Ruthenium hydroxide on magnetite as a magnetically separable heterogeneous catalyst for liquid-phase oxidations and reductions (B603204D)

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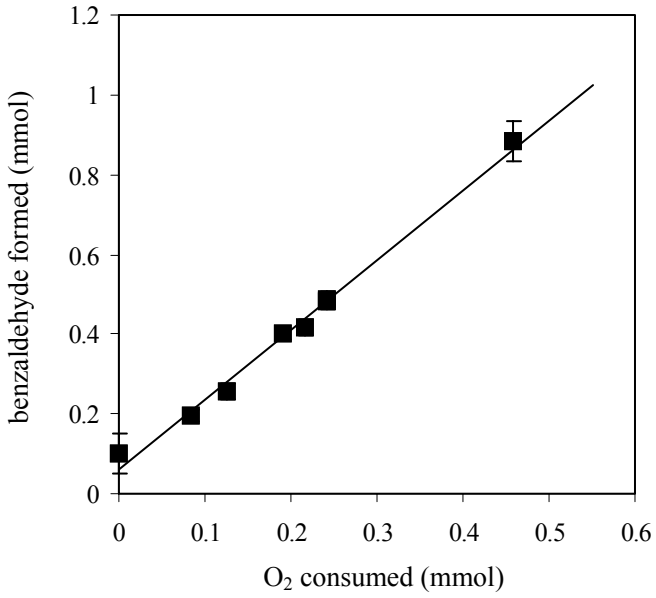

Fig. S1 Relationship between amounts of benzaldehyde and O_2 uptake for the oxidation of benzyl alcohol. Reaction conditions: Benzyl alcohol (2 mmol), $Ru(OH)_x/Fe_3O_4$ (Ru: 0.03 mmol), toluene (3 mL), 378 K, O_2 atmosphere. Slope (benzaldehyde formed/) = 1.8 (r^2 =0.99).

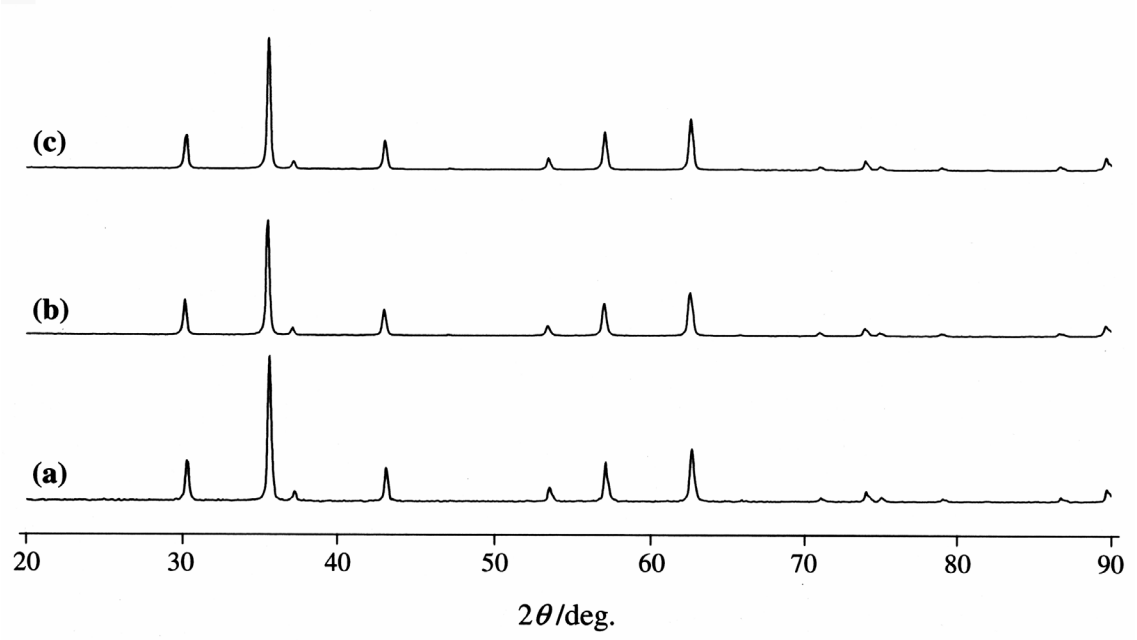

Fig. S2 XRD patterns of Ru(OH)x/Fe_3O_4 catalysts; (a) fresh, (b) recovered after the oxidation of 1-phenylethanol and (c) recovered after the reduction of 3-pentanone.