

Supporting Information

Fe₃O₄@Polydehydroalanine Hybrid Particles

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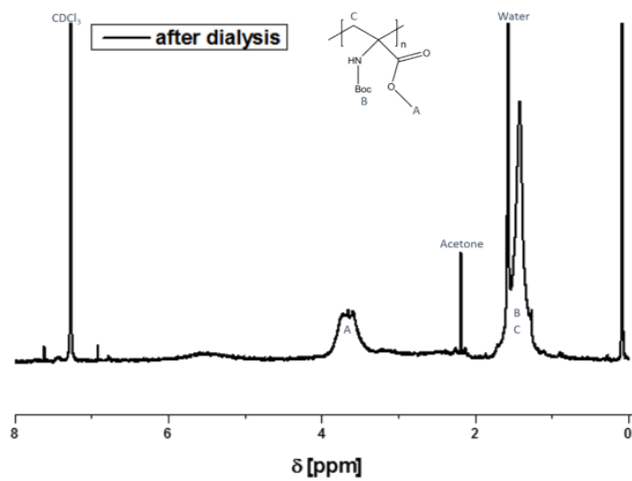


Figure S1: ¹H-NMR spectrum of PtBAMA₁₈₄ purified by dialysis against methanol

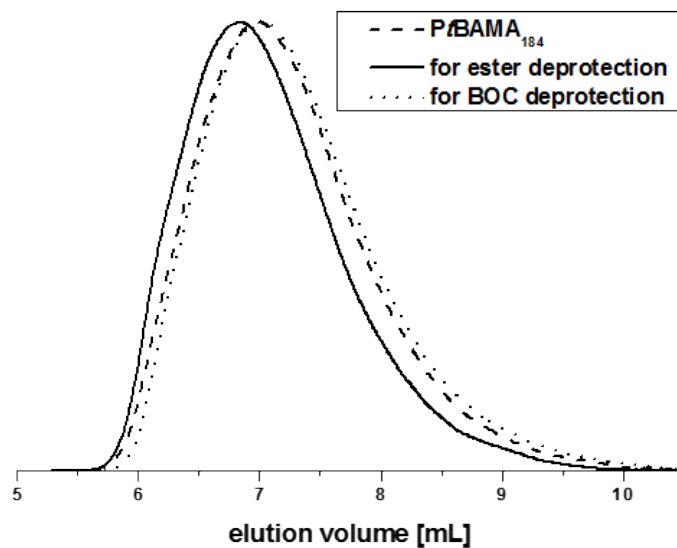


Figure S2: SEC elugrams (DMAc, PMMA calibration) of PtBAMA₁₈₄ (different batches, solid black line: SEC: $M_n = 23\,000$ g/mol, PDI = 1.89).

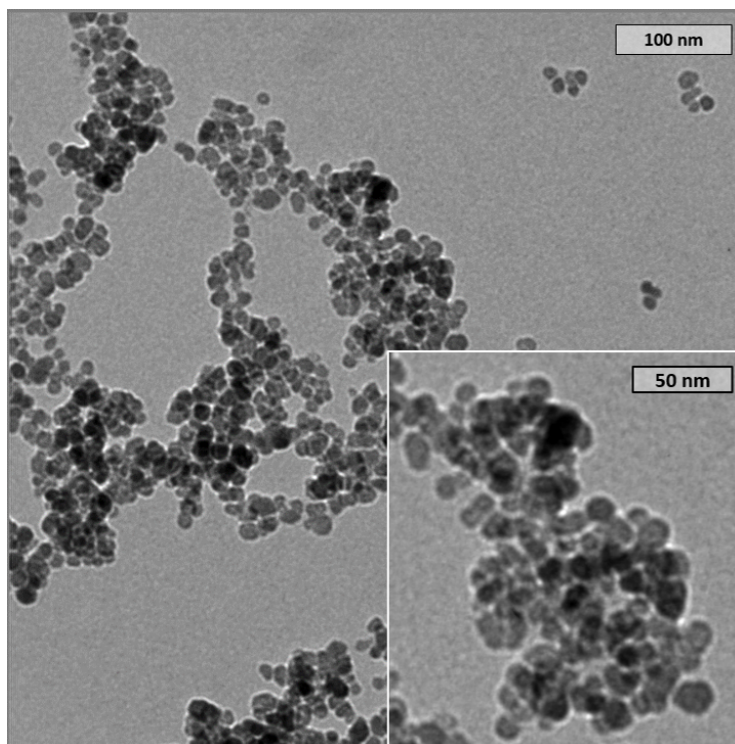


Figure S3: TEM micrograph of pristine SPIONs

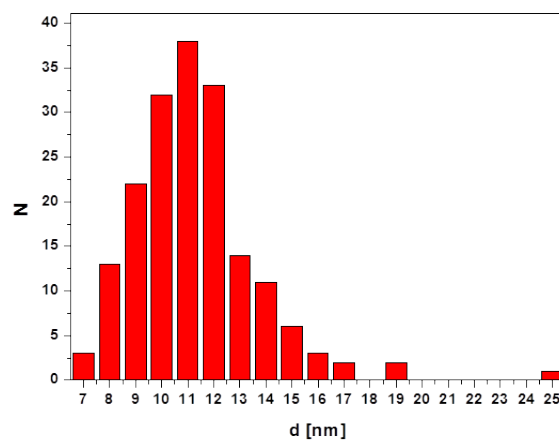


Figure S4: Size distribution of pristine SPIONs ($n = 180$, mean diameter of 12 ± 2 nm).

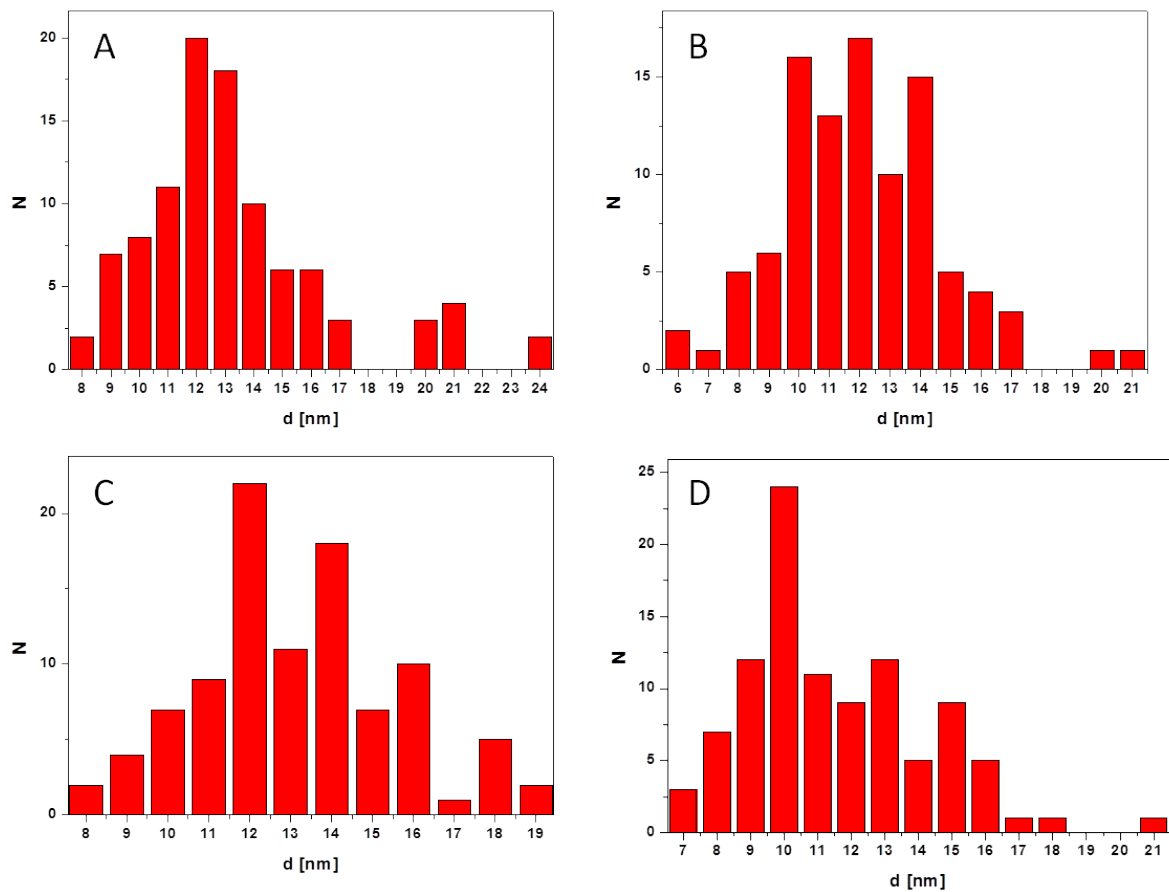


Figure S5: Size distributions of SPION@PtBAA₁₈₄ particles containing different amounts of PtBAA₁₈₄: (A) 1 eq. PtBAA₁₈₄, 13 ± 3 nm; (B) 2 eq. PtBAA₁₈₄, 12 ± 3 nm; (C) 4 eq. PtBAA₁₈₄, 13 ± 2 nm and (D) 8 eq. PtBAA₁₈₄, 12 ± 3 nm (n = 100 in all cases).

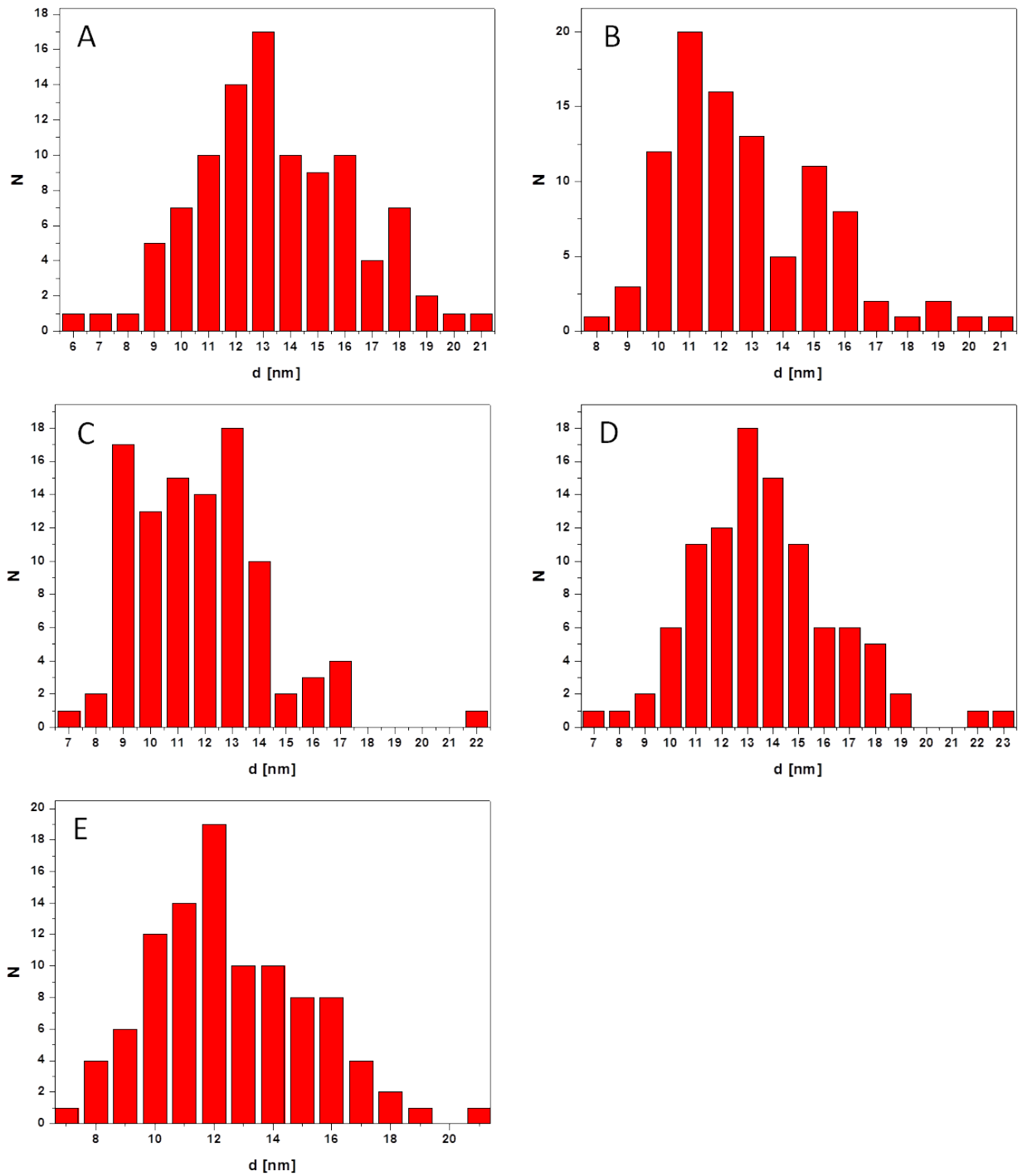


Figure S6: Size distributions of SPION@PDha₁₈₄ particles containing different amounts of PDha₁₈₄: (A) 0.5 eq. PDha₁₈₄, 13 ± 3 nm; (B) 1 eq. PDha₁₈₄, 13 ± 3 nm; (C) 2 eq. PDha₁₈₄, 12 ± 2 nm; (D) 4 eq. PDha₁₈₄, 14 ± 3 nm and (E) 8 eq. PDha₁₈₄, 13 ± 3 nm ($n = 100$ in all cases).

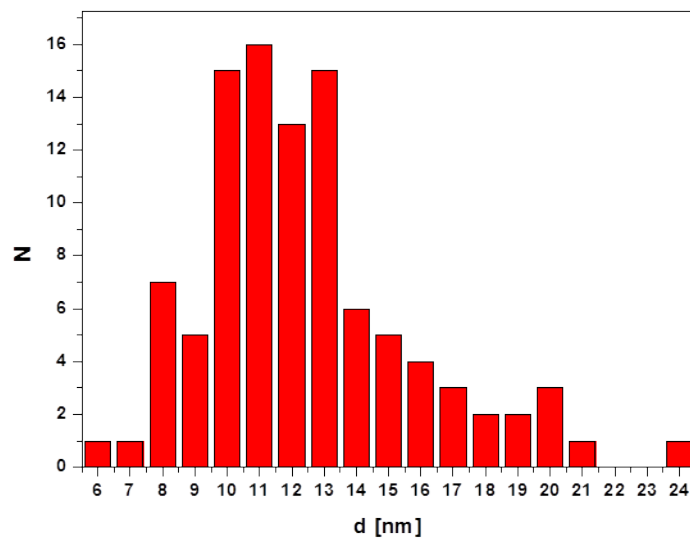


Figure S7: Size distribution of SPION@PAMA particles ($n = 100$, mean diameter was 12 ± 3 nm).

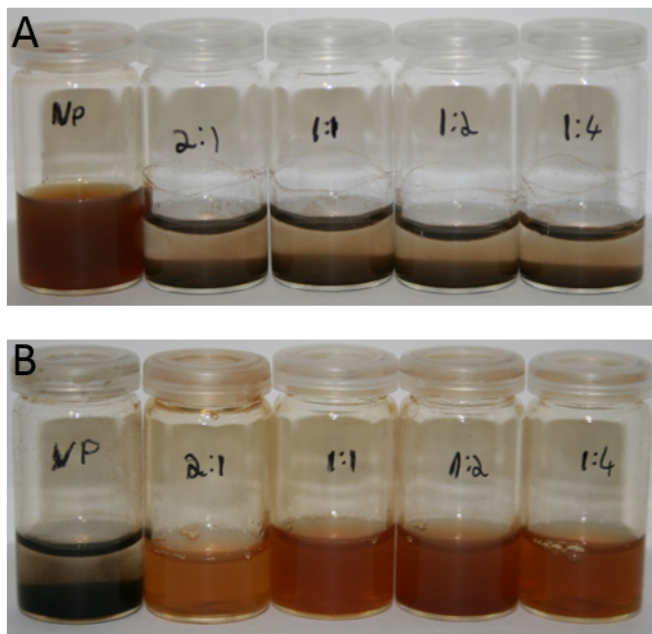


Figure S8: Solution behavior of (A) pristine SPIONs and SPION@PtBAA₁₈₄ with different amounts of polymer at pH = 5; (B) pristine SPIONs and SPION@PDha₁₈₄ with different amounts of polymer at pH = 10;