

Dear Editors,

We would like to sincerely thank Aaron Jubb for taking the time to review our revised manuscript and for presenting his ideas for minor revisions. The effort is much appreciated. All suggested changes have been made and are highlighted below, and in the PDF containing tracked changes (included as comments).

Yours sincerely,

Lauren Kedar

Clare E. Bond

David K. Muirhead

1. Page 9, Line 228: "Gaussian curve fit". In Figure 3 caption this is called a "Gaussian-Lorentzian hybrid". Fix this inconsistency.

*This has been fixed.*

2. Figure 7: Add error bars to data points.

*Error bars have been added.*

3. Page 16, Lines 410-413: FWHM[g] decreases with temperature are observed for more than just coals. See Henry et al., 2019, Earth Science Reviews, Figure 5a. I would change sentence slightly to reflect this.

*Sentence now reads: "This is also observed in the case of other starting materials including kerogen (Henry et al., 2019). However, since kerogen (and organic carbon in general) can take on such a wide variety of forms, it is easily possible that a trend observed in one case may not be strong in another."*

4. Page 18, Line 445: Define %Ro at first usage.

*%Ro now defined.*

5. Page 18: I am curious how the authors arrived at a temperature error of +/-10C from the Barker and Pawlewicz equation considering the large spread in that data set. I would have thought the uncertainty would be much higher, especially considering that the errors on the Raman parameters are going to propagate through the calculation. Informed readers may also have this curiosity so I would encourage the authors to add a sentence detailing how this estimation was made.

*Thank you for highlighting the lack of clarity in our discussion – we have changed the wording slightly to avoid the use of the term "error" because this is misleading, suggesting statistical calculation, when we are actually just referring to an observed shift from background levels in the strained samples. The sentence now reads: "Regardless of cause, however, if a strained sample can produce a difference in calculated temperature of 10°C in a stratigraphic sequence with an overall temperature range of only 25°C, then context is important when estimating temperatures using this method."*