Zhaohai Bai

List of Publications by Year
in descending order

66 papers	4,360 citations	159585 30 h-index	114465 63 g-index
70 all docs	70 docs citations	70 times ranked	4117 citing authors

#	Article	IF	Citations
1	Phosphorus Dynamics: From Soil to Plant. Plant Physiology, 2011, 156, 997-1005.	4.8	1,127
2	Technologies and perspectives for achieving carbon neutrality. Innovation(China), 2021, 2, 100180.	9.1	306
3	The critical soil P levels for crop yield, soil fertility and environmental safety in different soil types. Plant and Soil, 2013, 372, 27-37.	3.7	272
4	Chinaâ€™s livestock transition: Driving forces, impacts, and consequences. Science Advances, 2018, 4, eaar8534.	10.3	253
5	Nitrogen, Phosphorus, and Potassium Flows through the Manure Management Chain in China. Environmental Science & Technology, 2016, 50, 13409-13418.	10.0	189
6	Alarming nutrient pollution of Chinese rivers as a result of agricultural transitions. Environmental Research Letters, 2016, 11, 024014.	5.2	148
7	Chinaâ€™s future food demand and its implications for trade and environment. Nature Sustainability, 2021, 4, 1042-1051.	23.7	112
8	Mitigation of ammonia, nitrous oxide and methane emissions during solid waste composting with different additives: A meta-analysis. Journal of Cleaner Production, 2019, 235, 626-635.	9.3	101
9	The MARINA model (Model to Assess River Inputs of Nutrients to seAs): Model description and results for China. Science of the Total Environment, 2016, 562, 869-888.	8.0	97
10	Accumulation and leaching of nitrate in soils in wheat-maize production in China. Agricultural Water Management, 2019, 212, 407-415.	5.6	93
11	Optimization of Chinaâ€™s maize and soy production can ensure feed sufficiency at lower nitrogen and carbon footprints. Nature Food, 2021, 2, 426-433.	14.0	90
12	Urbanization: an increasing source of multiple pollutants to rivers in the 21st century. Npj Urban Sustainability, 2021, 1, .	8.0	84
13	Multi-scale Modeling of Nutrient Pollution in the Rivers of China. Environmental Science & Technology, 2019, 53, 9614-9625.	10.0	76
14	Improved Estimates of Ammonia Emissions from Global Croplands. Environmental Science & Technology, 2021, 55, 1329-1338.	10.0	65
15	Global animal production and nitrogen and phosphorus flows. Soil Research, 2017, 55, 451.	1.1	62
16	Exploring Future Food Provision Scenarios for China. Environmental Science & Technology, 2019, 53, 1385-1393.	10.0	62
17	Global environmental costs of China's thirst for milk. Global Change Biology, 2018, 24, 2198-2211.	9.5	56
18	Changes in phosphorus use and losses in the food chain of China during 1950â€“2010 and forecasts for 2030. Nutrient Cycling in Agroecosystems, 2016, 104, 361-372.	2.2	53

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19	Composting with negative pressure aeration for the mitigation of ammonia emissions and global warming potential. Journal of Cleaner Production, 2018, 195, 448-457.	9.3	52
20	Spatial Planning Needed to Drastically Reduce Nitrogen and Phosphorus Surpluses in Chinaâ€™s Agriculture. Environmental Science & Technology, 2020, 54, 11894-11904.	10.0	50
21	Relocate 10 billion livestock to reduce harmful nitrogen pollution exposure for 90% of Chinaâ€™s population. Nature Food, 2022, 3, 152-160.	14.0	50
22	Designing Vulnerable Zones of Nitrogen and Phosphorus Transfers To Control Water Pollution in China. Environmental Science & Technology, 2018, 52, 8987-8988.	10.0	49
23	The progress of composting technologies from static heap to intelligent reactor: Benefits and limitations. Journal of Cleaner Production, 2020, 270, 122328.	9.3	49
24	Chinaâ€™s pig relocation in balance. Nature Sustainability, 2019, 2, 888-888.	23.7	48
25	Livestock Housing and Manure Storage Need to Be Improved in China. Environmental Science & Technology, 2017, 51, 8212-8214.	10.0	46
26	How Chinaâ€™s nitrogen footprint of food has changed from 1961 to 2010. Environmental Research Letters, 2017, 12, 104006.	5.2	44
27	Feed use and nitrogen excretion of livestock in EU-27. Agriculture, Ecosystems and Environment, 2016, 218, 232-244.	5.3	43
28	Nutrient losses to surface waters in Hai He basin: A case study of Guanting reservoir and Baiyangdian lake. Agricultural Water Management, 2019, 213, 62-75.	5.6	43
29	Acidification of manure reduces gaseous emissions and nutrient losses from subsequent composting process. Journal of Environmental Management, 2020, 264, 110454.	7.8	41
30	Strategies to reduce nutrient pollution from manure management in China. Frontiers of Agricultural Science and Engineering, 2020, 7, 45.	1.4	40
31	Potential Hotspot Areas of Nitrous Oxide Emissions From Grazed Pastoral Dairy Farm Systems. Advances in Agronomy, 2017, 145, 205-268.	5.2	34
32	Agricultural nitrogen and phosphorus emissions to water and their mitigation options in the Haihe Basin, China. Agricultural Water Management, 2019, 212, 262-272.	5.6	34
33	Further Improvement of Air Quality in China Needs Clear Ammonia Mitigation Target. Environmental Science & Technology, 2019, 53, 10542-10544.	10.0	32
34	Reducing Ammonia Emissions from Dairy Cattle Production via Cost-Effective Manure Management Techniques in China. Environmental Science & Technology, 2019, 53, 11840-11848.	10.0	31
35	Advanced composting technologies promotes environmental benefits and eco-efficiency: A life cycle assessment. Bioresource Technology, 2022, 346, 126576.	9.6	28
36	How to avoid coastal eutrophication - a back-casting study for the North China Plain. Science of the Total Environment, 2019, 692, 676-690.	8.0	26

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37	An electric field immobilizes heavy metals through promoting combination with humic substances during composting. Bioresource Technology, 2021, 330, 124996.	9.6	25
38	Integrating soil testing phosphorus into environmentally based manure management in peri-urban regions: A case study in the Beijing area. Agriculture, Ecosystems and Environment, 2015, 209, 47-59.	5.3	24
39	Modeling farm nutrient flows in the North China Plain to reduce nutrient losses. Nutrient Cycling in Agroecosystems, 2017, 108, 231-244.	2.2	22
40	Nutrient losses and greenhouse gas emissions from dairy production in China: Lessons learned from historical changes and regional differences. Science of the Total Environment, 2017, 598, 1095-1105.	8.0	21
41	Challenges and strategies for agricultural green development in the Yangtze River Basin. Journal of Integrative Environmental Sciences, 2021, 18, 37-54.	2.5	21
42	Nitrifier denitrification dominates nitrous oxide production in composting and can be inhibited by a bioelectrochemical nitrification inhibitor. Bioresource Technology, 2021, 341, 125851.	9.6	20
43	Socio-economic drivers of pig production and their effects on achieving sustainable development goals in China. Journal of Integrative Environmental Sciences, 2019, 16, 141-155.	2.5	19
44	What is the pollution limit? Comparing nutrient loads with thresholds to improve water quality in Lake Baiyangdian. Science of the Total Environment, 2022, 807, 150710.	8.0	19
45	Mitigating phosphorus pollution from detergents in the surface waters of China. Science of the Total Environment, 2022, 804, 150125.	8.0	18
46	Comprehensive quantification of global cropland ammonia emissions and potential abatement. Science of the Total Environment, 2022, 812, 151450.	8.0	18
47	Ammonia mitigation effects from the cow housing and manure storage chain on the nitrogen and carbon footprints of a typical dairy farm system on the North China Plain. Journal of Cleaner Production, 2021, 280, 124465.	9.3	15
48	Food and feed trade has greatly impacted global land and nitrogen use efficiencies over 1961â€"2017. Nature Food, 2021, 2, 780-791.	14.0	15
49	Chinaâ€™s low-emission pathways toward climate-neutral livestock production for animal-derived foods. Innovation(China), 2022, 3, 100220.	9.1	15
50	A food system revolution for China in the post-pandemic world. Resources, Environment and Sustainability, 2020, 2, 100013.	5.9	14
51	The effects of electric field assisted composting on ammonia and nitrous oxide emissions varied with different electrolytes. Bioresource Technology, 2022, 344, 126194.	9.6	14
52	Nitrogen budgets of contrasting crop-livestock systems in China. Environmental Pollution, 2021, 288, 117633.	7.5	12
53	China needs long-term solutions for African Swine Fever. Science Bulletin, 2019, 64, 1469-1471.	9.0	10
54	Mitigation options to reduce nitrogen losses to water from crop and livestock production in China. Current Opinion in Environmental Sustainability, 2019, 40, 95-107.	6.3	10

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55	Reducing phosphorus excretion and loss potential by using a soluble supplement source for swine and poultry. Journal of Cleaner Production, 2019, 237, 117654.	9.3	7
56	Ammonia emissions from different pig production scales and their temporal variations in the North China Plain. Journal of the Air and Waste Management Association, 2021, 71, 23-33.	1.9	7
57	Strategies to reduce ammonia emissions from livestock and their cost-benefit analysis: A case study of Sheyang county. Environmental Pollution, 2021, 290, 118045.	7.5	7
58	Seasonal River Export of Nitrogen to Guanting and Baiyangdian Lakes in the Hai He Basin. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG005689.	3.0	7
59	NUTRIENT USE EFFICIENCY AND LOSSES OF INDUSTRIAL FARMS AND MIXED SMALLHOLDINGS: LESSONS FROM THE NORTH CHINA PLAIN. Frontiers of Agricultural Science and Engineering, 2021, 8, 58.	1.4	6
60	Urban nitrogen budgets: flows and stock changes of potentially polluting nitrogen compounds in cities and their surroundings â€“ a review. Journal of Integrative Environmental Sciences, 2020, 17, 57-71.	2.5	6
61	Impacts of African swine fever on water quality in China. Environmental Research Letters, 2021, 16, 054032.	5.2	5
62	A higher water-soluble phosphorus supplement in pig diet improves the whole system phosphorus use efficiency. Journal of Cleaner Production, 2020, 272, 122586.	9.3	4
63	Dairy farming in China at a crossroad. Science Bulletin, 2018, 63, 1534-1535.	9.0	2
64	China requires region-specific manure treatment and recycling technologies. Circular Agricultural Systems, 2021, 1, 1-7.	0.7	2
65	Reply to Comment on â€œMulti-Scale Modeling of Nutrient Pollution in the Rivers of Chinaâ€. Environmental Science & Technology, 2020, 54, 2046-2047.	10.0	2
66	Spatioâ€temporal assessment of greenhouse gas emission from rapeseed production in China by coupling nutrient flows model with <scp>LCA</scp> approach. Food and Energy Security, 0, , .	4.3	2