

Supplement of

Development and application of a mass closure PM_{2.5} composition online monitoring system

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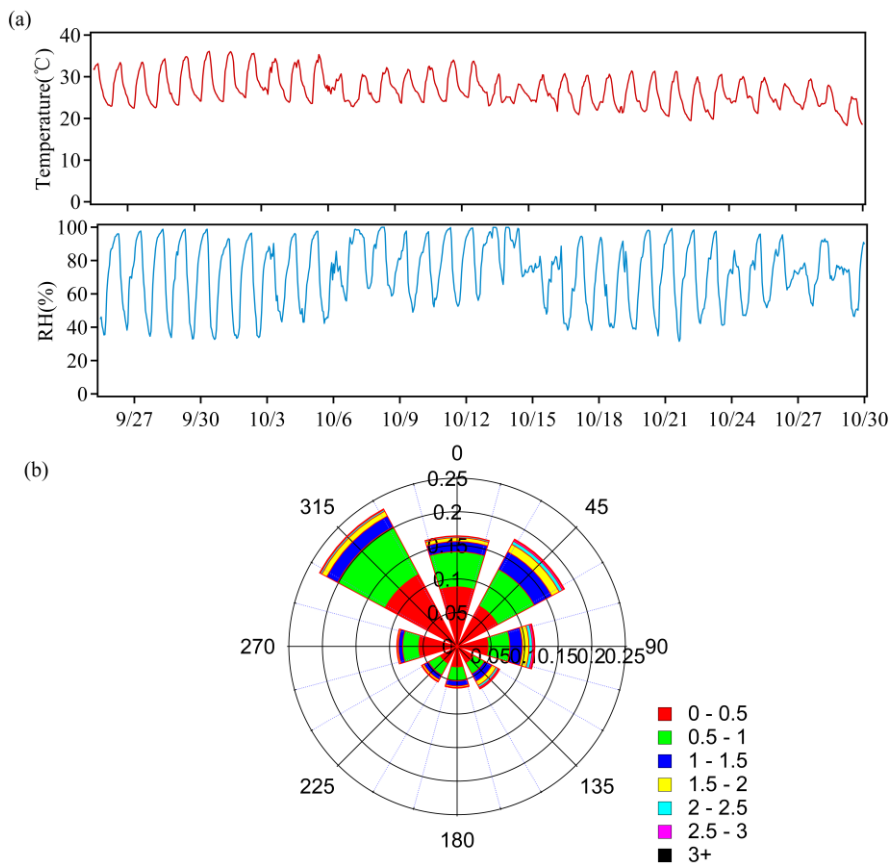


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Figure S1. The picture of the online integrated system.



Figure S2. A partial screenshot of the data analysis platform.



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Figure S3. Meteorological conditions during sampling campaign: temperature and relative humidity (a), and wind roses (b).

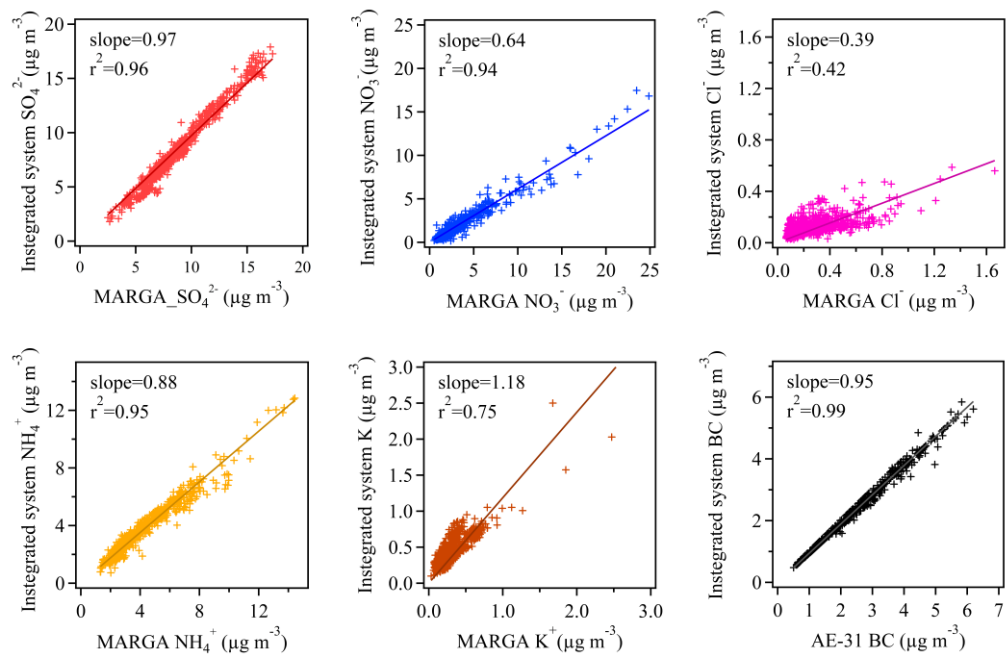
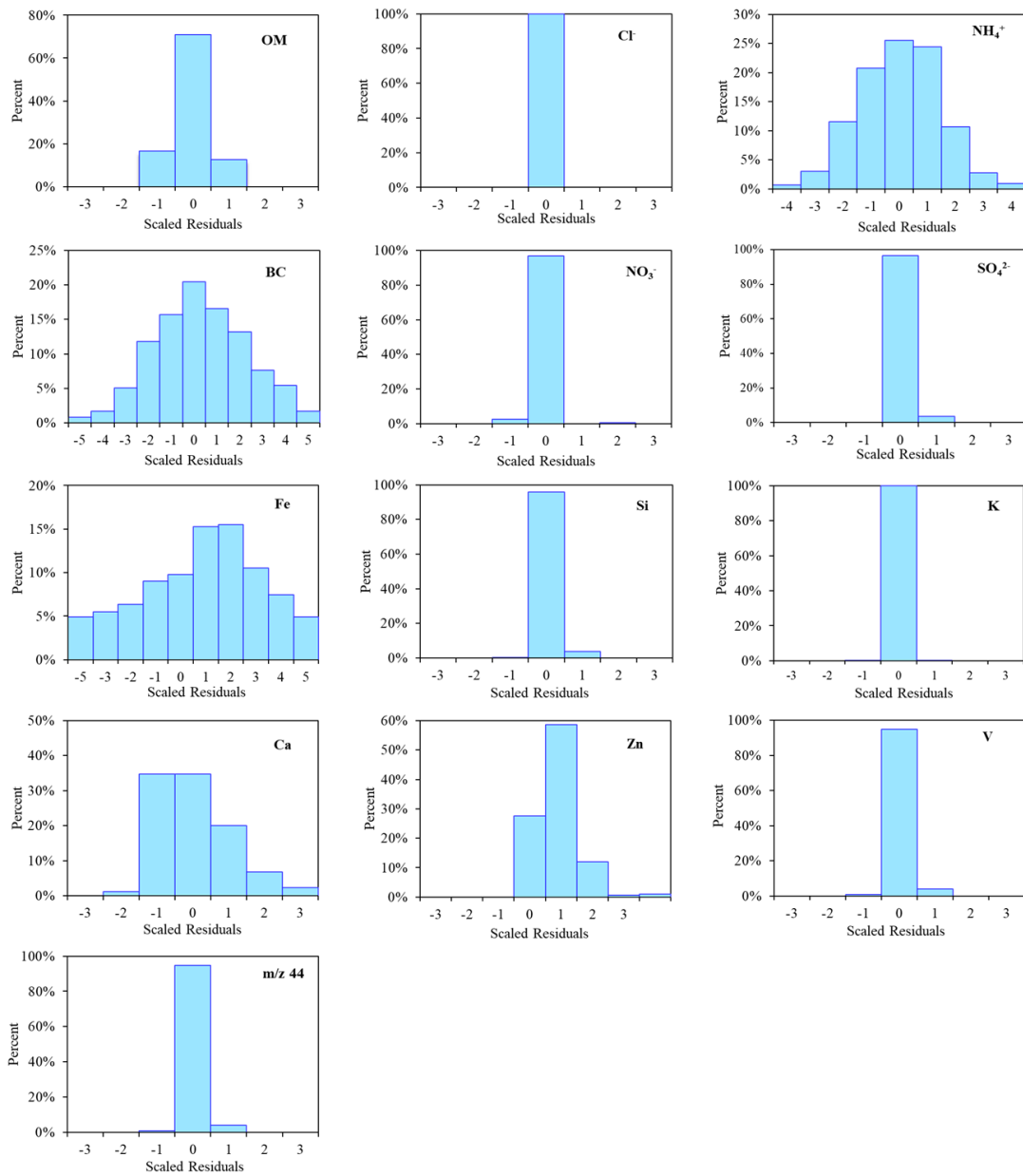


Figure S4. Scatter plots with the linear regression parameters among online integrated system and other instruments.



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Figure S5. The scaled residuals of species output by ME-2.

Table S1. The concentrations of PM2.5 and chemical species during the sampling campaign.

	Species	Average concentration	Standard deviation
Organic ($\mu\text{g m}^{-3}$)	organic matter	14.1	7.4
Inorganic ions ($\mu\text{g m}^{-3}$)	SO_4^{2-}	8.6	3.3
	NO_3^-	1.8	1.9
	NH_4^+	3.8	1.7
	Cl^-	0.1	0.07
	BC	2.1	1.0
Trace elements (ng m^{-3})	Si	380.6	185.0
	K	443.9	269.1
	Ca	103.0	53.8
	Ti	14.4	8.2
	V	3.2	2.3
	Cr	2.9	2.0
	Mn	24.3	13.0
	Fe	288.7	132.2
	Co	0.03	0.1
	Ni	2.9	1.3
	Cu	11.3	7.7
	Zn	102.2	60.9
	As	5.8	4.7
	Se	2.2	1.2
	Mo	0.5	0.5
	Cd	7.3	3.2
	Sn	19.8	8.3
	Sb	28.0	10.2
	Ba	3.9	7.4
	Hg	1.9	0.7
Pb	18.6	9.5	