

Thank you for your additional editorial comments. We have changed the text as suggested. In addition to the requested editorial comments we have now extended the first sentence of the Discussion section "4.2. Controlling factors of respiration" in order to refer to an interesting paper which we have discovered recently. The sentence now reads:

"The variation of basal respiration rates was best described by the POM content of the sample, confirming that residue C mineralization directly on the residues or in the detritosphere exert a dominant control on microbial activity (Védère et al., 2020; Gaillard et al., 2003)"

I think the authors have adequately addressed the comments of the reviewers. I just advice some small text corrections or adjustments to ensure that the text is easy to follow or to avoid misinterpretation. Those are:

Ln 36-37: Suggest to change to: "Basal respiration among soil cores varied by more than one order of magnitude (0.08-1.42 $\mu\text{g CO}_2\text{-C h}^{-1}\text{ g}^{-1}\text{ soil}$) and was best explained by POM mass ($R^2 = 0.53$, $p < 0.001$).

Done.

Ln 45: remove the word "again"

Done.

Ln 46-47: Replace "this" by "mineralization"

Done.

Ln 47: I think this part of the sentence is somewhat misleading. The abstract should be clear as a stand alone. Mineralization was measured on intact soil cores, not in hotspots around degrading SOM. This should be rewritten so that it is clear that this is a proposed explanation based on correlations.

The concluding remark in the abstract now reads:

"These findings stress that soil structure had little relevance in predicting carbon mineralization in well-aerated soil, as mineralization appeared to be predominantly driven by the decomposition of plant residues in intact soil."

Ln 194: Replace "increases" by "increased"

Done.

Ln 473: Replace "If strong" by "When strong.."

Done.

Line 475: Instead of "cheap" could be "more easily measured" or "that are less costly to measure"

Done.

Line 476- 477: Move "best" before "described"

Done.