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Supplement of

Characterization of a catalyst-based conversion technique to measure total particulate nitrogen and organic carbon and comparison to a particle mass measurement instrument

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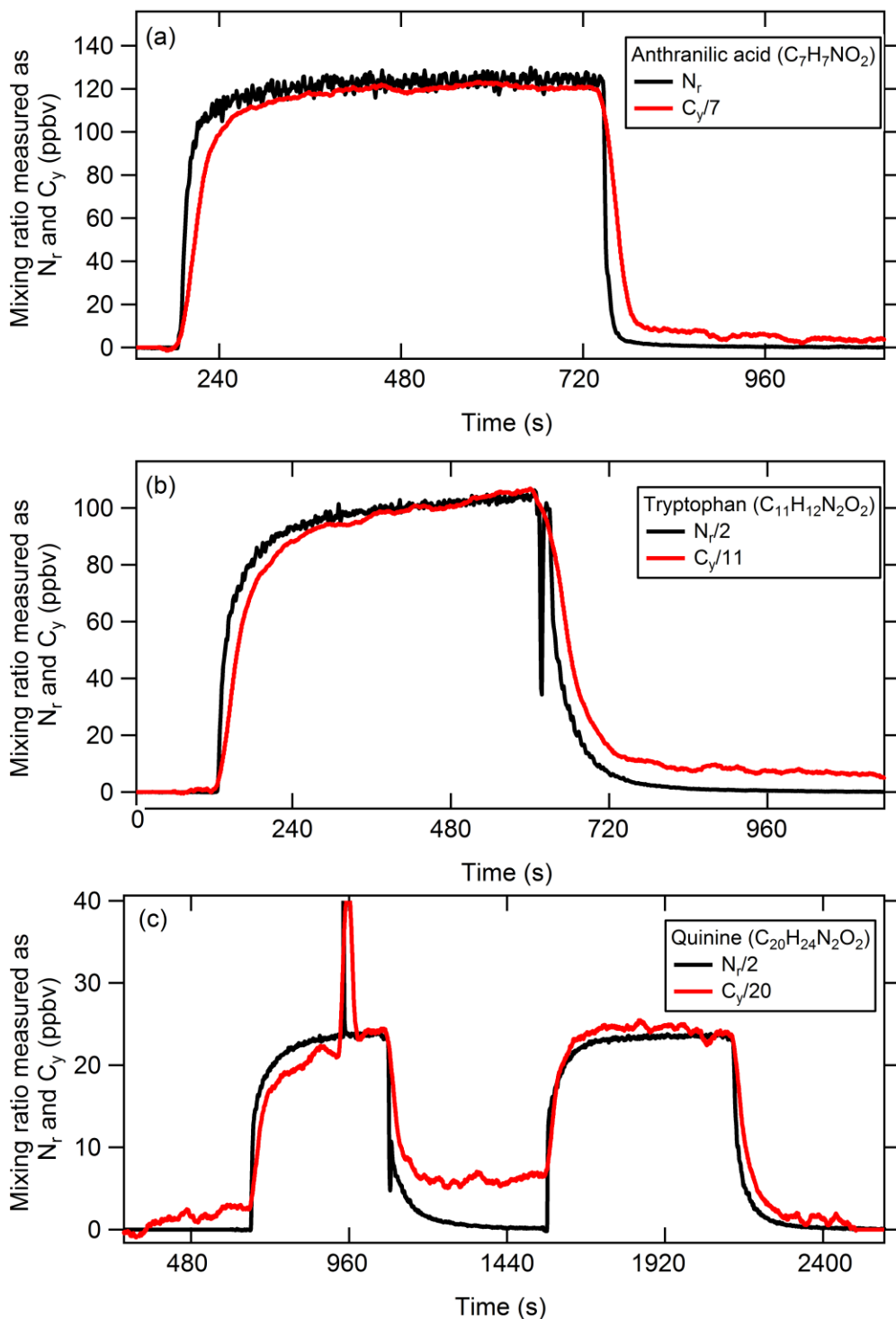


Figure S1. An example of the quantitative conversion of atomized polydisperse (a) anthranilic acid ($C_7H_7NO_2$), (b) tryptophan ($C_{11}H_{12}N_2O_2$), and (c) quinine ($C_{20}H_{24}N_2O_2$) to NO and CO_2 measured by NO- O_3 chemiluminescence and a LICOR-6251, respectively. The measured total C_y (red) is divided by the number of C atoms and total N_r is divided by the number of N atoms in the corresponding compound.

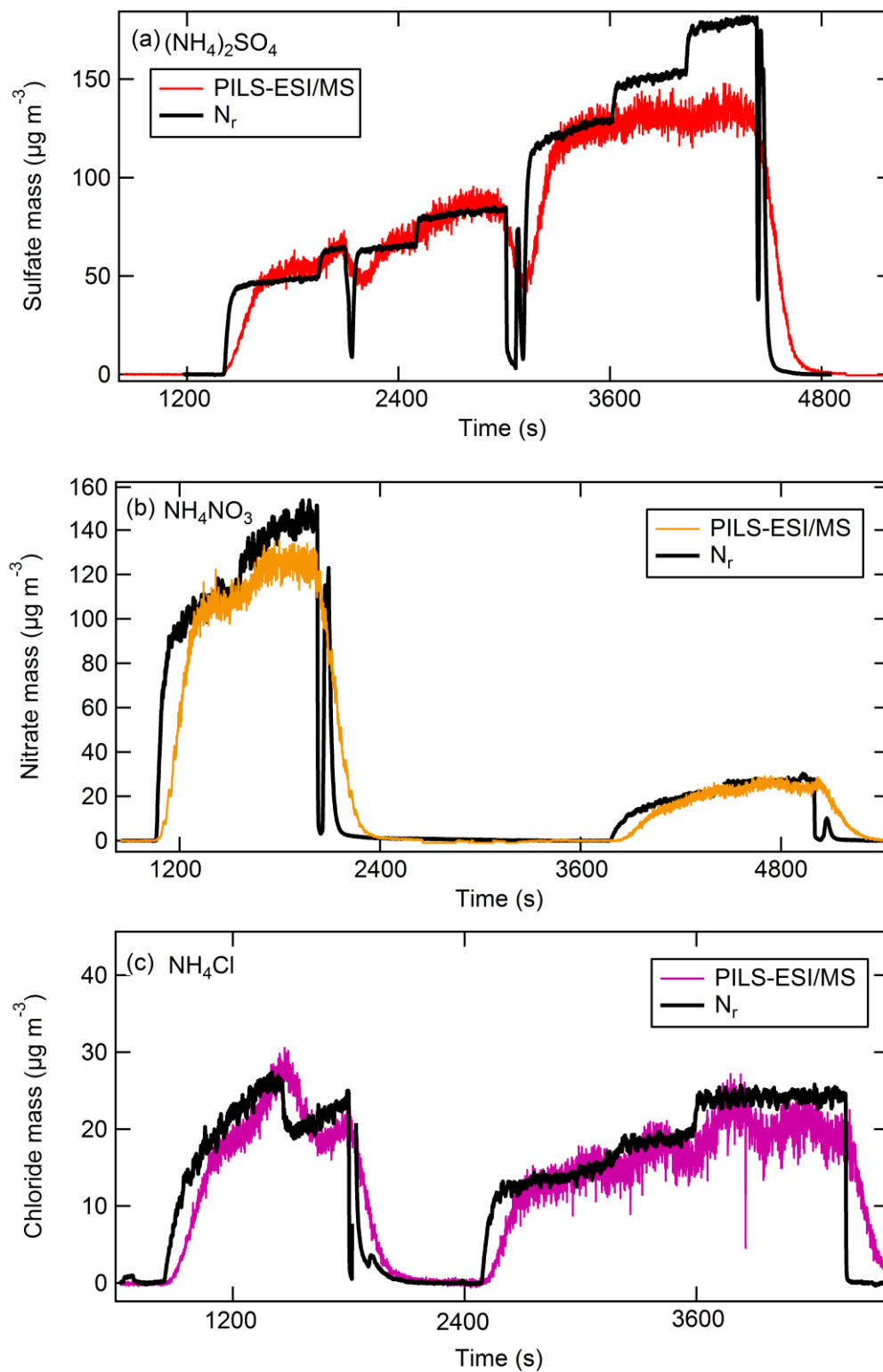


Figure S2. The PILS-ESI/MS measured sulfate (red), nitrate (gold), and chloride (magenta) concentration ($\mu\text{g m}^{-3}$) and the corresponding anion concentrations measured as N_r (black) for atomized solutions of (a) $(\text{NH}_4)_2\text{SO}_4$, (b) NH_4NO_3 , and (c) NH_4Cl . The $(\text{NH}_4)_2\text{SO}_4$ concentration exceeded the linear response of the PILS-ESI/MS above 130 $\mu\text{g m}^{-3}$ as noted after 3600 s in (a).