Dantong Liu

List of Publications by Year
in descending order

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132	6,059	70961 41	91712 69
papers	citations	h-index	g-index

231	231	231	5053
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Black-carbon absorption enhancement in the atmosphere determined by particle mixingÂstate. Nature Geoscience, 2017, 10, 184-188.	5.4	303
2	Enhanced light absorption by mixed source black and brown carbon particles in UK winter. Nature Communications, 2015, 6, 8435.	5.8	266
3	Exploiting simultaneous observational constraints on mass and absorption to estimate the global direct radiative forcing of black carbon and brown carbon. Atmospheric Chemistry and Physics, 2014, 14, 10989-11010.	1.9	213
4	Airborne measurements of the spatial distribution of aerosol chemical composition across Europe and evolution of the organic fraction. Atmospheric Chemistry and Physics, 2010, 10, 4065-4083.	1.9	184
5	Significant changes in the chemical compositions and sources of PM2.5 in Wuhan since the city lockdown as COVID-19. Science of the Total Environment, 2020, 739, 140000.	3.9	173
6	Size distribution, mixing state and source apportionment of black carbon aerosol in London during wintertime. Atmospheric Chemistry and Physics, 2014, 14, 10061-10084.	1.9	171
7	Fast sulfate formation from oxidation of SO2 by NO2 and HONO observed in Beijing haze. Nature Communications, 2020, 11, 2844.	5.8	161
8	Black carbon measurements in the boundary layer over western and northern Europe. Atmospheric Chemistry and Physics, 2010, 10, 9393-9414.	1.9	155
9	Single Particle Soot Photometer intercomparison at the AIDA chamber. Atmospheric Measurement Techniques, 2012, 5, 3077-3097.	1.2	152
10	Ambient black carbon particle hygroscopic properties controlled by mixing state and composition. Atmospheric Chemistry and Physics, 2013, 13, 2015-2029.	1.9	152
11	The impacts of firework burning at the Chinese Spring Festival on air quality: insights of tracers, source evolution and aging processes. Atmospheric Chemistry and Physics, 2015, 15, 2167-2184.	1.9	147
12	Monitoring of volatile organic compounds (VOCs) from an oil and gas station in northwest China for 1 year. Atmospheric Chemistry and Physics, 2018, 18, 4567-4595.	1.9	135
13	Insights into characteristics, sources, and evolution of submicron aerosols during harvest seasons in the Yangtze River delta region, China. Atmospheric Chemistry and Physics, 2015, 15, 1331-1349.	1.9	116
14	Compositions, sources and health risks of ambient volatile organic compounds (VOCs) at a petrochemical industrial park along the Yangtze River. Science of the Total Environment, 2020, 703, 135505.	3.9	111
15	Single particle characterization of black carbon aerosols at a tropospheric alpine site in Switzerland. Atmospheric Chemistry and Physics, 2010, 10, 7389-7407.	1.9	109
16	Iodine observed in new particle formation events in the Arctic atmosphere during ACCACIA. Atmospheric Chemistry and Physics, 2015, 15, 5599-5609.	1.9	102
17	Assessment of the sensitivity of core / shell parameters derived using the single-particle soot photometer to density and refractive index. Atmospheric Measurement Techniques, 2015, 8, 1701-1718.	1.2	98
18	The mass and number size distributions of black carbon aerosol over Europe. Atmospheric Chemistry and Physics, 2013, 13, 4917-4939.	1.9	96

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19	Contrasting physical properties of black carbon in urban Beijing between winter and summer. Atmospheric Chemistry and Physics, 2019, 19, 6749-6769.	1.9	89
20	Characterization of black carbon-containing fine particles in Beijing during wintertime. Atmospheric Chemistry and Physics, 2019, 19, 447-458.	1.9	84
21	Light Absorption Enhancement of Black Carbon Aerosol Constrained by Particle Morphology. Environmental Science & Technology, 2018, 52, 6912-6919.	4.6	81
22	Coarse-mode mineral dust size distributions, composition and optical properties from AER-D aircraft measurements over the tropical eastern Atlantic. Atmospheric Chemistry and Physics, 2018, 18, 17225-17257.	1.9	80
23	The effect of complex black carbon microphysics on the determination of the optical properties of brown carbon. Geophysical Research Letters, 2015, 42, 613-619.	1.5	77
24	Lifecycle of light-absorbing carbonaceous aerosols in the atmosphere. Npj Climate and Atmospheric Science, 2020, 3, .	2.6	77
25	Aqueous production of secondary organic aerosol from fossil-fuel emissions in winter Beijing haze. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	75
26	Vertical characterization of aerosol optical properties and brown carbon in winter in urban Beijing, China. Atmospheric Chemistry and Physics, 2019, 19, 165-179.	1.9	73
27	Evidence of major secondary organic aerosol contribution to lensing effect black carbon absorption enhancement. Npj Climate and Atmospheric Science, 2018, 1, .	2.6	70
28	Estimating the open biomass burning emissions in central and eastern China from 2003 to 2015 based on satellite observation. Atmospheric Chemistry and Physics, 2018, 18, 11623-11646.	1.9	68
29	Summertime Primary and Secondary Contributions to Southern Ocean Cloud Condensation Nuclei. Scientific Reports, 2018, 8, 13844.	1.6	63
30	The impacts of pollution control measures on PM2.5 reduction: Insights of chemical composition, source variation and health risk. Atmospheric Environment, 2019, 197, 103-117.	1.9	63
31	The moving of high emission for biomass burning in China: View from multi-year emission estimation and human-driven forces. Environment International, 2020, 142, 105812.	4.8	62
32	Substantial reductions in ambient PAHs pollution and lives saved as a co-benefit of effective long-term PM2.5 pollution controls. Environment International, 2018, 114, 266-279.	4.8	61
33	Studies of propane flame soot acting as heterogeneous ice nuclei in conjunction with single particle soot photometer measurements. Atmospheric Chemistry and Physics, 2011, 11, 9549-9561.	1.9	58
34	Intra-regional transport of black carbon between the south edge of the North China Plain and central China during winter haze episodes. Atmospheric Chemistry and Physics, 2019, 19, 4499-4516.	1.9	58
35	Variation in Concentration and Sources of Black Carbon in a Megacity of China During the COVIDâ€19 Pandemic. Geophysical Research Letters, 2020, 47, e2020GL090444.	1.5	56
36	Exploring wintertime regional haze in northeast China: role of coal and biomass burning. Atmospheric Chemistry and Physics, 2020, 20, 5355-5372.	1.9	55

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37	The Global Aerosol Synthesis and Science Project (GASSP): Measurements and Modeling to Reduce Uncertainty. Bulletin of the American Meteorological Society, 2017, 98, 1857-1877.	1.7	52
38	Evaluation of groundâ€based black carbon measurements by filterâ€based photometers at two Arctic sites. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3544-3572.	1.2	51
39	Light absorption enhancement of black carbon in urban Beijing in summer. Atmospheric Environment, 2019, 213, 499-504.	1.9	49
40	The importance of Asia as a source of black carbon to the European Arctic during springtime 2013. Atmospheric Chemistry and Physics, 2015, 15, 11537-11555.	1.9	48
41	Size-Related Physical Properties of Black Carbon in the Lower Atmosphere over Beijing and Europe. Environmental Science & Technology, 2019, 53, 11112-11121.	4.6	45
42	Impact of viaduct on flow reversion and pollutant dispersion in 2D urban street canyon with different roof shapes - Numerical simulation and wind tunnel experiment. Science of the Total Environment, 2019, 671, 976-991.	3.9	42
43	Vertical and horizontal distribution of submicron aerosol chemical composition and physical characteristics across northern India during pre-monsoon and monsoon seasons. Atmospheric Chemistry and Physics, 2019, 19, 5615-5634.	1.9	41
44	First High-Resolution Emission Inventory of Levoglucosan for Biomass Burning and Non-Biomass Burning Sources in China. Environmental Science & Technology, 2021, 55, 1497-1507.	4.6	40
45	Limited formation of isoprene epoxydiolsâ€derived secondary organic aerosol under NO_xâ€rich environments in Eastern China. Geophysical Research Letters, 2017, 44, 2035-2043.	1.5	39
46	Aircraft and ground measurements of dust aerosols over the west African coast in summer 2015 during ICE-D and AER-D. Atmospheric Chemistry and Physics, 2018, 18, 3817-3838.	1.9	38
47	Vertical characteristics of black carbon physical properties over Beijing region in warm and cold seasons. Atmospheric Environment, 2019, 213, 296-310.	1.9	38
48	Carbonaceous aerosols contributed by traffic and solid fuel burning at a polluted rural site in Northwestern England. Atmospheric Chemistry and Physics, 2011, 11, 1603-1619.	1.9	37
49	Mixing characteristics of refractory black carbon aerosols at an urban site in Beijing. Atmospheric Chemistry and Physics, 2020, 20, 5771-5785.	1.9	37
50	Vertical evolution of black carbon characteristics and heating rate during a haze event in Beijing winter. Science of the Total Environment, 2020, 709, 136251.	3.9	36
51	Seasonal contrast in size distributions and mixing state of black carbon and its association with PM_{1.0} chemical composition from the eastern coast of India. Atmospheric Chemistry and Physics, 2020, 20, 3965-3985.	1.9	36
52	Photochemical impacts of haze pollution in an urban environment. Atmospheric Chemistry and Physics, 2019, 19, 9699-9714.	1.9	32
53	Observed microphysical changes in Arctic mixed-phase clouds when transitioning from sea ice to open ocean. Atmospheric Chemistry and Physics, 2016, 16, 13945-13967.	1.9	31
54	Nonlinear Enhancement of Radiative Absorption by Black Carbon in Response to Particle Mixing Structure. Geophysical Research Letters, 2021, 48, .	1.5	30

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55	A study of elevated pollution layer over the North China Plain using aircraft measurements. Atmospheric Environment, 2018, 190, 188-194.	1.9	29
56	Observed Interactions Between Black Carbon and Hydrometeor During Wet Scavenging in Mixedâ€Phase Clouds. Geophysical Research Letters, 2019, 46, 8453-8463.	1.5	29
57	A 5.5-year observations of black carbon aerosol at a megacity in Central China: Levels, sources, and variation trends. Atmospheric Environment, 2020, 232, 117581.	1.9	29
58	Emission and simulation of primary fine and submicron particles and water-soluble ions from domestic coal combustion in China. Atmospheric Environment, 2020, 224, 117308.	1.9	29
59	Temperature dependence of source profiles for volatile organic compounds from typical volatile emission sources. Science of the Total Environment, 2021, 751, 141741.	3.9	28
60	Characterization of Size-Resolved Hygroscopicity of Black Carbon-Containing Particle in Urban Environment. Environmental Science & Technology, 2019, 53, 14212-14221.	4.6	27
61	Vertical characteristics of aerosol hygroscopicity and impacts on optical properties over the North China Plain during winter. Atmospheric Chemistry and Physics, 2020, 20, 3931-3944.	1.9	27
62	Co-benefits of reducing PM2.5 and improving visibility by COVID-19 lockdown in Wuhan. Npj Climate and Atmospheric Science, 2021, 4, .	2.6	27
63	The evolution of an aerosol event observed from aircraft in Beijing: An insight into regional pollution transport. Atmospheric Environment, 2019, 206, 11-20.	1.9	26
64	Characterising mass-resolved mixing state of black carbon in Beijing using a morphology-independent measurement method. Atmospheric Chemistry and Physics, 2020, 20, 3645-3661.	1.9	26
65	Transformation and ageing of biomass burning carbonaceous aerosol over tropical South America from aircraft in situ measurements during SAMBBA. Atmospheric Chemistry and Physics, 2020, 20, 5309-5326.	1.9	26
66	In situ vertical characteristics of optical properties and heating rates of aerosol over Beijing. Atmospheric Chemistry and Physics, 2020, 20, 2603-2622.	1.9	26
67	Aerosol scattering and absorption during the EUCAARI-LONGREX flights of the Facility for Airborne Atmospheric Measurements (FAAM) BAe-146: can measurements and models agree?. Atmospheric Chemistry and Physics, 2012, 12, 7251-7267.	1.9	24
68	In situ constraints on the vertical distribution of global aerosol. Atmospheric Chemistry and Physics, 2019, 19, 11765-11790.	1.9	24
69	Evolution of Aerosol Optical Properties from Wood Smoke in Real Atmosphere Influenced by Burning Phase and Solar Radiation. Environmental Science & Technology, 2021, 55, 5677-5688.	4.6	22
70	Robust observational constraint of uncertain aerosol processes and emissions in a climate model and the effect on aerosol radiative forcing. Atmospheric Chemistry and Physics, 2020, 20, 9491-9524.	1.9	22
71	Highly controlled, reproducible measurements of aerosol emissions from combustion of aÂcommon African biofuel source. Atmospheric Chemistry and Physics, 2018, 18, 385-403.	1.9	21
72	Size-segregated carbonaceous aerosols emission from typical vehicles and potential depositions in the human respiratory system. Environmental Pollution, 2020, 264, 114705.	3.7	21

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73	Sub-type source profiles of fine particles for fugitive dust and accumulative health risks of heavy metals: a case study in a fast-developing city of China. Environmental Science and Pollution Research, 2020, 27, 16554-16573.	2.7	21
74	Measurements of the Diversity of Shape and Mixing State for Ambient Black Carbon Particles. Geophysical Research Letters, 2021, 48, e2021GL094522.	1.5	21
75	Ammonium Chloride Associated Aerosol Liquid Water Enhances Haze in Delhi, India. Environmental Science & Technology, 2022, 56, 7163-7173.	4.6	21
76	Persistent residential burning-related primary organic particles during wintertime hazes in North China: insights into their aging and optical changes. Atmospheric Chemistry and Physics, 2021, 21, 2251-2265.	1.9	20
77	Effectiveness of emission control in reducing PM_{2.5} pollution in central China during winter haze episodes under various potential synoptic controls. Atmospheric Chemistry and Physics, 2021, 21, 3143-3162.	1.9	20
78	Near-field emission profiling of tropical forest and Cerrado fires in Brazil during SAMBBA 2012. Atmospheric Chemistry and Physics, 2018, 18, 5619-5638.	1.9	19
79	The vertical distribution of biomass burning pollution over tropical South America from aircraft in situ measurements during SAMBBA. Atmospheric Chemistry and Physics, 2019, 19, 5771-5790.	1.9	19
80	Efficient Vertical Transport of Black Carbon in the Planetary Boundary Layer. Geophysical Research Letters, 2020, 47, e2020GL088858.	1.5	19
81	Estimating radiative impacts of black carbon associated with mixing state in the lower atmosphere over the northern North China Plain. Chemosphere, 2020, 252, 126455.	4.2	19
82	Characterization of submicron organic particles in Beijing during summertime: comparison between SP-AMS and HR-AMS. Atmospheric Chemistry and Physics, 2020, 20, 14091-14102.	1.9	19
83	Mixing State of Carbonaceous Aerosols of Primary Emissions from â€œImprovedâ€•African Cookstoves. Environmental Science & Technology, 2018, 52, 10134-10143.	4.6	18
84	Mineralogy and mixing state of north African mineral dust by online single-particle mass spectrometry. Atmospheric Chemistry and Physics, 2019, 19, 2259-2281.	1.9	18
85	Seasonal size distribution and mixing state of black carbon aerosols in a polluted urban environment of the Yangtze River Delta region, China. Science of the Total Environment, 2019, 654, 300-310.	3.9	18
86	Black Carbon Emission and Wet Scavenging From Surface to the Top of Boundary Layer Over Beijing Region. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033096.	1.2	18
87	Characterizing the Particle Composition and Cloud Condensation Nuclei from Shipping Emission in Western Europe. Environmental Science & Technology, 2020, 54, 15604-15612.	4.6	18
88	Effect of source variation on the size and mixing state of black carbon aerosol in urban Beijing from 2013 to 2019: Implication on light absorption. Environmental Pollution, 2021, 270, 116089.	3.7	17
89	Fine particles from village air in northern China in winter: Large contribution of primary organic aerosols from residential solid fuel burning. Environmental Pollution, 2021, 272, 116420.	3.7	17
90	Mixing state of refractory black carbon aerosol in the South Asian outflow over the northern Indian Ocean during winter. Atmospheric Chemistry and Physics, 2021, 21, 9173-9199.	1.9	16

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91	Liquid-liquid phase separation reduces radiative absorption by aged black carbon aerosols. Communications Earth & Environment, 2022, 3, .	2.6	16
92	Black carbon physical and optical properties across northern India during pre-monsoon and monsoon seasons. Atmospheric Chemistry and Physics, 2019, 19, 13079-13096.	1.9	15
93	A modeling study of PM2.5 transboundary transport during a winter severe haze episode in southern Yangtze River Delta, China. Atmospheric Research, 2021, 248, 105159.	1.8	15
94	Optical and hygroscopic properties of black carbon influenced by particle microphysics at the top of the anthropogenically polluted boundary layer. Atmospheric Chemistry and Physics, 2021, 21, 681-694.	1.9	15
95	Enhanced heating rate of black carbon above the planetary boundary layer over megacities in summertime. Environmental Research Letters, 2019, 14, 124003.	2.2	14
96	Small ice particles at slightly supercooled temperatures in tropical maritime convection. Atmospheric Chemistry and Physics, 2020, 20, 3895-3904.	1.9	14
97	Ambient marine shipping emissions determined by vessel operation mode along the East China Sea. Science of the Total Environment, 2021, 769, 144713.	3.9	14
98	On the local anthropogenic source diversities and transboundary transport for urban agglomeration ozone mitigation. Atmospheric Environment, 2021, 245, 118005.	1.9	13
99	Using highly time-resolved online mass spectrometry to examine biogenic and anthropogenic contributions to organic aerosol in Beijing. Faraday Discussions, 2021, 226, 382-408.	1.6	13
100	Emission and spatialized health risks for trace elements from domestic coal burning in China. Environment International, 2022, 158, 107001.	4.8	13
101	Subway construction activity influence on polycyclic aromatic hydrocarbons in fine particles: Comparison with a background mountainous site. Atmospheric Research, 2015, 161-162, 82-92.	1.8	12
102	Initial Cost Barrier of Ammonia Control in Central China. Geophysical Research Letters, 2019, 46, 14175-14184.	1.5	12
103	Effects of biomass burning and photochemical oxidation on the black carbon mixing state and light absorption in summer season. Atmospheric Environment, 2021, 248, 118230.	1.9	12
104	Neglected biomass burning emissions of air pollutants in China-views from the corncob burning test, emission estimation, and simulations. Atmospheric Environment, 2022, 278, 119082.	1.9	12
105	Real-time emission and stage-dependent emission factors/ratios of specific volatile organic compounds from residential biomass combustion in China. Atmospheric Research, 2021, 248, 105189.	1.8	11
106	Source profiles and emission factors of organic and inorganic species in fine particles emitted from the ultra-low emission power plant and typical industries. Science of the Total Environment, 2021, 789, 147966.	3.9	11
107	Closure Investigation on Cloud Condensation Nuclei Ability of Processed Anthropogenic Aerosols. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032680.	1.2	10
108	Recent Progress in Impacts of Mixing State on Optical Properties of Black Carbon Aerosol. Current Pollution Reports, 2020, 6, 380-398.	3.1	9

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109	Physical and chemical properties of black carbon and organic matter from different combustion and photochemical sources using aerodynamic aerosol classification. Atmospheric Chemistry and Physics, 2021, 21, 16161-16182.	1.9	9
110	Identifying the Fraction of Coreâ€“Shell Black Carbon Particles in a Complex Mixture to Constrain the Absorption Enhancement by Coatings. Environmental Science and Technology Letters, 2022, 9, 272-279.	3.9	9
111	Aerodynamic size-resolved composition and cloud condensation nuclei properties of aerosols in a Beijing suburban region. Atmospheric Chemistry and Physics, 2022, 22, 4375-4391.	1.9	9
112	Evolution of Organic Aerosol From Wood Smoke Influenced by Burning Phase and Solar Radiation. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034534.	1.2	8
113	Direct Quantification of Droplet Activation of Ambient Black Carbon Under Water Supersaturation. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034649.	1.2	8
114	Neural Network Classification of Ice-Crystal Images Observed by an Airborne Cloud Imaging Probe. Atmosphere - Ocean, 2020, 58, 303-315.	0.6	7
115	Direct measurements of black carbon fluxes in central Beijing using the eddy covariance method. Atmospheric Chemistry and Physics, 2021, 21, 147-162.	1.9	6
116	A method to dynamically constrain black carbon aerosol sources with online monitored potassium. Npj Climate and Atmospheric Science, 2021, 4, .	2.6	6
117	Reduced volatility of aerosols from surface emissions to the top of the planetary boundary layer. Atmospheric Chemistry and Physics, 2021, 21, 14749-14760.	1.9	6
118	Hourly emission estimation of black carbon and brown carbon absorption from domestic coal burning in China. Science of the Total Environment, 2022, 814, 151950.	3.9	6
119	The toxicity emissions and spatialized health risks of heavy metals in PM2.5 from biomass fuels burning. Atmospheric Environment, 2022, 284, 119178.	1.9	6
120	Evolution of source attributed organic aerosols and gases in a megacity of central China. Atmospheric Chemistry and Physics, 2022, 22, 6937-6951.	1.9	6
121	Vertical profile of particle hygroscopicity and CCN effectiveness during winter in Beijing: insight into the hygroscopicity transition threshold of black carbon. Faraday Discussions, 2021, 226, 239-254.	1.6	5
122	The roles of volatile organic compound deposition and oxidation mechanisms in determining secondary organic aerosol production: aÂglobal perspective using the UKCA chemistryâ€“climate model (vn8.4). Geoscientific Model Development, 2019, 12, 2539-2569.	1.3	4
123	Optical properties closure and sources of size-resolved aerosol in Nanjing around summer harvest period. Atmospheric Environment, 2021, 244, 118017.	1.9	4
124	Global distribution of maritime low clouds with an emphasis on different aerosol types and meteorological parameters inferred from multi-satellite and reanalysis data during 2007â€“2016. Atmospheric Environment, 2021, 246, 118082.	1.9	4
125	Background levels of black carbon over remote marine locations. Atmospheric Research, 2022, 271, 106119.	1.8	4
126	Impact of Dilution Ratio and Burning Conditions on the Number Size Distribution and Size-Dependent Mixing State of Primary Particles from Domestic Solid Fuel Burning. Environmental Science and Technology Letters, 2022, 9, 611-617.	3.9	3

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127	Characteristics and Sources of Black Carbon Aerosol in a Mega-City in the Western Yangtze River Delta, China. Atmosphere, 2020, 11, 315.	1.0	2
128	Characterizing Black Carbon and Gaseous Pollutants on the Yangtze River Across Eastern China Continent. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033488.	1.2	1
129	Contrasting resistance of polycyclic aromatic hydrocarbons to atmospheric oxidation influenced by burning conditions. Environmental Research, 2022, 211, 113107.	3.7	1
130	Corrigendum to "Aerosol scattering and absorption during the EUCAARI-LONGREX flights of the Facility for Airborne Atmospheric Measurements (FAAM) BAe-146: can measurements and models agree?" published in Atmos. Chem. Phys., 12, 7251â€“7267, 2012. Atmospheric Chemistry and Physics, 2012, 12, 7429-7429.	1.9	0
131	Optimized intelligent algorithm for classifying cloud particles recorded by a Cloud Particle Imager. Journal of Atmospheric and Oceanic Technology, 2021, , .	0.5	0
132	Assessing the influence of environmental conditions on secondary organic aerosol formation from a typical biomass burning compound. Journal of Environmental Sciences, 2022, 114, 136-148.	3.2	0