

Thank you for your response. The paper is more cohesive and focused.

Specific comments:

Pg 3, lines 58-68 Only absorption by particulate OC (brown carbon) is discussed in the introduction. This can be misleading when discussing OC particle emissions from BB burning. According to Selimovic et al. 2018, for all fuel types, scattering is the dominant effect relative to absorption at 401 nm, which is assumed to be entirely organics (see Table 3). Scattering also affects the radiation balance of the Earth, and while it is not discussed in the paper, it should be introduced to help put your work into context.

Pg 18, lines 411-412 I would not characterize the cyanate compounds as highly absorbing. Please clarify that nitroaromatics are highly absorbing (even more so than the calculation, since cyanates are lumped in with them if I understand correctly.)

Figure S6. The absorbance for phenyl cyanate appears to be negative at certain wavelengths. This doesn't make physical sense. Please provide an explanation or consider revising.

Technical comments:

Pg 2 Lines 38-40 Please change sentence to "However, the pooled experimental data indicated that EC/OC alone cannot explain the BB BrC absorption." I think this is clearer.

Pg 3, Line 65 Delete "caused"

Pg 5, lines 104-105 should be "shed light"

Pg 19, lines 423-431 Please consider revising for a more concise explanation. What I read is that in Lin et al. 2016, 2017 uses absorbance at a particular retention time (implicating possible interferences or coelution) to calculate the absorbance fraction, whereas this paper uses standards or surrogates to calculate absorption for each molecule. These different approaches gave different results.