Klaus Butterbach-Bahl

List of Publications by Year
in descending order

384 papers	25,499 citations	6613 79 h-index	12272 133 g-index
411 all docs	411 docs citations	411 times ranked	17843 citing authors

#	Article	IF	Citations
1	Nitrous oxide emissions from soils: how well do we understand the processes and their controls?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130122.	4.0	1,788
2	The global nitrogen cycle in the twenty-first century. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130164.	4.0	1,114
3	METHODS FOR MEASURING DENITRIFICATION: DIVERSE APPROACHES TO A DIFFICULT PROBLEM. , 2006, 16, 2091-2122.		757
4	Atmospheric composition change: Ecosystemsâ€“Atmosphere interactions. Atmospheric Environment, 2009, 43, 5193-5267.	4.1	609
5	Greenhouse gas mitigation potentials in the livestock sector. Nature Climate Change, 2016, 6, 452-461.	18.8	588
6	Challenges to incorporating spatially and temporally explicit phenomena (hotspots and hot moments) in denitrification models. Biogeochemistry, 2009, 93, 49-77.	3.5	529
7	A process-oriented model of N2O and NO emissions from forest soils: 1. Model development. Journal of Geophysical Research, 2000, 105, 4369-4384.	3.3	486
8	A Network of Terrestrial Environmental Observatories in Germany. Vadose Zone Journal, 2011, 10, 955-973.	2.2	401
9	Carbon Sequestration in Arable Soils is Likely to Increase Nitrous Oxide Emissions, Offsetting Reductions in Climate Radiative Forcing. Climatic Change, 2005, 72, 321-338.	3.6	288
10	Effects of soil moisture and temperature on NO, NO2, and N2O emissions from European forest soils. Journal of Geophysical Research, 2004, 109, .	3.3	276
11	Tradeâ€offs between soil carbon sequestration and reactive nitrogen losses under straw return in global agroecosystems. Global Change Biology, 2018, 24, 5919-5932.	9.5	273
12	The nitrogen cycle: A review of isotope effects and isotope modeling approaches. Soil Biology and Biochemistry, 2017, 105, 121-137.	8.8	259
13	Grazing-induced reduction of natural nitrous oxide release from continental steppe. Nature, 2010, 464, 881-884.	27.8	254
14	Impact of gas transport through rice cultivars on methane emission from rice paddy fields. Plant, Cell and Environment, 1997, 20, 1175-1183.	5.7	232
15	Nitrous oxide emissions from a cropped soil in a semiâ€arid climate. Global Change Biology, 2008, 14, 177-192.	9.5	231
16	Reactive nitrogen in the environment and its effect on climate change. Current Opinion in Environmental Sustainability, 2011, 3, 281-290.	6.3	224
17	A 3-year continuous record of nitrogen trace gas fluxes from untreated and limed soil of a N-saturated spruce and beech forest ecosystem in Germany: 1. N2O emissions. Journal of Geophysical Research, 1999, 104, 18487-18503.	3.3	219
18	MODELING DENITRIFICATION IN TERRESTRIAL AND AQUATIC ECOSYSTEMS AT REGIONAL SCALES. , 2006, 16, 2123-2142.		216

#	Article	IF	Citations
19	Title is missing!. Nutrient Cycling in Agroecosystems, 1997, 48, 79-90.	2.2	209
20	Factors controlling regional differences in forest soil emission of nitrogen oxides (NO and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 Td	3.3	205
21	General CH4oxidation model and comparisons of CH4Oxidation in natural and managed systems. Global Biogeochemical Cycles, 2000, 14, 999-1019.	4.9	196
22	N2O and CO2 emissions from three different tropical forest sites in the wet tropics of Queensland, Australia. Soil Biology and Biochemistry, 2002, 34, 975-987.	8.8	194
23	Effects of soil temperature and moisture on methane uptake and nitrous oxide emissions across three different ecosystem types. Biogeosciences, 2013, 10, 3205-3219.	3.3	177
24	A review of soil NO transformation: Associated processes and possible physiological significance on organisms. Soil Biology and Biochemistry, 2015, 80, 92-117.	8.8	173
25	Inventories of N₂O and NO emissions from European forest soils. Biogeosciences, 2005, 2, 353-375.	3.3	170
26	Short and long-term impacts of nitrogen deposition on carbon sequestration by forest ecosystems. Current Opinion in Environmental Sustainability, 2014, 9-10, 90-104.	6.3	170
27	Effects of global change during the 21st century on the nitrogen cycle. Atmospheric Chemistry and Physics, 2015, 15, 13849-13893.	4.9	168
28	N2O emission from tropical forest soils of Australia. Journal of Geophysical Research, 2000, 105, 26353-26367.	3.3	163
29	Effects of soil moisture and temperature on CO2 and CH4 soilâ€“atmosphere exchange of various land use/cover types in a semi-arid grassland in Inner Mongolia, China. Soil Biology and Biochemistry, 2010, 42, 773-787.	8.8	153
30	A global synthesis of the rate and temperature sensitivity of soil nitrogen mineralization: latitudinal patterns and mechanisms. Global Change Biology, 2017, 23, 455-464.	9.5	151
31	Soil core method for direct simultaneous determination of N2 and N2O emissions from forest soils. Plant and Soil, 2002, 240, 105-116.	3.7	148
32	A metaâ€analysis of soil salinization effects on nitrogen pools, cycles and fluxes in coastal ecosystems. Global Change Biology, 2017, 23, 1338-1352.	9.5	148
33	Stand age-related effects on soil respiration in a first rotation Sitka spruce chronosequence in central Ireland. Global Change Biology, 2006, 12, 1007-1020.	9.5	145
34	Denitrification and associated soil N2O emissions due to agricultural activities in a changing climate. Current Opinion in Environmental Sustainability, 2011, 3, 389-395.	6.3	138
35	Impact of N-input by wet deposition on N-trace gas fluxes and CH4-oxidation in spruce forest ecosystems of the temperate zone in Europe. Atmospheric Environment, 1998, 32, 559-564.	4.1	136
36	N2O, CH4 and CO2 emissions from seasonal tropical rainforests and a rubber plantation in Southwest China. Plant and Soil, 2006, 289, 335-353.	3.7	136

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37	A global inventory of N₂O emissions from tropical rainforest soils using a detailed biogeochemical model. Global Biogeochemical Cycles, 2007, 21, .	4.9	136
38	A process-oriented model of N2O and NO emissions from forest soils: 2. Sensitivity analysis and validation. Journal of Geophysical Research, 2000, 105, 4385-4398.	3.3	135
39	Methane oxidation by soils of an N limited and N fertilized spruce forest in the Black Forest, Germany. Soil Biology and Biochemistry, 2001, 33, 145-153.	8.8	130
40	Sources of nitrous oxide emitted from European forest soils. Biogeosciences, 2006, 3, 135-145.	3.3	130
41	Assessment of nitrate leaching loss on a yield-scaled basis from maize and wheat cropping systems. Plant and Soil, 2014, 374, 977-991.	3.7	130
42	Greenhouse gas emissions and global warming potential of traditional and diversified tropical rice rotation systems. Global Change Biology, 2016, 22, 432-448.	9.5	129
43	Temporal variations of fluxes of NO, NO2, N2O, CO2, and CH4in a tropical rain forest ecosystem. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	128
44	LandscapeDNDC: a process model for simulation of biosphereâ€“atmosphereâ€“hydrosphere exchange processes at site and regional scale. Landscape Ecology, 2013, 28, 615-636.	4.2	126
45	Title is missing!. Plant and Soil, 2002, 240, 77-90.	3.7	124
46	Temperature and Moisture Effects on Nitrification Rates in Tropical Rainâ€Forest Soils. Soil Science Society of America Journal, 2002, 66, 834-844.	2.2	123
47	Seasonal variability of N2O emissions and CH4uptake by tropical rainforest soils of Queensland, Australia. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	4.9	123
48	Sampling frequency affects estimates of annual nitrous oxide fluxes. Scientific Reports, 2015, 5, 15912.	3.3	123
49	Seasonal and spatial variability of soil respiration in four Sitka spruce stands. Plant and Soil, 2006, 287, 161-176.	3.7	122
50	Quantifying the regional source strength of N-trace gases across agricultural and forest ecosystems with process based models. Plant and Soil, 2004, 260, 311-329.	3.7	120
51	Soil-atmosphere exchange of N2O, CH4, and CO2and controlling environmental factors for tropical rain forest sites in western Kenya. Journal of Geophysical Research, 2007, 112, .	3.3	117
52	Greenhouse gas fluxes from an Australian subtropical cropland under longâ€term contrasting management regimes. Global Change Biology, 2011, 17, 3089-3101.	9.5	111
53	Regional inventory of nitric oxide and nitrous oxide emissions for forest soils of southeast Germany using the biogeochemical model PnET-N-DNDC. Journal of Geophysical Research, 2001, 106, 34155-34166.	3.3	107
54	Exchange of trace gases between soils and the atmosphere in Scots pine forest ecosystems of the northeastern German lowlands. Forest Ecology and Management, 2002, 167, 123-134.	3.2	107

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55	Groundwater recharge rates and surface runoff response to land use and land cover changes in semi-arid environments. Ecological Processes, 2016, 5, .	3.9	107
56	Drip fertigation significantly reduces nitrogen leaching in solar greenhouse vegetable production system. Environmental Pollution, 2019, 245, 694-701.	7.5	107
57	N balance and cycling of Inner Mongolia typical steppe: a comprehensive case study of grazing effects. Ecological Monographs, 2013, 83, 195-219.	5.4	105
58	Biosphereâ€“atmosphere exchange of reactive nitrogen and greenhouse gases at the NitroEurope core flux measurement sites: Measurement strategy and first data sets. Agriculture, Ecosystems and Environment, 2009, 133, 139-149.	5.3	104
59	Regional application of PnET-N-DNDC for estimating the N2O source strength of tropical rainforests in the Wet Tropics of Australia. Global Change Biology, 2005, 11, 128-144.	9.5	103
60	Fluxes of nitrous oxide, methane and carbon dioxide during freezingâ€“thawing cycles in an Inner Mongolian steppe. Plant and Soil, 2008, 308, 105-117.	3.7	103
61	Annual methane uptake by temperate semiarid steppes as regulated by stocking rates, aboveground plant biomass and topsoil air permeability. Global Change Biology, 2011, 17, 2803-2816.	9.5	103
62	Sustaining crop productivity while reducing environmental nitrogen losses in the subtropical wheat-maize cropping systems: A comprehensive case study of nitrogen cycling and balance. Agriculture, Ecosystems and Environment, 2016, 231, 1-14.	5.3	103
63	Effects of climate warming on carbon fluxes in grasslandsâ€”ÂA global metaâ€analysis. Global Change Biology, 2019, 25, 1839-1851.	9.5	103
64	Barometric Process Separation: New Method for Quantifying Nitrification, Denitrification, and Nitrous Oxide Sources in Soils. Soil Science Society of America Journal, 1999, 63, 117-128.	2.2	101
65	Effects of organic matter incorporation on nitrous oxide emissions from rice-wheat rotation ecosystems in China. Plant and Soil, 2010, 327, 315-330.	3.7	100
66	Evaluating annual nitrous oxide fluxes at the ecosystem scale. Global Biogeochemical Cycles, 2000, 14, 1061-1070.	4.9	99
67	Tillage and crop residue management significantly affects N-trace gas emissions during the non-rice season of a subtropical rice-wheat rotation. Soil Biology and Biochemistry, 2009, 41, 2131-2140.	8.8	98
68	Nitrogen-rich organic soils under warm well-drained conditions are global nitrous oxide emission hotspots. Nature Communications, 2018, 9, 1135.	12.8	98
69	Dinitrogen emissions and the N2:N2O emission ratio of a Rendzic Leptosol as influenced by pH and forest thinning. Soil Biology and Biochemistry, 2008, 40, 2317-2323.	8.8	97
70	Effect of pH, temperature and substrate on N2O, NO and CO2 production by Alcaligenes faecalis p.. Journal of Applied Microbiology, 2006, 101, 655-667.	3.1	96
71	N₂O, NO and CH₄ exchange, and microbial N turnover over a Mediterranean pine forest soil. Biogeosciences, 2006, 3, 121-133.	3.3	94
72	Model evaluation of different mechanisms driving freezeâ€“thaw N2O emissions. Agriculture, Ecosystems and Environment, 2009, 133, 196-207.	5.3	91

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73	Effects of increasing precipitation and nitrogen deposition on CH4 and N2O fluxes and ecosystem respiration in a degraded steppe in Inner Mongolia, China. Geoderma, 2013, 192, 335-340.	5.1	90
74	Exchange of N-gases at the HÃ¶glwald Forest â€“ A summary. Plant and Soil, 2002, 240, 117-123.	3.7	89
75	Bioethanol production from sugarcane and emissions of greenhouse gases - known and unknowns. GCB Bioenergy, 2011, 3, 277-292.	5.6	89
76	Influence of crop rotation and liming on greenhouse gas emissions from a semi-arid soil. Agriculture, Ecosystems and Environment, 2013, 167, 23-32.	5.3	89
77	Winter-grazing reduces methane uptake by soils of a typical semi-arid steppe in Inner Mongolia, China. Atmospheric Environment, 2007, 41, 5948-5958.	4.1	88
78	Nitrous oxide and methane fluxes from a riceâ€“wheat crop rotation under wheat residue incorporation and no-tillage practices. Atmospheric Environment, 2013, 79, 641-649.	4.1	88
79	Comparison of surface energy exchange models with eddy flux data in forest and grassland ecosystems of Germany. Ecological Modelling, 2005, 188, 174-216.	2.5	86
80	N2O and CH4 Emissions, and NO3 âˆ’ Leaching on a Crop-Yield Basis from a Subtropical Rain-fed Wheatâ€“Maize Rotation in Response to Different Types of Nitrogen Fertilizer. Ecosystems, 2014, 17, 286-301.	3.4	86
81	Global greenhouse vegetable production systems are hotspots of soil N2O emissions and nitrogen leaching: A meta-analysis. Environmental Pollution, 2021, 272, 116372.	7.5	86
82	From biota to chemistry and climate: towards a comprehensive description of trace gas exchange between the biosphere and atmosphere. Biogeosciences, 2010, 7, 121-149.	3.3	84
83	Deposition and emissions of reactive nitrogen over European forests: A modelling study. Atmospheric Environment, 2006, 40, 5712-5726.	4.1	83
84	Soilâ€“atmosphere exchange of greenhouse gases in a <i>Eucalyptus marginata</i> woodland, a cloverâ€grass pasture, and <i>Pinus radiata</i> and <i>Eucalyptus globulus</i> plantations. Global Change Biology, 2009, 15, 425-440.	9.5	83
85	Nitrous oxide fluxes from a grainâ€“legume crop (narrowâ€leafed lupin) grown in a semiarid climate. Global Change Biology, 2011, 17, 1153-1166.	9.5	82
86	Agroforestry with N2-fixing trees: sustainable development's friend or foe?. Current Opinion in Environmental Sustainability, 2014, 6, 15-21.	6.3	82
87	Environmental controls over soilâ€atmosphere exchange of N₂O, NO, and CO₂ in a temperate Norway spruce forest. Global Biogeochemical Cycles, 2010, 24, .	4.9	81
88	Nitrogen oxides emission from two beech forests subjected to different nitrogen loads. Biogeosciences, 2006, 3, 293-310.	3.3	79
89	A European-wide inventory of soil NO emissions using the biogeochemical models DNDC/Forest-DNDC. Atmospheric Environment, 2009, 43, 1392-1402.	4.1	79
90	Straw return reduces yield-scaled N 2 O plus NO emissions from annual winter wheat-based cropping systems in the North China Plain. Science of the Total Environment, 2017, 590-591, 174-185.	8.0	79

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91	Effect of tree distance on N2O and CH4-fluxes from soils in temperate forest ecosystems. Plant and Soil, 2002, 240, 91-103.	3.7	78
92	Soil-Atmosphere Exchange of N2O and NO in Near-Natural Savanna and Agricultural Land in Burkina Faso (W. Africa). Ecosystems, 2008, 11, 582-600.	3.4	78
93	Nitrogen-regulated effects of free-air CO2 enrichment on methane emissions from paddy rice fields. Global Change Biology, 2006, 12, 1717-1732.	9.5	77
94	Nitrogen processes in terrestrial ecosystems. , 2011, , 99-125.		77
95	Decadal variability of soil CO₂, NO, N₂O, and CH₄ fluxes at the HÃ¶glwald Forest, Germany. Biogeosciences, 2012, 9, 1741-1763.	3.3	77
96	Seasonal variation and fire effects on CH4, N2O and CO2 exchange in savanna soils of northern Australia. Agricultural and Forest Meteorology, 2011, 151, 1440-1452.	4.8	75
97	A Bayesian framework for model calibration, comparison and analysis: Application to four models for the biogeochemistry of a Norway spruce forest. Agricultural and Forest Meteorology, 2011, 151, 1609-1621.	4.8	74
98	Methane and nitrous oxide emissions from rice and maize production in diversified rice cropping systems. Nutrient Cycling in Agroecosystems, 2015, 101, 37-53.	2.2	74
99	Urban stress-induced biogenic VOC emissions and SOA-forming potentials in Beijing. Atmospheric Chemistry and Physics, 2016, 16, 2901-2920.	4.9	74
100	How to target climate-smart agriculture? Concept and application of the consensus-driven decision support framework â€œtargetCSAâ€. Agricultural Systems, 2017, 151, 234-245.	6.1	74
101	Potential benefits of liming to acid soils on climate change mitigation and food security. Global Change Biology, 2021, 27, 2807-2821.	9.5	74
102	Comparison of manual and automated chambers for field measurements of N2O, CH4, CO2 fluxes from cultivated land. Atmospheric Environment, 2009, 43, 1888-1896.	4.1	73
103	Short-term effects of single or combined application of mineral N fertilizer and cattle slurry on the fluxes of radiatively active trace gases from grassland soil. Soil Biology and Biochemistry, 2005, 37, 1665-1674.	8.8	69
104	Nitrous oxide and methane emissions from a subtropical riceâ€“rapeseed rotation system in China: A 3-year field case study. Agriculture, Ecosystems and Environment, 2015, 212, 297-309.	5.3	69
105	Climate change amplifies gross nitrogen turnover in montane grasslands of Central Europe in both summer and winter seasons. Global Change Biology, 2016, 22, 2963-2978.	9.5	68
106	Microbial N Turnover and N-Oxide (N2O/NO/NO2) Fluxes in Semi-arid Grassland of Inner Mongolia. Ecosystems, 2007, 10, 623-634.	3.4	67
107	Spatially explicit regionalization of airborne flux measurements using environmental response functions. Biogeosciences, 2013, 10, 2193-2217.	3.3	66
108	Drip irrigation or reduced N-fertilizer rate can mitigate the high annual N2O+NO fluxes from Chinese intensive greenhouse vegetable systems. Atmospheric Environment, 2019, 212, 183-193.	4.1	66

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109	Greenhouse gas fluxes over managed grasslands in Central Europe. Global Change Biology, 2018, 24, 1843-1872.	9.5	63
110	Measurement of N₂, N₂O, NO, and CO₂ Emissions from Soil with the Gas-Flow-Soil-Core Technique. Environmental Science & Technology, 2011, 45, 6066-6072.	10.0	62
111	Effects of nitrate concentration on the denitrification potential of a calcic cambisol and its fractions of N2, N2O and NO. Plant and Soil, 2013, 363, 175-189.	3.7	60
112	Nitrous oxide emissions and nitrate leaching from a rain-fed wheat-maize rotation in the Sichuan Basin, China. Plant and Soil, 2013, 362, 149-159.	3.7	60
113	Nitrogen as a threat to the European greenhouse balance. , 2011, , 434-462.		58
114	Relationships between denitrification gene expression, dissimilatory nitrate reduction to ammonium and nitrous oxide and dinitrogen production in montane grassland soils. Soil Biology and Biochemistry, 2015, 87, 67-77.	8.8	58
115	Methane and Nitrous Oxide Emissions from Cattle Excreta on an East African Grassland. Journal of Environmental Quality, 2016, 45, 1531-1539.	2.0	58
116	Effects of elevated CO2and N fertilization on CH4emissions from paddy rice fields. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	57
117	The relationship between N2O, NO, and N2 fluxes from fertilized and irrigated dryland soils of the Aral Sea Basin, Uzbekistan. Plant and Soil, 2009, 314, 273-283.	3.7	57
118	Feedback of grazing on gross rates of N mineralization and inorganic N partitioning in steppe soils of Inner Mongolia. Plant and Soil, 2011, 340, 127-139.	3.7	57
119	Soilâ€derived trace gas fluxes from different energy crops â€“ results from a field experiment in <scp>S</scp>outhwest <scp>G</scp>ermany. GCB Bioenergy, 2012, 4, 289-301.	5.6	57
120	Soilâ€atmosphere exchange potential of NO and N₂O in different land use types of Inner Mongolia as affected by soil temperature, soil moisture, freezeâ€thaw, and dryingâ€wetting events. Journal of Geophysical Research, 2010, 115, .	3.3	56
121	Effects of grazing and climate variability on grassland ecosystem functions in Inner Mongolia: Synthesis of a 6-year grazing experiment. Journal of Arid Environments, 2016, 135, 50-63.	2.4	56
122	Land use affects total dissolved nitrogen and nitrate concentrations in tropical montane streams in Kenya. Science of the Total Environment, 2017, 603-604, 519-532.	8.0	56
123	Estimating global terrestrial denitrification from measured N2O:(N2Oâ€¯+â€¯N2) product ratios. Current Opinion in Environmental Sustainability, 2020, 47, 72-80.	6.3	56
124	Improving rice production sustainability by reducing water demand and greenhouse gas emissions with biodegradable films. Scientific Reports, 2017, 7, 39855.	3.3	55
125	Quantification of nitrate leaching from German forest ecosystems by use of a process oriented biogeochemical model. Environmental Pollution, 2011, 159, 3204-3214.	7.5	54
126	The complete nitrogen cycle of an N-saturated spruce forest ecosystem. Plant Biology, 2009, 11, 643-649.	3.8	53

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127	Nitrate leaching, direct and indirect nitrous oxide fluxes from sloping cropland in the purple soil area, southwestern China. Environmental Pollution, 2012, 162, 361-368.	7.5	53
128	Biomass production potential from <i><scp>P</scp>opulus</i> short rotation systems in <scp>R</scp>omania. GCB Bioenergy, 2012, 4, 642-653.	5.6	53
129	Gas pooling: A sampling technique to overcome spatial heterogeneity of soil carbon dioxide and nitrous oxide fluxes. Soil Biology and Biochemistry, 2013, 67, 20-23.	8.8	53
130	Oxygen and substrate availability interactively control the temperature sensitivity of CO2 and N2O emission from soil. Biology and Fertility of Soils, 2014, 50, 775-783.	4.3	53
131	Seasonal dynamic of gross nitrification and N2O emission at two tropical rainforest sites in Queensland, Australia. Plant and Soil, 2008, 309, 105-117.	3.7	52
132	A new LandscapeDNDC biogeochemical module to predict CH4 and N2O emissions from lowland rice and upland cropping systems. Plant and Soil, 2015, 386, 125-149.	3.7	52
133	A modeling study on mitigation of N2O emissions and NO3 leaching at different agricultural sites across Europe using LandscapeDNDC. Science of the Total Environment, 2016, 553, 128-140.	8.0	52
134	The TERENO Preâ€Alpine Observatory: Integrating Meteorological, Hydrological, and Biogeochemical Measurements and Modeling. Vadose Zone Journal, 2018, 17, 1-17.	2.2	51
135	Future scenarios of N2O and NO emissions from European forest soils. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	50
136	Eddy-covariance flux measurements with a weight-shift microlight aircraft. Atmospheric Measurement Techniques, 2012, 5, 1699-1717.	3.1	50
137	Grazing effects on the greenhouse gas balance of a temperate steppe ecosystem. Nutrient Cycling in Agroecosystems, 2012, 93, 357-371.	2.2	50
138	Do water-saving ground cover rice production systems increase grain yields at regional scales?. Field Crops Research, 2013, 150, 19-28.	5.1	50
139	A new approach for improving emission factors for enteric methane emissions of cattle in smallholder systems of East Africa â€“ Results for Nyando, Western Kenya. Agricultural Systems, 2018, 161, 72-80.	6.1	50
140	Temperature and Moisture Effects on Nitrification Rates in Tropical Rain-Forest Soils. Soil Science Society of America Journal, 2002, 66, 834.	2.2	50
141	Simulation of NO and N2O emissions from a spruce forest during a freeze/thaw event using an N-flux submodel from the PnET-N-DNDC model integrated to CoupModel. Ecological Modelling, 2008, 216, 18-30.	2.5	49
142	Quantifying net ecosystem carbon dioxide exchange of a shortâ€plant cropland with intermittent chamber measurements. Global Biogeochemical Cycles, 2008, 22, .	4.9	49
143	Regional nitrogen budget of the Lake Victoria Basin, East Africa: syntheses, uncertainties and perspectives. Environmental Research Letters, 2014, 9, 105009.	5.2	49
144	Greenhouse gas fluxes from agricultural soils of Kenya and Tanzania. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 1568-1580.	3.0	49

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145	Conventional flooding irrigation and over fertilization drives soil pH decrease not only in the top- but also in subsoil layers in solar greenhouse vegetable production systems. Geoderma, 2020, 363, 114156.	5.1	49
146	Land use change and the impact on greenhouse gas exchange in north Australian savanna soils. Biogeosciences, 2012, 9, 423-437.	3.3	48
147	Water-saving ground cover rice production system reduces net greenhouse gas fluxes in an annual rice-based cropping system. Biogeosciences, 2014, 11, 6221-6236.	3.3	47
148	More rice with less water â€“ evaluation of yield and resource use efficiency in ground cover rice production system with transplanting. European Journal of Agronomy, 2015, 68, 13-21.	4.1	47
149	Simultaneous quantification of N₂, NH₃ and N₂O emissions from a flooded paddy field under different N fertilization regimes. Global Change Biology, 2020, 26, 2292-2303.	9.5	47
150	Models in country scale carbon accounting of forest soils. Silva Fennica, 2007, 41, .	1.3	47
151	Simulating soil N2O emissions and heterotrophic CO2 respiration in arable systems using FASSET and MoBiLE-DNDC. Plant and Soil, 2011, 343, 139-160.	3.7	46
152	Spatial variability of soil N₂O and CO₂ fluxes in different topographic positions in a tropical montane forest in Kenya. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 514-527.	3.0	46
153	Soil nitrous oxide and methane fluxes are low from a bioenergy crop (canola) grown in a semiâ€arid climate. GCB Bioenergy, 2010, 2, 1-15.	5.6	45
154	Simulating mycorrhiza contribution to forest C- and N cycling-the MYCOFON model. Plant and Soil, 2010, 327, 493-517.	3.7	45
155	The increasing distribution area of zokor mounds weaken greenhouse gas uptakes by alpine meadows in the Qinghaiâ€“Tibetan Plateau. Soil Biology and Biochemistry, 2014, 71, 105-112.	8.8	45
156	Reducing N2O and NO emissions while sustaining crop productivity in a Chinese vegetable-cereal double cropping system. Environmental Pollution, 2017, 231, 929-941.	7.5	44
157	Greenhouse gas emissions from soil amended with agricultural residue biochars: Effects of feedstock type, production temperature and soil moisture. Biomass and Bioenergy, 2018, 117, 1-9.	5.7	44
158	Soil carbon dioxide and methane fluxes from forests and other land use types in an African tropical montane region. Biogeochemistry, 2019, 143, 171-190.	3.5	44
159	Soil N and C trace gas fluxes and microbial soil N turnover in a sessile oak (Quercus petraea (Matt.)) Tj ETQq1 1 0.784314 rgBT /Overlo	3.7	43
160	Smallholder farms in eastern African tropical highlands have low soil greenhouse gas fluxes. Biogeosciences, 2017, 14, 187-202.	3.3	43
161	Toward a protocol for quantifying the greenhouse gas balance and identifying mitigation options in smallholder farming systems. Environmental Research Letters, 2013, 8, 021003.	5.2	42
162	Controls over N₂O, NO_x and CO₂ fluxes in a calcareous mountain forest soil. Biogeosciences, 2006, 3, 383-395.	3.3	41

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163	Spatial variability of N2O, CH4 and CO2 fluxes within the Xilin River catchment of Inner Mongolia, China: a soil core study. Plant and Soil, 2010, 331, 341-359.	3.7	41
164	Conversion of natural forest results in a significant degradation of soil hydraulic properties in the highlands of Kenya. Soil and Tillage Research, 2018, 176, 36-44.	5.6	41
165	Effect of Dung Quantity and Quality on Greenhouse Gas Fluxes From Tropical Pastures in Kenya. Global Biogeochemical Cycles, 2018, 32, 1589-1604.	4.9	40
166	Closing maize yield gaps in sub-Saharan Africa will boost soil N2O emissions. Current Opinion in Environmental Sustainability, 2020, 47, 95-105.	6.3	40
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