

Supporting Information for:

Long-term Measurements of Carbonaceous Aerosol at Cape Hedo, Okinawa, Japan: Effects of Changes in Emissions in East Asia

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The Supporting Information contains 3 Figures and 1 Table.

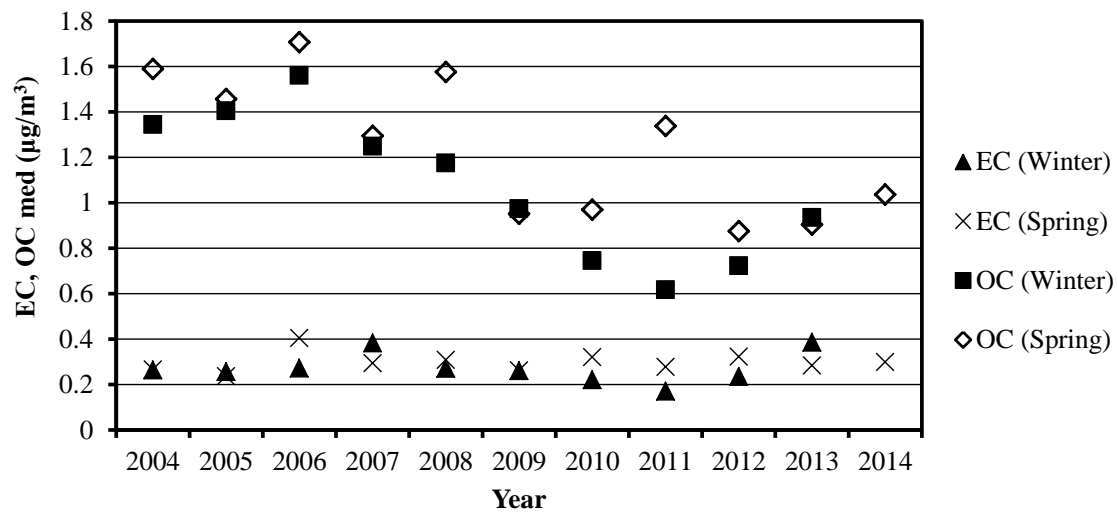


Fig. S1 The annual trends of median (a) EC and (b) OC concentrations in spring and winter from 2004 to 2014.

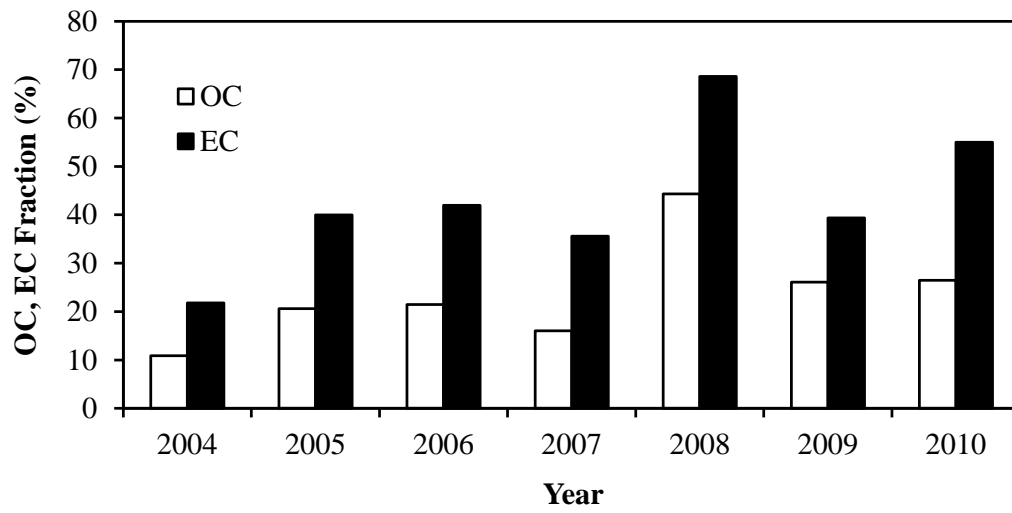


Fig. S2 The annual trends of (average – median)/median for EC and OC concentrations from 2004 till 2014.

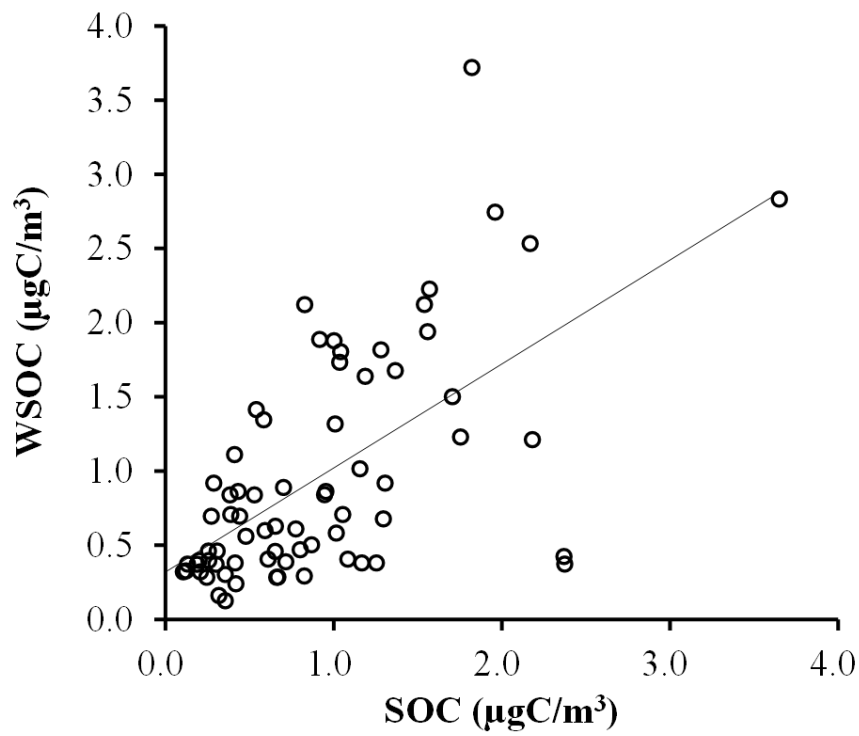


Fig. S3 The relationship between SOC and WSOC concentrations: $Y = 0.70 X + 0.32$ ($\alpha > 0.05$, $R = 0.66$)

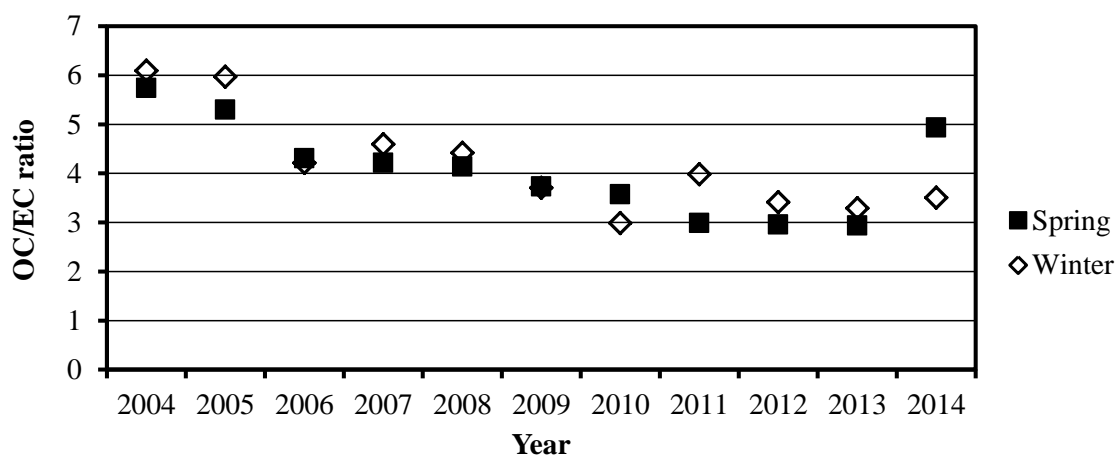


Fig. S4 The monthly trends of OC/EC ratios from 2004 to 2014 in (a) spring OC/EC: $Y = -0.26 X + 5.5$ ($\alpha > 0.05$, $R = 0.66$) and (b) winter OC/EC: $Y = -0.28 X + 5.5$ ($\alpha > 0.05$, $R = 0.65$).

Table S1 The sampling periods and the numbers of data used in this study.

	Size	Sampling period	Number of data
Elemental carbon (EC)	PM _{2.5}	Mar. 2004 - Mar. 2014	10769
Organic carbon (OC)	PM _{2.5}	Mar. 2004 - Mar. 2014	10769
PM _{2.5} mass concentration	PM _{2.5}	Mar. 2004 - Dec. 2010 (exception of data in summer)	44197
Retene	TSP	Mar. 2006 - Dec. 2013 (Spring and winter)	177

Table S2 Sampling periods and sample number from 2005 to 2013. CH means the fraction of air mass origins from the area including part of China. In 2005 and 2006, Reten in aerosol was collected for every 12h during day and night. 1 day average means average concentrations of reten in samples collected during day and night.

Observation period	Sample number (All)	Sample number (CH)
2005		
Spring	—	—
Winter	17 (nigh, day)	14 (nigh, day) 7 (1day average)
2006		
Spring	30 (nigh, day)	14 (nigh, day) 7 (1day average)
Winter	—	—
2007		
Spring	14	3
Winter	—	—
2008		
Spring	10	6
Winter	—	—
2009		
Spring	14	14
Winter	—	—
2010		
Spring	14	9
Winter	11	11
2012		
Spring	15	7
Winter	6	4
2013		
Spring	14	2
Winter	5	4