Supporting Information

Photoinduced Energy Transfer in Dye Encapsulated Polymer Nanoparticle-CdTe Quantum Dot Light-Harvesting Assemblies

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Figure S1. ¹H NMR spectrum of the IL 1-hexadecyl 3-methyl imidazolium bromide taken from CDCl₃ solution.



Figure S2. COSY NMR spectrum of the IL 1-hexadecyl 3-methyl imidazolium bromide.



Figure S3. Mass spectrum of the IL 1-hexadecyl 3-methyl imidazolium bromide.



Figure S4. SEM images of the NR doped PMMA nanoparticles with IL concentration of 6.25 μ M (a) and 25 μ M (b).



Figure S5. Size distributions of the prepared PMMA nanoparticles with IL concentration (a) 6.25, (b) 12.5 and (c) 25 μ M.



Figure S6. Absorption spectra of the NR encapsulated in PMMA nanoparticles with (a) and without (b) functionalization by IL.



Figure S7. Emission spectra of the NR doped PMMA nanoparticle at the excitation of 525 nm without IL functionalization (a) and with increasing concentration of the IL 6.25, 12.5 and 25 μ M (b-d).



Figure S8. (a) Normalized absorption and emission spectrum of TGA caped CdTe nanocrystals, (b) TEM and (c) HRTEM images of the as prepared TGA caped CdTe nanocrystals in water.



Figure S9. TEM image of the NR doped PMMA polymer nanoparticle - CdTe QD assemblies.