

## Supporting Information

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### 3 **Synthesis and sorption-induced phase transformation of Co-based zeolitic** 4 **imidazolate framework polymorphs**

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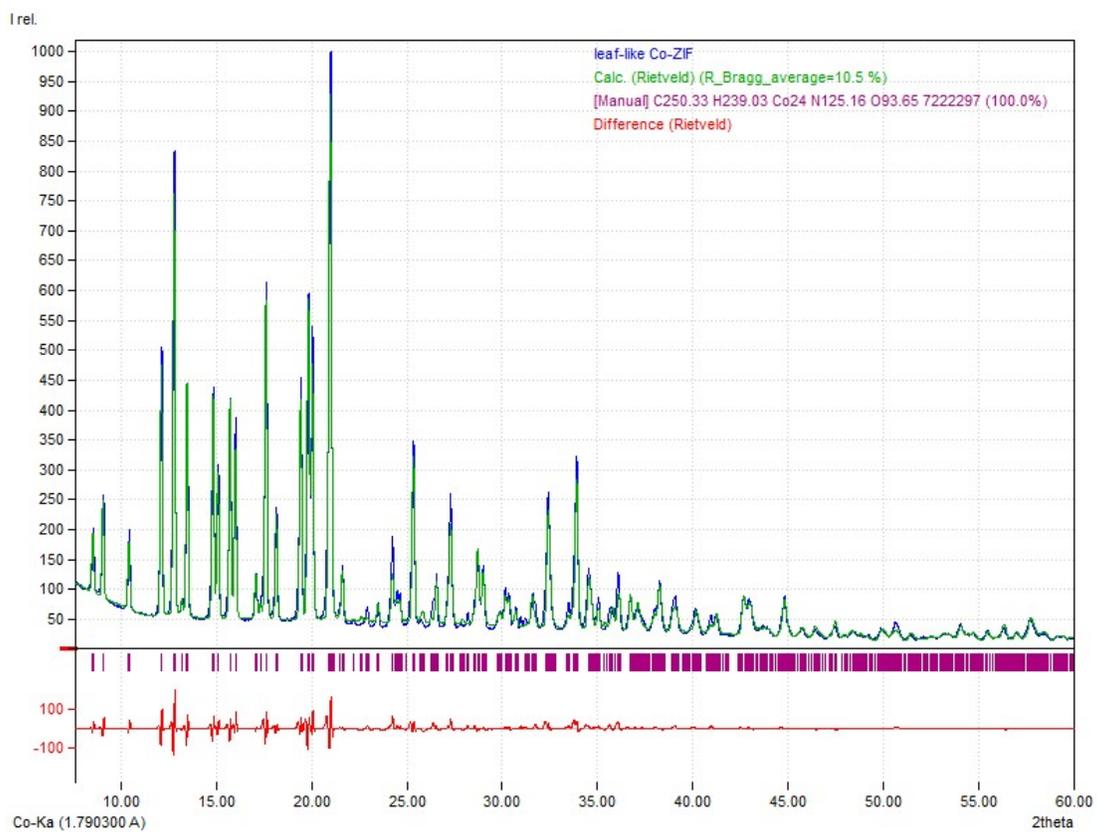


Figure S1. Rietveld refinement results of the XRD data for leaf-like Co-ZIF: calculated – green line; experimental – blue line; difference curve – red line; reference phase – ZIF-L (COD 7222297).

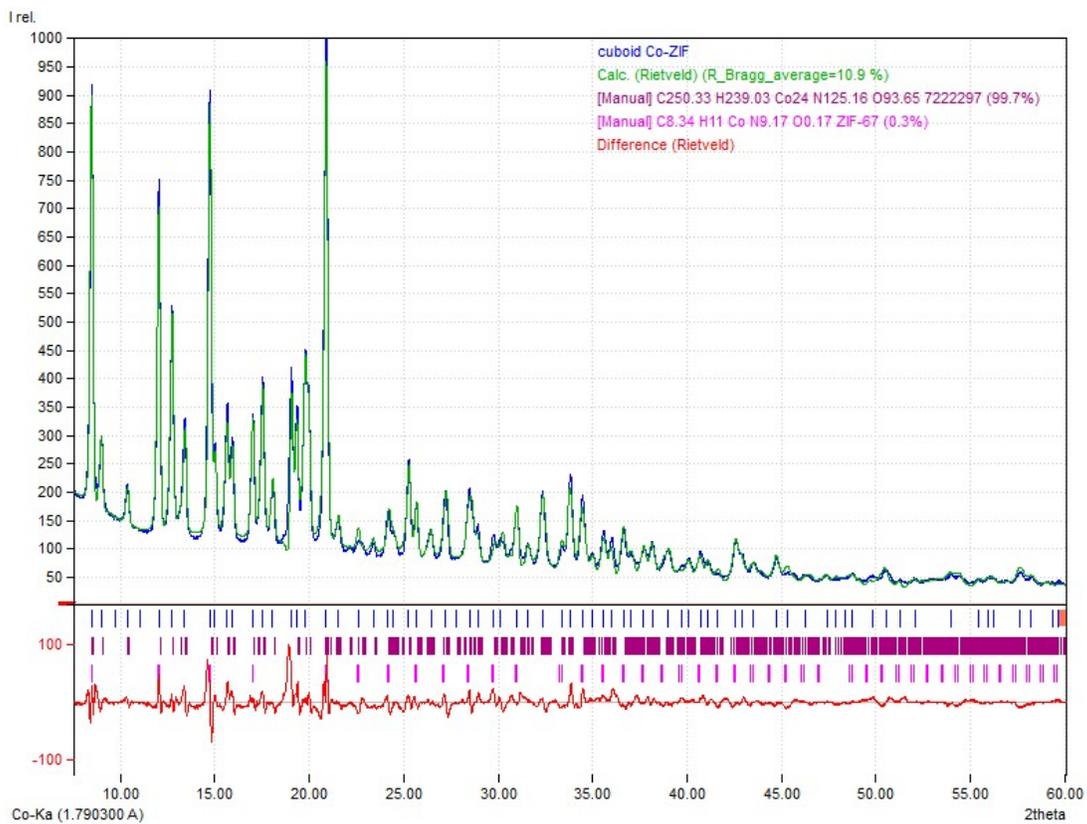


Figure S2. Rietveld refinement results of the XRD data for cuboid Co-ZIF: calculated – green line; experimental – blue line; difference curve – red line; reference phase – ZIF-L (COD 7222297), SOD (COD 7247762)

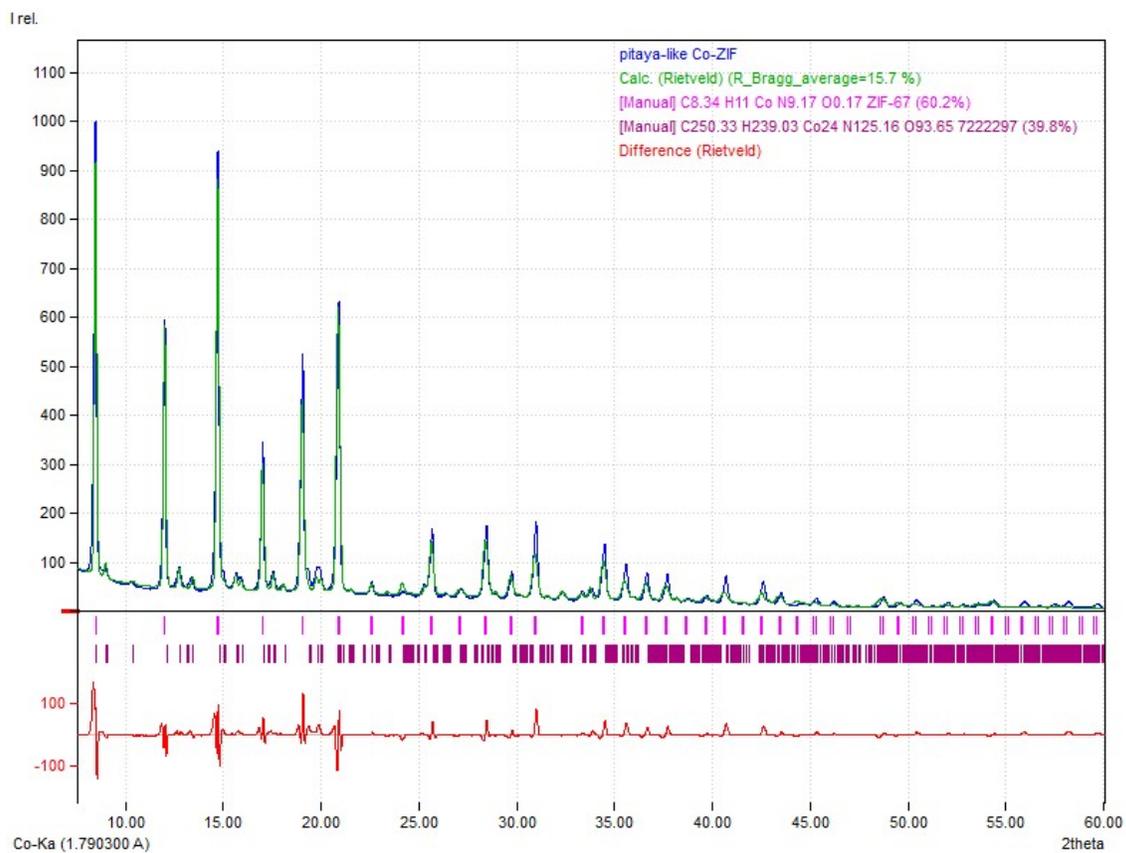


Figure S3. Rietveld refinement results of the XRD data for pitaya-like Co-ZIF: calculated – green line; experimental – blue line; difference curve – red line; reference phase – ZIF-L (COD 7222297), SOD (COD 7247762)

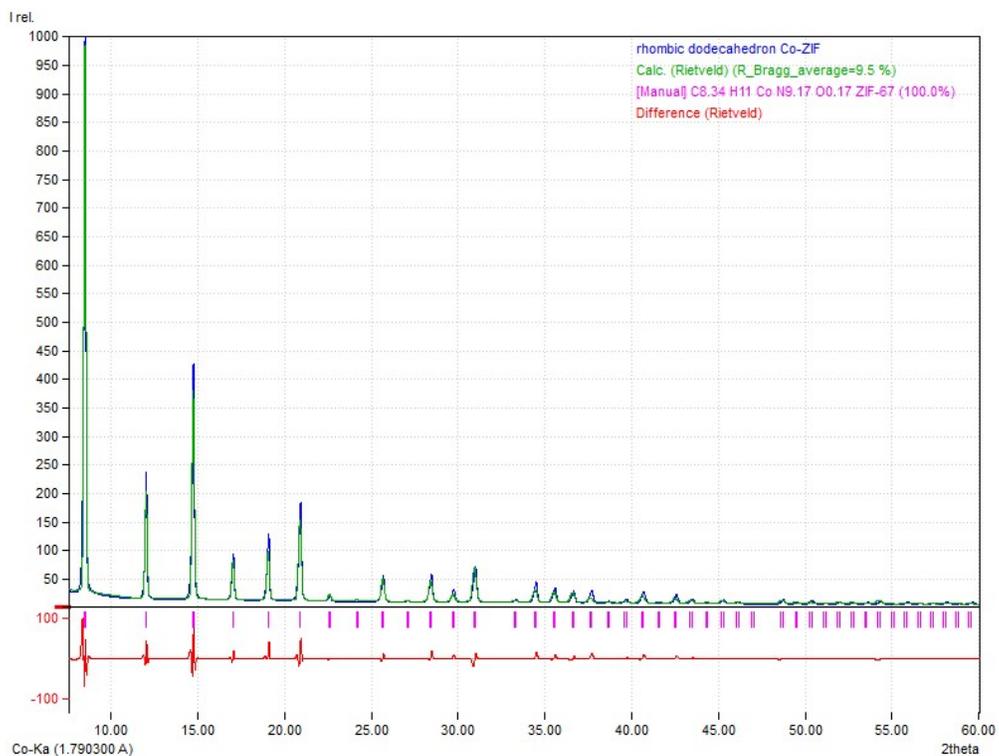


Figure S4. Rietveld refinement results of the XRD data for rhombic dodecahedron Co-ZIFs: calculated – green line; experimental – blue line; difference curve – red line; reference phase – SOD (COD 7247762)