

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

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Contents

Figure S1: Calibration curve for PVC (a, ■) and PMMA (b, ■) NP solutions using a concentration range of 25-250 ppm.

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, ($1717\text{ cm}^{-1} = -\text{CO}_2\text{R}$, $1680\text{ cm}^{-1} = -\text{CO}_2\text{H}$, $1654\text{ cm}^{-1} = -\text{CO}_2\text{Zn}$).

Figure S3: TEM (a), SEM (b), SEM - elemental mapping images for Zn (c) and O₂ (d) on the surface of MOF-5. N₂ adsorption-desorption isotherm curve (e, BET data) was collected after degassing the sample at 120 °C for 10 hours.

Figure S4: SEM images of the PVC (a) and PMMA (b) NPs; Size distribution (c) of PVC (—) and PMMA (—) NPs measured using DLS in water.

Figure S5: Kinetic studies using pseudo-first order model for the adsorption of PVC NPs (a) and PMMA NPs (b) on MOF-5 from water. The dotted line represent the line of best fit.

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Figure S6: Freundlich isotherm studies for the adsorption of PVC (a) and PMMA (b) NPs on MOF-5 from water. The dotted line represent the line of best fit.

Figure S7: Temkin model isotherm studies for the adsorption of PVC (a) and PMMA (b) NPs on MOF-5 from water. The dotted line represent the line of best fit.

Figure S8: D-R isotherm model studies for the adsorption of PVC (a) and PMMA (b) NPs on MOF-5 from water. The dotted line represent the line of best fit.

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 PNPs.

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.

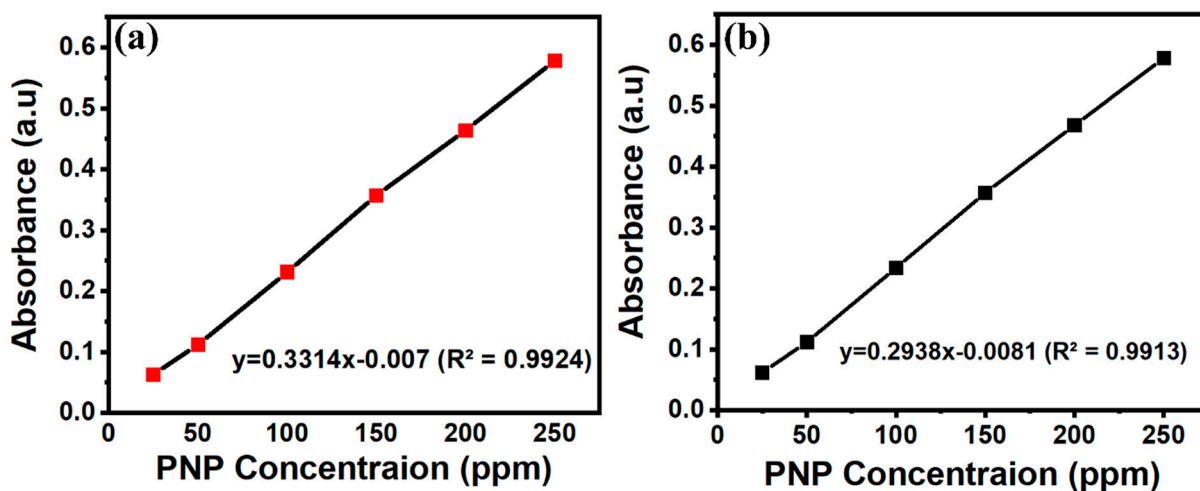


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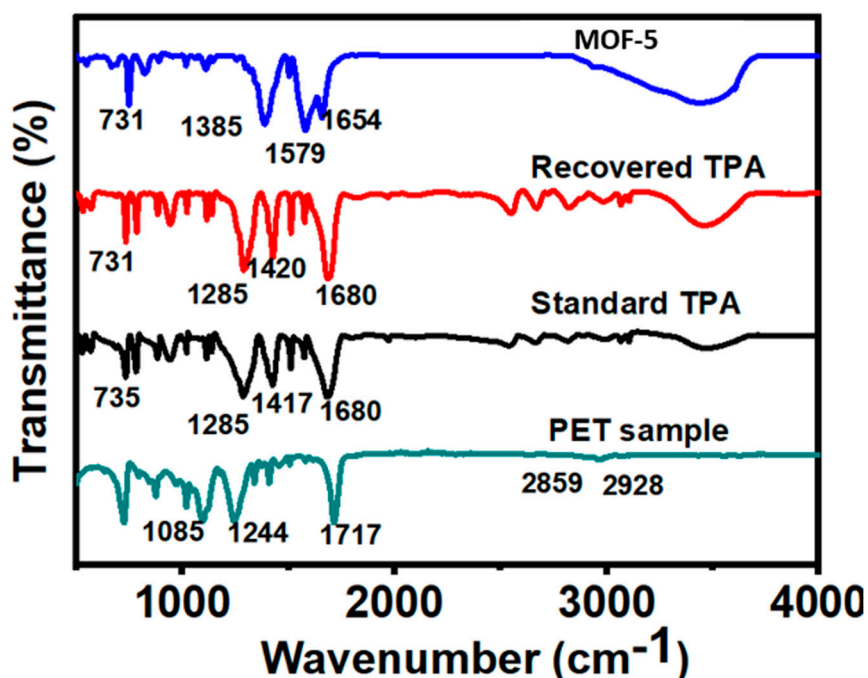


Figure S2: The FTIR spectra of PET Bottle sample (—), commercial TPA (—), recovered after hydrolysis of PET (—) and MOF-5 (—). KBr matrix was used for collecting the spectra, ($1717 \text{ cm}^{-1} = -\text{CO}_2\text{R}$, $1680 \text{ cm}^{-1} = -\text{CO}_2\text{H}$, $1654 \text{ cm}^{-1} = -\text{CO}_2\text{Zn}$).