[Electronic Supplementary Information]

Functionalized Mesoporous Silica Nanoparticle as Catalyst to Synthesize Luminescent Polymer/silica Nanocomposite

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**Fig. S1.** TEM image of MSN.

**Fig. S2.** EDX of CTMCo.

**Fig. S3.** XRD patterns of MSN (black) and CTM (red).
Fig. S4. (a) TEM image of CTM with corresponding EDS elemental mappings of (b) Si, (c) O, (d) Ce and (e) Tb for CTM.
**Fig. S5.** TEM images of PE/CTMCo (the scale bars are both 100 nm).

**Fig. S6.** Excitation (a) and emission spectra for PE/CTMCo with $\lambda_{\text{ex}} = 272$ nm (b) and PE/CTMCo with $\lambda_{\text{ex}} = 372$ nm (c).