

Site	Reference	Method	Sample type	Time period	rBC or <i>EC</i> concentrations (ng g ⁻¹); average (if specified, median) $\pm 1\sigma$ and time range in parentheses	
Svalbard						
Various	Clarke and Noone (1985)	Optical	Snow	1983	30.9 (median: 33.5) ± 16.0	
Lomonosovfonna	Forsström et al. (2009)	Thermal-optical	Snow	Spring 2007	18.8 (median: 6.6) ± 29.4	
Ny-Ålesund	Doherty et al. (2010)	Optical	Snow	2007, 2009	13 (median) ± 9	
Ny-Ålesund	Aamaas et al. (2011)	Thermal-optical	Snow	Winter 2008	6.6 ± 4.3	
Various	Forsström et al. (2013)	Thermal-optical	Snow	2007–2009	11.4–13.8 (medians)	
Holtedahlfonna	Ruppel et al. (2014)	Thermal-optical	Ice core	1700–2004	23(< 1850)– 36 (1850–1950) – 45(> 1950)	
Lomonosovfonna	This study	Ruppel et al. (2017)	Thermal-optical	Ice core	2005–2015	10.4
		SP2	SP2	Ice core	1222–2004	0.5 (< 1850), 1.9 (1851–1950), 2.9 (> 1951)*
		SP2	SP2	Ice core	2004–2011	0.5 (median: 0.3) ± 0.4
Greenland						
D4	McConnell et al. (2007)	SP2	Ice core	1788–2002	1.7 (< 1850) – 4 (1851–1951) – 2.3 (> 1952)*	
NEEM 2011-S1	Sigl et al. (2013)	SP2	Ice core	78–1997	2.9 (< 1850) – 4.9 (1851–1951) – 3.0 (> 1952)*	
Summit 2010	Keegan et al. (2014)	SP2	Ice core	1742–2010	1.0 (< 1850) – 2.2 (1851–1951) – 1.1 (> 1952)*	
Canadian Arctic						
Devon Island	Zdanowicz et al. (2017)	SP2	Ice core	1810–1990	1.5 ± 3.2 (whole record) – 3.6 (1910–1920)	
Swiss Alps						
Fiescherhorn	Jenk et al. (2006), Gabbi et al. (2015)	Thermal-optical	Ice core	1660–2002	15(< 1850)– 26 (1850–1950) – 20(> 1950)	