

## Supplementary Information

# **Cu (II) coordinated N-bearing heteropolyacid-based poly(ionic liquid)s for allylic oxidation of cyclohexene to 2-cyclohexene-1-one with O<sub>2</sub> under mild conditions**

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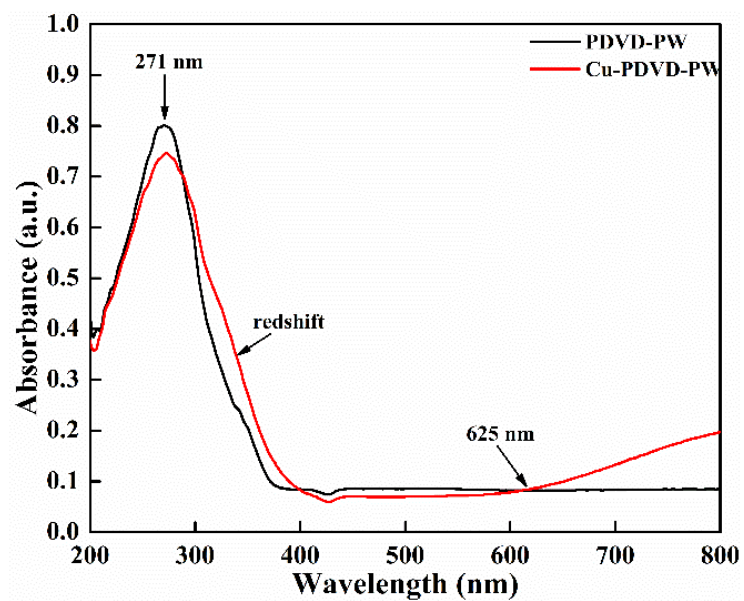


Fig. S1 The UV-vis absorption spectra of the PDVD-PW and Cu-PDVD-PW.

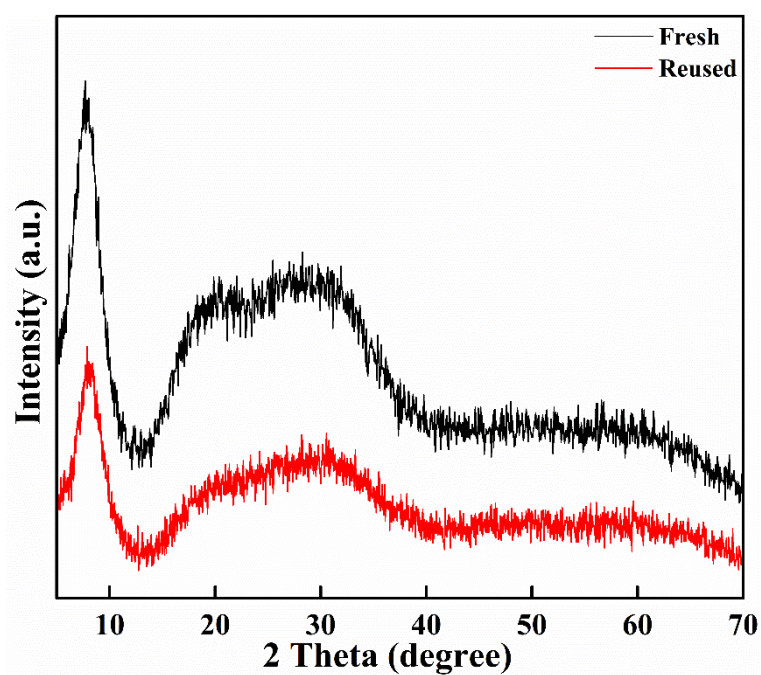


Fig. S2 The XRD patterns of the 3 % Cu-PDVD-PW catalyst before and after reaction