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Supplement of

Atmospheric amines and ammonia measured with a Chemical Ionization Mass Spectrometer (CIMS)

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Supporting Online Material: Figures

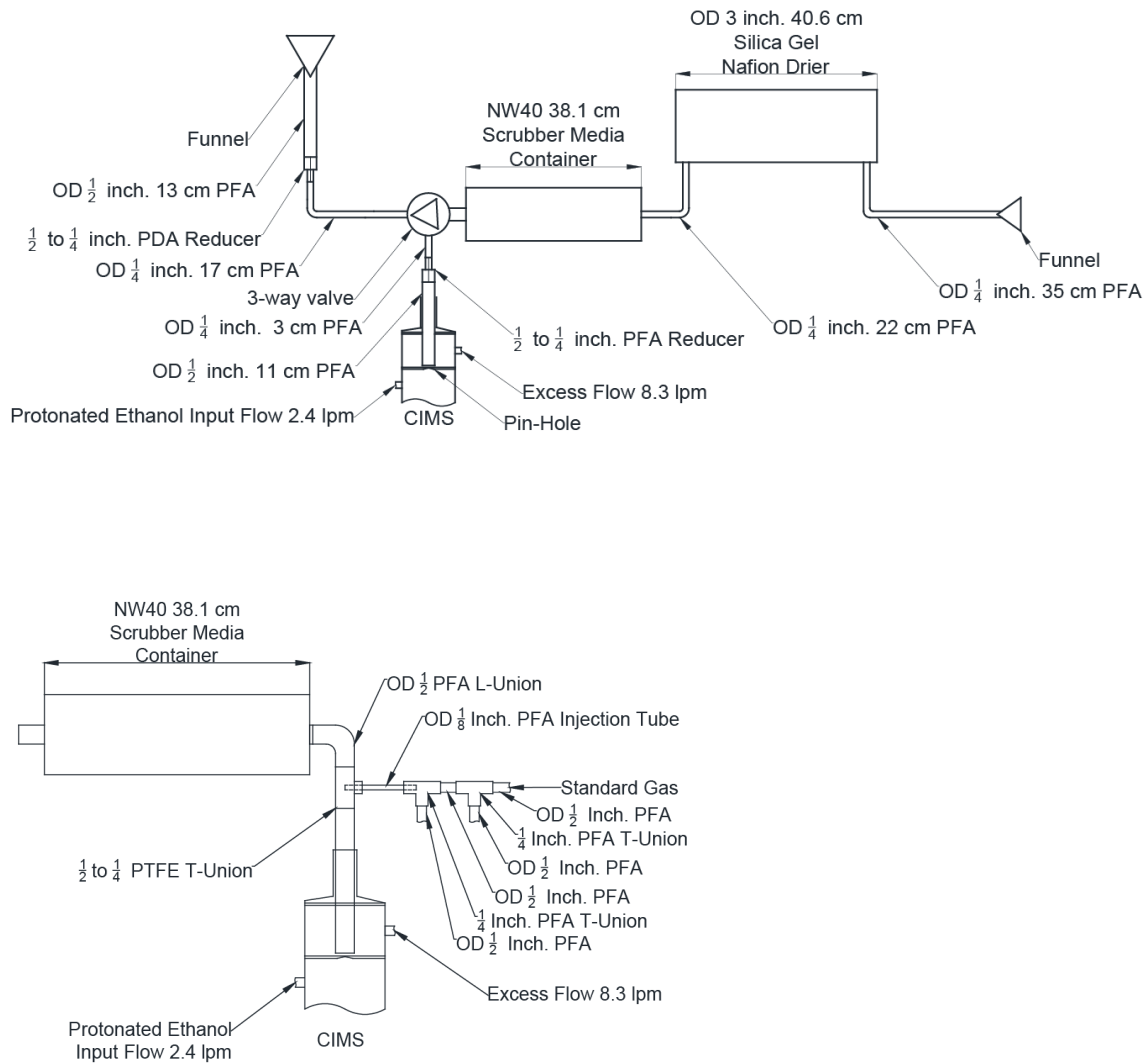


Figure S1. Schematic diagram of the sampling inlet for amines and NH_3 (upper) and the calibration gas-line system (lower). CIMS, chemical ionization mass spectrometer; PFA, perfluoroalkoxy Teflon; PTFE, Polytetrafluoroethylene Teflon.

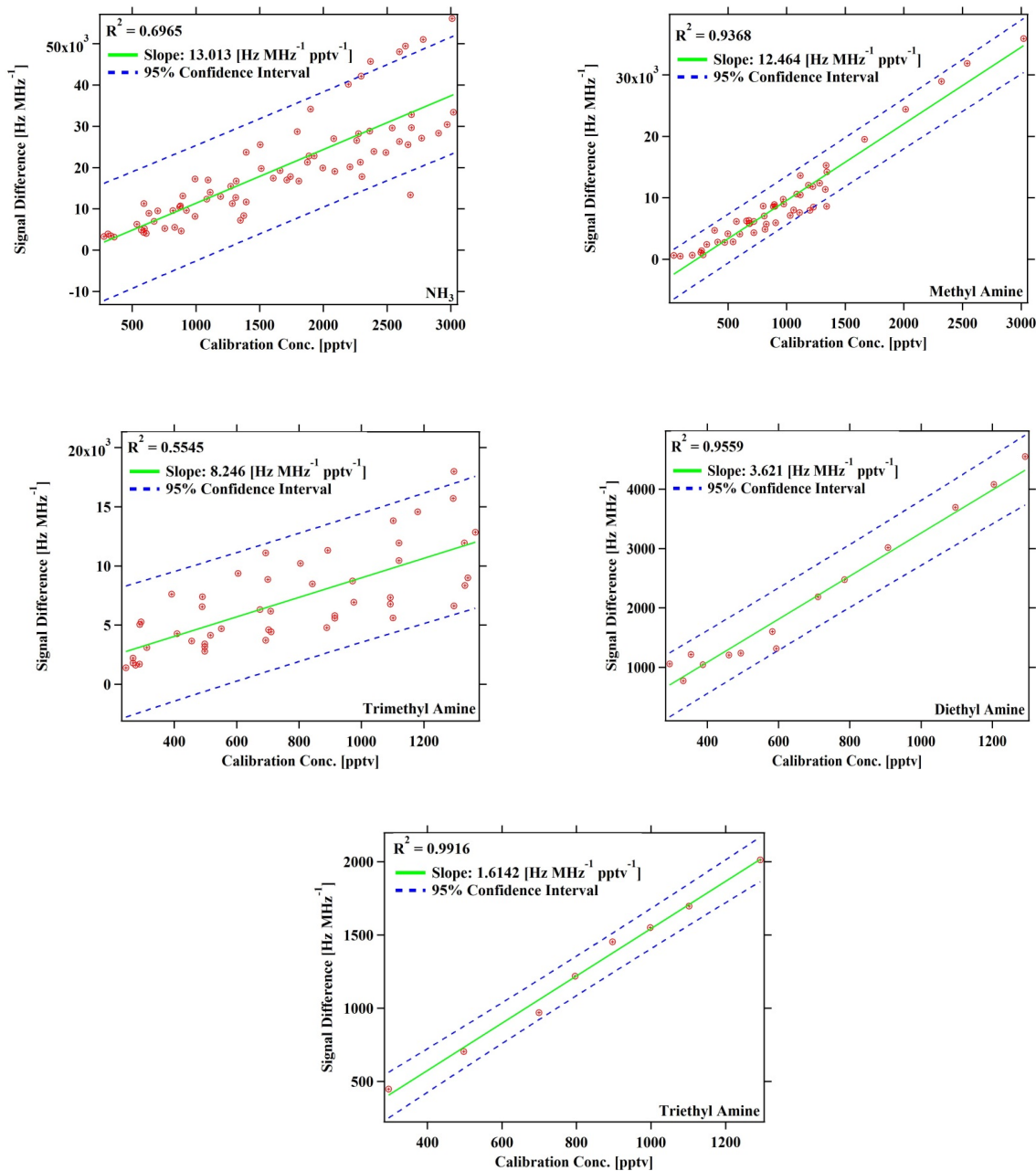


Figure S2. The *in-situ* calibration curves of NH_3 and amines obtained during the SOAS campaign. The slopes of the linear fitting (green solid lines) correspond to the normalized sensitivities. Dashed blue lines indicate the 95% confidence level of the linear fitting. C5-amine permeation tubes are not available from Kin-Tech, so no calibrations were made for C5-amines. The sensitivity of C5-amines was instead predicted based on those

of other amines (Table 1), as there was a decreasing trend in sensitivities with the increasing number of carbon atoms in the amine molecule.

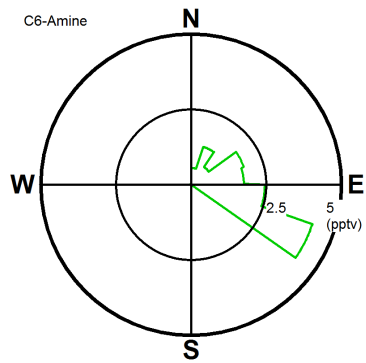
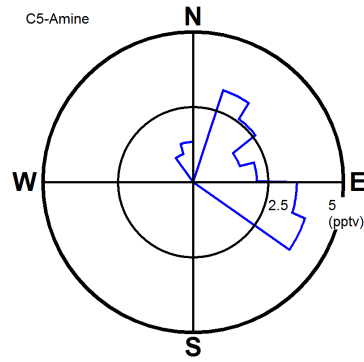
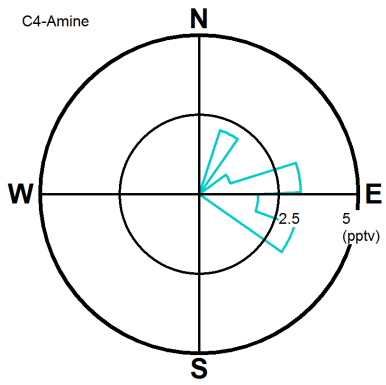
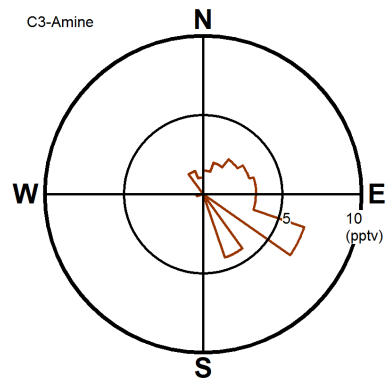
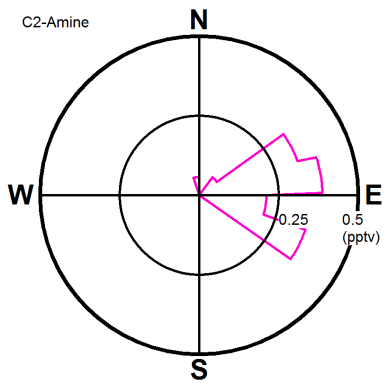
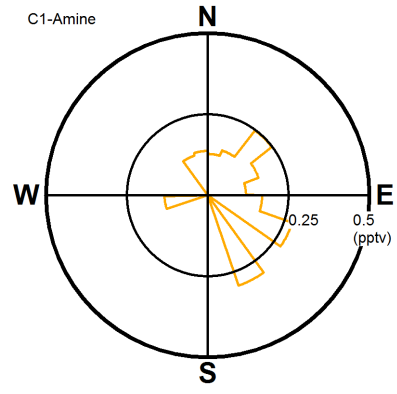
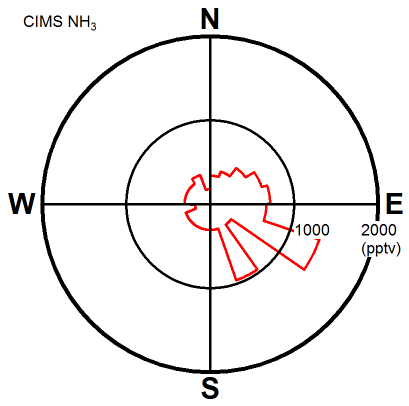


Figure S3. Wind rose plots of amines and NH_3 on June 4, 2013. The trash burning event took place at the east side of the measurement site.

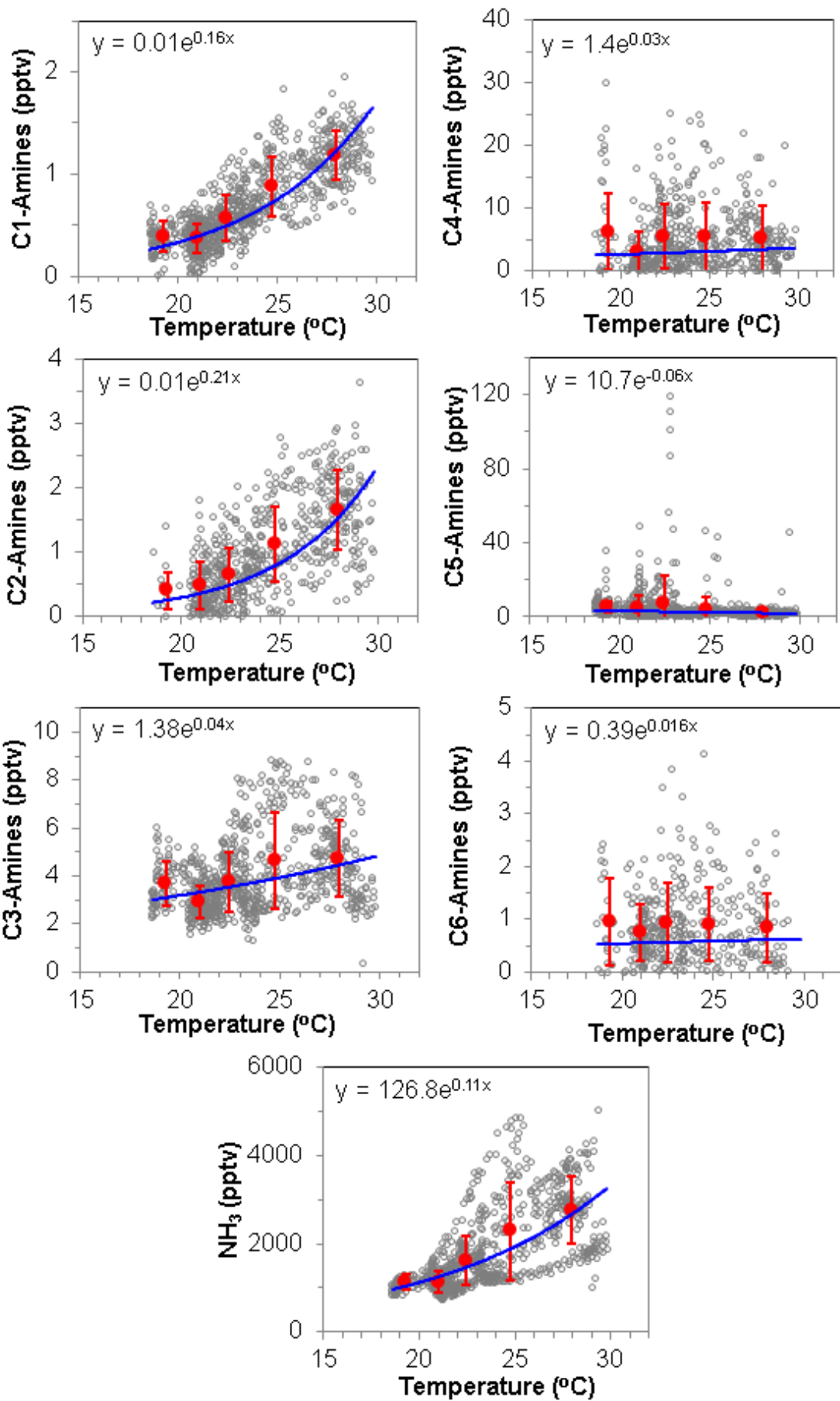


Figure S4. Temperature dependences of amines and NH_3 measured in Kent from August 31 to September 2, 2013. Gray dots show the measurement data and blue lines show exponential fitting of the data. Red circles and vertical lines show the mean and one standard deviation of concentrations of these chemical species, with each bin representing 20 percentile of temperature values.