Electronic Supplementary Information

Evaluation of the catalytic activity of Zn-MOF-74 for the alcoholysis of cyclohexene oxide

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1. PXRD of MOF-74

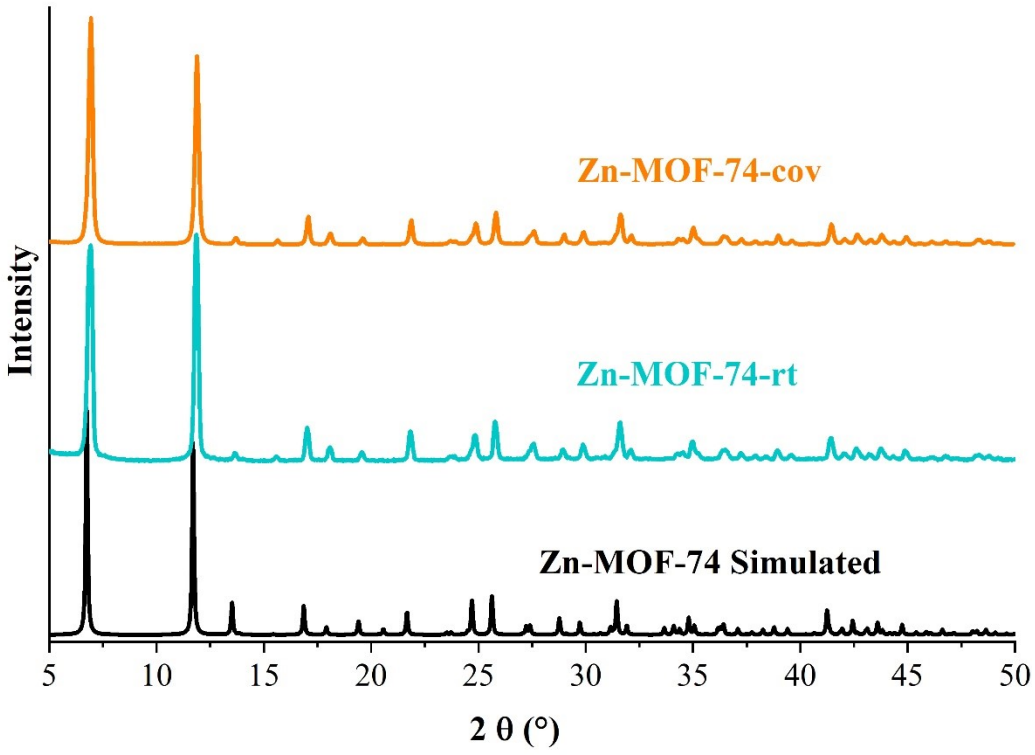

Figure S1. PXRD of Zn-MOF-74 synthesized at room temperature (blue), Zn-MOF-74 synthesized by conventional method (orange) and dhtp (black)

2. N_2 adsorption/desorption isotherm

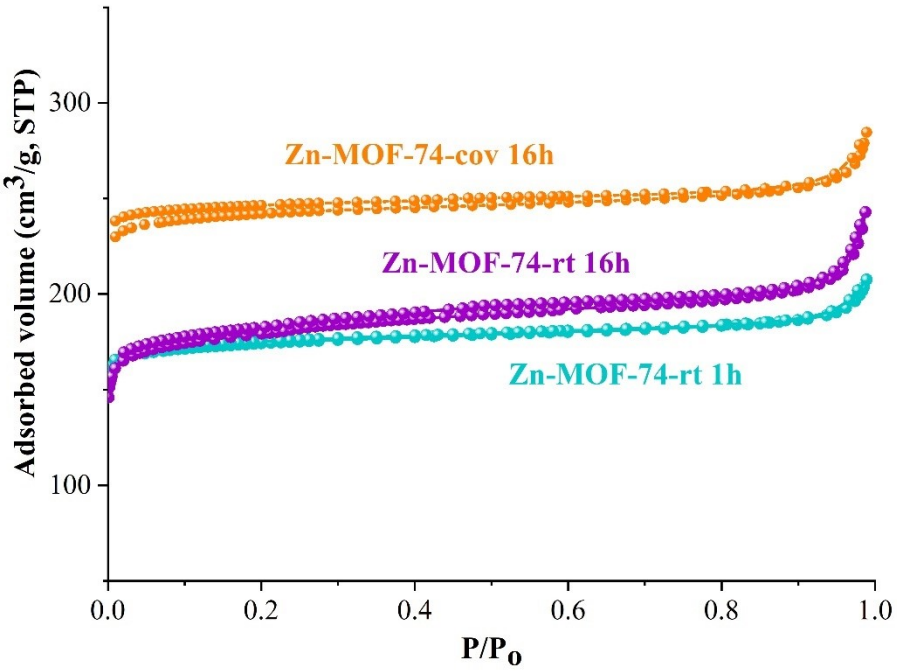

Figure S2. N_2 isotherm of Zn-MOF-74 synthesized at room temperature and activated by 1 h (blue), activated by 16 h (purple) and synthesized by conventional method and activated by 16 h (orange)

3. TGA of Zn-MOF-74

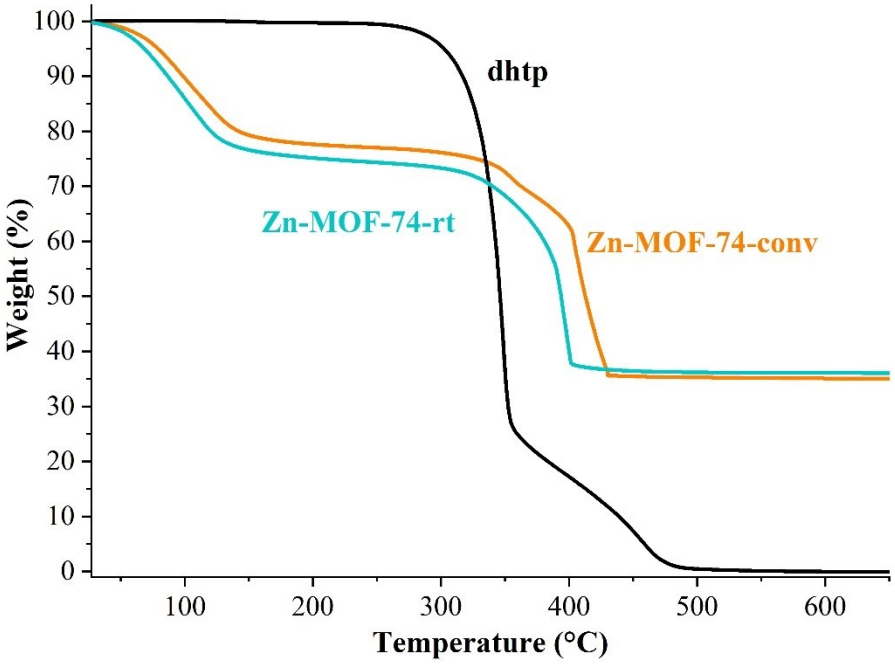

Figure S3. Thermal gravimetrical analysis of Zn-MOF-74 synthesized at room temperature (blue), Zn-MOF-74 synthesized by conventional method (orange) and dhtp (black)

4. SEM images of Zn-MOF-74

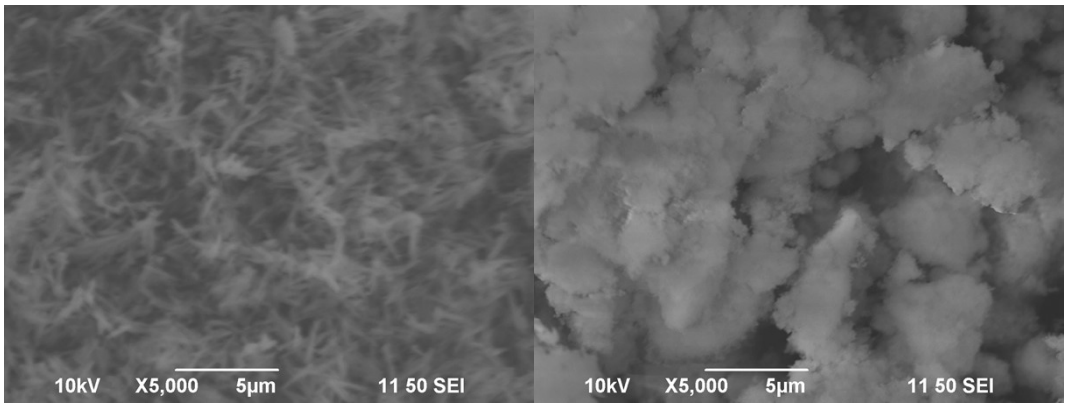

Figure S4. Micrographs of Zn-MOF-74 room temperature synthesis (left) and conventional synthesis (right)

5. high-resolution XPS of Zn-MOF-74

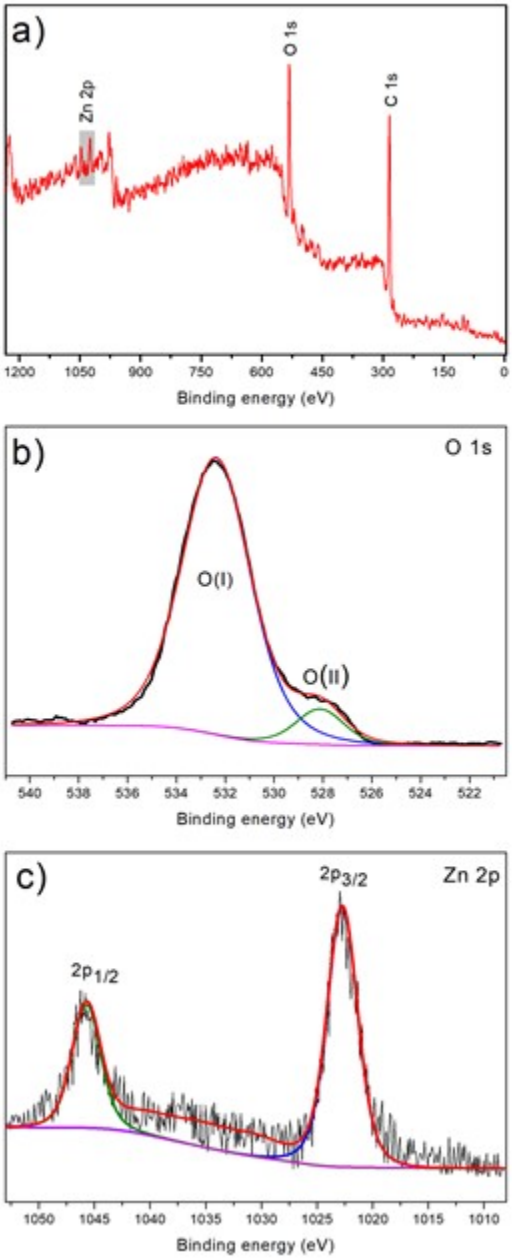

Figure S5. a) XPS survey spectra, in the range from 1200 eV to 0 eV, high-resolution XPS spectra and fitted peaks of b) O 1s and c) Zn 2p.

6. Conversion of cyclohexene oxide for each test

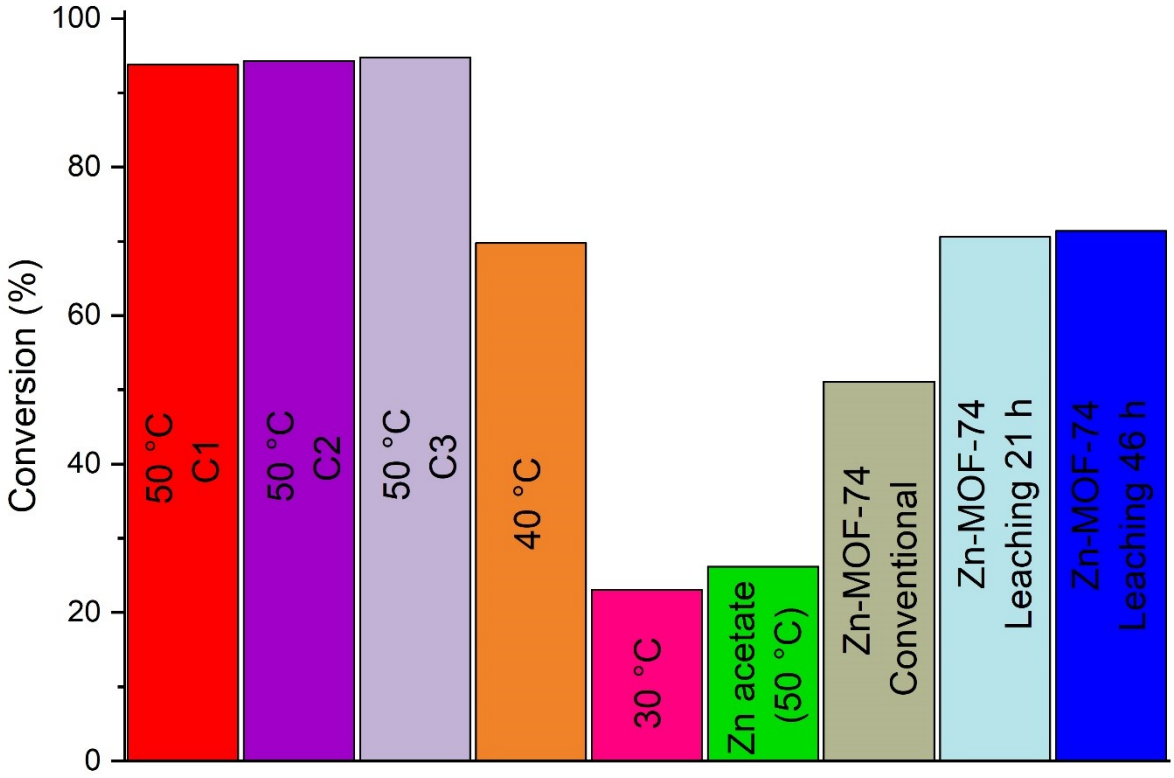

Figure S6. Conversion of cyclohexene oxide at 46 h