Atmospheric
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Supplement of

Alteration of the size distributions and mixing states of black carbon through transport in the boundary layer in east Asia

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S1. Determination of the background mixing ratio of carbon monoxide (CO)

    We assume the 5th percentile value of CO mixing ratio (138 ppb) as a threshold value to extract its background level (CO_{bg}). CO_{bg} is defined as the average of CO mixing ratios below the 5th percentile in this study, and is calculated to be 120 ppb. When we change the threshold from 5th to 10th percentiles (146 ppb), derived CO_{bg} increases from 120 ppb to 131 ppb. Figure S1 depicts the probability density function of the observed CO mixing ratio with the assumed threshold. It is suggested that the assumption of the threshold value slightly affected the estimation of CO_{bg}.
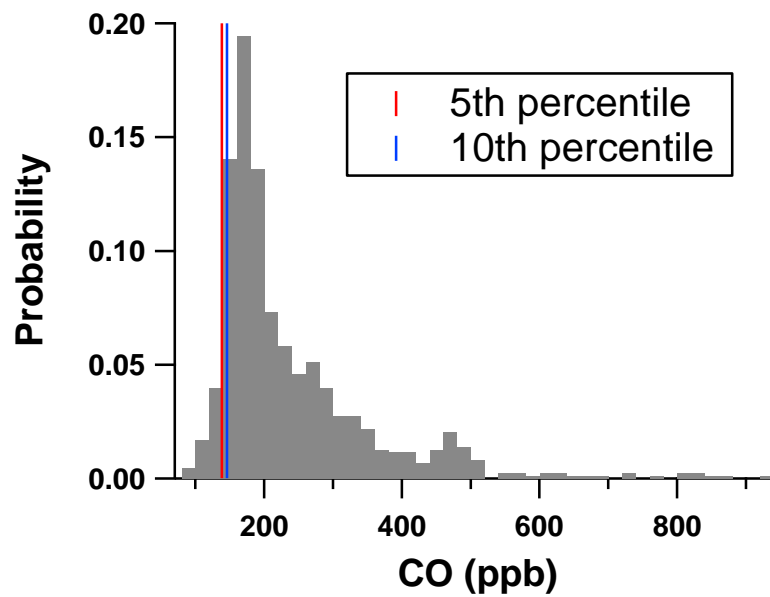

Figure S1. Probability density of measured CO mixing ratio (shaded bars). Red and blue vertical lines correspond to the 5th and 10th percentile values of the observed CO mixing ratios.