

Supplementary Material

# Growth Study of Hierarchical Pore SSZ-13 Molecular Sieves with Improved CO<sub>2</sub> Adsorption Performance

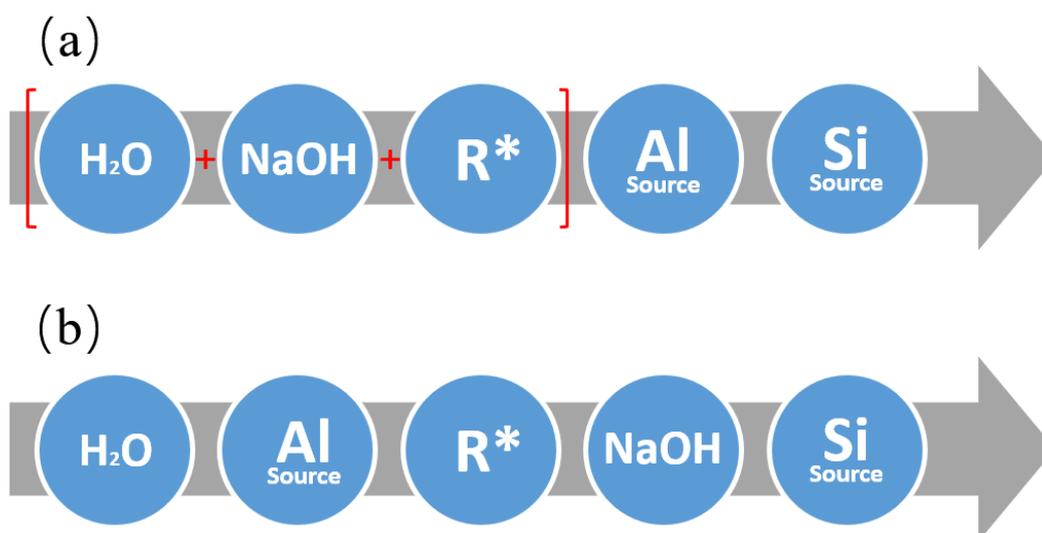
Runlin Han <sup>1,2,\*</sup>, Yuxuan Tao <sup>2</sup> and Liang Zhou <sup>2,3\*</sup>

<sup>1</sup> School of Chemistry and Chemical Engineering, Jingtangshan University, Ji'an 343009, China

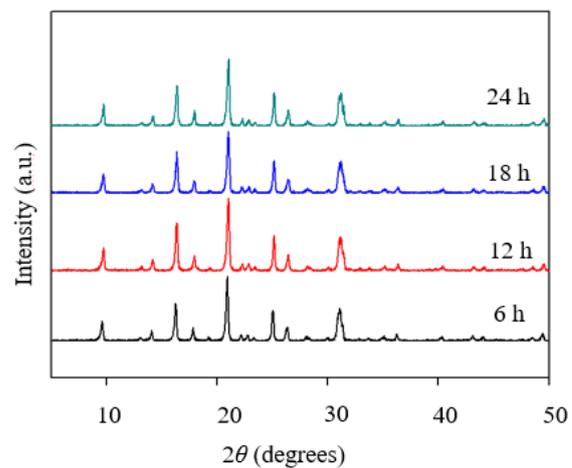
<sup>2</sup> School of Chemical Engineering, Dalian University of Technology, Dalian 116024, China; tyxlogo@163.com

<sup>3</sup> Jiangsu Province Key laboratory of Fine Petrochemical Engineering, Changzhou University, Changzhou 213164, China

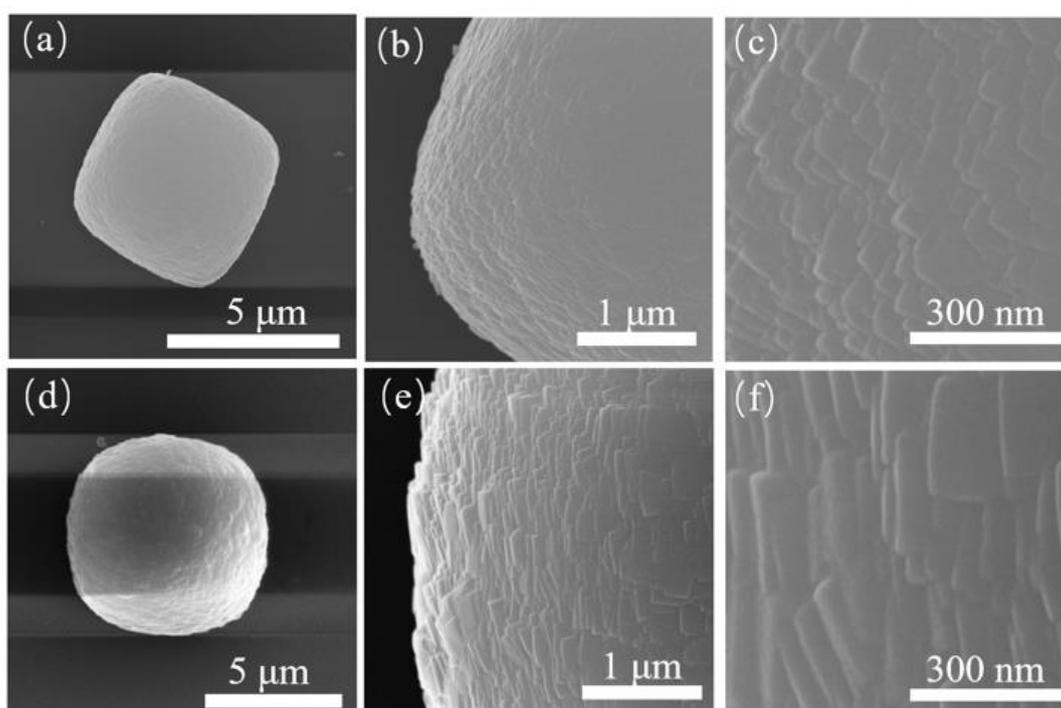
\* Correspondence: author. hanrunlin@163.com (R.H.); zhouliang@dlut.edu.cn (L.Z.); Tel.: +86-4272631851 (R.H.)



Scheme S1. (a) Material addition order through conventional method, (b) Optimized material addition order.



**Figure S1.** XRD spectra of samples S-6, S-9, S-10, and S-11.



**Figure S2.** SEM diagrams of S-6 (a-c) and S-9 (d-f).

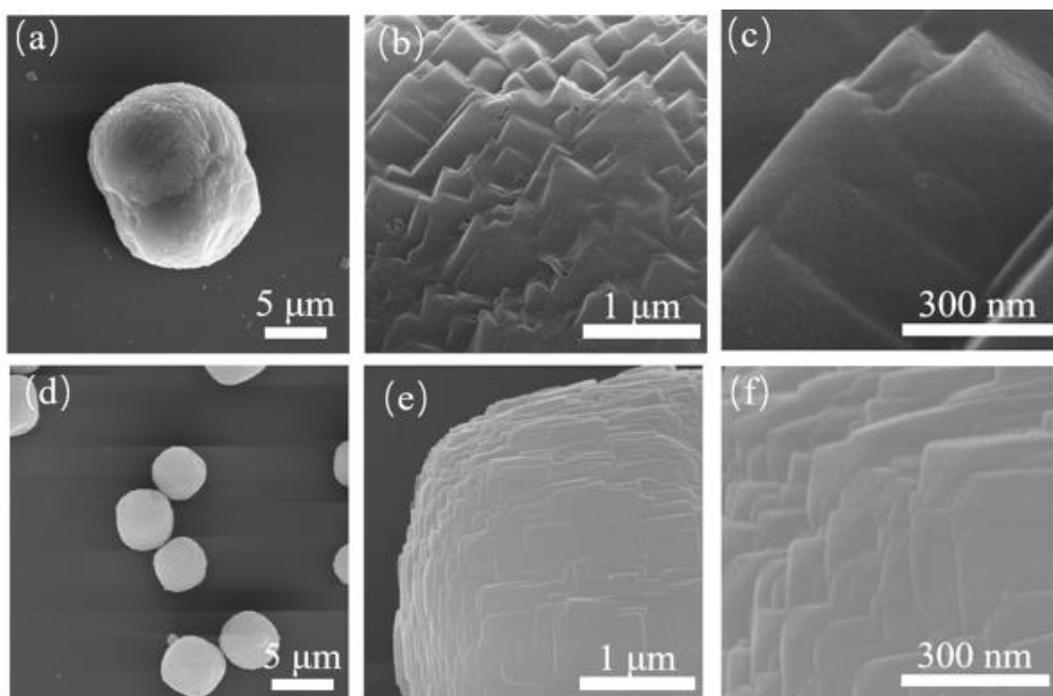


Figure S3. SEM diagrams of S-10 (a-c) and S-11 (d-f).

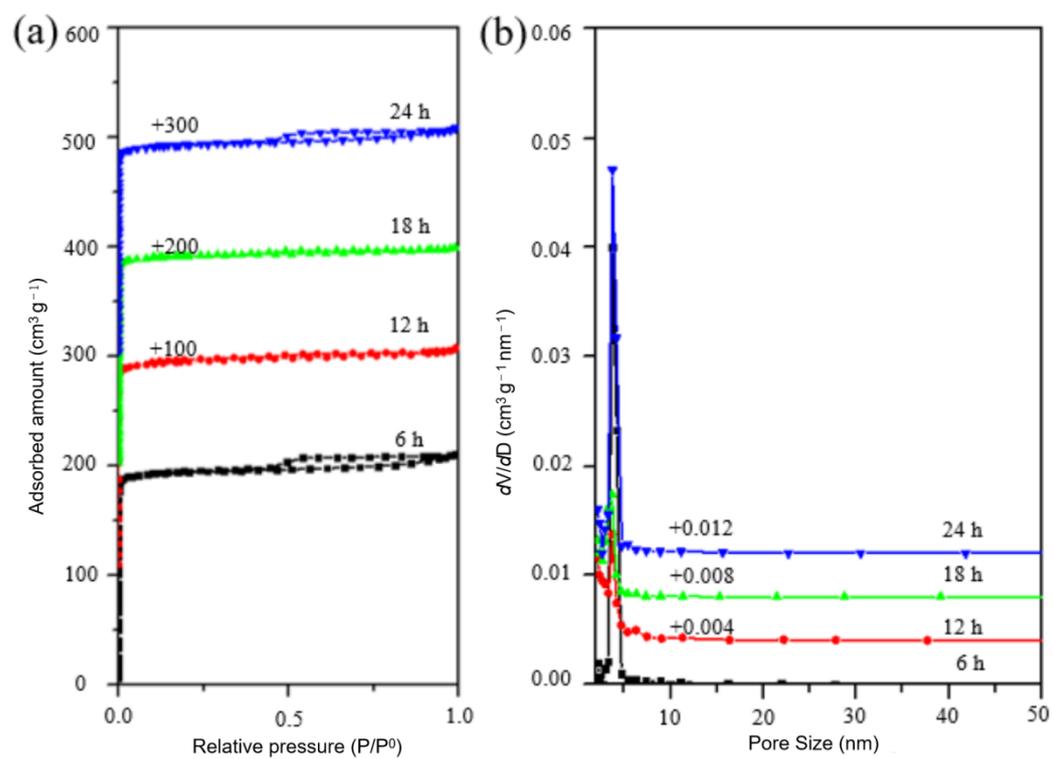


Figure S4. (a) N<sub>2</sub> adsorption isotherm (b) pore size distribution of sample S-6, S-9, S-10, and S-11.

**Table S1.** N<sub>2</sub> physical adsorption data of S-6, S-9, S-10, S-11.

Sample	S <sub>BET</sub> (m <sup>2</sup> /g)	Total Pore Volume <sup>1,3</sup> (ml/g)	Mesoporous Volume <sup>2</sup> (cm <sup>3</sup> /g)	Micropore Volume <sup>1</sup> (cm <sup>3</sup> /g)	Desorption Cumulative Surface area (m <sup>2</sup> /g)
S-6	643.67	0.33	0.04	0.29	34.41
S-9	650.67	0.32	0.03	0.29	21.69
S-10	637.68	0.31	0.02	0.28	17.94
S-11	641.87	0.32	0.04	0.28	31.77

<sup>1</sup> Calculated with t-plot method

<sup>2</sup> Calculated with BJH method

<sup>3</sup> P/P<sup>0</sup> = 0.9904, 0.9909, 0.9895, 0.9905.