

## ***Interactive comment on “Brown carbon and water-soluble organic aerosols over the southeastern United States” by A. Hecobian et al.***

**A. Hecobian et al.**

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Received and published: 24 June 2010

We thank the reviewer for their insightful comments (C). Following each comment is our response (R).

(C) Equation 1: subscript by C should be i, not 1.

(R) The subscript has been changed.

(C) Page 76 11 and elsewhere: The term "absorbance spectrum" should be avoided; "ab- sorption spectrum" is more appropriate. Absorbance has a very narrow meaning of a qualitative measure of optical absorption by a sample of given concentration within a cell of a given length. Absorption has a broader meaning.

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(R) Absorbance has been changed to absorption throughout the manuscript.

(C) Page 7606: aerosol in (Bones et al., 2010) was made without ammonia. It was aged in the presence of ammonia and humidity. This study also falls in the category of "a variety of aqueous phase reactions" cited in the next sentence.

(R) The sentence has been changed from: including ozonolysis of terpenes in the presence of ammonium (Bones et al., 2010), and a variety of aqueous phase reactions, to: including ozonolysis of terpenes subsequently aged in the presence of ammonia and humidity (Bones et al., 2010), and a variety of additional aqueous phase reactions,

(C) Figure 2 (and some other figures as well): some of the labels may be invisible after sizing to the half-column width. I would probably increase the font size for some of the labels.

(R) All text in Fig 2 was increased in font size, as were font in some of the other figures. Equation 1: subscript by C should be  $i$ , not 1.

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Interactive comment on Atmos. Chem. Phys. Discuss., 10, 7601, 2010.

ACPD

10, C4409–C4411, 2010

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