Supporting Information

Stability and Degradation Mechanisms of Metal-Organic Frameworks containing the Zr₆O₄(OH)₄ Secondary Building Unit

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**Figure S1.** PXRD pattern of ZrMOF-BDC before (bottom, blue) and after (top, red) the water isotherm experiment.

**Figure S2.** PXRD pattern of ZrMOF-NH$_2$ before (bottom, blue) and after (top, red) the water isotherm experiment.
Figure S3. PXRD pattern of ZrMOF-BPDC before (bottom, blue) and after (top, red) the water isotherm experiment.

Figure S4. PXRD pattern of ZrMOF-BIPY before (bottom, blue) and after (top, red) the water isotherm experiment.
Figure S5. ATR-FTIR spectra from 1800 to 600 cm⁻¹ of the neat organic linker for each ZrMOF as well as ZrCl₄ and Zr(OH)₄.