## Authors response to editorial boards of Eunha Kang et al., ACPD, 2017

**Co-Editor Decision: Publish subject to technical corrections** (23 Mar 2018) by Sergey A. Nizkorodov

Comments to the Author:

I would recommend inserting the scatter plot of the added mass in the SMPS (SMPS\_after\_PAM – SMPS\_ambient) vs the added mass in the AMS (AMS\_after\_PAM – AMS\_ambient) using contiguous points in time as the reviewer suggested. You inserted it in the response but not in the SI section. The reviewer believed it was important to have included so I would include it.

## [Response]

As editor suggested, we added the time series of the mass concentration difference in Supplements.

L191, S7 in Supplements, we added the following paragraph and the figure.

"The mass concentration changes between the PAM aerosol particles and the ambient aerosol particles were determined for both the AMS and the SMPS (Figure S7-2). For most of the data, the SMPS mass concentration difference is equal to or slightly greater than the AMS mass concentration difference. However, there are also periods during which the AMS mass concentration difference is much less than the SMPS mass concentration difference. These discrepancies occur for days when the mass concentrations are greatest in the organic-dominated period and the sulfate-dominated period and thus do not depend on the origin of the aerosol particles. The reasons for these discrepancies are under investigation, but they do not affect our conclusions.



[Figure S7-2. The difference in mass concentrations between the PAM aerosol and ambient aerosol measured by SMPS and AMS. Data are averages for 6 minutes with  $2\sigma$  confidence intervals.]"

L93: "sulfated-dominated" -> "sulfate-dominated"

L94: "The size, mass," -> "The particle size, mass,"

L190: "discussion on single mass of m/z 43 and m/z 44 represent the entire organic classes" -> "discussion of ions observed at m/z 43 and m/z 44 should be broadly applicable to these two classes of organic compounds"

Please be sure to fix the issues with the "micro" symbol not showing up properly in figures (e.g., by saving figures as raster graphics (TIFF) before inserting them in the file). [Response]

We corrected the typos and expressions in the manuscript following the suggestions. And, the figures are saved as TIFF format.