

Campaign information	Calibration material	Density ( $\text{g cm}^{-3}$ )	MMD (nm)	Reference
Urban emissions dominated by contributions from fossil fuel combustion				
Airborne measurement over California, USA, in May 2010	Aquadag	1.8	122 over the Los Angeles basin (NMD $\approx$ 60 nm)	Metcalf et al. (2012)
Ground-based measurement downwind of Tokyo, Japan, in the summer of 2004	thermally denuded ambient soot	1.77	between 145 and 150	Shiraiwa et al. (2007)
Airborne measurement over Texas, USA, in September 2006	glassy carbon spheres	2.0	$\sim$ 170 for urban emissions (NMD $\approx$ 70 nm)	Schwarz et al. (2008a)
Airborne measurement over California, USA, in June 2008	thermally denuded ambient soot	2.0	averaging 175 for urban emissions	Sahu et al. (2012)
Airborne measurement over western and northern Europe in April and May 2008	Aquadag	1.8	173 and 178 for urban outflows from Liverpool, UK, and Cabauw, Netherlands, respectively (NMD $\approx$ 80 nm for both cases)	McMeeking et al. (2010)
Ground-based measurement in Paris, France, during the winter of 2010	fullerene soot	1.8	$\sim$ 100 when impacted by fresh traffic emissions	Laborde et al. (2013)
Ground-based measurement in London, UK, during the winter and summer of 2008	Aquadag	1.8	between 119 and 124 during summer when mainly impacted by traffic emissions	Liu et al. (2014)
Ground-based measurement in Tokyo, Japan, from late August to early September 2009	thermally denuded ambient soot	1.72	averaging 146, typically in the range of 130–170 (NMD averaging 64 nm)	Kondo et al. (2011b)
Ground-based measurement in Sacramento, USA, in June 2010	Aquadag	1.8	$\sim$ 145	Cappa et al. (2012)
Near-source measurement at Cranfield Airport, UK, in September 2008	Aquadag	1.8	126	McMeeking et al. (2010)
Laboratory study for source emissions from a diesel car	fullerene soot	1.8	$\sim$ 125	Laborde et al. (2012b)
Biomass burning emissions				
Airborne measurement over Texas, USA, in September 2006	glassy carbon spheres	2.0	$\sim$ 210 for biomass burning plumes (NMD $\approx$ 140 nm)	Schwarz et al. (2008a)
Airborne measurement over California, USA, in June 2008	thermally denuded ambient soot	2.0	averaging 193 for biomass burning plumes (NMD averaging 141 nm)	Sahu et al. (2012)
Airborne measurements over Canada between June and July 2008, and over the Arctic in April 2008	thermally denuded ambient soot	2.0	187 for fresh biomass burning plumes in Canada (NMD = 136 nm); 207 for aged biomass burning plumes transported from Asia to the Arctic (NMD = 141 nm)	Kondo et al. (2011a)
Airborne measurement over eastern Canada in July 2011	Aquadag	1.8	194 and 196 for two biomass burning plumes not impacted by wet deposition (NMD = 137 and 128 nm, respectively); 152 for a biomass burning plume impacted by wet deposition (NMD = 100 nm)	Taylor et al. (2014)
Aged air masses in remote areas				
Ground-based measurement at a remote island in Japan during the spring of 2007	thermally denuded ambient soot	1.77	between 200 and 220 (NMD between 120 and 140 nm)	Shiraiwa et al. (2008)
Ground-based measurement at a tropospheric site in Switzerland from February to March 2007	glassy carbon spheres	1.9	$\sim$ 200	Liu et al. (2010)
Airborne measurement over western and northern Europe in April and May 2008	Aquadag	1.8	199 over the Atlantic Ocean (NMD $\approx$ 90 nm)	McMeeking et al. (2010)
Airborne measurement over the remote Pacific in January 2009	fullerene soot	2.0	$\sim$ 180 for remote atmosphere and $\sim$ 225 for the Arctic	Schwarz et al. (2010)