

Table S-1. Description of the Quartz and EUSAAR2 thermal protocols for the Sunset analyzer

Step	Carbon peak	QUARTZ		EUSAAR2	
		Temperature (° C), Time (s)		Temperature (° C), Time (s)	
He 1	OC1	310, 80		200, 120	
He 2	OC2	475, 60		300, 150	
He 3	OC3	615, 60		450, 180	
He 4	OC4	870, 90		650, 180	
He 5		0, 45		0, 33	
He/O <sub>2</sub> 1	EC1	550, 45		500, 120	
He/O <sub>2</sub> 2	EC2	625, 45		550, 120	
He/O <sub>2</sub> 3	EC3	700, 45		700, 70	
He/O <sub>2</sub> 4	EC4	850, 60		850, 80	
He/O <sub>2</sub> 5	EC5	870, 90			

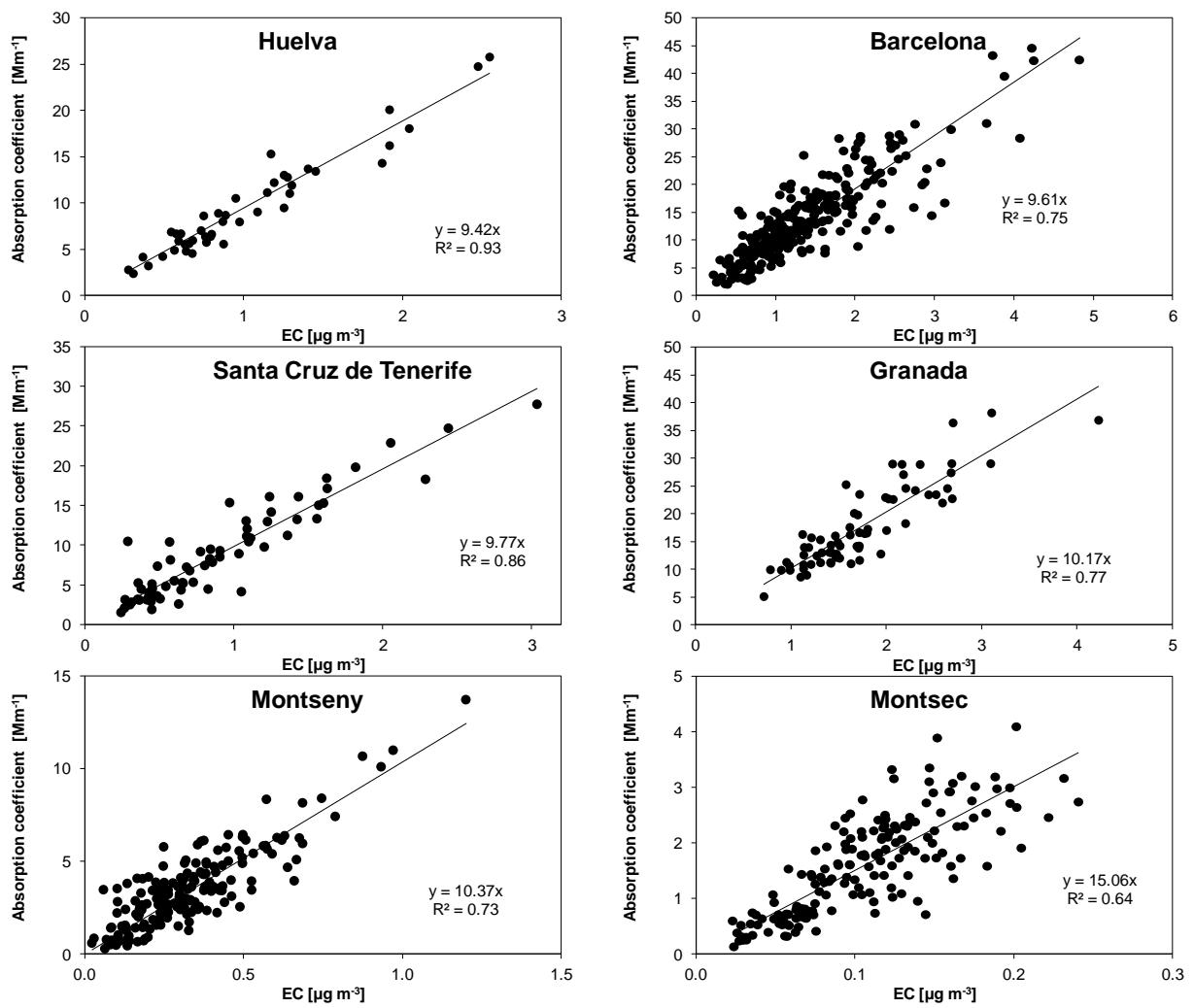
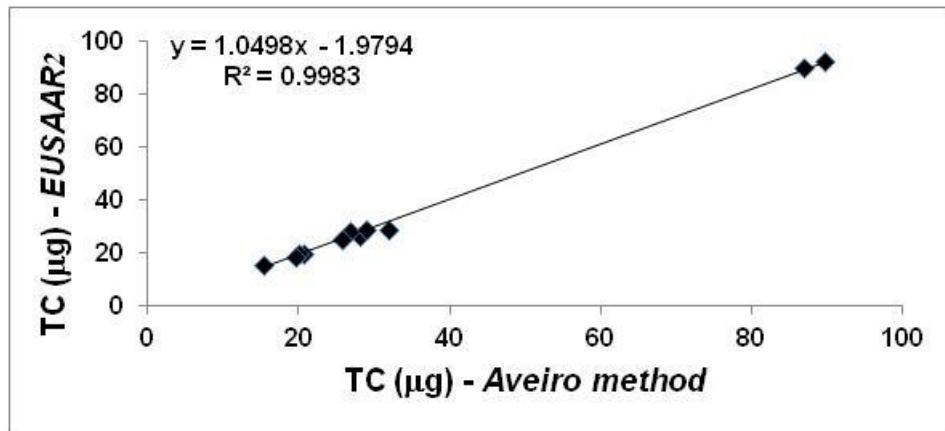
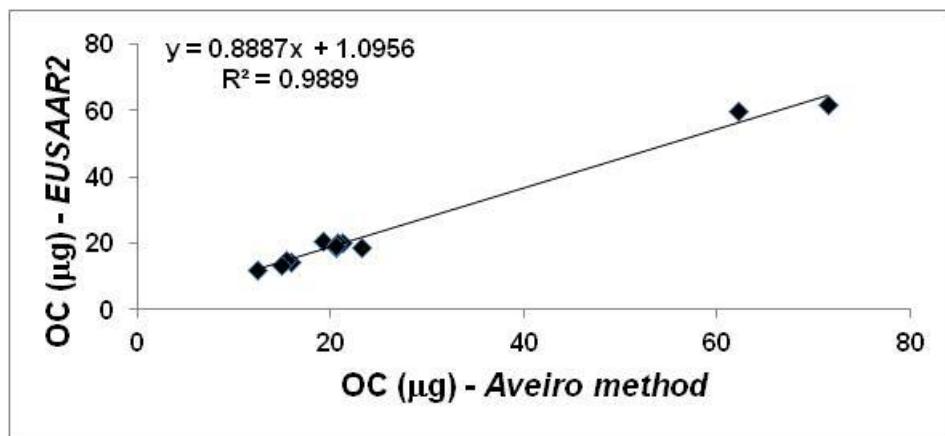


Figure S1. Correlation plots of EC concentrations measured with the thermo-optical method and simultaneously measured absorption coefficients with MAAP instruments at 6 study sites.

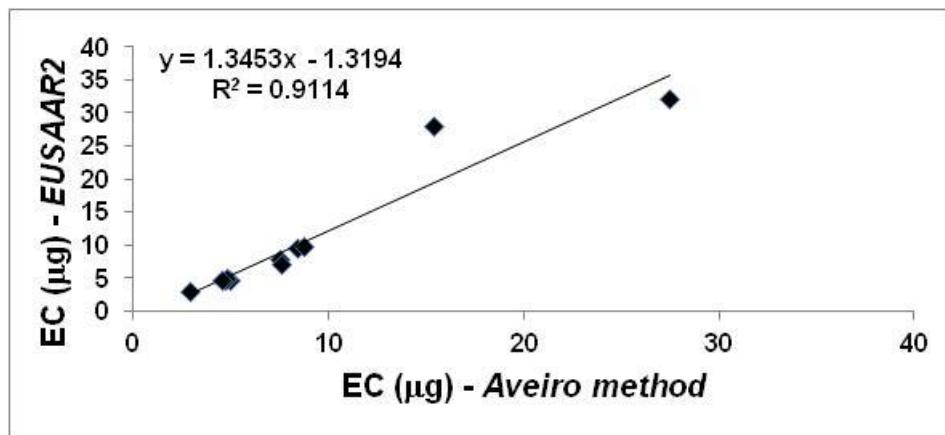
Figure S2. Intercomparison results for PM<sub>2.5</sub> urban aerosol samples for TC (a), OC (b) and EC (c) of the Aveiro University method and the EUSAAR2 thermal protocol



(a)



(b)



(c)