

List of publications
Prof. Dr. Wolfgang Wilcke
 June 2022

a. Dissertation

Wilcke, W. (1996): Small-scale chemical heterogeneity in soils. Distribution of aluminum, heavy metals, and polycyclic aromatic hydrocarbons in aggregates. (In German.) *Bayreuther Bodenkundliche Berichte* **48**, 136 p.

b. Habilitation

Wilcke, W. (1999): Pollutants in soils of the temperate and tropical zones – pools, reactivity, trends. Partly in German. Cumulative.

c. Peer-reviewed original research papers

1994

1. Kayser, A.T., **W. Wilcke**, M. Kaupenjohann & J.D. Joslin (1994): Small-scale heterogeneity of soil chemical properties. I A rapid technique for aggregate fractionation. *Z. Pflanzenernähr. Bodenk.* **157**, 453-458.
2. **Wilcke, W.** & M. Kaupenjohann (1994): Small-scale heterogeneity of soil chemical properties. II Fractions of Al and heavy metals. *Z. Pflanzenernähr. Bodenk.* **157**, 459-465.

1995

3. Kaupenjohann, M. & **W. Wilcke** (1995): Heavy metal release from a serpentine soil using a pH-stat technique. *Soil Sci. Soc. Am. J.* **59**, 1027-1031.

1996

4. Kaiser K. & **W. Wilcke** (1996): Pedogenetic differentiation of soil properties on the aggregate level. (In German.) *Z. Pflanzenernähr. Bodenk.* **159**, 599-603.
5. **Wilcke, W.** & A. Amelung (1996): Small-scale heterogeneity of Al and heavy metals in aggregates along a climatic transect. *Soil Sci. Soc. Am. J.* **60**, 1490-1495.
6. **Wilcke, W.**, R. Bäumler, H. Deschauer, M. Kaupenjohann & W. Zech (1996): Small-scale distribution of Al, heavy metals, and PAHs in an aggregated Alpine Podzol. *Geoderma* **71**, 19-30.
7. **Wilcke, W.**, W. Zech & J. Kobza (1996): PAH pools in soils along a PAH deposition gradient. *Environ. Pollut.* **92**, 307-313.

1997

8. Berghofer, R., **W. Wilcke**, V. Linkeš, O. Nestroy & W. Zech (1997): Changes of Al and heavy metal concentrations in Slovak soils during the last 25 years. *Z. Pflanzenernähr. Bodenk.* **160**, 469-474.
9. Bundt, M., S. Kretzschmar, W. Zech & **W. Wilcke** (1997): Seasonal redistribution of manganese in soil aggregates of a Costa Rican coffee field. *Soil Sci.* **162**, 641-647.
10. Bundt, M., S. Kretzschmar, W. Zech & **W. Wilcke** (1997): Seasonal dynamics of nutrients in leaves and xylem sap of coffee plants as related to different soil compartments. *Plant Soil* **197**, 157-166.

11. **Wilcke, W.** & M. Kaupenjohann (1997): Differences in concentrations and fractions of Al and heavy metals between aggregate interior and exterior. *Soil Sci.* **162**, 323-332.
12. **Wilcke, W.** & W. Zech (1997): Polycyclic aromatic hydrocarbons (PAHs) in forest floors of the northern Czech mountains. *Z. Pflanzenernähr. Bodenk.* **160**, 369-378.
13. **Wilcke, W.,** W. Amelung & W. Zech (1997): Heavy metals and polycyclic aromatic hydrocarbons (PAHs) in a rural community leewards of a waste incineration plant. *Z. Pflanzenernähr. Bodenk.* **160**, 369-378.

1998

14. Lilienfein, J., **W. Wilcke,** M.A. Ayarza & W. Zech (1998): Land-use effects on organic carbon, nitrogen, and sulphur concentrations in macroaggregates of differently textured Brazilian Oxisols. *Z. Pflanzenernähr. Bodenk.* **161**, 165-171.
15. Lobe, I., **W. Wilcke,** J. Kobza & W. Zech (1998): Heavy metal contamination of soils in northern Slovakia. *Z. Pflanzenernähr. Bodenk.* **161**, 541-546.
16. **Wilcke, W.** & M. Kaupenjohann (1998): Heavy metal distribution between soil aggregate core and surface fractions along gradients of deposition from the atmosphere. *Geoderma* **83**, 55-66.
17. **Wilcke, W.** & W. Zech (1998): Polychlorinated biphenyls (PCBs) in bulk soil and particle-size separates of soils in a rural community. *Z. Pflanzenernähr. Bodenk.* **161**, 289-295.
18. **Wilcke, W.,** S. Kretzschmar, M. Bundt, G. Saborío & W. Zech (1998): Aluminum and heavy metal partitioning in A horizons of soils in Costa Rican coffee plantations. *Soil Sci.* **163**, 463-471.
19. **Wilcke, W.,** J. Mosbach, J. Kobza & W. Zech (1998): Distribution of Al and heavy metals in bulk soil and aggregates at three sites contaminated by the emissions of a Central Slovak Al smelter. *Water Air Soil Pollut.* **106**, 389-402.
20. **Wilcke, W.,** S. Müller, N. Kanchanakool & Wolfgang Zech (1998): Urban soil contamination in Bangkok: heavy metal and aluminium partitioning in topsoils. *Geoderma* **86**, 211-228.

1999

21. Lilienfein, J., **W. Wilcke,** M.A. Ayarza, S.d.C. Lima, L. Vilela & W. Zech (1999): Annual course of matric potential in differently used savanna Oxisols, Brazil. *Soil Sci. Soc. Am. J.* **63**, 1778-1785.
22. Schwarz, A., **W. Wilcke,** J. Kobza & W. Zech (1999): Spatial distribution of soil heavy metal concentrations as indicator of pollutant sources at Mount Križna (Great Fatra, central Slovakia). *J. Plant Nutr. Soil Sci.* **162**, 421-428.
23. Schwarz, A., **W. Wilcke,** J. Styk & W. Zech (1999): Heavy metal release from soils in batch pH-stat experiments. *Soil Sci. Soc. Am. J.* **63**, 290-296.
24. **Wilcke, W.,** C. Guschker, J. Kobza & W. Zech (1999): Heavy metal concentrations, partitioning, and storage in Slovak forest and arable soils along a deposition gradient. *J. Plant Nutr. Soil Sci.* **162**, 223-229.
25. **Wilcke, W.,** S. Kretzschmar, M. Bundt & W. Zech (1999): Metal concentrations in aggregate interiors, exteriors, whole aggregates, and bulk of Costa Rican soils. *Soil Sci. Soc. Am. J.* **63**, 1244-1249.
26. **Wilcke, W.,** J. Lilienfein, S. d. C. Lima & W. Zech (1999): Contamination of highly weathered urban soils in Uberlândia, Brazil. *J. Plant Nutr. Soil Sci.* **162**, 539-548.
27. **Wilcke, W.,** S. Müller, N. Kanchanakool & Wolfgang Zech (1999): Urban soil contamination in Bangkok: concentrations and patterns of polychlorinated biphenyls (PCBs) in topsoils. *Austr. J. Soil Res.* **37**, 245-254.
28. **Wilcke, W.,** S. Müller, N. Kanchanakool, C. Niamskul & W. Zech (1999): Polycyclic aromatic hydrocarbons (PAHs) in hydromorphic soils of the tropical metropolis Bangkok. *Geoderma* **91**, 297-309.

 2000

29. Krauss, M., **W. Wilcke** & W. Zech (2000): Polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) in forest soils: depth distribution as indicators of different fate. *Environ. Pollut.* **110**, 79-88.
30. Krauss, M., **W. Wilcke** & W. Zech (2000): Availability of polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) to earthworms in urban soils. *Environ. Sci. Technol.* **34**, 4335-4340.
31. Lilienfein, J., **W. Wilcke**, M.A. Ayarza, S.d.C. Lima, L. Vilela & W. Zech (2000): Soil acidification in *Pinus caribaea* forests on Brazilian savanna Oxisols. *For. Ecol. Manage.* **128**, 145-157.
32. Lilienfein, J., **W. Wilcke**, M.A. Ayarza, S.d.C. Lima, L. Vilela & W. Zech (2000): Partitioning of phosphorous, sulphur, and molybdenum in differently used Brazilian savannah Oxisols. *Geoderma* **96**, 31-46.
33. Lilienfein, J., **W. Wilcke**, M.A. Ayarza, S.d.C. Lima, L. Vilela & W. Zech (2000): Nutrient concentrations in soil solution of Brazilian Oxisols under conventional and no tillage during the beginning rainy season. *Austr. J. Soil Res.* **38**, 851-66.
34. Lilienfein, J., **W. Wilcke**, L. Vilela, S.d.C. Lima, R. Thomas & W. Zech (2000): Effect of no-tillage and conventional tillage systems on the chemical composition of soil solid phase and soil solution of Brazilian savanna Oxisols. *J. Plant Nutr. Soil Sci.* **163**, 411-419.
35. Müller, S., **W. Wilcke**, N. Kanchanakool & W. Zech (2000): Polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) in particle-size separates of urban soils in Bangkok, Thailand. *Soil Sci.* **165**, 412-419.
36. Totsche, K.U., **W. Wilcke**, M. Körber, J. Kobza & W. Zech (2000): Evaluation of fluoride-induced metal mobilization in soil columns. *J. Environ. Qual.* **29**, 454-459.
37. **Wilcke, W.** (2000): Small-scale variability of metal concentrations in soil leachates. *Soil Sci. Soc. Am. J.* **64**, 138-143.
38. **Wilcke, W.** & W. Amelung (2000): Persistent organic pollutants (POPs) in native grassland soils along a climosequence in North America. *Soil Sci. Soc. Am. J.* **64**, 2140-2148.
39. **Wilcke, W.**, W. Amelung, C. Martius, M.V.B. Garcia & W. Zech (2000): Biological sources of polycyclic aromatic hydrocarbons (PAHs) in the Amazonian rain forest. *J. Plant Nutr. Soil Sci.* **163**, 27-30.
40. **Wilcke, W.**, S. Kretzschmar, M. Bundt, G. Saborío & W. Zech (2000): Depth distribution of aluminum and heavy metals in soils of Costa Rican coffee cultivation areas. *J. Plant Nutr. Soil Sci.* **163**, 499-502.
41. **Wilcke, W.**, K.U. Totsche, M. Körber, J. Kobza & W. Zech (2000): Fluoro-mobilization of metals in a Slovak forest soil affected by the emissions of an aluminum smelter. *J. Plant Nutr. Soil Sci.* **163**, 503-508.

 2001

42. Bundt, M., M. Krauss, P. Blaser & **W. Wilcke** (2001): Forest fertilization with wood ash: effect on the distribution and storage of polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs). *J. Environ. Qual.* **30**, 1296-1304.
43. Krauss, M. & **W. Wilcke** (2001): Predicting soil-water partitioning of polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) by desorption with methanol-water mixtures at different temperatures. *Environ. Sci. Technol.* **35**, 2319-2325.
44. Krauss, M. & **W. Wilcke** (2001): Biomimetic extraction of polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) from soil with octadecyl-modified silica disks to predict their availability to earthworms. *Environ. Sci. Technol.* **35**, 3931-3935.

45. Lilienfein, J. & **W. Wilcke** (2001): Nutrient input from the atmosphere into Brazilian savanna Oxisols under corn. *Soil Sci.* **166**, 391-399.
46. Lilienfein, J., **W. Wilcke**, L. Vilela, S.d.C. Lima, R. Thomas & W. Zech (2001): Effects of *Pinus caribaea* plantations on the C, N, P, and S status of Brazilian savanna Oxisols. *For. Ecol. Manage.* **147**, 171-182.
47. Lilienfein, J., **W. Wilcke**, R. Zimmermann, P. Gerstberger, G.M. Araújo & W. Zech (2001): Nutrient storage in soil and biomass of native Brazilian Cerrado. *J. Plant Nutr. Soil Sci.* **164**, 487-495.
48. Müller, S., **W. Wilcke**, N. Kanchanakool & W. Zech (2001): Polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) in density fractions of urban soils in Bangkok, Thailand. *Soil Sci.* **166**, 672-680.
49. **Wilcke, W.**, M. Krauss, J. Kobza & W. Zech (2001): Quantification of anthropogenic lead in Slovak forest and arable soils along a deposition gradient with stable lead isotope ratios. *J. Plant Nutr. Soil Sci.* **164**, 303-307.
50. **Wilcke, W.**, S. Yasin, C. Valarezo & W. Zech (2001): Nutrient budget of three microcatchments under tropical montane rain forest in Ecuador – preliminary results. *Die Erde* **132**, 61-74.
51. **Wilcke, W.**, S. Yasin, C. Valarezo & W. Zech (2001): Change in water quality during the passage through a tropical montane rain forest in Ecuador. *Biogeochemistry* **55**, 45-72.

2002

52. Krauss, M. & **W. Wilcke** (2002): Sorption strength of persistent organic pollutants in particle-size fractions of urban soils. *Soil Sci. Soc. Am. J.* **66**, 430-437.
53. Krauss, M. & **W. Wilcke** (2002): Photochemical oxidation of polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) in soils - a tool to assess their degradability? *J. Plant Nutr. Soil Sci.* **165**, 173-178.
54. Krauss, M., **W. Wilcke**, J. Kobza & W. Zech (2002): Predicting heavy metal transfer from soil to plant: potential use of Freundlich-type functions. *J. Plant Nutr. Soil Sci.* **165**, 3-8.
55. **Wilcke, W.**, R. Bol & W. Amelung (2002): Fate of dung-applied copper in a British grassland soil. *Geoderma* **106**, 273-288.
56. **Wilcke, W.** & J. Lilienfein (2002): Biogeochemical consequences of the transformation of native Cerrado into *Pinus caribaea* plantations in Brazil. *Plant Soil* **238**, 175-189.
57. **Wilcke, W.**, M. Krauss & W. Amelung (2002): Carbon isotope signature of polycyclic aromatic hydrocarbons (PAHs): Evidence for different sources in tropical and temperate environments? *Environ. Sci. Technol.* **26**, 3530-3535.
58. **Wilcke, W.**, S. Yasin, U. Abramowski, C. Valarezo & W. Zech (2002): Nutrient storage and turnover in organic layers under tropical montane rain forest in Ecuador. *Eur. J. Soil Sci.* **53**, 15-27.

2003

59. Krauss, M. & **W. Wilcke** (2003): Polychlorinated naphthalenes in urban soils: analysis, concentrations, and relations to other persistent organic pollutants. *Environ. Pollut.* **122**, 75-89.
60. Lilienfein, J. & **W. Wilcke** (2003): Element storage in native, agri-, and silvicultural ecosystems of the Brazilian savanna – I. Biomass, carbon, nitrogen, phosphorus, and sulfur. *Plant Soil* **254**, 425-442.
61. Lilienfein, J., **W. Wilcke**, L. Vilela, M.A. Ayarza, S.d.C. Lima & W. Zech (2003): Soil fertility under native Cerrado and pasture in the Brazilian savanna. *Soil Sci. Soc. Am. J.* **67**, 1195-1205.
62. **Wilcke, W.**, W. Amelung, M. Krauss, C. Martius, A. Bandeira & M. Garcia (2003): Polycyclic aromatic hydrocarbon (PAH) patterns in climatically different ecological zones of Brazil. *Org. Geochem.* **34**, 1405-1417.

63. **Wilcke, W.**, M. Krauss & G. Barančíková (2003): Persistent organic pollutant concentrations in air- and freeze-dried compared to field-fresh extracted soil samples of an eastern Slovak deposition gradient. *J. Plant Nutr. Soil Sci.* **166**, 93-101.
64. **Wilcke, W.**, H. Valladarez, R. Stoyan, S. Yasin, C. Valarezo & W. Zech (2003): Soil properties on a chronosequence of landslides in montane rain forest, Ecuador. *Catena* **53**, 79-95.

2004

65. Ciglasch, H., J. Lilienfein, K. Kaiser & **W. Wilcke** (2004): Dissolved organic matter under native Cerrado and *Pinus caribaea* plantations in the Brazilian savanna. *Biogeochemistry* **67**, 157-182.
66. Ilg, K., **W. Wilcke**, G. Safronov, F. Lang, A. Fokin & M. Kaupenjohann (2004): Heavy metal distribution in soil aggregates: a comparison of recent and archived aggregates from Russia. *Geoderma* **123**, 153-162.
67. Lehmann, J., J. Lilienfein, K. Rebel, S.d.C. Lima & **W. Wilcke** (2004): Subsoil retention of organic and inorganic nitrogen in a Brazilian savanna Oxisol. *Soil Use Manage.* **20**, 163-172.
68. Lilienfein, J. & **W. Wilcke** (2004): Water and element input into native, agri- and silvicultural ecosystems of the Brazilian savanna. *Biogeochemistry* **67**, 183-212.
69. Roscher, C., J. Schumacher, J. Baade, **W. Wilcke**, G. Gleixner, W. Weisser, B. Schmid & E.-D. Schulze (2004): The role of biodiversity for element cycling and trophic interactions: an experimental approach in a grassland community. *Basic Appl. Ecol.* **5**, 107-121.
70. **Wilcke, W.** & J. Lilienfein (2004): Element storage in native, agri-, and silvicultural ecosystems of the Brazilian savanna – II. Metals. *Plant Soil* **258**, 31-41.
71. **Wilcke, W.** & J. Lilienfein (2004): Soil ¹³C natural abundance under native and managed vegetation in Brazil. *Soil Sci. Soc. Am. J.* **68**, 827-832.
72. **Wilcke, W.**, M. Krauss, J. Lilienfein & W. Amelung (2004): Polycyclic aromatic hydrocarbon storage in a typical Cerrado of the Brazilian savanna. *J. Environ. Qual.* **33**, 946-955.

2005

73. Fleischbein, K., **W. Wilcke**, R. Goller, C. Valarezo, W. Zech & K. Knoblich (2005): Rainfall interception in a lower montane forest in Ecuador: effects of canopy properties. *Hydrol. Proc.* **19**, 1355-1371.
74. Goller, R., **W. Wilcke**, M. Leng, H.J. Tobschall, K. Wagner, C. Valarezo & W. Zech (2005): Tracing water paths through small catchments under a tropical montane rain forest in south Ecuador by an oxygen isotope approach. *J. Hydrol.* **308**, 67-80.
75. Krauss, M. & **W. Wilcke** (2005): Persistent organic pollutants in soil density fractions: distribution and sorption strength. *Chemosphere* **59**, 1507-1515.
76. Krauss, M., **W. Wilcke**, C. Martius, A.G. Bandeira, M.V.B. Garcia & W. Amelung (2005): Atmospheric versus biological sources of polycyclic aromatic hydrocarbons (PAHs) in a tropical rain forest environment. *Environ. Pollut.* **135**, 143-154.
77. Oelmann, Y., **W. Wilcke** & R. Bol (2005): Nitrogen-15 in NO₃⁻ characterises differently reactive soil organic N pools. *Rapid Commun. Mass Spectr.* **19**, 3177-3181.
78. **Wilcke, W.** & J. Lilienfein (2005): Nutrient leaching in Oxisols under native and managed vegetation in Brazil. *Soil Sci. Soc. Am. J.* **69**, 1152-1161.
79. **Wilcke, W.**, T. Hess, C. Bengel, J. Homeier, C. Valarezo & W. Zech (2005): Coarse woody debris in a montane forest in Ecuador: mass, C and nutrient stock, and turnover. *For. Ecol. Manage.* **205**, 139-147.
80. **Wilcke, W.**, M. Krauss & J. Kobza (2005): Concentrations and forms of heavy metals in Slovak soils. *J. Plant Nutr. Soil Sci.* **168**, 676-686.

81. **Wilcke, W.**, M. Krauss, G. Safronov, A.D. Fokin & M. Kaupenjohann (2005): Polycyclic aromatic hydrocarbons (PAHs) in soils of the Moscow region - concentrations, temporal trends, small-scale distribution - *J. Environ. Qual.* **34**, 1581-1590.

2006

82. Fleischbein, K., **W. Wilcke**, C. Valarezo, W. Zech & K. Knoblich (2006): Water budget of three small catchments under montane forest in Ecuador. *Hydrol. Proc.* **20**, 2491-2507.
83. Goller, R., **W. Wilcke**, K. Fleischbein, C. Valarezo & W. Zech (2006): Dissolved inorganic nitrogen, phosphorus, and sulfur in the nutrient cycle of a montane forest in Ecuador. *Biogeochemistry* **77**, 57-89.
84. **Wilcke, W.**, M. Krauss, G. Safronov, A.D. Fokin & M. Kaupenjohann (2006): Polychlorinated biphenyls (PCBs) in soils of the Moscow region: concentrations and small-scale distribution along a rural-urban transect. *Environ. Pollut.* **141**, 327-335.

2007

85. Oelmann, Y., Y. Kreutziger, R. Bol & **W. Wilcke** (2007): Nitrate leaching in soil: tracing the NO₃⁻ sources with the help of stable N and O isotopes. *Soil Biol. Biochem.* **39**, 3024-3033.
86. Oelmann, Y., Y. Kreutziger, V.M. Temperton, N. Buchmann, C. Roscher, J. Schumacher, E.-D. Schulze, W. W. Weisser & **W. Wilcke** (2007): Nitrogen and phosphorus budgets in experimental grasslands of variable diversity. *J. Environ. Qual.* **36**, 396-407.
87. Oelmann, Y., **W. Wilcke**, V.M. Temperton, N. Buchmann, C. Roscher, J. Schumacher, E.-D. Schulze & W. W. Weisser (2007): Soil and plant nitrogen pools as related to plant diversity in an experimental grassland. *Soil Sci. Soc. Am. J.* **71**, 720-729.
88. Rollenbeck, R., J. Bendix, P. Fabian, J. Boy, H. Dalitz, P. Emck, M. Oesker & **W. Wilcke** (2007): Comparison of different techniques for the measurement of precipitation in tropical montane rain forest regions. *J. Atmos. Ocean. Tech.* **24**, 156-168.
89. Zimmermann, A., **W. Wilcke** & H. Elsenbeer (2007): Spatial and temporal patterns of throughfall quantity and quality in a tropical montane forest in Ecuador. *J. Hydrol.*, **343**, 80-96.

2008

90. Boy, J. & **W. Wilcke** (2008): Tropical Andean forest derives calcium and magnesium from Saharan dust. *Glob. Biogeochem. Cycle* **22**, GB1027, doi: 10.1029/2007GB002960. – Selected as “Research Highlight” by *Nature Geoscience* **1**, 287.
91. Boy, J., R. Rollenbeck, C. Valarezo & **W. Wilcke** (2008): Amazonian biomass burning-derived acid and nutrient deposition in the north Andean montane forest of Ecuador. *Glob. Biogeochem. Cycle* **22**, GB4011, doi:10.1029/2007GB003158.
92. Boy, J., C. Valarezo & **W. Wilcke** (2008): Water flow paths in soil control element exports in an Andean tropical montane forest. *Eur. J. Soil Sci.* **59**, 1209-1227, doi: 10.1111/j.1365.2389.2008.01063.x.
93. Stückrad, S., K.-F. Sabel & **W. Wilcke** (2008): Periglacial transport distance of Pb derived from small-scale ore veins in the Rhenish Slate Mountains. *Geoderma* **148**, 232-239, doi: 10.1016/j.geoderma.2008.10.011.
94. **Wilcke, W.**, Y. Oelmann, A. Schmitt, C. Valarezo, W. Zech & J. Homeier (2008): Soil properties and tree growth along an altitudinal transect in Ecuadorian tropical montane forest. *J. Plant Nutr. Soil Sci.* **171**, 220-230, doi: 10.1002/jpln.200625210.

 2009

95. Bandowe, B.A.M., D. Rückamp, M. Bragança, V. Laabs, W. Amelung, C. Martius & **W. Wilcke** (2009): Naphthalene production by microorganisms associated with termites: evidence from a microcosm experiment. *Soil Biol. Biochem.* **41**, 630-639, doi: 10.1016/j.soilbio.2008.12.029.
96. Roscher, C., H. Beßler, Y. Oelmann, C. Engels, **W. Wilcke** & E.-D. Schulze (2009): Resources, recruitment limitation and invader species identity determine pattern of spontaneous invasion in experimental grasslands. *J. Ecol.* **97**, 32-47, doi: 10.1111/j.1365-2745.2008.01451.x.
97. Steinkamp, J., L.N. Ganzeveld, **W. Wilcke** & M.G. Lawrence (2009): Influence of modelled soil biogenic NO emissions on related trace gases and the atmospheric oxidizing efficiency. *Atmos. Chem. Phys.* **9**, 2663-2677, open access: <http://www.atmos-chem-phys.net/9/2663/2009/acp-9-2663-2009.pdf>
98. **Wilcke, W.**, S. Günter, F. Alt, C. Geißler, J. Boy, J. Knuth, Y. Oelmann, M. Weber, C. Valarezo & R. Mosandl (2009): Response of water and nutrient fluxes to improvement fellings in a tropical montane forest in Ecuador. *For. Ecol. Manage.* **257**, 1292-1304, doi: 10.1016/j.foreco.2008.11.036.
99. Wullaert, H., T. Pohlert, J. Boy, C. Valarezo & **W. Wilcke** (2009): Spatial throughfall heterogeneity in a montane rain forest in Ecuador: Extent, temporal stability and drivers. *J. Hydrol.* **377**, 71-79, doi:10.1016/j.jhydrol.2009.08.001.
- Reply to the comment of Zimmermann et al. on "Spatial throughfall heterogeneity in a montane rain forest in Ecuador: extent, temporal stability and drivers" [*J. Hydrol.* 377 (2009), 71-79], *J. Hydrol.* **395**, 137-139, published online on 11/10/2010, doi:10.1016/j.jhydrol.2010.10.007.

 2010

100. Bandowe, B.A.M. & **W. Wilcke** (2010): Analysis of polycyclic aromatic hydrocarbons and their oxygen-containing derivatives and metabolites in soils. *J. Environ. Qual.* **39**, 1349-1358, published online on 16/04/2010, doi: 10.2134/jeq2009.0298.
101. Bandowe, B.A.M., N. Shukurov, M. Kersten & **W. Wilcke** (2010): Polycyclic aromatic hydrocarbons and their oxygen-containing derivatives (OPAHs) in soils from the Angren industrial area, Uzbekistan, *Environ. Pollut.* **158**, 2888-2899, published online on 14/07/2010, doi: 10.1016/j.envpol.2010.06.012.
102. Barto, K., F. Alt, Y. Oelmann, **W. Wilcke** & M. Rillig (2010): Contributions of biotic and abiotic factors to soil aggregation across a land-use gradient. *Soil Biol. Biochem.* **42**, 2316-2324, published online on 20/09/2010, doi: 10.1016/j.soilbio.2010.09.008.
103. Bigalke, M., S. Weyer & **W. Wilcke** (2010): Stable copper isotopes: a novel tool to trace copper behavior in hydromorphic soils. *Soil Sci. Soc. Am. J.* **74**, 60-73, published online on 13/11/2009, doi: 10.2136/sssaj2008.0377.
104. Bigalke, M., S. Weyer & **W. Wilcke** (2010): Copper isotope fractionation during complexation with insolubilized humic acid. *Environ. Sci. Technol.* **44**, 5496-5502, published online on 17/06/2010, doi: 10.1021/es1017653.
105. Bigalke, M., S. Weyer, J. Kobza & **W. Wilcke** (2010): Stable Cu and Zn isotope ratios as tracers of sources and transport of Cu and Zn in contaminated soil. *Geochim. Cosmochim. Acta* **74**, 6801-6813, published online on 17/09/2010, doi: 10.1016/j.gca.2010.08.044.
106. Oelmann, Y., C. Potvin, T. Mark, L. Werther, S. Tapernon & **W. Wilcke** (2010): Tree mixture effects on aboveground nutrient pools of trees in an experimental plantation in Panama. *Plant Soil* **326**, 199-212, published online on 06/06/2009, doi: 10.1007/s11104-009-9997-x.

107. Proulx, R., C. Wirth, W. Voigt, A. Weigelt, C. Roscher, S. Attinger, J. Baade, R.L. Barnard, N. Buchmann, F. Buscot, N. Eisenhauer, M. Fischer, G. Gleixner, S. Halle, A. Hildebrandt, E. Kowalski, A. Kuu, M. Lange, A. Milcu, P.A. Niklaus, Y. Oelmann, S. Rosenkranz, A. Sabais, C. Scherber, M. Scherer-Lorenzen, S. Scheu, E.-D. Schulze, J. Schumacher, G. Schwichtenberg, J.-F. Soussana, V.M. Temperton, W.W. Weisser, **W. Wilcke** & B. Schmid (2010): Diversity promotes temporal stability across levels of ecosystem organization in experimental grasslands. *PLoS One* **5**, e13382, published online on 13/10/2010, doi: 10.1371/journal.pone.0013382, open access: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0013382>
108. Ruppenthal, M., Y. Oelmann & **W. Wilcke** (2010): Isotope ratios of nonexchangeable hydrogen in soils from different climate zones. *Geoderma* **155**, 231-241, published online on 13/01/2010, doi: 10.1016/j.geoderma.2009.12.005.
109. Stückrad, S., K.-F. Sabel & **W. Wilcke** (2010): Contributions of different parent materials in soils developed from periglacial cover beds. *Eur. J. Soil Sci.* **61**, 844-853, published online on 14/09/2010, doi: 10.1111/j.1365-2389.2010.01288.x.
110. Thorenz, U.R., B.A.M. Bandowe, J. Sobocka & **W. Wilcke** (2010): Method optimization to measure polybrominated diphenyl ether (PBDE) concentrations in soils of Bratislava, Slovakia. *Environ. Pollut.* **158**, 2208-2217, published online on 25/03/2010, doi: 10.1016/j.envpol.2010.02.021.
111. Wullaert, H., J. Homeier, C. Valarezo & **W. Wilcke** (2010): Response of the N and P cycle of an old-growth montane forest in Ecuador to experimental low-level N and P amendments. *For. Ecol. Manage.* **260**, 1434-1445, published online on 24/08/2010, doi: 10.1016/j.foreco.2010.07.021.

2011

112. Alt, F., Y. Oelmann, N. Herold, M. Schruppf & **W. Wilcke** (2011): Phosphorus partitioning in German grassland and forest soils as related to land-use type, management intensity, and land-use related pH. *J. Plant Nutr. Soil Sci.* **174**, 195-209, published online on 27/03/2011, doi: 10.1002/jpln.201000142.
113. Bandowe, B.A.M., J. Sobocka & **W. Wilcke** (2011): Oxygen-containing polycyclic aromatic hydrocarbons (OPAHs) in urban soils of Bratislava, Slovakia: patterns, relation to PAHs and vertical distribution. *Environ. Pollut.* **159**, 539-549, published online on 20/11/2010, doi: 10.1016/j.envpol.2010.10.011.
114. Bigalke, M., S. Weyer & **W. Wilcke** (2011): Stable Cu isotope fractionation during oxic weathering and podzolization. *Geochim. Cosmochim. Acta* **75**, 3119-3134, published online on 06/03/2011, doi: 10.1016/j.gca.2011.03.005.
115. Gnandi, K., B.A.M. Bandowe, D.D. Deheyn, M. Porrachiac, M. Kersten & **W. Wilcke** (2011): Polycyclic aromatic hydrocarbon (PAH) and trace element contaminatin of coastal sediment and biota in Togo. *J. Environ. Monit.* **13**, 2033-2041, published online on 08/06/2011, doi: 10.1039/C1em10063g.
116. Leimer, S., T. Pohlert, S. Pfahl & **W. Wilcke** (2011): Towards a new generation of high-resolution meteorological input data for small-scale hydrologic modeling. *J. Hydrol.* **402**, 317-332, published online on 24/03/2011, doi:10.1016/j.jhydrol.2011.03.026.
117. Oelmann, Y., N. Buchmann, G. Gleixner, M. Habekost, C. Roscher, S. Rosenkranz, E.-D. Schulze, S. Steinbeiss, V.M. Temperton, A. Weigelt, W.W. Weisser & **W. Wilcke** (2011): Plant diversity effects on above- and belowground N pools in grassland ecosystems: Development in the first five years after establishment. *Glob. Biogeochem. Cycle* **25**, GB2014, published online on 16/02/2011, doi:10.1029/2010GB003869.
118. Oelmann, Y., A.K. Richter, C. Roscher, S. Rosenkranz, V.M. Temperton, W.W. Weisser & **W. Wilcke** (2011): Does plant diversity influence phosphorus cycling in experimental grasslands? *Geoderma* **167-168**, 178-187, published online on 02/11/2011, doi: 10.1016/j.geoderma.2011.09.012

119. Potvin, C., L. Mancilla, N. Buchmann, J. Monteza, T. Moore, M. Murphy, Y. Oelmann, M. Scherer-Lorenzen, B. Turner, **W. Wilcke** & S. Wolf (2011): An ecosystem approach to biodiversity effects: C pools in a tropical tree plantation. *For. Ecol. Manage.* **261**, 1614-1624, published online on 16/12/2010, doi: 10.1016/j.foreco.2010.11.015.
120. Schilling, K. & **W. Wilcke** (2011): A method to quantitatively trap volatilized organoselenides for stable Se isotope analysis. Short Communication. *J. Environ. Qual.* **40**, 1021-1027, published online on 24/02/2011, doi: 10.2134/jeq2010.0474.
121. Schilling, K., T.M. Johnson & **W. Wilcke** (2011a): Isotope fractionation of selenium during fungal biomethylation by *Alternaria alternata*. *Environ. Sci. Technol.* **45**, 2670-2676, published online on 02/03/2011, dx.doi.org/10.1021/es102926p.
122. Schilling, K., T.M. Johnson & **W. Wilcke** (2011b): Selenium partitioning and stable isotope ratios in urban topsoils. *Soil Sci. Soc. Am. J.* **75**, 1354-1364, published online on 23/06/2011, doi:10.2136/sssaj2010.0377.
123. Schwarz, M.T., Y. Oelmann & **W. Wilcke** (2011): Stable N isotope composition of nitrate reflects N transformations during the passage of water through a montane rain forest in Ecuador. *Biogeochemistry* **102**, 195-208, published online on 11/04/2010, doi: 10.1007/s10533-010-9434-5.

2012

124. Bessler, H., Y. Oelmann, C. Roscher, N. Buchmann, M. Scherer-Lorenzen, E.-D. Schulze, V. M. Temperton, **W. Wilcke** & C. Engels (2012): Nitrogen uptake by grassland communities: contribution of N₂ fixation, facilitation, complementarity, and species dominance. *Plant Soil* **358**, 301-322, published online on 03/03/2012, doi: 10.1007/s11104-012-1181-z.
125. Homeier, J., D. Hertel, T. Camenzind, N.L. Cumbicus, M. Maraun, G.O. Martinson, L. N. Poma, M.C. Rillig, D. Sandmann, S. Scheu, E. Veldkamp, **W. Wilcke**, H. Wullaert & C. Leuschner (2012): Tropical Andean forests are highly susceptible to nutrient inputs – Rapid effects of experimental N and P addition to an Ecuadorian montane forest. *PLoS One* **7**, e47128, published online on 10/10/2012, doi: 10.1371/journal.pone.0047128, open access: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0047128>
126. Rosenkranz, S., **W. Wilcke**, N. Eisenhauer & Y. Oelmann (2012): Net ammonification as influenced by plant diversity in experimental grasslands. *Soil Biol. Biochem.* **48**, 78-87, published online on 26/01/2012, doi: 10.1016/j.soilbio.2012.01.008.

2013

127. Abbas, M., A. Ebeling, Y. Oelmann, R. Ptacnik, C. Roscher, A. Weigelt, W.W. Weisser, **W. Wilcke** & H. Hillebrand (2013): Biodiversity effects on plant stoichiometry. *PLOS ONE* **8**, e58179, published online on 04/03/2013, doi: 10.1371/journal.pone.0058179, open access: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0058179>
128. Allan, E., W.W. Weisser, M. Fischer, E.-D. Schulze, A. Weigelt, C. Roscher, J. Baade, R.L. Barnard, H. Beßler, N. Buchmann, A. Ebeling, N. Eisenhauer, C. Engels, A.J.F. Fergus, G. Gleixner, M. Gubsch, S. Halle, A.M. Klein, I. Kertscher, A. Kuu, M. Lange, X. Le Roux, S. Meyer, V.D. Migunova, A. Milcu, P.A. Niklaus, Y. Oelmann, E. Pašalić, J.S. Petermann, F. Poly, T. Rottstock, A. Sabais, C. Scherber, M. Scherer-Lorenzen, S. Scheu, S. Steinbeiss, G. Schwichtenberg, V. Temperton, T. Tschardtke, W. Voigt, **W. Wilcke**, C. Wirth & B. Schmid (2013): A comparison of the strength of biodiversity effects across multiple functions. *Oecologia* **173**, 223-237, published online on 18/02/2012, doi: 10.1007/s00442-012-2589-0.
129. Alt, F., Y. Oelmann, I. Schöning & **W. Wilcke** (2013): Phosphate release kinetics in calcareous grassland and forest soils in response to H⁺ addition. *Soil Sci. Soc. Am. J.* **77**, 2060-2070, published online on 20/10/2013, doi: 10.2136/sssaj2013.02.0072.

130. Bigalke, M., M. Kersten, S. Schuth, S. Weyer & **W. Wilcke** (2013): Isotopes trace biogeochemistry and sources of Cu and Zn in an intertidal soil. *Soil Sci. Soc. Am. J.* **77**, 680-691, published online on 07/12/2012, doi: 10.2136/sssaj2012.0225.
131. Ferger, S.W., K. Böhning-Gaese, **W. Wilcke**, Y. Oelmann & M. Schleuning (2013): Distinct carbon sources indicate strong differentiation between tropical forest and farmland bird communities. *Oecologia* **171**, 473-486, published online on 17/08/2012, doi: 10.1007/s00442-012-2422-9.
132. Ruppenthal, M., Y. Oelmann & **W. Wilcke** (2013): Optimized demineralization technique for the measurement of stable isotope ratios of nonexchangeable H in soil organic matter. *Environ. Sci. Technol.* **47**, 949-995, published online on 18/12/2012, doi: 10.1021/es303448g.
133. Schilling, K., T.M. Johnson & **W. Wilcke** (2013): Isotope fractionation of selenium by biomethylation in microcosm incubations of soil. *Chem. Geol.* **352**, 101-107, published online on 25/05/2013, doi: 10.1016/j.chemgeo.2013.05.013.
134. Sprenger, M., Y. Oelmann, L. Weihermüller, S. Wolf, **W. Wilcke** & C. Potvin (2013): Tree species and diversity effects on soil water seepage in a tropical plantation. *For. Ecol. Manage.* **309**, 76-86, published online on 25/04/2013, doi: 10.1016/j.foreco.2013.03.022.
135. **Wilcke, W.**, S. Leimer, T. Peters, P. Emck, R. Rollenbeck, K. Trachte, C. Valarezo & J. Bendix (2013): The nitrogen cycle of tropical montane forest in Ecuador turns inorganic under environmental change. *Glob. Biogeochem. Cycle* **27**, 1194-1204, published online on 05/11/2013, doi: 10.1002/2012GB004471.
136. Wullaert, H., M. Bigalke, J. Homeier, N.L. Cumbicus, C. Valarezo & **W. Wilcke** (2013): Short-term response of the Ca cycle of a montane forest in Ecuador to low experimental CaCl₂ additions. *J. Plant Nutr. Soil Sci.* **176**, 892-903, published online on 19/08/2013, doi: 10.1002/jpln.201300146.

2014

137. Bandowe, B.A.M., M. Bigalke, L. Boamah, E. Nyarko, F.K. Saalia & **W. Wilcke** (2014): Polycyclic aromatic compounds (PAHs and oxygenated PAHs) and trace metals in fish species from Ghana (West Africa): Bioaccumulation and health risk assessment. *Environ. Int.* **65**, 135-146, published online on 29/01/2014, doi: 10.1016/j.envint.2013.12.018.
138. Bandowe B.A.M., M. Gomez Lueso und **W. Wilcke** (2014): Oxygenated polycyclic aromatic hydrocarbons and azaarenes in urban soils: A comparison of a tropical city (Bangkok) with two temperate cities (Bratislava and Gothenburg). *Chemosphere* **107**, 407-414, published online on 11/02/2014, doi: 10.1016/j.chemosphere.2014.01.017.
139. Bandowe, B.A.M., H. Meusel, R.-J. Huang, K.F. Ho, J.J. Cao, T. Hoffmann & **W. Wilcke** (2014): PM_{2.5}-bound oxygenated PAHs (OPAHs), nitro-PAHs and alkyl+parent-PAHs from the atmosphere of a Chinese megacity: Seasonal variation, sources and cancer risk assessment. *Sci. Tot. Environ.* **473-474**, 77-87, published online on 23/12/2013, doi: 10.1016/j.scitotenv.2013.11.108.
140. Bandowe, B.A.M., P. Srinivasan, M. Seelge, F. Sirocko & **W. Wilcke** (2014): A 2600-year record of past polycyclic aromatic hydrocarbons (PAHs) deposition at Holzmaar (Eifel, Germany). *Palaeogeogr. Palaeoclim. Palaeoecol.* **401**, 111-121, published online on 26/02/2014, doi: 10.1016/j.palaeo.2014.02.021.
141. Bast, A., **W. Wilcke**, F. Graf, P. Lüscher & H. Gärtner (2014): The use of mycorrhiza for eco-engineering measures in steep alpine environments: Effects on soil aggregate formation and fine-root development. *Earth Surf. Proc. Landf.* **39**, 1753–1763, published online on 23/02/2014, doi: 10.1002/esp.3557.
142. Camenzind, T., S. Hempel, J. Homeier, S. Horn, A. Velescu, **W. Wilcke** & M. Rillig (2014): Nitrogen and phosphorus additions impact arbuscular mycorrhizal abundance and molecular diversity in a tropical montane forest. *Glob. Change Biol.* **20**, 3646-3659, published online on 25/04/2014, doi: 10.1111/gcb.12618.

143. Herold, N., I. Schöning, J. Gutknecht, F. Alt, S. Boch, J. Müller, Y. Oelmann, S.A. Socher, **W. Wilcke**, T. Wubet & M. Schrumpf (2014): Soil property and management effects on grassland microbial communities across a latitudinal gradient in Germany. *Appl. Soil Ecol.* **73**, 41-50, published online on 05/09/2013, doi: 10.1016/j.apsoil.2013.07.009.
144. Lange, M., M. Habekost, N. Eisenhauer, C. Roscher, H. Bessler, C. Engels, Y. Oelmann, S. Scheu, **W. Wilcke**, E.-D. Schulze & G. Gleixner (2014): Biotic and abiotic properties mediating plant diversity effects on soil microbial communities in an experimental grassland. *PLOS ONE* **9**, e96182, published online on 09/05/2014, doi: 10.1371/journal.pone.0096182, open access, <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0096182>
145. Leimer, S., Y. Kreuziger, S. Rosenkranz, H. Beßler, C. Engels, A. Hildebrandt, Y. Oelmann, W.W. Weisser, C. Wirth & **W. Wilcke** (2014): Plant diversity effects on the water balance of an experimental grassland. *Ecohydrol.* **7**, 1378-1391, published online on 12/12/2013, doi: 10.1002/eco.1464.
146. Leimer, S., C. Wirth, Y. Oelmann & **W. Wilcke** (2014): Biodiversity effects on nitrate concentration in soil solution: A Bayesian model. *Biogeochemistry* **118**, 141-157, published online on 14/10/2013, doi: 10.1007/s10533-013-9913-6.
147. Lundstedt, S., B.A.M. Bandowe, **W. Wilcke**, E. Bøll, J. Christensen, J. Vila, M. Grifoll, P. Faure, C. Lorgeoux, M. Larsson, K. Frech Irgum, P. Ivarsson & M. Ricci (2014): First intercomparison study on the analysis of oxygenated PAHs and N-PACs in contaminated soil. *TrAC - Trends Anal. Chem.* **57**, 83-92, published online on 19/02/2014, doi: 10.1016/j.trac.2014.01.007.
148. Messmer, T., H. Elsenbeer & **W. Wilcke** (2014): High exchangeable calcium concentrations in soils on Barro Colorado Island, Panama. *Geoderma* **217-218**, 212-224, published online on 22/11/2013, doi: 10.1016/j.geoderma.2013.10.021.
149. Rehmus, A., M. Bigalke, C. Valarezo, J.M. Castillo & **W. Wilcke** (2014): Aluminum toxicity to tropical montane forest tree seedlings in southern Ecuador: Response of biomass and plant morphology to elevated Al concentrations. *Plant Soil* **382**, 301–315, published online on 06/06/2014, doi: 10.1007/s11104-014-2110-0.
150. Schwarz, M.T., S. Bischoff, S. Blaser, S. Boch, B. Schmitt, L. Thieme, M. Fischer, B. Michalzik, E.-D. Schulze, J. Siemens & **W. Wilcke** (2014): More efficient aboveground nitrogen use in more diverse Central European forest canopies. *For. Ecol. Manage.* **313**, 274-282, published online on 14/12/2013, doi: 10.1016/j.foreco.2013.11.021.
151. Tuthorn, M., M. Zech, M. Ruppenthal, Y. Oelmann, A. Kahmen, H.F. del Valle, **W. Wilcke** & B. Glaser (2014): Oxygen isotope ratios ($^{18}\text{O}/^{16}\text{O}$) of hemicellulose-derived sugar biomarkers in plants, soils and sediments as paleoclimate proxy. II. Insight from a climate transect study. *Geochim. Cosmochim. Acta* **126**, 624-634, published online on 16/11/2013, doi: 10.1016/j.gca.2013.11.002.
152. **Wilcke, W.**, B.A.M. Bandowe, M. Gomez Lueso, M. Ruppenthal, H. del Valle & Y. Oelmann (2014): Polycyclic aromatic hydrocarbons (PAHs) and their polar derivatives (oxygenated PAHs, azaarenes) in soils along a climosequence in Argentina. *Sci. Tot. Environ.* **473-474**, 317-325, published online on 27/12/2013, doi: 10.1016/j.scitotenv.2013.12.037.
153. **Wilcke, W.**, M. Kiesewetter & B.A.M. Bandowe (2014): Microbial formation and degradation of oxygen-containing polycyclic aromatic hydrocarbons (OPAHs) in soil during short-term incubation. *Environ. Pollut.* **184**, 385-390, published online on 07/10/2013, doi: 10.1016/j.envpol.2013.09.020.

2015

154. Abgottsporn, F., M. Bigalke & **W. Wilcke** (2015): Fast colloidal and dissolved release of trace elements in a carbonatic soil after experimental flooding. *Geoderma* **259-260**, 156-163, published online on 17/06/2015, doi: 10.1016/j.geoderma.2015.06.005.

155. Allan, E., P. Manning, F. Alt, J. Binkenstein, S. Blaser, N. Blüthgen, S. Böhm, F. Grassein, N. Hölzel, V.H. Klaus, T. Kleinebecker, E.K. Morris, Y. Oelmann, D. Prati, S.C. Renner, M.C. Rillig, M. Schaefer, M. Schloter, B. Schmitt, I. Schöning, M. Schrumpf, E. Solly, E. Sorkau, J. Steckel, I. Steffen-Dewenter, B. Stempfhuber, M. Tschapka, C.N. Weiner, W.W. Weisser, M. Werner, C. Westphal, **W. Wilcke** & M. Fischer (2015): Land use intensification alters ecosystem multifunctionality via loss of biodiversity and changes to functional composition. *Ecol. Lett.* **18**, 834-843, published online on 22/06/2015, doi: 10.1111/ele.12469.
156. Bast, A., **W. Wilcke**, F. Graf, P. Lüscher & H. Gärtner (2015): A simplified and rapid technique to determine an aggregate stability coefficient in coarse grained soils. *Catena* **127**, 170-176, published online on 14/01/2015, doi: 10.1016/j.catena.2014.11.017.
157. Bischoff, S., M.T. Schwarz, J. Siemens, L. Thieme, **W. Wilcke** und B. Michalzik (2015): Properties of dissolved and total organic matter in throughfall, stemflow and forest floor leachate of Central European forests. *Biogeosciences* **12**, 2695-2706, published online on 07/05/2015, doi: 10.5194/b-12-2695-2015, open access: <http://www.biogeosciences.net/12/2695/2015/bg-12-2695-2015.html>
158. Hacker, N., A. Ebeling, A. Gessler, G. Gleixner, O. Gonzales, H. de Kroon, M. Lange, L. Mommer, N. Eisenhauer, J. Ravenek, S. Scheu, A. Weigelt, C. Wagg, **W. Wilcke** & Y. Oelmann (2015): Plant diversity shapes microbe-rhizosphere effects on P mobilization from organic matter in soil. *Ecol. Lett.* **18**, 1356-1365, published online on 29/09/2015, doi: 10.1111/ele.12530.
159. Han, Y.M., C. Wei, B.A.M. Bandowe, **W. Wilcke**, J.J. Cao, B.Q. Xu, X.X. Tie, G.H. Li, Z.D. Jin & Z.S. An (2015): Elemental carbon and polycyclic aromatic compounds in a 200-yr sediment core from Lake Qinghai, Tibetan Plateau, China: Influence of regional and local sources and transport pathways. *Environ. Sci. Technol.* **49**, 4176–4183, published online on 02/03/2015, doi: 10.1021/es504568m.
160. Han, Y.M., B.A.M. Bandowe, C. Wei, J.J. Cao, **W. Wilcke**, G.H. Wang, H.Y. Ni, Z.D. Jin, Z.H. An & B.Z. Yan (2015): Stronger association of polycyclic aromatic hydrocarbons with soot than with char in soils and sediments. *Chemosphere* **119**, 1335–1345, published online on 20/03/2014, doi: 10.1016/j.chemosphere.2014.02.021.
161. Leimer, S., Y. Oelmann, C. Wirth & **W. Wilcke** (2015): Time matters for plant diversity effects on nitrate leaching from grassland. *Agric. Ecosyst. Environ.* **211**, 155-163, published online on 23/06/2015, doi: 10.1016/j.agee.2015.06.002.
162. Rehmus, A., M. Bigalke, C. Valarezo, J.M. Castillo & **W. Wilcke** (2015): Aluminum toxicity to tropical montane forest tree seedlings in southern Ecuador: Response of nutrient status to elevated Al concentrations. *Plant Soil* **388**, 87-97, published online on 27/10/2014, doi: 10.1007/s11104-014-2276-5.
163. Ruppenthal, M., Y. Oelmann, H.F. del Valle & **W. Wilcke** (2015): Stable isotope ratios of nonexchangeable hydrogen of organic matter in soils and plants along a 2100-km climosequence in Argentina: New insights into organic matter sources and transformations. *Geochim. Cosmochim. Acta* **152**, 54-71, published online on 07/01/2015, doi:10.1016/j.gca.2014.12.024.
164. Wei, C., Y.M. Han, B.A.M. Bandowe, J.J. Cao, R.J. Huang, H.Y. Ni, J. Tan & **W. Wilcke** (2015): Occurrence, gas/particle partitioning and carcinogenic risk of polycyclic aromatic hydrocarbons and their oxygen- and nitrogen-containing derivatives in Xi'an, central China. *Sci. Tot. Environ.* **505**, 814-822, published online on 05/11/2014, doi: 10.1016/j.scitotenv. 2014.10.054.
165. Wei, C., Y.M. Han, B.A.M. Bandowe, J.J. Cao, C.L. Zhan & **W. Wilcke** (2015): Polycyclic aromatic hydrocarbons (PAHs) and their derivatives (alkyl-, oxygenated-, nitrated-PAHs, and azaarenes) in urban road dusts from Xi'an, central China. *Chemosphere* **134**, 512-520, published online on 24/12/2014, doi: 10.1016/j.chemosphere.2014.11.052.

166. Wright, A.J., A. Ebeling, H. de Kron, C. Roscher, A. Weigelt, N. Buchmann, T. Buchmann, C. Fischer, N. Hacker, A. Hildebrandt, S. Leimer, L. Mommer, Y. Oelmann, S. Scheu, K. Steinauer, T. Strecker, W.W. Weisser, **W. Wilcke** & N. Eisenhauer (2015): Flooding disturbances increase resource availability and productivity but reduce stability in diverse plant communities. *Nat. Commun.* **6**, Article number: 6092, published online on 20/01/2015, doi: 10.1038/ncomms7092, open access: <http://www.nature.com/ncomms/2015/150120/ncomms7092/full/ncomms7092.html>

2016

167. Bast, A., **W. Wilcke**, F. Graf, P. Lüscher & H. Gärtner (2016): Does mycorrhizal inoculation improve plant survival, aggregate stability, and fine-root development on a coarse-grained soil in an Alpine eco-engineering field experiment? *J. Geophys. Res.* **121**, 2158–2171, published online on 12/07/2016, doi: 10.1002/2016JG003422.
168. Guiz, J., H. Hillebrand, E. Borer, M. Abbas, A. Ebeling, A. Weigelt, Y. Oelmann, D. Fornara, **W. Wilcke**, V. Temperton & W.W. Weisser (2016): Long-term effects of plant diversity and composition on plant stoichiometry. *Oikos* **125**, 613–621, published online on 30/07/2015, doi: 10.1111/oik.02504. – Editor’s Choice.
169. Han, Y.M., C. Wei, B.A.M. Bandowe, R.J. Huang, S.S.H. Ho, J.J. Cao, Z.D. Jin, B.Q. Xu, S.P. Gao, Z.S. An & **W. Wilcke** (2016): Reconstruction of atmospheric soot history in inland regions from lake sediments over the past 150 years. *Sci. Rep.* **6**, 19151, published online on 11/01/2016, doi: 10.1038/srep19151, open access: <http://www.nature.com/articles/srep19151>
170. Kusonwiriawong, C., M. Bigalke, F. Abgottsson, M. Lazarov & **W. Wilcke** (2016): Response of Cu partitioning to flooding: A $\delta^{65}\text{Cu}$ approach in a carbonatic alluvial soil. *Chem. Geol.* **420**, 69–76, published online on 10/11/2015, doi: 10.1016/j.chemgeo.2015.11.005.
171. Leimer, S., Y. Oelmann, N. Eisenhauer, A. Milcu, C. Roscher, S. Scheu, A. Weigelt, C. Wirth & **W. Wilcke** (2016): Mechanisms behind plant diversity effects on inorganic and organic N leaching from temperate grassland. *Biogeochemistry* **131**, 339–353, published online on 01/12/2016, doi: 10.1007/s10533-016-0283-8.
172. Messmer, T., M. Wigggenhauser, H. Espinosa Ortega, L. Albrecht, M. Tschapka & **W. Wilcke** (2016): Base metal fluxes from fig trees to soil on Barro Colorado Island, Panama: Potential contribution of the common frugivorous bat *Artibeus jamaicensis*. *Biogeochemistry* **130**, 13–30, published online on 08/09/2016, doi:10.1007/s10533-016-0236-2.
173. Mestrot, A., Y. Ji, S. Tandy & **W. Wilcke** (2016): A novel method to determine trimethylantimony concentrations in plant tissues. *Environ. Chem.* **13**, 919–926, published online on 01/08/2016, doi: 10.1071/EN16018.
174. Meyer, S.T., A. Ebeling, N. Eisenhauer, L. Hertzog, H. Hillebrand, A. Milcu, S. Pompe, M. Abbas, H. Bessler, N. Buchmann, E. De Luca, C. Engels, M. Fischer, G. Gleixner, A. Hudewenz, A.-M. Klein, H. de Kroon, S. Leimer, H. Loranger, L. Mommer, Y. Oelmann, J.M. Ravenek, C. Roscher, T. Rottstock, C. Scherber, M. Scherer-Lorenzen, S. Scheu, B. Schmid, E.-D. Schulze, A. Staudler, T. Strecker, V. Temperton, T. Tschardtke, A. Vogel, W. Voigt, A. Weigelt, **W. Wilcke** & W.W. Weisser (2016): Effects of biodiversity strengthen over time as ecosystem functioning declines at low and increases at high biodiversity. *Ecosphere* **7**, e01619, doi: 10.1002/ecs2.1619, open access: <http://onlinelibrary.wiley.com/doi/10.1002/ecs2.1619/full>
175. Schaller, J., C. Roscher, H. Hillebrand, A. Weigelt, Y. Oelmann, **W. Wilcke**, A. Ebeling & W.W. Weisser (2016): Plant diversity and functional groups affect Si and Ca pools in aboveground biomass of grassland systems. *Oecologia* **182**, 277–286, published online on 10/05/2016, doi: 10.1007/s00442-016-3647-9.
176. Schwarz, M.T., S. Bischoff, S. Blaser, S. Boch, F. Grassein, B. Klärner, B. Schmitt, E.F. Solly, C. Ammer, B. Michalzik, P. Schall, S. Scheu, I. Schöning, M. Schrupf, E.-D. Schulze, J. Siemens & **W. Wilcke** (2016): Drivers of nitrogen leaching from organic layers in Central European beech forests. *Plant Soil* **403**, 343–360, published online on 30/01/2016, doi: 10.1007/s11104-016-2798-0.

177. Soliveres, S., P. Manning, D. Prati, M.M. Gossner, F. Alt, H. Arndt, V. Baumgartner, J. Binkenstein, K. Birkhofer, S. Blaser, N. Blüthgen, S. Boch, S. Böhm, C. Börschig, F. Buscot, T. Diekötter, J. Heinze, N. Hölzel, K. Jung, V.H. Klaus, A.-M. Klein, T. Kleinebecker, S. Klemmer, J. Krauss, M. Lange, E.K. Morris, J. Müller, Y. Oelmann, J. Overmann, E. Pašalić, S.C. Renner, M.C. Rillig, H.M. Schaefer, M. Schloter, B. Schmitt, I. Schöning, M. Schruppf, J. Sikorski, S.A. Socher, E.F. Solly, I. Sonnemann, E. Sorkau, J. Steckel, I. Steffen-Dewenter, B. Stempfhuber, M. Tschapka, M. Türke, P. Venter, C.N. Weiner, W.W. Weisser, M. Werner, C. Westphal, **W. Wilcke**, V. Wolters, T. Wubet, S. Wurst, M. Fischer & E. Allan (2016): Locally rare species influence grassland ecosystem multifunctionality. *Phil. Trans. R. Soc. B* **371**, 20150269, published online on 25/04/2016, doi: 10.1098/rstb.2015.0269.
178. Soliveres, S., F. van der Plas, P. Manning, D. Prati, M. Gossner, S. Renner, F. Alt, H. Arndt, V. Baumgartner, J. Binkenstein, K. Birkhofer, S. Blaser, N. Blüthgen, S. Boch, S. Böhm, C. Börschig, F. Buscot, T. Diekötter, J. Heinze, N. Hölzel, K. Jung, V. Klaus, T. Kleinebecker, S. Klemmer, J. Krauss, M. Lange, E.K. Morris, J. Müller, Y. Oelmann, J. Overmann, E. Pašalić, M. Rillig, H.M. Schaefer, M. Schloter, B. Schmitt, I. Schöning, M. Schruppf, J. Sikorski, S. Socher, E. Solly, I. Sonnemann, E. Sorkau, J. Steckel, I. Steffen-Dewenter, B. Stempfhuber, M. Tschapka, M. Türke, P. Venter, C. Weiner, W. Weisser, M. Werner, C. Westphal, **W. Wilcke**, V. Wolters, T. Wubet, S. Wurst, M. Fischer & E. Allan (2016): Biodiversity at multiple trophic levels is needed for ecosystem multifunctionality. *Nature* **536**, 456-459, published online on 17/08/2016, doi: 10.1038/nature19092.
179. Velescu, A., C. Valarezo & **W. Wilcke** (2016): Response of dissolved carbon and nitrogen concentrations to moderate nutrient additions in a tropical montane forest of south Ecuador. *Front. Earth Sci.* **4**, 58, published online on 26/04/2016, doi: 10.3389/feart.2016.00058, open access: http://journal.frontiersin.org/article/10.3389/feart.2016.00058/full?&utm_source=Email_to_authors&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=&journalName=Frontiers_in_Earth_Science&id=181327
180. Wiggerhauser, M., M. Bigalke, M. Imseng, A. Keller, M. Müller, M. Rehkaemper, K. Murphy, K. Kreissig, **W. Wilcke** & E. Frossard (2016): Cadmium isotope fractionation in soil wheat systems. *Environ. Sci. Technol.* **50**, 9223–9231, published online on 02/08/2016, doi: 10.1021/acs.est.6b01568.

2017

181. Chen, H.M., N. Oram, K. Barry, L. Mommer, J. van Ruijven, H. de Kroon, A. Ebeling, N. Eisenhauer, C. Fischer, G. Gleixner, A. Gessler, O. González Macé, N. Hacker, A. Hildebrandt, M. Lange, M. Scherer-Lorenzen, S. Scheu, Y. Oelmann, C. Wagg, **W. Wilcke**, C. Wirth & A. Weigelt (2017): Root chemistry and soil fauna but not soil abiotic conditions explain the effects of plant diversity on root decomposition. *Oecologia* **185**, 499-511, published online on 19/09/2017, doi: 10.1007/s00442-017-3962-9.
182. Hacker, N., G. Gleixner, M. Lange, **W. Wilcke** & Y. Oelmann (2017): Phosphorus release from mineral soil by acid hydrolysis: Method development, kinetics, and plant community composition effects. *Soil Sci. Soc. Am. J.* **81**, 1389-1400, published online on 14/08/2017, doi: 10.2136/sssaj2017.02.0064.
183. Kusunwiriawong, C., M. Bigalke, F. Abgottspon, M. Lazarov, S. Schuth, S. Weyer & **W. Wilcke** (2017): Isotopic variation of dissolved and colloidal iron and copper in a carbonatic floodplain soil after experimental flooding. *Chem. Geol.* **459**, 13-23, published online on 31/03/2017, doi: 10.1016/j.chemgeo.2017.03.033.
184. Kusunwiriawong, C., M. Bigalke, S. Cornu, D. Montagne, Z. Fekiacova, M. Lazarov & **W. Wilcke** (2017): Response of copper concentrations and stable isotope ratios to artificial drainage in a French Retisol. *Geoderma* **300**, 44-54, published online on 25/04/2017, doi: 10.1016/j.geoderma.2017.04.003.
185. Rehmus, A., M. Bigalke, J. Boy, C. Valarezo & **W. Wilcke** (2017): Aluminum cycling in a tropical montane forest ecosystem in southern Ecuador. *Geoderma* **288**, 196–203, published online on 17/11/2016, doi: 10.1016/j.geoderma.2016.11.002.

186. **Wilcke, W.**, A. Velescu, S. Leimer, M. Bigalke, J. Boy & C. Valarezo (2017): Biological vs. geochemical control and environmental change drivers of the base metal budgets of a tropical montane forest in Ecuador during 15 years. *Biogeochemistry* **136**, 167-189, published online on 12/10/2017, doi: 10.1007/s10533-017-0386-x.

2018

187. Bandowe, B.A.M., M. Bigalke, J. Kobza & **W. Wilcke** (2018): Sources and fate of polycyclic aromatic compounds (PAHs, oxygenated PAHs and azaarenes) in forest soil profiles opposite of an aluminium plant. *Sci. Tot. Environ.* **630**, 83-95, published online on 20/02/2018, doi: 10.1016/j.scitotenv.2018.02.109.
188. Buchmann, T., J. Schumacher, A. Ebeling, N. Eisenhauer, M. Fischer, G. Gleixner, N. Hacker, M. Lange, Y. Oelmann, E.-D. Schulze, A. Weigelt, W. Weisser, **W. Wilcke** & C. Roscher (2018): Connecting experimental biodiversity research to real-world grasslands. *Perspect. Plant Ecol. Evol. Syst.* **33**, 78-88, published online on 20/06/2018, doi: 10.1016/j.ppees.2018.06.002.
189. Imseng, M., M. Wigganhauser, A. Keller, M. Müller, M. Rehkämper, K. Murphy, K. Kreissig, E. Frossard, **W. Wilcke** & M. Bigalke (2018): Fate of Cd in agricultural soils: A stable isotope approach to anthropogenic impact, soil formation and soil-plant cycling. *Environ. Sci. Technol.* **52**, 1919-1928, published online on 08/01/2018, doi: 10.1021/acs.est.7b05439.
190. Leimer, S., S. Bischoff, S. Boch, V. Busch, P. Escher, M. Fischer, F. Hänsel, N. Hölzel, K. Kerber, V. Klaus, T. Kleinebecker, B. Michalzik, T. Nauss, D. Schäfer, I. Schöning, M. T. Schwarz, J. Siemens, L. Thieme, S. Wöllauer & **W. Wilcke** (2018): Does plant diversity affect the water balance of established grassland systems? *Ecohydrol.* **11**, e1945, published online on 06/02/2018, doi: 10.1002/eco.1945. – Early Career Publication Award 2018 for Sophia Leimer and Top Downloaded Article 2017-2018 and 2018-2019 of Ecohydrology.
191. Meyer, S.T., R. Ptacnik, H. Hillebrand, H. Bessler, N. Buchmann, A. Ebeling, N. Eisenhauer, C. Engels, M. Fischer, S. Halle, A.-M. Klein, Y. Oelmann, C. Roscher, T. Rottstock, C. Scherber, S. Scheu, B. Schmid, E.-D. Schulze, V.M. Temperton, T. Tschardtke, W. Voigt, A. Weigelt, **W. Wilcke** & W.W. Weisser (2018): Biodiversity-multifunctionality relationships depend on identity and number of measured functions. *Nature Ecol. Evol.* **2**, 44-49, published online on 27/11/2017, doi: 10.1038/s41559-017-0391-4.
192. Wigganhauser, M., M. Bigalke, M. Imseng, A. Keller, C. Archer, **W. Wilcke** & E. Frossard (2018): Zinc isotope fractionation during grain filling of wheat and a comparison of Zn and Cd isotope ratios in identical soil-plant systems. *New Phytol.* **219**, 195-205, published online on 26/04/2018, doi: 10.1111/nph.15146.

2019

193. Bandowe, B.A.M., S. Leimer, H. Meusel, A. Velescu, T. Hoffmann, Y. Oelmann & **W. Wilcke** (2019): Plant diversity accelerates the natural attenuation of polycyclic aromatic compounds (PAHs and oxygenated PAHs) in grassland soils. *Soil Biol. Biochem.* **129**, 60-70, published online on 25/10/2018, doi: 10.1016/j.soilbio.2018.10.017.
194. Bandowe, B.A.M., C. Wei, Y.M. Han, J.J. Cao, C.L. Zhan & **W. Wilcke** (2019): Polycyclic aromatic compounds (PAHs, oxygenated PAHs, nitrated PAHs and azaarenes) in soils from China and their relationship with geographic location, land use and soil carbon fractions. *Sci. Tot. Environ.* **690**, 1268-1276, published online on 03/07/2019, doi: 10.1016/j.scitotenv.2019.07.022.
195. Fischer, C., S. Leimer, C. Roscher, J. Ravenek, H. de Kroon, Y. Kreutziger, J. Baade, H. Bessler, N. Eisenhauer, A. Weigelt, L. Mommer, M. Lange, G. Gleixner, **W. Wilcke**, B. Schröder & A. Hildebrandt (2019): Plant species richness and functional groups have different effects on soil water content in a decade-long grassland experiment. *J. Ecol.* **107**, 127-141, published online on 18/07/2018, doi: 10.1111/1365-2745.13046. – Top Downloaded and Top Cited Article 2018-2019 of the Journal of Ecology.

196. Gygax, S., L. Gfeller, **W. Wilcke** & A. Mestrot (2019): Mercury mobility and methylmercury formation in a contaminated agricultural flood plain: Influence of flooding and manure addition. *Environ. Sci.-Process Impacts* **21**, 2008-2019 published online on 10/10/2019, doi: 10.1039/c9em00257j.
197. Hacker, N., **W. Wilcke** & Y. Oelmann (2019): The oxygen isotope composition in soil water driven by plant diversity effects on evaporation is reflected in released phosphate in soil. *Geochim. Cosmochim. Acta* **248**, 387-399, published online on 19/01/2019, doi: 10.1016/j.gca.2018.11.023.
198. Imseng, M., M. Wigggenhauser, A. Keller, M. Müller, M. Rehkämper, K. Murphy, K. Kreissig, E. Frossard, **W. Wilcke** & M. Bigalke (2019): Towards an understanding of the Cd isotope fractionation during transfer from the soil to the cereal grain. *Environ. Pollut.* **244**, 834-844, published online on 12/10/2018, doi: 10.1016/j.envpol.2018.09.149.
199. Imseng, M., M. Wigggenhauser, M. Müller, A. Keller, E. Frossard, **W. Wilcke** & M. Bigalke (2019): The fate of Zn in agricultural soils: A stable isotope approach to anthropogenic impact, soil-plant cycling and soil formation. *Environ. Sci. Technol.* **53**, 4140–4149, published online on 15/02/2019, doi: 10.1021/acs.est.8b03675.
200. Morris, E.K., D.J.P. Morris, S. Vogt, S.-C. Gleber, M. Bigalke, **W. Wilcke** & M.C. Rillig (2019): Visualizing the dynamics of soil aggregation as affected by arbuscular mycorrhizal fungi. *ISME J.* **13**, 1639-1646, published online on 11/02/2019, doi: 10.1038/s41396-019-0369-0.
201. Sternagel, A., R. Loritz, **W. Wilcke** & E. Zehe (2019): Simulating preferential soil water flow and tracer transport using the Lagrangian Soil Water and Solute Transport Model. *Hydrol. Earth. Syst. Sci.* **23**, 4249-4267, published online on 22/10/2019, doi: 10.5194/hess-23-4249-2019, open access: <https://www.hydrol-earth-syst-sci.net/23/4249/2019/>
202. Thieme, L., D. Gräber, D. Hofmann, S. Bischoff, M.T. Schwarz, B. Steffen. U.-N. Meyer, M. Kaupenjohann, **W. Wilcke**, B. Michalzik & J. Siemens (2019): Dissolved organic matter characteristics of deciduous and coniferous forests with variable management: different at the source, aligned in the soil. *Biogeosciences* **16**, 1411-1432, published online on 05/04/2019, doi 10.5194/bg-16-1411-2019, open access: <https://www.biogeosciences.net/16/1411/2019/>
203. van der Plas, F., E. Allan, M. Fischer, F. Alt, H. Arndt, J. Binkenstein, S. Blaser, N. Blüthgen, S. Böhm, N. Hölzel, V. Klaus, T. Kleinebecker, K. Morris, Y. Oelmann, D. Prati, S. Renner, M.C. Rillig, H.M. Schäfer, M. Schloter, B. Schmitt, I. Schöning, M. Schrupf, E. Solly, E. Sorkau, J. Steckel, I. Steffan-Dewenter, B. Stempfhuber, M. Tschapka, C. Weiner, W.W. Weisser, M. Werner, C. Westphal, **W. Wilcke** & P. Manning (2019): Towards the development of general rules describing landscape heterogeneity-multifunctionality relationships. *J. Appl. Ecol.* **56**, 168-179, published online on 11/08/2018, doi: 10.1111/1365-2664.13260.
204. Wigggenhauser, M., M. Bigalke, M. Imseng, A. Keller, M. Rehkämper, **W. Wilcke** & E. Frossard (2019): Using Isotopes to trace freshly applied cadmium through mineral phosphorus fertilization in soil-fertilizer-plant systems. *Sci. Tot. Environ.* **648**, 779-786, published online on 14/08/2018, doi: 10.1016/j.scitotenv.2018.08.127.
205. **Wilcke, W.**, A. Velescu, S. Leimer, M. Bigalke, J. Boy & C. Valarezo (2019): Temporal trends of phosphorus cycling in a tropical montane forest in Ecuador during 14 years. *J. Geophys. Res. – Biogeosci.* **124**, 1370-1386, published online on 25/04/2019, doi: 10.1029/2018JG004942.

2020

206. Bigalke, M., M. Imseng, S. Schneider, L. Schwab, M. Wigggenhauser, A. Keller, M. Müller, E. Frossard & **W. Wilcke** (2020): Uranium budget and leaching in Swiss agricultural systems. *Front. Earth Sci.* **8**, 54, published online on 05/06/2020, doi: 10.3389/fevs.2020.00054, open access: <https://www.frontiersin.org/articles/10.3389/fevs.2020.00054/full>

207. Felipe-Lucia, M.R., S. Soliveres, C. Penone, M. Fischer, C. Ammer, S. Boch, R. Boeddinghaus, M. Bonkowski, F. Buscot, A.M. Fiore-Donno, K. Frank, K. Goldmann, M.M. Gossner, N. Hölzel, M. Jochum, E. Kandeler, V.H. Klaus, T. Kleinebecker, S. Leimer, P. Manning, Y. Oelmann, H. Saiz, P. Schall, M. Schloter, I. Schöning, M. Schrumpf, E.F. Solly, B. Stempfhuber, W.W. Weisser, **W. Wilcke**, T. Wubet & E. Allan (2020): Land-use intensity alters biodiversity-ecosystem function - service networks. *Proc. Natl. Acad. Sci. U.S.A.* **117**, 28140-28149, published online on 22/10/2020, doi:10.1073/pnas.2016210117.
208. Jochum, M., M. Fischer, F. Isbell, C. Roscher, F. van der Plas, S. Boch, G. Boenisch, N. Buchmann, J.A. Catford, J. Cavender-Bares, A. Ebeling, N. Eisenhauer, G. Gleixner, N. Hölzel, J. Kattge, V.H. Klaus, T. Kleinebecker, M. Lange, G. Le Provost, S.T. Meyer, R. Molina-Venegas, L. Mommer, Y. Oelmann, C. Penone, D. Prati, P.B. Reich, A. Rindisbacher, D. Schäfer, S. Scheu, B. Schmid, D. Tilman, T. Tschardtke, A. Vogel, C. Wagg, A. Weigelt, W.W. Weisser, **W. Wilcke** & P. Manning (2020): The results of biodiversity-ecosystem functioning experiments are realistic. *Nat. Ecol. Evol.* **4**, 1485–1494, published online on 24/08/2020, doi: 10.1038/s41559-020-1280-9.
209. Knoke, T., C. Paul, A. Ramming, E. Gosling, P. Hildebrandt, F. Härtl, T. Peters, M. Richter, K.-H. Diertl, B. Calvas, L.M. Castro, B. Calvas, S. Ochoa. L.A. Valle-Carrión, U. Hamer, A. Tischer, K. Potthast, D. Windhorst, J. Homeier, **W. Wilcke**, A. Velescu, A. Gerique, P. Pohle, J. Adams, L. Breuer, R. Mosandl, E. Beck, M. Weber, B. Stimm, B. Silva, P.H. Verburg & J. Bendix (2020): Accounting for multiple ecosystem services in a simulation of land-use decisions: Does it reduce tropical deforestation? *Glob. Change Biol.* **26**, 2403–2420, published online on 19/01/2020, doi: 10.1111/gcb.15003, open access: <https://onlinelibrary.wiley.com/doi/full/10.1111/gcb.15003>
210. Lama, S., T. Kuhn, M.F. Lehmann, C. Müller, O. Gonzalez, N. Eisenhauer, M. Lange, S. Scheu, Y. Oelmann & **W. Wilcke** (2020): The biodiversity-N cycle relationship: A ¹⁵N tracer experiment with soil from plant mixtures of varying diversity to model N pool sizes and transformation rates. *Biol. Fertil. Soils* **56**, 1047–1061, published online on 13/06/2020, doi: 10.1007/s00374-020-01480-x, open access: <https://link.springer.com/article/10.1007/s00374-020-01480-x>
211. Lama, S., A. Velescu, S. Leimer, A. Weigelt, H.M. Chen, N. Eisenhauer, S. Scheu, Y. Oelmann & **W. Wilcke** (2020): Plant diversity influenced gross nitrogen mineralization, microbial ammonium consumption and gross inorganic N immobilization in a grassland experiment. *Oecologia* **193**, 731-748, published online on 31/07/2020, doi: 10.1007/s00442-020-04717-6, open access: <https://link.springer.com/article/10.1007/s00374-020-01480-x>
212. Reiner, J.E., K. Geiger, M. Hackbarth, M. Fink, C. Lapp, T. Jung, A. Dötsch, M. Hügler, M. Wagner, A. Hille-Reichel, **W. Wilcke**, S. Kerzenmacher, H. Horn & J. Gescher (2020): From an extremophilic community to an electroautotrophic production strain: Identifying a novel Knallgas bacterium as cathodic biofilm biocatalyst. *ISME J.* **14**, 1125-1140, published online on 29/01/2020, doi: 10.1038/s41396-020-0595-5.
213. van der Plas, F., T. Schröder-Georgi, A. Weigelt, K. Barry, S.T. Meyer, A. Alzate, R.L. Barnard, N. Buchmann, H. de Kroon, A. Ebeling, N. Eisenhauer, C. Engels, M. Fischer, G. Gleixner, A. Hildebrandt, E. Koller-France, S. Leimer, A. Milcu, L. Mommer, P.A. Niklaus, Y. Oelmann, C. Roscher, C. Scherber, M. Scherer-Lorenzen, S. Scheu, B. Schmid, E.-D. Schulze, V. Temperton, T. Tschardtke, W. Voigt, W.W. Weisser, **W. Wilcke** & C. Wirth (2020): Plant traits alone are poor predictors of ecosystem properties and long-term ecosystem functioning. *Nat. Ecol. Evol.* **4**, 1601-1611, published online on 05/10/2020, doi: 10.1038/s41559-020-01316-9.
214. Wang, J.P., Y.H. Wu, J. Zhou, H.J. Bing, H.Y. Sun, Q.Q. He, J.J. Li & **W. Wilcke** (2020): Soil microbes become a major pool of biological phosphorus at during the early stage of primary succession but do not compete with plants for phosphorus. *Plant Soil* **446**, 259-274, published online on 21/11/2019, doi: 10.1007/s11104-019-04329-x.
215. Wang, J.P., S.Y. Ruang, Q.Q. He, H.J. Bing, X. Chen, X.F. Zhang, X. Tian, J. Zhou, **W. Wilcke** & Y.H. Wu (2020): Short Communication: Microplate fluorimetric assay of soil leucine aminopeptidase activity: alkalization is not needed before fluorescence reading. *Biol. Fertil. Soil* **56**, 281-285, published online on 06/12/2019, doi: 10.1007/s00374-019-01419-x.

216. **Wilcke, W.**, A. Velescu, S. Leimer, S. Blotevogel, P. Álvarez & C. Valarezo (2020): Total organic carbon concentrations in ecosystem solutions of a remote tropical montane forest respond to global environmental change. *Glob. Change. Biol.* **26**, 6989–7005, published online on 16/09/2020, doi: 10.1111/gcb.15351, open access: <https://onlinelibrary.wiley.com/doi/10.1111/gcb.15351>

2021

217. Bandowe, B.A.M., N. Shukurov, S. Leimer, M. Kersten, Y. Steinberger & **W. Wilcke** (2021): Polycyclic aromatic hydrocarbons (PAHs) in soils of an industrial area in semi-arid Uzbekistan: Spatial distribution, relationship with trace metals, and risk assessment. *Environ. Geochem. Health* **43**, 4847–4861, published online on 26/05/2021, doi: 10.1007/s10653-021-00974-3, open access: <https://link.springer.com/article/10.1007/s10653-021-00974-3>
218. Bendix, J., N. Aguirre, E. Beck, A. Bräuning, R. Brandl, L. Breuer, K. Böhning-Gaese, M. Dantas de Paula, T. Hickler, J. Homeier, D. Inclán, C. Leuschner, L. Neuschulz, M. Schleuning, J.P. Suarez, K. Trachte, **W. Wilcke**, D. Windhorst & N. Farwig (2021): A research framework for projecting ecosystem change in highly diverse tropical mountain ecosystems. *Oecologia* **195**, 589–600, published online on 30/01/2021, doi: 10.1007/s00442-021-04852-8, open access: <https://link.springer.com/article/10.1007/s00442-021-04852-8>
219. Dantas de Paula, M., M. Forrest, L. Langan, J. Bendix, J. Homeier, A. Velescu, **W. Wilcke** & T. Hickler (2021): Nutrient cycling drives plant community trait assembly and ecosystem functioning in a tropical mountain biodiversity hotspot. *New Phytol.* **232**, 551–566, published online on 06/07/2021, doi: 10.1111/nph.17600, open access: <https://nph.onlinelibrary.wiley.com/doi/10.1111/nph.17600>
220. González, E., C. Valarezo, M. Mora, M.A. Villamagua & **W. Wilcke** (2021): Biochar addition did not influence the growth of two tree plantations on nutrient-depleted Ultisols in the south Ecuadorian Amazon region. *Soil Sci. Soc. Am. J.* **85**, 862–878, published online on 03/02/2021, doi: 10.1002/saj2.20227, open access: <https://access.onlinelibrary.wiley.com/doi/10.1002/saj2.20227>
221. Han, Y.M., B.A.M. Bandowe, T. Schneider, S.W. Pongpiachan, S.S.H. Ho, C. Wei, Q.Y. Wang, L. Xing & **W. Wilcke** (2021): A 150-year record of black carbon (soot and char) and polycyclic aromatic compounds deposition in Lake Phayao, north Thailand. *Environ. Pollut.* **239**, 116148, published online on 24/11/2020, doi: 10.1016/j.envpol.2020.116148.
222. Kessler, A., K. Kreis, S. Merseburger, **W. Wilcke** & Y. Oelmann (2021): Incorporation of hydrogen from ambient water into the C-bonded H pool during litter decomposition. *Soil Biol. Biochem.* **162**, 108407, published online on 03/09/2021, doi: 10.1016/j.soilbio.2021.108407.
223. Leimer, S., D. Berner, K. Birkhofer, R. Boeddinghaus, M. Fischer, E. Kandeler, K. Kuka, S. Marhan, D. Prati, D. Schäfer, I. Schöning, M. Schrumpf, E. Solly, V. Wolters & **W. Wilcke** (2021): Land-use intensity and biodiversity effects on infiltration capacity and hydraulic conductivity of grassland soils in southern Germany. *Ecohydrol.* **14**, e2301, published online on 29/04/2021, doi: 10.1002/eco.2301, open access: <https://onlinelibrary.wiley.com/doi/10.1002/eco.2301>
224. Oelmann, Y., S. Leimer, F. Aburto, F. Alt, D. Berner, S. Boch, R.S. Boeddinghaus, F. Buscot, S. Dassen, G. De Deyn, N. Eisenhauer, G. Gleixner, N. Hacker, N. Hölzel, M. Jochum, E. Kandeler, V.H. Klaus, T. Kleinebecker, M. Lange, G. Le Provost, P. Manning, S. Marhan, D. Prati, C. Roscher, D. Schäfer, I. Schöning, M. Schrumpf, E. Sorkau, C. Wagg, T. Wubet & **W. Wilcke** (2021): Above- and belowground biodiversity jointly tighten the P cycle in agricultural grasslands. *Nat. Commun.* **12**, 4431, published online on 21/07/2021, doi: 10.1038/s41467-021-24714-4, open access: <https://www.nature.com/articles/s41467-021-24714-4>
225. Velescu, A., J. Homeier, J. Bendix, C. Valarezo & **W. Wilcke** (2021): Response of water-bound fluxes of potassium, calcium, magnesium and sodium to nutrient additions in an Ecuadorian tropical montane forest. *For. Ecol. Manage.* **501**, 119661, published online on 14/09/2021, doi: 10.1016/j.foreco.2021.119661.

226. Wei, C., B.A.M. Bandowe, Y.M. Han, J.J. Cao, J. Waston, J. Chow & **W. Wilcke** (2021): Polycyclic aromatic compounds (PAHs, oxygenated PAHs, nitrated PAHs, and azaarenes) in air from four climate zones of China: occurrence, gas/particle partitioning, and health impact. *Sci. Tot. Environ.* **786**, 147234, published online on 01/05/2021, doi: 10.1016/j.scitotenv.2021.147234.
227. **Wilcke, W.**, M. Bigalke, C. Wei, Y.M. Han & B.A.M. Bandowe (2021): Global distribution of oxygenated polycyclic aromatic hydrocarbons (OPAHs) in mineral topsoils. *J. Environ. Qual.* **50**, 717-729, published online on 07/04/2021, doi: 10.1002/jeq2.20224, open access: <https://acsess.onlinelibrary.wiley.com/doi/10.1002/jeq2.20224>

2022

228. Basdediós, N., Z.L. Zhong, Y.H. Wu & **W. Wilcke** (2022): Initial carbonate weathering is linked with vegetation development along a 127-year glacial retreat chronosequence in the subtropical high mountainous Hailuoguo region (SW China). *Plant Soil* **471**, 609–628, published online on 09/12/2021, doi: 10.1007/s11104-021-05250-y, open access: <https://link.springer.com/article/10.1007%2Fs11104-021-05250-y>
229. González, E., C. Valarezo & **W. Wilcke**: Does biochar improve nutrient supply and retention in two tree plantations on degraded Ultisols in the south Ecuadorian Amazonia? *Soil Sci. Soc. Am. J.*, published online on 19/04/2021, doi: 10.1002/saj2.20421, open access: <https://acsess.onlinelibrary.wiley.com/doi/10.1002/saj2.20421>

d. Publications in peer-reviewed journals without ISI Impact Factor (except conference proceedings)

230. Kretzschmar, S., M. Bundt, G. Saborío, **W. Wilcke** & W. Zech (1998): Heavy metals in soils of Costa Rican coffee plantations. *Adv. GeoEcol.* **31**, 721-726.
231. **Wilcke, W.**, J. Kobza & W. Zech (1998): Heavy metals and polycyclic aromatic hydrocarbons (PAH) in a contaminated Slovak soil catena. *Adv. GeoEcol.* **31**, 689-695.
232. Drechsel, P. & **W. Wilcke** (1999): Heavy metal concentrations in urban and peri-urban soils of Moscow, Nizhny Novgorod, Dzerzhinsk, and Serpukhov, Russia. *Int. J. Environ. Stud.* **57**, 53-63.
233. Frascoli, A.C., S.d.C. Lima, J. Lilienfein, **W. Wilcke**, W. Zech, I.F. Lepsh, M.A. Ayarza & L. Vilela (2000): Soils of the Uberlândia-Uberaba plain in Minas Gerais, Brazil – Morphology, texture and pH along a toposequence. (In Portuguese.) *Caminhos de Geografia* **1**, 18-26, Universidade Federal de Uberlândia, Brasilien.
234. Kersten, M., M. Bigalke, **W. Wilcke**, B. Georg & H. Hintelmann (2011): Source detection of anthropogenic heavy metals in soils by isotope analysis. (In German.) *Bodenschutz* **411**, 114-118.
235. Valarezo, C.A., M.A. Villamagua, R.M. Mora, H. Maza, **W. Wilcke** und C. Nieto (2017): Respuesta del pachaco (*Schizolobium parahybum* (Vell. Conc.) S. F. Blake) y la melina (*Gmelina arborea* Roxb.) a la aplicación de biocarbón y fertilización en el sur de la Amazonia Ecuatoriana. *Bosques Latitud Cero* **6(1)**, 1-32, Universidad Nacional de Loja, Ecuador, online erschienen am 21.06.2017, open access: <http://192.188.49.30/index.php/bosques/article/view/183>
236. Grob, M., **W. Wilcke** & A. Mestrot (2018): Release and biomethylation of antimony in shooting range soils upon flooding. *Soil Syst.* **2**, 34, published online on 05/06/2018, doi: 10.3390/soilsystems2020034, open access: <http://www.mdpi.com/2571-8789/2/2/34>

e. Review articles

237. **Wilcke, W.** & H. Döhler (1996): Schwermetalle in der Landwirtschaft - Quellen, Flüsse, Verbleib -. Kuratorium für Technik und Bauwesen in der Landwirtschaft (KTBL), Darmstadt, *KTBL-Arbeitspapier* **217**, 98 S.
238. Zech, W., **W. Wilcke**, W. Amelung & G. Guggenberger (1997): Wie vergiftet sind die Böden? - Fallstudien zur Bodenbelastung durch anorganische und organische Schadstoffe. *Geographie und Schule* **108**, 2-14.

239. **Wilcke, W.** (2000): Polycyclic aromatic hydrocarbons (PAHs) in soil – a review. *J. Plant Nutr. Soil Sci.* **163**, 229-248.
240. **Wilcke, W.** (2007): Global patterns of polycyclic aromatic hydrocarbons (PAHs) in soil. *Geoderma* **141**, 157-166.
241. Weisser, W., C. Roscher, S.T. Meyer, A Ebeling, G.J. Luo, H. Beßler, R. Barnard, N. Buchmann, F. Buscot, C. Engels, C. Fischer, M. Fischer, A. Gessler, G. Gleixner, S. Halle, A. Hildebrandt, H. Hillebrand, H. De Kroon, M. Lange, S. Leimer, X. Le Roux, A. Milcu, L. Mommer, P. Niklaus, Y. Oelmann, R. Proulx, C. Scherber, M. Scherer-Lorenzen, S. Scheu, T. Tscharntke, M. Wachendorf, C. Wagg, A. Weigelt, **W. Wilcke**, E.-D. Schulze, B. Schmid und N. Eisenhauer (2017): Biodiversity effects on ecosystem functioning in a 15-year grassland experiment: Patterns, mechanisms, and open questions. *Bas. Appl. Ecol.* **23**, 1–73, published online on 26/06/2017, doi: 10.1016/j.baae.2017.06.002, open access: <http://www.sciencedirect.com/science/article/pii/S1439179116300913>
242. Henne, P.D., M. Bigalke, U. Büntgen, D. Colombaroli, M. Conedera, U. Feller, D. Frank, J. Fuhrer, M. Grosjean, O. Heiri, J. Luterbacher, A. Mestrot, A. Rigling, O. Rössler, C. Rohr, T. Rutishauser, M. Schwikowski, A. Stampfli, S. Szidat, J.-P. Theurillat, R. Weingartner, **W. Wilcke** & W. Tinner (2018): An empirical perspective for understanding climate change impacts in Switzerland. *Reg. Environ. Change* **18**, 205-221, published online on 17/07/2017, doi: 10.1007/s10113-017-1182-9.
243. Wang, L.W., Y.L. Jin, D.J. Weiss, N.J. Schleicher, **W. Wilcke**, L.H. Wu, Q.J. Guo, J.B. Chen, D. O'Connor & D.Y. Hou (2021): Possible application of stable isotope compositions for the identification of metal sources in soil. *J. Hazard. Mat.* **407**, 124812, published online on 10/12/2020, doi: 10.1016/j.jhazmat.2020.124812.

f. Special Issues in international scientific journals

244. Lang, F. & **W. Wilcke** (2005): Kinetics of soil physico-chemical processes. Preface. *Plant Soil* **275**, vii. –Special Issue: *Plant Soil* **275**, 1-54.

g. Book chapters

245. Zech, W., K. Kaiser, **W. Wilcke**, J. Lehmann & B. Huwe (1998): Off-site impacts and nutrient dynamics in catchment research. In Penning de Vries, F.W.T., F. Agus & J. Kerr (Eds.): *Soil Erosion at Multiple Scales*. CABI Publishing, Wallington, New York, 193-206.
246. Lilienfein, J., **W. Wilcke**, H. Neufeldt, M.A. Ayarza & W. Zech (1999): Phosphorus pools in bulk soil and aggregates of differently textured Oxisols under different land-use systems in the Brazilian Cerrados. In Thomas, R. & M.A. Ayarza (Eds.): *Sustainable Land Management for the Oxisols of the Latin American Savannas. Dynamics of Soil Organic Matter and Indicators of Soil Quality*. Centro Internacional de la Agricultura Tropical. CIAT Publication No. 312, Cali, Colombia, 159-172.
247. Fleischbein, K., R. Goller, **W. Wilcke**, C. Valarezo, W. Zech & K. Knoblich (2003): Influence of the leaf area index and epiphyte density on the interception loss in a mountain rain forest in the Ecuadorian Andes. (In German.) *Gießener Geologische Schriften* **70**, 5-20.
248. **Wilcke, W.** & B.-M. Wilke (2004): Processes in soil. (In German.) In Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): *Soil-threatening substances*. (In German.) Print ISBN: 9783527321391, Online ISBN: 9783527676501, doi: 10.1002/9783527678501.bgs2019001, Basic issue, 45 p., doi: 10.1002/9783527678501.bgs2004008.
249. **Wilcke, W.** (2004): Nickel. (In German.) In Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): *Soil-threatening substances*. (In German.) Print ISBN: 9783527321391, Online ISBN: 9783527676501, doi: 10.1002/9783527678501.bgs2019001, Basic issue, 17 p., doi: 10.1002/9783527678501.bgs2004022.
250. **Wilcke, W.** (2004): Zinc. (In German.) In Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): *Soil-threatening substances*. (In German.) Print ISBN: 9783527321391, Online ISBN: 9783527676501, doi: 10.1002/9783527678501.bgs2019001, Basic issue, 18 p., doi: 10.1002/9783527678501.bgs2004032.

251. Klitzke, S. & **W. Wilcke** (2005): Arsenic. (In German.) *In* Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): Soil-threatening substances. (In German.) Print ISBN: 9783527321391, Online ISBN: 9783527676501, doi: 10.1002/9783527678501.bgs2019001, 1st amendment delivery 2/05, 18 p., doi: 10.1002/9783527678501.bgs2005003.
252. **Wilcke, W.** (2005). Platinum group metals. (In German.) *In* Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): Soil-threatening substances. (In German.) Print ISBN: 9783527321391, Online ISBN: 9783527676501, doi: 10.1002/9783527678501.bgs2019001, 2nd amendment delivery 6/05, 24 p., doi: 10.1002/9783527678501.bgs2005010.
253. Stückrad, S. & **W. Wilcke** (2006): Chromium. (In German.) *In* Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): Soil-threatening substances. (In German.) Print ISBN: 9783527321391, Online ISBN: 9783527676501, doi: 10.1002/9783527678501.bgs2019001, 5th amendment delivery 10/06, 20 p., doi: 10.1002/9783527678501.bgs2006009.
254. **Wilcke, W.** (2008): Tin. (In German.) *In* Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): Soil-threatening substances. (In German.) Print ISBN: 9783527321391, Online ISBN: 9783527676501, doi: 10.1002/9783527678501.bgs2019001, 6th amendment delivery, 17 p., doi: 10.1002/9783527678501.bgs2008003.
255. Günter, S., O. Cabrera, M. Weber, B. Stimm, M. Zimmermann, K. Fiedler, J. Knuth, J. Boy, **W. Wilcke**, S. Iost, F. Makeschin, F. Werner, R. Gradstein & R. Mosandl (2008): Chapter 26. Natural forest management in neotropical mountain rain forest – an ecological experiment. *In* Beck, E., J. Bendix, I. Kottke, F. Makeschin & R. Mosandl (Eds.): Gradients in a Tropical Mountain Ecosystem of Ecuador. *Ecological Studies* **198**, Springer-Verlag, Heidelberg, Germany, 363-375.
256. Richter, M., **W. Wilcke** & R. Bussmann (2008): Chapter 24. Landslides as important disturbance regimes – causes and regeneration. *In* Beck, E., J. Bendix, I. Kottke, F. Makeschin & R. Mosandl (Eds.): Gradients in a Tropical Mountain Ecosystem of Ecuador. *Ecological Studies* **198**, Springer-Verlag, Heidelberg, Germany, 319-330.
257. Soethe, N., **W. Wilcke**, J. Homeier, J. Lehmann & C. Engels (2008): Chapter 17. Plant growth along the altitudinal gradient – role of plant nutritional status, fine root activity, and soil properties. *In* Beck, E., J. Bendix, I. Kottke, F. Makeschin & R. Mosandl (Eds.): Gradients in a Tropical Mountain Ecosystem of Ecuador. *Ecological Studies* **198**, Springer-Verlag, Heidelberg, Germany, 259-266.
258. **Wilcke, W.**, S. Yasin, A. Schmitt, C. Valarezo & W. Zech (2008): Chapter 9. Soils along the altitudinal transect and in catchments. *In* Beck, E., J. Bendix, I. Kottke, F. Makeschin & R. Mosandl (Eds.): Gradients in a Tropical Mountain Ecosystem of Ecuador. *Ecological Studies* **198**, Springer-Verlag, Heidelberg, Germany, 75-85.
259. **Wilcke, W.**, S. Yasin, K. Fleischbein, R. Goller, J. Boy, J. Knuth, C. Valarezo & W. Zech (2008): Chapter 12. Water relations. *In* Beck, E., J. Bendix, I. Kottke, F. Makeschin & R. Mosandl (Eds.): Gradients in a Tropical Mountain Ecosystem of Ecuador. *Ecological Studies* **198**, Springer-Verlag, Heidelberg, Germany, 193-201.
260. **Wilcke, W.**, S. Yasin, K. Fleischbein, R. Goller, J. Boy, J. Knuth, C. Valarezo & W. Zech (2008): Chapter 13. Nutrient status and fluxes at the field and catchment scale. *In* Beck, E., J. Bendix, I. Kottke, F. Makeschin & R. Mosandl (Eds.): Gradients in a Tropical Mountain Ecosystem of Ecuador. *Ecological Studies* **198**, Springer-Verlag, Heidelberg, Germany, 203-215.
261. **Wilcke W.** (2010): Nutrient cycles. *In* Warf, B. (ed.) Encyclopedia of Geography. SAGE Publications, Thousand Oaks, California, U.S.A.
262. **Wilcke, W.** & M. Bigalke (2010): Trace element concentrations in large botanical remains – indication of environmental pollution by metall processing? (In German.) *In* Hornung, S. (ed.) Humans and environment – archaeological and natural scientific research concerning the change of the cultural landscape around the „Hunnenring“ near Otzenhausen, Community of Nonnweiler, County of Sankt Wendel. (In German.) Volume 1. *Universitätsforschungen zur prähistorischen Archäologie* **192**, Verlag Dr. Rudolf Habelt, Bonn, p. 315-322.

263. Thiele-Bruhn, S., **W. Wilcke** & N. Litz (2010): Chapter 17.6: Further organic chemicals, in Chapter 17: Soil contamination. (In German.) *In* Blume, H.-P., R. Horn & S. Thiele-Bruhn (eds.) *Handbook of Soil Protection*. (In German.) Wiley-VCH, Weinheim, Germany, 344-394.
264. Fleischbein, K., **W. Wilcke**, R. Goller, C. Valarezo, W. Zech & K. Knoblich (2010): Chapter 32. Measured and modeled rainfall interception in a lower montane forest, Ecuador. *In* Bruijnzeel, L.A., F.N. Scatena & L.S. Hamilton (eds.): *Tropical Montane Cloud Forests: Science for Conservation and Management*. Cambridge University Press, Cambridge, UK, 309-316.
265. **Wilcke, W.**, J. Boy, R. Goller, K. Fleischbein, C. Valarezo & W. Zech (2010): Chapter 43. Effect of topography on soil fertility and water flow in an Ecuadorian lower montane forest. *In* Bruijnzeel, L.A., F.N. Scatena & L.S. Hamilton (eds.): *Tropical Montane Cloud Forests: Science for Conservation and Management*. Cambridge University Press, Cambridge, UK, 402-409.
266. **Wilcke, W.** (2011): Preface. Darwin and Latin America. (In German.) *Veröffentlichungen des Interdisziplinären Arbeitskreises Lateinamerika*, Vol. 6, Studientag 2009, Johannes Gutenberg-Universität Mainz, Mainz, Germany.
267. Bandowe, B. & **W. Wilcke** (2011): Oxygen-containing polycyclic aromatic hydrocarbons (OPAHs). (In German.) *In* Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): *Soil-threatening substances*. (In German.) Print ISBN: 9783527321391, Online ISBN: 9783527676501, doi: 10.1002/9783527678501.bgs2019001, 12th amendment delivery 12/11, 44 p., doi: 10.1002/9783527678501.bgs2011006.
268. Bendix, J., C. Dislich, A. Huth, B. Huwe, M. Ließ, B. Schröder, B. Thies, P. Vorpahl, J. Wagemann & **W. Wilcke** (2013): Chapter 12. Natural landslides which impact current regulating services: Environmental preconditions and modeling. *In* Bendix, J., E. Beck, A. Bräuning, F. Makeschin, S. Scheu & **W. Wilcke** (eds.): *Ecosystem Services, Biodiversity and Environmental Change in a Tropical Mountain Ecosystem of South Ecuador*. *Ecological Studies* **221**, Springer-Verlag, Heidelberg, 153-170.
269. Breuer, L., D. Windhorst, A. Fries & **W. Wilcke** (2013): Chapter 9. Supporting, regulating, and provisioning hydrological services. *In* Bendix, J., E. Beck, A. Bräuning, F. Makeschin, S. Scheu & **W. Wilcke** (eds.): *Ecosystem Services, Biodiversity and Environmental Change in a Tropical Mountain Ecosystem of South Ecuador*. *Ecological Studies* **221**, Springer-Verlag, Heidelberg, 107-116.
270. Hamer, U. K. Potthast, **W. Wilcke**, H. Wullaert, C. Valarezo, D. Sandmann, M. Maraun, S. Scheu, & J. Homeier (2013): Chapter 22. Nutrient additions affecting matter turnover in forest and pasture ecosystems. *In* Bendix, J., E. Beck, A. Bräuning, F. Makeschin, S. Scheu & **W. Wilcke** (eds.): *Ecosystem Services, Biodiversity and Environmental Change in a Tropical Mountain Ecosystem of South Ecuador*. *Ecological Studies* **221**, Springer-Verlag, Heidelberg, 297-313.
271. Rollenbeck, R., I. Otte, P. Fabian, **W. Wilcke**, D. Pucha Cofrep, A. Bräuning & J. Bendix (2013): Chapter 21: Current and future variations of nutrient depositions and influences on tree growth. *In* Bendix, J., E. Beck, A. Bräuning, F. Makeschin, S. Scheu & **W. Wilcke** (eds.): *Ecosystem Services, Biodiversity and Environmental Change in a Tropical Mountain Ecosystem of South Ecuador*. *Ecological Studies* **221**, Springer-Verlag, Heidelberg, 287-296.
272. **Wilcke, W.**, J. Boy, U. Hamer, K. Potthast, R. Rollenbeck & C. Valarezo (2013): Chapter 11. Current regulating and supporting services: Nutrient cycles. *In* Bendix, J., E. Beck, A. Bräuning, F. Makeschin, S. Scheu & **W. Wilcke** (eds.): *Ecosystem Services, Biodiversity and Environmental Change in a Tropical Mountain Ecosystem of South Ecuador*. *Ecological Studies* **221**, Springer-Verlag, Heidelberg, 141-151.
273. Velescu, A. & **W. Wilcke** (2016): Rising Nitrogen Inputs to the Tropical Mountain Rain Forests. *In* Bogner, F.X., J. Bendix & E. Beck (eds.): *Biodiversity Hotspot Tropical Mountain Rainforest*. *Naturaleza y Cultura Internacional*, Loja, Ecuador, ISBN 978-9942-14-538-3, 80-85.

274. Oelmann, Y. & **W. Wilcke** (2016): Chapter 9.7: Analysis of soil samples from the celtic fortification in plot „Klause II“. In Hansen, L. & C.F.E. Pare (eds.): Studies in the Surroundings of the Glauberg. Genesis and Development of a Ruler Seat of the Early La Tène Period in the Eastern Wetterau, State of Hesse, Germany. (In German.) *Materialien zur Vor- und Frühgeschichte von Hessen* **28**, Landesamt für Denkmalpflege, Wiesbaden, Germany, ISBN: 978-3-7749-4039-0, 259-260.
275. Vogel, A., A. Ebeling, G. Gleixner, C. Roscher, S. Scheu, M. Ciobanu, E. Koller-France, M. Lange, A. Lochner, S.T. Meyer, Y. Oelmann, **W. Wilcke**, B. Schmid & N. Eisenhauer (2019): Chapter 7 - A new experimental approach to test why biodiversity effects strengthen as ecosystems age. *Advances in Ecological Research* **61**, 221-264, published online on 26/07/2019, doi: 10.1016/bs.aecr.2019.06.006.
276. Lange, M., E. Koller-France, A. Hildebrandt, Y. Oelmann, **W. Wilcke** & G. Gleixner (2019): Chapter 6 - How plant diversity impacts the coupled water, nutrient and carbon cycles. *Advances in Ecological Research* **61**, 185-219, published online on 22/07/2019, doi: 10.1016/bs.aecr.2019.06.005.
277. **Wilcke, W.** (2019): Cobalt. (In German.) In Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): Soil-threatening substances. (In German.) Wiley-VCH, Weinheim, Germany, Print ISBN: 9783527321391, Online ISBN: 9783527676501, doi: 10.1002/9783527678501.bgs2019001, 18th amendment delivery, 1/19, 22 p., published online on 27/11/2019, doi: 10.1002/9783527678501.bgs2019001.
278. **Wilcke, W.**, A. Velescu, S. Leimer & C. Valarezo (2020): Chapter 23: Water and nutrient budgets of organic layers and mineral topsoils under tropical montane forest in Ecuador in response to 15 years of environmental change. In Levia, D.F., D.E. Carlyle-Moses, I. Shin'ichi, B. Michalzik, K. Nanko & A. Tischer (Eds.): Forest-Water Interactions. *Ecological Studies* **240**, Springer Nature Switzerland, Basel, Switzerland, 565-586, doi: 10.1007/978-3-030-26086-6_23.
279. **Wilcke, W.** (2021): Litterfall in Andean forests: Quantity, composition, and environmental drivers. In Myster, R.W. (Ed.): The Andean Cloud Forest. Springer Nature Switzerland, Basel, Switzerland, 89-110, doi: 10.1007/978-3-030-57344-7_5.

h. Books/published reports

280. Litz, N., **W. Wilcke** & B.-M. Wilke (Eds., 2004): Soil-threatening substances. (In German.) ecomed-Verlag, Landsberg am Lech, Germany, ISBN 3-609-52000-0, since 2008 Wiley-VCH, Weinheim, Germany.
281. Schultheiß, U., H. Döhler, U. Roth, H. Eckel, H. Goldbach, V. Kühnen, **W. Wilcke**, A. Uihlein, K. Früchtenicht & G. Steffens (2004): Registration of heavy metal fluxes on agricultural animal production farms and development of a concept to decrease heavy metal inputs into agroecosystems via animal manures. (In German with English abstract.) *Texte* **06/04**, Umweltbundesamt, Berlin, 130 p.
282. Bendix, J., E. Beck, A. Bräuning, F. Makeschin, S. Scheu & **W. Wilcke** (Eds., 2013): Ecosystem Services, Biodiversity and Environmental Change in a Tropical Mountain Ecosystem of South Ecuador. *Ecological Studies* **221**, Springer-Verlag, Heidelberg, doi: 10.1007/978-3-642-38137-9.
283. Probst, M., **W. Wilcke** & M. Bigalke (2021): Analyzing and understanding soil – a High School field course. (In German.) hep Verlag ag, Berne, Switzerland, 46 p. – Supplemental materials for teachers of the textbook „Geography – Know and understand“ (In German.) by Egli, H.-R., M. Hasler & M. Probst (Eds.).

i. Book reviews

284. **Wilcke, W.** (2001): Managing soils in an urban environment. R.B. Brown, J.H. Huddleston, J.L. Anderson (Eds.). Agronomy Series no. 39., ASA-CSSA-SSSA, Madison, 2000. Hardcover, 296 pp. Price US\$ 50. ISBN 0-89118-143-1. *Geoderma* **102**, 401-402.

j. Popular scientific articles

285. **Wilcke, W.** (2001): Termites and the naphthalene. (In German.) *Spektrum* 1/01, University of Bayreuth, 46-48.
286. Müller-Hohenstein, K., W. Zech, J. Axmacher, F. Fritzsche, G. Guggenberger, A. Paulsch, M. Schrupf & **W. Wilcke** (2002): Degradation of vegetation and soils. (In German.) *Spektrum* 1/02, University of Bayreuth, 45-49.
287. **Wilcke, W.** (2003): Water and element budget of a lower montane forest in south Ecuador. European Tropical Forest Research Network, Tropenbos International, Wageningen, Niederlande, *ETFRN News* **38**, 28-29.
288. **Wilcke, W.** (2003): Interview in “How does an ecosystem work” by E. Schwarz-Weig. (In German.) *spektrum* **3/03**, University of Bayreuth, 48-55.
289. Preuß, J., A. Mense-Stefan, D. Schenk, **W. Wilcke**, Y. Oelmann, B. Ratter, T. Treiling, J. Grunert & S. Hess (2006): Change of the land use in the upper middle Rhine valley – retrospective analysis and trend scenarios of future development. (In German.) *Natur & Geist* **2/2006**, Johannes Gutenberg-Universität Mainz, 44-51.
290. **Wilcke, W.** (2009): Multitalent Soil: Little considered and threatened. (In German.) Guest comment to the television broadcast “ZDF.umwelt” of the second German Television Channel (ZDF) on 21.06.2009 with the special topic soil.
291. Velescu, A., C. Valarezo & **W. Wilcke** (2012): Response of the forest to elevated nitrogen deposition. *TMF Newsletter* **16**, 12, DFG Research Unit FOR816, University of Marburg, Marburg, Germany, doi: 10.5678/lcrs/for816.cit.1081
292. Fabian, T., A. Velescu & **W. Wilcke** (2015): Canopy organisms retain sodium in the tropical montane forest. *Tabebuia Bulletin* **4**, 14-15, DFG PAK 823-825, University of Marburg, Marburg, Germany, doi: 10.5678/lcrs/pak823-825.cit.1412.
293. Leimer, S., P. Escher & **W. Wilcke** (2015): Biodiversity loss reduces ecosystem services. (In German.) *Forum der Geoökologie* **26** (2), 19-24.
294. Velescu, A., & **W. Wilcke** (2015): Increased nitrogen and phosphorus availability stimulates the mineralization of dissolved organic matter in the tropical montane forest of South Ecuador. *Tabebuia Bulletin* **3**, 12-13. DFG PAK 823-825, University of Marburg, Marburg, Germany, doi: 10.5678/lcrs/pak823-825.cit.1399
295. **Wilcke, W.** (2015): Adventure Earth – Fertile Earth. (In German.) *Mitteilungen der Naturforschenden Gesellschaft in Bern, Neue Folge* **72**, 91-97.
296. **Wilcke, W.** (2015): Soils, Soil Protection, Ecosystem Services and Environmental Changes. (In German.) *Forum der Geoökologie* **26** (3), 7-11.
297. Fabian, T., A. Velescu & **W. Wilcke** (2019): Soil development on heterogeneous parent material under tropical montane forest in South Ecuador. *Tabebuia Bulletin* **6**, 7, DFG Research Unit FOR2730, University of Marburg, Marburg, Germany, doi: 10.5678/lcrs/for2730.cit.1736.
298. Leimer, S. & **W. Wilcke** (2019): Plant diversity in grassland and forests improves nutrient retention. [In German.] In Earth System Knowledge Platform (ed.), ESKP-Special Topic Biodiversity in the Ocean and on the Land. About the value of biological diversity. [In German.] Helmholtz-Zentrum Potsdam, Deutsches GeoForschungsZentrum GFZ, Potsdam, Germany, 140-144, doi: 10.2312/eskp.2020.1.6.4, published online on 17/09/2019, open access: <https://themenspezial.eskp.de/biodiversitaet-im-meer-und-an-land/inhalt/naturnaeflaechen/gruenland-und-naehrstoffrueckhalt/>
299. Fabian, T., A. Velescu, K. Hartleif & **W. Wilcke** (2020): Soil properties of the cloud forest in Cajanuma and of the pastures along an elevation gradient from 1000 to 3000 m a.s.l. *Tabebuia Bulletin* **7**, 9, DFG Research Unit FOR2730, University of Marburg, Marburg, Germany, doi: 10.5678/lcrs/for2730.cit.1817.
300. Koller, E., **W. Wilcke** & Y. Oelmann (2021): Does biodiversity influence nutrient cycles? *Front. Young Minds* **9**, 557532, published online on 14/04/2021, doi: 103389/frym.2021.557532, open access: <https://kids.frontiersin.org/article/10.3389/frym.2021.557532>

k. Teacher extension

301. Beierkuhnlein, C., K. Müller-Hohenstein, L. Zöller, A. Kleber, B. Glaser & **W. Wilcke** (2004): Conception and realization of an interdisciplinary geoecological field course. (In German.) *Forum der Geoökologie* **15**, 22-26.
302. **Wilcke, W.** (2006): How does the mountain rain forest work? Explanations from Ecuador. (In German.) In B.M.W. Ratter (Ed.): *Hombre y Naturaleza – Human/nature interaction in Latin America. Mainzer Kontaktstudium Geographie* **11**, 23-33.

l. Preprints (not reviewed)

303. Jochum, M., M. Fischer, F. Isbell, C. Roscher, F. van der Plas, S. Boch, G. Boenisch, N. Buchmann, J.A. Catford, J. Cavender-Bares, A. Ebeling, N. Eisenhauer, G. Gleixner, N. Hölzel, J. Kattge, V.H. Klaus, T. Kleinebecker, M. Lange, G. Le Provost, S.T. Meyer, R. Molina-Venegas, L. Mommer, Y. Oelmann, C. Penone, D. Prati, P.B. Reich, A. Rindisbacher, D. Schäfer, S. Scheu, B. Schmid, D. Tilman, T. Tschardtke, A. Vogel, C. Wagg, A. Weigelt, W.W. Weisser, **W. Wilcke** & P. Manning (2019): The results of biodiversity-ecosystem functioning experiments are realistic. *bioRxiv*, published online on 05/08/2019, doi: 10.1101/725812.
304. van der Plas, F., T. Schröder-Georgi, A. Weigelt, K. Barry, S. Meyer, A. Alzate, R.L. Barnard, N. Buchmann, H. de Kroon, A. Ebeling, N. Eisenhauer, C. Engels, M. Fischer, G. Gleixner, A. Hildebrandt, E. Koller-France, S. Leimer, A. Milcu, L. Mommer, P.A. Niklaus, Y. Oelmann, C. Roscher, C. Scherber, M. Scherer-Lorenzen, S. Scheu, B. Schmid, E.-D. Schulze, V. Temperton, T. Tschardtke, W. Voigt, W.W. Weisser, **W. Wilcke** & C. Wirth (2019): Plant traits are poor predictors of long-term ecosystem functioning. *bioRxiv*, published online on 29/11/2019, doi: 10.1101/859314.
305. Kessler, A., S. Merseburger, A. Kappler, **W. Wilcke** & Y. Oelmann: Incorporation of ambient water-H into the C-bonded H pool of bacteria during substrate-specific metabolism. ESSOAr., submitted on 18/03/2022.

m. Data publications

306. Oelmann, Y., W. Wilcke et al. (2015): 20 data sets of the Jena Experiment, PANGAEA, Data Publisher for Earth & Environmental Science, doi: 10.1594/PANGAEA.854XXX, open access: www.pangaea.de
307. Wilcke, W., M. Bigalke, C. Wei, Y.M. Han & B.A.M. Bandowe (2022), Oxygenated polycyclic aromatic hydrocarbon (OPAH) and polycyclic aromatic hydrocarbon (PAH) concentrations in soils with soil properties: A global data set. Dryad, publication date: 05/05/2022, open access: <https://doi.org/10.5061/dryad.sbcc2fr6h>