Xiaotang Ju

List of Publications by Year
in descending order

87 papers	8,127 citations	94269 37 h-index	51492 86 g-index
89 all docs	89 docs citations	89 times ranked	5873 citing authors

#	Article	IF	Citations
1	Reducing environmental risk by improving N management in intensive Chinese agricultural systems. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3041-3046.	3.3	2,071
2	Managing nitrogen to restore water quality in China. Nature, 2019, 567, 516-520.	13.7	667
3	Integrated reactive nitrogen budgets and future trends in China. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8792-8797.	3.3	430
4	Changes in the soil environment from excessive application of fertilizers and manures to two contrasting intensive cropping systems on the North China Plain. Environmental Pollution, 2007, 145, 497-506.	3.7	361
5	Nitrogen dynamics and budgets in a winter wheatâ€"maize cropping system in the North China Plain. Field Crops Research, 2003, 83, 111-124.	2.3	302
6	Reducing Chinaâ€™s fertilizer use by increasing farm size. Global Environmental Change, 2016, 41, 26-32.	3.6	257
7	Integrated Nutrient Management for Food Security and Environmental Quality in China. Advances in Agronomy, 2012, , 1-40.	2.4	253
8	Nitrogen Fertilization, Soil Nitrate Accumulation, and Policy Recommendations in Several Agricultural Regions of China. Ambio, 2004, 33, 300-305.	2.8	237
9	Dramatic loss of inorganic carbon by nitrogenâ€induced soil acidification in Chinese croplands. Global Change Biology, 2020, 26, 3738-3751.	4.2	200
10	Environmental costs of Chinaâ€™s food security. Agriculture, Ecosystems and Environment, 2015, 209, 5-14.	2.5	157
11	Processes and factors controlling N2O production in an intensively managed low carbon calcareous soil under sub-humid monsoon conditions. Environmental Pollution, 2011, 159, 1007-1016.	3.7	156
12	Greenhouse gas emissions from a wheatâ€"maize double cropping system with different nitrogen fertilization regimes. Environmental Pollution, 2013, 176, 198-207.	3.7	156
13	Significant accumulation of nitrate in Chinese semi-humid croplands. Scientific Reports, 2016, 6, 25088.	1.6	145
14	Nitrogen deposition in agroecosystems in the Beijing area. Agriculture, Ecosystems and Environment, 2006, 113, 370-377.	2.5	144
15	Nitrogen cycling and environmental impacts in upland agricultural soils in North China: A review. Journal of Integrative Agriculture, 2017, 16, 2848-2862.	1.7	142
16	Nitrogen Surplus Benchmarks for Controlling N Pollution in the Main Cropping Systems of China. Environmental Science & Technology, 2019, 53, 6678-6687.	4.6	125
17	Nitrous oxide and methane emissions from optimized and alternative cereal cropping systems on the North China Plain: A two-year field study. Science of the Total Environment, 2014, 472, 112-124.	3.9	122
18	Simulation of bromide and nitrate leaching under heavy rainfall and high-intensity irrigation rates in North China Plain. Agricultural Water Management, 2010, 97, 1646-1654.	2.4	116

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19	Gross Nitrogen Transformations and Related Nitrous Oxide Emissions in an Intensively Used Calcareous Soil. Soil Science Society of America Journal, 2009, 73, 102-112.	1.2	99
20	Calculation of theoretical nitrogen rate for simple nitrogen recommendations in intensive cropping systems: A case study on the North China Plain. Field Crops Research, 2011, 124, 450-458.	2.3	95
21	Nitrous Oxide Emissions Increase Exponentially When Optimum Nitrogen Fertilizer Rates Are Exceeded in the North China Plain. Environmental Science & Technology, 2018, 52, 12504-12513.	4.6	91
22	Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. Field Crops Research, 2017, 204, 1-11.	2.3	84
23	Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. Scientific Reports, 2017, 7, 42247.	1.6	83
24	The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. Agriculture, Ecosystems and Environment, 2015, 203, 46-54.	2.5	82
25	Chinese cropping systems are a net source of greenhouse gases despite soil carbon sequestration. Global Change Biology, 2018, 24, 5590-5606.	4.2	81
26	Greenhouse gas mitigation in Chinese agriculture: Distinguishing technical and economic potentials. Global Environmental Change, 2014, 26, 53-62.	3.6	80
27	Oxygen Regulates Nitrous Oxide Production Directly in Agricultural Soils. Environmental Science & Technology, 2019, 53, 12539-12547.	4.6	77
28	Global mapping of crop-specific emission factors highlights hotspots of nitrous oxide mitigation. Nature Food, 2021, 2, 886-893.	6.2	68
29	Nitrogen use efficiencies in Chinese agricultural systems and implications for food security and environmental protection. Regional Environmental Change, 2017, 17, 1217-1227.	1.4	67
30	Changes in soil carbon and nitrogen pools after shifting from conventional cereal to greenhouse vegetable production. Soil and Tillage Research, 2010, 107, 80-87.	2.6	64
31	Managing Agricultural Nutrients for Food Security in China: Past, Present, and Future. Agronomy Journal, 2014, 106, 191-198.	0.9	61
32	Soil HONO emissions at high moisture content are driven by microbial nitrate reduction to nitrite: tackling the HONO puzzle. ISME Journal, 2019, 13, 1688-1699.	4.4	57
33	Linkage between N2O emission and functional gene abundance in an intensively managed calcareous fluvo-aquic soil. Scientific Reports, 2017, 7, 43283.	1.6	54
34	Spatial and temporal variation of atmospheric nitrogen deposition in the North China Plain. Acta Ecologica Sinica, 2006, 26, 1633-1638.	0.9	50
35	Gross N transformation rates and related N2O emissions in Chinese and UK agricultural soils. Science of the Total Environment, 2019, 666, 176-186.	3.9	50
36	Impacts of reactive nitrogen on climate change in China. Scientific Reports, 2015, 5, 8118.	1.6	47

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37	Greenhouse gas intensity of three main crops and implications for low-carbon agriculture in China. Climatic Change, 2015, 128, 57-70.	1.7	47
38	Effects of the nitrification inhibitor DMPP (3,4-dimethylpyrazole phosphate) on gross N transformation rates and N2O emissions. Biology and Fertility of Soils, 2019, 55, 603-615.	2.3	38
39	Improved Nitrogen Management for an Intensive Winter Wheat/Summer Maize Doubleâ€cropping System. Soil Science Society of America Journal, 2012, 76, 286-297.	1.2	35
40	Cleaning up nitrogen pollution may reduce future carbon sinks. Global Environmental Change, 2018, 48, 56-66.	3.6	33
41	Enhanced efficiency nitrogen fertilizers maintain yields and mitigate global warming potential in an intensified spring wheat system. Field Crops Research, 2019, 244, 107624.	2.3	32
42	Utilization and management of organic wastes in Chinese agriculture: Past, present and perspectives. Science in China Series C: Life Sciences, 2005, 48, 965-979.	1.3	30
43	Reducing nitrous oxide emissions from the global food system. Current Opinion in Environmental Sustainability, 2014, 9-10, 55-64.	3.1	28
44	Toward a Generic Analytical Framework for Sustainable Nitrogen Management: Application for China. Environmental Science & Technology, 2019, 53, 1109-1118.	4.6	27
45	Using field-measured soil N2O fluxes and laboratory scale parameterization of N2O/(N2O+N2) ratios to quantify field-scale soil N2 emissions. Soil Biology and Biochemistry, 2020, 148, 107904.	4.2	26
46	Using nitrification inhibitors and deep placement to tackle the tradeâ€offs between NH₃ and N₂O emissions in global croplands. Global Change Biology, 2022, 28, 4409-4422.	4.2	26
47	Direct pathway of nitrate produced from surplus nitrogen inputs to the hydrosphere. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E416.	3.3	24
48	Interception of residual nitrate from a calcareous alluvial soil profile on the North China Plain by deep-rooted crops: A 15N tracer study. Environmental Pollution, 2007, 146, 534-542.	3.7	23
49	How nitrification-related N2O is associated with soil ammonia oxidizers in two contrasting soils in China?. Science of the Total Environment, 2021, 770, 143212.	3.9	23
50	Nitrogen Recommendation for Winter Wheat Using NminTest and Rapid Plant Tests in North China Plain. Communications in Soil Science and Plant Analysis, 2003, 34, 2539-2551.	0.6	22
51	The Influence of Biochar Addition on Chicken Manure Composting and Associated Methane and Carbon Dioxide Emissions. BioResources, 2016, 11, .	0.5	22
52	Effect of Long-Term Fertilization on Organic Nitrogen Forms in a Calcareous Alluvial Soil on the North China Plain. Pedosphere, 2006, 16, 224-229.	2.1	21
53	A process-oriented hydro-biogeochemical model enabling simulation of gaseous carbon and nitrogen emissions and hydrologic nitrogen losses from a subtropical catchment. Science of the Total Environment, 2018, 616-617, 305-317.	3.9	21
54	N2O emission contributions by different pathways and associated microbial community dynamics in a typical calcareous vegetable soil. Environmental Pollution, 2018, 242, 2005-2013.	3.7	21

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55	Response of Nitrous Oxide and Corresponding Bacteria to Managements in an Agricultural Soil. Soil Science Society of America Journal, 2012, 76, 130-141.	1.2	20
56	Effects of nitrogen management and straw return on soil organic carbon sequestration and aggregateâ€associated carbon. European Journal of Soil Science, 2018, 69, 913-923.	1.8	20
57	Cropping system design can improve nitrogen use efficiency in intensively managed agriculture. Environmental Pollution, 2021, 280, 116967.	3.7	19
58	Yield and Nicotine Content of Flue-Cured Tobacco as Affected by Soil Nitrogen Mineralization. Pedosphere, 2008, 18, 227-235.	2.1	18
59	Improved Jayaweera-Mikkelsen model to quantify ammonia volatilization from rice paddy fields in China. Environmental Science and Pollution Research, 2019, 26, 8136-8147.	2.7	17
60	Overcoming socioeconomic barriers to reduce agricultural ammonia emission in China. Environmental Science and Pollution Research, 2020, 27, 25813-25817.	2.7	17
61	Oxygen-depletion by rapid ammonia oxidation regulates kinetics of N2O, NO and N2 production in an ammonium fertilised agricultural soil. Soil Biology and Biochemistry, 2021, 163, 108460.	4.2	17
62	Shortcomings in the Commercialized Barometric Process Separation Measuring System. Soil Science Society of America Journal, 2008, 72, 135-142.	1.2	16
63	Improved Nitrogen Management as a Key Mitigation to Net Global Warming Potential and Greenhouse Gas Intensity on the North China Plain. Soil Science Society of America Journal, 2018, 82, 136-146.	1.2	15
64	Air warming and CO2 enrichment increase N use efficiency and decrease N surplus in a Chinese double rice cropping system. Science of the Total Environment, 2020, 706, 136063.	3.9	13
65	Soil oxygen depletion and corresponding nitrous oxide production at hot moments in an agricultural soil. Environmental Pollution, 2022, 292, 118345.	3.7	13
66	Full straw incorporation into a calcareous soil increased N2O emission despite more N2O being reduced to N2 in the winter crop season. Agriculture, Ecosystems and Environment, 2022, 335, 108007.	2.5	13
67	NO and N 2 O fluxes from agricultural soils in Beijing area*. Progress in Natural Science: Materials International, 2004, 14, 489-494.	1.8	10
68	Fate of 15N-labelled urea when applied to long-term fertilized soils of varying fertility. Nutrient Cycling in Agroecosystems, 2021, 121, 151-165.	1.1	9
69	Mitigating nitrous oxide emissions from agricultural soils by precision management. Frontiers of Agricultural Science and Engineering, 2020, 7, 75.	0.9	9
70	Evaluation of the DNDC Model to Estimate Soil Parameters, Crop Yield and Nitrous Oxide Emissions for Alternative Long-Term Multi-Cropping Systems in the North China Plain. Agronomy, 2022, 12, 109.	1.3	9
71	Mitigation of nitrous oxide emissions from food production in China. Current Opinion in Environmental Sustainability, 2014, 9-10, 82-89.	3.1	7
72	Quantifying biological processes producing nitrous oxide in soil using a mechanistic model. Biogeochemistry, 2022, 159, 1-14.	1.7	7

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73	Nitrate Transformation and N2O Emission in a Typical Intensively Managed Calcareous Fluvaquent Soil: A 15-Nitrogen Tracer Incubation Study. Communications in Soil Science and Plant Analysis, 2015, 46, 1763-1777.	0.6	5
74	Nitrous Oxide and Methane Emissions in Spring Maize Field in the Semiâ€Arid Regions of Loess Plateau. Clean - Soil, Air, Water, 2017, 45, .	0.7	5
75	Direct Measurement of CO2 Retention in Arable Soils with pH Above 6.5 During Barometric Process Separation Incubation. Pedosphere, 2018, 28, 726-738.	2.1	5
76	Comparison of Soil Respiration in Typical Conventional and New Alternative Cereal Cropping Systems on the North China Plain. PLoS ONE, 2013, 8, e80887.	1.1	4
77	Effect of carbon rate and type amended with ammonium or nitrate on nitrous oxide emissions in a strong ammonia oxidation soil. Journal of Soils and Sediments, 2020, 20, 1253-1263.	1.5	4
78	Effects of enhanced efficiency nitrogen fertilizers on NH3 losses in a calcareous fluvo-aquic soil: a laboratory study. Journal of Soils and Sediments, 2020, 20, 1887-1896.	1.5	4
79	Oxygen concentrations regulate NO, N2O, and N2 kinetics and nitrogen transformation in a fluvo-aquic soil using a robotized incubation system. Journal of Soils and Sediments, 2021, 21, 1337-1347.	1.5	4
80	Effects of nitrogen management on methane and nitrous oxide emissions from summer maize soil in North China Plain. Scientia Sinica Chimica, 2011, 41, 117-128.	0.2	4
81	Utilization and management of organic wastes in Chinese agriculture: past, present and perspectives. Science in China Series C: Life Sciences, 2005, 48 Spec No, 965-79.	1.3	4
82	Fertilizer nitrogen loss via N2 emission from calcareous soil following basal urea application of winter wheat. Atmospheric and Oceanic Science Letters, 2019, 12, 91-97.	0.5	3
83	Recovery of15Nâ€Labeled Nitrate Injected into Deep Subsoil by Maize in a Calcareous Alluvial Soil on the North China Plain. Communications in Soil Science and Plant Analysis, 2007, 38, 1563-1577.	0.6	2
84	Response to Comment on â€œOxygen Regulates Nitrous Oxide Production Directly in Agricultural Soilsâ€. Environmental Science & Technology, 2020, 54, 2556-2557.	4.6	2
85	Nitrogen Transformations in a Chinese Aquic Cambisol Applied Urea with Dicyandiamide or Plant Residues. Communications in Soil Science and Plant Analysis, 2005, 35, 2397-2416.	0.6	1
86	N-catch crops affect soil profile nitrate-N accumulation during vegetable cultivation. Frontiers of Agriculture in China, 2011, 5, 225-230.	0.2	1
87	Eight years organic amendment application alters N2O emission potential by increasing soil O2 consumption rate. Science of the Total Environment, 2022, 806, 150466.	3.9	0