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## Supplement of

## The role of nitrogen and iron biogeochemical cycles in the production and export of dissolved organic matter in agricultural headwater catchments

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**Figure S1 –** Long-term trends in dissolved organic carbon (DOC) concentrations measured in streams in Brittany over the 2007-2020 period based on public data. Trends were determined based on Mann-Kendall tests with a *p*-value of 0.05. Over 76 streams, 11 showed a positive increasing trend, 2 a negative trend, and the rest no significant evolution.

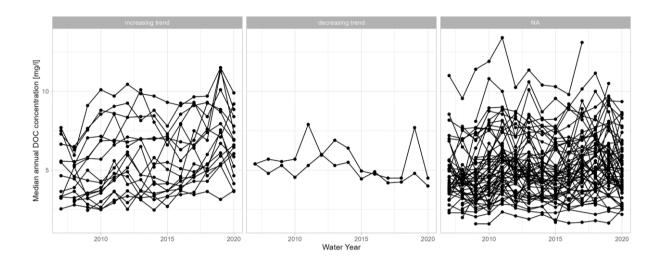
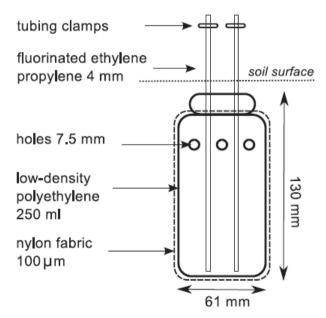
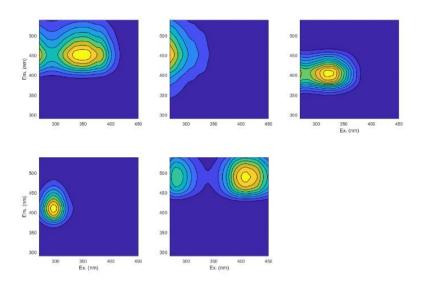


Figure S2 - Details on lysimeters (from Dupas et al., 2015).

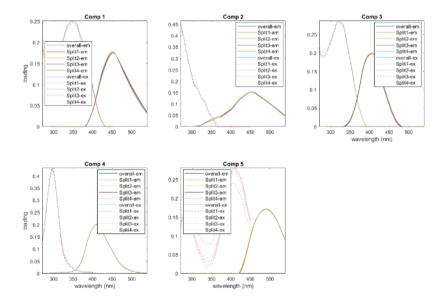


**Figure S3 –** A) Loadings of PARAFAC components identified in this study and B) results from the split half analysis.

A)



B)



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**Figure S4 –** Correlation coefficients of the different variables with the five first dimension of the PCA.

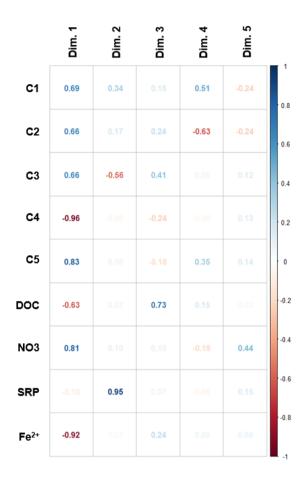


Figure S5 – Correlation between pH and DOC concentrations for all lysimeters and all dates.

