

# Conversion of PET Bottle Waste into a Terephthalic Acid-Based Metal-Organic Framework for Removing Plastic Nanoparticles from Water

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Figure S9: Fluorescent microscopic images of MOF-5 (a) with no fluorescence (i.e. before) adsorption and after adsorption of luminescent PVC (b) and PMMA (c) NPs form solution. The homogenous distribution indicate strong interaction between the MOF surface and PPNPs.

Table S1: Percentage of Zn in MOF-5 before and after the adsorption of PNPs from water. Similar values indicate very little or no leaching of Zn into the water.

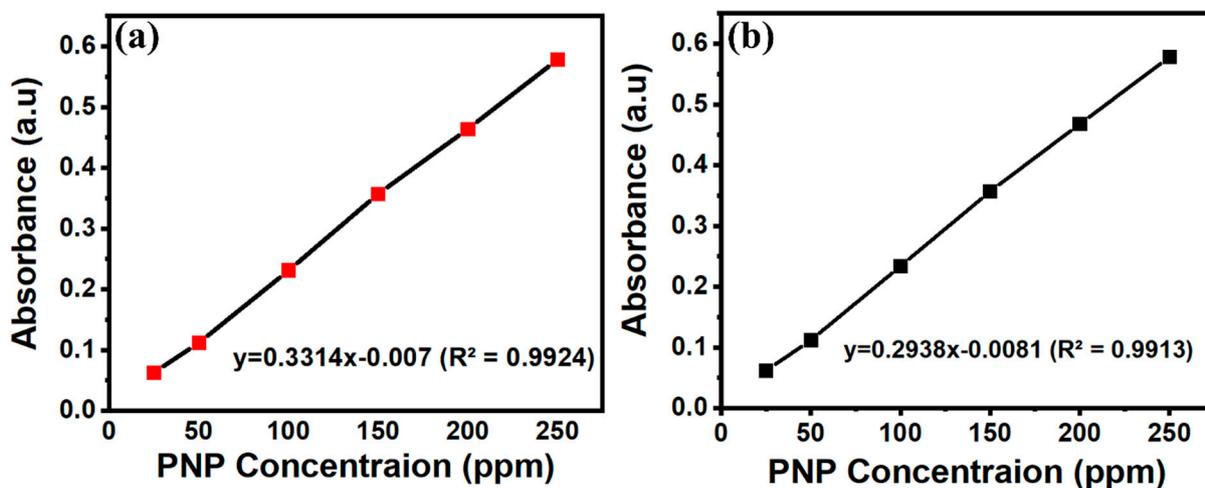


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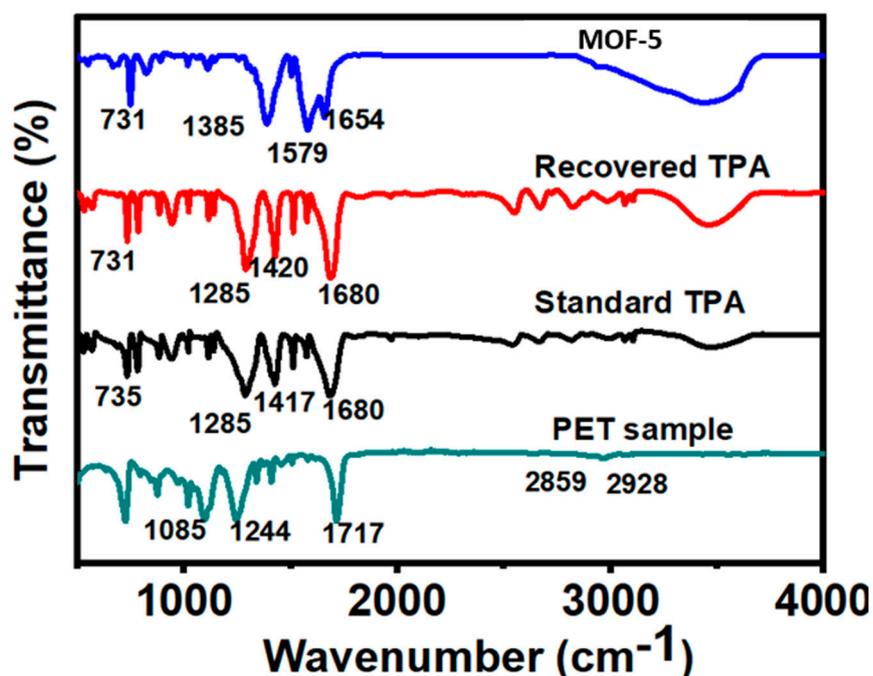


Figure S2: The FTIR spectra of PET Bottle sample (—), commercial TPA (—), recovered after hydrolysis of PET (—) and MOF-5 (—). KBr matrix was used for collecting the spectra, ( $1717\text{ cm}^{-1} = -\text{CO}_2\text{R}$ ,  $1680\text{ cm}^{-1} = -\text{CO}_2\text{H}$ ,  $1654\text{ cm}^{-1} = -\text{CO}_2\text{Zn}$ ).