

Supporting Information for the manuscript

A Microporous Metal-Organic Framework with both Open Metal and Lewis Basic Pyridyl Sites for Highly Selective C₂H₂/CH₄ and C₂H₂/CO₂ Gas Separation at Room Temperature

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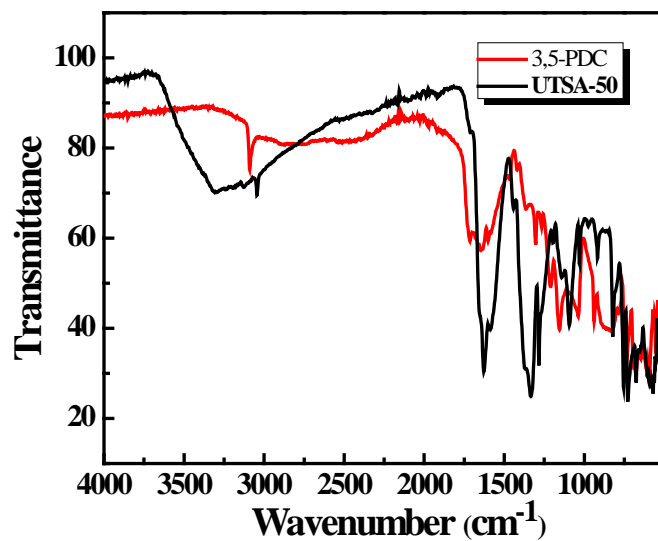


Figure S1. IR spectra of 3,5-PDC and UTSA-50.

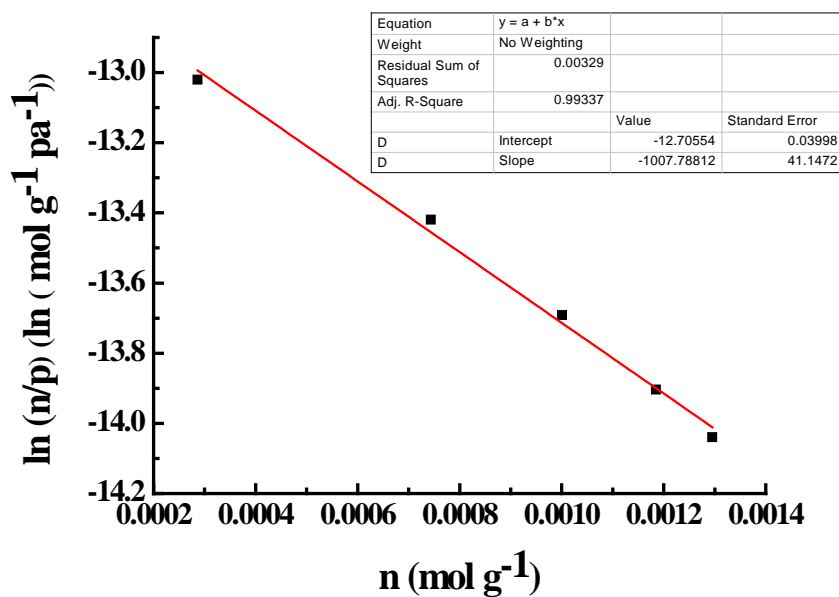


Figure S2. Virial analysis of the adsorption data for C₂H₂ on UTSA-50 at 273 K: Low pressure data

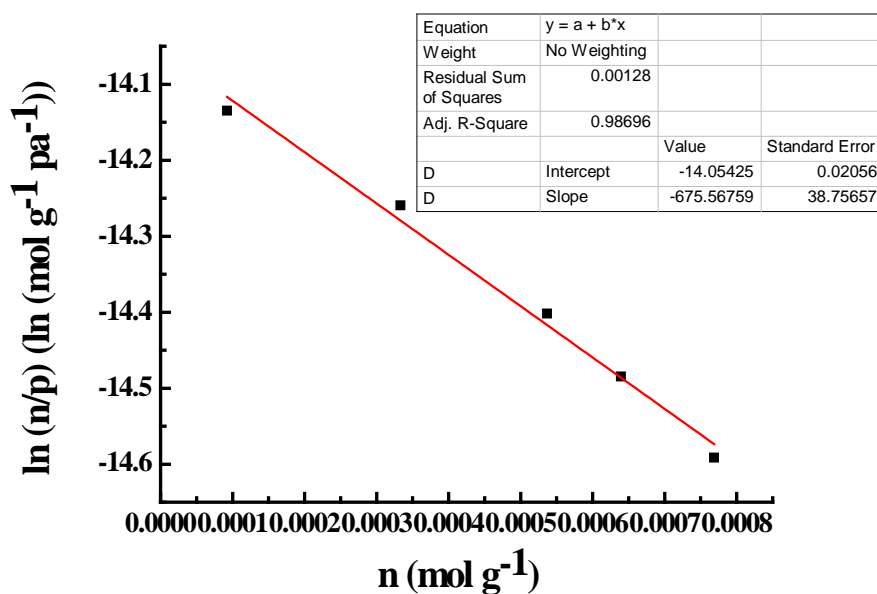


Figure S3. Virial analysis of the adsorption data for C_2H_2 on **UTSA-50** at 296 K: Low pressure data

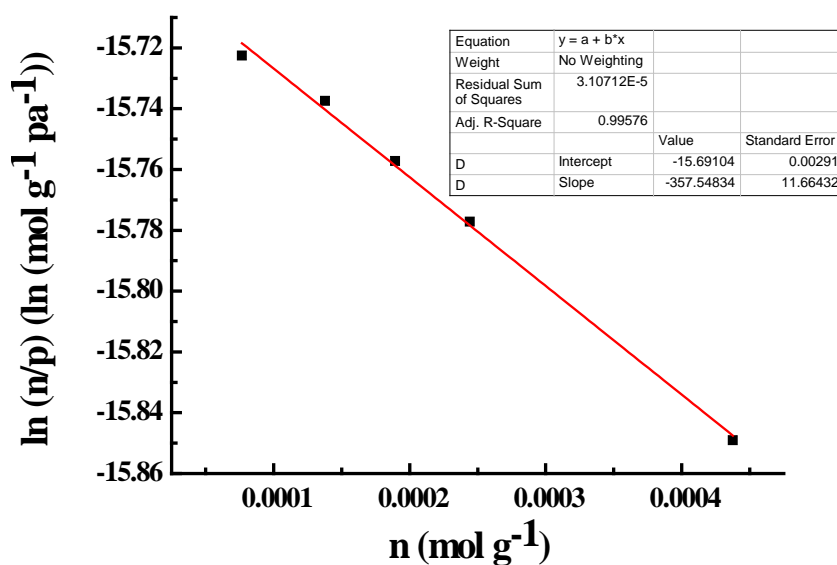


Figure S4. Virial analysis of the adsorption data for CO_2 on **UTSA-50** at 273 K: Low pressure data

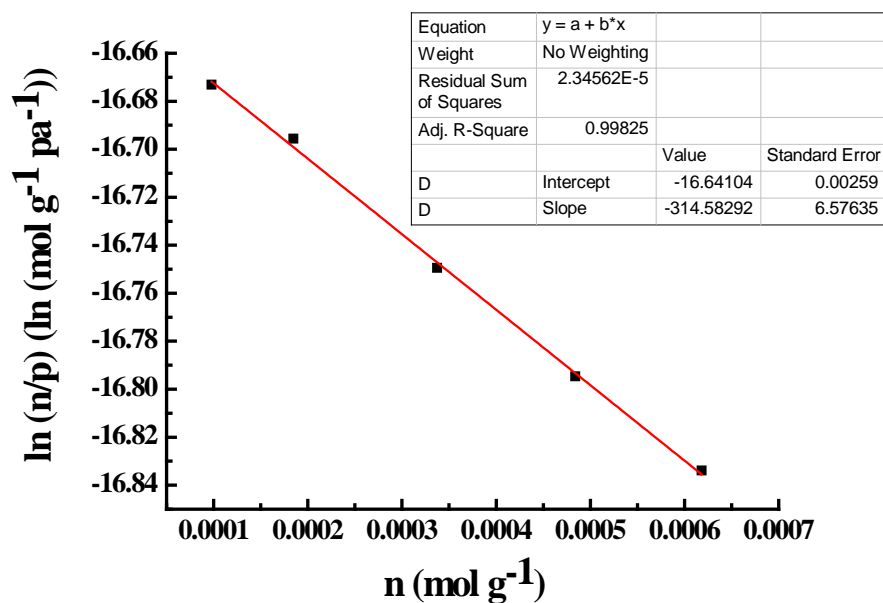


Figure S5. Virial analysis of the adsorption data for CO₂ on UTSA-50 at 296 K: Low pressure data

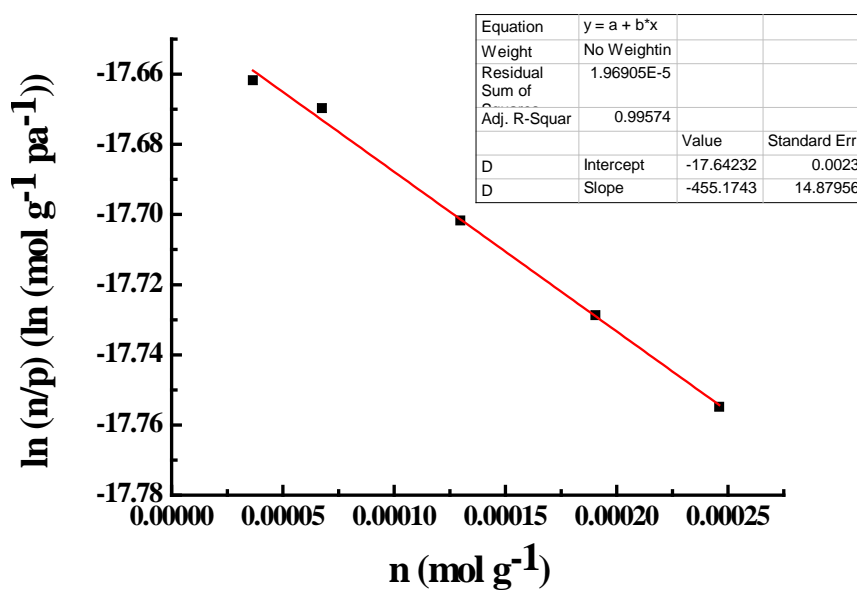


Figure S6. Virial analysis of the adsorption data for CH₄ on UTSA-50 at 273 K: Low pressure data

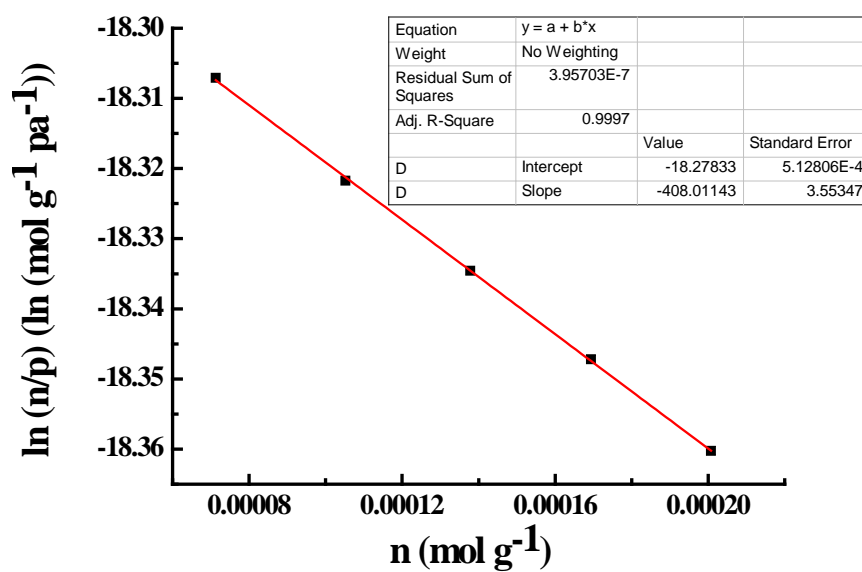


Figure S7. Virial analysis of the adsorption data for CH₄ on UTSA-50 at 296 K: Low pressure data