## **Supporting Information**

Highly Dispersible and Magnetically Recyclable Poly(1-Vinyl Imidazole) Brush coated Magnetic Nanoparticle: an Effective Support for Immobilization of Palladium Nanoparticles

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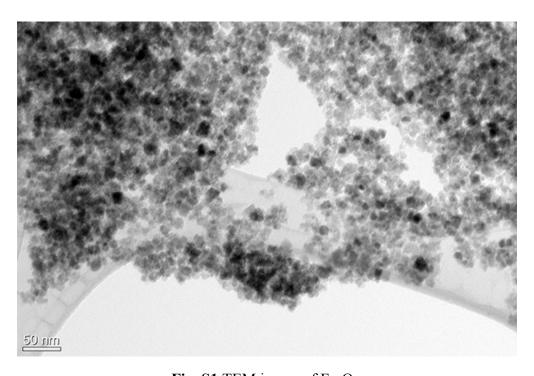


Fig. S1 TEM image of Fe<sub>3</sub>O<sub>4</sub>.

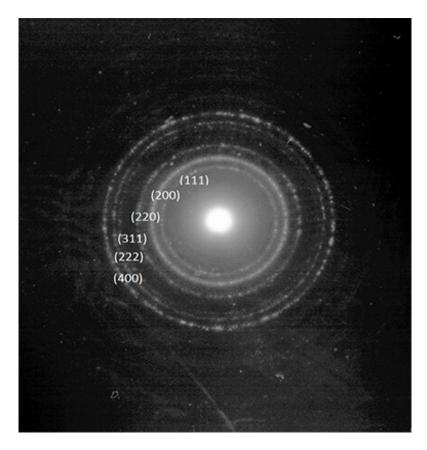


Fig. S2 Electron diffraction pattern of Fe<sub>3</sub>O<sub>4.</sub>

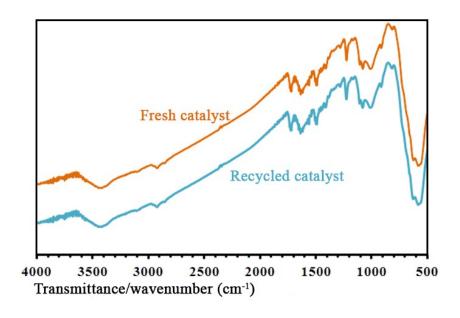


Fig. S3 FT-IR spectrum of fresh catalyst and recycled catalyst.

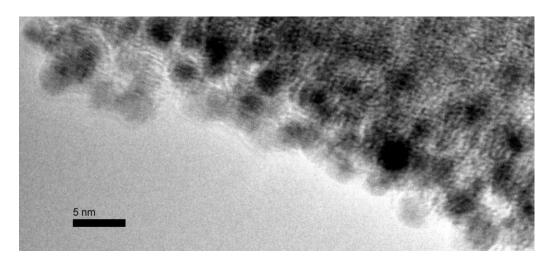


Fig. S4 The TEM image of recycled catalyst.

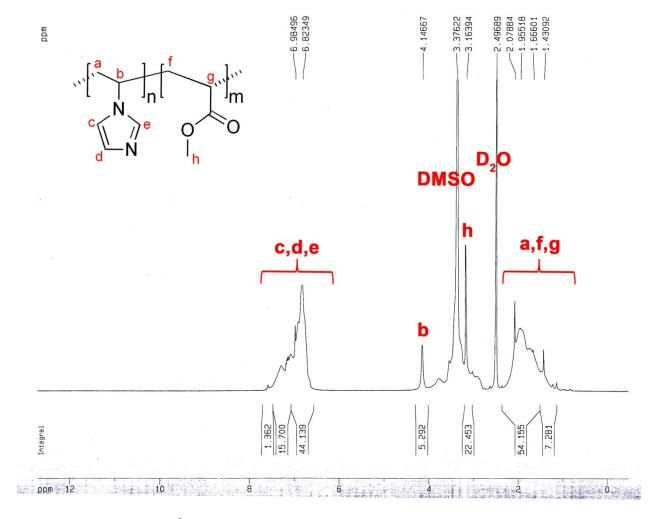


Fig. 5 <sup>1</sup>HNMR of co-poly (vinyl imidazole/methyl acrylate)

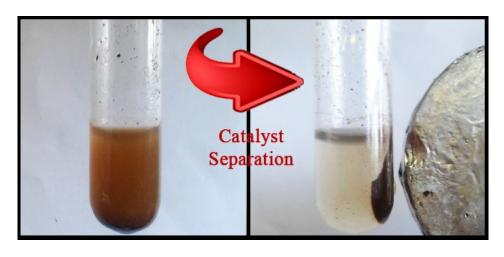


Fig. 6 Catalyst separation.