

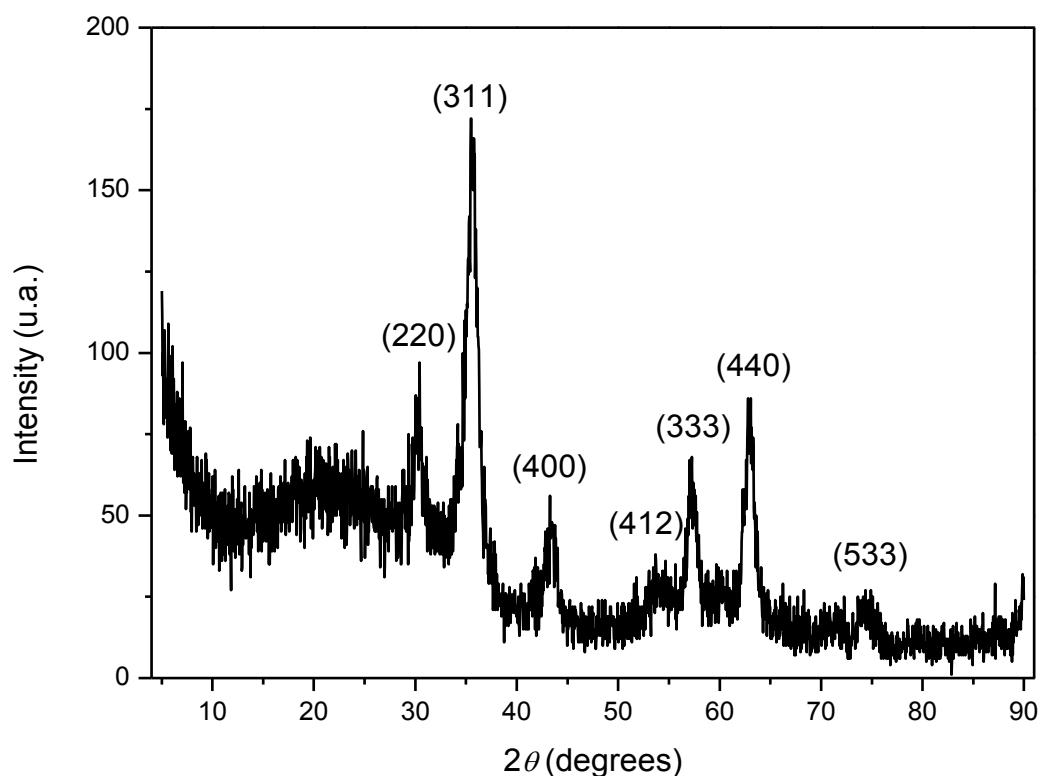
## Supplementary Information

### Studies of the Colloidal Properties of Superparamagnetic Iron Oxide Nanoparticles Functionalized with Platinum Complexes in Aqueous and PBS Buffer Media

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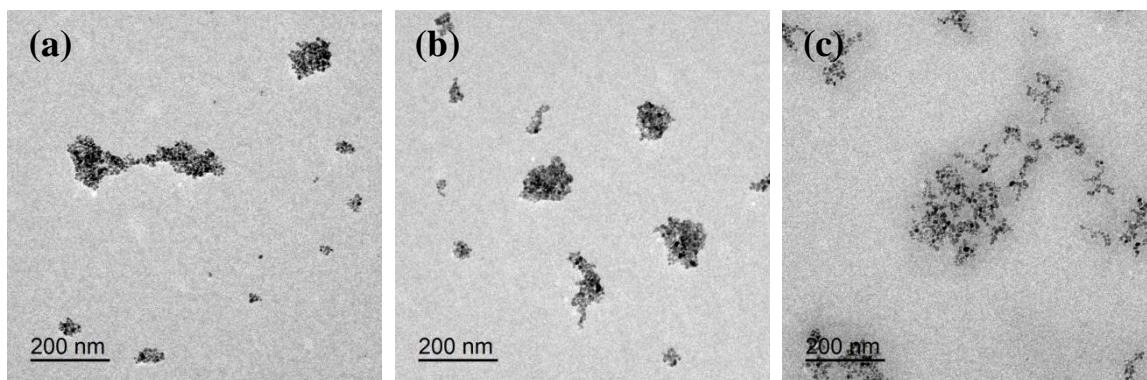
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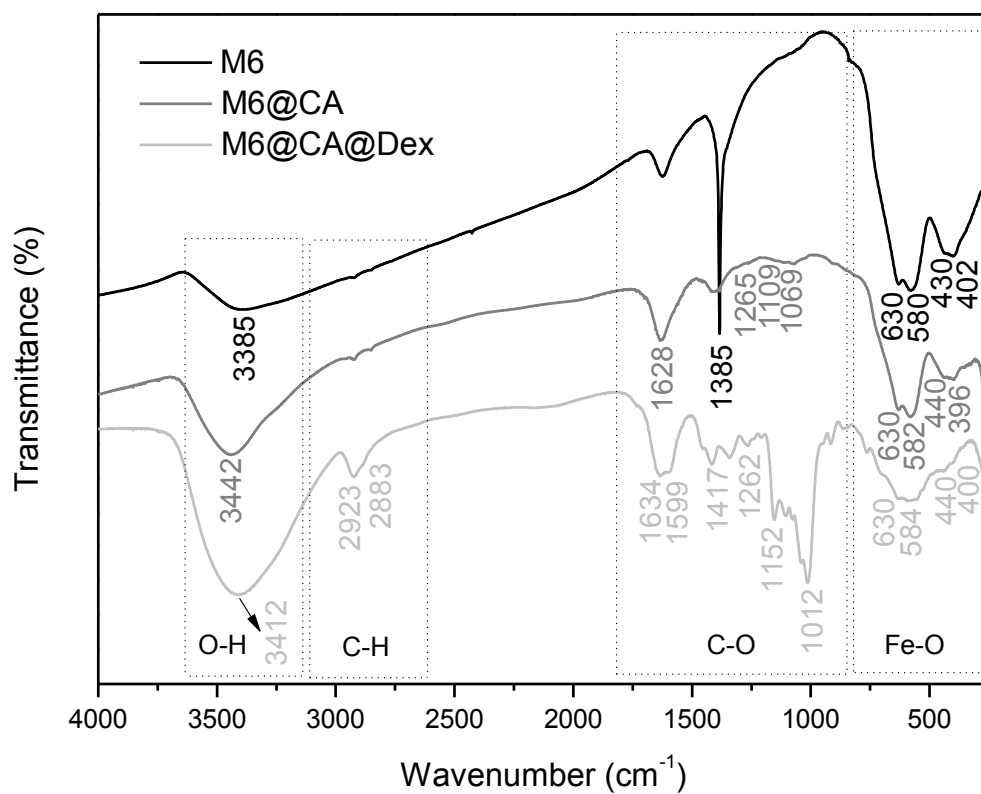
**Figure S1.** XRD of M6 nanoparticles.

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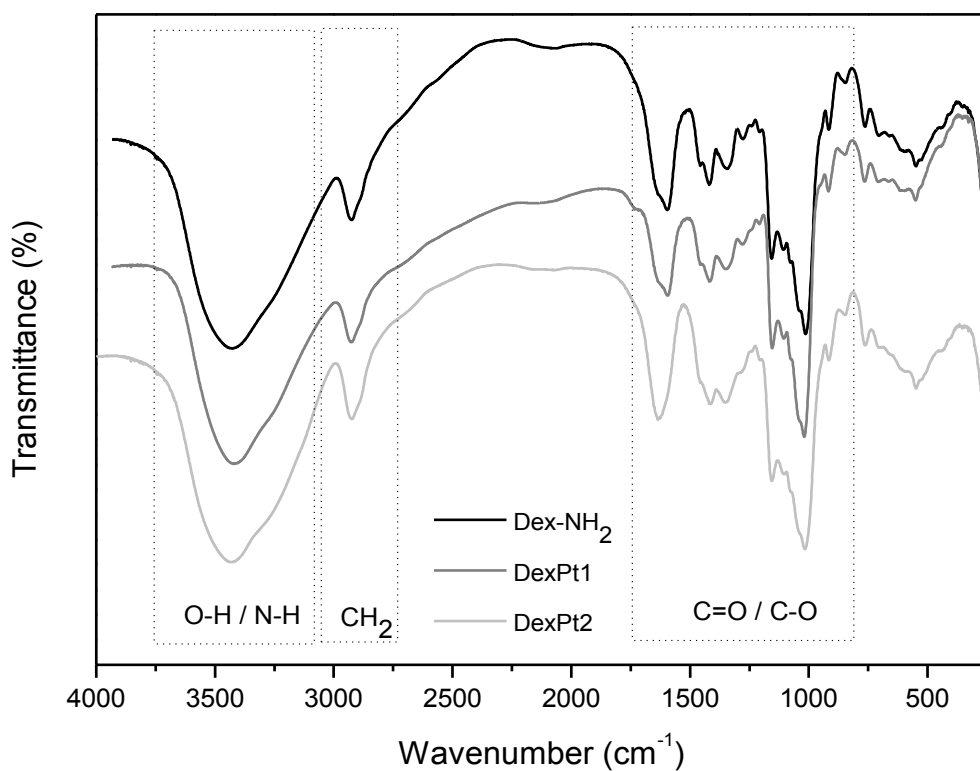
\*e-mail: mdvargas@vm.uff.br; cmronconi@id.uff.br



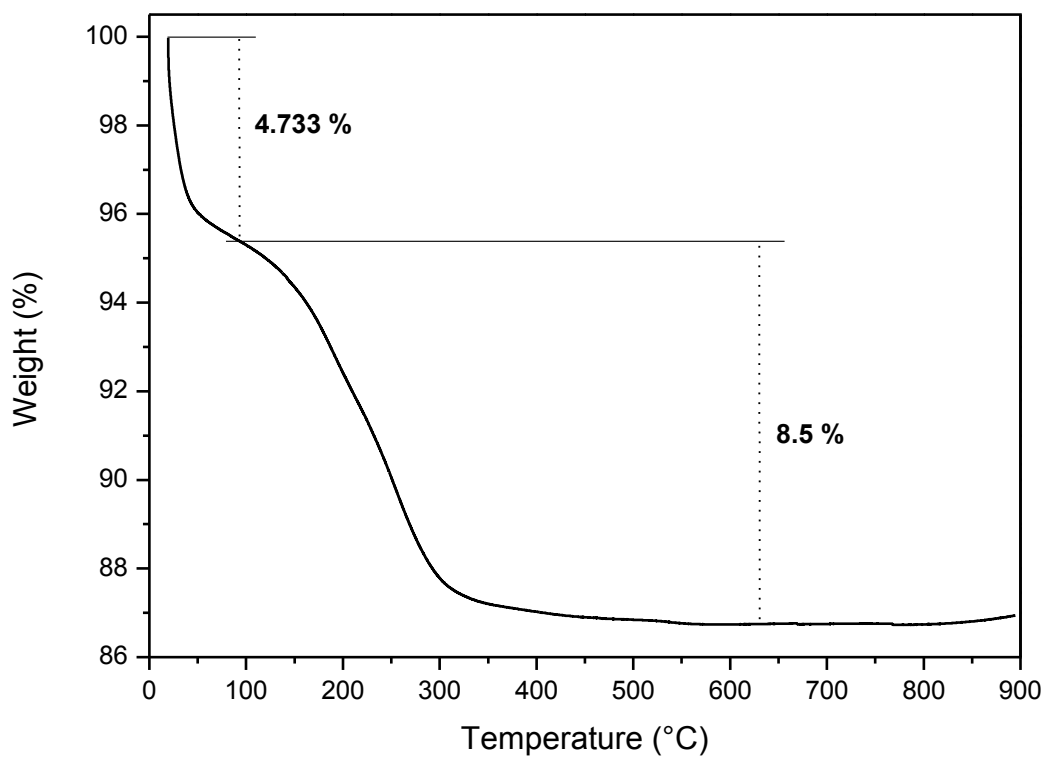
**Figure S2.** Transmission electron micrographs of (a) M6@CA@Dex; (b) M6@CA@DexPt1 and (c) M6@CA@DexPt2.



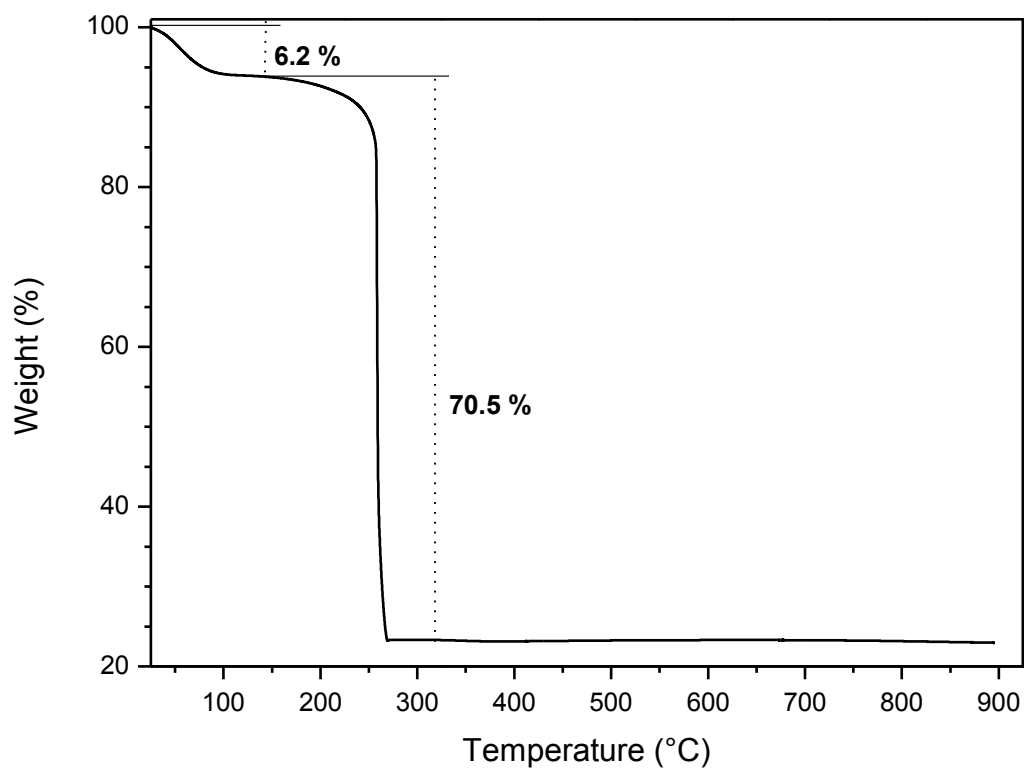
**Figure S3.** FTIR spectra of M6, M6@CA and M6@CA@Dex nanoparticles.



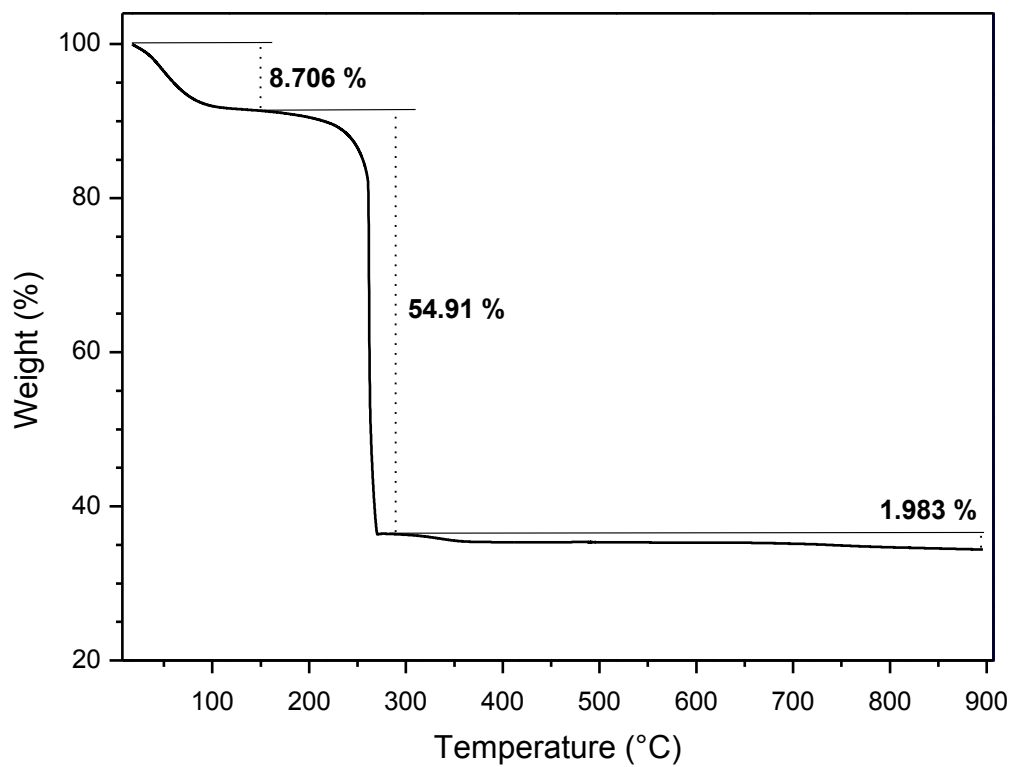
**Figure S4.** FTIR spectra of Dex-NH<sub>2</sub>, DexPt1 and DexPt2 precursors.



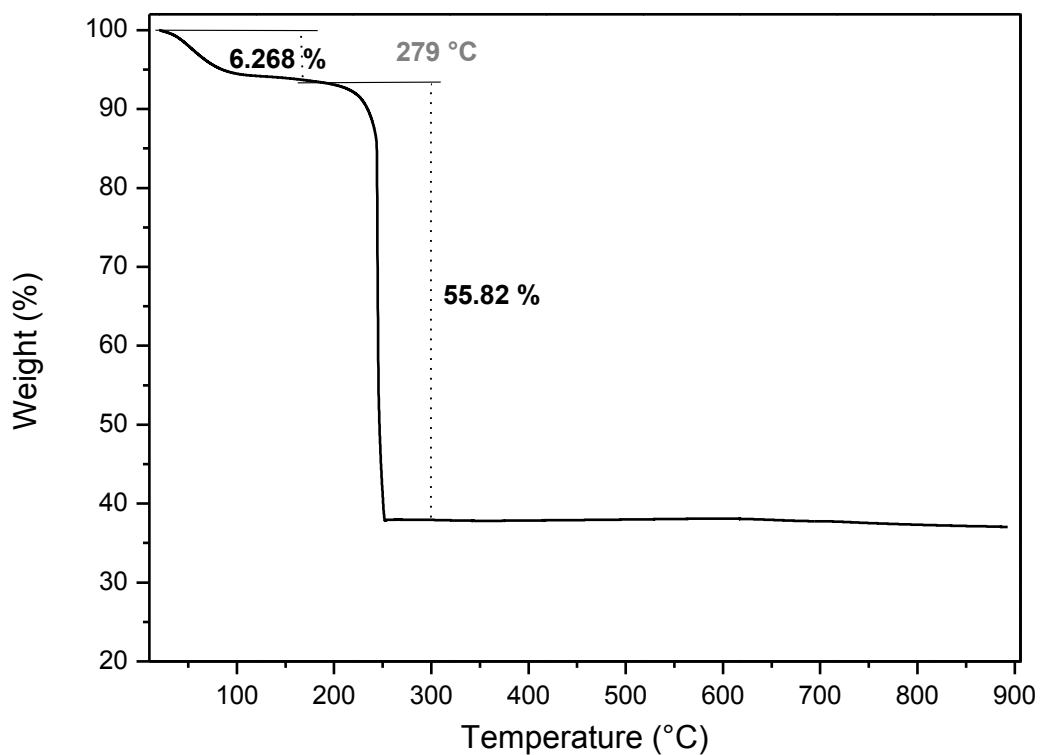
**Figure S5.** TG-DTA analysis of M6@CA.



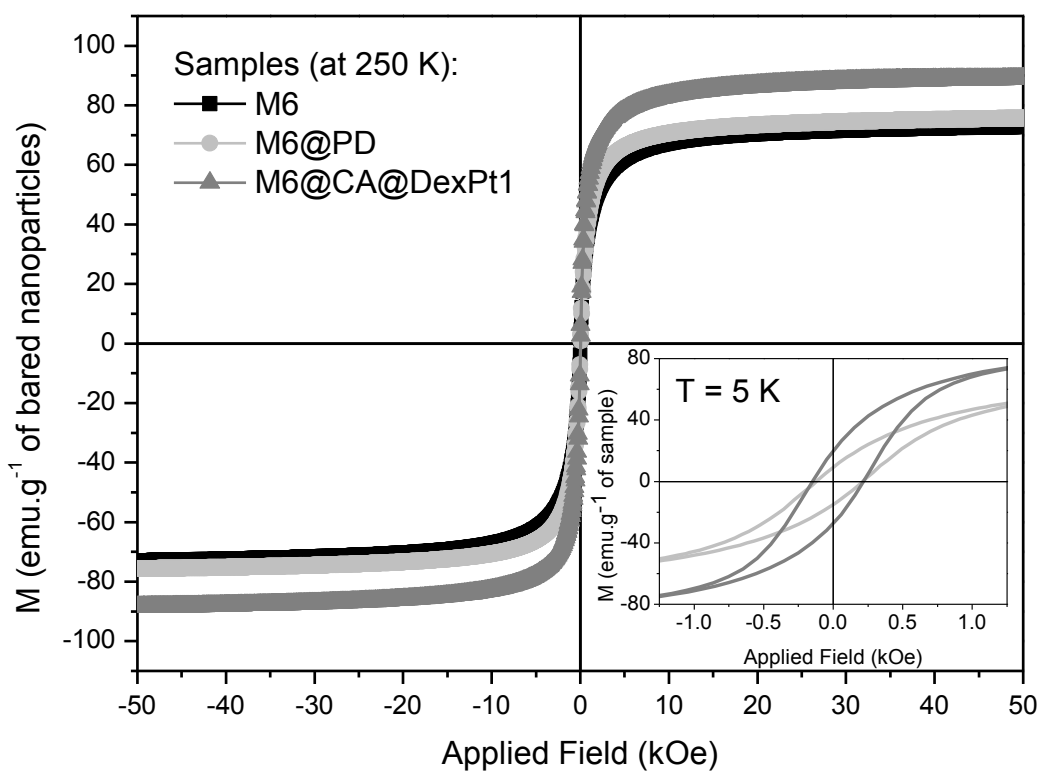
**Figure S6.** TG-DTA analysis of M6@CA@Dex.



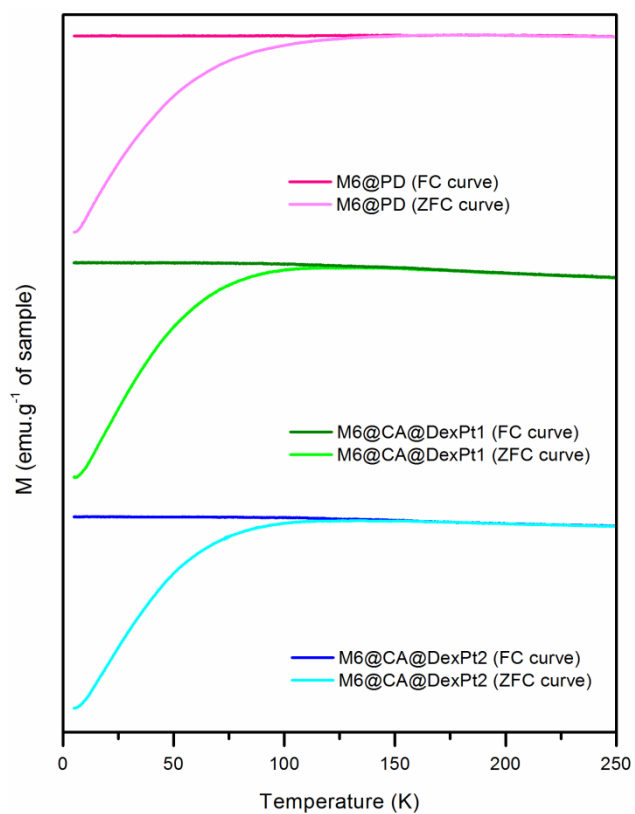
**Figure S7.** TG-DTA analysis of M6@CA@DexPt1.



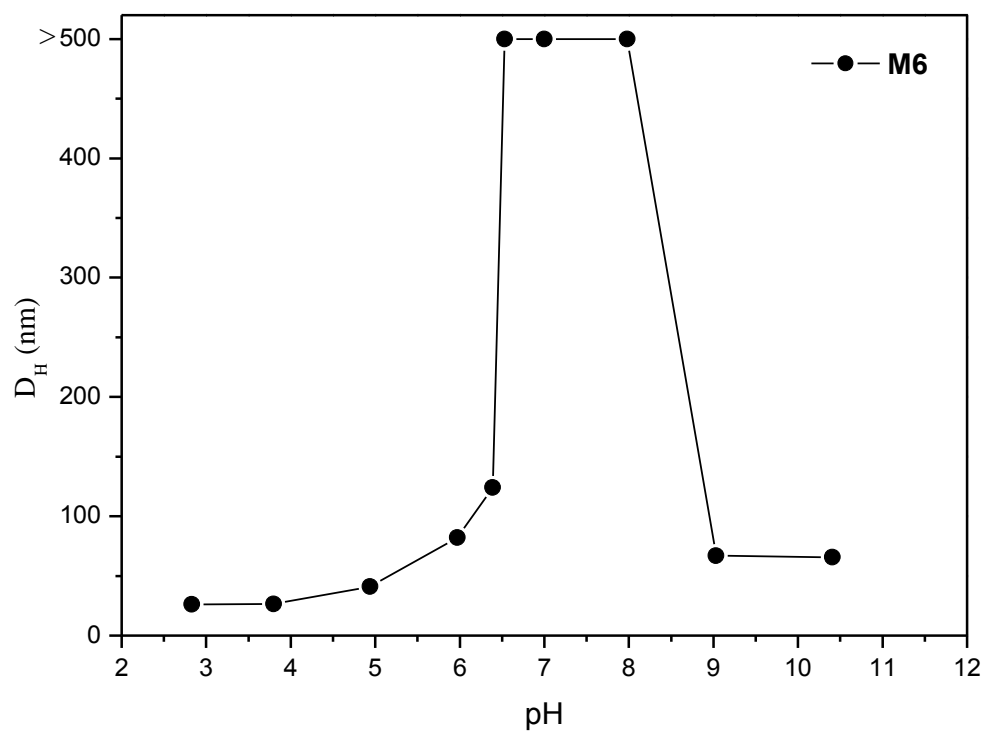
**Figure S8.** TG-DTA analysis of M6@CA@DexPt2.



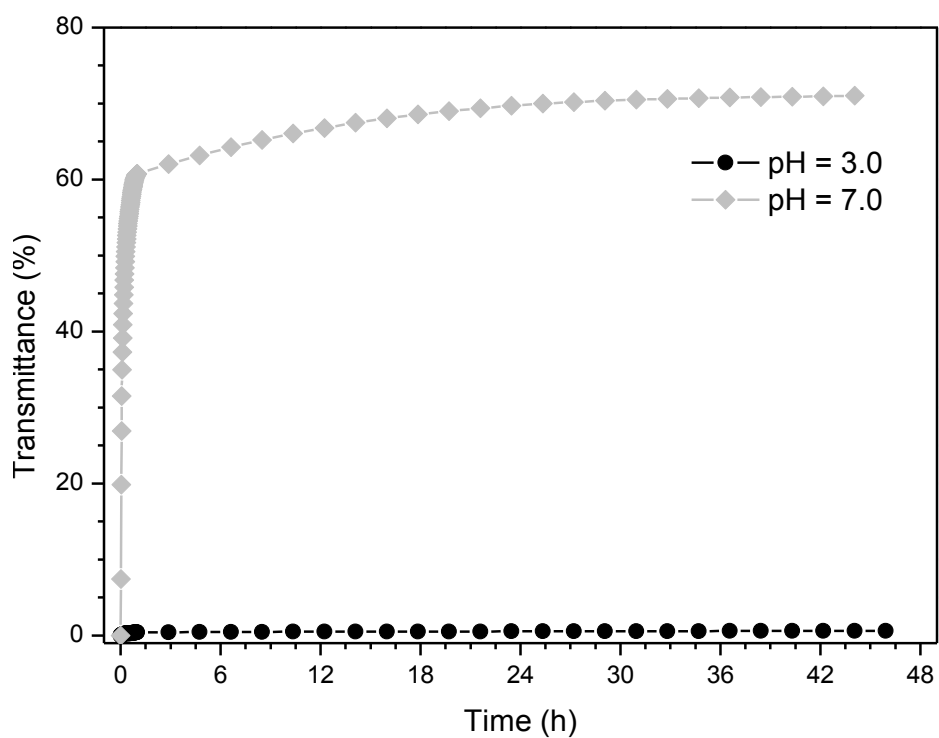
**Figure S9.** Field dependence of the magnetization (M) measured at 250 and 5 K (inset) for bared M6, M6@PD and M6@CA@DexPt1 nanoparticles.



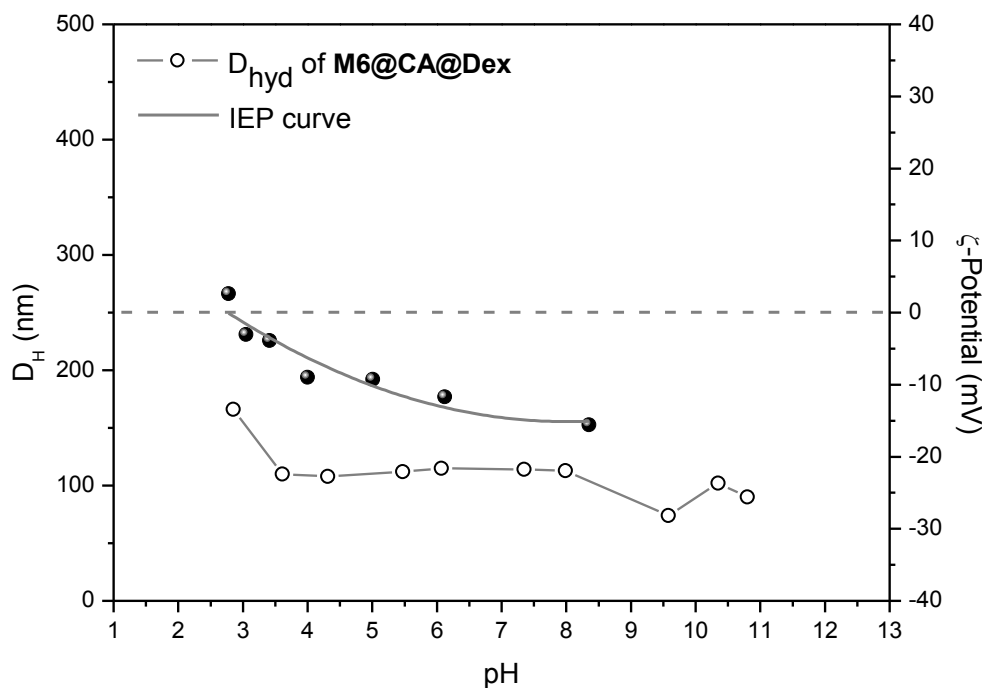
**Figure S10.** ZFC-FC magnetization ( $M$ ) measurements of the nanosystems  $M6@PD$  and  $M6@CA@DexPt1-2$  at 100 Oe.



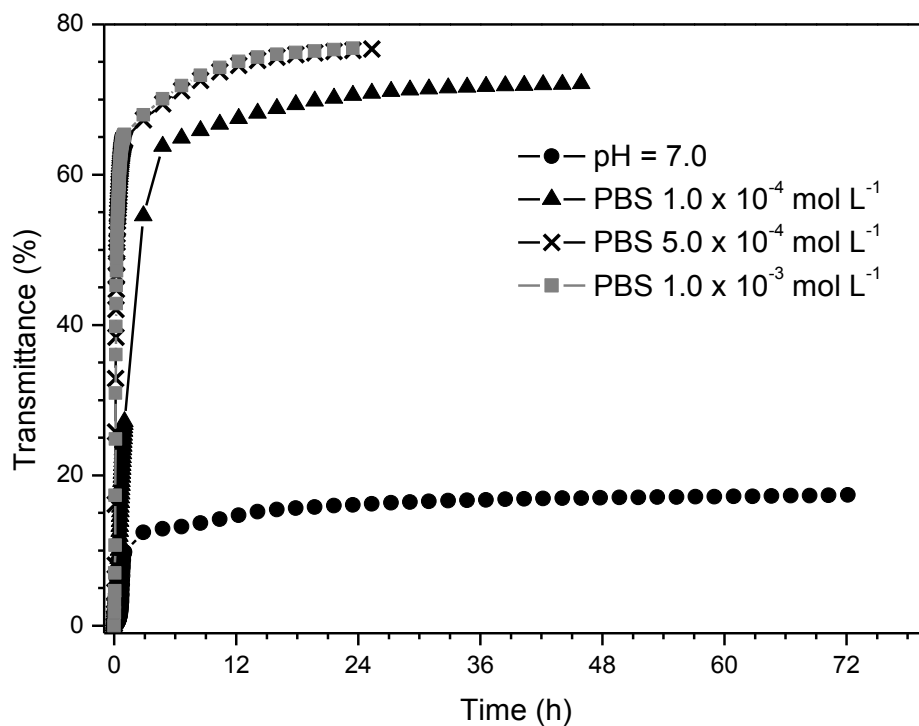
**Figure S11.** Influence of the pH on the agglomeration of  $M6$  nanoparticles.



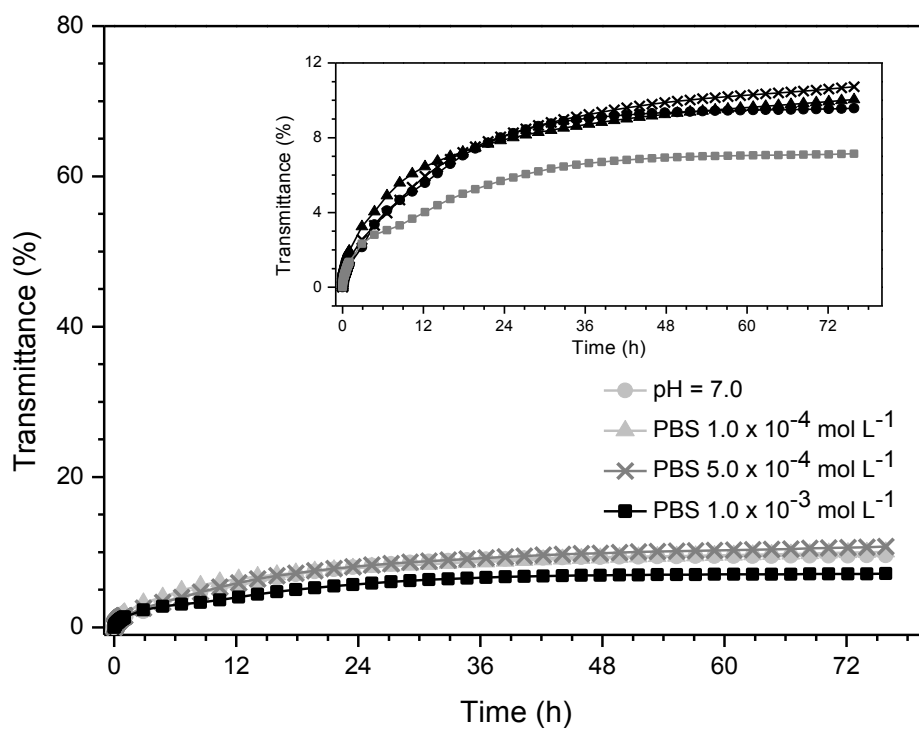
**Figure S12.** Destabilization curves of M6 in water at pH values 3.0 and 7.0.



**Figure S13.**  $D_H$  in water and  $\zeta$ -potential *versus* pH in  $KNO_3$   $0.01 \text{ mol L}^{-1}$  for M6@CA@Dex.

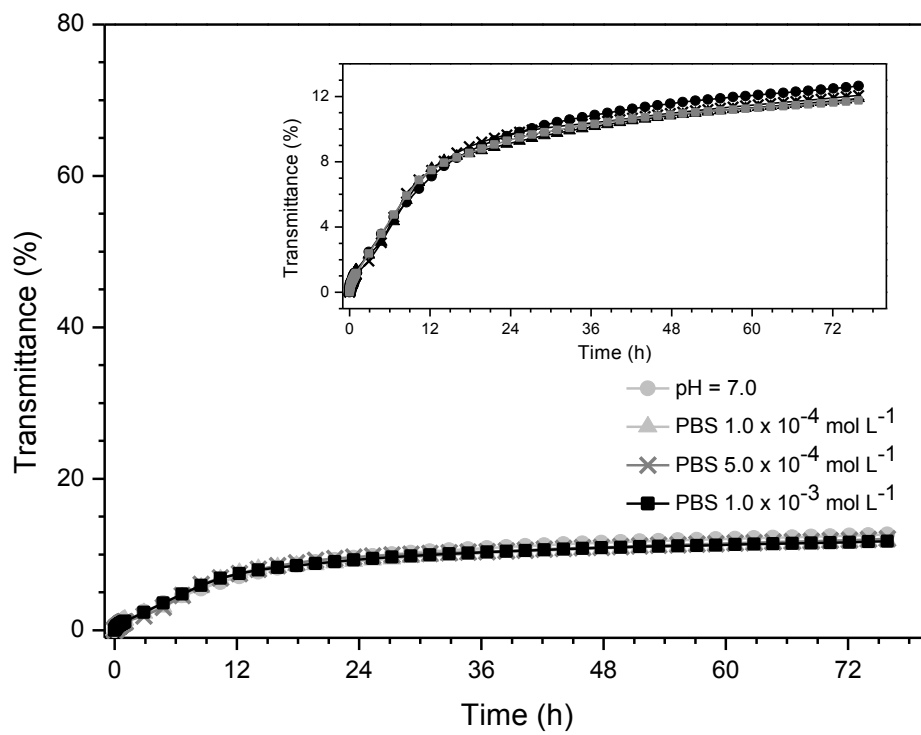


**Figure S14.** Destabilization curves of M6@PD in water and in PBS buffer at distinct concentrations.



**Figure S15.** Destabilization curves of M6@CA@DexPt1 in water and in PBS buffer at distinct concentrations.





**Figure S16.** Destabilization curves of M6@CA@DexPt2 in water and in PBS buffer at distinct concentrations.