

Influence of relative humidity on heterogeneous kinetics of NO_2 on kaolin and hematite

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Supporting information

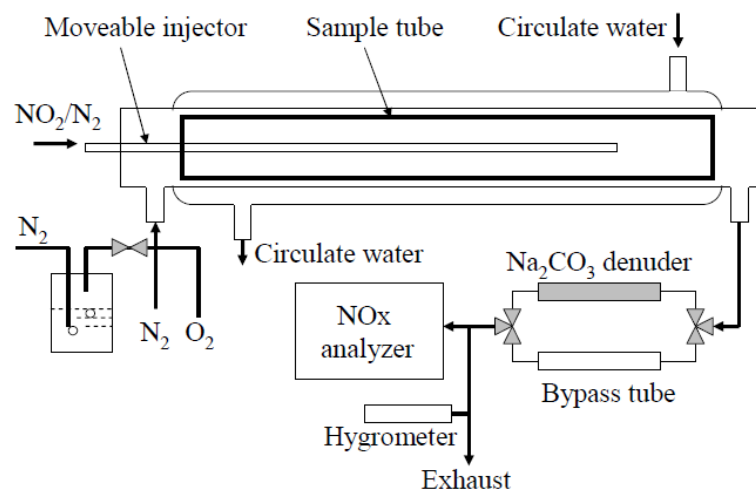


Figure S1. Diagram of the flow tube

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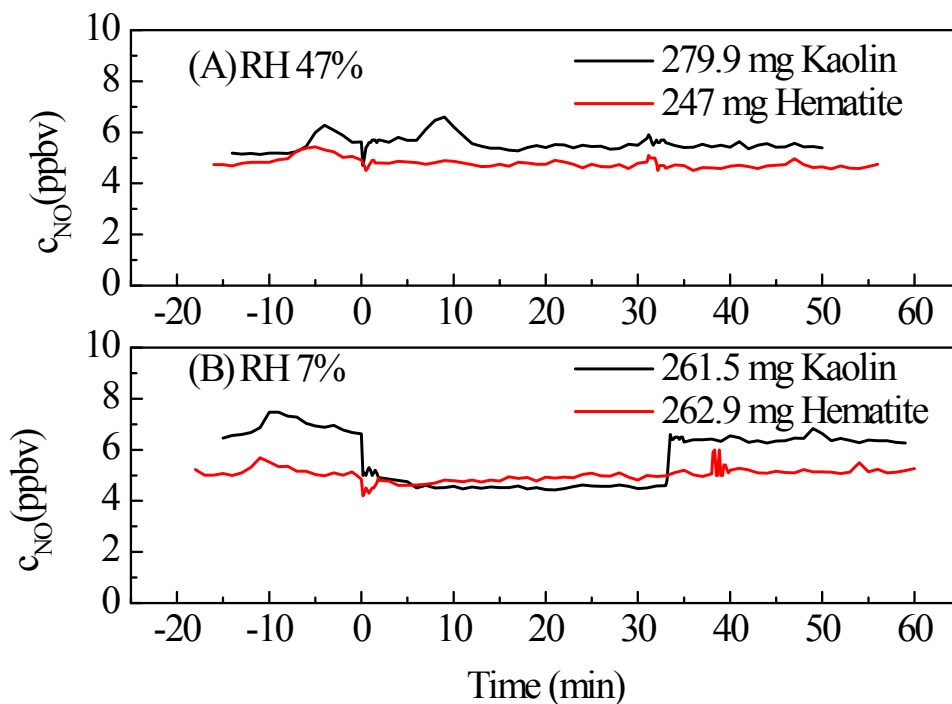


Figure S2. Evolution of NO concentrations with time during uptake of NO_2 on kaolin and hematite at RH of (A) 47 % and (B) 7 %. At other relative humidities, the signal responses of NO on both kaolin and hematite were similar to those shown in (A).

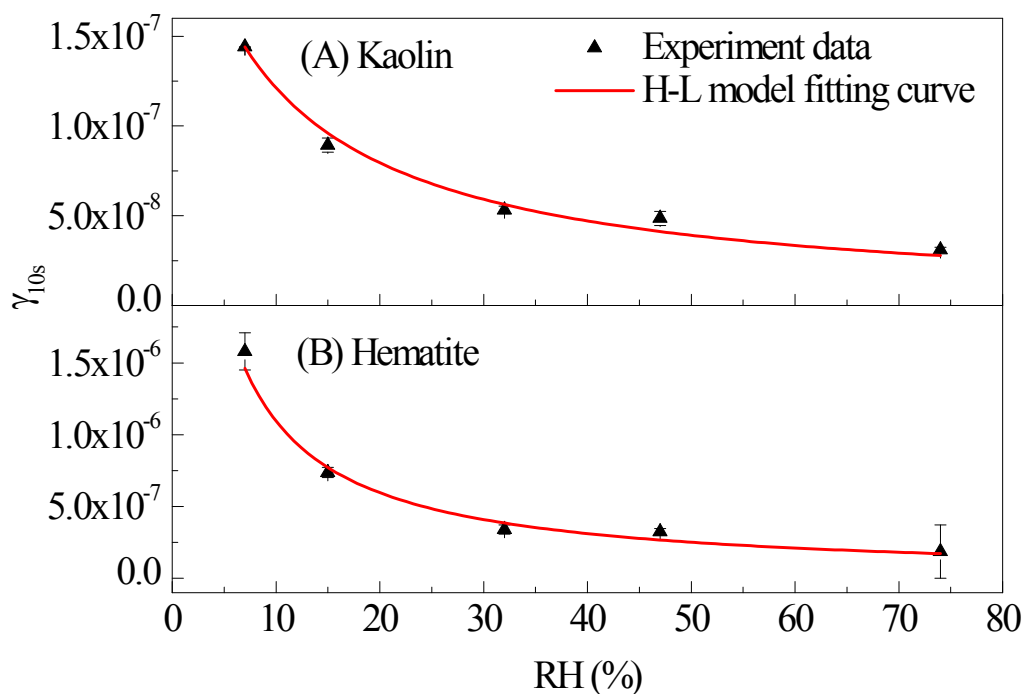


Figure S3. Modelling result assuming a Langmuir adsorption isotherm of water vapor and Langmuir-Hinshelwood reaction mechanism of NO_2 on the particles.

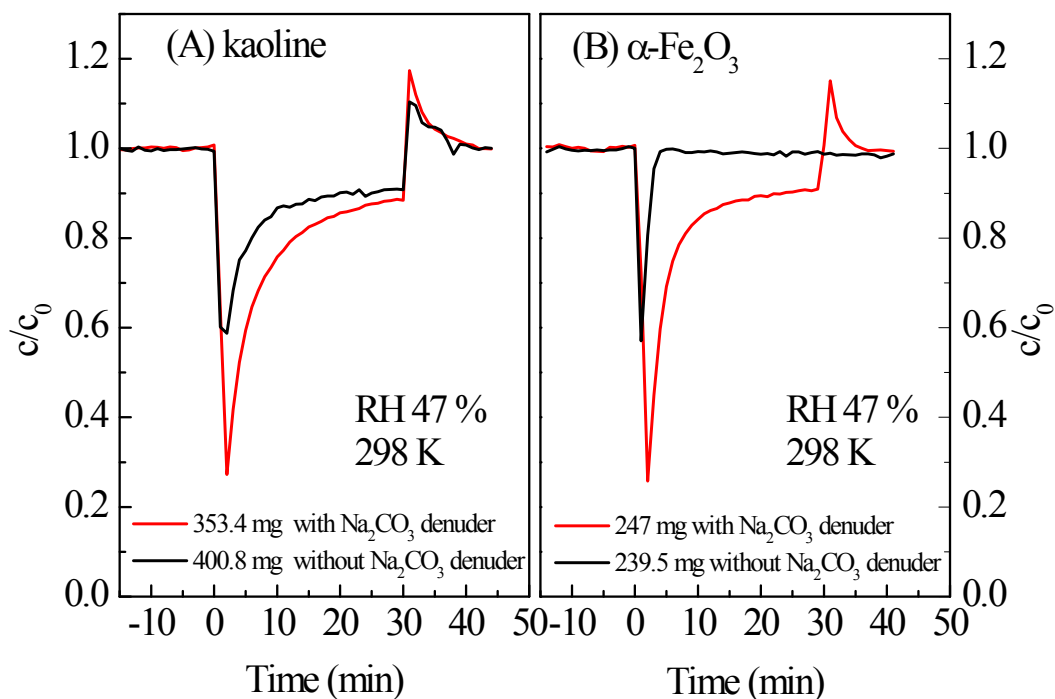


Figure S4. Comparison of the uptake curves of NO₂ with or without Na₂CO₃ denuder at 298 K and at 47 % of RH. The time resolution is 1 min.

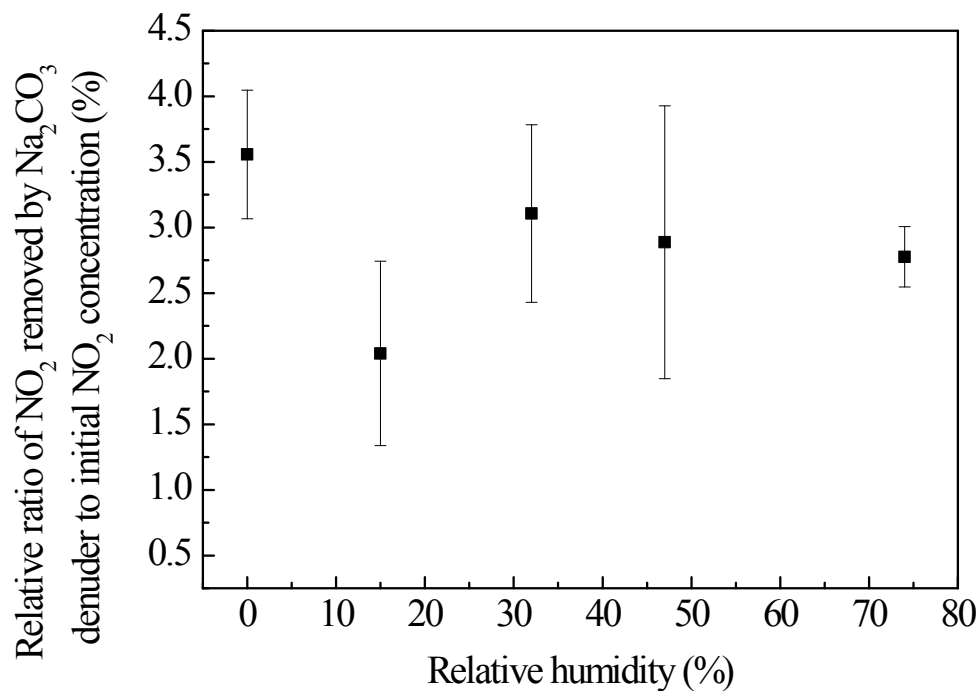


Figure S5. The relative ratio of NO₂ removed by Na₂CO₃ denuder to the initial NO₂

concentration at different RH.

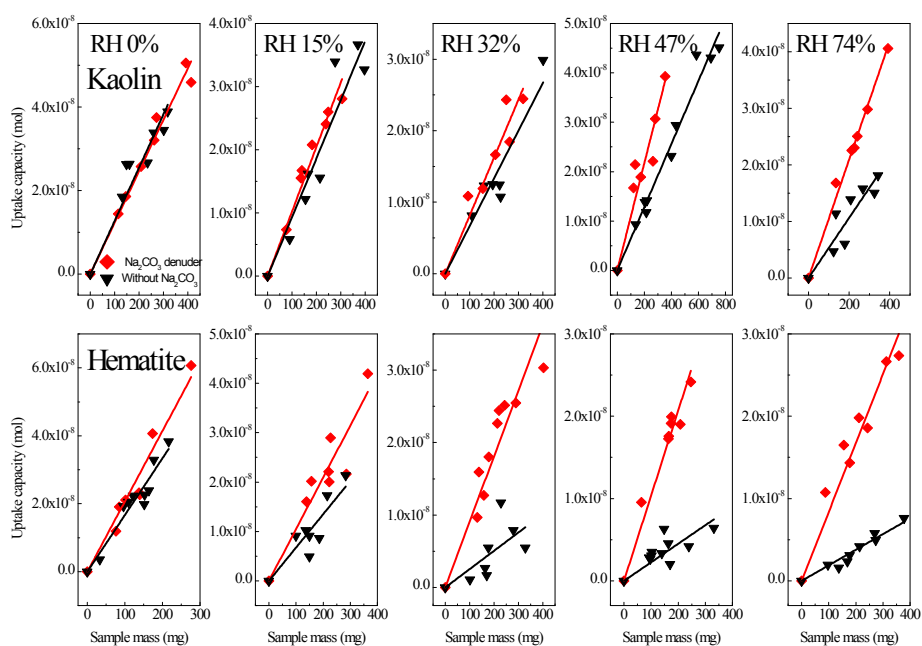


Figure S6. Linear mass dependence for integrated uptake capacity of NO_2 within 30 min on kaolin and hematite at 298 K. The first row is for kaolin and the second row is for hematite.