

Supplementary Information

Impact of mesoporous silica nanoparticle surface functionality on hemolytic activity, thrombogenicity and non-specific protein adsorption

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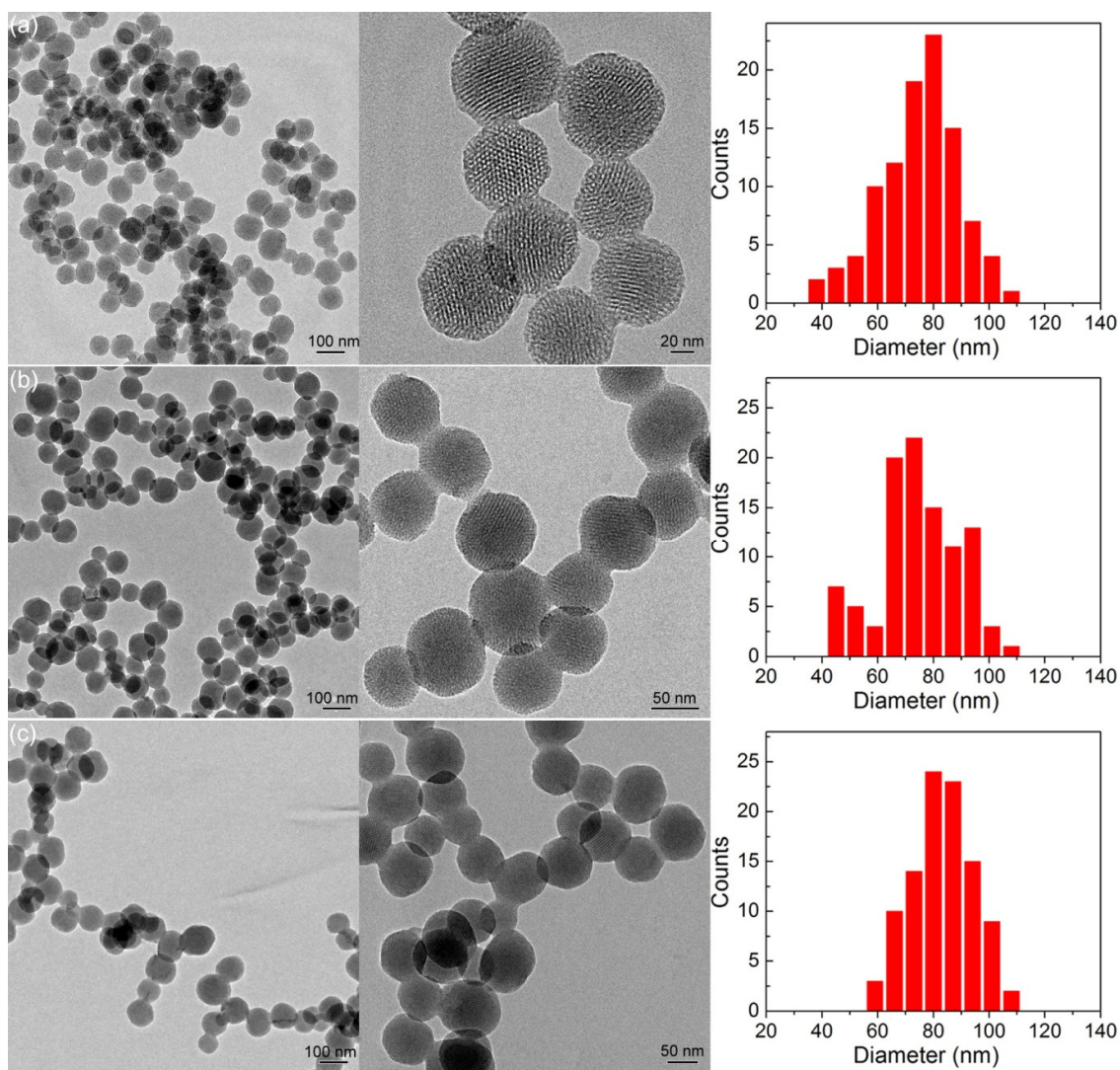
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We have provided TEM images of A-MSN, M-MSN, Ph-MSN, T-MSN, R-MSN and PEG-MSN (Fig. S1 and S2); Fluorescence spectrum of R-MSN (Fig. S3); FTIR spectra of all eight MSNs (Fig. S4); TGA spectra of aminopropyl functionalized MSNs (Fig. S5); and Hemolysis results of HSA coated MSNs (Fig. S6).



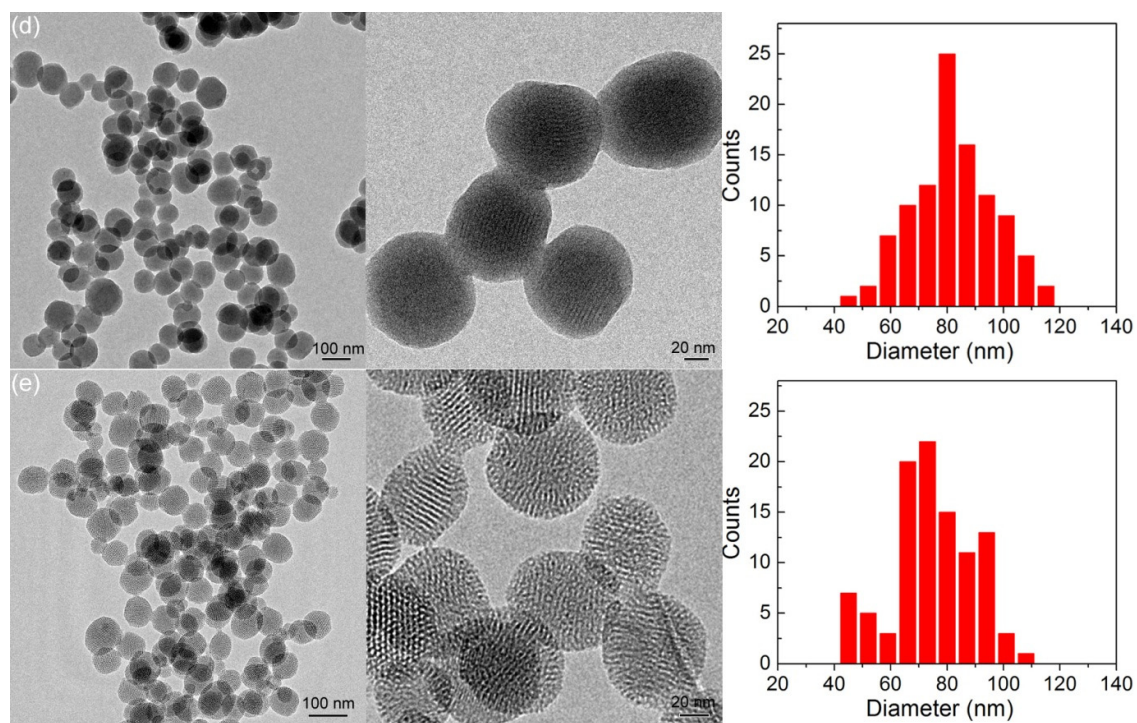


Fig. S1 TEM images of (a) A-MSN, (b) M-MSN, (c) Ph-MSN (d) T-MSN and (e) R-MSN. The histograms at right show the particle size distribution of particles. The histograms were generated by measuring the diameter of 100 particles from the TEM images.

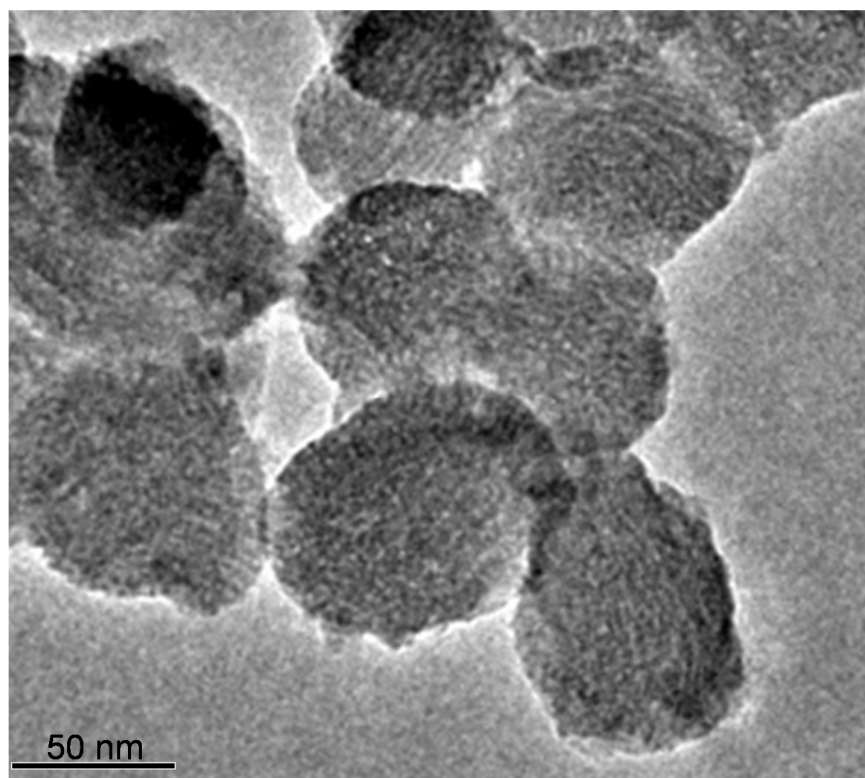


Fig. S2 TEM image of PEG-MSN. Thin organic layer formed around the particles can be observed from the TEM image.

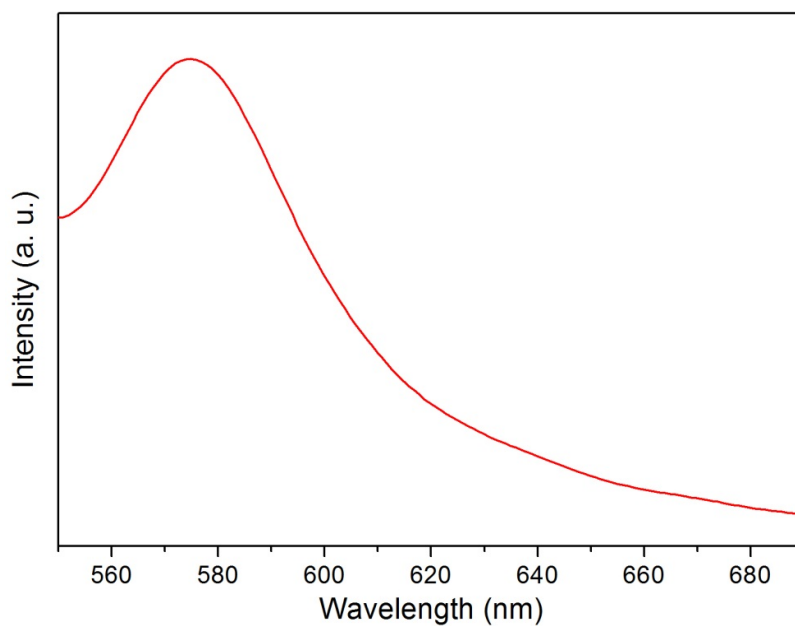


Fig. S3 Fluorescence spectrum of R-MSN. The bright fluorescence of Rhodamine B dye can be clearly seen.

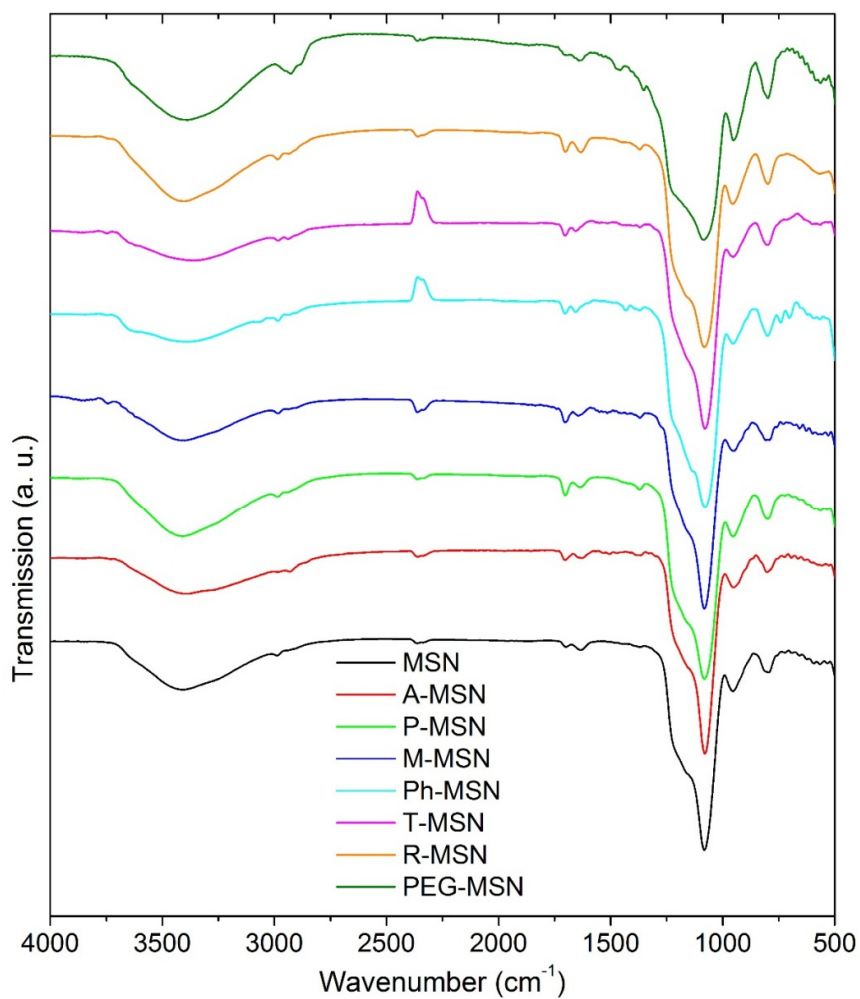


Fig. S4 FT-IR absorption spectra of all MSNs. The C-H absorption peak around 3000 cm⁻¹ is more distinct for functionalized MSNs.

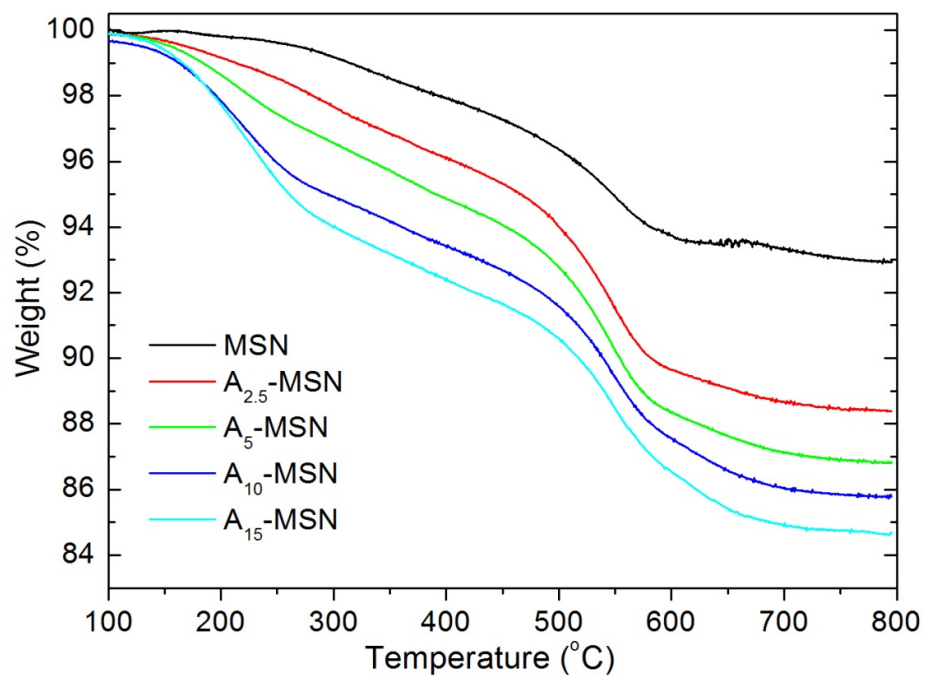


Fig. S5 TGA spectra of aminopropyl modified MSNs. As the APTES/TEOS molar percentages increased the weight loss also increased.

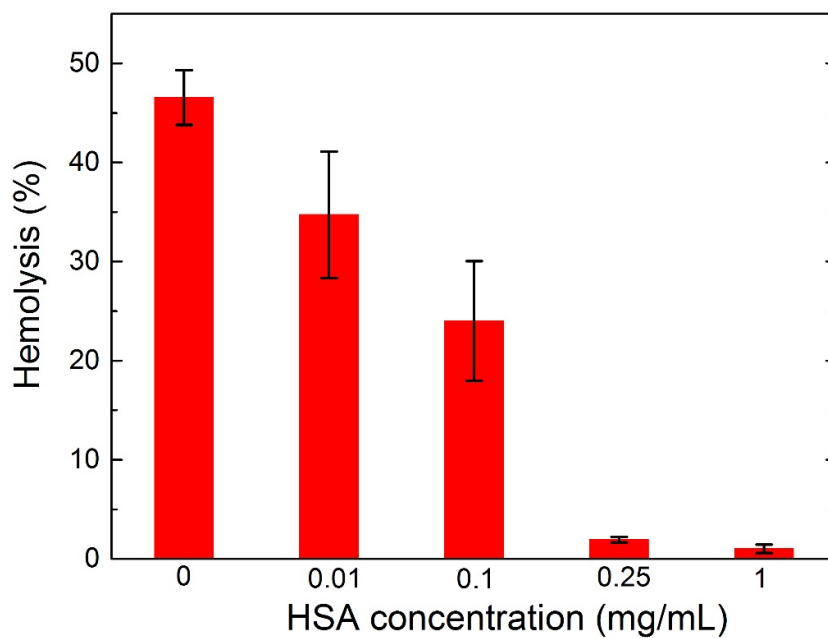


Fig. S6 Hemolysis results of HSA coated MSNs. With increasing HSA concentration reduced hemolytic activity was observed.