

List of publications Prof. Dr. Nicolas Brüggemann

WoS-listed peer-reviewed journal articles

In press

- Bauke SL, Amelung W, Bol R, Brandt L, **Brüggemann N**, Kandeler E, Meyer N, Or D, Schnepf A, Schloter M, Schulz S, Siebers N, von Sperber C, Vereecken H. Soil water status shapes nutrient cycling in agroecosystems from micrometer to landscape scales. *Journal of Plant Nutrition and Soil Science*, doi:10.1002/jpln.202200357
- Cao X, Reichel R, Wissel H, **Brüggemann N**. Improving nitrogen retention of cattle slurry with oxidized biochar – an incubation study with three different soils. *Journal of Environmental Quality*.
- Cao X, Reichel R, **Brüggemann N**. Fenton oxidation of biochar improves retention of cattle slurry nitrogen. *Journal of Environmental Quality*. doi:10.1002/jeq2.20419
- Deseano Diaz P, van Dusschoten D, Kübert A, **Brüggemann N**, Javaux M, Merz S, Vanderborght J, Vereecken H, Dubbert M, Rothfuss Y. Response of a grassland species to dry environmental conditions from water stable isotopic monitoring: no evident shift in root water uptake to wetter soil layers. *Plant and Soil*. doi:10.1007/s11104-022-05703-y
- Roy J, Reichel R, **Brüggemann N**, Rillig MC. Functional, not taxonomic, composition of soil fungi reestablishes to pre-mining initial state after 52 years of recultivation. *Microbial Ecology*. doi:10.1007/s00248-022-02058-w

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- Biasi C, Jokinen S, Prommer J, Ambus P, Doersch P, Yu L, Granger S, Boeckx P, van Nieuland K, **Brüggemann N**, Wissel H, Voropaev A, Zilberman T, Jäntti H, Trubnikova T, Welti N, Voigt C, Gebus-Czupyt B, Czupyt Z, Wanek W, 2022. Challenges in measuring nitrogen isotope signatures in inorganic nitrogen forms: An interlaboratory comparison of three common measurement approaches. *Rapid Communications in Mass Spectrometry* **36**, e9370. doi:10.1002/rcm.9370
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- Kim DG, Kassahun G, Yimer F, **Brüggemann N**, Glaser B, 2022. Tef-Acacia agroforestry including on-site charcoal production increases soil carbon and nutrients in northwestern Ethiopia. *Agronomy for Sustainable Development* **42**, 80. doi:10.1007/s13593-022-00810-7
- Cao X, Reichel R, Wissel H, Kummer S, **Brüggemann N**, 2022 High carbon amendments increase nitrogen retention in soil after slurry application – An incubation study with silty loam soil. *Journal of Soil Science and Plant Nutrition* **22**, 1277–1289. doi:10.1007/s42729-021-00730-7
- Reichel R, Kamau CW, Kumar A, Li Z, Radl V, Temperton VM, Schloter M, **Brüggemann N**, 2022. Spring barley performance benefits from simultaneous shallow straw incorporation and top dressing as revealed by rhizotrons with resealable sampling ports. *Biology and Fertility of Soils* **58**, 375–388. doi:10.1007/s00374-022-01624-1
- Zhao Y, Reichel R, Herbst M, Sun Y, **Brüggemann N**, Mörchen R, Welp G, Meng F, Bol R, 2022. Declining total carbon stocks in carbonate-containing agricultural soils over a 62-year recultivation chronosequence under humid conditions. *Geoderma* **425**, 116060. doi:10.1016/j.geoderma.2022.116060
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- Beshir M, Tadesse M, Yimer F, **Brüggemann N**, 2022. Factors affecting adoption and intensity of use of tef-Acacia *decurrens*-charcoal production agroforestry system in northwestern Ethiopia. *Sustainability* **14**, 4751. doi:10.3390/su14084751

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- Werner KA, Schneider D, Poehlein A, Diederich N, Feyen L, Axtmann K, Hübner T, **Brüggemann N**, Prost K, Daniel R, Grohmann E. Metagenomic insights into the changes of antibiotic resistance and pathogenicity factor pools upon thermophilic composting of human excreta. *Frontiers in Microbiology* **13**, art. no. 826071. doi:10.3389/fmicb.2022.826071
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- Castro-Herrera D, Prost K, Schäfer Y, Kim DG, Yimer F, Tadesse M, Gebrehiwot M, **Brüggemann N**, 2022. Nutrient dynamics during composting of human excreta, cattle manure, and organic waste affected by biochar. *Journal of Environmental Quality* **51**, 19–32. doi: 10.1002/jeq2.20312
- Wei J, Zhang X, Xia L, Yuan W, Zhou Z, **Brüggemann N**, 2022. Role of chemical reactions in the nitrogenous trace gas emissions and nitrogen retention: A meta-analysis. *Science of the Total Environment* **808**, 152141. doi: 10.1016/j.scitotenv.2021.152141

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- Rothfuss Y, Quade M, **Brüggemann N**, Graf A, Vereecken H, Dubbert M, 2021. Reviews and syntheses: Gaining insights into evapotranspiration partitioning with novel isotopic monitoring methods. *Biogeosciences* **18**, 3701–3732. doi:10.5194/bg-18-3701-2021
- Giraud M, Groh J, Gerke H, **Brüggemann N**, Vereecken H, Pütz T, 2021. Soil nitrogen dynamics in a managed temperate grassland under changed climatic conditions. *Water* **13**, 931. doi:10.3390/w13070931
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- Nguyen QV, Wu D, Kong X, Bol R, Petersen SO, Jensen LS, **Brüggemann N**, Liu S, Glud RN, Larsen M, Bruun S, 2017. Effects of cattle slurry and nitrification inhibitor application on spatial soil O₂ dynamics and N₂O production pathways. *Soil Biology & Biochemistry* **114**, 200–209. doi:10.1016/j.soilbio.2017.07.012
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- Brüggemann N**, 2022. Relevance and quantification of soil N₂O emissions. EuroChem Global Technical Meeting, 10 May 2022, online.
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- Brüggemann N**, 2019. About the limitations of the ^{15}N site preference in N_2O for source process attribution. Annual Meeting of the German Association of Stable Isotope Research, Dresden, Germany, 30 September-2 October 2019.
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- Brüggemann N**, 2010. Application of isotope-specific laser instruments in C and O tracer studies – scope and limits. COST SIBAE WG3 Laser Workshop, Dübendorf, CH, 15-16 June 2010.
- Brüggemann N**, Wu X, Gasche R, Wolf B, Butterbach-Bahl K, 2010. Environmental controls over soil-atmosphere exchange of N₂O, NO and CO₂ in a temperate Norway spruce forest. NitroEurope Open Science Conference, Solothurn, Switzerland, 3–4 February, 2010.
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