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Interactive comment on "Reduction in black carbon light absorption due to multi-pollutant emission control during APEC China 2014" *by* Yuxuan Zhang et al.

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The authors combined SP2 measurements and Mie theory calculations to provide evidence for the reduction of black carbon (BC) light absorption due to the APEC emission control. The paper is well written. I have one minor suggestion on the uncertainty associated with the calculation/analysis of BC light absorption.

Recent observations (e.g., China et al., 2015; Wang et al., 2017) have shown various complicated BC coating structures/morphology, which are not core-shell. Further modeling studies (e.g., Scarnato et al., 2013; He et al., 2015, 2016) have indicated a large variation in BC absorption and scattering due to the observed complex particle coat-

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Discussion paper

ing structures/morphology. Thus, assuming a core-shell structure in the present study may lead to uncertainty in the estimate of BC light absorption. It would be helpful if the authors could include these recent studies and add some discussions on this issue.

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