

Supporting Information

One-step synthesis of fluorescent silicon quantum dots (Si-QDs) and their application for cell imaging

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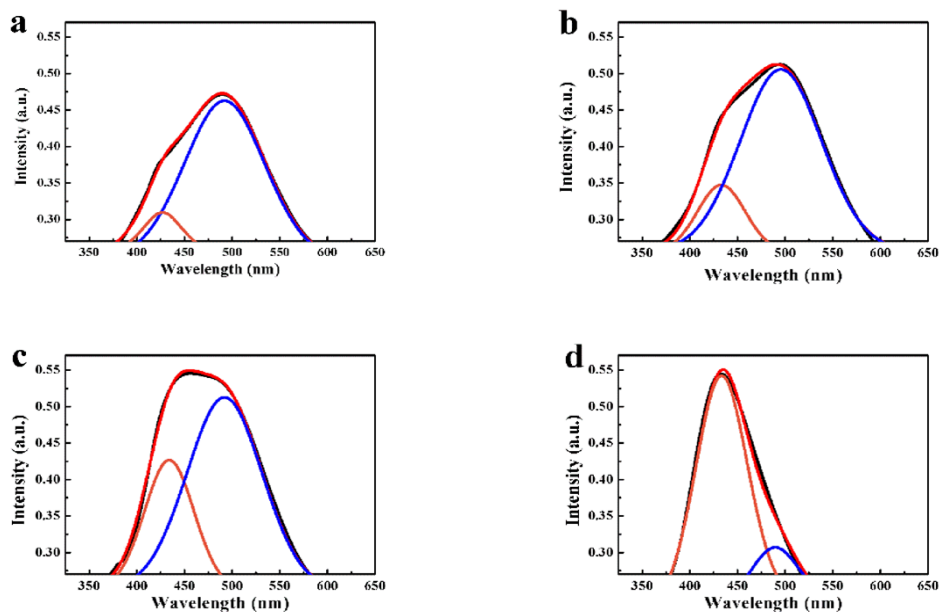


Figure S1 Individual PL spectrum of (a) the Si-QDs prepared freshly and stored for (b) 24 h, (c) 48 h, and (d) 1 month.

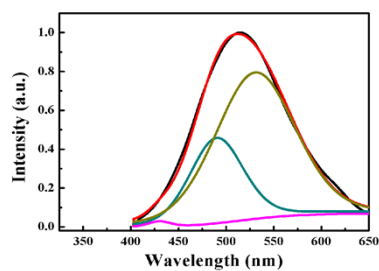


Figure S2 PL spectra of the Si-QDs with surface passivation by PVP after storage in air for 1 month.

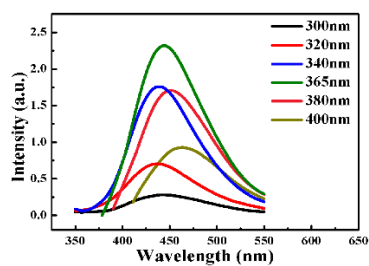


Figure S3 PL spectra of the Si-QDs under different excitation wavelength from 300 to 400 nm.

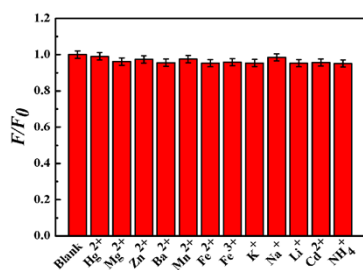


Figure S4 The fluorescence responses of the Si-QDs in the presence of various metal ions (Hg²⁺, Mg²⁺, Zn²⁺, Ba²⁺, Mn²⁺, Fe²⁺, Fe³⁺, K⁺, Na⁺, Li⁺, Cd²⁺ and NH₄⁺ ($\lambda_{\text{ex}} = 365$ nm; $[\text{M}^{n+}] = 50.0 \mu\text{M}$).

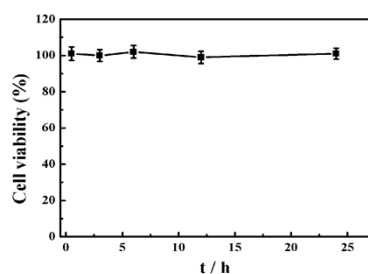


Figure S5 Cell viability of IE cells incubated with the Si-QDs at a concentration of 0.5 silicon g/L for different times. The cell viability was calculated as a percentage from the viability of untreated cells as control, which viability is considered 100%. The results are means \pm SD from three independent experiments.