Supplementary data

A solid solution zeolitic imidazolate framework as a room temperature efficient catalyst for the chemical fixation of CO_2

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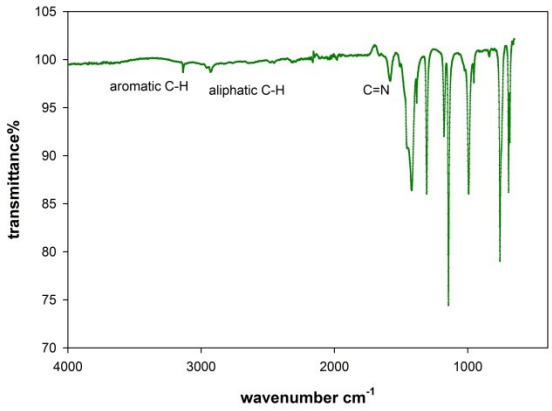

Figure S1 FT-IR spectrum of CZ-ZIF

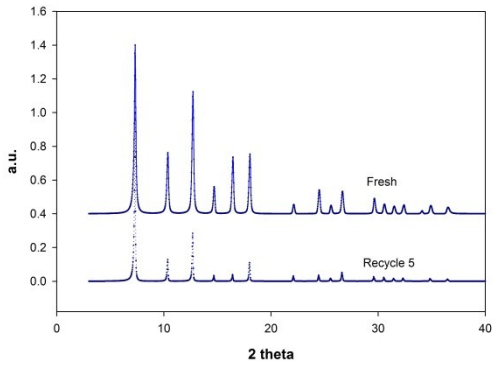

Figure S2. XRD pattern of 5th recycled CZ-ZIF with the fresh catalyst (Catalyst was washed with ethanol and dried at 60 °C for 3 h, prior to the XRD analysis).

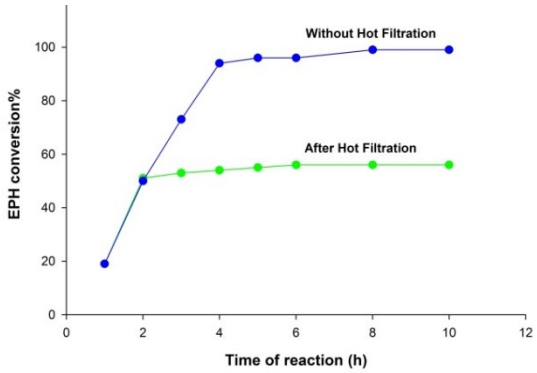

Figure S3 – Hot filtration test done for CZ-ZIF catalyzed ECH-CO_2 reaction.

Table S1. Catalytic activity of CZ-ZIF with different metal ratios

Catalyst	Conversion%	Selectivity%
ZIF-8	98.2	33.4
ZIF-67	66.5	99
Zn-Co ZIF (1:1)	94.8	98
Zn-Co ZIF (2:1)	96	90
Zn-Co ZIF (1:2)	80.2	94

ECH = 3 ml, 100 ^{o}C, 7 bar CO_2 semi-batch, 0.7 mol% catalyst based on metal