Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Selective Etching of Bifunctional Core-Shell Composite Particles for Fabrication of Organic Functionalized Hollow Mesoporous Silica Nanospheres

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Supporting Information:

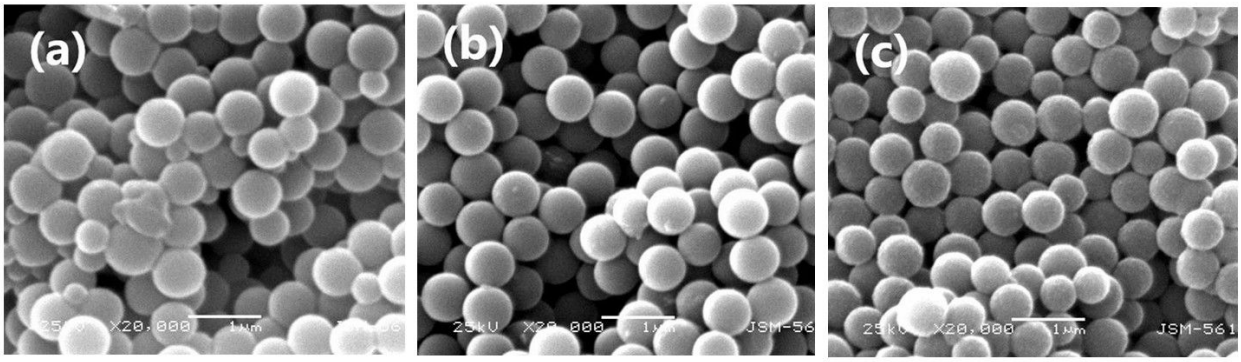

Fig. S1 SEM images of organic functionalized SiO_2 nanospheres symthesized from: a) CTES, b) VTES, c) MPTMS[bar=1000nm].

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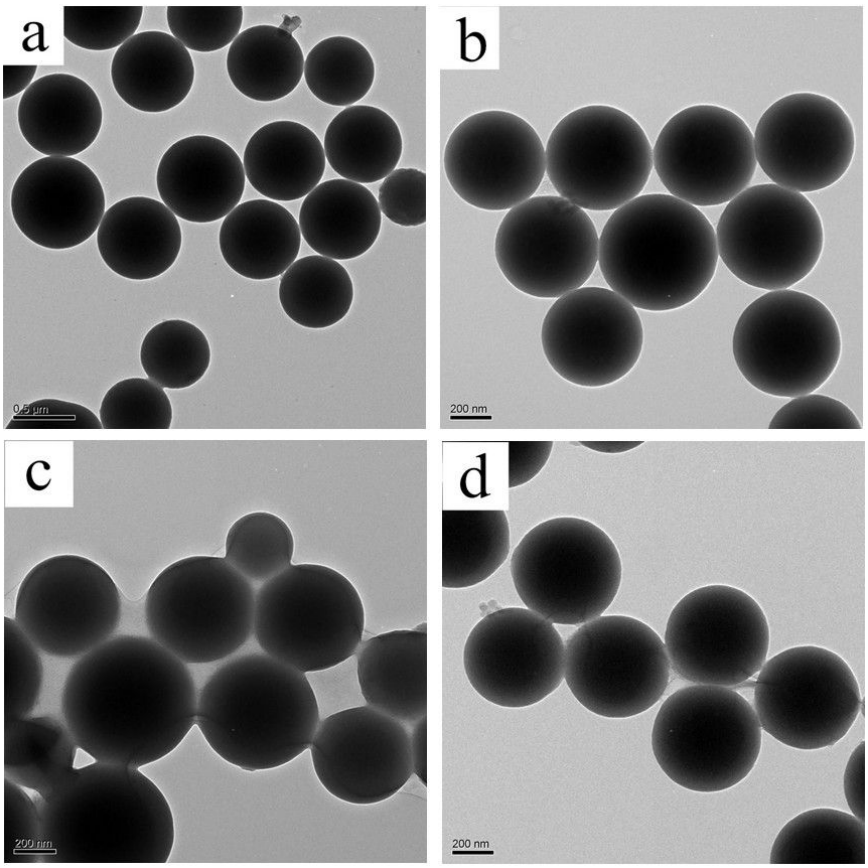

Fig. S2. TEM images of cyano-SiO_2@thiol-SiO_2(a,b) and vinyl-SiO_2@thiol-SiO_2(c,d) composite particles

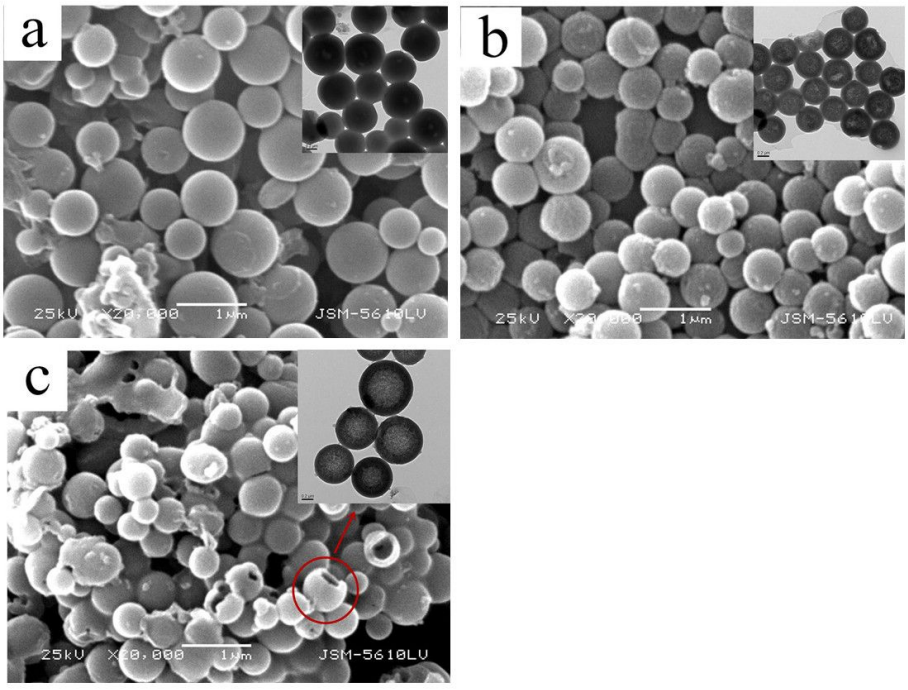

Fig. S3 SEM images and corresponding TEM images show the effect of Na_2CO_3 concentration on the conversion of cyano-SiO_2@thiol-SiO_2 to T-HMSNSs. The Na_2CO_3 concentration used were (a,b) 0.06 M, (c,d) 0.12 M, (e,f) 0.24 M. All the other reaction conditions are the same: 50 ℃ for 12 h[bar=1000nm].

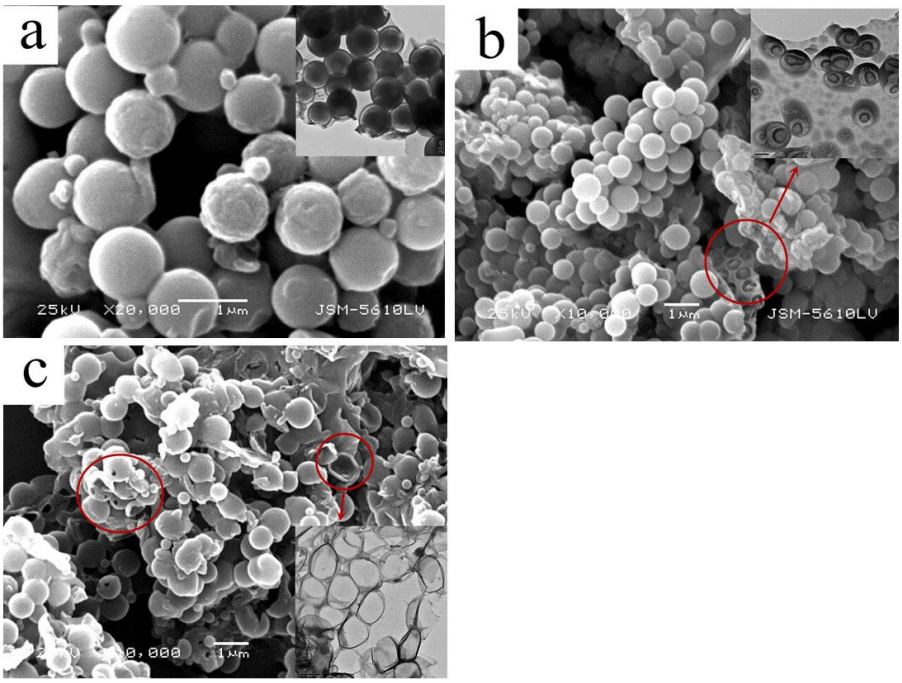

Fig. S4 SEM and TEM images show the effect of NaOH concentration on the conversion of cyano-SiO2@thiol-SiO2 to T-H MSNSs. The NaOH concentration used were (a) 0.04 M, (c,d) 0.08 M, (e,f) 0.16 M. All the other reaction conditions are the same: 50 ℃ for 12 h[bar=1000nm].

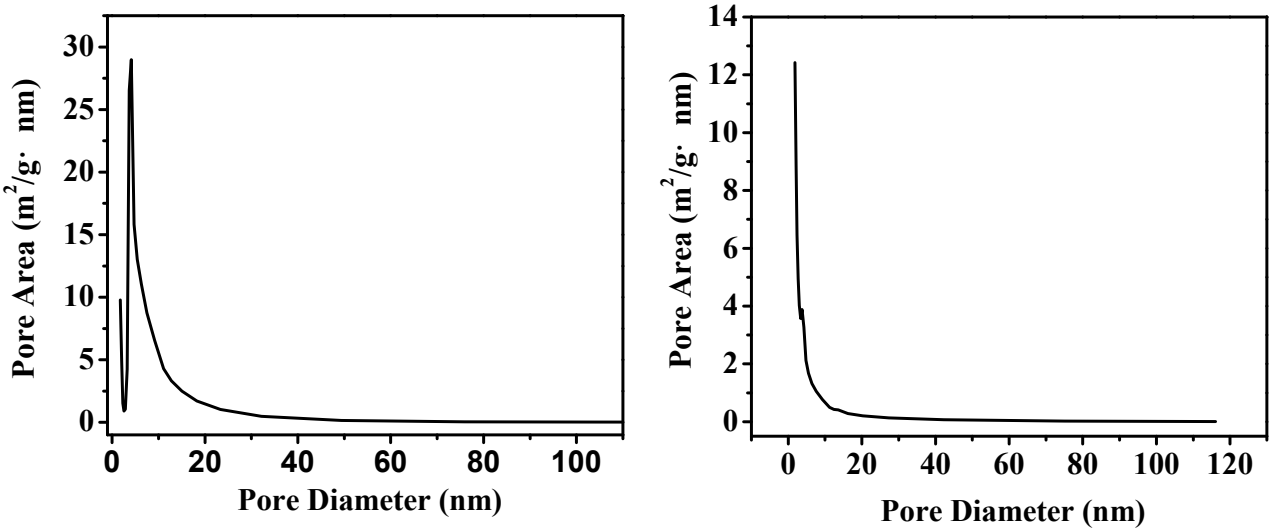

Fig. S5 Pore surface area of T-HMSNSs prepared from cyano-SiO_2@thiol-SiO_2(left) and vinyl-SiO_2@thiol-SiO_2 (right)