Gerard L Velthof

List of Publications by Year
in descending order

76 papers	8,457 citations	57631 44 h-index	82410 72 g-index
83 all docs	83 docs citations	83 times ranked	6852 citing authors

#	Article	IF	Citations
1	Role of nitrifier denitrification in the production of nitrous oxide. Soil Biology and Biochemistry, 2001, 33, 1723-1732.	4.2	1,484
2	Towards an agronomic assessment of N₂O emissions: a case study for arable crops. European Journal of Soil Science, 2010, 61, 903-913.	1.8	594
3	The role of nitrifier denitrification in the production of nitrous oxide revisited. Soil Biology and Biochemistry, 2018, 123, A3-A16.	4.2	293
4	Trends in Global Nitrous Oxide Emissions from Animal Production Systems. Nutrient Cycling in Agroecosystems, 2005, 72, 51-65.	1.1	290
5	Nitrous oxide emission from animal manures applied to soil under controlled conditions. Biology and Fertility of Soils, 2003, 37, 221-230.	2.3	262
6	Chinaâ€™s livestock transition: Driving forces, impacts, and consequences. Science Advances, 2018, 4, eaar8534.	4.7	253
7	Integrated Assessment of Nitrogen Losses from Agriculture in EUâ€27 using MITERRAâ€EUROPE. Journal of Environmental Quality, 2009, 38, 402-417.	1.0	245
8	Nutrient losses from manure management in the European Union. Livestock Science, 2007, 112, 261-272.	0.6	231
9	Benefits and tradeâ€offs of replacing synthetic fertilizers by animal manures in crop production in China: A metaâ€analysis. Global Change Biology, 2020, 26, 888-900.	4.2	217
10	Modeling Nutrient Flows in the Food Chain of China. Journal of Environmental Quality, 2010, 39, 1279-1289.	1.0	207
11	Mitigation of ammonia, nitrous oxide and methane emissions from manure management chains: aÂmetaâ€analysis and integrated assessment. Global Change Biology, 2015, 21, 1293-1312.	4.2	201
12	Nitrogen and phosphorus use efficiencies and losses in the food chain in China at regional scales in 1980 and 2005. Science of the Total Environment, 2012, 434, 51-61.	3.9	199
13	Nitrogen, Phosphorus, and Potassium Flows through the Manure Management Chain in China. Environmental Science & Technology, 2016, 50, 13409-13418.	4.6	189
14	Integrated assessment of promising measures to decrease nitrogen losses from agriculture in EU-27. Agriculture, Ecosystems and Environment, 2009, 133, 280-288.	2.5	172
15	Nitrous oxide emission from urine-treated soil as influenced by urine composition and soil physical conditions. Soil Biology and Biochemistry, 2005, 37, 463-473.	4.2	155
16	Alarming nutrient pollution of Chinese rivers as a result of agricultural transitions. Environmental Research Letters, 2016, 11, 024014.	2.2	148
17	Nitrous oxide emission from soils amended with crop residues. Nutrient Cycling in Agroecosystems, 2002, 62, 249-261.	1.1	146
18	An Assessment of the Variation of Manure Nitrogen Efficiency throughout Europe and an Appraisal of Means to Increase Manure-N Efficiency. Advances in Agronomy, 2013, 119, 371-442.	2.4	135

#	ARTICLE	IF	CITATIONS
19	Differentiation of nitrous oxide emission factors for agricultural soils. Environmental Pollution, 2011, 159, 3215-3222.	3.7	132
20	Environmental Assessment of Management Options for Nutrient Flows in the Food Chain in China. Environmental Science & Technology, 2013, 47, 7260-7268.	4.6	130
21	Nitrous oxide production in grassland soils: assessing the contribution of nitrifier denitrification. Soil Biology and Biochemistry, 2004, 36, 229-236.	4.2	128
22	Seasonal variations in nitrous oxide losses from managed grasslands in The Netherlands. Plant and Soil, 1996, 181, 263-274.	1.8	126
23	Seasonal variation in N2O emissions from urine patches: Effects of urine concentration, soil compaction and dung. Plant and Soil, 2005, 273, 15-27.	1.8	126
24	Nitrous oxide fluxes from grassland in the Netherlands: II. Effects of soil type, nitrogen fertilizer application and grazing. European Journal of Soil Science, 1995, 46, 541-549.	1.8	124
25	Spatial variability of nitrous oxide fluxes in mown and grazed grasslands on a poorly drained clay soil. Soil Biology and Biochemistry, 1996, 28, 1215-1225.	4.2	115
26	Effects of type and amount of applied nitrogen fertilizer on nitrous oxide fluxes from intensively managed grassland. Nutrient Cycling in Agroecosystems, 1996, 46, 257-267.	1.1	112
27	Nutrient Recovery and Emissions of Ammonia, Nitrous Oxide, and Methane from Animal Manure in Europe: Effects of Manure Treatment Technologies. Environmental Science & Technology, 2017, 51, 375-383.	4.6	106
28	Pig slurry treatment modifies slurry composition, N2O, and CO2 emissions after soil incorporation. Soil Biology and Biochemistry, 2008, 40, 1999-2006.	4.2	104
29	Gaseous Nitrogen and Carbon Losses from Pig Manure Derived from Different Diets. Journal of Environmental Quality, 2005, 34, 698-706.	1.0	95
30	Accumulation and leaching of nitrate in soils in wheat-maize production in China. Agricultural Water Management, 2019, 212, 407-415.	2.4	93
31	Method and timing of grassland renovation affects herbage yield, nitrate leaching, and nitrous oxide emission in intensively managed grasslands. Nutrient Cycling in Agroecosystems, 2010, 86, 401-412.	1.1	82
32	Nitrous oxide fluxes from grassland in the Netherlands: I. Statistical analysis of flux-chamber measurements. European Journal of Soil Science, 1995, 46, 533-540.	1.8	81
33	Impacts of urban expansion on nitrogen and phosphorus flows in the food system of Beijing from 1978 to 2008. Global Environmental Change, 2014, 28, 192-204.	3.6	74
34	Technical and policy aspects of strategies to decrease greenhouse gas emissions from agriculture. Nutrient Cycling in Agroecosystems, 2001, 60, 301-315.	1.1	64
35	Acetylene and oxygen as inhibitors of nitrous oxide production in Nitrosomonas europaea and Nitrosospira briensis: a cautionary tale. FEMS Microbiology Ecology, 2004, 47, 13-18.	1.3	63
36	Exploring Future Food Provision Scenarios for China. Environmental Science & Technology, 2019, 53, 1385-1393.	4.6	62

#	Article	IF	Citations
37	Stakeholder perceptions of manure treatment technologies in Denmark, Italy, the Netherlands and Spain. Journal of Cleaner Production, 2018, 172, 1620-1630.	4.6	61
38	An Analysis of Developments and Challenges in Nutrient Management in China. Journal of Environmental Quality, 2013, 42, 951-961.	1.0	59
39	Nitrogen excretion factors of livestock in the European Union: a review. Journal of the Science of Food and Agriculture, 2015, 95, 3004-3014.	1.7	59
40	Global environmental costs of China's thirst for milk. Global Change Biology, 2018, 24, 2198-2211.	4.2	56
41	Costs and benefits of nitrogen in the environment. , 2011, , 513-540.		54
42	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.	1.1	53
43	Denitrification rates in relation to groundwater level in a peat soil under grassland. Biology and Fertility of Soils, 2004, 39, 329-336.	2.3	50
44	Spatial Planning Needed to Drastically Reduce Nitrogen and Phosphorus Surpluses in Chinaâ€™s Agriculture. Environmental Science & Technology, 2020, 54, 11894-11904.	4.6	50
45	Relocate 10 billion livestock to reduce harmful nitrogen pollution exposure for 90% of Chinaâ€™s population. Nature Food, 2022, 3, 152-160.	6.2	50
46	Designing Vulnerable Zones of Nitrogen and Phosphorus Transfers To Control Water Pollution in China. Environmental Science & Technology, 2018, 52, 8987-8988.	4.6	49
47	Chinaâ€™s pig relocation in balance. Nature Sustainability, 2019, 2, 888-888.	11.5	48
48	Subsoil 15N-N2O Concentrations in a Sandy Soil Profile After Application of 15N-fertilizer. Nutrient Cycling in Agroecosystems, 2005, 72, 13-25.	1.1	46
49	Livestock Housing and Manure Storage Need to Be Improved in China. Environmental Science & Technology, 2017, 51, 8212-8214.	4.6	46
50	Temporal Stability of Spatial Patterns of Nitrous Oxide Fluxes from Sloping Grassland. Journal of Environmental Quality, 2000, 29, 1397-1407.	1.0	45
51	Feed use and nitrogen excretion of livestock in EU-27. Agriculture, Ecosystems and Environment, 2016, 218, 232-244.	2.5	43
52	Acidification of manure reduces gaseous emissions and nutrient losses from subsequent composting process. Journal of Environmental Management, 2020, 264, 110454.	3.8	41
53	Reducing external costs of nitrogen pollution by relocation of pig production between regions in the European Union. Regional Environmental Change, 2018, 18, 2403-2415.	1.4	39
54	Further Improvement of Air Quality in China Needs Clear Ammonia Mitigation Target. Environmental Science & Technology, 2019, 53, 10542-10544.	4.6	32

#	Article	IF	Citations
55	Nitrogen Surplusâ€"A Unified Indicator for Water Pollution in Europe?. Water (Switzerland), 2020, 12, 1197.	1.2	32
56	Reducing nitrous oxide emissions from the global food system. Current Opinion in Environmental Sustainability, 2014, 9-10, 55-64.	3.1	28
57	Nitrogen in current European policies. , 2011, , 62-81.		27
58	Can dietary manipulations improve the productivity of pigs with lower environmental and economic cost? A global meta-analysis. Agriculture, Ecosystems and Environment, 2020, 289, 106748.	2.5	24
59	Gaseous Nitrogen Emissions from Livestock Farming Systems. , 2001, , 255-289.		22
60	Leaching of Solutes from an Intensively Managed Peat Soil to Surface Water. Water, Air, and Soil Pollution, 2007, 182, 291-301.	1.1	22
61	Cooperation between specialized livestock and crop farms can reduce environmental footprints and increase net profits in livestock production. Journal of Environmental Management, 2022, 302, 113960.	3.8	22
62	Mitigation strategies for greenhouse gas emissions from animal production systems: synergy between measuring and modelling at different scales. Australian Journal of Experimental Agriculture, 2008, 48, 46.	1.0	18
63	Comparison of indices for the prediction of nitrogen mineralization after destruction of managed grassland. Plant and Soil, 2010, 331, 139-150.	1.8	16
64	DATAMAN: A global database of nitrous oxide and ammonia emission factors for excreta deposited by livestock and landâ€applied manure. Journal of Environmental Quality, 2021, 50, 513-527.	1.0	16
65	Ammonia and nitrous oxide emission factors for excreta deposited by livestock and landâ€applied manure. Journal of Environmental Quality, 2021, 50, 1005-1023.	1.0	15
66	Food and feed trade has greatly impacted global land and nitrogen use efficiencies over 1961â€"2017. Nature Food, 2021, 2, 780-791.	6.2	15
67	How to Enhance the Role of Science in European Union Policy Making and Implementation: The Case of Agricultural Impacts on Drinking Water Quality. Water (Switzerland), 2019, 11, 492.	1.2	13
68	How Can Decision Support Tools Help Reduce Nitrate and Pesticide Pollution from Agriculture? A Literature Review and Practical Insights from the EU FAIRWAY Project. Water (Switzerland), 2020, 12, 768.	1.2	13
69	Mitigation options to reduce nitrogen losses to water from crop and livestock production in China. Current Opinion in Environmental Sustainability, 2019, 40, 95-107.	3.1	10
70	Estimation of Plantâ€Available Nitrogen in Soils using Rapid Chemical and Biological Methods. Communications in Soil Science and Plant Analysis, 2010, 41, 52-71.	0.6	8
71	Denitrification and Agriculture. , 2007, , 331-341.		7
72	Mitigation of nitrous oxide emissions from food production in China. Current Opinion in Environmental Sustainability, 2014, 9-10, 82-89.	3.1	7

#	Article	IF	Citations
73	Mitigating N2O emissions from urine patches in pastures. International Congress Series, 2006, 1293, 347-350.	0.2	5
74	Effects of nitrogen fertilization and grazing on the emission of nitrous oxide from grassland. Studies in Environmental Science, 1995, 65, 627-630.	0.0	4
75	Optimization of the Nutrient Management of Silage Maize Cropping Systems in The Netherlands: A Review. Agronomy, 2020, 10, 1861.	1.3	4
76	Assessment of the impact of various mitigation options on nitrous oxide emissions caused by the agricultural sector in Europe. Journal of Integrative Environmental Sciences, 2010, 7, 223-234.	1.0	3