

1 *Supporting Information*

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3 **Different physicochemical behaviors of nitrate and ammonium**
4 **during transport: a case study on Mt. Hua, China**

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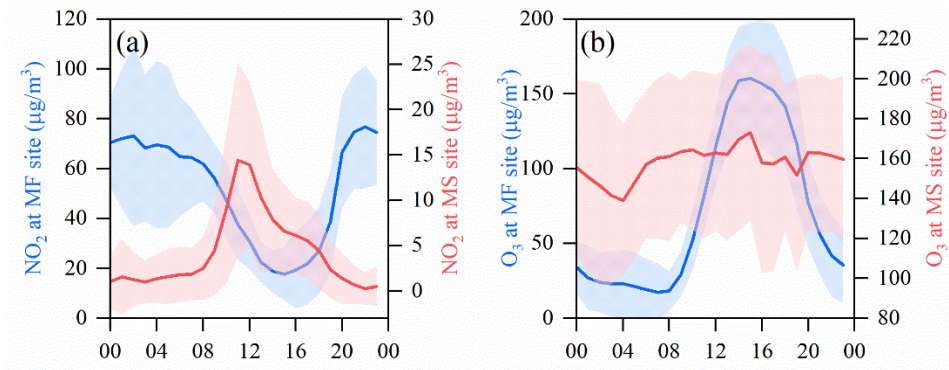
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20 ^a Now at The State University of New York at Stony Brook.

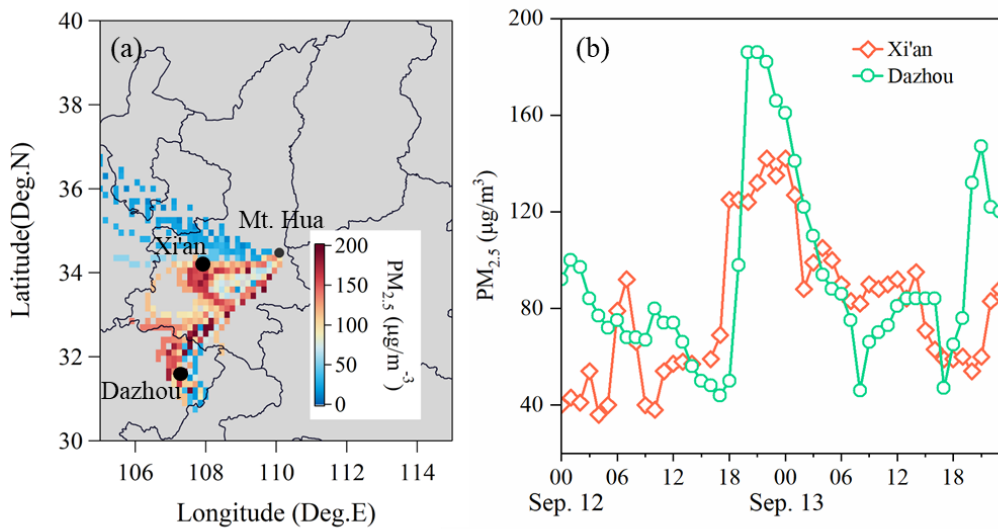
21 ^b Now at Institute for Environmental and Climate Research, Jinan University.

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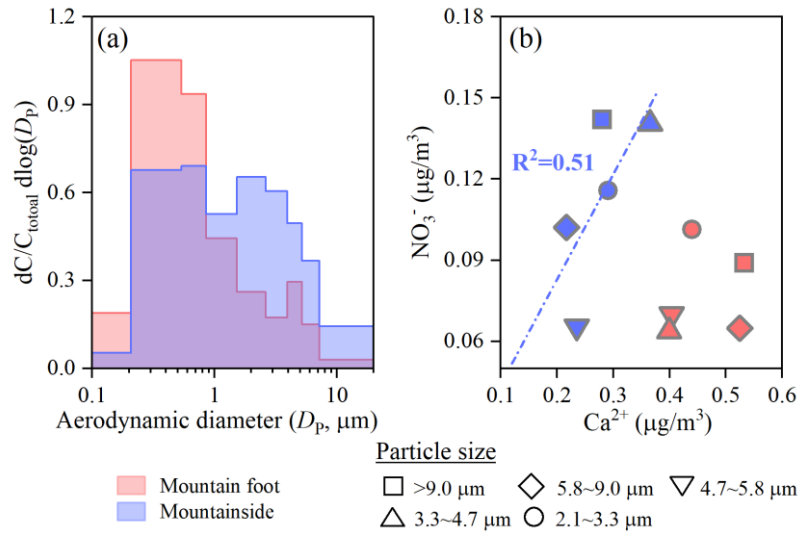
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 38 Figure S1 Diurnal variation of NO₂ and O₃ at mountain food (MF) and mountainside
 39 (MS) sites.

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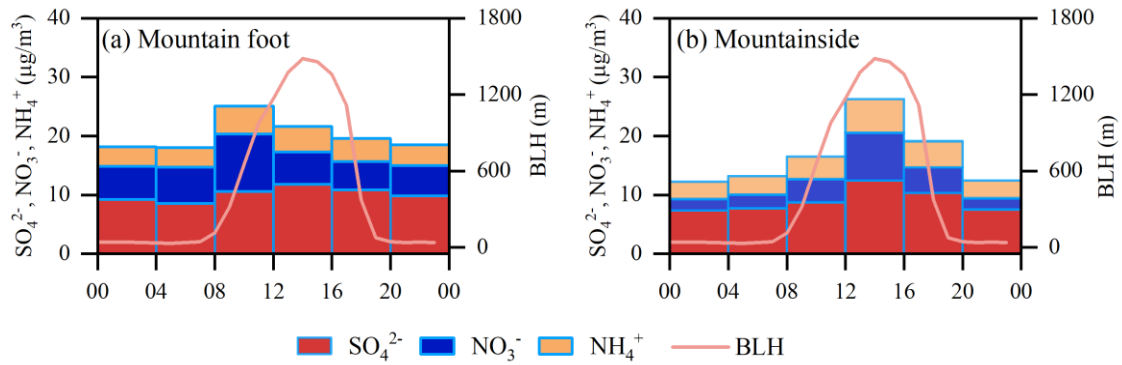
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 50 Figure S2 Concentration-weighted trajectory (CWT) analyses of PM_{2.5} during 12-13
 51 Sep. (a). Right panel shows the time series of hourly PM_{2.5} concentration at Xi'an and
 52 Dazhou (b). (The data of hourly PM_{2.5} concentration was downloaded from
 53 <https://www.zq12369.com/>).

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Figure S3 (a) Size distributions of NO_3^- at two sampling sites, (b) Linear fit regressions for NO_3^- and Ca^{2+} in the coarse mode.



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Figure S4 Diurnal variation of sulfate, nitrate and ammonium at mountain foot (MF) and mountainside (MS) sites.