Interfacing Enzymes with Silicon Nanocrystals through the Thiol-Ene Reaction

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Supplementary Information

Figure S1. FTIR spectrum of hydride-terminated silicon nanocrystals (H-SiNCs).
Figure S2. Survey XP spectra of ene-SiNCs (A) before and (B) after background correction. Notice that the material does not contain nitrogen (i.e., absence of N 1s peak at ca. 400 eV), as expected.
Figure S3. (A) BSE/SEM images and (B) EDX mapping of Lse-SiNCs and Use-SiNCs on a carbon tape. The brighter regions in the BSE/SEM images correspond to enz-SiNCs as confirmed by EDX mapping.
Figure S4. Photoluminescence decay plots of (A) ene-SiNCs, (B) Lse-SiNCs, and (C) Use-SiNCs. The lifetimes were calculated using lognormal fitting.
Table S1. Absolute quantum yields of ene-SiNCs, Lse-SiNCs, and Use-SiNCs ($\lambda_{ex} = 365$ nm).

<table>
<thead>
<tr>
<th>SiNCs</th>
<th>Absolute Quantum Yield (%)</th>
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<tbody>
<tr>
<td>ene-SiNCs</td>
<td>$39.1 \pm 4.0$</td>
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<tr>
<td>Lse-SiNCs</td>
<td>$47.1 \pm 3.5$</td>
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<tr>
<td>Use-SiNCs</td>
<td>$43.7 \pm 1.0$</td>
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