

Oxidative coupling of anilines to azobenzenes using heterogeneous manganese oxide catalysts

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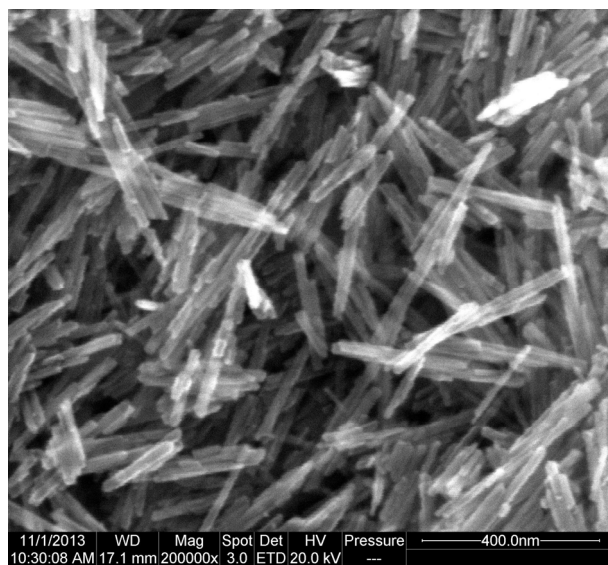


Fig. S1 SEM image of OMS-2.

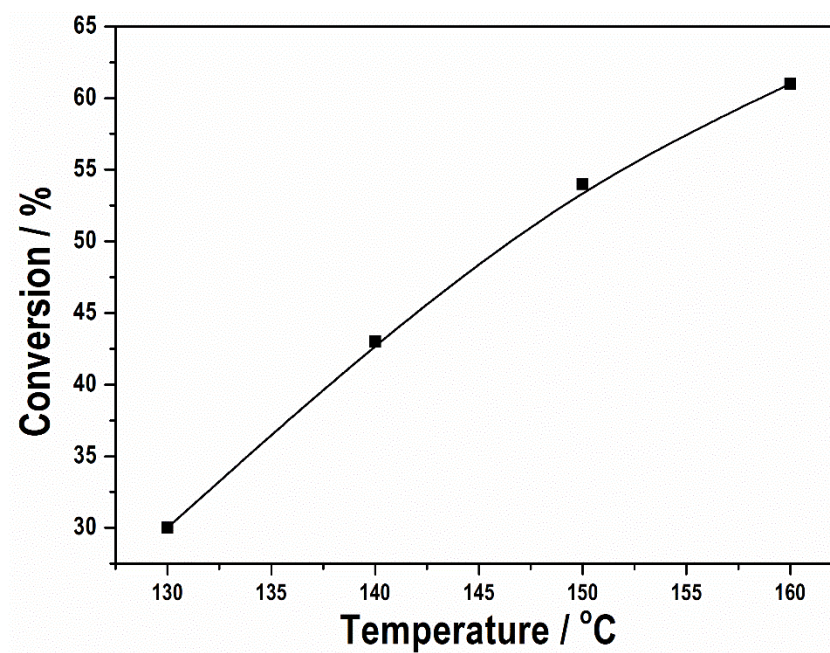


Fig. S2 The effect of the reaction temperature. Reaction conditions: 20 mg OMS-2, 1 mmol aniline, 2 mL chlorobenzene, 0.6 MPa O₂, 160 °C, 12 h.

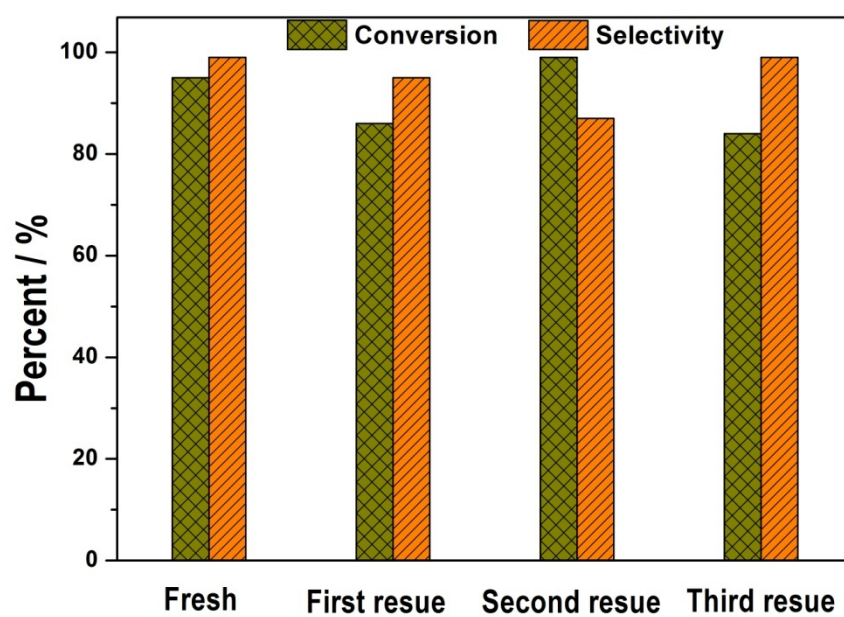


Fig. S3 Recycling test of OMS-2 in aniline oxidation. Reaction conditions: 20 mg OMS-2, 1 mmol aniline, 2 mL chlorobenzene, 0.6 MPa O₂, 160 °C, 24 h.

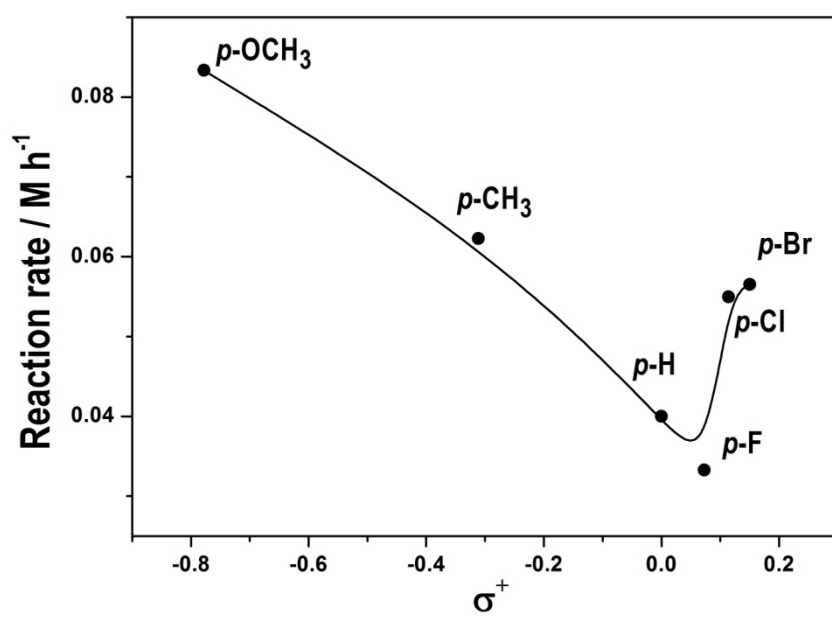


Fig. S4 The correlation of reaction rate with σ^+ . Reaction conditions: 1 mmol aniline, 20 mg catalyst, 2 mL chlorobenzene, 0.6 MPa O_2 , 160 $^\circ\text{C}$, 6 h.

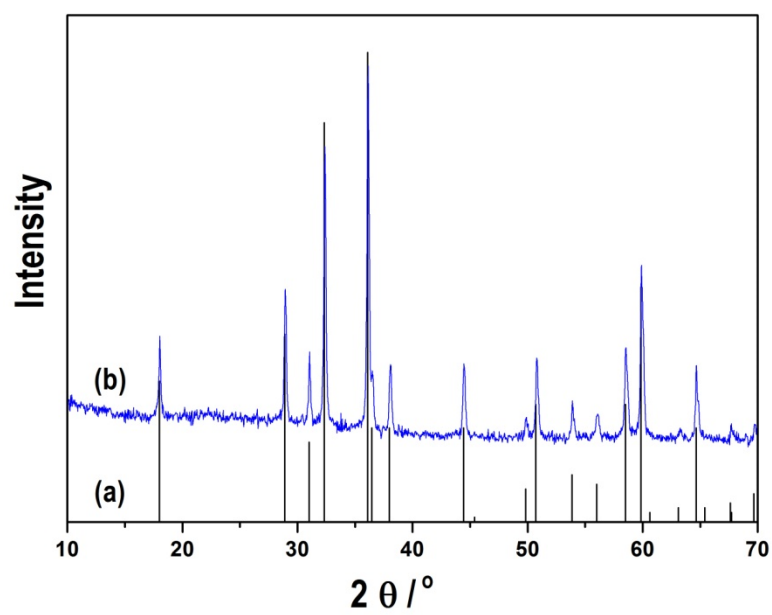
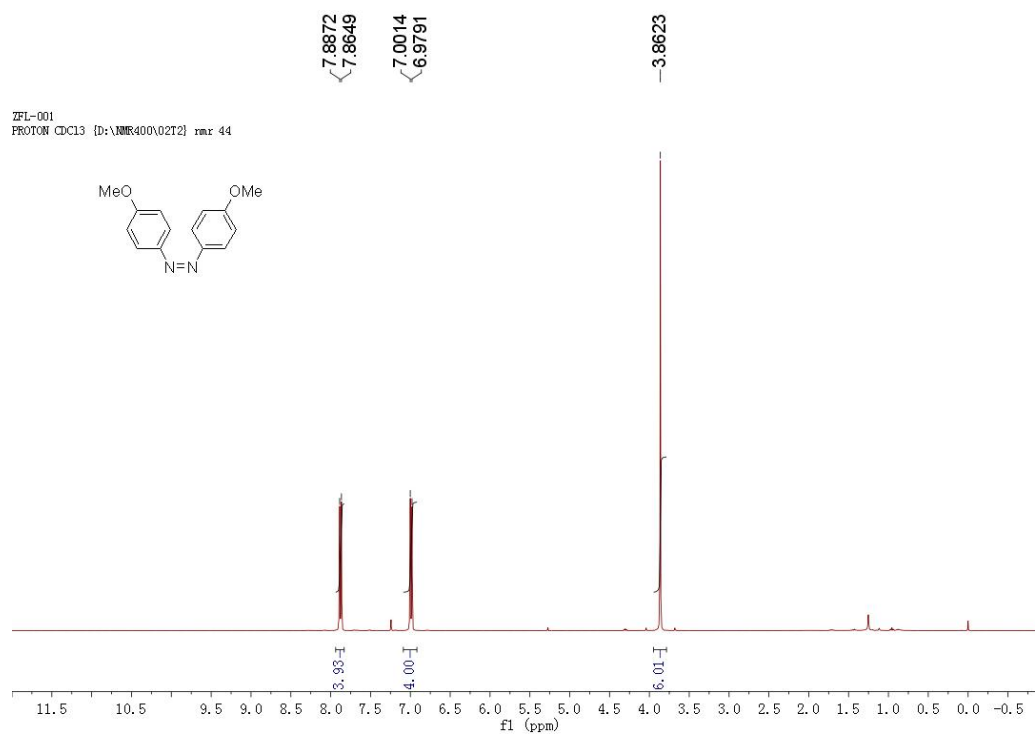


Fig. S5 XRD patterns of (a) PDF#24-0734 and (b) OMS-2 was treated with aniline at 160 °C under N₂ for 24 h

¹H-NMR spectra of the isolated product



Mass spectra of the products

