

Gerard L Velthof

List of Publications by Year in descending order

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76
papers

8,457
citations

57758

44
h-index

82547

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. <i>Soil Biology and Biochemistry</i> , 2001, 33, 1723-1732.	8.8	1,484
2	Towards an agronomic assessment of N ₂ O emissions: a case study for arable crops. <i>European Journal of Soil Science</i> , 2010, 61, 903-913.	3.9	594
3	The role of nitrifier denitrification in the production of nitrous oxide revisited. <i>Soil Biology and Biochemistry</i> , 2018, 123, A3-A16.	8.8	293
4	Trends in Global Nitrous Oxide Emissions from Animal Production Systems. <i>Nutrient Cycling in Agroecosystems</i> , 2005, 72, 51-65.	2.2	290
5	Nitrous oxide emission from animal manures applied to soil under controlled conditions. <i>Biology and Fertility of Soils</i> , 2003, 37, 221-230.	4.3	262
6	China's livestock transition: Driving forces, impacts, and consequences. <i>Science Advances</i> , 2018, 4, eaar8534.	10.3	253
7	Integrated Assessment of Nitrogen Losses from Agriculture in EU-27 using MITERRA-EUROPE. <i>Journal of Environmental Quality</i> , 2009, 38, 402-417.	2.0	245
8	Nutrient losses from manure management in the European Union. <i>Livestock Science</i> , 2007, 112, 261-272.	1.6	231
9	Benefits and trade-offs of replacing synthetic fertilizers by animal manures in crop production in China: A meta-analysis. <i>Global Change Biology</i> , 2020, 26, 888-900.	9.5	217
10	Modeling Nutrient Flows in the Food Chain of China. <i>Journal of Environmental Quality</i> , 2010, 39, 1279-1289.	2.0	207
11	Mitigation of ammonia, nitrous oxide and methane emissions from manure management chains: a meta-analysis and integrated assessment. <i>Global Change Biology</i> , 2015, 21, 1293-1312.	9.5	201
12	Nitrogen and phosphorus use efficiencies and losses in the food chain in China at regional scales in 1980 and 2005. <i>Science of the Total Environment</i> , 2012, 434, 51-61.	8.0	199
13	Nitrogen, Phosphorus, and Potassium Flows through the Manure Management Chain in China. <i>Environmental Science & Technology</i> , 2016, 50, 13409-13418.	10.0	189
14	Integrated assessment of promising measures to decrease nitrogen losses from agriculture in EU-27. <i>Agriculture, Ecosystems and Environment</i> , 2009, 133, 280-288.	5.3	172
15	Nitrous oxide emission from urine-treated soil as influenced by urine composition and soil physical conditions. <i>Soil Biology and Biochemistry</i> , 2005, 37, 463-473.	8.8	155
16	Alarming nutrient pollution of Chinese rivers as a result of agricultural transitions. <i>Environmental Research Letters</i> , 2016, 11, 024014.	5.2	148
17	Nitrous oxide emission from soils amended with crop residues. <i>Nutrient Cycling in Agroecosystems</i> , 2002, 62, 249-261.	2.2	146
18	An Assessment of the Variation of Manure Nitrogen Efficiency throughout Europe and an Appraisal of Means to Increase Manure-N Efficiency. <i>Advances in Agronomy</i> , 2013, 119, 371-442.	5.2	135

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19	Differentiation of nitrous oxide emission factors for agricultural soils. <i>Environmental Pollution</i> , 2011, 159, 3215-3222.	7.5	132
20	Environmental Assessment of Management Options for Nutrient Flows in the Food Chain in China. <i>Environmental Science & Technology</i> , 2013, 47, 7260-7268.	10.0	130
21	Nitrous oxide production in grassland soils: assessing the contribution of nitrifier denitrification. <i>Soil Biology and Biochemistry</i> , 2004, 36, 229-236.	8.8	128
22	Seasonal variations in nitrous oxide losses from managed grasslands in The Netherlands. <i>Plant and Soil</i> , 1996, 181, 263-274.	3.7	126
23	Seasonal variation in N ₂ O emissions from urine patches: Effects of urine concentration, soil compaction and dung. <i>Plant and Soil</i> , 2005, 273, 15-27.	3.7	126
24	Nitrous oxide fluxes from grassland in the Netherlands: II. Effects of soil type, nitrogen fertilizer application and grazing. <i>European Journal of Soil Science</i> , 1995, 46, 541-549.	3.9	124
25	Spatial variability of nitrous oxide fluxes in mown and grazed grasslands on a poorly drained clay soil. <i>Soil Biology and Biochemistry</i> , 1996, 28, 1215-1225.	8.8	115
26	Effects of type and amount of applied nitrogen fertilizer on nitrous oxide fluxes from intensively managed grassland. <i>Nutrient Cycling in Agroecosystems</i> , 1996, 46, 257-267.	2.2	112
27	Nutrient Recovery and Emissions of Ammonia, Nitrous Oxide, and Methane from Animal Manure in Europe: Effects of Manure Treatment Technologies. <i>Environmental Science & Technology</i> , 2017, 51, 375-383.	10.0	106
28	Pig slurry treatment modifies slurry composition, N ₂ O, and CO ₂ emissions after soil incorporation. <i>Soil Biology and Biochemistry</i> , 2008, 40, 1999-2006.	8.8	104
29	Gaseous Nitrogen and Carbon Losses from Pig Manure Derived from Different Diets. <i>Journal of Environmental Quality</i> , 2005, 34, 698-706.	2.0	95
30	Accumulation and leaching of nitrate in soils in wheat-maize production in China. <i>Agricultural Water Management</i> , 2019, 212, 407-415.	5.6	93
31	Method and timing of grassland renovation affects herbage yield, nitrate leaching, and nitrous oxide emission in intensively managed grasslands. <i>Nutrient Cycling in Agroecosystems</i> , 2010, 86, 401-412.	2.2	82
32	Nitrous oxide fluxes from grassland in the Netherlands: I. Statistical analysis of flux-chamber measurements. <i>European Journal of Soil Science</i> , 1995, 46, 533-540.	3.9	81
33	Impacts of urban expansion on nitrogen and phosphorus flows in the food system of Beijing from 1978 to 2008. <i>Global Environmental Change</i> , 2014, 28, 192-204.	7.8	74
34	Technical and policy aspects of strategies to decrease greenhouse gas emissions from agriculture. <i>Nutrient Cycling in Agroecosystems</i> , 2001, 60, 301-315.	2.2	64
35	Acetylene and oxygen as inhibitors of nitrous oxide production in <i>Nitrosomonas europaea</i> and <i>Nitrospira briensis</i> : a cautionary tale. <i>FEMS Microbiology Ecology</i> , 2004, 47, 13-18.	2.7	63
36	Exploring Future Food Provision Scenarios for China. <i>Environmental Science & Technology</i> , 2019, 53, 1385-1393.	10.0	62

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37	Stakeholder perceptions of manure treatment technologies in Denmark, Italy, the Netherlands and Spain. <i>Journal of Cleaner Production</i> , 2018, 172, 1620-1630.	9.3	61
38	An Analysis of Developments and Challenges in Nutrient Management in China. <i>Journal of Environmental Quality</i> , 2013, 42, 951-961.	2.0	59
39	Nitrogen excretion factors of livestock in the European Union: a review. <i>Journal of the Science of Food and Agriculture</i> , 2015, 95, 3004-3014.	3.5	59
40	Global environmental costs of China's thirst for milk. <i>Global Change Biology</i> , 2018, 24, 2198-2211.	9.5	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. <i>Nutrient Cycling in Agroecosystems</i> , 2016, 104, 361-372.	2.2	53
43	Denitrification rates in relation to groundwater level in a peat soil under grassland. <i>Biology and Fertility of Soils</i> , 2004, 39, 329-336.	4.3	50
44	Spatial Planning Needed to Drastically Reduce Nitrogen and Phosphorus Surpluses in Chinaâ€™s Agriculture. <i>Environmental Science & Technology</i> , 2020, 54, 11894-11904.	10.0	50
45	Relocate 10 billion livestock to reduce harmful nitrogen pollution exposure for 90% of Chinaâ€™s population. <i>Nature Food</i> , 2022, 3, 152-160.	14.0	50
46	Designing Vulnerable Zones of Nitrogen and Phosphorus Transfers To Control Water Pollution in China. <i>Environmental Science & Technology</i> , 2018, 52, 8987-8988.	10.0	49
47	Chinaâ€™s pig relocation in balance. <i>Nature Sustainability</i> , 2019, 2, 888-888.	23.7	48
48	Subsoil 15N-N2O Concentrations in a Sandy Soil Profile After Application of 15N-fertilizer. <i>Nutrient Cycling in Agroecosystems</i> , 2005, 72, 13-25.	2.2	46
49	Livestock Housing and Manure Storage Need to Be Improved in China. <i>Environmental Science & Technology</i> , 2017, 51, 8212-8214.	10.0	46
50	Temporal Stability of Spatial Patterns of Nitrous Oxide Fluxes from Sloping Grassland. <i>Journal of Environmental Quality</i> , 2000, 29, 1397-1407.	2.0	45
51	Feed use and nitrogen excretion of livestock in EU-27. <i>Agriculture, Ecosystems and Environment</i> , 2016, 218, 232-244.	5.3	43
52	Acidification of manure reduces gaseous emissions and nutrient losses from subsequent composting process. <i>Journal of Environmental Management</i> , 2020, 264, 110454.	7.8	41
53	Reducing external costs of nitrogen pollution by relocation of pig production between regions in the European Union. <i>Regional Environmental Change</i> , 2018, 18, 2403-2415.	2.9	39
54	Further Improvement of Air Quality in China Needs Clear Ammonia Mitigation Target. <i>Environmental Science & Technology</i> , 2019, 53, 10542-10544.	10.0	32

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55	Nitrogen Surplus – A Unified Indicator for Water Pollution in Europe?. <i>Water (Switzerland)</i> , 2020, 12, 1197.	2.7	32
56	Reducing nitrous oxide emissions from the global food system. <i>Current Opinion in Environmental Sustainability</i> , 2014, 9-10, 55-64.	6.3	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. <i>Agriculture, Ecosystems and Environment</i> , 2020, 289, 106748.	5.3	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. <i>Water, Air, and Soil Pollution</i> , 2007, 182, 291-301.	2.4	22
61	Cooperation between specialized livestock and crop farms can reduce environmental footprints and increase net profits in livestock production. <i>Journal of Environmental Management</i> , 2022, 302, 113960.	7.8	22
62	Mitigation strategies for greenhouse gas emissions from animal production systems: synergy between measuring and modelling at different scales. <i>Australian Journal of Experimental Agriculture</i> , 2008, 48, 46.	1.0	18
63	Comparison of indices for the prediction of nitrogen mineralization after destruction of managed grassland. <i>Plant and Soil</i> , 2010, 331, 139-150.	3.7	16
64	DATAMAN: A global database of nitrous oxide and ammonia emission factors for excreta deposited by livestock and land-applied manure. <i>Journal of Environmental Quality</i> , 2021, 50, 513-527.	2.0	16
65	Ammonia and nitrous oxide emission factors for excreta deposited by livestock and land-applied manure. <i>Journal of Environmental Quality</i> , 2021, 50, 1005-1023.	2.0	15
66	Food and feed trade has greatly impacted global land and nitrogen use efficiencies over 1961–2017. <i>Nature Food</i> , 2021, 2, 780-791.	14.0	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. <i>Water (Switzerland)</i> , 2019, 11, 492.	2.7	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. <i>Water (Switzerland)</i> , 2020, 12, 768.	2.7	13
69	Mitigation options to reduce nitrogen losses to water from crop and livestock production in China. <i>Current Opinion in Environmental Sustainability</i> , 2019, 40, 95-107.	6.3	10
70	Estimation of Plant-Available Nitrogen in Soils using Rapid Chemical and Biological Methods. <i>Communications in Soil Science and Plant Analysis</i> , 2010, 41, 52-71.	1.4	8
71	Denitrification and Agriculture. , 2007, , 331-341.		7
72	Mitigation of nitrous oxide emissions from food production in China. <i>Current Opinion in Environmental Sustainability</i> , 2014, 9-10, 82-89.	6.3	7

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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.	3.0	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.	2.5	3