

## Supplement

Table S1. Seasonal and yearly coefficients of determination ( $R^2$ ) between the impactor and other instruments measuring of the  
5 PM10.

Correlations ( $R^2$ )

SHARP vs DMPS+APS	Year	<i>Winter</i>	<i>Spring</i>	<i>Summer</i>	<i>Autumn</i>	<i>Whole Year</i>
-------------------	------	---------------	---------------	---------------	---------------	-------------------

2012		0.98	0.87	0.85	0.93	0.87
2013		0.99	0.94	0.95	0.98	0.96
2014		0.93	0.94	0.97	0.89	0.93
2015		0.90	0.95	0.98	0.88	0.94
2016		0.96	0.89	0.96	0.96	0.91
2017		0.98	0.88	0.85	0.96	0.93

SHARP vs Impactor	Year	<i>Winter</i>	<i>Spring</i>	<i>Summer</i>	<i>Autumn</i>	<i>Whole Year</i>
-------------------	------	---------------	---------------	---------------	---------------	-------------------

2012		0.84	0.83	0.50	0.82	0.74
2013		0.91	0.48	0.84	0.94	0.83
2014		0.89	0.80	0.78	0.92	0.86
2015		0.70	0.89	0.37	0.90	0.81
2016		0.47	0.62	0.16	0.92	0.57
2017		0.84	0.86	0.72	0.77	0.81

DMPS+APS vs Impactor	Year	<i>Winter</i>	<i>Spring</i>	<i>Summer</i>	<i>Autumn</i>	<i>Whole Year</i>
----------------------	------	---------------	---------------	---------------	---------------	-------------------

2004					0.95	0.89
2005		0.95	0.85	0.81	0.92	0.85
2006		0.84	0.78	0.76	0.82	0.77

2007	0.95	0.90	0.83	0.90	0.88
2008	0.90	0.88	0.89	0.83	0.85
2009	0.96	0.93	0.72	0.87	0.88
2010	0.89	0.79	0.70	0.84	0.74
2011	0.85	0.86	0.67	0.92	0.83
2012	0.83	0.67	0.49	0.93	0.65
2013	0.91	0.57	0.79	0.94	0.82
2014	0.85	0.79	0.77	0.74	0.78
2015	0.85	0.89	0.31	0.93	0.86
2016	0.55	0.66	0.13	0.93	0.55
2017	0.89	0.83	0.74	0.69	0.81