Electronic Supplementary Material (ESI) for Catalysis Science & Technology

Supporting Information

Tuning the selectivity of supported gold catalyst in solvent- and radical initiator-free aerobic oxidation of cyclohexene

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1. Characterization of $[Au_9(PPh_3)_8](NO_3)_3$ and $Au_{101}(PPh_3)_{21}Cl_5$.

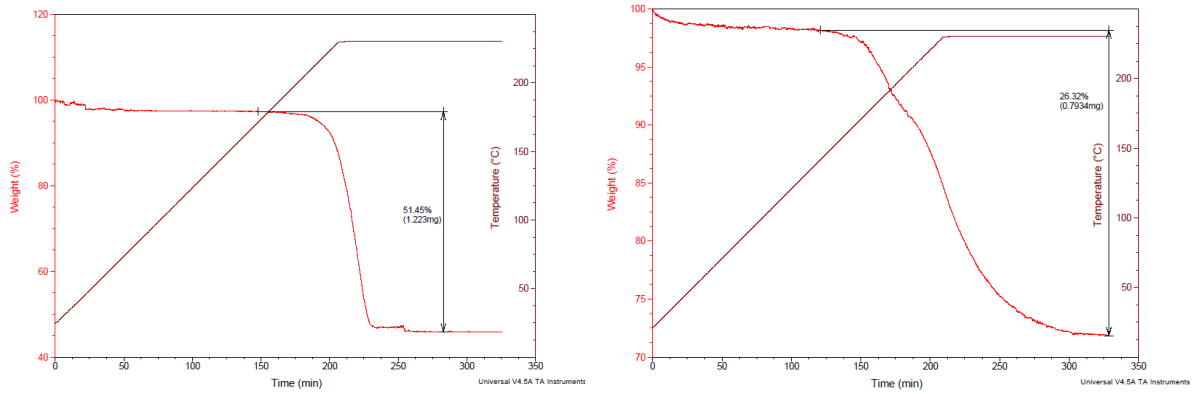

Fig. S1 TGA of $[Au_9(PPh_3)_8](NO_3)_3$ (left) and $Au_{101}(PPh_3)_{21}Cl_5$ (right).

2. Characterization of MIL-101.

MIL-101 was synthesized following the procedure described by Hatton et. al.[1] X-ray powder diffraction was performed on Philips PW 1700 automated diffractometer with CoKα radiation and graphite monochromator. Surface area measurements were performed using Micromeritics ASAP 2010. BET surface area of the sample was found to be 3265 m^2/g, Langmuir Surface area – 4050 m^2/g.

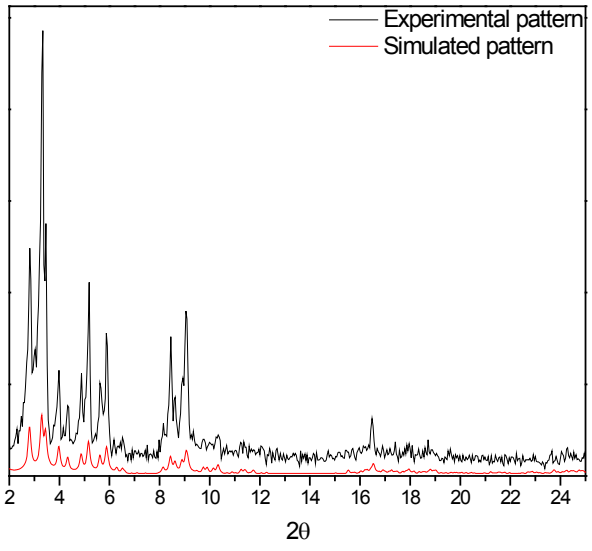

Fig. S2 Powder X-Ray diffraction pattern of MIL-101: experimental (black) and simulated (red). Patterns are re-plotted for CuKα radiation source.

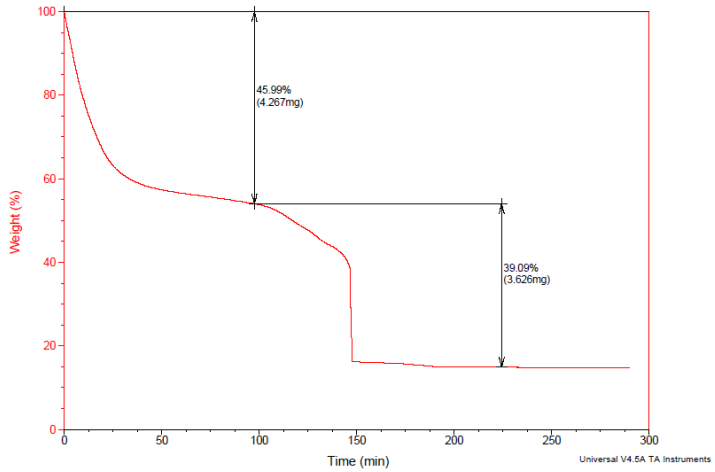

Fig. S3 TGA of MIL-101.

[1] L. Bromberg, Y. Diao, H. Wu, S. A. Speakman, T. A. Hatton, *Chem. Mater.* **2012**, *24*, 1664-1675.