

Electronic Supporting Information

Orange and Blue Luminescence Emission to track Functionalized Porous Silicon Microparticles inside the cells of the Human Immune System

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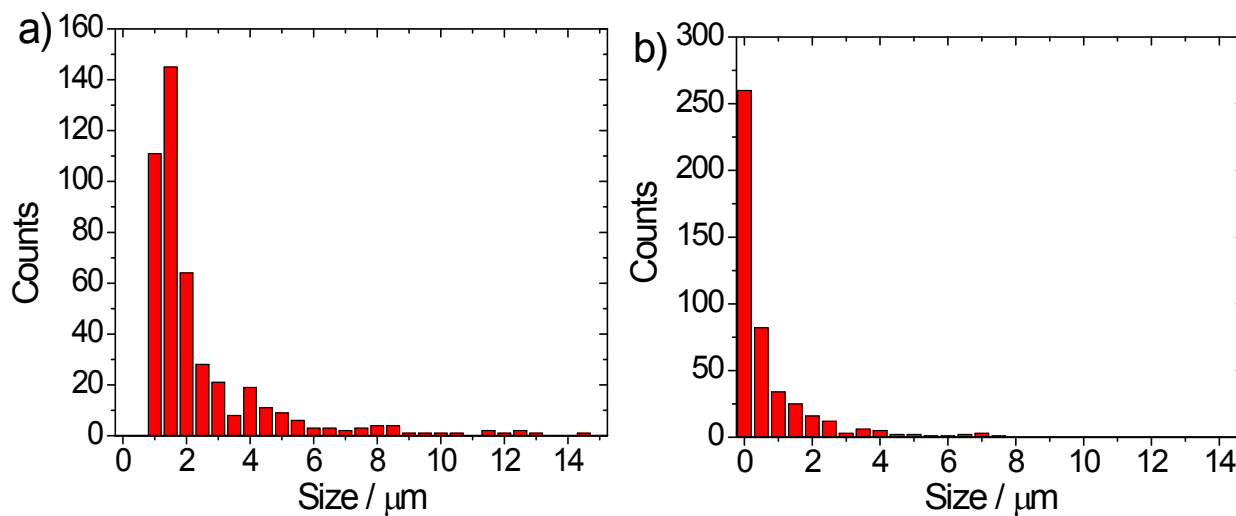


Figure S1. Size distribution of the porous silicon microparticles. (a): major (longitudinal) axis. (b): minor axis.

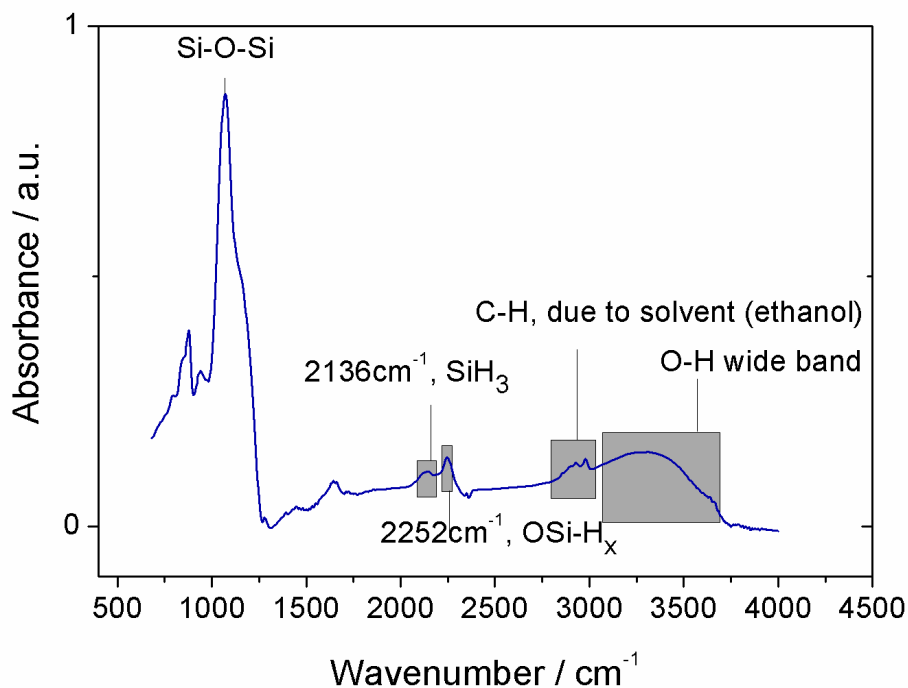


Figure S2. FTIR spectrum of native porous silicon microparticles.

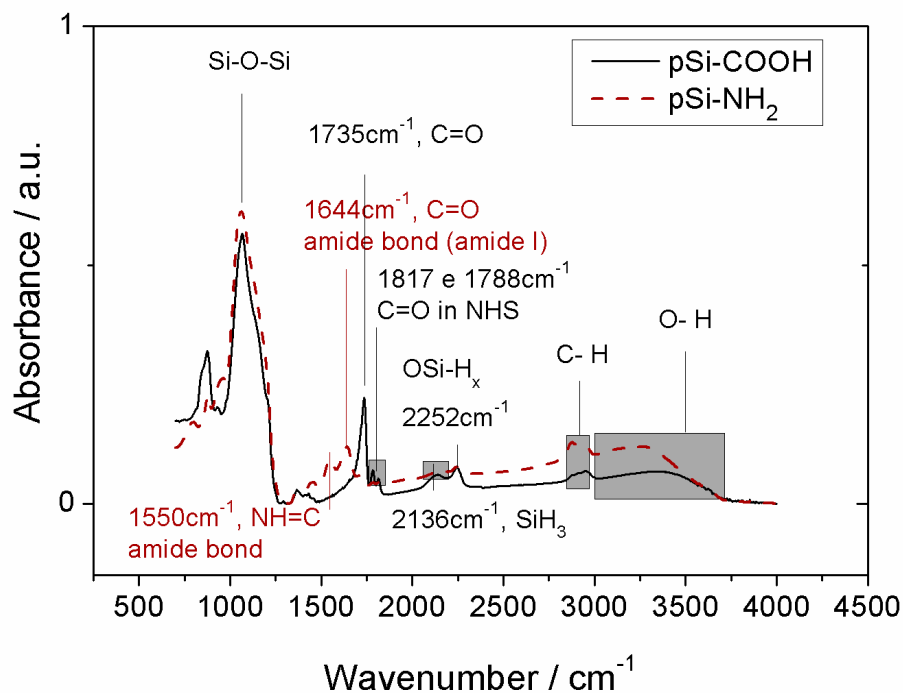


Figure S3. FTIR spectra of porous silicon microparticles after surface derivatization. Micro-pSi after hydrosilylation by acrylic-NHS ester (continuous trace) and micro-pSi after hydrosilylation with acrylic acid followed by coupling with 4, 7, 10-Trioxa-1, 13 tridecanediamine (dashed trace).

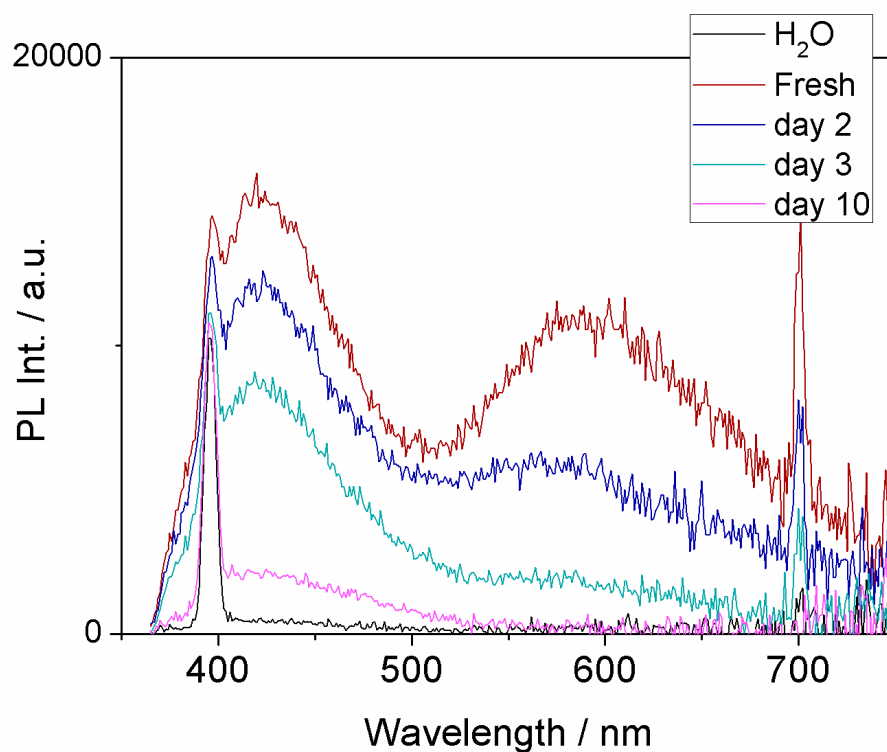


Figure S4. Time course of the PL decay of the amine-micro-pSi in aqueous solution. $9 \mu\text{g mL}^{-1}$ amino-micro-pSi were suspended in water and the spectra were collected at the reported times after shaking the suspension.

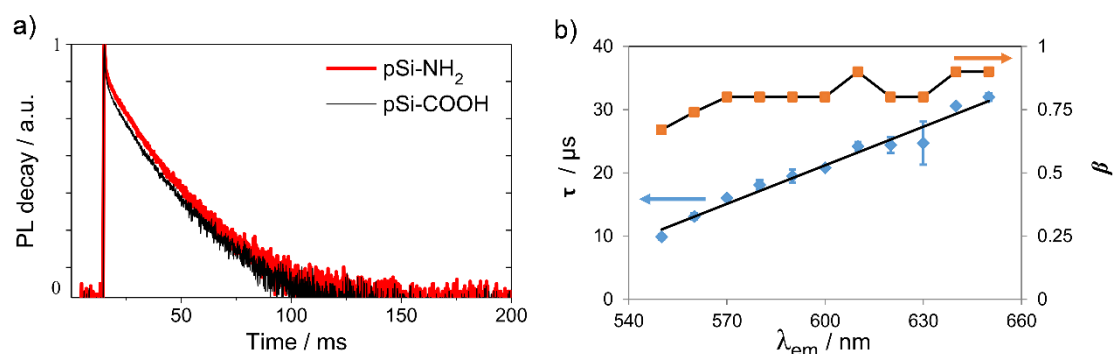


Figure S5. Decay curves of the PL of the functionalized micro-pSi in ethanol. The excitation was set at 350 nm and the emission at 600 nm (a). Lifetimes (τ) and β values versus the emission wavelength obtained by fitting the stretched exponential function to the experimental PL decay of the amino-micro-pSi. Excitation wavelength was 350 nm (b).

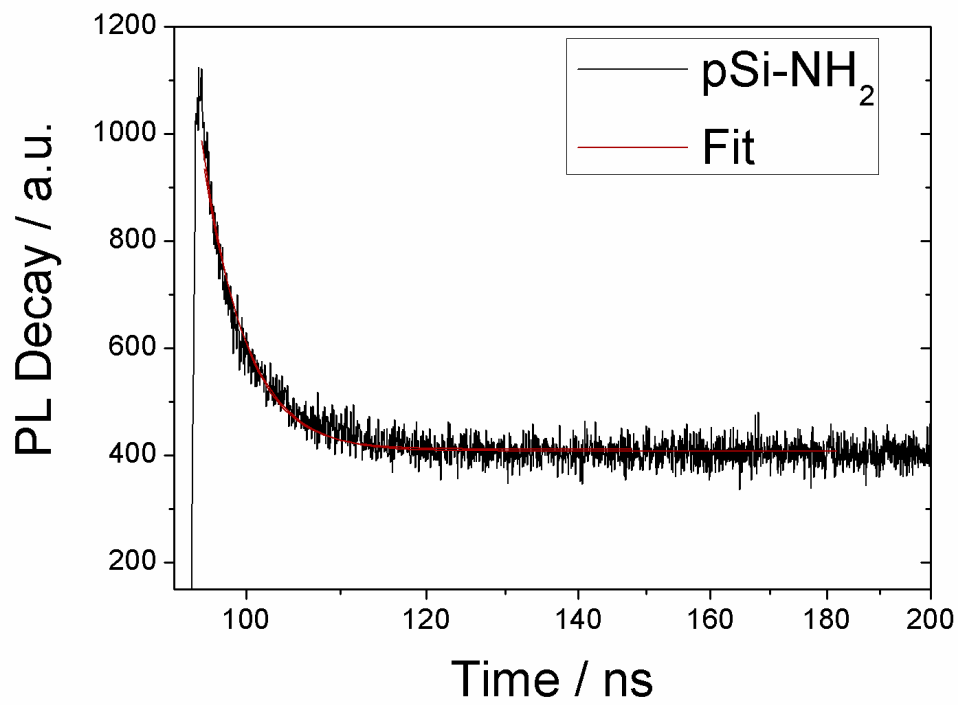


Figure S6. Decay curve of the PL of the amine-micro-pSi. The excitation was set at 375 nm (pulse width 1.2 ns) and the emission was set at 420 nm.