

## Supporting Information

# Investigation of molecular mean free path, molecular kinetic and molecular polarity affecting Knudsen diffusivity along pore channels

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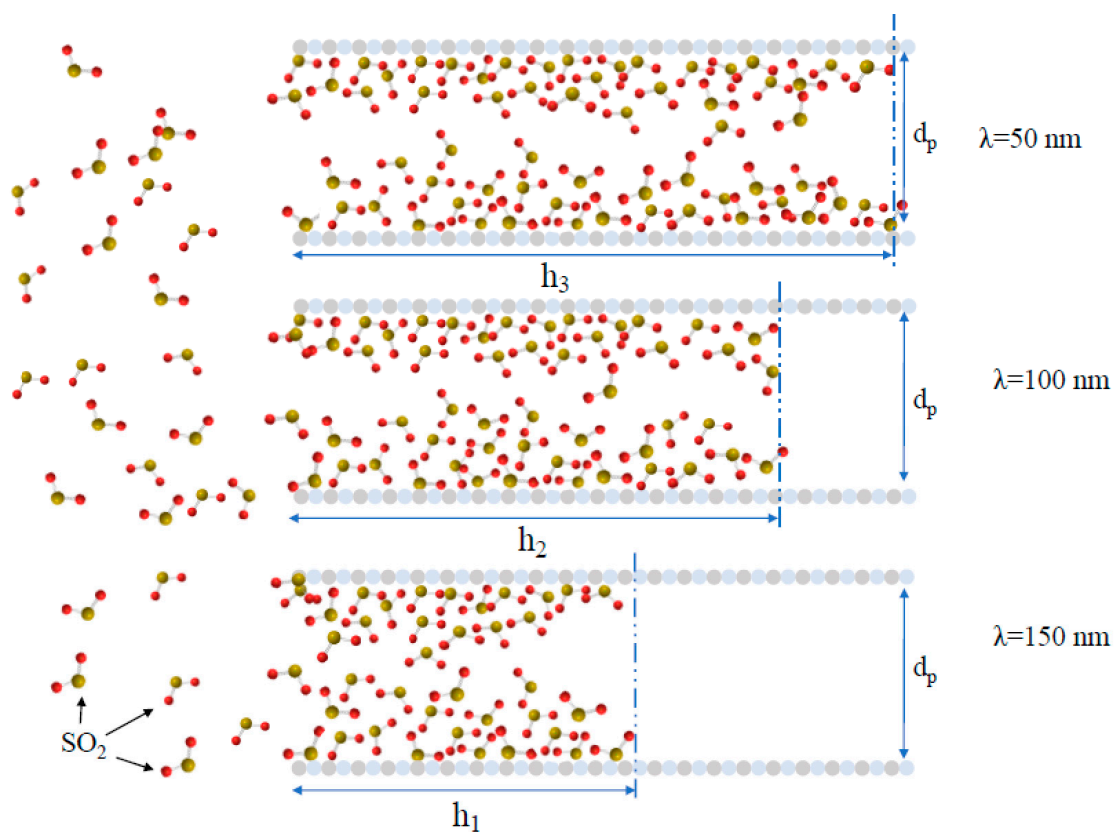
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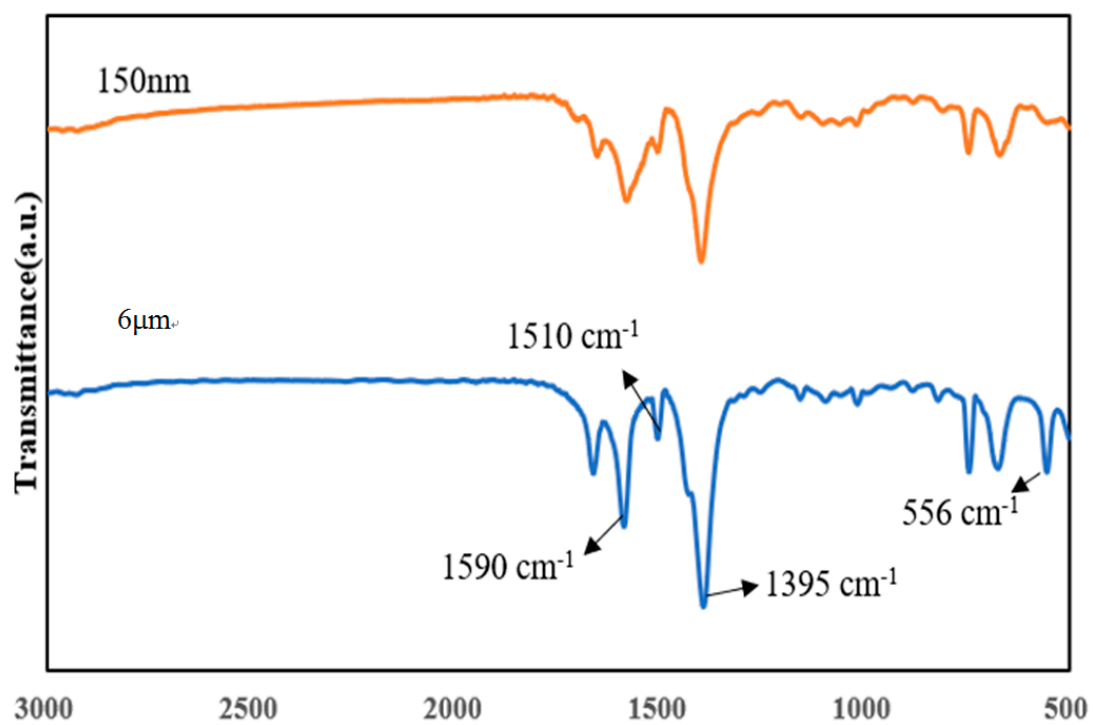
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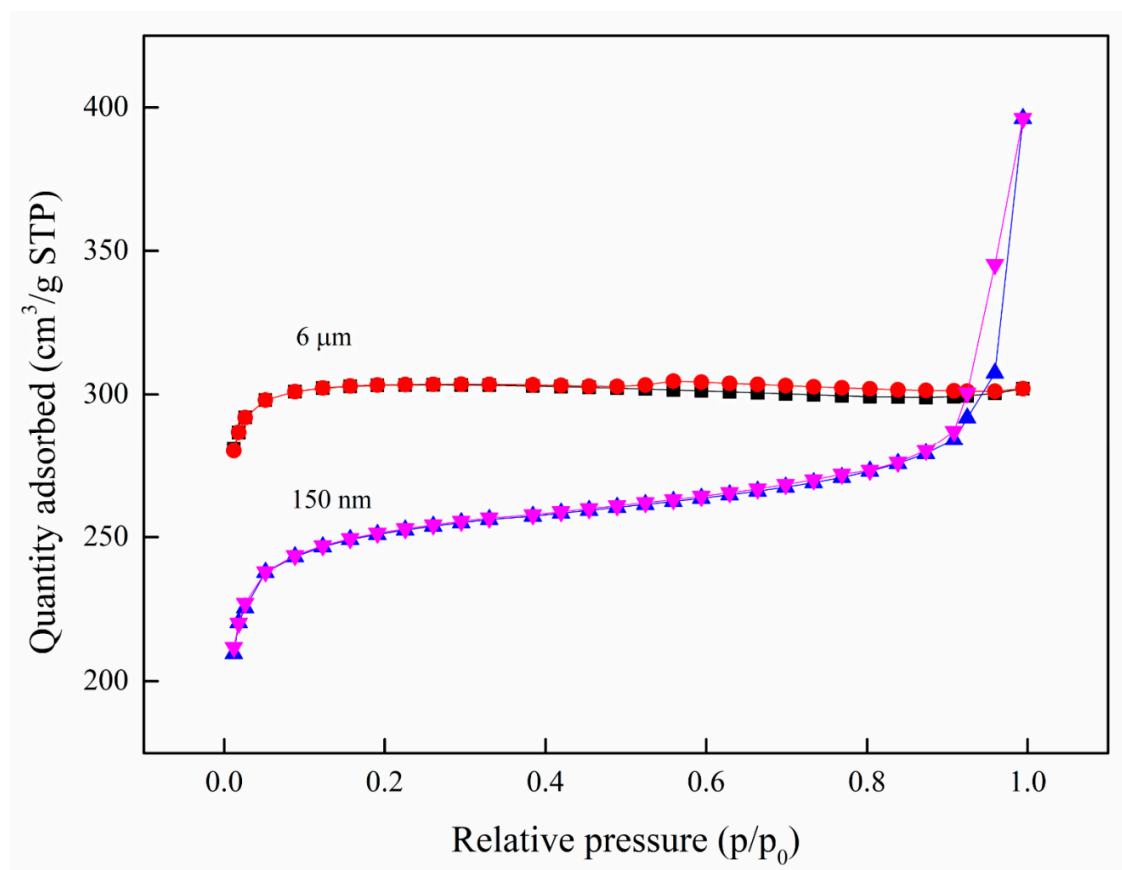
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**Figure S1.** Schematic diagram of gas molecular diffusion inside pore channels



**Figure S2.** FT-IR spectra of UiO-66 at two crystal sizes.



**Figure S3.** N<sub>2</sub> sorption isotherms of UiO-66 with two crystal sizes.