Michael Dannenmann

List of Publications by Year
in descending order

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93	4,917	172443	102480
papers	citations	29 h-index	66 g-index

94	94	94	5653
all docs	docs citations	times ranked	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	Grazing-induced reduction of natural nitrous oxide release from continental steppe. Nature, 2010, 464, 881-884.	27.8	254
3	Tree girdling provides insight on the role of labile carbon in nitrogen partitioning between soil microorganisms and adult European beech. Soil Biology and Biochemistry, 2009, 41, 1622-1631.	8.8	167
4	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
5	Girdling Affects Ectomycorrhizal Fungal (EMF) Diversity and Reveals Functional Differences in EMF Community Composition in a Beech Forest. Applied and Environmental Microbiology, 2010, 76, 1831-1841.	3.1	126
6	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
7	Effects of forest management on soil N cycling in beech forests stocking on calcareous soils. Plant and Soil, 2006, 287, 279-300.	3.7	97
8	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
9	Nitrogen Nutrition of Trees in Temperate Forestsâ€”The Significance of Nitrogen Availability in the Pedosphere and Atmosphere. Forests, 2015, 6, 2820-2835.	2.1	85
10	Nitrogen processes in terrestrial ecosystems. , 2011, , 99-125.		77
11	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
12	Interspecific temporal and spatial differences in the acquisition of litterâ€derived nitrogen by ectomycorrhizal fungal assemblages. New Phytologist, 2013, 199, 520-528.	7.3	63
13	Competition for nitrogen between adult European beech and its offspring is reduced by avoidance strategy. Forest Ecology and Management, 2011, 262, 105-114.	3.2	62
14	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
15	Nitrogen nutrition of beech forests in a changing climate: importance of plant-soil-microbe water, carbon, and nitrogen interactions. Plant and Soil, 2017, 418, 89-114.	3.7	58
16	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
17	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
18	Do water-saving ground cover rice production systems increase grain yields at regional scales?. Field Crops Research, 2013, 150, 19-28.	5.1	50

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19	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
20	Climate Change Impairs Nitrogen Cycling in European Beech Forests. PLoS ONE, 2016, 11, e0158823.	2.5	42
21	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
22	The effect of forest management on trace gas exchange at the pedosphereâ€“atmosphere interface in beech (Fagus sylvatica L.) forests stocking on calcareous soils. European Journal of Forest Research, 2007, 126, 331-346.	2.5	38
23	Benefit of using biodegradable film on rice grain yield and N use efficiency in ground cover rice production system. Field Crops Research, 2017, 201, 52-59.	5.1	38
24	Competition for water rather than facilitation in mixed beech-fir forests after drying-wetting cycle. Journal of Hydrology, 2020, 587, 124944.	5.4	37
25	Comparison of nitrogen nutrition and soil carbon status of afforested stands established in degraded soil of the Loess Plateau, China. Forest Ecology and Management, 2017, 389, 46-58.	3.2	36
26	Nitrogen dynamics at undisturbed and burned Mediterranean shrublands of Salento Peninsula, Southern Italy. Plant and Soil, 2011, 343, 5-15.	3.7	34
27	Segregation of nitrogen use between ammonium and nitrate of ectomycorrhizas and beech trees. Plant, Cell and Environment, 2016, 39, 2691-2700.	5.7	34
28	Nitrogen turnover and N2O production in the forest floor of beech stands as influenced by forest management. Journal of Plant Nutrition and Soil Science, 2007, 170, 134-144.	1.9	33
29	N2-fixing black locust intercropping improves ecosystem nutrition at the vulnerable semi-arid Loess Plateau region, China. Science of the Total Environment, 2019, 688, 333-345.	8.0	33
30	Plant and soil effects on denitrification potential in agricultural soils. Plant and Soil, 2019, 439, 459-474.	3.7	33
31	Dinitrogen emissions: an overlooked key component of the N balance of montane grasslands. Biogeochemistry, 2019, 143, 15-30.	3.5	33
32	A single Thaumarchaeon drives nitrification in deep oligotrophic Lake Constance. Environmental Microbiology, 2020, 22, 212-228.	3.8	33
33	Predicting forage quality of species-rich pasture grasslands using vis-NIRS to reveal effects of management intensity and climate change. Agriculture, Ecosystems and Environment, 2020, 296, 106929.	5.3	33
34	Disentangling gross N2O production and consumption in soil. Scientific Reports, 2016, 6, 36517.	3.3	32
35	Gross nitrogen transformations in tropical pasture soils as affected by Urochloa genotypes differing in biological nitrification inhibition (BNI) capacity. Soil Biology and Biochemistry, 2020, 151, 108058.	8.8	32
36	Interactive regulation of root exudation and rhizosphere denitrification by plant metabolite content and soil properties. Plant and Soil, 2021, 467, 107-127.	3.7	32

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37	Measuring denitrification and the N2O:(N2O + N2) emission ratio from terrestrial soils. Current Opinion in Environmental Sustainability, 2020, 47, 61-71.	6.3	31
38	Increased methane uptake but unchanged nitrous oxide flux in montane grasslands under simulated climate change conditions. European Journal of Soil Science, 2013, 64, 586-596.	3.9	30
39	Postfire nitrogen balance of Mediterranean shrublands: Direct combustion losses versus gaseous and leaching losses from the postfire soil mineral nitrogen flush. Global Change Biology, 2018, 24, 4505-4520.	9.5	29
40	Climate Change Induces Shifts in Abundance and Activity Pattern of Bacteria and Archaea Catalyzing Major Transformation Steps in Nitrogen Turnover in a Soil from a Mid-European Beech Forest. PLoS ONE, 2014, 9, e114278.	2.5	29
41	A review of the importance of mineral nitrogen cycling in the plant-soil-microbe system of permafrost-affected soilsâ€"changing the paradigm. Environmental Research Letters, 2022, 17, 013004.	5.2	29
42	Stable carbon and nitrogen isotopic composition of leaves, litter, and soils of various ecosystems along an elevational and land-use gradient at Mount Kilimanjaro, Tanzania. Biogeosciences, 2019, 16, 409-424.	3.3	28
43	Silver-fir (Abies alba MILL.) neighbors improve water relations of European beech (Fagus sylvatica L.), but do not affect N nutrition. Trees - Structure and Function, 2018, 32, 337-348.	1.9	27
44	Prolonged summer droughts retard soil N processing and stabilization in organo-mineral fractions. Soil Biology and Biochemistry, 2014, 68, 241-251.	8.8	26
45	From fibrous plant residues to mineral-associated organic carbon â€“ the fate of organic matter in Arctic permafrost soils. Biogeosciences, 2020, 17, 3367-3383.	3.3	26
46	Enhancement of root systems improves productivity and sustainability in water saving ground cover rice production system. Field Crops Research, 2017, 213, 186-193.	5.1	25
47	Minor contribution of leaf litter to N nutrition of beech (Fagus sylvatica) seedlings in a mountainous beech forest of Southern Germany. Plant and Soil, 2013, 369, 657-668.	3.7	24
48	Annual dynamics of soil gross nitrogen turnover and nitrous oxide emissions in an alpine shrub meadow. Soil Biology and Biochemistry, 2019, 138, 107576.	8.8	24
49	Ectomycorrhizal Communities on the Roots of Two Beech (Fagus sylvatica) Populations from Contrasting Climates Differ in Nitrogen Acquisition in a Common Environment. Applied and Environmental Microbiology, 2015, 81, 5957-5967.	3.1	23
50	Carbon and nitrogen balance in beech roots under competitive pressure of soil-borne microorganisms induced by girdling, drought and glucose application. Functional Plant Biology, 2010, 37, 879.	2.1	22
51	Enhanced nitrogen cycling and N2O loss in water-saving ground cover rice production systems (GCRPS). Soil Biology and Biochemistry, 2018, 121, 77-86.	8.8	22
52	Preferential use of root litter compared to leaf litter by beech seedlings and soil microorganisms. Plant and Soil, 2013, 368, 519-534.	3.7	21
53	Controlling factors of carbon dynamics in grassland soils of Bavaria between 1989 and 2016. Agriculture, Ecosystems and Environment, 2019, 280, 118-128.	5.3	21
54	Nitrate leaching and soil nitrous oxide emissions diminish with time in a hybrid poplar shortâ€rotation coppice in southern Germany. GCB Bioenergy, 2017, 9, 613-626.	5.6	20

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55	Effects of Elevated Atmospheric CO2 on Microbial Community Structure at the Plant-Soil Interface of Young Beech Trees (Fagus sylvatica L.) Grown at Two Sites with Contrasting Climatic Conditions. Microbial Ecology, 2015, 69, 867-878.	2.8	19
56	Gross nitrogen turnover rates of a tropical lower montane forest soil: Impacts of sample preparation and storage. Soil Biology and Biochemistry, 2016, 95, 8-10.	8.8	19
57	Nitrogen turnover and greenhouse gas emissions in a tropical alpine ecosystem, Mt. Kilimanjaro, Tanzania. Plant and Soil, 2017, 411, 243-259.	3.7	18
58	Management Intensity Controls Nitrogen-Use-Efficiency and Flows in Grasslandsâ€"A 15N Tracing Experiment. Agronomy, 2020, 10, 606.	3.0	17
59	Dinitrogen (N2) pulse emissions during freeze-thaw cycles from montane grassland soil. Biology and Fertility of Soils, 2020, 56, 959-972.	4.3	17
60	Seasonality of gross ammonification and nitrification altered by precipitation in a semi-arid grassland of Northern China. Soil Biology and Biochemistry, 2021, 154, 108146.	8.8	17
61	Gross Nitrogen Turnover of Natural and Managed Tropical Ecosystems at Mt. Kilimanjaro, Tanzania. Ecosystems, 2016, 19, 1271-1288.	3.4	16
62	Nitrogen turnover and N2O/N2 ratio of three contrasting tropical soils amended with biochar. Geoderma, 2019, 348, 12-20.	5.1	16
63	Effects of Short Term Bioturbation by Common Voles on Biogeochemical Soil Variables. PLoS ONE, 2015, 10, e0126011.	2.5	16
64	Microbial nitrogenâ€turnover processes within the soil profile of a nitrogenâ€saturated spruce forest and their relation to the smallâ€scale pattern of seepageâ€water nitrate. Journal of Plant Nutrition and Soil Science, 2010, 173, 224-236.	1.9	15
65	Inhibitory and side effects of acetylene (C2H2) and sodium chlorate (NaClO3) on gross nitrification, gross ammonification and soil-atmosphere exchange of N2O and CH4 in acidic to neutral montane grassland soil. European Journal of Soil Biology, 2014, 65, 7-14.	3.2	15
66	Impact of European Beech Forest Diversification on Soil Organic Carbon and Total Nitrogen Stocksâ€"A Meta-Analysis. Frontiers in Forests and Global Change, 2021, 4, .	2.3	15
67	Temperature sensitivity of soil organic matter decomposition varies with biochar application and soil type. Pedosphere, 2020, 30, 336-342.	4.0	15
68	Biotic and abiotic controls on carbon storage in aggregates in calcareous alpine and prealpine grassland soils. Biology and Fertility of Soils, 2021, 57, 203-218.	4.3	13
69	High Application Rates of Biochar to Mitigate N2O Emissions From a N-Fertilized Tropical Soil Under Warming Conditions. Frontiers in Environmental Science, 2021, 8, .	3.3	13
70	Hydraulic Water Redistribution by Silver Fir (Abies alba Mill.) Occurring under Severe Soil Drought. Forests, 2020, 11, 162.	2.1	12
71	Rapid transfer of 15N from labeled beech leaf litter to functional soil organic matter fractions in a Rendzic Leptosol. Soil Biology and Biochemistry, 2013, 58, 323-331.	8.8	11
72	An improved ¹⁵N tracer approach to study denitrification and nitrogen turnover in soil incubations. Rapid Communications in Mass Spectrometry, 2016, 30, 2017-2026.	1.5	11

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73	Admixing Fir to European Beech Forests Improves the Soil Greenhouse Gas Balance. Forests, 2019, 10, 213.	2.1	11
74	Short term effects of climate change and intensification of management on the abundance of microbes driving nitrogen turnover in montane grassland soils. Science of the Total Environment, 2021, 780, 146672.	8.0	11
75	Nitrogen Nutrition of European Beech Is Maintained at Sufficient Water Supply in Mixed Beech-Fir Stands. Forests, 2018, 9, 733.	2.1	10
76	Land-use change and Biogeochemical controls of soil <scp>CO₂, N₂O</scp> and <scp>CH₄</scp> fluxes in Cameroonian forest landscapes. Journal of Integrative Environmental Sciences, 2020, 17, 45-67.	2.5	10
77	Intensive slurry management and climate change promote nitrogen mining from organic matter-rich montane grassland soils. Plant and Soil, 2020, 456, 81-98.	3.7	10
78	Foliar nitrogen metabolism of adult Douglas-fir trees is affected by soil water availability and varies little among provenances. PLoS ONE, 2018, 13, e0194684.	2.5	9
79	Alder-induced stimulation of soil gross nitrogen turnover in a permafrost-affected peatland of Northeast China. Soil Biology and Biochemistry, 2022, 172, 108757.	8.8	9
80	Foliar traits of sessile oak (Quercus petraea Liebl) seedlings are largely determined by site properties rather than seed origin. Tree Physiology, 2020, 40, 1648-1667.	3.1	8
81	Improving soil respiration while maintaining soil C stocks in sunken plastic greenhouse vegetable production systems â€“ Advantages of straw application and drip fertigation. Agriculture, Ecosystems and Environment, 2021, 316, 107464.	5.3	8
82	Soil Carbon and Nitrogen Interactions and Biosphere-Atmosphere Exchange of Nitrous Oxide and Methane. , 2012, , 429-443.		7
83	The Forgotten Nutrientâ€”The Role of Nitrogen in Permafrost Soils of Northern China. Advances in Atmospheric Sciences, 2020, 37, 793-799.	4.3	7
84	Foliar P nutrition of European beech (Fagus sylvatica L.) depends on the season but remains unaffected by co-cultivation with silver fir (Abies alba Mill.). European Journal of Forest Research, 2020, 139, 853-868.	2.5	7
85	Thinning of Beech Forests Stocking on Shallow Calcareous Soil Maintains Soil C and N Stocks in the Long Run. Forests, 2017, 8, 167.	2.1	6
86	Response of microbial community and net nitrogen turnover to modify climate change in Alpine meadow. Applied Soil Ecology, 2020, 152, 103553.	4.3	6
87	Soil Trace Gas Emissions and Climate Change. , 2014, , 325-334.		6
88	Effects of slurry acidification on soil N₂O fluxes and denitrification. Journal of Plant Nutrition and Soil Science, 2021, 184, 696-708.	1.9	6
89	Nitrogen nutrition of native and introduced forest tree species in N-limited ecosystems of the Qinling Mountains, China. Trees - Structure and Function, 2017, 31, 1189-1202.	1.9	5
90	High resistance of soils to short-term re-grazing in a long-term abandoned alpine pasture. Agriculture, Ecosystems and Environment, 2020, 300, 107008.	5.3	4

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91	Almen in Zeiten des Klimawandels - Schutz der Artenvielfalt durch (Wieder-) Beweidung? Die Fallstudie Brunnenkopfalm im Ammergebirge. Naturschutz Und Landschaftsplanung, 2021, 53, 28-36.	0.3	1
92	How to Improve Cumulative Methane and Nitrous Oxide Flux Estimations of the Nonâ€Steadyâ€State Chamber Method?. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	1
93	Significance of current weather conditions for foliar traits of old-growth sessile oak (Quercus) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.9	1