Supplementary Information

Fine particle chemistry under a special dust transport event: impacts from unusually enhanced ozone and air mass backflows over the ocean

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Figure S1. Correlations between the ISORROPIA – II predicted and measured species of (a) $\text{SO}_4^{2-}$, (b) $\text{NO}_3^-$, (c) $\text{NH}_4^+$, and (d) $\text{NH}_3$ for the $\text{SO}_4^{2-}$–$\text{NO}_3^-$–$\text{NH}_4^+$–$\text{Cl}^-$–$\text{NH}_3$–$\text{HCl}$–$\text{HNO}_3$ system during P3
Figure S2. Correlations between the ISORROPIA–II predicted and measured species of (a) SO$_4^{2-}$, (b) NO$_3^-$, (c) NH$_4^+$, and (d) NH$_3$ for the SO$_4^{2-}$–NO$_3^-$–NH$_4^+$–Cl$^-$–Ca$^{2+}$–NH$_3$–HCl–HNO$_3$ system during P3.
Figure S3. Correlations between the ISORROPIA–II predicted and measured species of (a) \( \text{SO}_4^{2-} \), (b) \( \text{NO}_3^- \), (c) \( \text{NH}_4^+ \), and (d) \( \text{NH}_3 \) for the \( \text{SO}_4^{2-}–\text{NO}_3^-–\text{NH}_4^+–\text{Cl}^-–\text{Na}^+–\text{NH}_3–\text{HCl}–\text{HNO}_3 \) system during P3.
Figure S4. Time-series of BC, nitrate, and sulfate measured at LYG and PD during the study period.