Supplementary information: The red and blue luminescence in silicon nanocrystals with oxidized, nitrogen-containing shell

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Fig. S1 EDS maps of other than the elements of interest for the unmodified sample.



Fig. S2 Measured transmittance of the unmodified and modified samples, respectively, and of the plasma activated water.

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Fig. S3 Example fits of the PL of the unmodified sample excited with 315 nm. The emission wavelength are noted at each panel.

Fig. S4 The PL map and the fitted β parameter of the stretched-exponential component of the modified sample. Excited with 315 nm.

Fig. S5 Density of states and real-space localization of an Si nanoparticle with partly $-O-NH_2$ -terminated surface. The insets are 3D real-space localizations for the two energy states indicated by the gray dashed lines.

Fig. S6 The PL map of and fitted characteristics of the PAW under 315-nm excitation.