

1 Characteristics and processing of aqueous secondary organic aerosols
2 during autumn in suburban Eastern China: role of aerosol liquid
3 water, aerosol acidity, and photochemistry

4 Qiu Wang¹, Tengyu Liu^{1,2,3*}, Weiqi Xu⁴, Jinbo Wang^{1,5}, Dafeng Ge¹, Caijun Zhu¹,
5 Chuanhua Ren¹, Jiaping Wang^{1,2}, Qiaozhi Zha^{1,2}, Ximeng Qi^{1,2}, Wei Nie^{1,2}, Xuguang
6 Chi^{1,2}, Sijia Lou^{1,2,3}, Xin Huang^{1,2,3}, Aijun Ding^{1,2,3}

7 ¹School of Atmospheric Sciences, Nanjing University, Nanjing, 210023, China

8 ²National Observation and Research Station for Atmospheric Processes and
9 Environmental Change in Yangtze River Delta, Nanjing, 210023, China

10 ³Frontiers Science Center for Critical Earth Material Cycling, Nanjing University,
11 Nanjing, 210023, China

12 ⁴State Key Laboratory of Atmospheric Environment and Extreme Meteorology,
13 Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing 100029, China

14 ⁵Now at National Satellite Meteorological Center, China Meteorological
15 Administration, Beijing 100081, China

16 *Corresponding author: Tengyu Liu (tengyu.liu@nju.edu.cn)

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18 Supplement

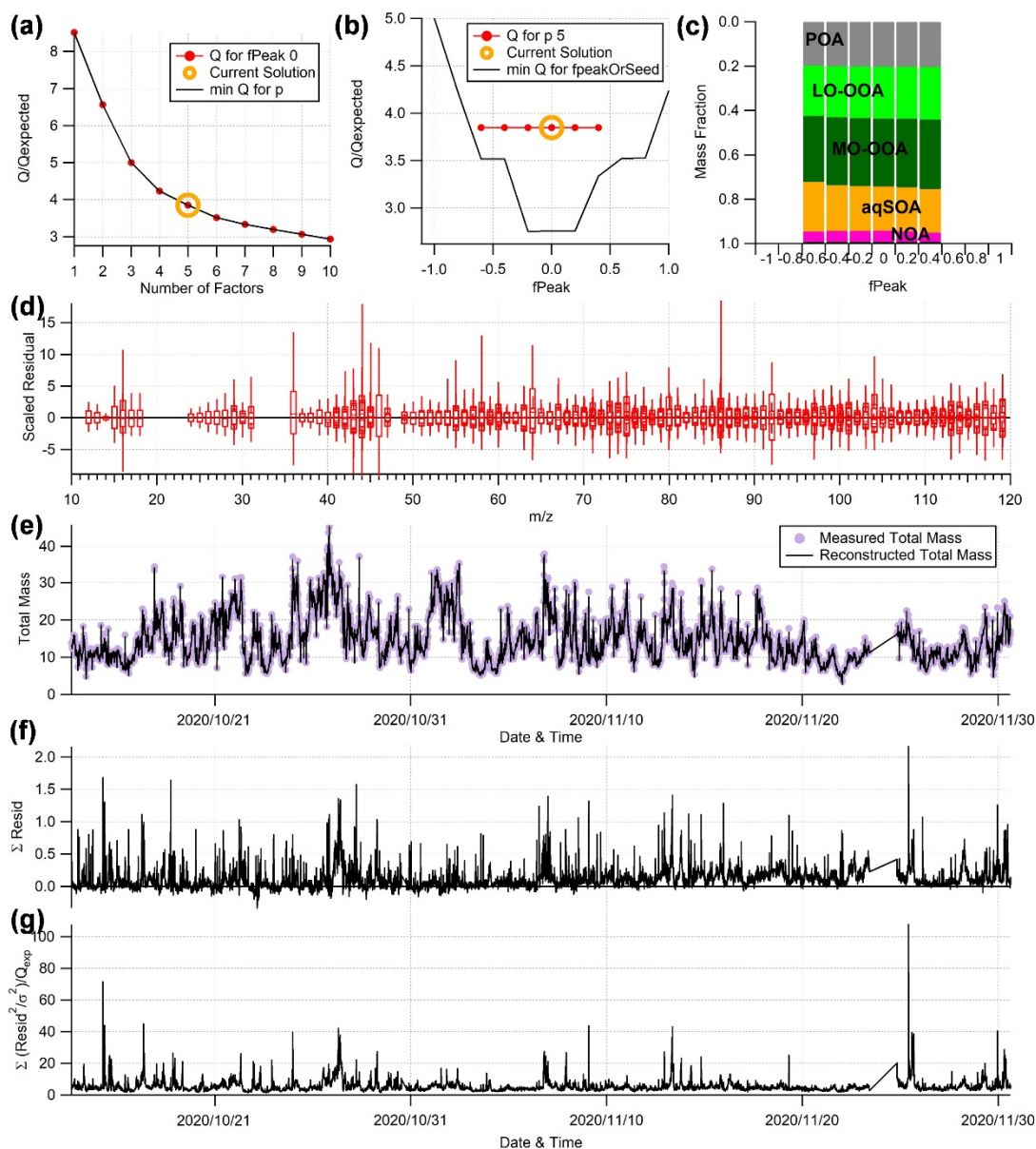


Figure S1. A summary of PMF diagnostic plot: (a) Q/Q_{exp} as a function of number of factors, (b) Q/Q_{exp} as a function of f_{peak} , (c) mass fractions of OA factors as a function of f_{peak} , (d) scaled residual for each fragment ion, (e) a comparison of measured and PMF reconstructed mass, (f) time series of residual, and (g) time series of Q/Q_{exp} .

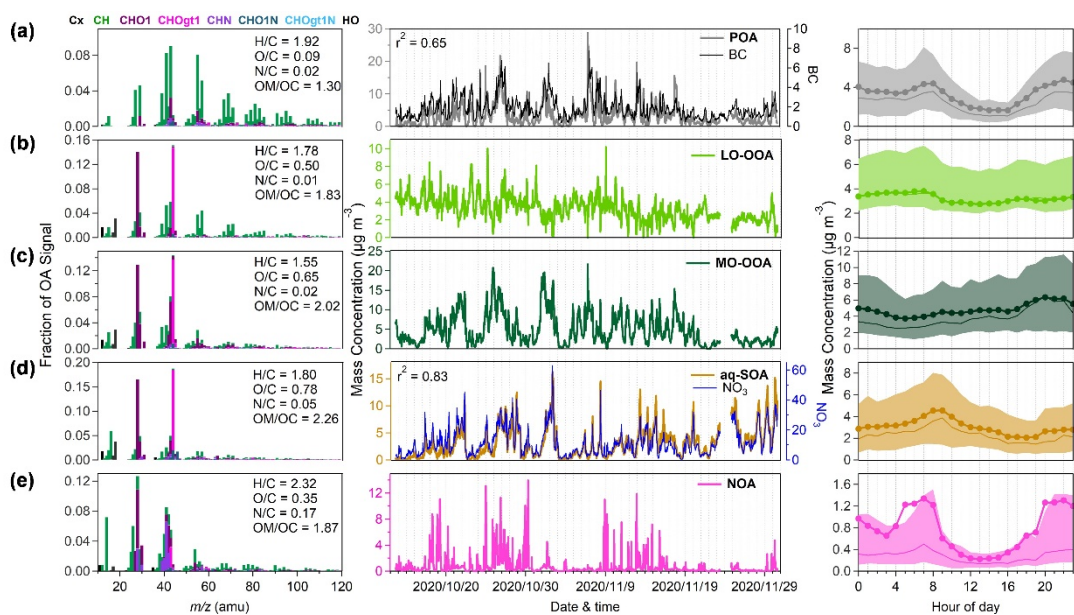


Figure S2. High resolution mass spectra (left), time series (medium) and diurnal mass profiles (right) of 5 OA factors via PMF analyses

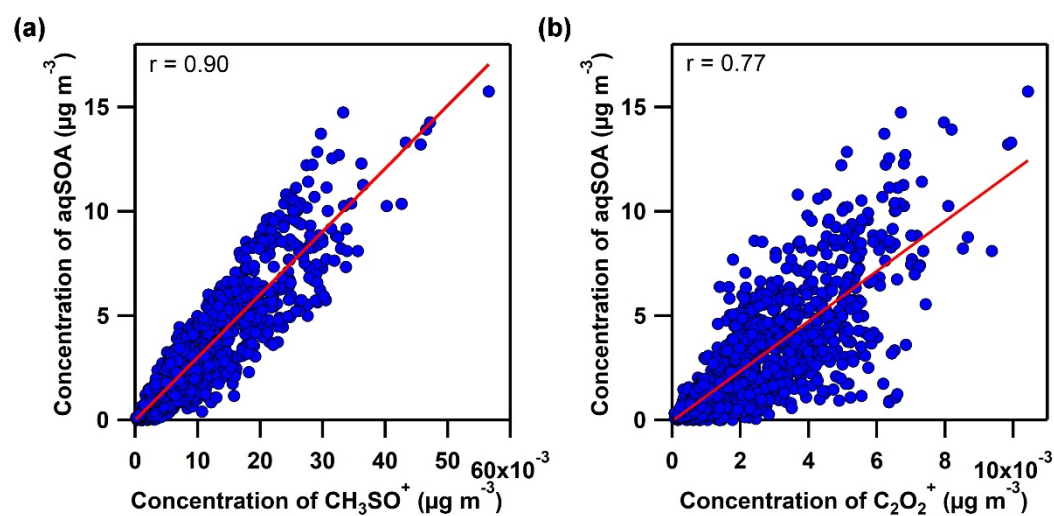


Figure S3. Scatter plot of aqSOA versus CH_3SO^+ (a), and C_2O_2^+ (b).

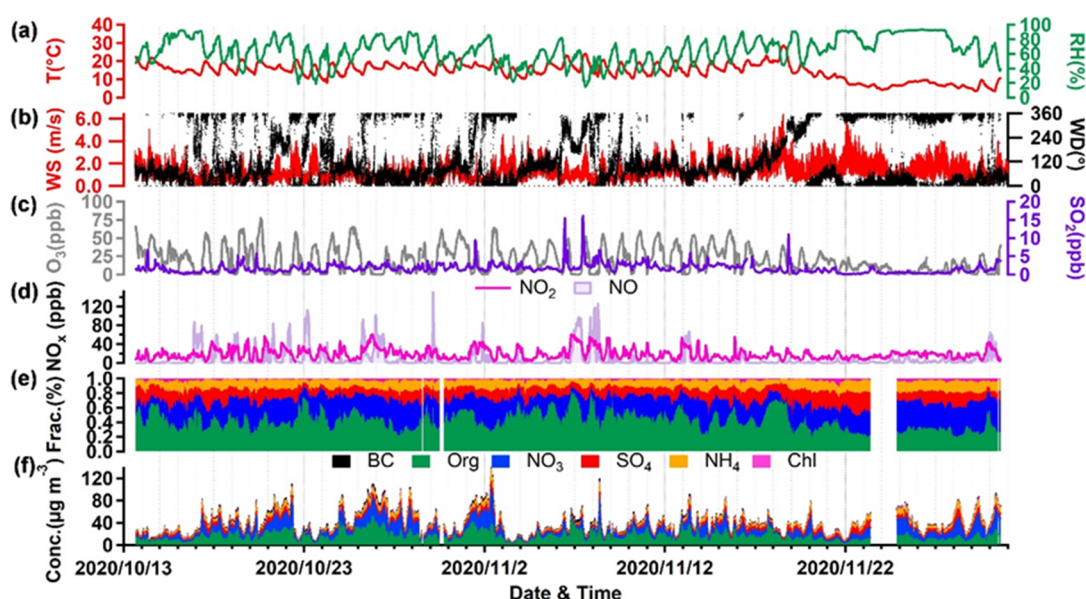


Figure S4. Time series of temperature and relative humidity (a), wind direction and wind speed (b), SO_2 and O_3 (c), NO_2 and NO (d), and the fraction (e) and concentration (f) of aerosol components (organic matter, nitrate, sulfate, ammonium, chloride and black carbon).

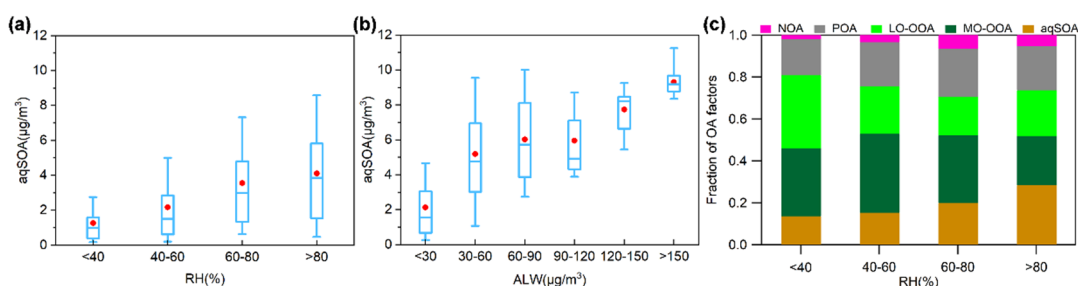


Figure S5. Box plots of aqSOA with RH(a) and ALW(b), the lines in the boxes indicate the median values, the upper and lower boundaries of the boxes indicate the 75th and 25th percentiles, and the whiskers above and below the boxes indicate the 90th and 10th percentiles, the red dots indicate the mean value. (c) Fraction of 5 OA factors under different relative humidity conditions.

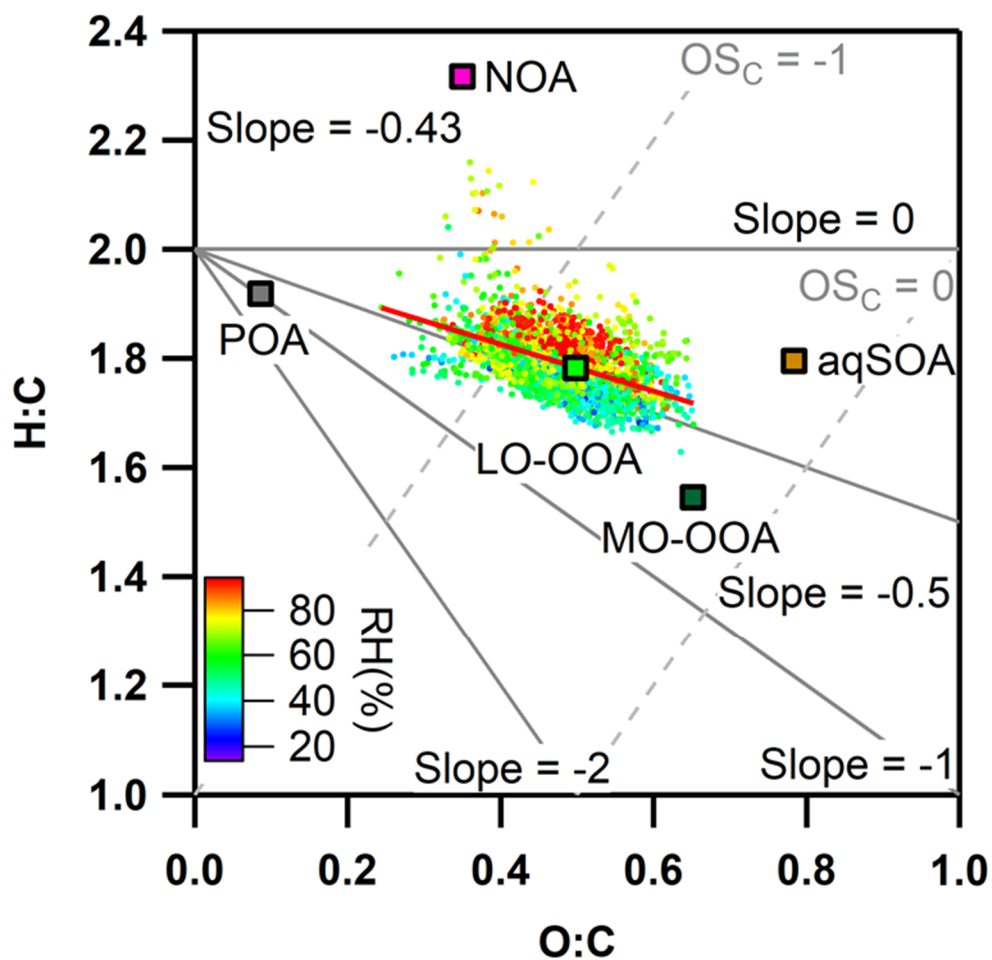


Figure S6. Van Krevelen (VK) diagram of the elemental ratios of organic aerosol measured by AMS, colored by RH.