Supporting Information

Covalent Triazine Framework synthesis

To synthesise CTF, a glass ampoule was charged with 2,6-pyridinedicarbonitrile (0.124 g, 0.96 mmol) and anhydrous $ZnCl_2$ (0.664 g, 4.8 mmol) in a glovebox. The ampoule was flame sealed and the mixture was heated at 500°C for 48 h and then cooled to room temperature. The product was consecutively washed in 5M HCl at 100˚C, in NH_4OH at 60˚C, in H_2O at 100˚C and then in THF at 60˚C, each step overnight. The washing steps might seem excessive, but were, as we found, required to remove $ZnCl_2$. Finally, the powder was dried in vacuum at 180˚C overnight.

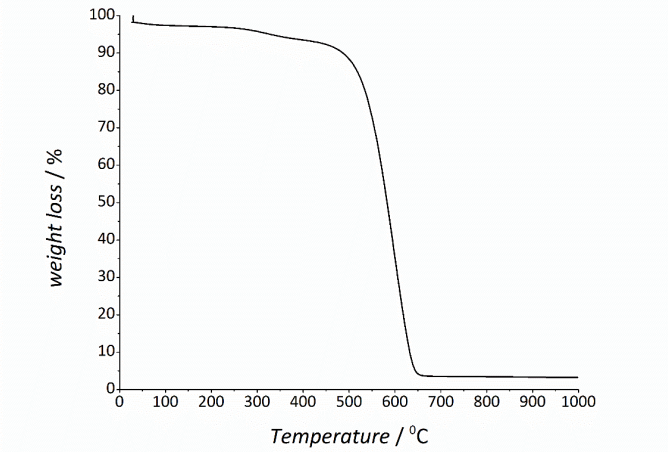
Catalyst Synthesis

A mixture of meso-CTF polymer (480 mg) and $[Cp^*Ir(Cl)_2]_2$ (40 mg) was placed in a Schlenk flask in a glovebox. Outside of the glovebox, degassed water (40 mL) was added with a syringe to the flask under a continuous Ar flow. The mixture was stirred overnight and filtered. The powder was further washed with a mixture of triflic acid (HOTf) (300 mg) and a 1:1 (volume) DMF/water mixture (50 mL) to remove the chloride ions. Finally, the powder was stirred in water at 50˚C for another 12 h, before being filtered and dried under vacuum at 50 ˚C.

CTF Characterisation

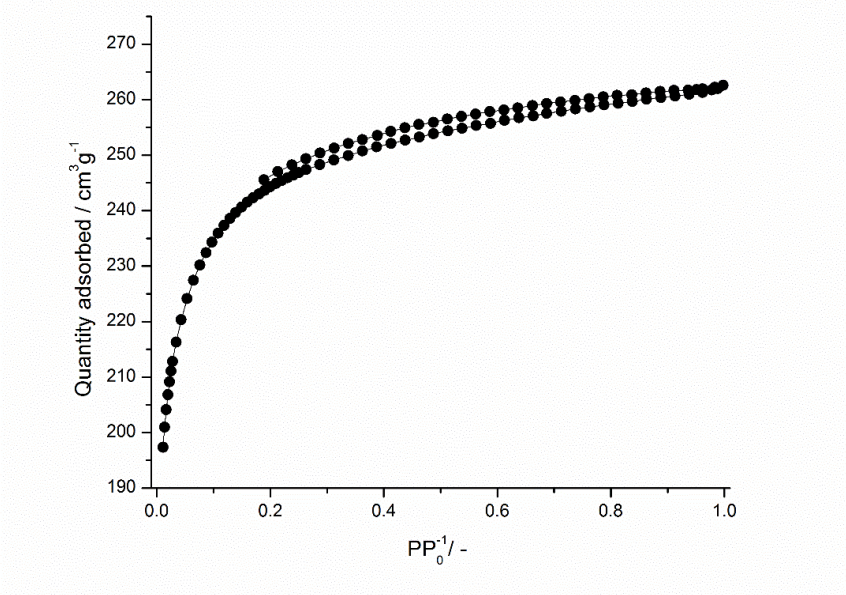
TGA

Thermogravimetric analysis (TGA) was performed on a Mettler Toledo TGA/SDTA851e instrument, where 11-20 mg of sample was screened for the change in mass while heated from 30 ˚C to 1000 ˚C with a heating rate of 2 ˚C min^{-1} under air flow.



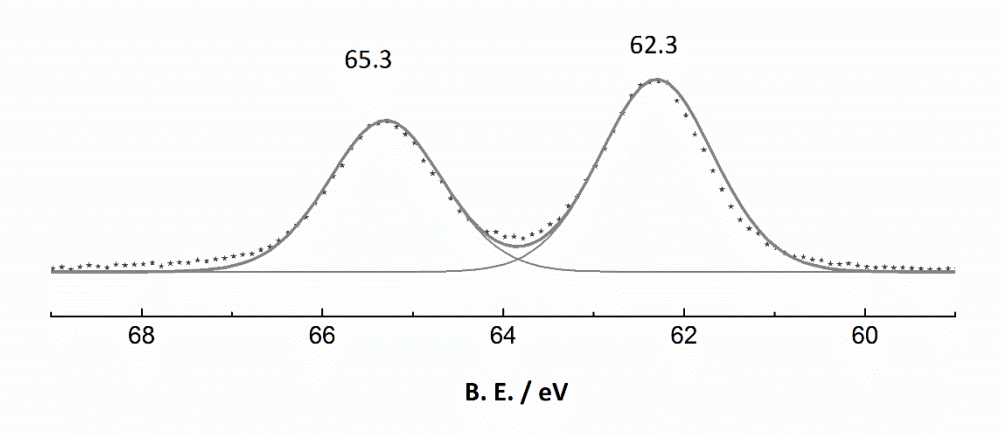
Nitrogen Adsorption of CTF support

Nitrogen (99.999 %) adsorption measurements were done at -196 °C using a Tristar II 3020 Micromeritics instrument. Sample degassing was done at 150 ˚C.



Catalyst Characterisation

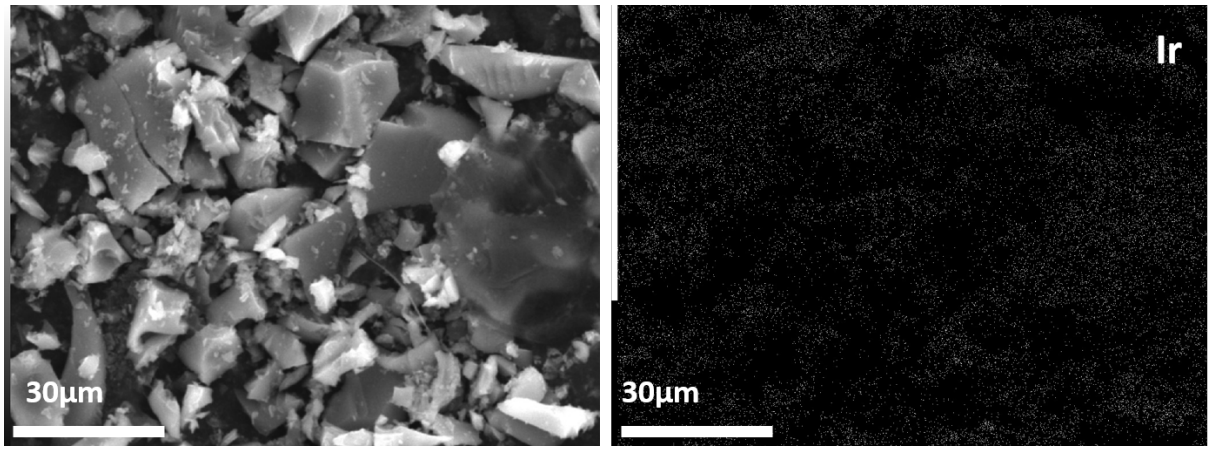
XPS



Ir XPS analysis of the spent catalyst

SEM/EDX of Ir@CTF

Scanning electron microscopy (SEM) images were recorded using a JEOL JSM-6010LA with a standard beam potential of 10 kV and an Everhart-Thornley detector. X-ray microanalysis (SEM/EDX) confirmed the elemental composition of the samples by the scanning electron microscopy (SEM) coupled with a dispersive X-ray microanalysis system (EDX) with a Silicon-drift detector.



Transfer Hydrogenation

1-octene-3-ol (40 mg, 0.31 mmol) was contacted with the Ir@CTF (2.4 wt% of Ir) material (10 mg, corresponding to 0.40 mol% Ir with respect to the substrate) in toluene or *iso*-propanol (1 mL) at 120ºC under an inert atmosphere (N_2, 2 bar). No further additives were used in the reaction. For the recycling, the solid was recovered by filtration, washed with i-PrOH, and dried at room temperature.