

Supporting information

A New Ion Exchange Adsorption Mechanism between Carbonate Groups and Fluoride Ions of Basic Aluminum Carbonate Nanospheres

5 Fang Wei, Changyan Cao,* Peipei Huang and Weiguo Song*

Beijing National Laboratory for Molecular Science(BNLMS), Laboratory of Molecular Nanostructures and Nanotechnology, Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100190, P. R. China. Fax: (+86)10-62557908; Tel: (+86)10-62557908;

10 E-mail: cycavo@iccas.ac.cn, wsong@iccas.ac.cn

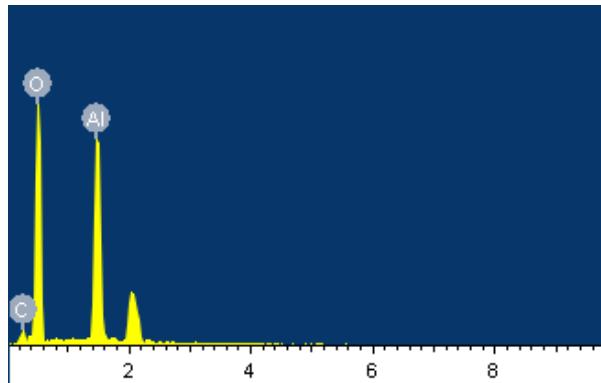
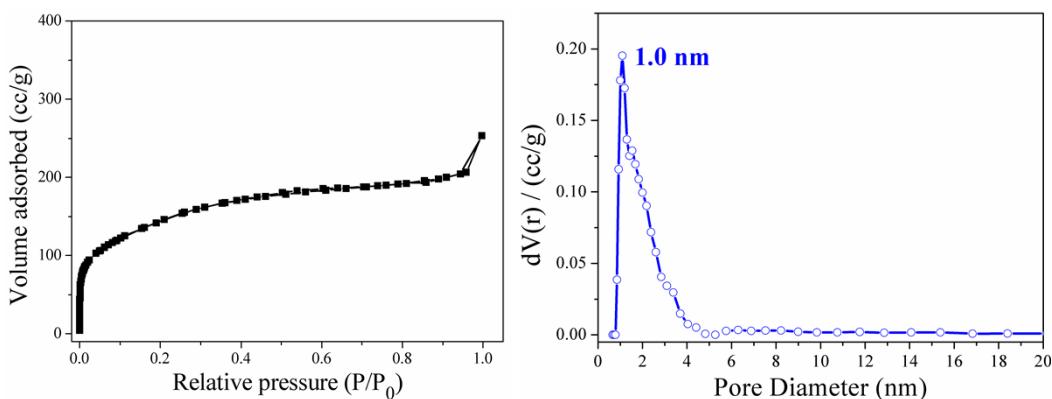


Fig. S1 EDS spectrum of $\text{Al}(\text{OH})\text{CO}_3$ nanospheres.



15

Fig. S2 N_2 adsorption-desorption and pore size distribution isotherms of $\text{Al}(\text{OH})\text{CO}_3$ nanospheres.

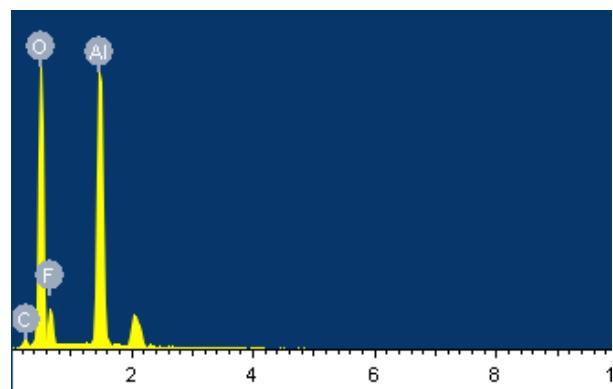
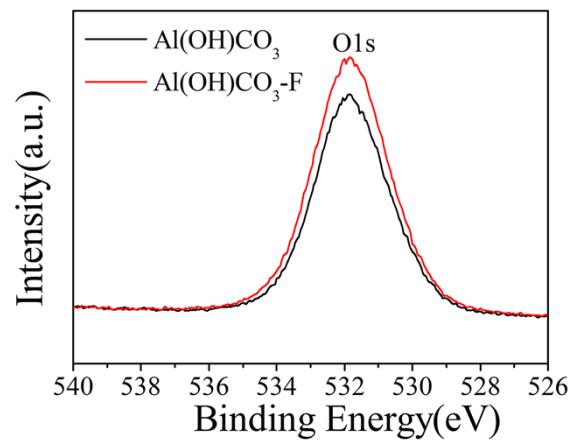


Fig. S3 EDS spectrum of $\text{Al}(\text{OH})\text{CO}_3$ nanospheres after adsorption of fluoride ions.



5

Fig. S4 O1s spectra of $\text{Al}(\text{OH})\text{CO}_3$ nanospheres before and after adsorption of fluoride ions.