Supporting Information

Ultradeep Removal of Moisture in Gases to Parts-per-Billion Levels: The Exploration of Adsorbents

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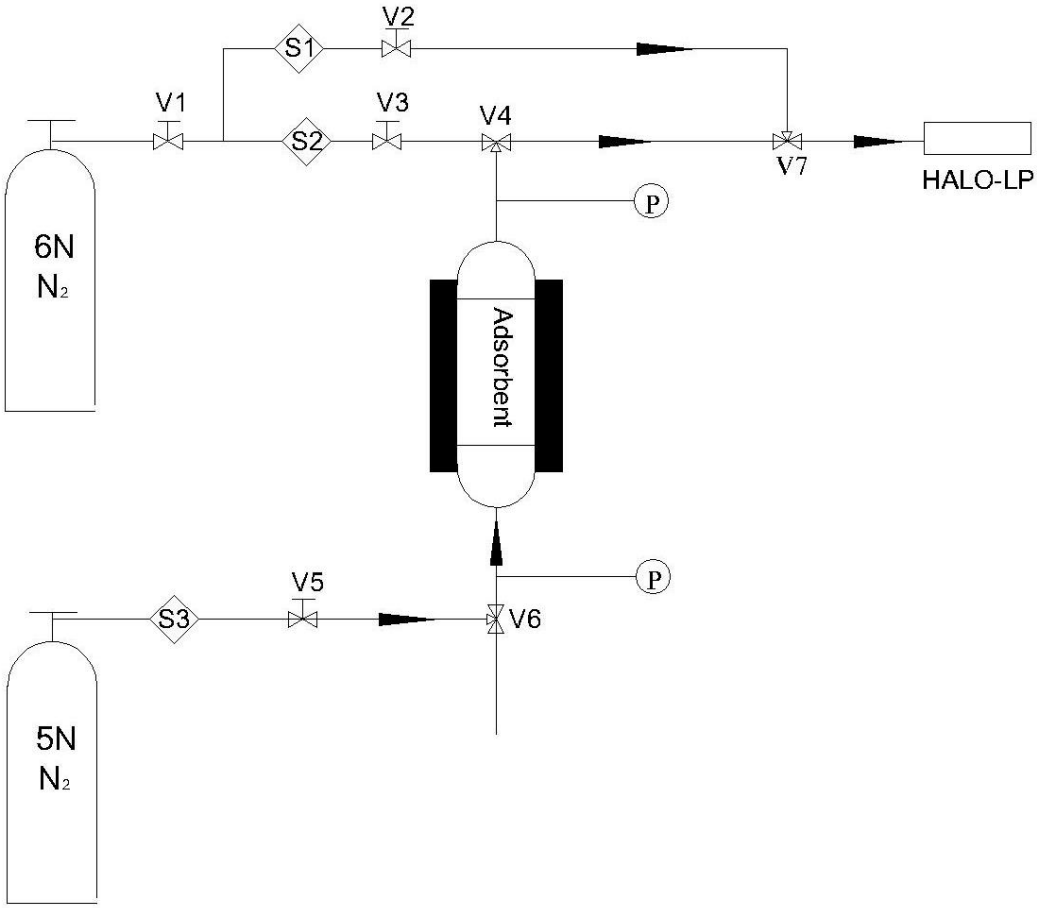

Figure S1. The device of testing the ability of ultra-deep dewatering of adsorbents.

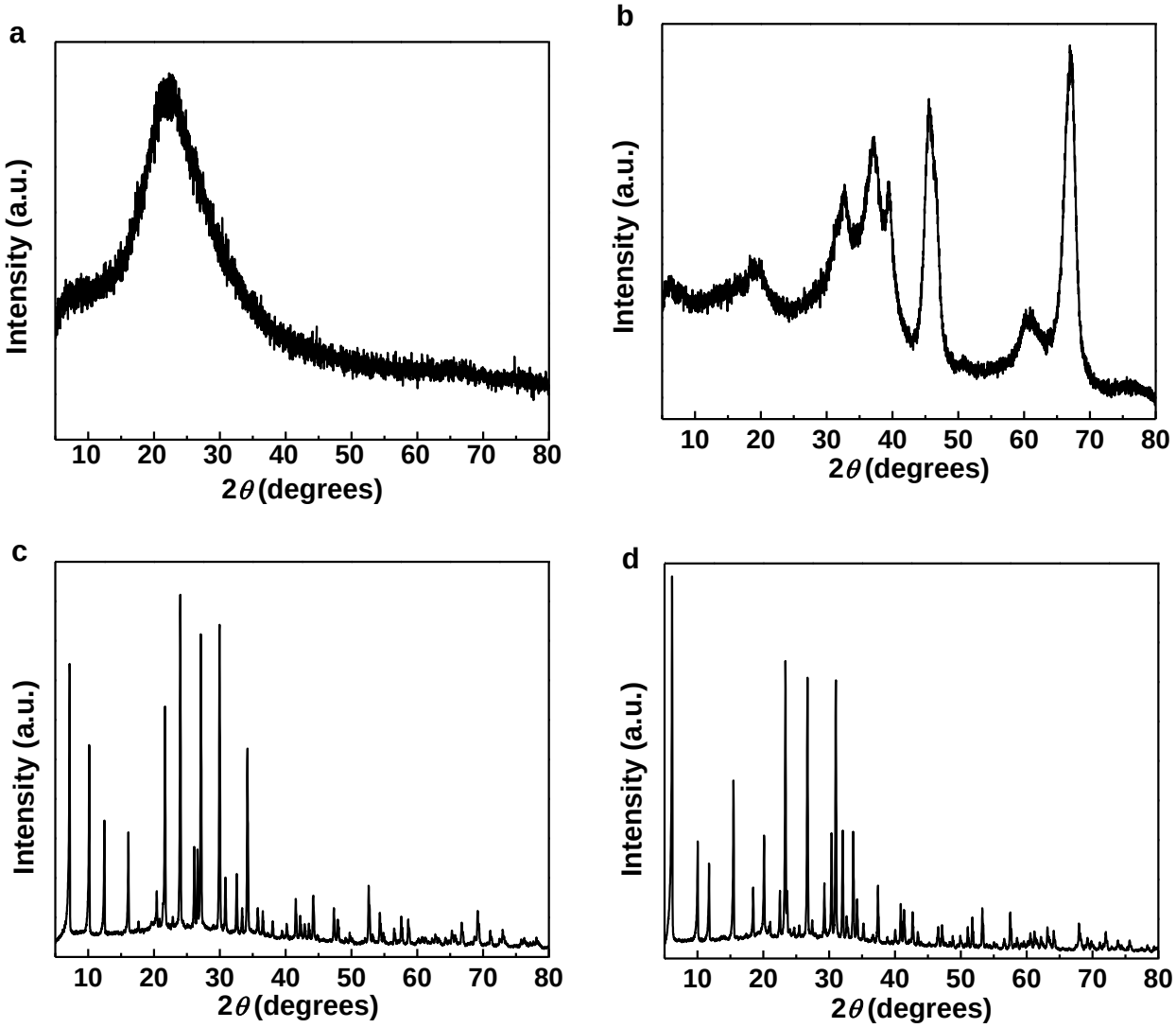

Figure S2. XRD patterns of (a) SiO_2, (b) γ-Al_2O_3, (c) 4A zeolite, and (d) NaX zeolite.

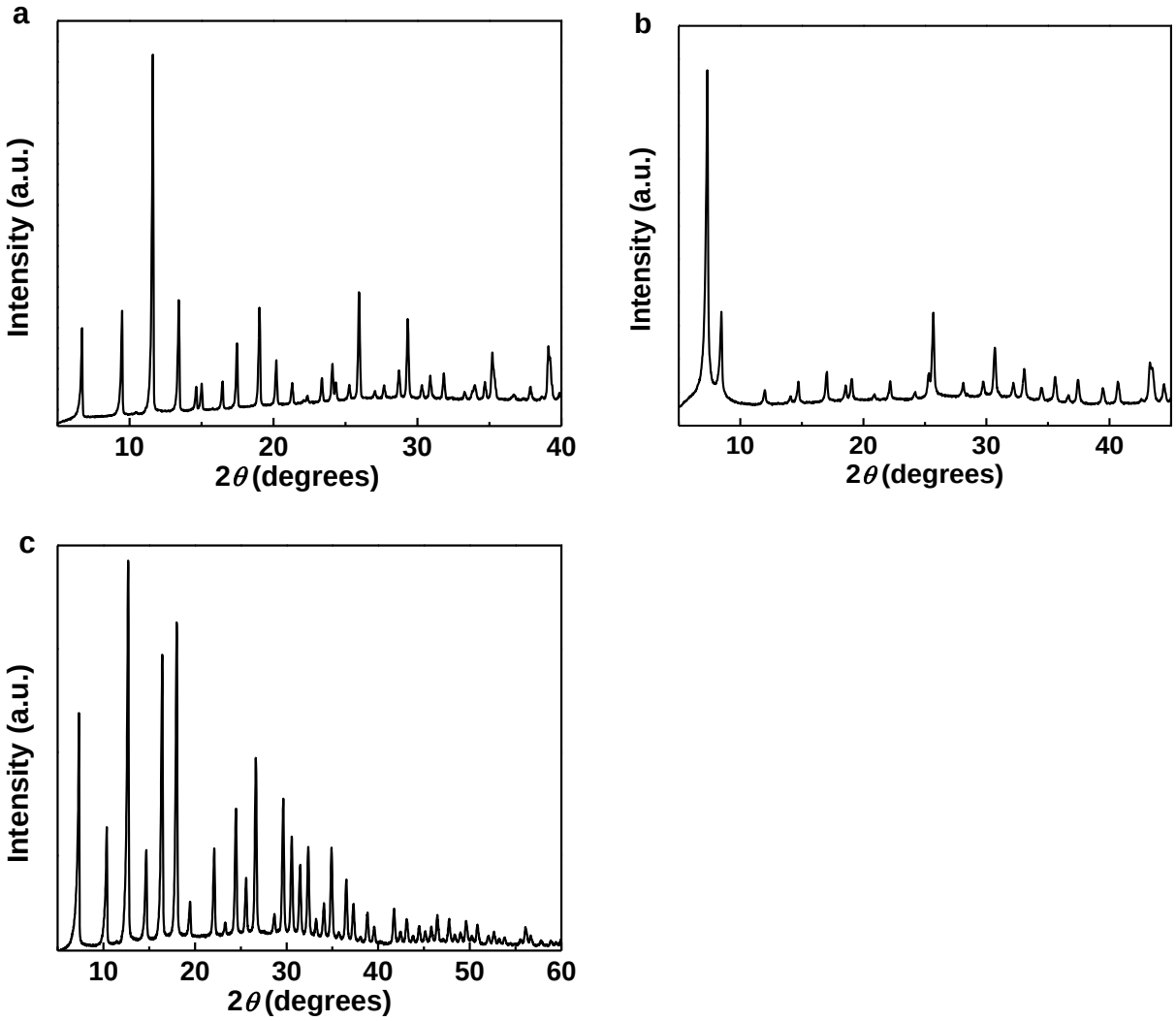

Figure S3. XRD patterns of (a) HKUST-1, (b) UiO-66, and (c) ZIF-8.

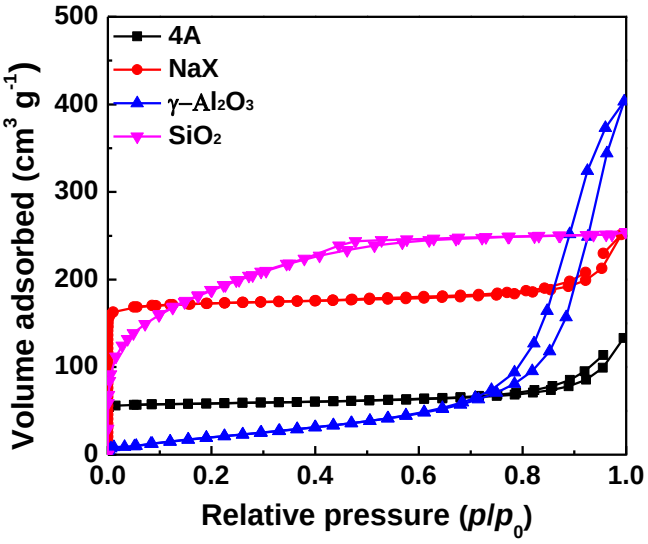

Figure S4. N_2 adsorption-desorption isotherms of 4A, NaX, γ-Al_2O_3, and SiO_2.

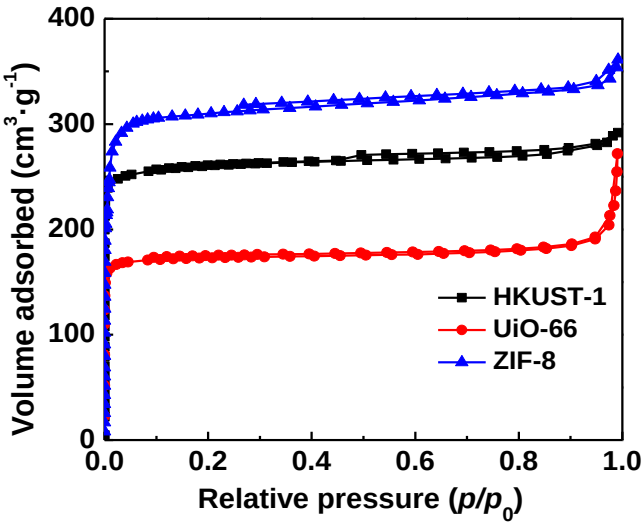

Figure S5. N_2 adsorption-desorption isotherms of HKUST-1, UiO-66, and ZIF-8.

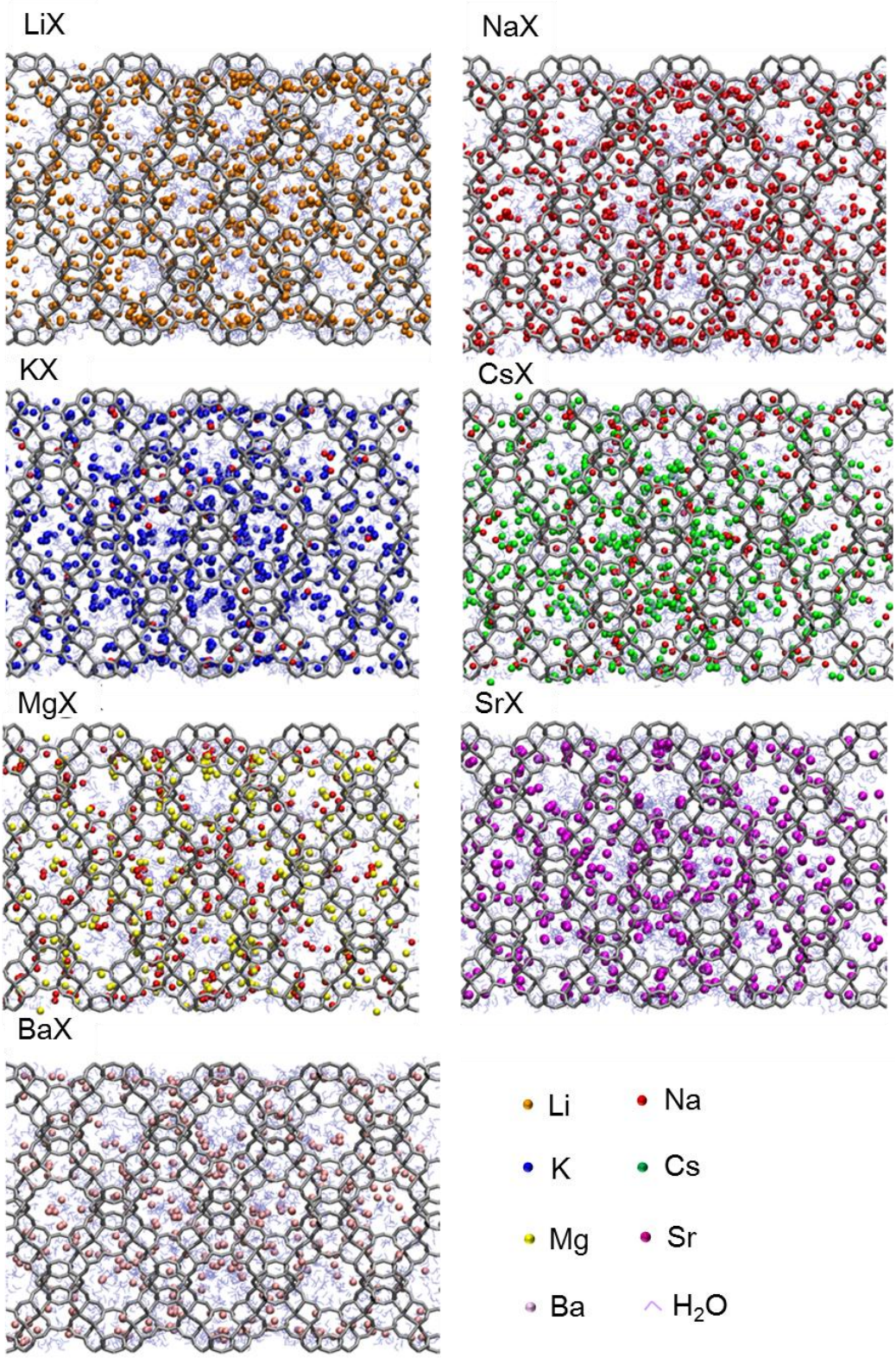

Figure S6. Snapshot of the distribution of water molecules and extra-framework cations within X zeolites, as inferred from MD simulations.

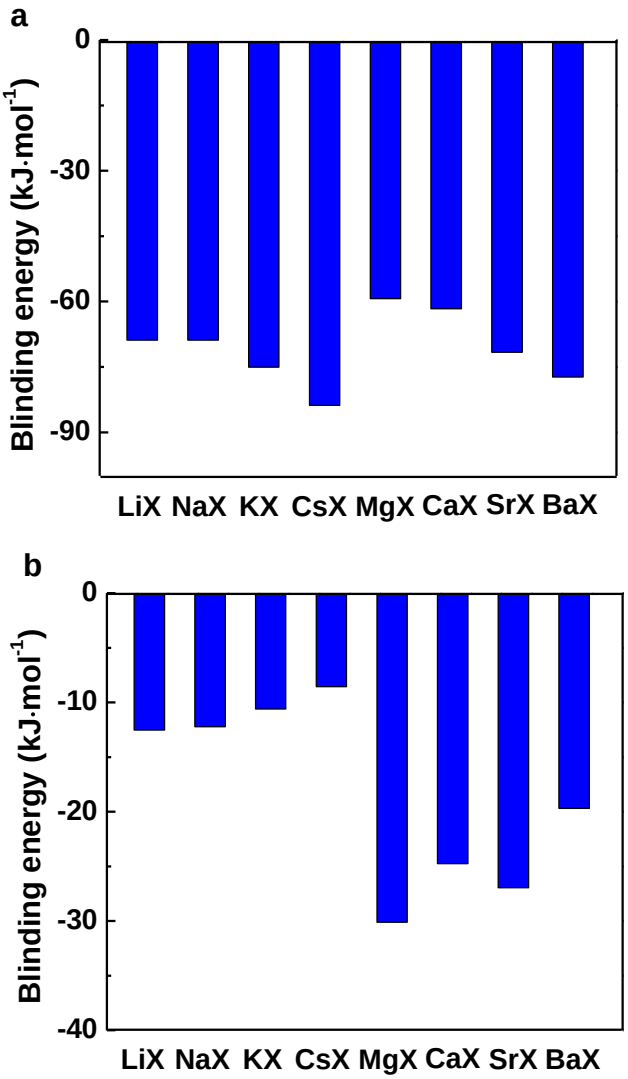

Figure S7. Average binding energy per H_2O molecular (a) with framework and (b) with different ions in X zeolites calculated from MD simulations.