

Interactive comment on “Photomineralization and photomethanification of dissolved organic matter in Saguenay River surface water” by Y. Zhang and H. Xie

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Reply to Reviewer #2 (RC C6635)

We greatly appreciate the reviewer’s favorable comments on our study.

Reviewer specific comments: The investigation of DMS as a precursor to methane photoproduction is interesting and it would be nice in future work to also look at O-methylated phenolic compounds found in lignin. My only minor comment is that the authors don’t discuss the scale of carbon monoxide photoproduction in the context of DOC photomineralisation, it would be helpful to get some idea of how much carbon could be diverted to CO if the authors have measurements from Saguenay River/St.

C7509

Laurence Estuary.

Author Reply: Reviewer #1 also commented on these two issues (precursors of CH₄ in lignin and CO photoproduction). Please see our responses to Reviewer #1’s first and fourth general comments.

Interactive comment on Biogeosciences Discuss., 12, 14303, 2015.