Reinhard Well

List of Publications by Year
in descending order

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78	3,097	136950	175258
papers	citations	32 h-index	52 g-index

83	83	83	2650
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The role of nitrifier denitrification in the production of nitrous oxide revisited. Soil Biology and Biochemistry, 2018, 123, A3-A16.	8.8	293
2	Isotopic signatures of N2O produced by ammonia-oxidizing archaea from soils. ISME Journal, 2014, 8, 1115-1125.	9.8	143
3	Deep ploughing increases agricultural soil organic matter stocks. Global Change Biology, 2016, 22, 2939-2956.	9.5	118
4	Quantifying N₂O reduction to N₂ based on N₂O isotopocules â€“ validation with independent methods (helium incubation and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 612 Td (<s	3.3	116
5	Nitrification inhibitors mitigate N2O emissions more effectively under straw-induced conditions favoring denitrification. Soil Biology and Biochemistry, 2017, 104, 197-207.	8.8	98
6	Is the isotopic composition of nitrous oxide an indicator for its origin from nitrification or denitrification? A theoretical approach from referred data and microbiological and enzyme kinetic aspects. Rapid Communications in Mass Spectrometry, 2004, 18, 2036-2040.	1.5	94
7	Isotopologue ratios of N2O emitted from microcosms with NH4+ fertilized arable soils under conditions favoring nitrification. Soil Biology and Biochemistry, 2008, 40, 2416-2426.	8.8	90
8	Interlaboratory assessment of nitrous oxide isotopomer analysis by isotope ratio mass spectrometry and laser spectroscopy: current status and perspectives. Rapid Communications in Mass Spectrometry, 2014, 28, 1995-2007.	1.5	89
9	Experimental determinations of isotopic fractionation factors associated with N2O production and reduction during denitrification in soils. Geochimica Et Cosmochimica Acta, 2014, 134, 55-73.	3.9	81
10	Effect of antecedent soil moisture conditions on emissions and isotopologue distribution of N2O during denitrification. Soil Biology and Biochemistry, 2011, 43, 240-250.	8.8	78
11	Are dual isotope and isotopomer ratios of N2O useful indicators for N2O turnover during denitrification in nitrate-contaminated aquifers?. Geochimica Et Cosmochimica Acta, 2012, 90, 265-282.	3.9	77
12	Dual isotope and isotopomer signatures of nitrous oxide from fungal denitrification - a pure culture study. Rapid Communications in Mass Spectrometry, 2014, 28, 1893-1903.	1.5	71
13	Gas entrapment and microbial N2O reduction reduce N2O emissions from a biochar-amended sandy clay loam soil. Scientific Reports, 2016, 6, 39574.	3.3	65
14	Rapid shift from denitrification to nitrification in soil after biogas residue application as indicated by nitrous oxide isotopomers. Soil Biology and Biochemistry, 2011, 43, 1671-1677.	8.8	62
15	Interaction of straw amendment and soil NO3â" content controls fungal denitrification and denitrification product stoichiometry in a sandy soil. Soil Biology and Biochemistry, 2018, 126, 204-212.	8.8	61
16	Anaerobic digestates lower N2O emissions compared to cattle slurry by affecting rate and product stoichiometry of denitrification â€“ An N2O isotopomer case study. Soil Biology and Biochemistry, 2015, 84, 65-74.	8.8	57
17	Fluxes of N2 and N2O and contributing processes in summer after grassland renewal and grassland conversion to maize cropping on a Plaggic Anthrosol and a Histic Gleysol. Soil Biology and Biochemistry, 2016, 101, 6-19.	8.8	56
18	An in-depth look into a tropical lowland forest soil: nitrogen-addition effects on the contents of N2O, CO2 and CH4 and N2O isotopic signatures down to 2-m depth. Biogeochemistry, 2012, 111, 695-713.	3.5	55

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19	Denitrification as a source of nitric oxide emissions from incubated soil cores from a UK grassland soil. Soil Biology and Biochemistry, 2016, 95, 1-7.	8.8	53
20	Soil N2O fluxes and related processes in laboratory incubations simulating ammonium fertilizer depots. Soil Biology and Biochemistry, 2017, 104, 68-80.	8.8	53
21	Novel laser spectroscopic technique for continuous analysis of N₂O isotopomers â€“ application and intercomparison with isotope ratio mass spectrometry. Rapid Communications in Mass Spectrometry, 2013, 27, 216-222.	1.5	50
22	Oxygen isotope fractionation during N₂O production by soil denitrification. Biogeosciences, 2016, 13, 1129-1144.	3.3	49
23	Straw amendment with nitrate-N decreased N2O/(N2O+N2) ratio but increased soil N2O emission: A case study of direct soil-born N2 measurements. Soil Biology and Biochemistry, 2018, 127, 301-304.	8.8	49
24	Use of oxygen isotopes to differentiate between nitrous oxide produced by fungi or bacteria during denitrification. Rapid Communications in Mass Spectrometry, 2017, 31, 1297-1312.	1.5	47
25	Soil denitrification potential and its influence on N₂O reduction and N₂O isotopomer ratios. Rapid Communications in Mass Spectrometry, 2013, 27, 2363-2373.	1.5	46
26	Quantifying N2O reduction to N2 during denitrification in soils via isotopic mapping approach: Model evaluation and uncertainty analysis. Environmental Research, 2019, 179, 108806.	7.5	46
27	Nitrous oxide effluxes from plants as a potentially important source to the atmosphere. New Phytologist, 2019, 221, 1398-1408.	7.3	46
28	An enhanced technique for automated determination of ¹⁵N signatures of N₂, (N₂+N₂O) and N₂O in gas samples. Rapid Communications in Mass Spectrometry, 2013, 27, 1548-1558.	1.5	44
29	Isotope fractionation factors controlling isotopocule signatures of soil-emitted N₂ O produced by denitrification processes of various rates. Rapid Communications in Mass Spectrometry, 2015, 29, 269-282.	1.5	43
30	Denitrification in soil as a function of oxygen availability at the microscale. Biogeosciences, 2021, 18, 1185-1201.	3.3	43
31	Estimating N₂O processes during grassland renewal and grassland conversion to maize cropping using N₂O isotopocules. Rapid Communications in Mass Spectrometry, 2018, 32, 1053-1067.	1.5	42
32	Denitrification in the saturated zone of hydromorphic soilsâ€”laboratory measurement, regulating factors and stochastic modeling. Soil Biology and Biochemistry, 2005, 37, 1822-1836.	8.8	38
33	Indications for enzymatic denitrification to N2O at low pH in an ammonia-oxidizing archaeon. ISME Journal, 2019, 13, 2633-2638.	9.8	35
34	Long term farming systems affect soils potential for N2O production and reduction processes under denitrifying conditions. Soil Biology and Biochemistry, 2017, 114, 31-41.	8.8	34
35	Soil mineral N dynamics and N 2 O emissions following grassland renewal. Agriculture, Ecosystems and Environment, 2017, 246, 325-342.	5.3	33
36	Laboratory evaluation of a new method for in situ measurement of denitrification in water-saturated soils. Soil Biology and Biochemistry, 1999, 31, 1109-1119.	8.8	31

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37	Recovery of groundwater N2O at the soil surface and its contribution to total N2O emissions. Nutrient Cycling in Agroecosystems, 2009, 85, 299-312.	2.2	31
38	Evaluation of septum-capped vials for storage of gas samples during air transport. Environmental Monitoring and Assessment, 2007, 136, 307-311.	2.7	29
39	Impact of CULTAN fertilization with ammonium sulfate on field emissions of nitrous oxide. Agriculture, Ecosystems and Environment, 2016, 219, 138-151.	5.3	29
40	Denitrification in Shallow Groundwater Below Different Arable Land Systems in a High Nitrogenâ€Loading Region. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 991-1004.	3.0	28
41	N₂O isotope approaches for source partitioning of N₂O production and estimation of N₂O reduction â€“ validation with the ¹⁵N gas-flux method in laboratory and field studies. Biogeosciences, 2020, 17, 5513-5537.	3.3	28
42	Effect of soil saturation on denitrification in a grassland soil. Biogeosciences, 2017, 14, 4691-4710.	3.3	26
43	Isotopologue Ratios of N₂O and N₂ Measurements Underpin the Importance of Denitrification in Differently N-Loaded Riparian Alder Forests. Environmental Science & Technology, 2014, 48, 11910-11918.	10.0	24
44	Estimation of Indirect Nitrous Oxide Emissions from a Shallow Aquifer in Northern Germany. Journal of Environmental Quality, 2009, 38, 2161-2171.	2.0	22
45	Improvement of the ¹⁵N gas flux method for in situ measurement of soil denitrification and its product stoichiometry. Rapid Communications in Mass Spectrometry, 2019, 33, 437-448.	1.5	22
46	Measuring ¹⁵N Abundance and Concentration of Aqueous Nitrate, Nitrite, and Ammonium by Membrane Inlet Quadrupole Mass Spectrometry. Analytical Chemistry, 2017, 89, 6076-6081.	6.5	21
47	Preliminary assessment of stable nitrogen and oxygen isotopic composition of USGS51 and USGS52 nitrous oxide reference gases and perspectives on calibration needs. Rapid Communications in Mass Spectrometry, 2018, 32, 1207-1214.	1.5	21
48	Biologically mediated release of endogenous N2O and NO2 gases in a hydrothermal, hypoxic subterranean environment. Science of the Total Environment, 2020, 747, 141218.	8.0	21
49	Maize root and shoot litter quality controls short-term CO₂ and N₂O emissions and bacterial community structure of arable soil. Biogeosciences, 2020, 17, 1181-1198.	3.3	20
50	Rhizosphere processes in nitrate-rich barley soil tripled both N2O and N2 losses due to enhanced bacterial and fungal denitrification. Plant and Soil, 2020, 448, 509-522.	3.7	18
51	Underestimation of denitrification rates from field application of the ¹⁵N gas flux method and its correction by gas diffusion modelling. Biogeosciences, 2019, 16, 2233-2246.	3.3	17
52	Fungal oxygen exchange between denitrification intermediates and water. Rapid Communications in Mass Spectrometry, 2014, 28, 377-384.	1.5	15
53	Automated system measuring triple oxygen and nitrogen isotope ratios in nitrate using the bacterial method and N₂O decomposition by microwave discharge. Rapid Communications in Mass Spectrometry, 2016, 30, 2635-2644.	1.5	15
54	Legacy of medieval ridge and furrow cultivation on soil organic carbon distribution and stocks in forests. Catena, 2017, 154, 85-94.	5.0	15

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55	Nitrate uptake and carbon exudation â€“ do plant roots stimulate or inhibit denitrification?. Plant and Soil, 2021, 459, 217-233.	3.7	15
56	Combined application of organic manure with urea does not alter the dominant biochemical pathway producing N2O from urea treated soil. Biology and Fertility of Soils, 2020, 56, 331-343.	4.3	14
57	Seasonally distinct sources of N2O in acid organic soil drained for agriculture as revealed by N2O isotopomer analysis. Biogeochemistry, 2020, 147, 15-33.	3.5	13
58	Influence of Lumbricus terrestris and <scp>Folsomia candida</scp> on N₂O formation pathways in two different soils â€“ with particular focus on N₂ emissions. Rapid Communications in Mass Spectrometry, 2016, 30, 2301-2314.	1.5	12
59	Nitrite induced transcription of p450nor during denitrification by Fusarium oxysporum correlates with the production of N2O with a high 15N site preference. Soil Biology and Biochemistry, 2020, 151, 108043.	8.8	12
60	N₂ and N₂O mitigation potential of replacing maize with the perennial biomass crop Silphium perfoliatumâ€”An incubation study. GCB Bioenergy, 2021, 13, 1649-1665.	5.6	12
61	Combination Probe for Nitrogen-15 Soil Labeling and Sampling of Soil Atmosphere to Measure Subsurface Denitrification Activity. Soil Science Society of America Journal, 1997, 61, 802-811.	2.2	11
62	Comments on â€œA test of a fieldâ€based ¹⁵Nâ€nitrous oxide pool dilution technique to measure gross N₂O production in soilâ€•by Yang etÂal. (2011), Global Change Biology, 17, 3577â€“3588. Global Change Biology, 2013, 19, 133-135.	9.5	11
63	Greenhouse gas emissions after application of digestate: short-term effects of nitrification inhibitor and application technique effects. Archives of Agronomy and Soil Science, 2016, 62, 1007-1020.	2.6	10
64	Comparing modified substrate-induced respiration with selective inhibition (SIRIN) and N₂O isotope approaches to estimate fungal contribution to denitrification in three arable soils under anoxic conditions. Biogeosciences, 2021, 18, 4629-4650.	3.3	10
65	Effect of chemical and mechanical grassland conversion to cropland on soil mineral N dynamics and N2O emission. Agriculture, Ecosystems and Environment, 2020, 298, 106975.	5.3	9
66	The ¹⁵N gas-flux method to determine N₂ flux: a comparison of different tracer addition approaches. Soil, 2020, 6, 145-152.	4.9	9
67	Comparison of methods to determine triple oxygen isotope composition of N₂O. Rapid Communications in Mass Spectrometry, 2015, 29, 1991-1996.	1.5	8
68	A new chamber design for measuring nitrous oxide emissions in maize crops. Journal of Plant Nutrition and Soil Science, 2018, 181, 69-77.	1.9	8
69	NO Reduction to N₂O Improves Nitrate ¹⁵N Abundance Analysis by Membrane Inlet Quadrupole Mass Spectrometry. Analytical Chemistry, 2018, 90, 11216-11218.	6.5	8
70	A Proposed Method for Measuring Subsoil Denitrification In Situ. Soil Science Society of America Journal, 2002, 66, 507.	2.2	8
71	Online measurement of denitrification rates in aquifer samples by an approach coupling an automated sampling and calibration unit to a membrane inlet mass spectrometry system. Rapid Communications in Mass Spectrometry, 2011, 25, 1993-2006.	1.5	7
72	Regulation of the product stoichiometry of denitrification in intensively managed soils. Food and Energy Security, 2020, 9, e251.	4.3	7

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73	Effects of grass species and grass growth on atmospheric nitrogen deposition to a bog ecosystem surrounded by intensive agricultural land use. Ecology and Evolution, 2015, 5, 2556-2571.	1.9	6
74	Nitrogen isotope analysis of aqueous ammonium and nitrate by membrane inlet isotope ratio mass spectrometry (MIRMS) at natural abundance levels. Rapid Communications in Mass Spectrometry, 2021, 35, e9077.	1.5	6
75	Evaluation of denitrification and decomposition from three biogeochemical models using laboratory measurements of N₂, N₂O and CO₂. Biogeosciences, 2021, 18, 5681-5697.	3.3	5
76	Development and verification of a novel isotopic N 2 O measurement technique for discrete static chamber samples using cavity ringâ€down spectroscopy. Rapid Communications in Mass Spectrometry, 2021, 35, e9049.	1.5	4
77	Improved isotopic model based on ¹⁵N tracing and Rayleighâ€type isotope fractionation for simulating differential sources of N₂O emissions in a clay grassland soil. Rapid Communications in Mass Spectrometry, 2019, 33, 449-460.	1.5	3
78	Understanding the Impact of Liquid Organic Fertilisation and Associated Application Techniques on N2, N2O and CO2 Fluxes from Agricultural Soils. Agriculture (Switzerland), 2022, 12, 692.	3.1	1