

Electronic Supplementary Information:

Synthesis of hexyl-capped SiQDs: Dry toluene (50 mL) was added to a Schlenk tube fitted with a tap and rubber septum. The solvent was degassed by three freeze–pump–thaw cycles and Schlenk tube filled with nitrogen. Then, hexyltrichlorosilane (178 μ l) and SiCl_4 (100 μ l) were added via a micro syringe and dispersed by sonication for 30 min. A solution of LiAlH_4 in THF (4ml) was added slowly through a syringe, followed by sonication for 120 min. Excess LiAlH_4 was oxidized with dry methanol (40ml). The resulting Si QDs were purified by evaporation of all the solvent under reduced pressure, dissolution in hexane, filtration through 450-nm PVDF membrane filters to yield hexyl-capped silicon nanocrystals.

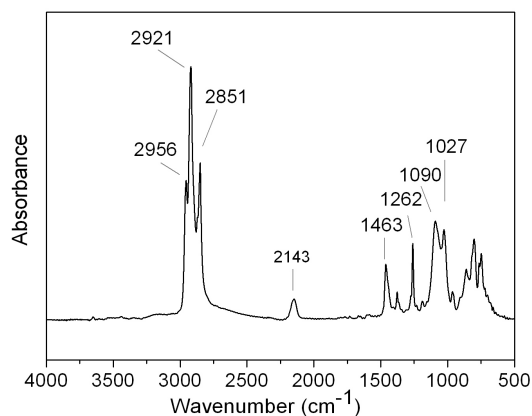


Fig.S1 FTIR spectrum of hexyl-capped silicon nanoparticles which was obtained by reducing hexyltrichlorosilane without adding SiCl_4 .