Supporting information

Visible-light sensitized sol-gel-based lanthanide complexes
(Sm, Yb, Nd, Er, Pr, Ho, Tm): microstructure, photoluminescence study, and thermostability

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Figure S1. FT-IR spectrum of Sm-N-P-Gel.

Figure S2. FT-IR spectrum of Yb-N-P-Gel.
Figure S3. FT-IR spectrum of Nd-N-P-Gel.

Figure S4. FT-IR spectrum of Ho-N-P-Gel.
Figure S5. FT-IR spectrum of Tm-N-P-Gel.
Figure S6. DR spectra of (a) Sm-N-P-Gel, (b) Yb-N-P-Gel, (c) Nd-N-P-Gel (d) Er-N-P-Gel, (e) Pr-N-P-Gel (f) Ho-N-P-Gel and (g) Tm-N-P-Gel.
**Figure S7.** Emission ($\lambda_{\text{ex}} = 401$ nm) spectrum for the Ho-N-P-Gel material.

**Figure S8.** The TG and DSC curves of Sm-N-P-Gel material.
**Figure S9.** The TG and DSC curves of Yb-N-P-Gel material.

**Figure S10.** The TG and DSC curves of Er-N-P-Gel material.
Figure S11. The TG and DSC curves of Pr-N-P-Gel material.

Figure S12. The TG and DSC curves of Ho-N-P-Gel material.
Figure S13. The TG and DSC curves of Tm-N-P-Gel material.