

Supporting Information

for

An efficient recyclable magnetic material for the selective removal of organic pollutants

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Additional experimental data

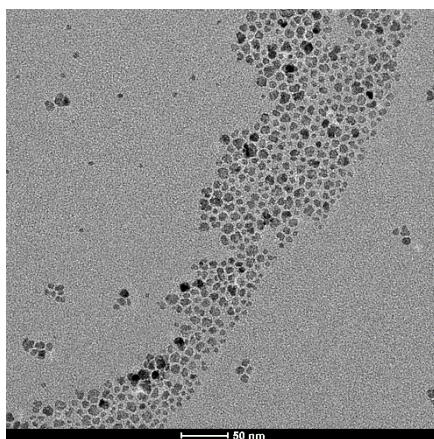


Figure S1: TEM image of the synthesized maghemite nanoparticles.

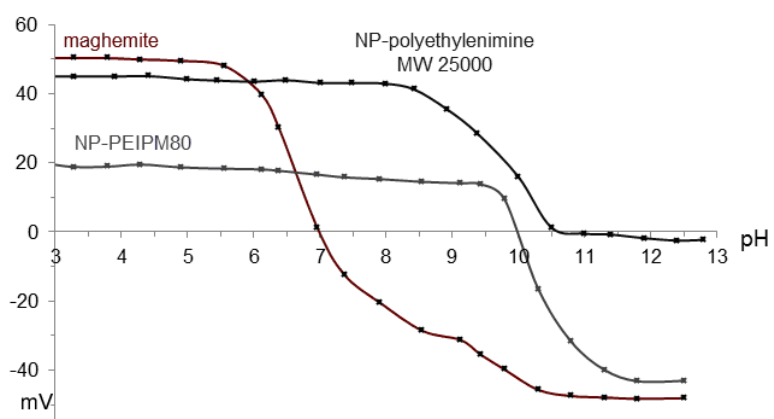


Figure S2: Evolution of the zeta potential of PEIP-coated nanoparticles as a function of the pH value.

Methyl orange (MO)

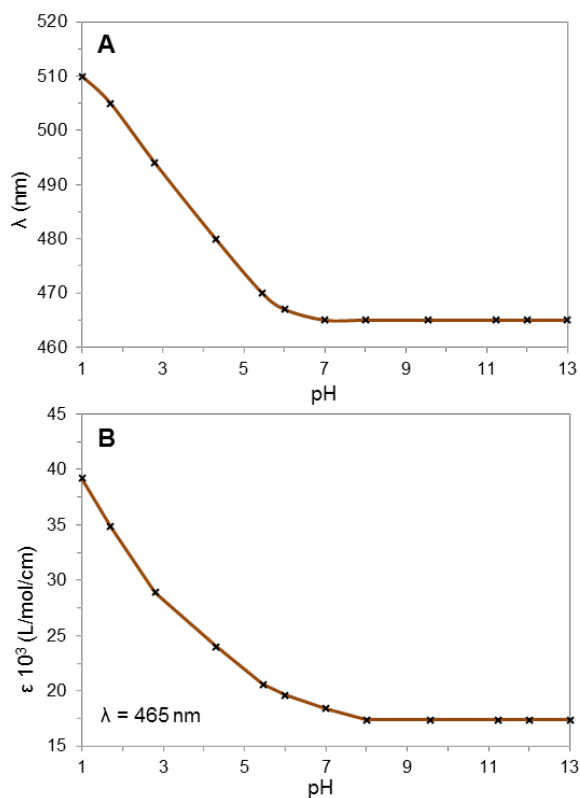


Figure S3: A) Evolution of the maximum absorption wavelength λ_{\max} as a function of the pH value. B) Evolution of the molar extinction coefficient at 465 nm as a function of the pH value. To prevent measurement inaccuracy, solutions will be adjusted to pH 14.

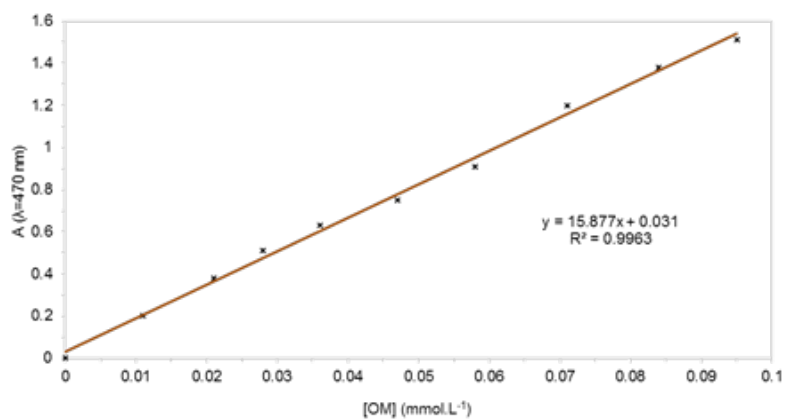


Figure S4: MO calibration curve, at 465 nm, $A = f([OM])$.

Methylene blue (MB)

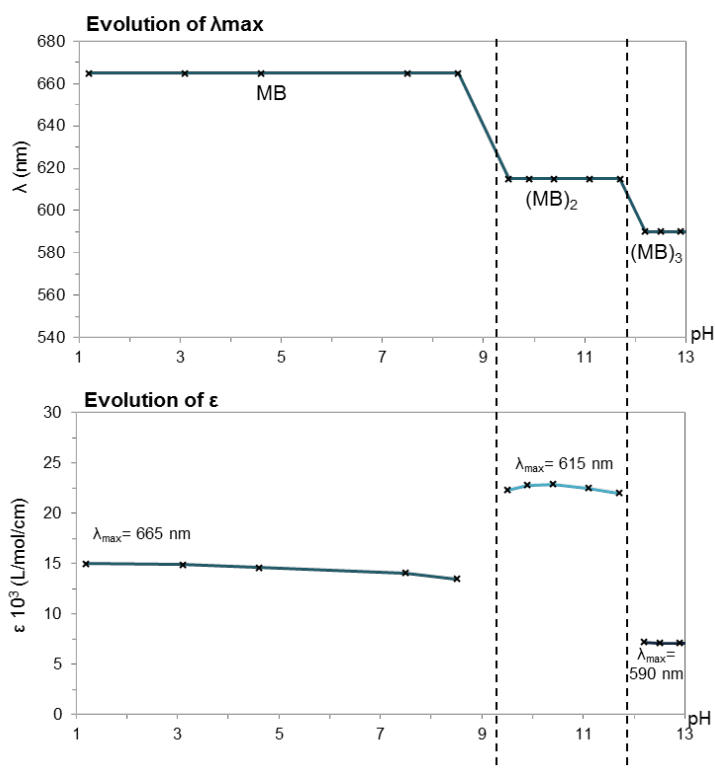


Figure S5: Evolution of the maximum wavelength and molar extinction coefficient as a function of the pH value. We can observe three well-separated domains with different λ_{\max} [1].

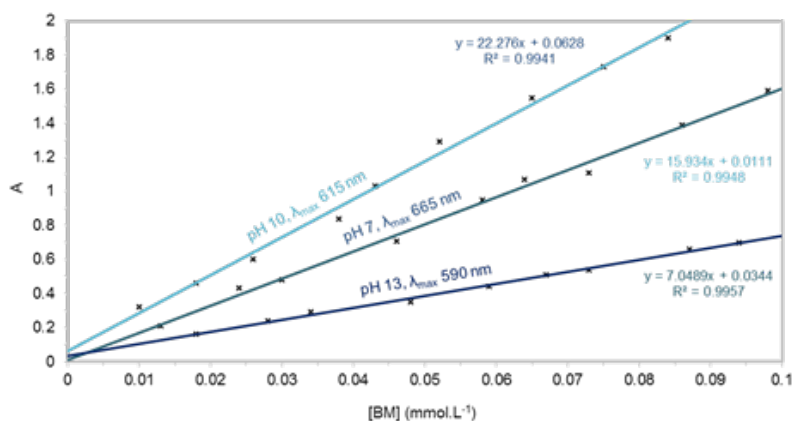


Figure S6: MB calibration curves for the three domains of adsorption (see Figure S5) at pH 7, 10 and 13.

References

[1] Ghosh, A. K. *Curr. Sci.* **1974**, *43*, 655.