Dear Anonymous Reviewer No. 1,

I post a new comment to correct an error in my previous response, for which I apologize. In your comment:

L189: Were these C values adjusted to the KrCr2O7 method values as was done with the LECO C values?

I responded that yes, all values had been adjusted, but this was a mistake, as the latest version of the code that generates the results did not contain the correction for the coefficient of 0.81. Once I effectively applied this correction it became clear that the values of MAOM recovered in the fractionation were low, which led us to modify the data used in the following way:

- The measured POM data was corrected by a coefficient of 0.81.

- The MAOM fraction was calculated as the difference between soil bulk C and POM fraction. This result was then corrected by 0.81.

All the necessary information for these calculations is available in the file DATA.xlsx of the supplementary material, sheet 't_tests':

- C_stock (column F) is the bulk C stock for each plot, and C_stock_POM is the POM C for each plot. This data was corrected by multiplying it by a coefficient of 0.81, and the C stock in MAOM was calculated by difference.

These recalculated POM-MAOM ratios were used then to run the modeling again. This did not modify the results and conclusions of the work.

I apologize again for the mistake in my previous response.

Regards,

Maximiliano González