Matti Barthel

List of Publications by Year
in descending order

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31 papers	811 citations	567281 15 h-index	526287 27 g-index
31 all docs	31 docs citations	31 times ranked	1508 citing authors

#	Article	IF	Citations
1	Global maps of soil temperature. Global Change Biology, 2022, 28, 3110-3144.	9.5	113
2	Mobilization of aged and biolabile soil carbon by tropical deforestation. Nature Geoscience, 2019, 12, 541-546.	12.9	97
3	What can we learn from N₂O isotope data? â€“ Analytics, processes and modelling. Rapid Communications in Mass Spectrometry, 2020, 34, e8858.	1.5	67
4	Greenhouse gas fluxes over managed grasslands in Central Europe. Global Change Biology, 2018, 24, 1843-1872.	9.5	63
5	Carbon budgets for an irrigated intensively grazed dairy pasture and an unirrigated winter-grazed pasture. Biogeosciences, 2016, 13, 2927-2944.	3.3	52
6	Nitrification and coupled nitrification-denitrification at shallow depths are responsible for early season N2O emissions under alternate wetting and drying management in an Italian rice paddy system. Soil Biology and Biochemistry, 2018, 120, 58-69.	8.8	47
7	Contrasting nitrogen fluxes in African tropical forests of the Congo Basin. Ecological Monographs, 2019, 89, e01342.	5.4	39
8	Distinct responses of soil fungal and bacterial nitrate immobilization to land conversion from forest to agriculture. Soil Biology and Biochemistry, 2019, 134, 81-89.	8.8	37
9	N₂O isotopocule measurements using laser spectroscopy: analyzer characterization and intercomparison. Atmospheric Measurement Techniques, 2020, 13, 2797-2831.	3.1	34
10	Early season N₂O emissions under variable water management in rice systems: source-partitioning emissions using isotope ratios along a depth profile. Biogeosciences, 2019, 16, 383-408.	3.3	31
11	Livestock enclosures in drylands of Sub-Saharan Africa are overlooked hotspots of N2O emissions. Nature Communications, 2020, 11, 4644.	12.8	27
12	In-depth analysis of N2O fluxes in tropical forest soils of the Congo Basin combining isotope and functional gene analysis. ISME Journal, 2021, 15, 3357-3374.	9.8	24
13	Strong Coupling of Shoot Assimilation and Soil Respiration during Drought and Recovery Periods in Beech As Indicated by Natural Abundance Î´13C Measurements. Frontiers in Plant Science, 2016, 7, 1710.	3.6	21
14	Centuryâ€long apparent decrease in intrinsic waterâ€use efficiency with no evidence of progressive nutrient limitation in African tropical forests. Global Change Biology, 2020, 26, 4449-4461.	9.5	20
15	Combining two complementary micrometeorological methods to measure CH₄ and N₂O fluxes over pasture. Biogeosciences, 2016, 13, 1309-1327.	3.3	18
16	Low N2O and variable CH4 fluxes from tropical forest soils of the Congo Basin. Nature Communications, 2022, 13, 330.	12.8	17
17	Metabolic Fate of the Carboxyl Groups of Malate and Pyruvate and their Influence on Î´13C of Leaf-Respired CO2 during Light Enhanced Dark Respiration. Frontiers in Plant Science, 2016, 7, 739.	3.6	15
18	Spatial and temporal variations of greenhouse gas emissions from a waste stabilization pond: Effects of sludge distribution and accumulation. Water Research, 2021, 193, 116858.	11.3	12

#	Article	IF	Citations
19	Denitrification Is the Main Nitrous Oxide Source Process in Grassland Soils According to Quasiâ€Continuous Isotopocule Analysis and Biogeochemical Modeling. Global Biogeochemical Cycles, 2020, 34, e2019GB006505.	4.9	11
20	Ebullitive CH4 flux and its mitigation potential by aeration in freshwater aquaculture: Measurements and global data synthesis. Agriculture, Ecosystems and Environment, 2022, 335, 108016.	5.3	11
21	Stable isotope signatures of soil nitrogen on an environmentalâ€“geomorphic gradient within the Congo Basin. Soil, 2021, 7, 83-94.	4.9	9
22	Nutrient limitations regulate soil greenhouse gas fluxes from tropical forests: evidence from an ecosystem-scale nutrient manipulation experiment in Uganda. Soil, 2021, 7, 433-451.	4.9	8
23	Cassava-maize intercropping systems in southern Nigeria: Radiation use efficiency, soil moisture dynamics, and yields of component crops. Field Crops Research, 2022, 283, 108550.	5.1	7
24	Carbon isotope discrimination during branch photosynthesis of Fagus sylvatica: field measurements using laser spectrometry. Journal of Experimental Botany, 2014, 65, 1481-1496.	4.8	6
25	Seasonality, drivers, and isotopic composition of soil CO₂ fluxes from tropical forests of the Congo Basin. Biogeosciences, 2020, 17, 6207-6218.	3.3	6
26	Fluvial sediment export from pristine forested headwater catchments in the Congo Basin. Geomorphology, 2022, 398, 108046.	2.6	6
27	Soil H 218 O labelling reveals the effect of drought on C 18 OO fluxes to the atmosphere. Journal of Experimental Botany, 2014, 65, 5783-5793.	4.8	4
28	Ideas and perspectives: patterns of soil CO₂, CH₄, and N₂O fluxes along an altitudinal gradient â€“ a pilot study from an Ecuadorian neotropical montane forest. Biogeosciences, 2021, 18, 413-421.	3.3	4
29	Mixed Effects of Soil Compaction on the Nitrogen Cycle Under Pea and Wheat. Frontiers in Microbiology, 2021, 12, 822487.	3.5	4
30	Conservative N cycling despite high atmospheric deposition in early successional African tropical lowland forests. Plant and Soil, 2022, 477, 743-758.	3.7	1
31	Substantial Organic and Particulate Nitrogen and Phosphorus Export from Geomorphologically Stable African Tropical Forest Landscapes. Ecosystems, 0, , .	3.4	0