## **Supplementary Material**

## In silico design of a new Zn – triazole based Metal-Organic Framework for $CO_2$ and $H_2O$ adsorption <sup>§</sup>

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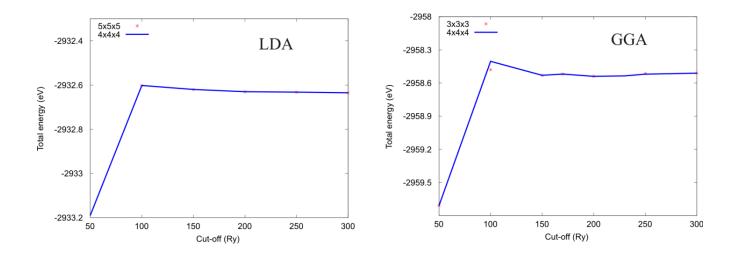
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**Figure S1:** Convergence of the total energy with plane wave cut-off and k point sampling mesh for MAF-66.

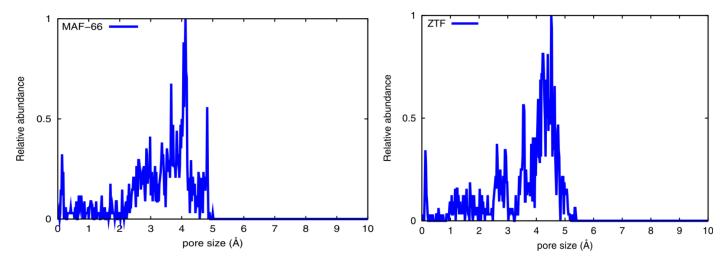
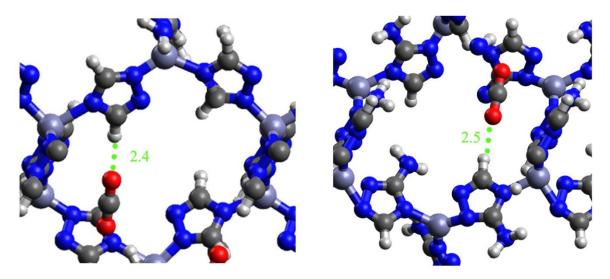
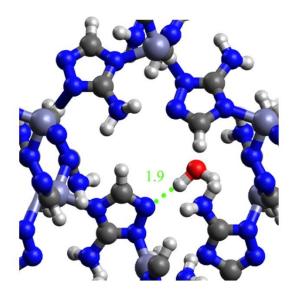


Figure S2: Pore size distributions of MAF-66 (left) and ZTF (right).



**Figure S3:** DFT optimized structures of parts of the supercells of ZTF (left) and MAF-66 (right) with one CO<sub>2</sub> molecule inside.



**Figure S4:** DFT optimized structure of parts of the supercell of MOF-66 with of one water molecule inside.