Electronic Supplementary Material (ESI) for Polymer Chemistry
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Hybrid materials achieved by polypeptide grafted magnetite nanoparticles through dopamine biomimetic surface anchored initiator

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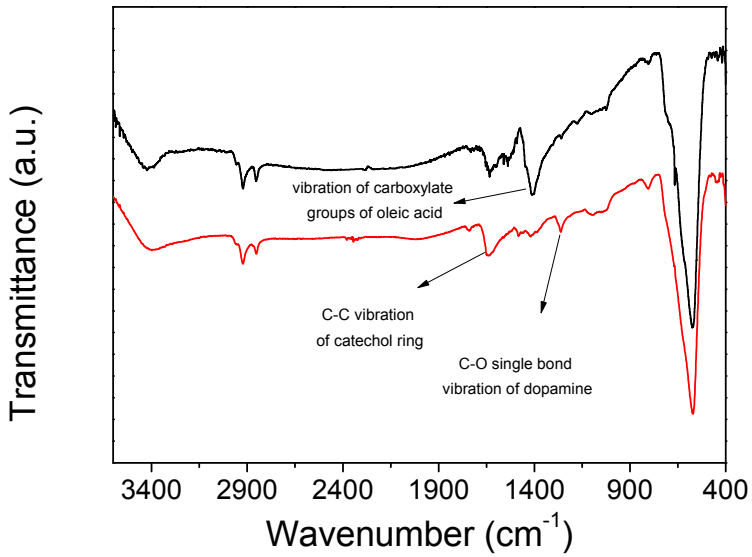

Figure S1. *FTIR spectra for Fe_3O_4 NPs (—) and Fe_3O_4@dopamine NPs (—).*

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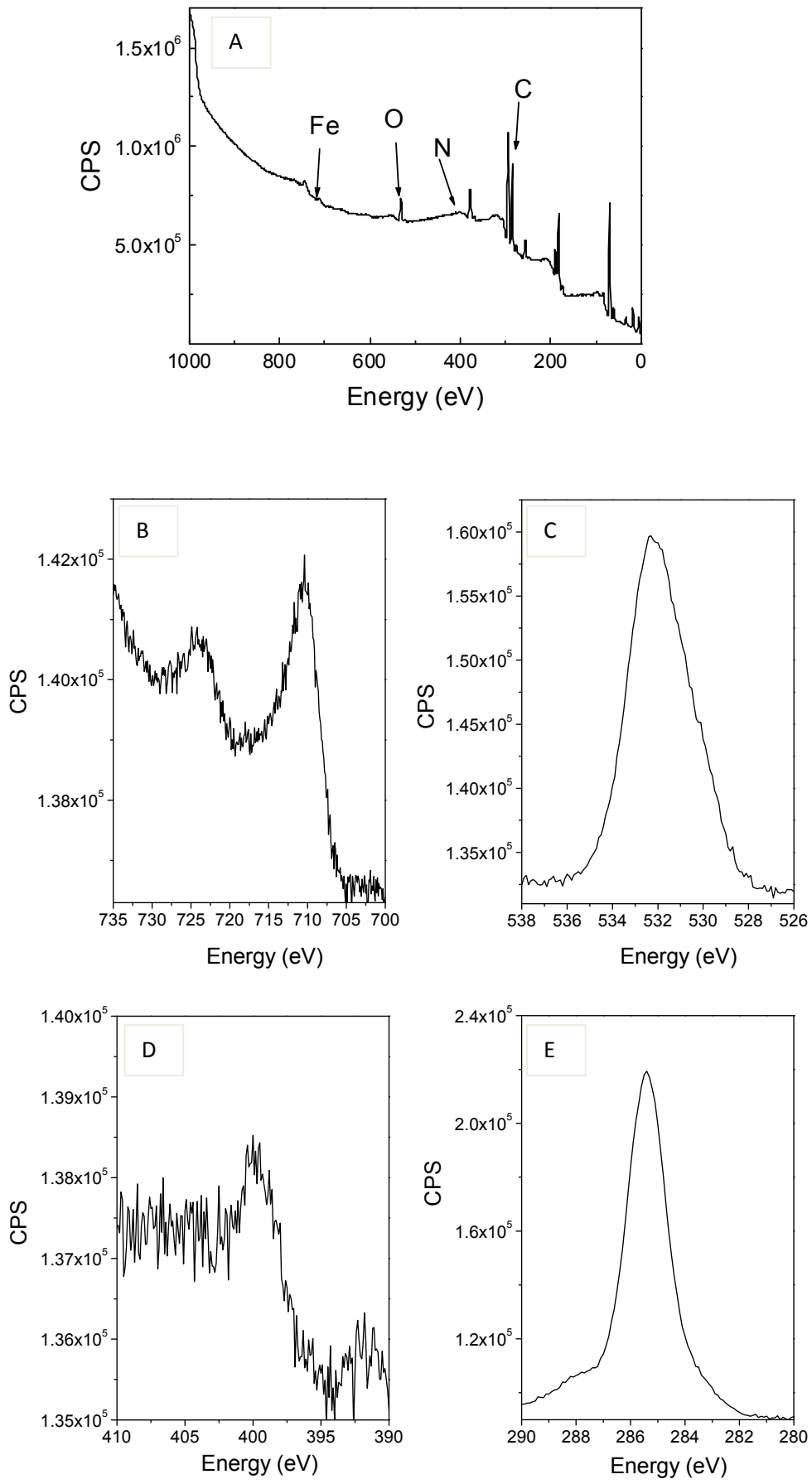

Figure S2. *(A) XPS spectrum of the Fe_3O_4@dopamine NPs with ξ-potential of 35 mV. Selected XPS region spectra: (B) Fe 2p region spectra; (C) O 1s region spectra; (D) N 1s region spectra and; (E) C 1s region spectra.*

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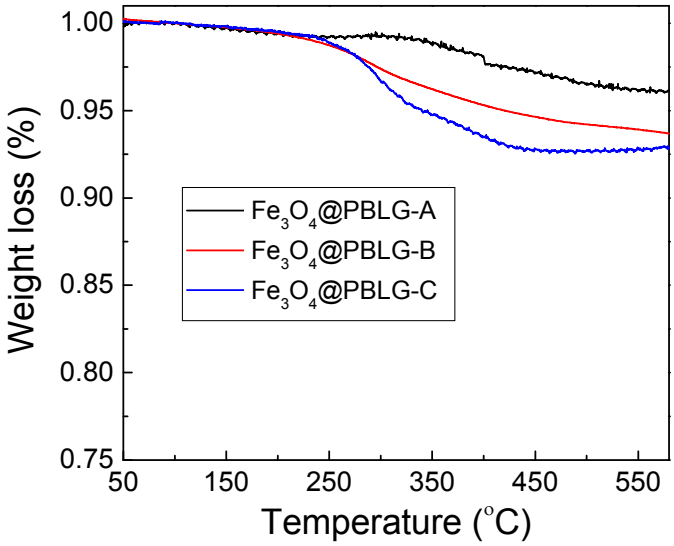

Figure S3. *TGA curves for all hybrid bionanomaterials obtained.*

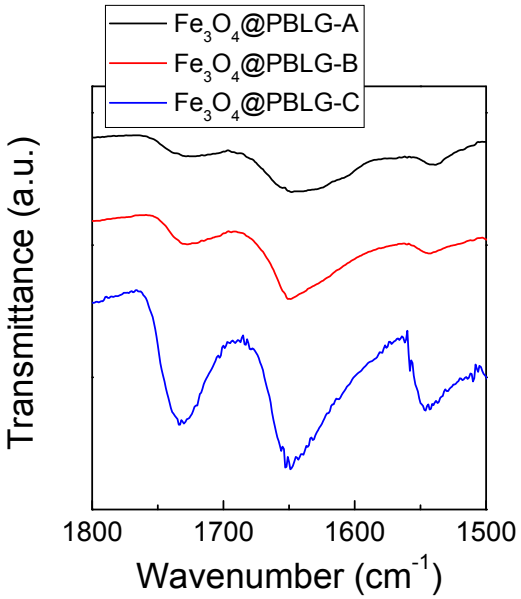

Figure S4. *FTIR spectra in the range of 1800-1500 cm^{-1} of all hybrid bionanomaterials obtained.*

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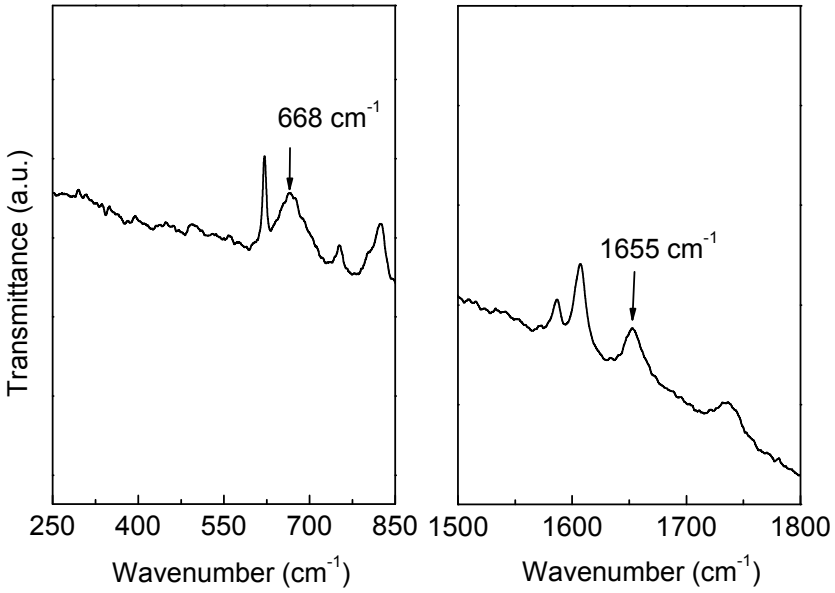

Figure S5. *Raman spectrum for Fe_3O_4@PBLG-C NPs.*

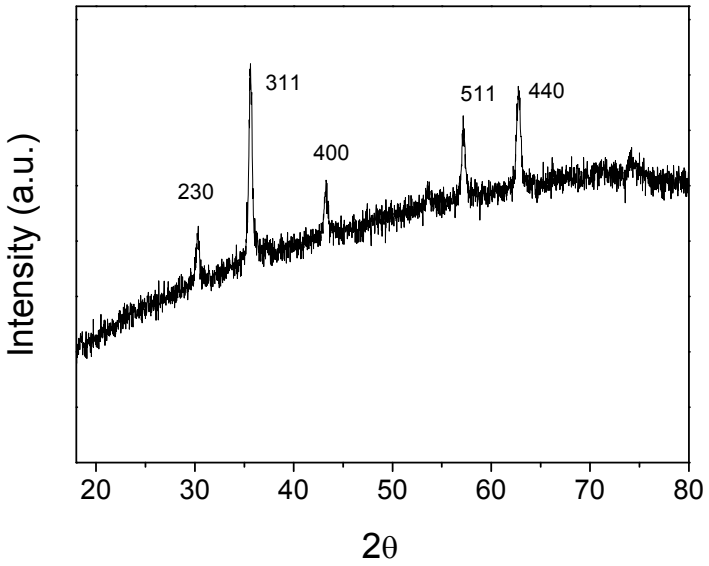

Figure S6. *XRD patterns of the Fe_3O_4@PBLG-C NPs.*

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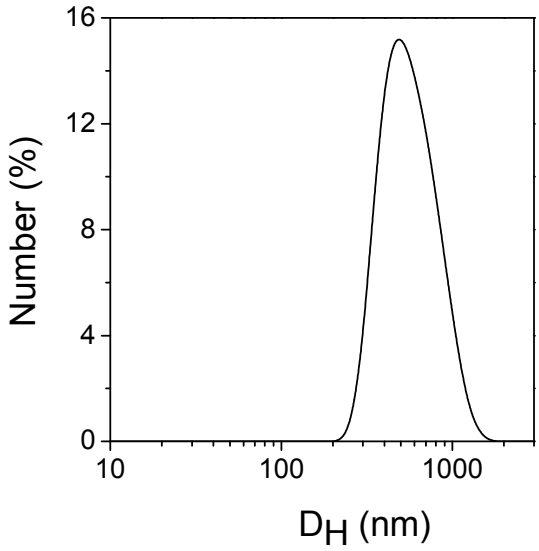

Figure S7*. DLS number distribution of Fe_3O_4@PBLG-C NPs in DMF/LiCl.*

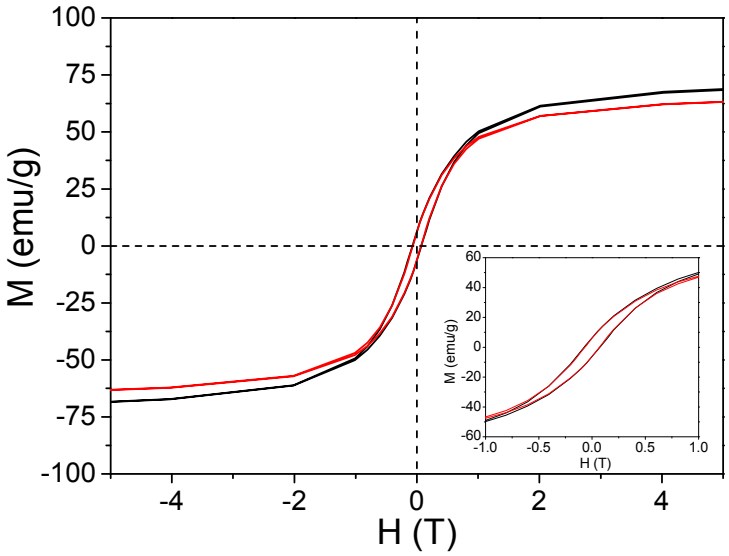

Figure S8. *Magnetization versus magnetic field at 300 K: M-H curves for pristine Fe_3O_4 NPs (—) and Fe_3O_4@PBLG-C NPs (—)*