Supplementary Information for

Particulate matter (PM) episodes at a suburban site in Hong Kong: evolution of PM characteristics and role of photochemistry in secondary aerosol formation

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Figures

Figure S1 Summary of species and episodic events (in box) during the 4-month campaign

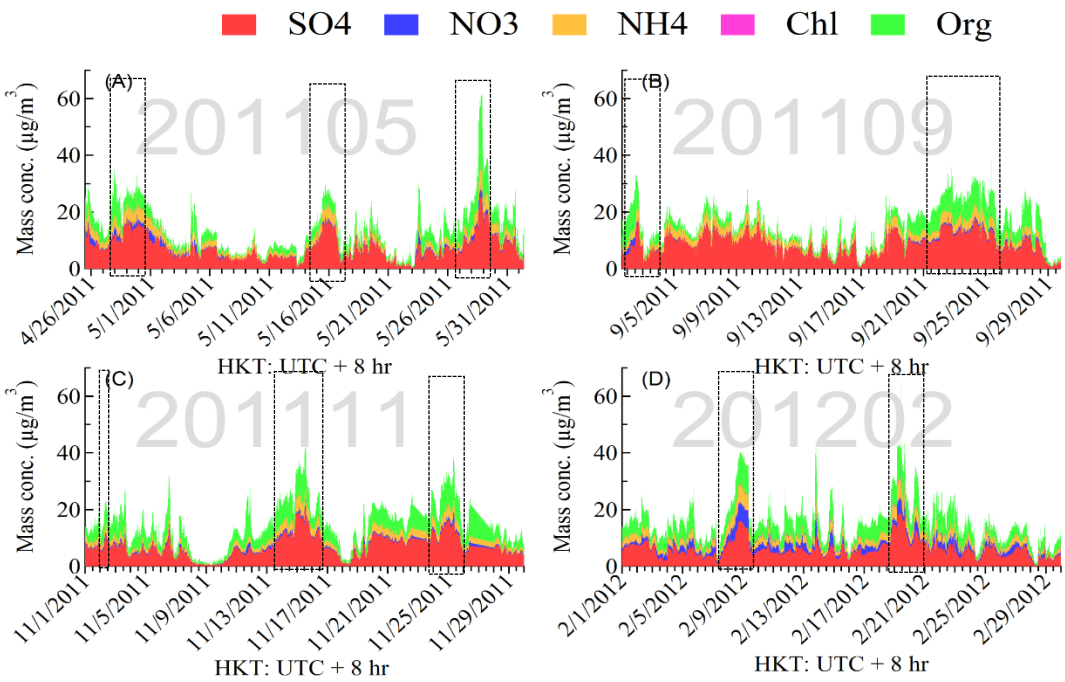

Figure S2 Example of bi-modal log-normal fitting of mass-size distribution of organics during LWC episodes using the Multipeak Fit V2 in Igor Pro. The upper panel shows the fit residual which has been minimized by the algorithm. The middle panel shows the original size distribution (green shade area) as well as the total fit generated by the algorithm (blue dash line). The lower panel shows the shapes, locations and integrated areas of the two fitting modes (small mode and large mode).

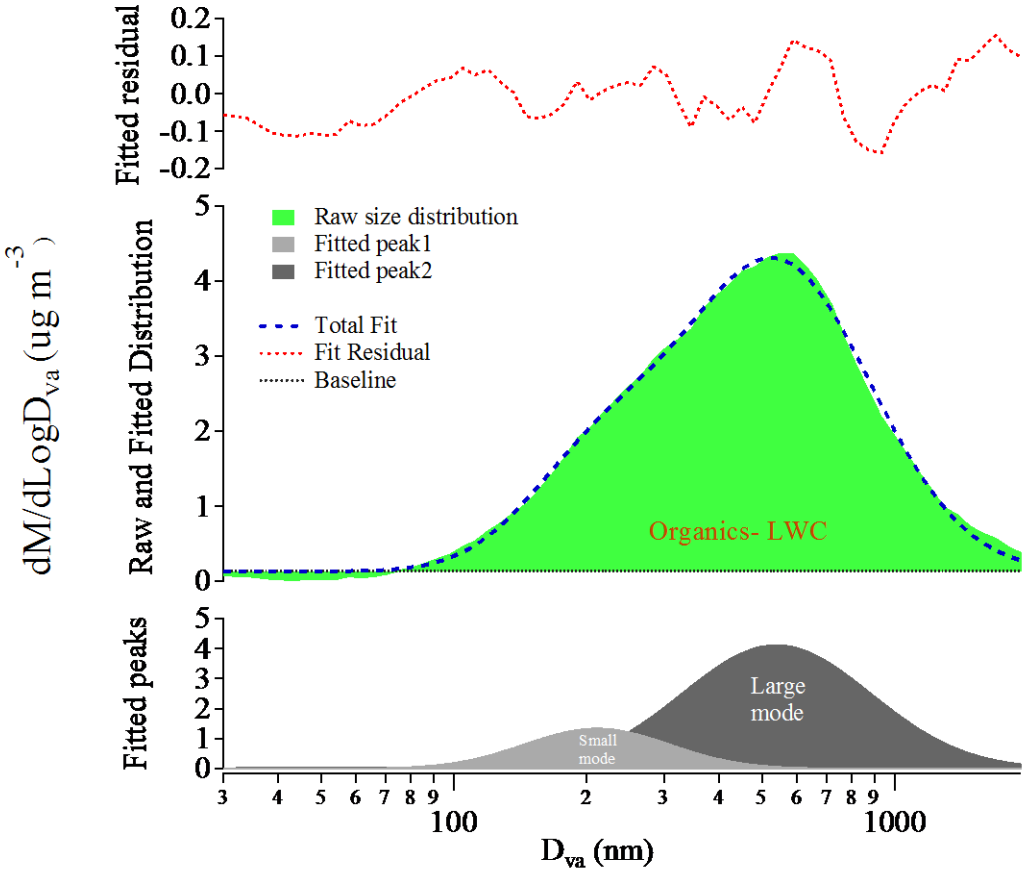

Figure S3 The 72-h back trajectories arriving at HKUST supersite (22°20'N, 114°16'E) at an elevation of 300 m during the episodic events

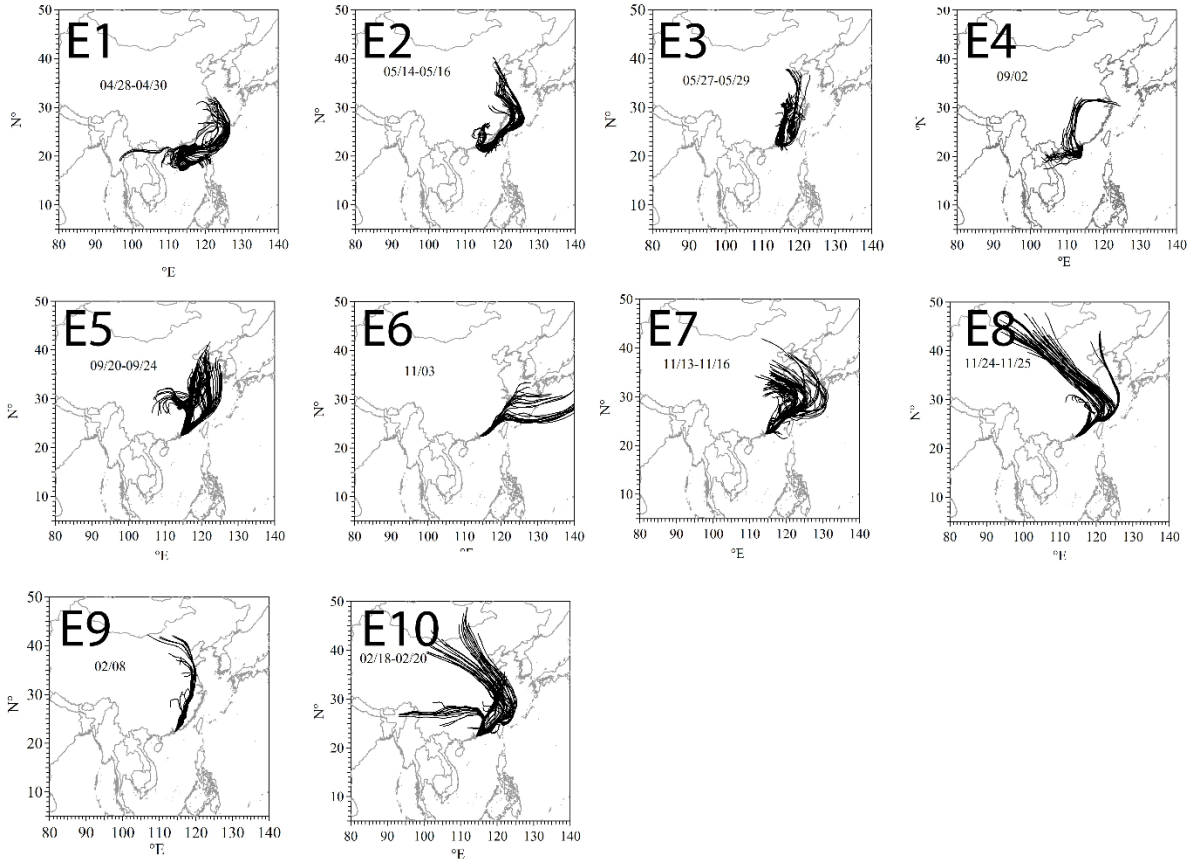

Figure S4 (A) Time series of meteorological conditions with chemical characteristics in spring and summer episodes

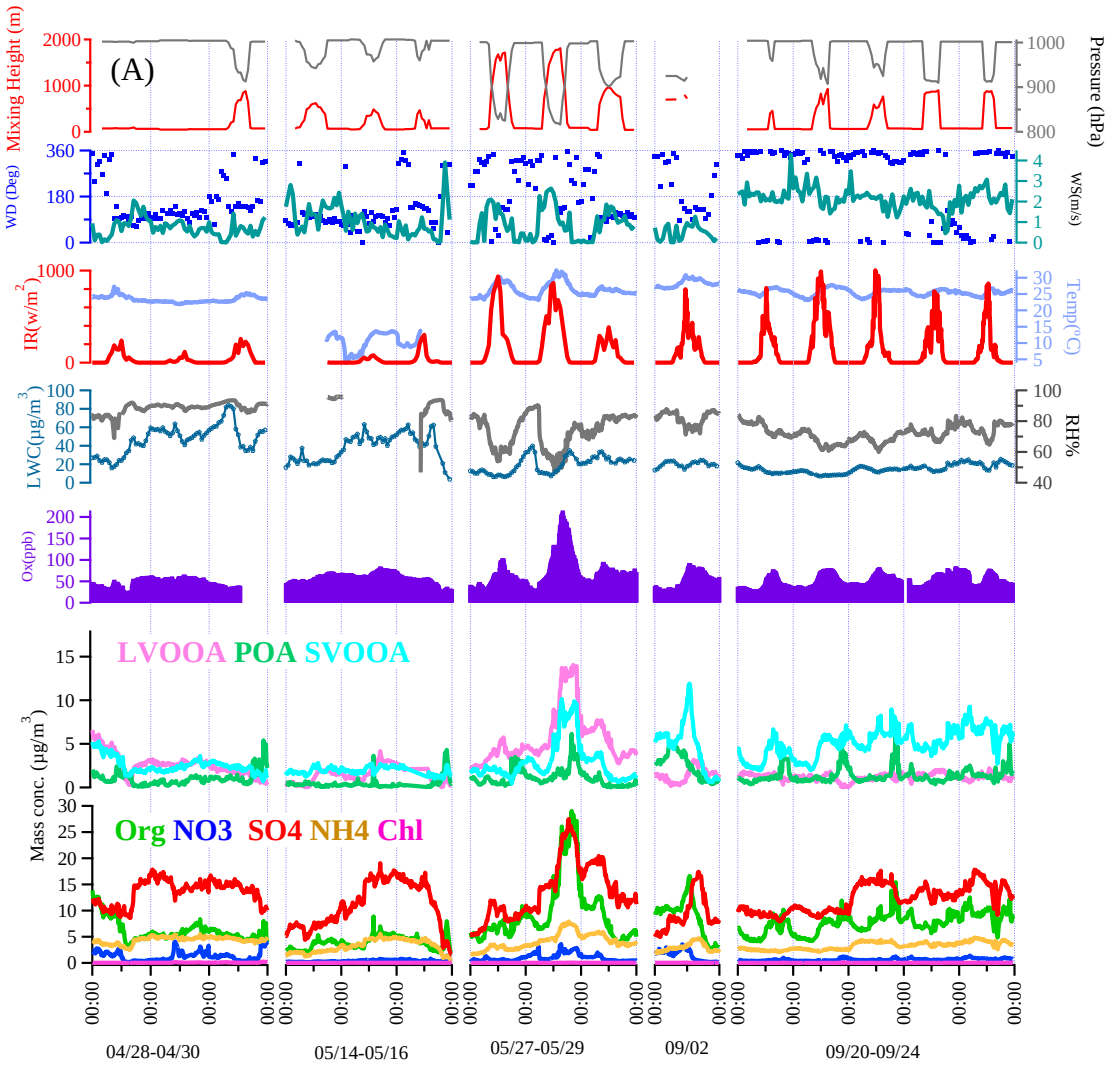

Figure S4 (B) Time series of meteorological conditions with chemical characteristics in autumn and winter episodes

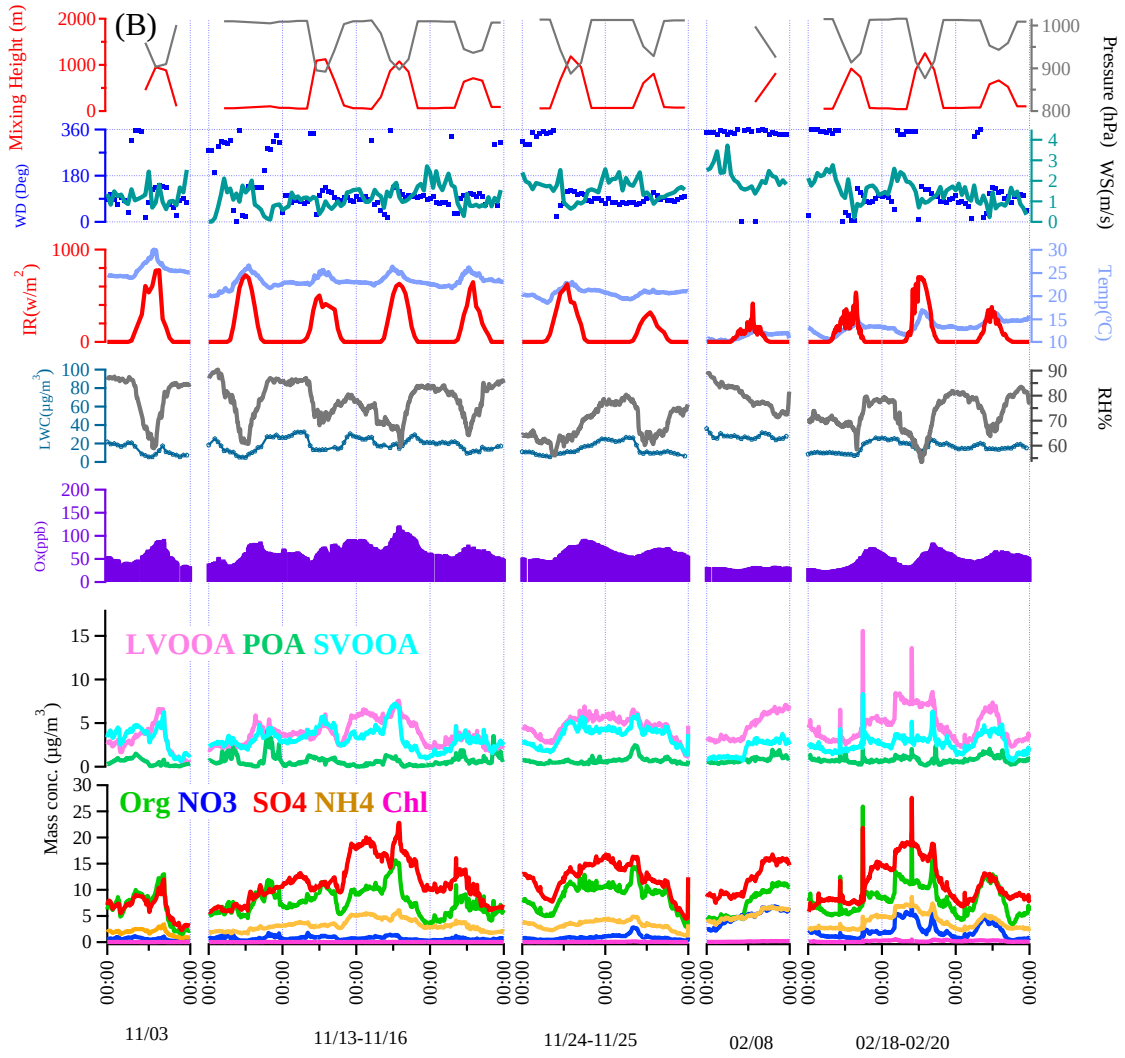

Figure S5 Improved-Ambient method to estimate O:C and H:C values of the September dataset. Recalculating the elemental ratio using the updated software (solid dots) vs. corrected method factor of 1.27 and 1.11 with Aiken-Ambient