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Supporting Information

Highly Dispersible Bis-imidazolium/WO_4^{2-} Modified Magnetic Nanoparticles: Heterogeneous Phase Transfer Catalyst for Green and Selective Oxidation

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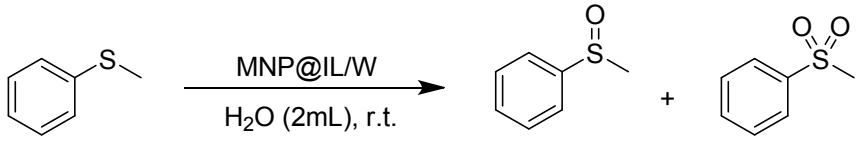
Table S1. Optimization of oxidation of sulfide catalyzed by MNP@IL/W.[a]



A B

Entry	Catalyst (mol%)	H_2O_2 (mmol)	Time (h)	Conv. (%)[b]	Yield (%)[c]	
					A	B
1	-	5	10	9	59	41
2	1	5	2	99	4	96
3	1	3	1	99	64	36
4	1	1.5	1	99	83	17
5	**0.5**	**1.5**	**1**	**99**	**98**	**2**
6	0.25	1.5	1	65	98	2
7	0.5	1	1	79	99	1

[a] Reaction condition: methylphenyl sulfide (1mmol), water (2 mL), room temperature.
[b] Conversions were calculated based on initial mmol of methylphenyl sulfide.
[c] Yields were determined by GC.

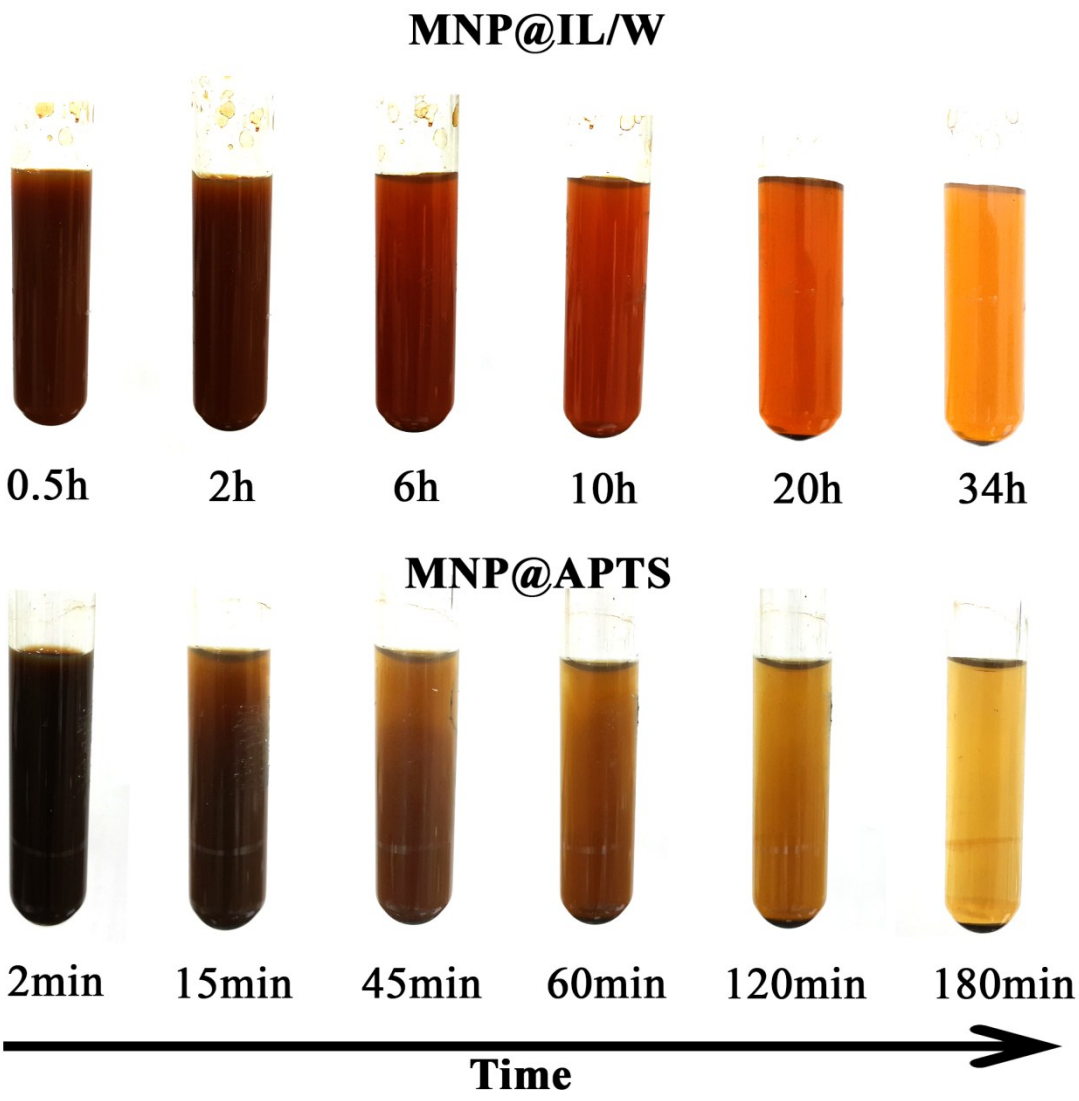


Fig. S1. Comparison of dispersion of MNP@IL/W (a) with MNP@APTS (b) in water at room temperature at pH=7.

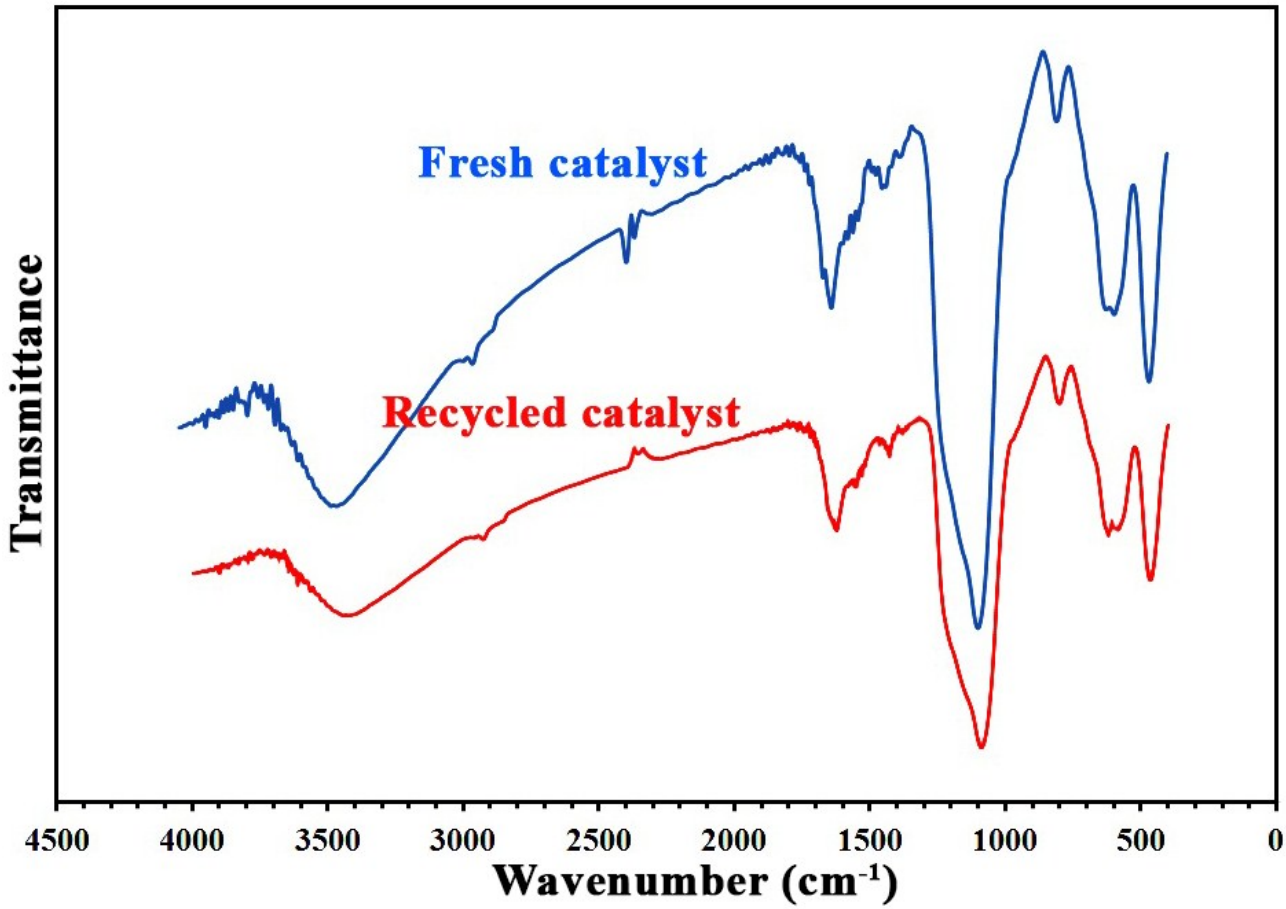


Fig. S2. FT-IR spectrum of recycled catalyst after 5th run.

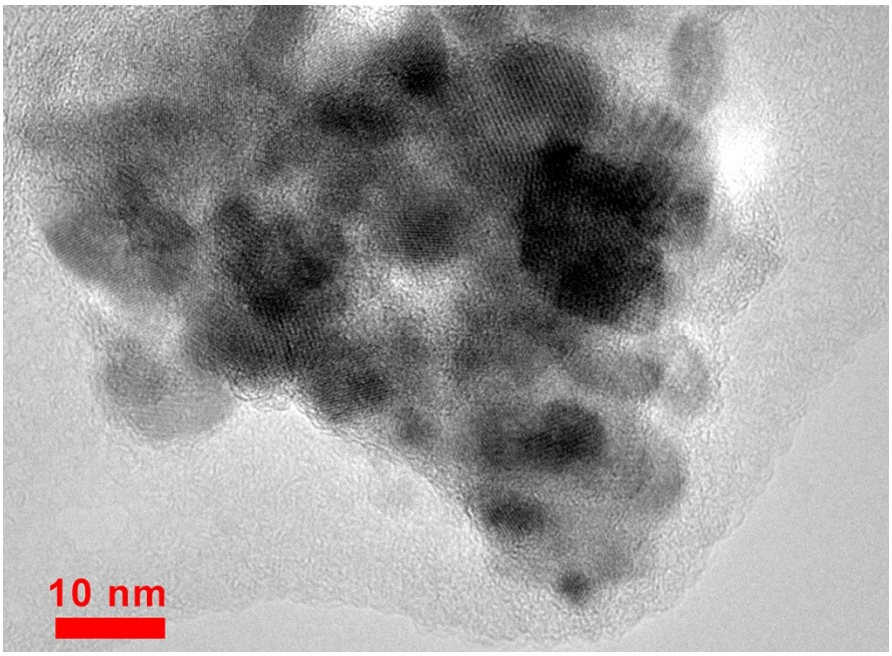


Fig. S3. TEM images of recycled catalyst after 5th run.

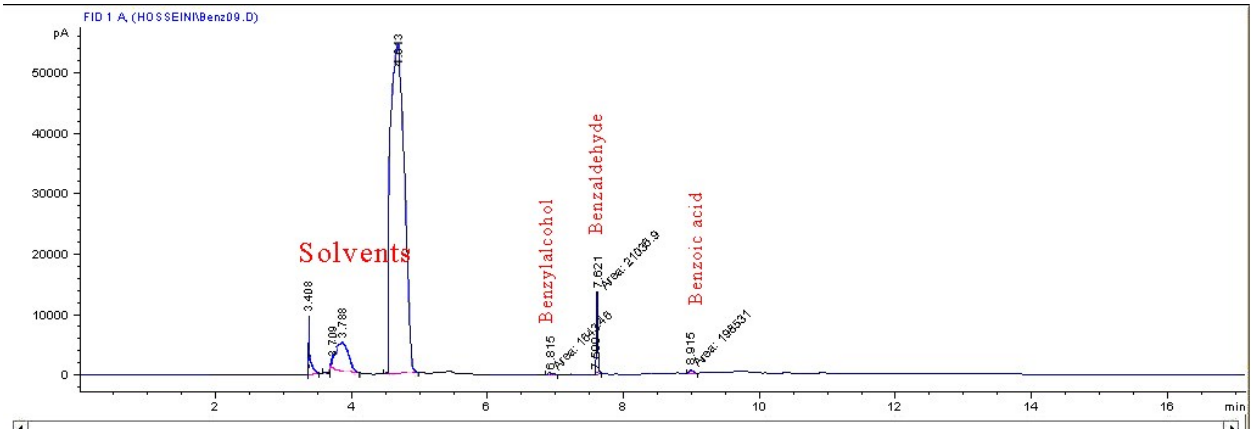


Fig. S4. Chromatogram of oxidation of benzyl alcohol.

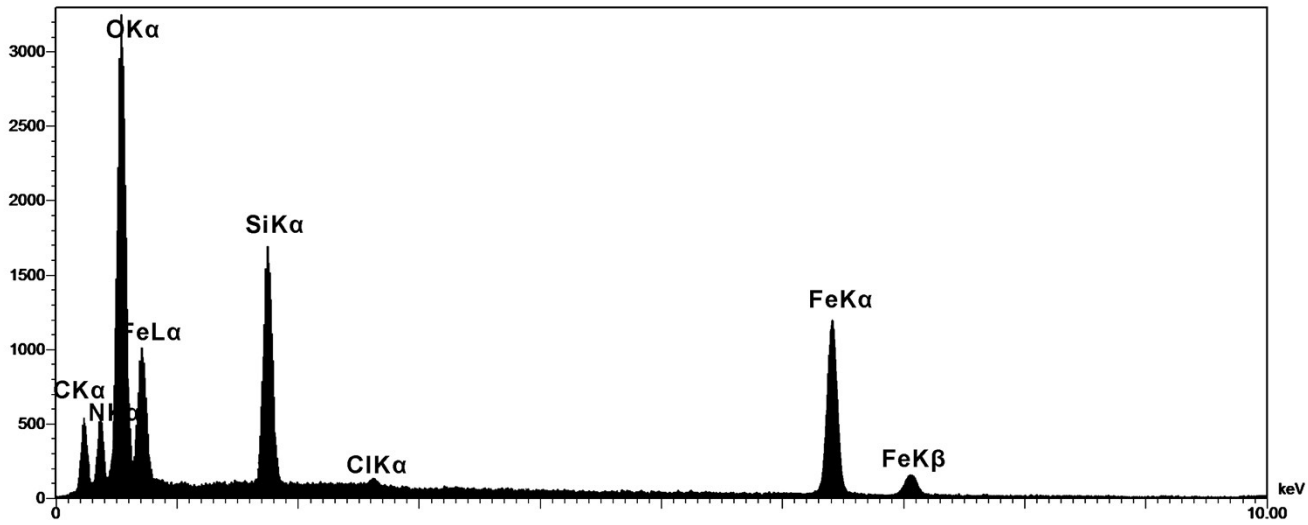


Fig. S5. EDS analysis of MNP@IL/Cl.

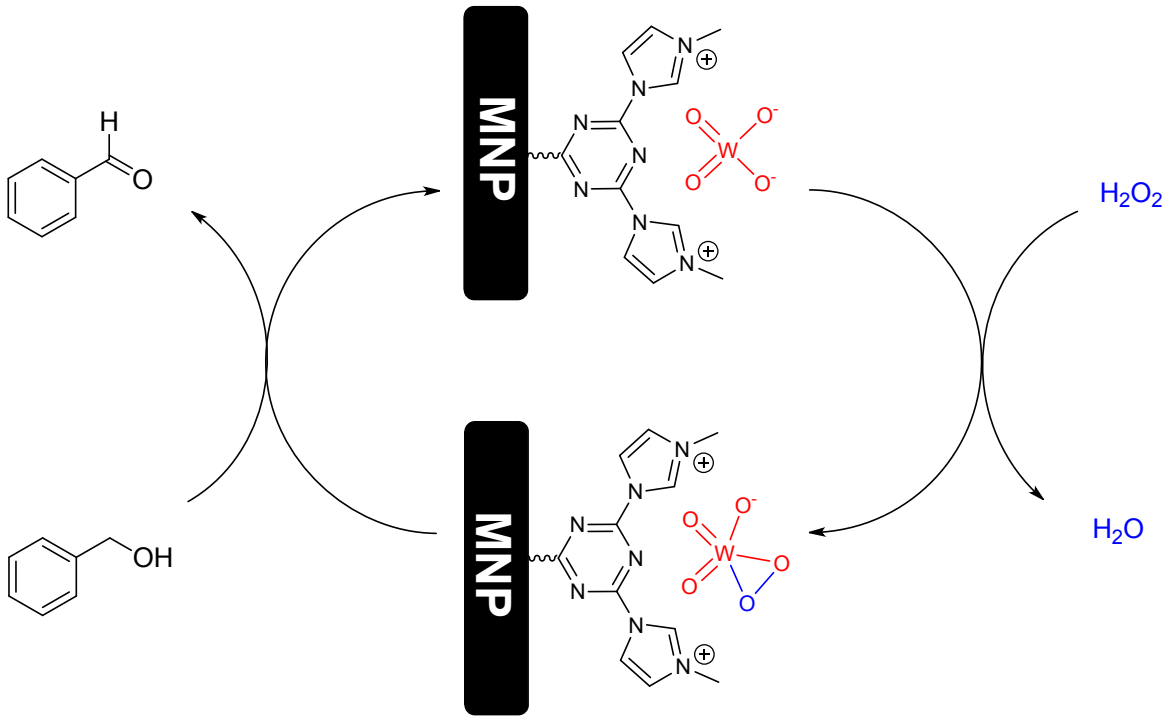


Fig. S6. Proposed mechanism for oxidation of alcohol catalyzed by MNP@IL/W.