

## Response Letter

### **Comment**

Thank you for making the modifications as requested by myself and the reviewers. Before publication, I would like to provide the authors the opportunity to improve the modified text in the third paragraph of section 2.3.3 (starting on line 267 in the 'tracked changes' version). The language is currently difficult to read and may be construed as misleading. It should be stressed that BrC can effect a strong instantaneous negative forcing through scattering, however it is not possible to evaluate this directly using offline samples because of the strong dependency on particle size.

### **Response**

Dear Dr. James Allan,

We thank you very much for accepting our paper for publication in ACP and providing an opportunity to modify a part of text in Section 2.3.3 in the manuscript.

We modified it as: *“It is important to note that BrC can affect a strong instantaneous negative forcing through scattering, however it is not possible to evaluate this directly using offline samples because of strong dependency on particle size. That is why, we limited to estimate the radiative effect caused by only the absorption component of the BrC in this study.”*, in the final version of the MS (please see Page 6, Lines 251-254).

We also made minute text modifications in Figure 5 caption and added “North China” in Figure 6 caption in the MS and corrected minor errors/typos in Figure S1 & S2 captions in the supplement.