

2D Co-based coordination polymer with histidine derivative as an efficient heterogeneous catalyst for the oxidation of cyclohexene

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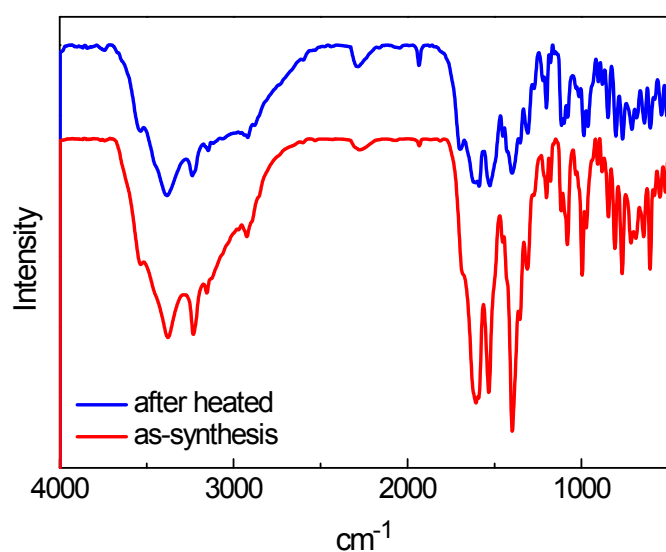


Figure S1 the IR spectra of 1 and activated 1.

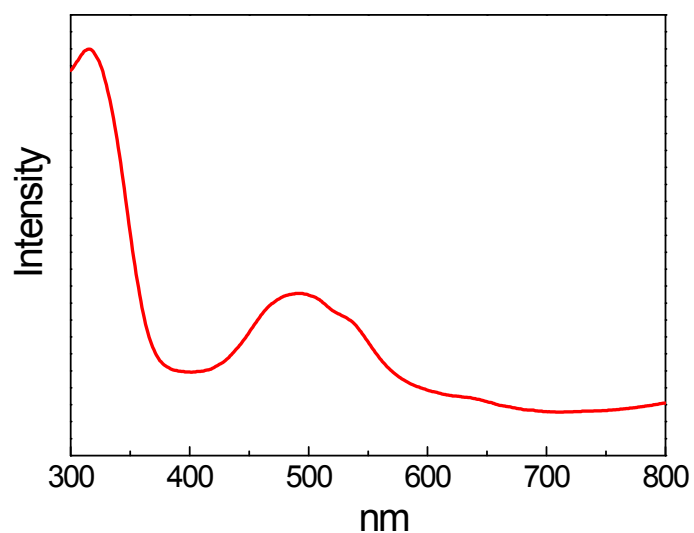


Figure S2. Uv-vis spectra of 1.

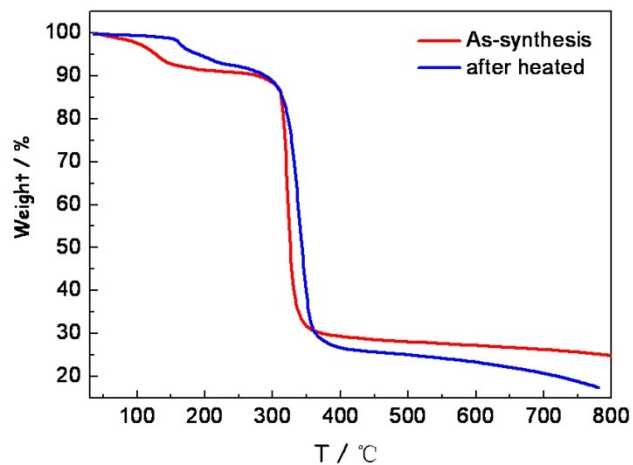


Figure S3. TGA curves of 1 and after heated.

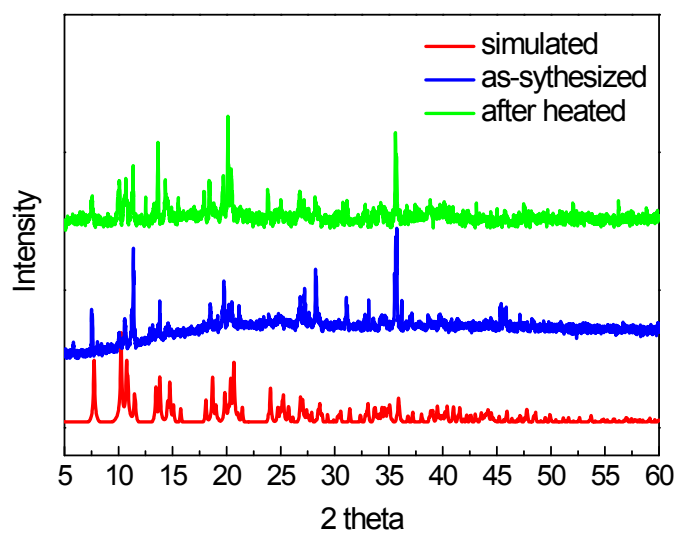


Figure S4. XRD spectra of 1, 1 after heated

Table S1 the comparison of 1 with other Co-based catalyst

Catalyst	Conversion(%)	Main Product	Selectivity(%)	Activation Energy(kJ mol ⁻¹)
1 at 60 °C	82.56	P1	71.93	91.98
2a at 60 °C ^a	60.4	P2	73.6	67.3
2 at 60 °C ^a	8.2	P2	66.5	129.6
3 at 70 °C ^b	27.5	P1	66	

tert-butyl-2-cyclohexenyl-1-peroxide (named as *P1*), followed by the by-product, 2-cyclohexen-1-one (named as *P2*) and cyclohexene oxide (named as *P3*)

(a)H. Ren, R. Yao and X. Zhang, *INORG CHEM*, 2015, **54**, 6312-6318

(b)M. Tonigold, Y. Lu, B. Bredenkoetter, B. Rieger, S. Bahnmüller, J. Hitzbleck, G. Langstein and D. Volkmer, *ANGEW CHEM INT EDIT*, 2009, **48**, 7546-7550.