Supporting information:

Controllable preparation and structures of two zinc phosphonocarboxylate frameworks with MER and RHO zeolitic topologies

Mingli Deng, Xiaofeng Liu, Qingshu Zheng, Zhenxia Chen,* Changye Fang, Bin Yue and Heyong He*

*To whom correspondence should be addressed. *Email:* † <u>zhxchen@fudan.edu.cn</u>, heyonghe@fudan.edu.cn

Department of Chemistry and Shanghai Key Laboratory of Molecular Catalysis and Innovative Materials, Fudan University, Shanghai 200433, P. R. China.



Figure S1. PXRD patterns of the structure **1**. (a) The simulated one based on the single crystal structure, (b) as-synthesized sample, and calcined samples at (c) 90 $^{\circ}$ C, (d) 150 $^{\circ}$ C and (e) 200 $^{\circ}$ C.



Figure S2. PXRD patterns of the structure **2**. (a) The simulated one based on the single crystal structure, (b) as-synthesized sample.



Figure S3. TGA curve of as-synthesized compounds 1 and 2.