

## ***Interactive comment on “Processing of soot in an urban environment: case study from the Mexico City Metropolitan Area” by K. S. Johnson et al.***

**Anonymous Referee #1**

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The following is a follow-up comment on Figure 8 and the corresponding interpretations by the authors.

The authors state that Figure 8, image (i) shows soot with a sulfate inclusion presumably from coagulation.

Related, Posfai et al. [JGR, vol 104, 1999, page 21685] recorded TEM images of aerosol particles collected in the polluted marine boundary layer. Posfai et al. observed ammonium sulfate particles containing soot, and their TEM images were similar to Figure 8, image (i) from Johnson et al. See Figure 1a from Posfai et al. However, Posfai et al. suggested "the soot was forced to the peripheries of the particles when

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the sulfates crystallized from the original aerosol droplets. Thus the position of soot within the sulfate, as observed on the TEM grid, does not provide much useful information about the likely spatial relationship of the two aggregated species in the original airborne particles."

Could the authors please comment on this. Could the morphology in Figure 8, image (i) be due to the crystallization process and not coagulation?

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Interactive comment on Atmos. Chem. Phys. Discuss., 5, 5585, 2005.

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