Supporting Information

Aqueous, red-to-NIR emitting silicon nanoparticles for cellular imaging: Consequences of protecting against surface passivation by hydroxide and water for stable, red emission



Figure S1. Photoluminescence spectra of (a) H-Si NPs, (b) Dec-Si NPs, (c) CTAB/Dec-Si NPs, (d) PAA/CTAB/Dec-Si NPs at excitation wavelength 340 nm.



Figure S2. DLS analysis of (a) CTAB/Dec-Si NPs and (b) PAA/CTAB/Dec-Si NPs micelle size distribution.



Figure S3. Point EDX spectrum of CTAB/Dec-Si NPs micelles. Insert: Dark field STEM image of a CTAB/Dec-Si NPs, scale bar 100 nm.



Figure S4. Raman spectrum of freshly prepared CTAB/Dec-Si NPs micelles.



Figure S5. Quantum yield analysis of (a) CTAB/Dec-Si NPs and (b) PAA/CTAB/Dec-Si NPs.



Figure S6. PL spectra of CTAB/Dec-Si NPs over time study at excitation wavelength 380 nm. Insert: UV-illuminated inspection of CTAB/Dec-Si NPs (a), (b)



Figure S7. Top: HR-TEM image of Si NPs at pH = 12.3 showing crystallinity (lattice fringes); Bottom: PL spectra of CTAB/Dec-Si NPs at pH = 12.3. Inset: UV-illuminated inspection of CTAB/Dec-Si NPs.