Maosheng Yao

List of Publications by Year
in descending order

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Version: 2024-02-01

101 papers	5,381 citations	101543 36 h-index	91884 69 g-index
108 all docs	108 docs citations	108 times ranked	6513 citing authors

#	Article	IF	Citations
1	How can airborne transmission of COVID-19 indoors be minimised?. Environment International, 2020, 142, 105832.	10.0	933
2	Use of zero-valent iron nanoparticles in inactivating microbes. Water Research, 2009, 43, 5243-5251.	11.3	289
3	Global Survey of Antibiotic Resistance Genes in Air. Environmental Science & Technology, 2018, 52, 10975-10984.	10.0	227
4	Coronavirus Disease 2019 Patients in Earlier Stages Exhaled Millions of Severe Acute Respiratory Syndrome Coronavirus 2 Per Hour. Clinical Infectious Diseases, 2021, 72, e652-e654.	5.8	211
5	A paradigm shift to combat indoor respiratory infection. Science, 2021, 372, 689-691.	12.6	192
6	Rapid magnetic removal of aqueous heavy metals and their relevant mechanisms using nanoscale zero valent iron (nZVI) particles. Water Research, 2013, 47, 4050-4058.	11.3	186
7	On airborne transmission and control of SARS-Cov-2. Science of the Total Environment, 2020, 731, 139178.	8.0	144
8	Bioaerosol emissions and detection of airborne antibiotic resistance genes from a wastewater treatment plant. Atmospheric Environment, 2016, 124, 404-412.	4.1	137
9	Rapid Flu Diagnosis Using Silicon Nanowire Sensor. Nano Letters, 2012, 12, 3722-3730.	9.1	135
10	Bioaerosol Science, Technology, and Engineering: Past, Present, and Future. Aerosol Science and Technology, 2011, 45, 1337-1349.	3.1	125
11	Ambient bioaerosol particle dynamics observed during haze and sunny days in Beijing. Science of the Total Environment, 2016, 550, 751-759.	8.0	123
12	MS2 Virus Inactivation by Atmospheric-Pressure Cold Plasma Using Different Gas Carriers and Power Levels. Applied and Environmental Microbiology, 2015, 81, 996-1002.	3.1	106
13	Rapid Inactivation of Biological Species in the Air using Atmospheric Pressure Nonthermal Plasma. Environmental Science & Technology, 2012, 46, 3360-3368.	10.0	104
14	Investigation of transition metal ion doping behaviors on TiO2 nanoparticles. Journal of Nanoparticle Research, 2008, 10, 163-171.	1.9	98
15	Breath-, air- and surface-borne SARS-CoV-2 in hospitals. Journal of Aerosol Science, 2021, 152, 105693.	3.8	89
16	Bioaerosol field measurements: Challenges and perspectives in outdoor studies. Aerosol Science and Technology, 2020, 54, 520-546.	3.1	81
17	Integrating Silicon Nanowire Field Effect Transistor, Microfluidics and Air Sampling Techniques For Real-Time Monitoring Biological Aerosols. Environmental Science & Technology, 2011, 45, 7473-7480.	10.0	80
18	Time-resolved spread of antibiotic resistance genes in highly polluted air. Environment International, 2019, 127, 333-339.	10.0	67

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19	Inactivation of bacteria and fungus aerosols using microwave irradiation. Journal of Aerosol Science, 2010, 41, 682-693.	3.8	63
20	Effect of physical and biological parameters on enumeration of bioaerosols by portable microbial impactors. Journal of Aerosol Science, 2006, 37, 1467-1483.	3.8	62
21	Inactivation of Microorganisms Using Electrostatic Fields. Environmental Science & Technology, 2005, 39, 3338-3344.	10.0	61
22	Investigation of Cut-Off Sizes and Collection Efficiencies of Portable Microbial Samplers. Aerosol Science and Technology, 2006, 40, 595-606.	3.1	60
23	Analysis of Portable Impactor Performance for Enumeration of Viable Bioaerosols. Journal of Occupational and Environmental Hygiene, 2007, 4, 514-524.	1.0	53
24	Development of an Automated Electrostatic Sampler (AES) for Bioaerosol Detection. Aerosol Science and Technology, 2011, 45, 1154-1160.	3.1	52
25	Differing toxicity of ambient particulate matter (PM) in global cities. Atmospheric Environment, 2019, 212, 305-315.	4.1	51
26	Biological responses of Gram-positive and Gram-negative bacteria to nZVI (Fe0), Fe2+ and Fe3+. RSC Advances, 2013, 3, 13835.	3.6	48
27	Use of carbon nanotube filter in removing bioaerosols. Journal of Aerosol Science, 2010, 41, 611-620.	3.8	45
28	Radical Formation by Fine Particulate Matter Associated with Highly Oxygenated Molecules. Environmental Science & Technology, 2019, 53, 12506-12518.	10.0	45
29	Utilization of natural electrical charges on airborne microorganisms for their collection by electrostatic means. Journal of Aerosol Science, 2006, 37, 513-527.	3.8	44
30	Comparison of the biological content of air samples collected at ground level and at higher elevation. Aerobiologia, 2010, 26, 233-244.	1.7	44
31	Microbial aerosol characteristics in highly polluted and near-pristine environments featuring different climatic conditions. Science Bulletin, 2015, 60, 1439-1447.	9.0	42
32	Size-Resolved Endotoxin and Oxidative Potential of Ambient Particles in Beijing and ZÃ¼rich. Environmental Science & Technology, 2018, 52, 6816-6824.	10.0	42
33	COVID-19 screening using breath-borne volatile organic compounds. Journal of Breath Research, 2021, 15, .	3.0	42
34	Monitoring of bioaerosol inhalation risks in different environments using a six-stage Andersen sampler and the PCR-DGGE method. Environmental Monitoring and Assessment, 2013, 185, 3993-4003.	2.7	40
35	Molecular and Microscopic Analysis of Bacteria and Viruses in Exhaled Breath Collected Using a Simple Impaction and Condensing Method. PLoS ONE, 2012, 7, e41137.	2.5	38
36	Characterization of Biological Aerosol Exposure Risks from Automobile Air Conditioning System. Environmental Science & Technology, 2013, 47, 130826152807008.	10.0	38

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37	Airborne endotoxin in fine particulate matter in Beijing. Atmospheric Environment, 2014, 97, 35-42.	4.1	37
38	Bacterial pathogens were detected from human exhaled breath using a novel protocol. Journal of Aerosol Science, 2018, 117, 224-234.	3.8	37
39	Comparison of electrostatic collection and liquid impinging methods when collecting airborne house dust allergens, endotoxin and (1,3)-Î²-d-glucans. Journal of Aerosol Science, 2009, 40, 492-502.	3.8	36
40	A comparison of the efficiencies of a portable BioStage impactor and a Reuter centrifugal sampler (RCS) High Flow for measuring airborne bacteria and fungi concentrations. Journal of Aerosol Science, 2009, 40, 503-513.	3.8	35
41	Exposure assessment in Beijing, China: biological agents, ultrafine particles, and lead. Environmental Monitoring and Assessment, 2010, 170, 331-343.	2.7	35
42	Inactivation and Magnetic Separation of Bacteria from Liquid Suspensions Using Electrosprayed and Nonelectrosprayed nZVI Particles: Observations and Mechanisms. Environmental Science & Technology, 2012, 46, 2360-2367.	10.0	35
43	Evidence of Foodborne Transmission of the Coronavirus (COVID-19) through the Animal Products Food Supply Chain. Environmental Science & Technology, 2021, 55, 2713-2716.	10.0	35
44	Microbial aerosol chemistry characteristics in highly polluted air. Science China Chemistry, 2019, 62, 1051-1063.	8.2	34
45	Microbial emission levels and diversities from different land use types. Environment International, 2020, 143, 105988.	10.0	33
46	Use of gelatin filter and BioSampler in detecting airborne H5N1 nucleotides, bacteria and allergens. Journal of Aerosol Science, 2010, 41, 869-879.	3.8	32
47	Point Decoration of Silicon Nanowires: An Approach Toward Singleâ€Molecule Electrical Detection. Angewandte Chemie - International Edition, 2014, 53, 5038-5043.	13.8	32
48	Liquid impinger BioSampler's performance for size-resolved viable bioaerosol particles. Journal of Aerosol Science, 2017, 106, 34-42.	3.8	32
49	Enhancing Bioaerosol Sampling by Andersen Impactors Using Mineral-Oil-Spread Agar Plate. PLoS ONE, 2013, 8, e56896.	2.5	31
50	Bioaerosol: A bridge and opportunity for many scientific research fields. Journal of Aerosol Science, 2018, 115, 108-112.	3.8	31
51	Use of portable microbial samplers for estimating inhalation exposure to viable biological agents. Journal of Exposure Science and Environmental Epidemiology, 2007, 17, 31-38.	3.9	30
52	Analysis of Culturable Bacterial and Fungal Aerosol Diversity Obtained Using Different Samplers and Culturing Methods. Aerosol Science and Technology, 2011, 45, 1143-1153.	3.1	30
53	Rapid Allergen Inactivation Using Atmospheric Pressure Cold Plasma. Environmental Science & Technology, 2014, 48, 2901-2909.	10.0	29
54	Time-Dependent Size-Resolved Bacterial and Fungal Aerosols in Beijing Subway. Aerosol and Air Quality Research, 2017, 17, 799-809.	2.1	29

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55	Haze Air Pollution Health Impacts of Breath-Borne VOCs. Environmental Science & Technology, 2022, 56, 8541-8551.	10.0	29
56	Airflow resistance and bio-filtering performance of carbon nanotube filters and current facepiece respirators. Journal of Aerosol Science, 2015, 79, 61-71.	3.8	27
57	Development of an integrated microfluidic electrostatic sampler for bioaerosol. Journal of Aerosol Science, 2016, 95, 84-94.	3.8	26
58	Automated in Vivo Nanosensing of Breath-Borne Protein Biomarkers. Nano Letters, 2018, 18, 4716-4726.	9.1	26
59	In situ airborne virus inactivation by microwave irradiation. Science Bulletin, 2014, 59, 1438-1445.	1.7	25
60	Charge levels and Gram (Â±) fractions of environmental bacterial aerosols. Journal of Aerosol Science, 2014, 74, 52-62.	3.8	23
61	Photocatalytic activities of Ion doped TiO2 thin films when prepared on different substrates. Thin Solid Films, 2009, 517, 5994-5999.	1.8	22
62	A high-flow portable biological aerosol trap (HighBioTrap) for rapid microbial detection. Journal of Aerosol Science, 2018, 117, 212-223.	3.8	22
63	PM2.5 Meets Blood: In vivo Damages and Immune Defense. Aerosol and Air Quality Research, 2018, 18, 456-470.	2.1	22
64	A comparison of airborne and dust-borne allergens and toxins collected from home, office and outdoor environments both in New Haven, United States and Nanjing, China. Aerobiologia, 2009, 25, 183-192.	1.7	21
65	Effects of microwave irradiation on concentration, diversity and gene mutation of culturable airborne microorganisms of inhalable sizes in different environments. Journal of Aerosol Science, 2011, 42, 800-810.	3.8	21
66	Fluorescent Bioaerosol Particles Resulting from Human Occupancy with and Without Respirators. Aerosol and Air Quality Research, 2017, 17, 198-208.	2.1	20
67	Effects of single-walled carbon nanotube filter on culturability and diversity of environmental bioaerosols. Journal of Aerosol Science, 2011, 42, 387-396.	3.8	19
68	Integration of high volume portable aerosol-to-hydrosol sampling and qPCR in monitoring bioaerosols. Journal of Environmental Monitoring, 2011, 13, 706.	2.1	18
69	NanoPCR detection of bacterial aerosols. Journal of Aerosol Science, 2013, 65, 1-9.	3.8	18
70	Ambient PM Toxicity Is Correlated with Expression Levels of Specific MicroRNAs. Environmental Science & Technology, 2020, 54, 10227-10236.	10.0	17
71	Onsite infectious agents and toxins monitoring in 12 May Sichuan earthquake affected areas. Journal of Environmental Monitoring, 2009, 11, 1993.	2.1	12
72	Ozone Gas Inhibits SARS-CoV-2 Transmission and Provides Possible Control Measures. Aerosol Science and Engineering, 2021, 5, 516-523.	1.9	12

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73	Effects of relative humidity on heterogeneous reaction of SO2 with CaCO3 particles and formation of CaSO4Â·2H2O crystal as secondary aerosol. Atmospheric Environment, 2022, 268, 118776.	4.1	11
74	Antibiotic resistance genes and antibiotic sensitivity in bacterial aerosols and their comparisons with known respiratory pathogens. Journal of Aerosol Science, 2022, 161, 105931.	3.8	11
75	SARS-CoV-2 aerosol transmission and detection. , 2022, 1, 3-10.		11
76	A Robot Assisted High-flow Portable Cyclone Sampler for Bacterial and SARS-CoV-2 Aerosols. Aerosol and Air Quality Research, 2021, 21, 210130.	2.1	10
77	A novel method for measuring the charge distribution of airborne microbes. Aerobiologia, 2011, 27, 135-145.	1.7	9
78	Control of Airborne and Liquid-borne Fungal and Pet Allergens Using Microwave Irradiation. Journal of Occupational and Environmental Hygiene, 2013, 10, 547-555.	1.0	9
79	Rats Sniff Off Toxic Air. Environmental Science & Technology, 2020, 54, 3437-3446.	10.0	9
80	Negatively and positively charged bacterial aerosol concentration and diversity in natural environments. Science Bulletin, 2013, 58, 3169-3176.	1.7	8
81	Frontispiece: Point Decoration of Silicon Nanowires: An Approach Toward Singleâ€Molecule Electrical Detection. Angewandte Chemie - International Edition, 2014, 53, .	13.8	8
82	Are We Biologically Safe with Snow Precipitation? A Case Study in Beijing. PLoS ONE, 2013, 8, e65249.	2.5	7
83	Inactivation of Ricin Toxin by Nanosecond Pulsed Electric Fields Including Evidences from Cell and Animal Toxicity. Scientific Reports, 2016, 6, 18781.	3.3	7
84	Bioaerosol research: Yesterday, today and tomorrow. Chinese Science Bulletin, 2018, 63, 878-894.	0.7	7
85	Walking-induced exposure of biological particles simulated by a children robot with different shoes on public floors. Environment International, 2022, 158, 106935.	10.0	7
86	Aqueous-phase reactive species formed by fine particulate matter from remote forests and polluted urban air. Atmospheric Chemistry and Physics, 2021, 21, 10439-10455.	4.9	6
87	Applicability of a modified MCE filter method with Button Inhalable Sampler for monitoring personal bioaerosol inhalation exposure. Environmental Science and Pollution Research, 2013, 20, 2963-2972.	5.3	5
88	Development of a novel conductance-based technology for environmental bacterial sensing. Science Bulletin, 2013, 58, 440-448.	1.7	5
89	â€œSmoke Detectorâ€•of Human Diseases for Environmental Aerosol Exposure. Chinese Journal of Chemistry, 2022, 40, 1471-1477.	4.9	5
90	Ultra-high temperature infrared disinfection of bioaerosols and relevant mechanisms. Journal of Aerosol Science, 2013, 65, 88-100.	3.8	4

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91	Plant flowers transmit various bio-agents through air. Science China Earth Sciences, 2020, 63, 1613-1621.	5.2	4
92	Single Living yEast PM Toxicity Sensor (SLEPTor) System. Journal of Aerosol Science, 2017, 107, 65-73.	3.8	3
93	Bioaerosol: A Key Vessel between Environment and Health. Frontiers of Environmental Science and Engineering, 2021, 15, 49.	6.0	3
94	SARS-CoV-2 Remained Airborne for a Prolonged Time in a Lockdown Confined Space. Aerosol and Air Quality Research, 2022, 22, 210131.	2.1	3
95	Rapid point-of-use water purification using nanoscale zero valent iron (nZVI) particles. Science Bulletin, 2014, 59, 3926-3934.	1.7	2
96	Monte Carlo Simulation in Sampling Techniques of Traffic Data Collection. Transportation Research Record, 2002, 1804, 91-97.	1.9	1
97	Gene-Regulated Release of Distinctive Volatile Organic Compounds from Stressed Living Cells. Environmental Science & Technology, 0, , .	10.0	1
98	Rapid allergen inactivation using atmospheric pressure cold plasma. , 2014, , .		0
99	Frontispiz: Point Decoration of Silicon Nanowires: An Approach Toward Single-Molecule Electrical Detection. Angewandte Chemie, 2014, 126, n/a-n/a.	2.0	0
100	Fine Sieving of Atmospheric Particles in a Collected Air Sample Using Oil Electrophoresis. Aerosol and Air Quality Research, 2021, 21, 200666.	2.1	0
101	Guest Comment: Environmental Transmission and Control of COVID-19 Special Issue. Environmental Science & Technology, 2021, 55, 4081-4083.	10.0	0