

Supplement of Atmos. Chem. Phys., 19, 3245–3255, 2019
<https://doi.org/10.5194/acp-19-3245-2019-supplement>
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Atmospheric
Chemistry
and Physics
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Supplement of

Characterization of urban amine-containing particles in southwestern China: seasonal variation, source, and processing

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Table S1. Assignment for ions in the mass spectra of amine-containing particles

m/z	Ion assignment	m/z	Ion assignment
+12	C^+	-16	O^-
+18	$[NH_4]^+$	-17	$[OH]^-$
+23	Na^+	-26	$[CN]^-$
+24	Mg^+	-35	$^{35}Cl^-$
+27	$Al^+/[C_2H_3O]^+$	-37	$^{37}Cl^-$
+27	$[CH_3N]^+/[C_2H_3]^+$	-42	$[CNO]^-$
+30	NO^+	-43	$[AlO]^-$
+39	$^{39}K^+$	-46	$[NO_2]^-$
+40	Ca^+	-48	$[SO]^-$
+41	$^{41}K^+$	-50	$[C_4H_2]^+$
+43	$[C_2H_3O]^+$	-60	$[AlO(OH)]^-$ or $[SiO_2]^-$
+48	Ti^+	-62	$[NO_3]^-$
+51	$C_4H_3^+$	-63	$[PO_2]^-$
+54	$^{54}Fe^+$	-64	$[SO_2]^-$
+57	$^{57}Fe^+$ or $[CaOH]^+$	-73	$[C_3H_5O_2]^-$
+59	$[(CH_3)_3N]^+$	-76	$[^{28}SiO_3]^-$ or $[AlO_2(OH)]^-$
+63	$[C_5H_3]^+$	-77	$[^{28}SiO_3]^-$ or $[H^{28}SiO_3]^-$
+74	$[(C_2H_5)_2NH_2]^+$	-79	$[PO_3]^-$
+77	$[C_6H_3]^+$	-80	$[SO_3]^-$
+113	$[(CaO)_2H]^+$	-88	$[Si_2O_2]^-$ or $[FeO_2]^-$
+116	$[C_9H_8]^+$	-97	$[HSO_4]^-$
+129	$[C_{10}H_9]^+$	-125	$H[NO_3]_2^-$
+140	$[C_{11}H_8]^+$		
+153	$[C_{12}H_9]^+$		



Figure S1. Map of sampling site, the four-pointed star indicates the sampling site.

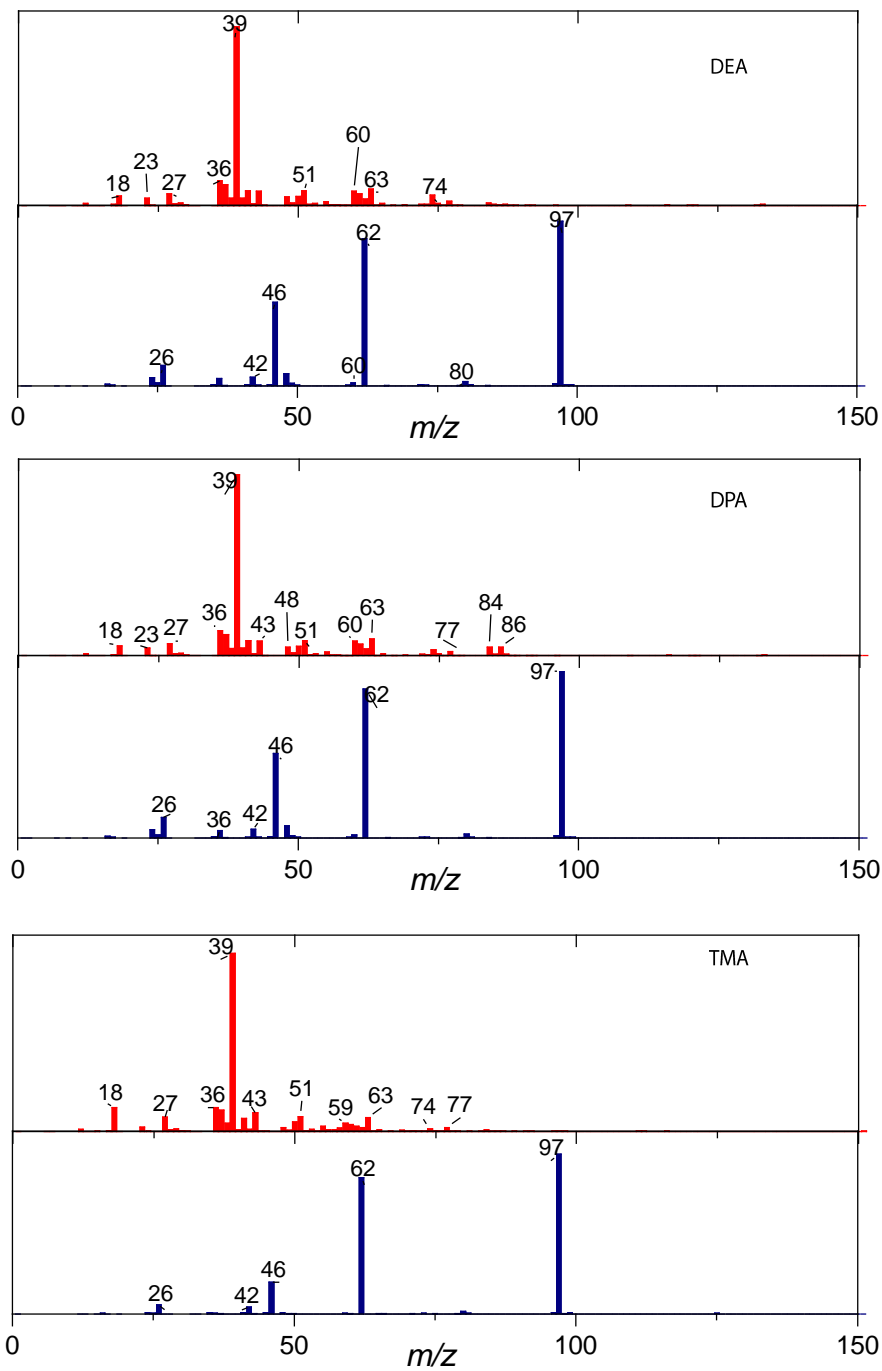


Figure S2. Average mass spectra of DEA-, DPA- and TMA-containing amine particles.

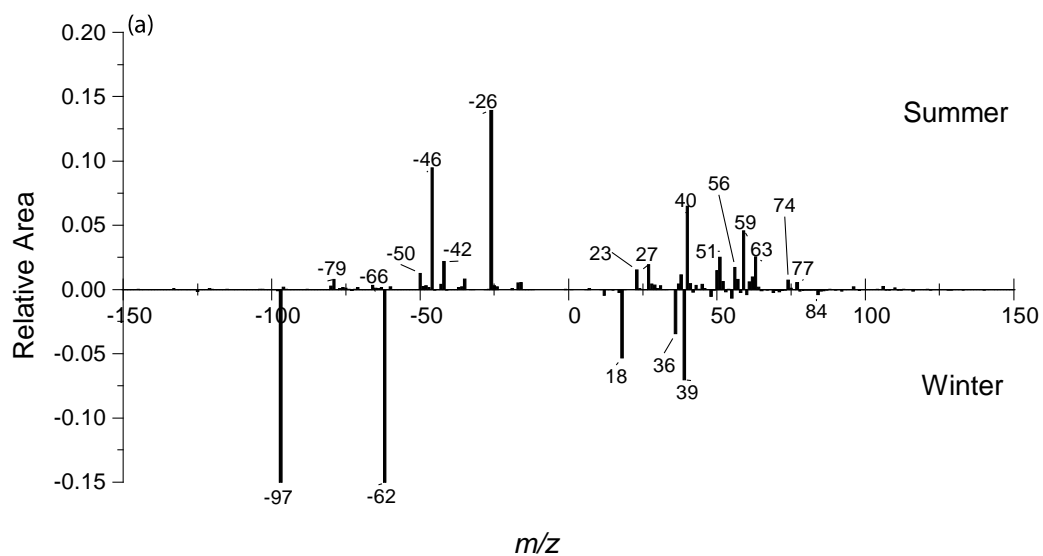


Figure S3. Subtraction plot of average mass spectra of amine-containing particles during summer and winter time

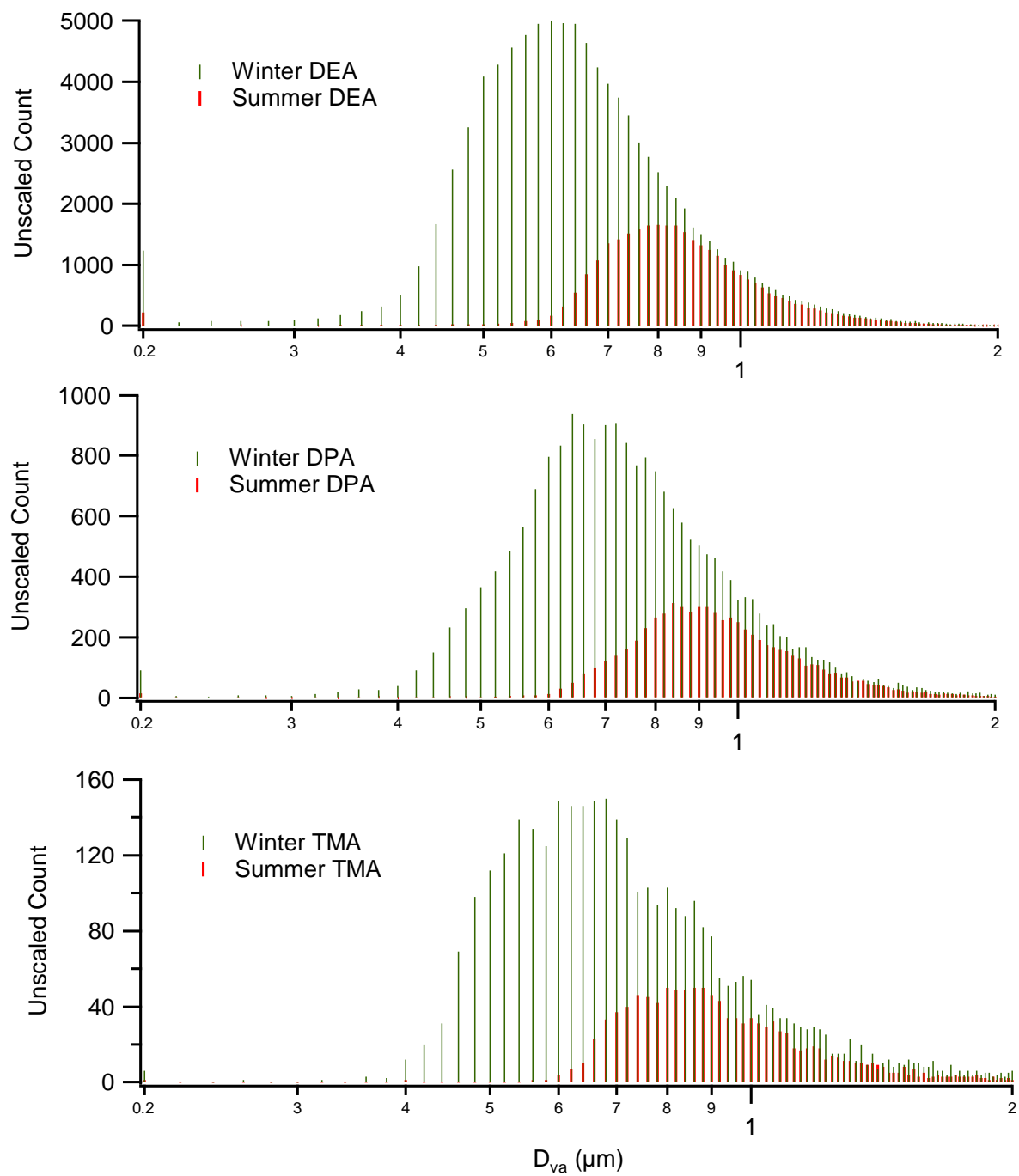


Figure S4. Seasonal variations of the raw size distribution of amine-containing particles.

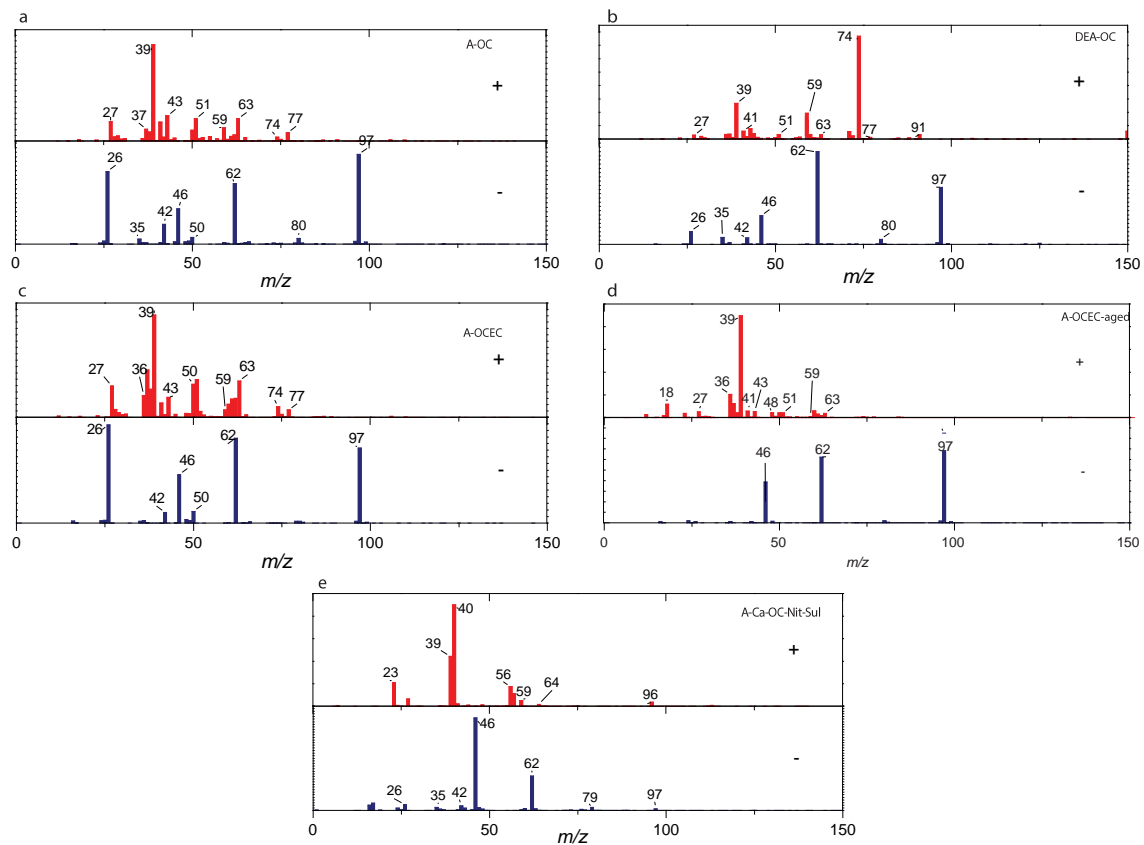


Figure S5. Average mass spectra of ART-2a clustered particle types during summertime.