

Supplementary materials

Figure S1. TGA curve of freshly prepared Ag_{np}-MCM-41 under air at a heating rate of 10 °C/min.

Figure S2. Powder X-ray diffraction of recycled Ag_{np}-MCM-41 from an H₂O/^tBuOH (1:1) solvent mixture containing 3% NaCl and a 1,2-dichloroethane-acetonitrile (10:1) solvent mixtures.

Figure S3. Infrared spectra of Ag_{np}-MCM-41, recycled Ag_{np}-MCM-41 from a 1,2-dichloroethane-acetonitrile (10:1) solvent mixture and recycled Ag_{np}-MCM-41 from an H₂O/^tBuOH (1:1) solvent mixture containing 3% NaCl.

Figure S4. TGA curve of recycled Ag_{np}-MCM-41 under air at a heating rate of 10 °C/min.

Figure S5. Comparison of Ag_{np}-MCM-41 catalyzed (Z)-cyclooctene epoxidation rate for the first 5h of reaction conducted under air and under nitrogen.

Figure S6. Comparison of (Z)-cyclooctene epoxidation rates for solutions that were hot filtered and cold filtered to remove solid Ag_{np}-MCM-41 after 24h of reaction, to the rate for a solution which was not filtered.

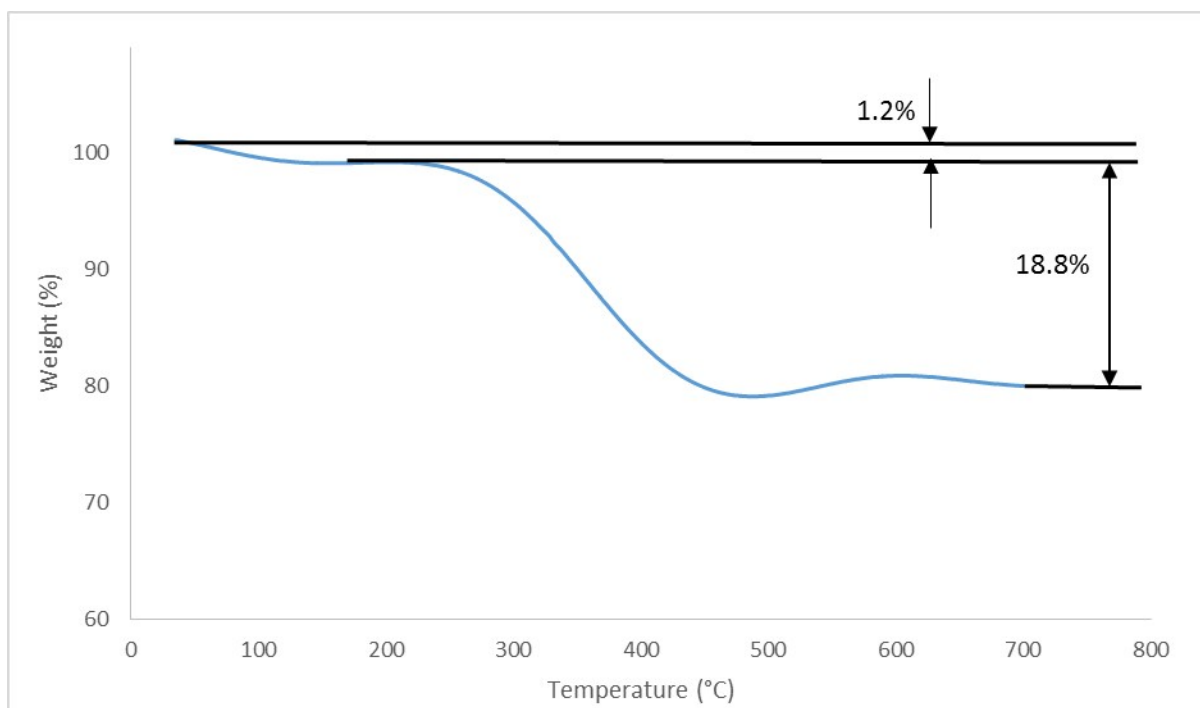


Figure S1. TGA curve of freshly prepared Ag_{np}-MCM-41 under air at a heating rate of 10 °C/min.

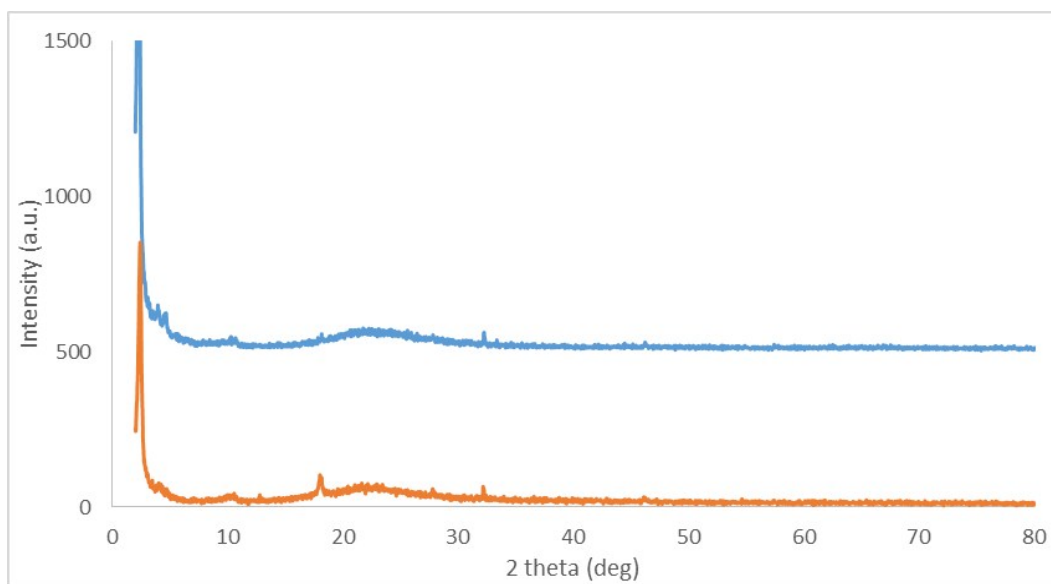


Figure S2. Powder X-ray diffraction of recycled Ag_{np}-MCM-41 from an H₂O/^tBuOH (1:1) solvent mixture containing 3% NaCl (top) and a 1,2-dichloroethane-acetonitrile (10:1) solvent mixtures (bottom).

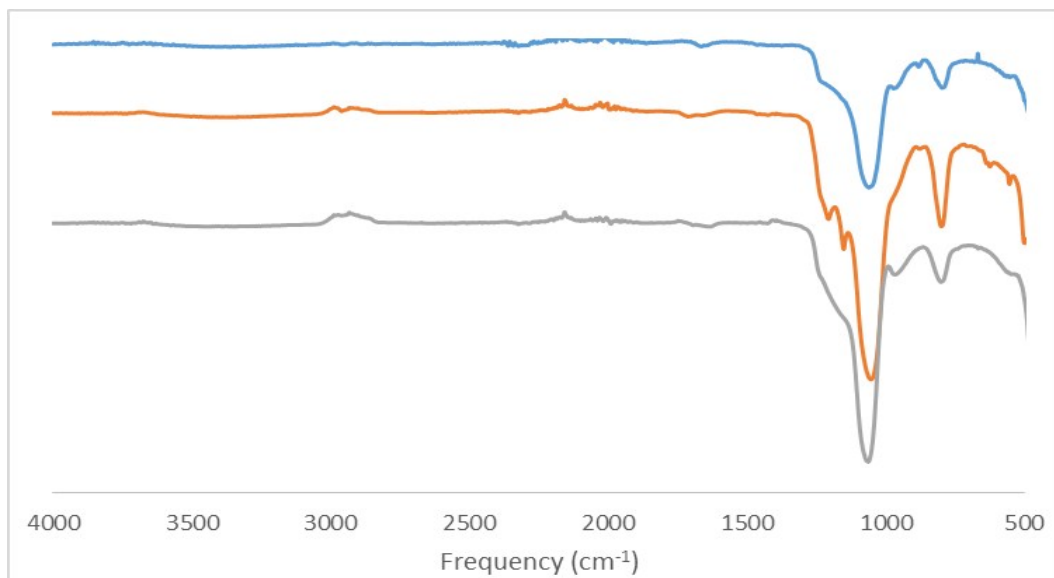


Figure S3. Infrared spectra of Ag_{np}-MCM-41 (top), recycled Ag_{np}-MCM-41 from a 1,2-dichloroethane-acetonitrile (10:1) solvent mixture (middle) and recycled Ag_{np}-MCM-41 from an H₂O/^tBuOH (1:1) solvent mixture containing 3% NaCl (bottom).

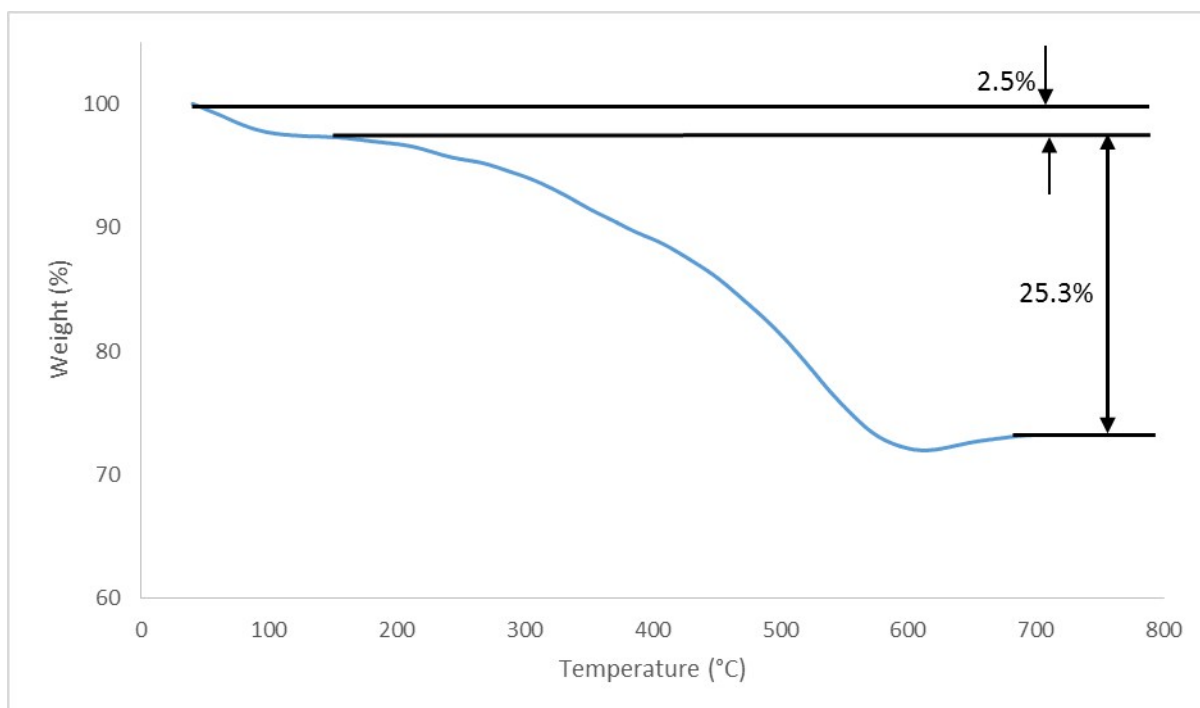


Figure S4. TGA curve of recycled Ag_{np}-MCM-41 under air at a heating rate of 10 °C/min.

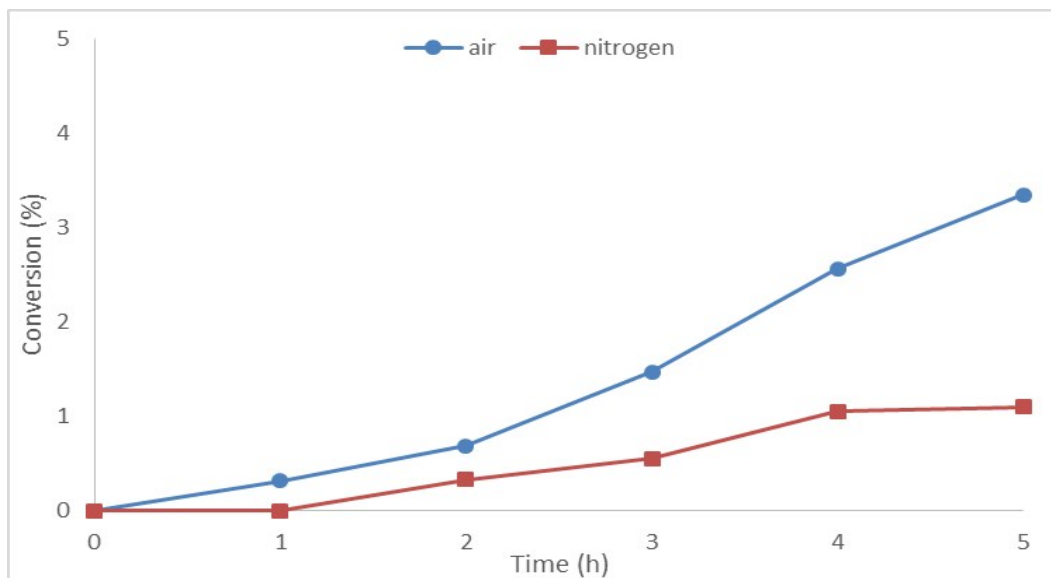


Figure S5. Comparison of Ag_{np} -MCM-41 catalyzed (Z)-cyclooctene epoxidation rate for the first 5h of reaction conducted under air and under nitrogen.

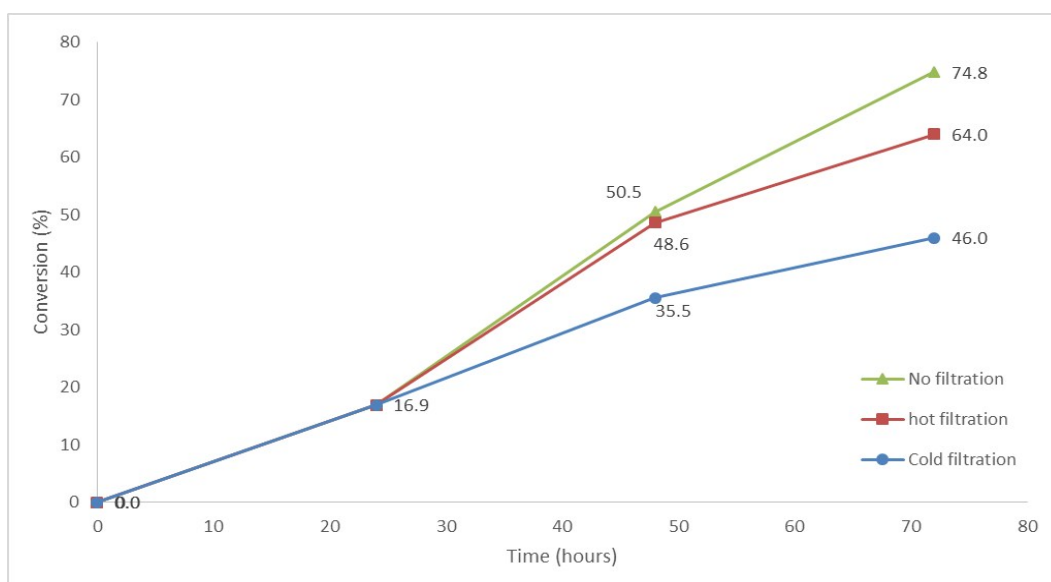


Figure S6. Comparison of (Z)-cyclooctene epoxidation rates for solutions that were hot filtered (80 °C) and cold filtered (room temperature) to remove solid Ag_{np} -MCM-41 after 24h of reaction, to the rate for a solution which was not filtered.