

# Supporting Information

## **Design and Synthesis of a Single-Layer Ferromagnetic Metal-Organic Framework with Topological Non-Trivial Gaps**

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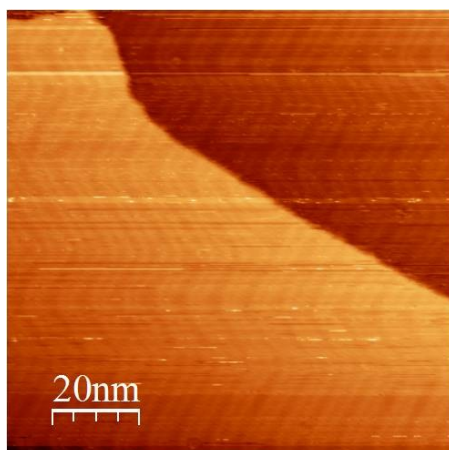


Fig. S1 STM Image showing fuzzy features of HATP molecules on Au(111) before deposition of Fe.

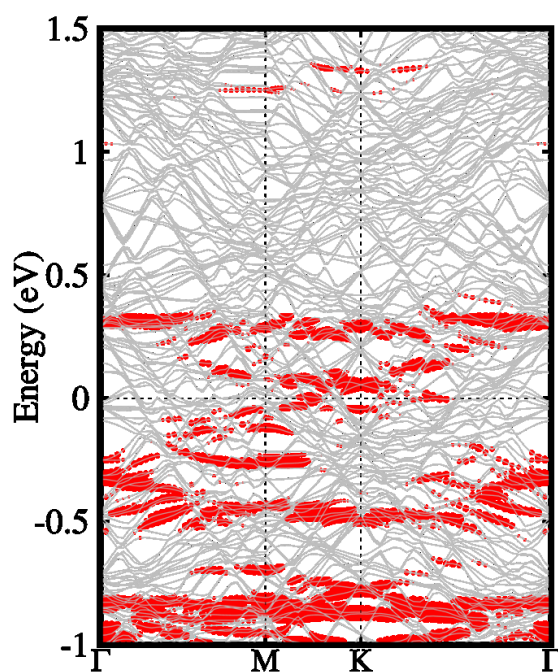


Fig. S2 Band structure contribution of the C and N atoms in the  $\text{Fe}_3(\text{HITP})_2$  on the Au(111) slab.

Table S1. Total energy difference between FIM/AFM and FM phases calculated with different  $U_{\text{eff}}$

$U_{\text{eff}}$ (eV)	1	2	3	4	5
$E_{\text{FIM}}-E_{\text{FM}}$ (meV)	34.76624	41.8264	49.21074	52.45611	60.89205
$E_{\text{AFM}}-E_{\text{FM}}$ (meV)	39.05773	46.37943	54.21138	58.0019	67.1862