

Supporting Information

Water Interactions in Zeolite Catalysts and Their Hydrophobically-Modified Analogues

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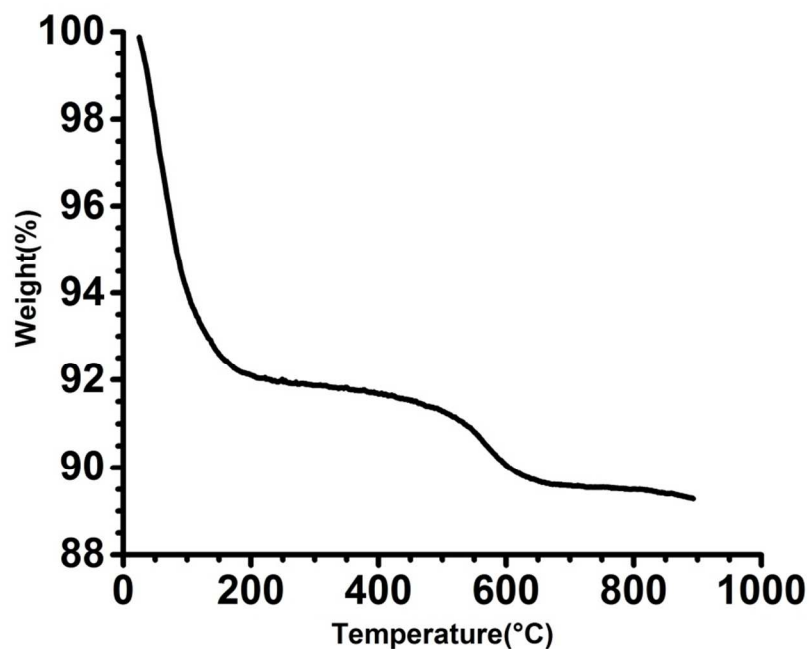


Figure S1. Thermal gravimetric analysis (TGA) curves for ETS-HZSM-5, with the experiment done in air. The 8% mass loss at 100-150 C is from water, and the ca. 3% mass loss near 500 C is from decomposition of the surface ETS groups.

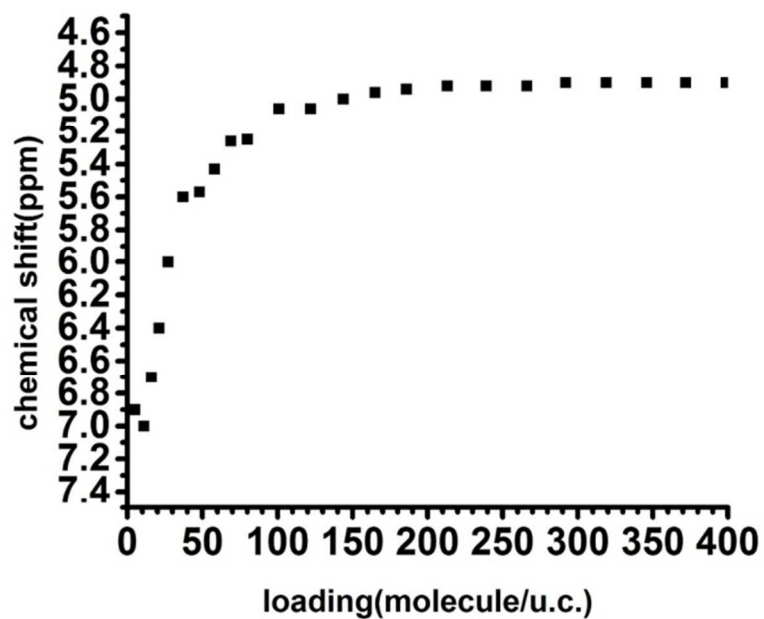


Figure S2. Complete water loading/chemical shift titration curve for water loaded in Si/Al = 15 H-ZSM-5 up to 400 water molecules per unit cell.

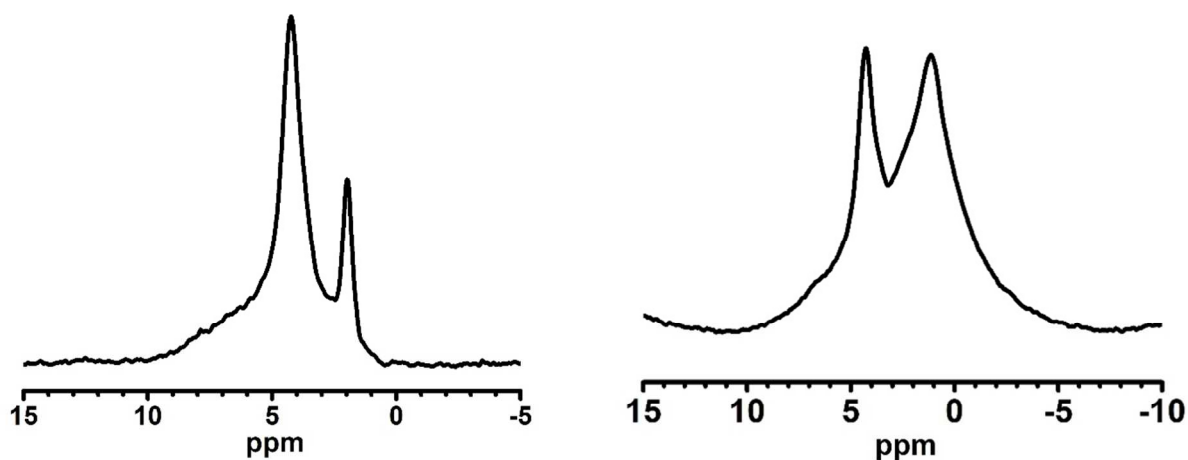


Figure S3. Representative ^1H MAS NMR spectra for calcined and dehydrated (**left**) H-ZSM-5 and (**right**) ETS-H-ZSM-5.

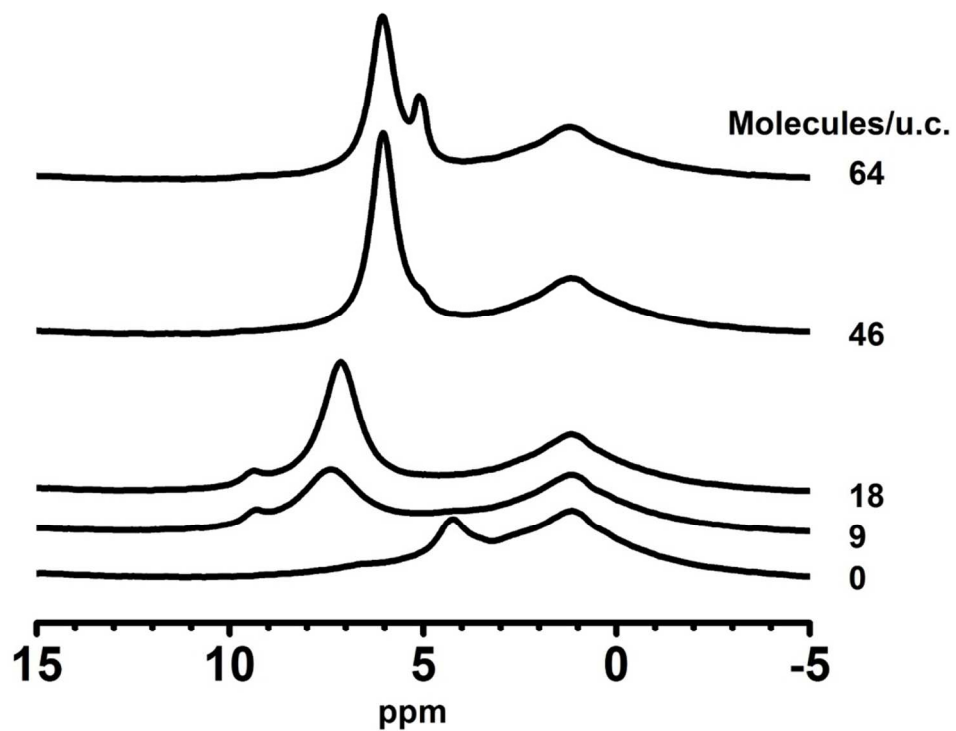


Figure S4. ^1H MAS NMR spectra for D_2O in ETS-HZSM-5 as a function of its loading per zeolitic unit cell. Peak assignments are as in the text for Figures 8 and 9.