Method	First reference	Size selective	Continuous or discontinuous	Evaporation method	Phase(s) measured	Minimum mass concentration analyte aerosol [pg m^{-3}]	Minimum detectable mass [pg]	Smallest detected particle size
VACA	Curtius et al. (1998)	no	continuous	thermal desorption	gas & particle[a]	$\sim 3.3 \times 10^5$ pg m^{-3} sulfuric acid	n/a	n/a
TDCIMS	Voisin et al. (2003)	yes	discontinuous	thermal desorption	particle	n/a	e.g., 1–5 pg ammonium sulfate	8-10 nm
NAMS	Wang et al. (2006)	yes	continuous	laser ablation	particle	n/a	n/a	$\sim$ 7–10 nm
Aerosol MS	Laitinen et al. (2009)	yes	discontinuous	laser ablation	particle	n/a	n/a	10 nm
Aerosol inlet	Phares and Collier (2010)	yes	discontinuous	thermal desorption	particle	n/a	n/a	n/a
CAChUP	Gonser and Held (2013)	yes	discontinuous	thermal desorption	particle	n/a	0.5–5 $\times 10^3$ pg camphene	25 nm
FIGAERO	Lopez-Hilfiker et al. (2014)	no	discontinuous	thermal desorption	gas & particle	e.g., 5^b | 60^c pg m^{-3} $C_{10}H_{14}O_8$ 1690^b | 900^c pg m^{-3} $C_9H_{14}O_4$	e.g., 1^b | 40^c pg $C_{10}H_{14}O_8$ 170^b | 630^c pg $C_9H_{14}O_4$	n/a
EP-ESI-MS	He et al. (2015)	no	discontinuous	electrospray	particle	10^5 pg m^{-3}	$\sim 2 \times 10^3$ pg cesium iodide $\sim 2 \times 10^4$ pg levoglucosan	n/a
DAII	Horan et al. (2017)	no	continuous	heating	particle	10^5 pg m^{-3} polypropylene glycol	n/a	13 nm
TD-DMA	this work	yes	discontinuous	thermal desorption	gas & particle	27 pg m^{-3} for all sizes 811 pg m^{-3} for 15 nm sulfuric acid	10 pg sulfuric acid	15 nm