Article

Characteristics of $PM_{2.5}$ at a High-Altitude Remote Site in the Southeastern Margin of the Tibetan Plateau in Premonsoon Season

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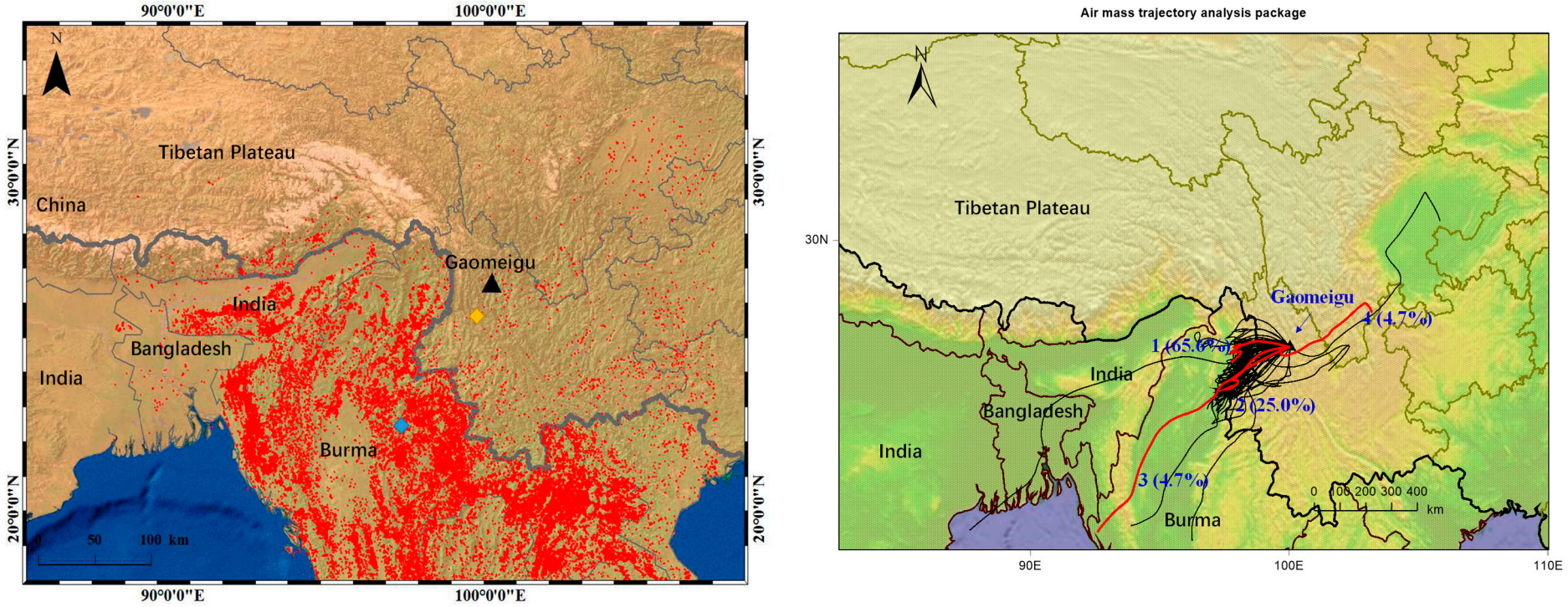
Contents of this file



(a) (b)

Figure S1. (**a**) Fire counts map over the sampling site and surrounding areas during the campaign which was drawn from Wang et al. [1]. (**b**) Cluster analysis of the three-day air mass back trajectories at Gaomeigu based on each day back trajectory during the sampling periods by using the HYSPLIT model. The blue and yellow diamonds in S1(a) represented the locations of two super-giant Pb-Zn deposits in Burma and Yunnan, Province, China, respectively

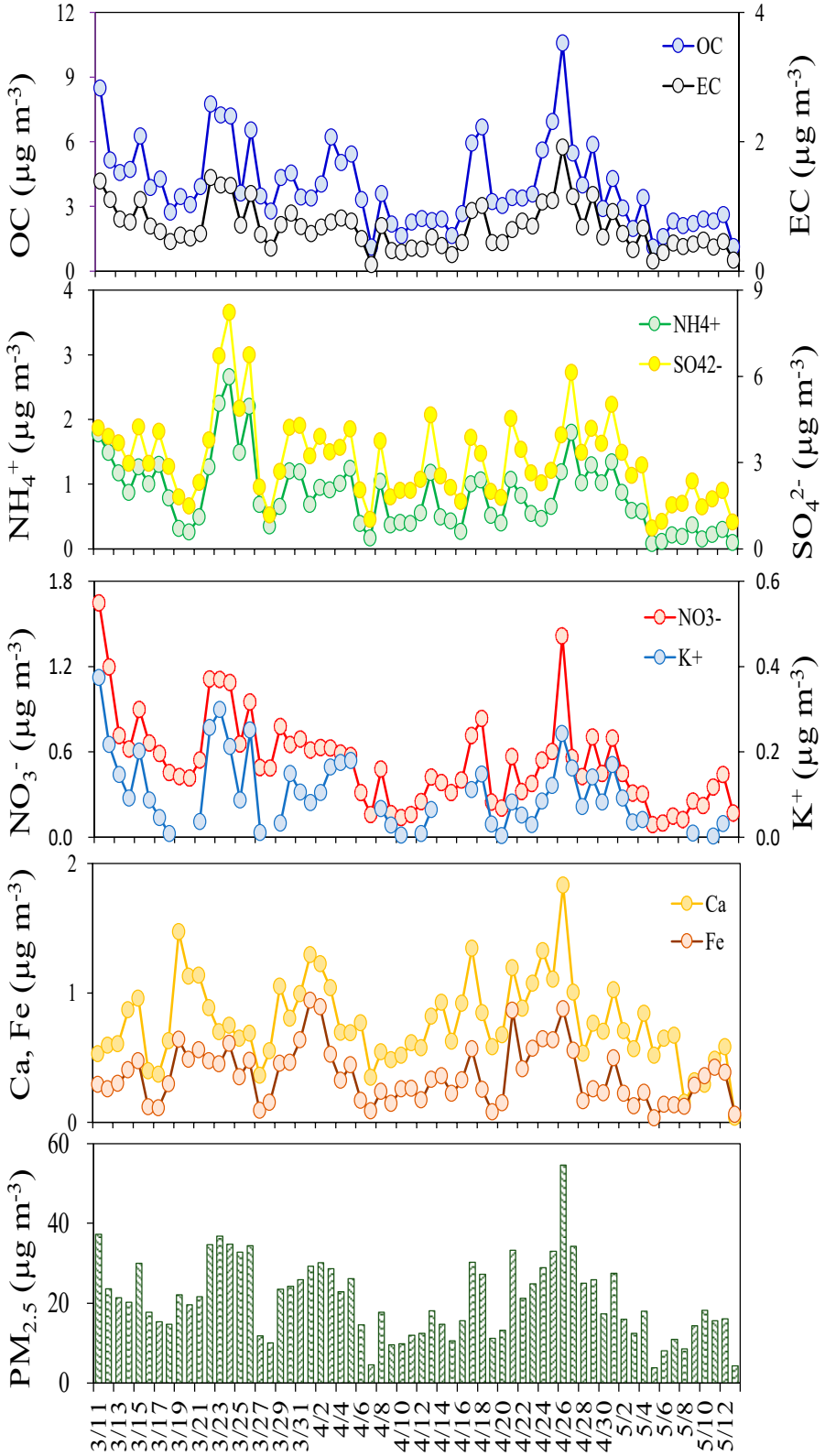


Figure 2. Temporal variations of analyzed chemical species in $PM_{2.5}$ from Gaomeigu (11th March to 13th May 2018).

atmosphere

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Table 1. Pearson correlation coefficients (r^2) for different chemical species at Gaomeigu during the sampling time.

	$PM_{2.5}$	Char-EC	Soot-EC	POC	SOC	NO_3^-	SO_4^{2-}	NH_4^+	K^+	Ca^{2+}	Mg^{2+}	Mn	Fe	Cu	As	Pb	Zn	Br
$PM_{2.5}$	1																	
Char-EC	**0.76**	1																
Soot-EC	0.35	0.13	1															
POC	**0.84**	**0.96**	0.28	1														
SOC	0.29	0.27	0.06	0.28	1													
NO_3^-	**0.66**	**0.84**	0.07	**0.79**	0.30	1												
SO_4^{2-}	**0.52**	**0.58**	0.01	**0.52**	0.05	**0.47**	1											
NH_4^+	**0.50**	**0.58**	0.00	**0.59**	0.10	**0.61**	**0.94**	1										
K^+	**0.57**	**0.84**	0.01	**0.74**	0.22	**0.79**	**0.47**	**0.62**	1									
Ca^{2+}	**0.58**	0.36	**0.47**	0.47	0.26	0.35	0.15	0.12	0.25	1								
Mg^{2+}	0.07	0.03	0.19	0.06	0.01	0.02	0.01	0.00	0.00	0.32	1							
Mn	**0.59**	0.29	0.33	0.37	0.14	0.31	0.30	0.21	0.22	**0.52**	0.05	1						
Fe	**0.52**	0.18	**0.42**	0.27	0.07	0.21	0.19	0.11	0.09	**0.52**	0.12	**0.88**	1					
Cu	0.00	0.01	0.02	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.04	0.00	0.00	1				
As	0.00	0.00	0.05	0.00	0.01	0.04	0.00	0.00	0.04	0.00	0.06	0.03	0.01	0.05	1			
Pb	0.36	0.36	0.02	0.33	0.01	0.26	**0.61**	**0.53**	0.23	0.14	0.00	0.29	0.25	0.00	0.00	1		
Zn	0.36	0.35	0.16	0.38	0.04	0.18	0.29	0.28	0.21	0.09	0.01	0.15	0.14	0.10	0.04	0.34	1	
Br	**0.65**	**0.71**	0.03	**0.65**	0.20	**0.68**	**0.84**	**0.85**	**0.67**	0.28	0.02	0.43	0.29	0.02	0.02	**0.53**	0.19	1

Bold numbers indicate significant correlations ($p < 0.001$).

Reference

1. Wang, Q.; Han, Y.; Ye, J.; Liu, S.; Pongpiachan, S.; Zhang, N.; Han, Y.; Tian, J.; Wu, C.; Long, X. et al. High contribution of secondary brown carbon to aerosol light absorption in the southeastern margin of tibetan plateau. *Geophys. Res. Lett.* **2019**, *46*, 4962–4970.