

Supplementary Materials: Characteristics of Particulate Carbon in Precipitation during the Rainy Season in Xiamen Island, China. *Atmosphere* 2016, 7, 140.

Shuhui Zhao, Liqi Chen, Jinpei Yan, Peng Shi, Yun Li and Wei Li

1. Air Mass Backward Trajectories

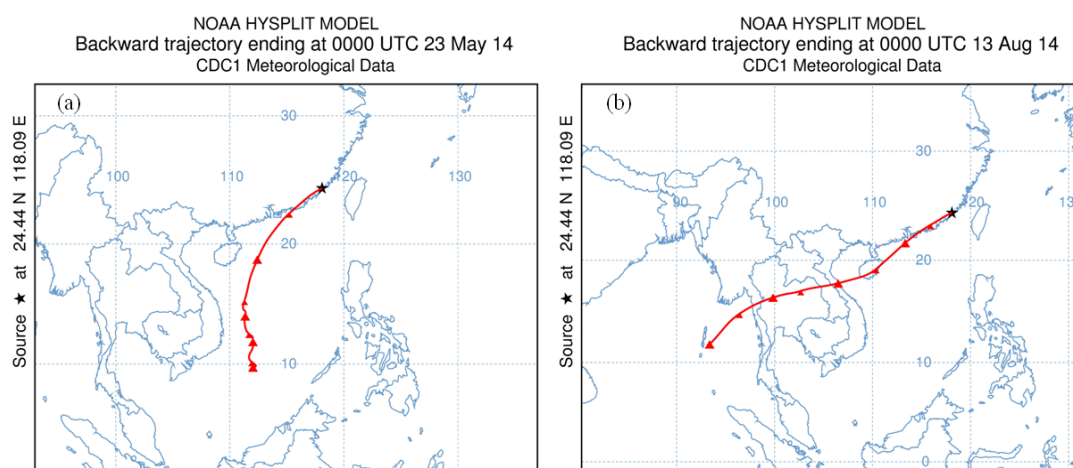


Figure S1. Daily backward trajectories arriving at the sampling site (a) on May 23 and (b) August 13.

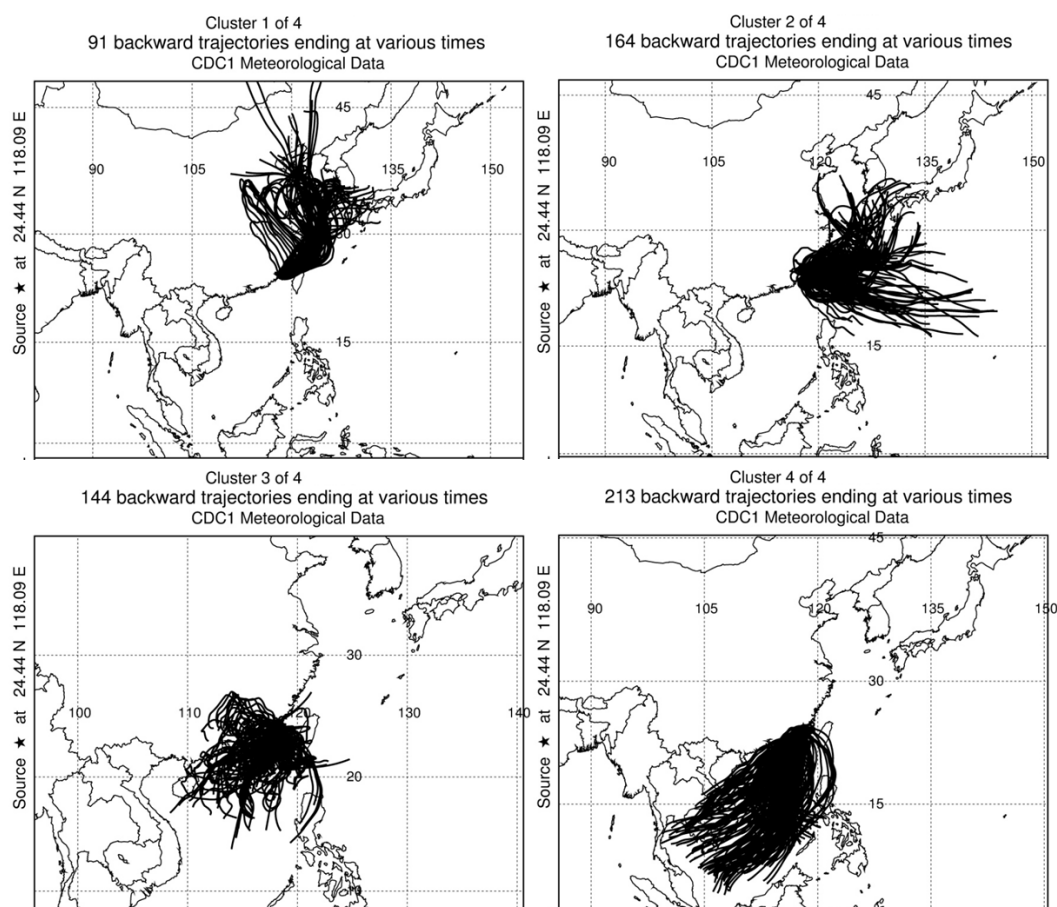


Figure S2. Four clusters of the air mass backward trajectories arriving at the sampling site, in which cluster 1 of 4 represents the trajectories of T₁, cluster 2 of 4 represents the trajectories of T₂, cluster 3 of 4 represents the trajectories of T₃, and cluster 4 of 4 represents the trajectories of T₄.

2. Black Carbon Concentrations in the Atmosphere

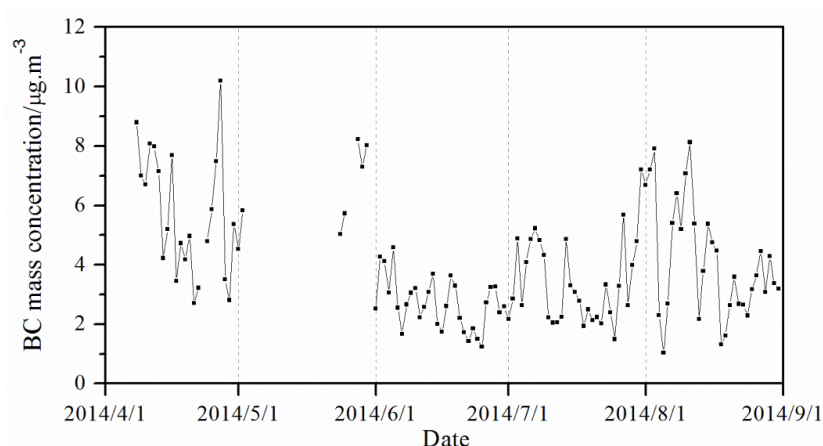


Figure S3. Time series of daily BC mass concentrations at Xiamen Island during the study period.

In this study, the aerosol samples were not collected simultaneously, so the EC, WIOC and WITC concentrations in the atmosphere cannot be compared with the concentration in precipitation. However, the black carbon (BC) concentrations at the study site were measured with a single-wavelength Aethalometer™ (Model AE-31, Magee Scientific, Berkeley, CA, USA) and a PM_{2.5} sampling inlet during the sampling period. BC is a subset of EC, and the use of EC and BC is typically defined by the analytical method used [1]. The Aethalometer measures the mass concentration of BC by measuring changes in light transmission through a quartz filter tape on which the particles were collected [2]. Although the measurement techniques were different, previous studies have proved that EC concentrations measured using the NIOSH 5040 protocol Sunset OC/EC analyzer correlated well with the BC concentrations analyzed with the Aethalometer [3,4]. Thus, the BC concentrations may somewhat reflect the EC concentrations in the atmosphere. Figure S3 shows the time series of daily BC mass concentrations at Xiamen Island during the study period (April–August 2014). With the exception of the limited data in May, it is clear that the BC concentrations were much higher in April than in the summer months. One possible reason for the higher EC concentrations in the spring precipitation may be due to the higher EC concentrations in the atmosphere during that time, especially in April.

References

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