of PM2.5 pollution and associated health benefits in China during 2013â€“2017. Science China Earth Sciences, 2019, 62, 1847-1856.	5.2	146
23	Source contributions and regional transport of primary particulate matter in China. Environmental Pollution, 2015, 207, 31-42.	7.5	142
24	Pathways of China's PM2.5 air quality 2015â€“2060 in the context of carbon neutrality. National Science Review, 2021, 8, nwab078.	9.5	142
25	Satellite-based estimates of decline and rebound in Chinaâ€™s CO ₂ emissions during COVID-19 pandemic. Science Advances, 2020, 6, .	10.3	136
26	Air pollution characteristics and their relationship with emissions and meteorology in the Yangtze River Delta region during 2014â€“2016. Journal of Environmental Sciences, 2019, 83, 8-20.	6.1	123
27	Current Emissions and Future Mitigation Pathways of Coal-Fired Power Plants in China from 2010 to 2030. Environmental Science & Technology, 2018, 52, 12905-12914.	10.0	122
28	Changes in spatial patterns of PM2.5 pollution in China 2000â€“2018: Impact of clean air policies. Environment International, 2020, 141, 105776.	10.0	118
29	Inequality of household consumption and air pollution-related deaths in China. Nature Communications, 2019, 10, 4337.	12.8	114
30	Satellite remote sensing of changes in NO x emissions over China during 1996â€“2010. Science Bulletin, 2012, 57, 2857-2864.	1.7	113
31	Tracking PM_{2.5} and O₃ Pollution and the Related Health Burden in China 2013â€“2020. Environmental Science & Technology, 2022, 56, 6922-6932.	10.0	113
32	Important fossil source contribution to brown carbon in Beijing during winter. Scientific Reports, 2017, 7, 43182.	3.3	111
33	Impact of Chinaâ€™s Air Pollution Prevention and Control Action Plan on PM2.5 chemical composition over eastern China. Science China Earth Sciences, 2019, 62, 1872-1884.	5.2	105
34	Rapid decline in carbon monoxide emissions and export from East Asia between years 2005 and 2016. Environmental Research Letters, 2018, 13, 044007.	5.2	95
35	Brown and black carbon in Beijing aerosol: Implications for the effects of brown coating on light absorption by black carbon. Science of the Total Environment, 2017, 599-600, 1047-1055.	8.0	92
36	Characteristics of the secondary water-soluble ions in a typical autumn haze in Beijing. Environmental Pollution, 2017, 227, 296-305.	7.5	89

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37	Source of atmospheric heavy metals in winter in Foshan, China. Science of the Total Environment, 2014, 493, 262-270.	8.0	88
38	Revealing the Hidden Health Costs Embodied in Chinese Exports. Environmental Science & Technology, 2015, 49, 4381-4388.	10.0	88
39	Resolution dependence of uncertainties in gridded emission inventories: a case study in Hebei, China. Atmospheric Chemistry and Physics, 2017, 17, 921-933.	4.9	88
40	Impacts of shipping emissions on PM_{2.5} pollution in China. Atmospheric Chemistry and Physics, 2018, 18, 15811-15824.	4.9	87
41	Seasonal variations and source estimation of saccharides in atmospheric particulate matter in Beijing, China. Chemosphere, 2016, 150, 365-377.	8.2	86
42	The characteristics of Beijing aerosol during two distinct episodes: Impacts of biomass burning and fireworks. Environmental Pollution, 2014, 185, 149-157.	7.5	80
43	Global climate forcing of aerosols embodied in international trade. Nature Geoscience, 2016, 9, 790-794.	12.9	79
44	Emissions and health impacts from global shipping embodied in USâ€“China bilateral trade. Nature Sustainability, 2019, 2, 1027-1033.	23.7	78
45	Underreported coal in statistics: A survey-based solid fuel consumption and emission inventory for the rural residential sector in China. Applied Energy, 2019, 235, 1169-1182.	10.1	77
46	Transcriptomic Analyses of the Biological Effects of Airborne PM2.5 Exposure on Human Bronchial Epithelial Cells. PLoS ONE, 2015, 10, e0138267.	2.5	72
47	Development of PM2.5 and NO2 models in a LUR framework incorporating satellite remote sensing and air quality model data in Pearl River Delta region, China. Environmental Pollution, 2017, 226, 143-153.	7.5	70
48	Combined solar power and storage as cost-competitive and grid-compatible supply for Chinaâ€™s future carbon-neutral electricity system. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	70
49	Typical winter haze pollution in Zibo, an industrial city in China: Characteristics, secondary formation, and regional contribution. Environmental Pollution, 2017, 229, 339-349.	7.5	64
50	Impact of spatial proxies on the representation of bottom-up emission inventories: A satellite-based analysis. Atmospheric Chemistry and Physics, 2017, 17, 4131-4145.	4.9	61
51	Fusing Observational, Satellite Remote Sensing and Air Quality Model Simulated Data to Estimate Spatiotemporal Variations of PM2.5 Exposure in China. Remote Sensing, 2017, 9, 221.	4.0	55
52	PM2.5 emissions from light-duty gasoline vehicles in Beijing, China. Science of the Total Environment, 2014, 487, 521-527.	8.0	52
53	Comparison and evaluation of anthropogenic emissions of SO₂ and NO_{<i>x</i>} over China. Atmospheric Chemistry and Physics, 2018, 18, 3433-3456.	4.9	51
54	A psychophysical measurement on subjective well-being and air pollution. Nature Communications, 2019, 10, 5473.	12.8	50

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55	Health co-benefits of climate change mitigation depend on strategic power plant retirements and pollution controls. Nature Climate Change, 2021, 11, 1077-1083.	18.8	49
56	Development of database of real-world diesel vehicle emission factors for China. Journal of Environmental Sciences, 2015, 31, 209-220.	6.1	48
57	Energy and emission pathways towards PM2.5 air quality attainment in the Beijing-Tianjin-Hebei region by 2030. Science of the Total Environment, 2019, 692, 361-370.	8.0	45
58	Trade-linked shipping CO2 emissions. Nature Climate Change, 2021, 11, 945-951.	18.8	43
59	Vehicular volatile organic compounds losses due to refueling and diurnal process in China: 2010â€“2050. Journal of Environmental Sciences, 2015, 33, 88-96.	6.1	38
60	Gas-to-particle conversion of atmospheric ammonia and sampling artifacts of ammonium in spring of Beijing. Science China Earth Sciences, 2015, 58, 345-355.	5.2	38
61	Sulfateâ€“nitrateâ€“ammonium as double salts in PM2.5: Direct observations and implications for haze events. Science of the Total Environment, 2019, 647, 204-209.	8.0	38
62	Parameterization of heterogeneous reaction of SO2 to sulfate on dust with coexistence of NH3 and NO2 under different humidity conditions. Atmospheric Environment, 2019, 208, 133-140.	4.1	37
63	Vehicular air pollutant emissions in China: evaluation of past control policies and future perspectives. Mitigation and Adaptation Strategies for Global Change, 2015, 20, 719-733.	2.1	36
64	Source apportionment of Pb-containing particles in Beijing during January 2013. Environmental Pollution, 2017, 226, 30-40.	7.5	36
65	The â€œParade Blueâ€ effects of short-term emission control on aerosol chemistry. Faraday Discussions, 2016, 189, 317-335.	3.2	35
66	Strong biomass burning contribution to ambient aerosol during heating season in a megacity in Northeast China: Effectiveness of agricultural fire bans?. Science of the Total Environment, 2021, 754, 142144.	8.0	33
67	PM_{2.5} mass, chemical composition, and light extinction before and during the 2008 Beijing Olympics. Journal of Geophysical Research D: Atmospheres, 2013, 118, 12,158.	3.3	32
68	Weakening aerosol direct radiative effects mitigate climate penalty on Chinese air quality. Nature Climate Change, 2020, 10, 845-850.	18.8	32
69	Infrastructure Shapes Differences in the Carbon Intensities of Chinese Cities. Environmental Science & Technology, 2018, 52, 6032-6041.	10.0	30
70	Characteristics and formation mechanisms of winter haze in Changzhou, a highly polluted industrial city in the Yangtze River Delta, China. Environmental Pollution, 2019, 253, 377-383.	7.5	30
71	Stronger secondary pollution processes despite decrease in gaseous precursors: A comparative analysis of summer 2020 and 2019 in Beijing. Environmental Pollution, 2021, 279, 116923.	7.5	26
72	Mixed and intensive haze pollution during the transition period between autumn and winter in Beijing, China. Science of the Total Environment, 2020, 711, 134745.	8.0	25

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73	The long-term trend of PM2.5-related mortality in China: The effects of source data selection. Chemosphere, 2021, 263, 127894.	8.2	25
74	Characteristics and sources of non-methane VOCs and their roles in SOA formation during autumn in a central Chinese city. Science of the Total Environment, 2021, 782, 146802.	8.0	25
75	Sizing of Ambient Particles From a Singleâ€Particle Soot Photometer Measurement to Retrieve Mixing State of Black Carbon at a Regional Site of the North China Plain. Journal of Geophysical Research D: Atmospheres, 2018, 123, 12,778.	3.3	24
76	Case study of spring haze in Beijing: Characteristics, formation processes, secondary transition, and regional transportation. Environmental Pollution, 2018, 242, 544-554.	7.5	22
77	How aging process changes characteristics of vehicle emissions? A review. Critical Reviews in Environmental Science and Technology, 2020, 50, 1796-1828.	12.8	20
78	Efficient data preprocessing, episode classification, and source apportionment of particle number concentrations. Science of the Total Environment, 2020, 744, 140923.	8.0	20
79	Investigating the effect of sources and meteorological conditions on wintertime haze formation in Northeast China: A case study in Harbin. Science of the Total Environment, 2021, 801, 149631.	8.0	20
80	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. Environmental Pollution, 2020, 266, 115078.	7.5	19
81	Simulation and synthesis of Fe₃O₄â€“Au satellite nanostructures for optimised surface-enhanced Raman scattering. Journal of Materials Chemistry C, 2018, 6, 2252-2257.	5.5	18
82	Characteristics and sources of water-soluble organic aerosol in a heavily polluted environment in Northern China. Science of the Total Environment, 2021, 758, 143970.	8.0	18
83	Tâ€Hg²⁺â€Tâ€based satellite structured surface enhanced Raman scattering sensor for Hg²⁺ detection. Journal of Raman Spectroscopy, 2018, 49, 1575-1580.	2.5	17
84	New open burning policy reshaped the aerosol characteristics of agricultural fire episodes in Northeast China. Science of the Total Environment, 2022, 810, 152272.	8.0	17
85	Uncertainties in thermal-optical measurements of black carbon: Insights from source and ambient samples. Science of the Total Environment, 2019, 656, 239-249.	8.0	16
86	Physicochemical analysis of individual atmospheric fine particles based on effective surface-enhanced Raman spectroscopy. Journal of Environmental Sciences, 2019, 75, 388-395.	6.1	15
87	Effect of N fertilizer types on N2O and NO emissions under drip fertigation from an agricultural field in the North China Plain. Science of the Total Environment, 2020, 715, 136903.	8.0	15
88	Model vs. observation discrepancy in aerosol characteristics during a half-year long campaign in Northeast China: The role of biomass burning. Environmental Pollution, 2021, 269, 116167.	7.5	15
89	Comparison of Current and Future PM_{2.5} Air Quality in China Under CMIP6 and DPEC Emission Scenarios. Geophysical Research Letters, 2021, 48, e2021GL093197.	4.0	15
90	Analysis of the origins of black carbon and carbon monoxide transported to Beijing, Tianjin, and Hebei in China. Science of the Total Environment, 2019, 653, 1364-1376.	8.0	14

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91	Reduction of Global Life Expectancy Driven by Trade-Related Transboundary Air Pollution. Environmental Science and Technology Letters, 2022, 9, 212-218.	8.7	13
92	Corrigendum to Anthropogenic emission inventories in China: a review. National Science Review, 2018, 5, 603-603.	9.5	12
93	Secondary inorganic aerosol during heating season in a megacity in Northeast China: Evidence for heterogeneous chemistry in severe cold climate region. Chemosphere, 2020, 261, 127769.	8.2	12
94	Investigation on sampling artifacts of particle associated PAHs using ozone denuder systems. Frontiers of Environmental Science and Engineering, 2014, 8, 284-292.	6.0	11
95	Organic nitrogen in PM2.5 in Beijing. Frontiers of Environmental Science and Engineering, 2015, 9, 1004-1014.	6.0	11
96	Characteristics and mixing state of S-rich particles in haze episodes in Beijing. Frontiers of Environmental Science and Engineering, 2016, 10, 1.	6.0	10
97	Formation of secondary inorganic aerosol in a frigid urban atmosphere. Frontiers of Environmental Science and Engineering, 2021, 16, 1.	6.0	10
98	Variation characteristics of fine particulate matter and its components in diesel vehicle emission plumes. Journal of Environmental Sciences, 2021, 107, 138-149.	6.1	10
99	Unbalanced emission reductions and adverse meteorological conditions facilitate the formation of secondary pollutants during the COVID-19 lockdown in Beijing. Science of the Total Environment, 2022, 838, 155970.	8.0	10
100	Source apportionment of atmospheric particle number concentrations with wide size range by nonnegative matrix factorization (NMF). Environmental Pollution, 2021, 289, 117846.	7.5	8
101	Uncertainties in observational data on organic aerosol: An annual perspective of sampling artifacts in Beijing, China. Environmental Pollution, 2015, 206, 113-121.	7.5	7
102	Assessment of regional air quality by a concentration-dependent Pollution Permeation Index. Scientific Reports, 2016, 6, 34891.	3.3	7
103	Haze formation indicator based on observation of critical carbonaceous species in the atmosphere. Environmental Pollution, 2019, 244, 84-92.	7.5	7
104	Surface-enhanced Raman scattering for mixing state characterization of individual fine particles during a haze episode in Beijing, China. Journal of Environmental Sciences, 2021, 104, 216-224.	6.1	6
105	Primary nature of brown carbon absorption in a frigid atmosphere with strong haze chemistry. Environmental Research, 2022, 204, 112324.	7.5	6
106	Neighborhood form and CO2 emission: evidence from 23 neighborhoods in Jinan, China. Frontiers of Environmental Science and Engineering, 2014, 8, 79-88.	6.0	5
107	The characteristics of carbonaceous aerosol in Beijing during a season of transition. Chemosphere, 2018, 212, 1010-1019.	8.2	5
108	Biotoxicity of water-soluble species in PM2.5 using Chlorella. Environmental Pollution, 2019, 250, 914-921.	7.5	5

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109	Characteristics and seasonal variations of high-molecular-weight oligomers in urban haze aerosols. Science of the Total Environment, 2020, 746, 141209.	8.0	5
110	Characterization of haze pollution in Zibo, China: Temporal series, secondary species formation, and PMx distribution. Chemosphere, 2022, 286, 131807.	8.2	3
111	Characteristics and the Potential Influence of Fugitive PM10 Emissions from Enclosed Storage Yards in Iron and Steel Plant. Atmosphere, 2020, 11, 833.	2.3	2
112	Exploring chemical changes of the haze pollution during a recent round of COVID-19 lockdown in a megacity in Northeast China. Chemosphere, 2022, 292, 133500.	8.2	2
113	Constructing a Raman and surface-enhanced Raman scattering spectral reference library for fine-particle analysis. Journal of Environmental Sciences, 2022, 118, 1-13.	6.1	2