
Publications - Andreas Richter
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Peer-reviewed publications(ISI *Journal Citation Reports* listed journals only)

- 01 Zhang, Q., Qin, X., Feng, J., Chen, Y., Zhamg, Z., He, J.-S., Richter, A., Schimel, J.P., Zhu, B. (2025) Soil carbon availability drives depth-dependent responses of microbial nitrogen use efficiency to warming. **Global Change Biology** 31:e70490.
- 02 Wang, H., Lindemann, E., Liebmann, P., Varsadiya, M., Svenning, M.M., Waqas, M., Petters, S., Richter, A., Guggenberger, G., Barta, J., Urich, T. (2025) Methane-cycling microbiomes in soils of the pan-Arctic and their response to permafrost degradation. **Communications Earth & Environment** 6: 748.
- 03 Chen S.-C., Li, X.-M., Battisti, N., Guan, G., Montoya, M.A., Osvatic, J., Pjevac, P., Pollak, S., Richter, A., Schintlmeister, A., Wanek, W., Mussmann, M., Loy, A. (2025) Microbial iron oxide respiration coupled to sulfide oxidation. **Nature** 646: 925-933.
- 04 Dahl, M.B., Brachmann, S., Söllinger, A., Schnell, M., Ahlers, L., Wutkowska, M., Hoff, K.J., Nath, N., Groß, V., Wang, H., Weil, M., Piecha, M., Schaffer, M., Jensen, C., Kuss, A.W., Gall, C., Wimmer, E., Pribasniq, T., Tveit, A.T., Sigurdsson, B.D., Schleper, C., Richter, A., Urich, T. (2025) Quantifying soil microbiome abundance by metatranscriptomics and complementary molecular techniques - cross-validation and perspectives. **Molecular Ecology Resources** 25: e14130.
- 05 Krasenbrink, J., Hanson, B.T., Weiss, A.S., Borusak, S., Tanabe, T.S., Lang, M., Aichinger, G., Hausmann, B., Berry, D., Richter, A., Marko, D., Mussmann, M., Schleheck, D., Stecher, B., Loy, (2025) Sulfoquinovose is exclusively metabolized by the gut microbiota and degraded differently in mice and humans. **Microbiome** 13: 184.
- 06 Marañón-Jiménez, S., Luo, X., Richter, A., Gündler, P., Fuchslueger, L., Poeplau, C., Sigurdsson, B., Janssens, I., Peñuelas, J. (2025) Warming Weakens Soil Nitrogen Stabilization Pathways Driving Proportional Carbon Losses in Subarctic Ecosystems. **Global Change Biology** 31: e70309.
- 07 Van De Velde, V., Fuchslueger, L., Prommer, J., Magala, J.B., Mande, J.L., Doetterl, S., Makelele, I.A., Wanek, W., Bodé, S., Richter, A., Bauters, M., Boeckx, P. (2025) Gross soil phosphorus fluxes remain constant along forest recovery trajectories in Central Africa. **Soil Biology and Biochemistry** 206: 109788.
- 08 Schärer, M.L., Fuchslueger, L., Canarini, A., Richter, A., Lüscher, A., Kahmen, A. (2025) Post-drought organic carbon mineralization leads to high productivity and nutrient uptake efficiency of perennial grassland after rewetting. **Soil Biology and Biochemistry** 204: 109744.
- 09 Leyrer, V., Blum, J., Marhan, S., Kandeler, E., Zimmermann, T., Berauer, B.J., Schweiger, A.H., Canarini, A., Richter, A., Poll, C. (2025) Drought impacts on plant-soil carbon allocation — integrating future mean climatic conditions. **Global Change Biology** 31: e70070.
- 10 Canarini, A., Fuchslueger, L., Schnecker, J., Metze, D., Nelson, D., Kahmen, A., Watzka, M., Pötsch, E., Schaumberger, A., Bahn, M., Richter, A. (2024) Soil fungi remain active and invest in storage compounds during drought independent of future climate conditions. **Nature Communications** 15: 10410.
- 11 Söllinger, A., Ahlers, L.S., Borg Dahl, M., Sigurdsson, P., Le Noir de Carlan, C., Bhattarai, B., Gall, C., Martin, V., Rottensteiner, C., Motleleng, L.L., Breines, E.M., Verbruggen, E., Ostonen, I., Sigurdsson, B.D., Richter, A., Tveit, A.T. (2024) Microorganisms in subarctic soils are

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 - 19 Gargallo-Garriga, A., Sardans, J., Llusà, J., Peguero, G., Ayala-Roque, M., Courtois, E.A., Stahl, C., Urban, O., Klem, K., Nolis, P., Pérez-Trujillo, M., Parella, T., Richter, A., Janssens, I.A., Peñuelas, J. (2024) Different profiles of soil phosphorous compounds depending on tree species and availability of soil phosphorus in a tropical rainforest in French Guiana. **BMC Plant Biology** 24: 278.
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 - 21 Bhattarai, B., Richter, A., Metze, D., Sigurdsson, B.D., Sigurdsson, P., Leblans, N., Janssens, I., Ostonen, I. (2024) Influence of soil warming magnitude and duration on soluble sugar pool in fine roots and rhizomes of subarctic grasslands: Differences at species and plant community level adaptation. **Plant Stress** 11: 100406.
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