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Supporting Information

Synthesis of a Bi-Functional Terminal Polyhedral

Octasilicate-Core Dendrimer containing Carbazole and

1,8-Naphthalimide, and its Photoluminescence

Properties, Film Formability, and Glass Transition

Behavior

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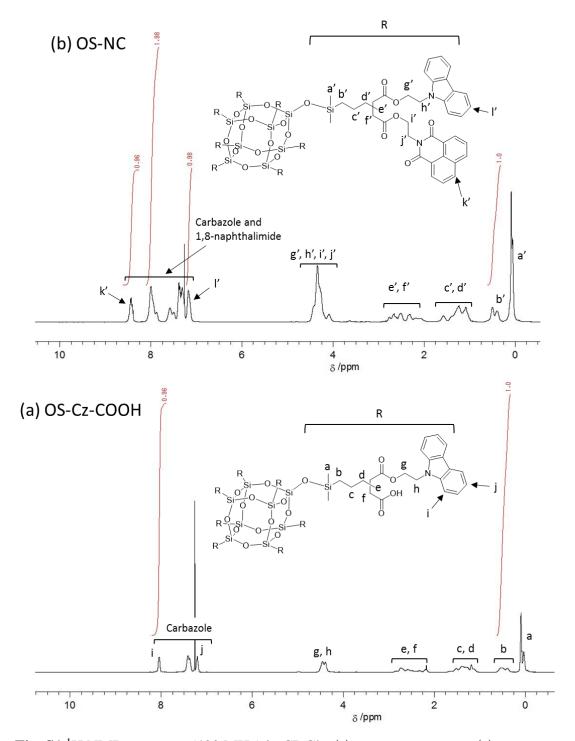


Fig. S1 $^1\mathrm{H}$ NMR spectrum (400 MHz) in CDCl3; (a) OS-Cz-COOH and (b) OS-NC.

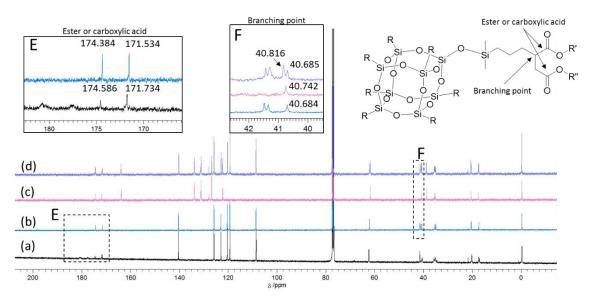


Fig. S2 ¹³C NMR spectrum (100 MHz) in CDCl₃; (a) OS-Cz-COOH, (b) OS-Cz, (c) OS-Ni, and (d) OS-NC.

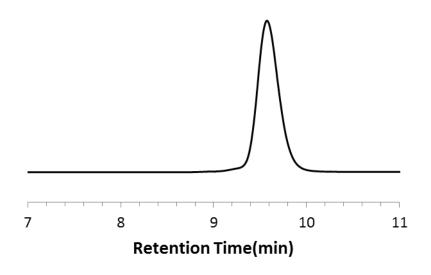


Fig. S3 GPC analysis of OS-NC in DMF containing with 10 mM LiBr.

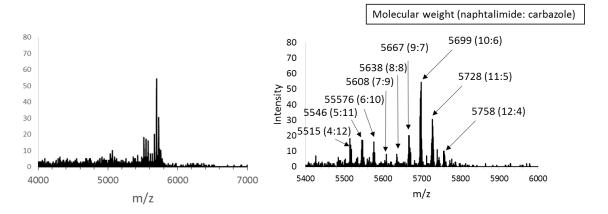


Fig. S4 (left) MALDI TOF-MS spectra of OS-NC, and (right) expanded spectra.

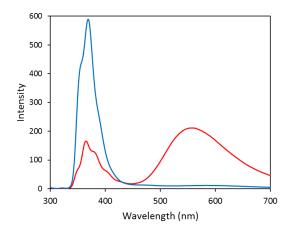


Fig. S5 PL spectra of OS-NC in (red) CHCl3, and (blue) DMSO.

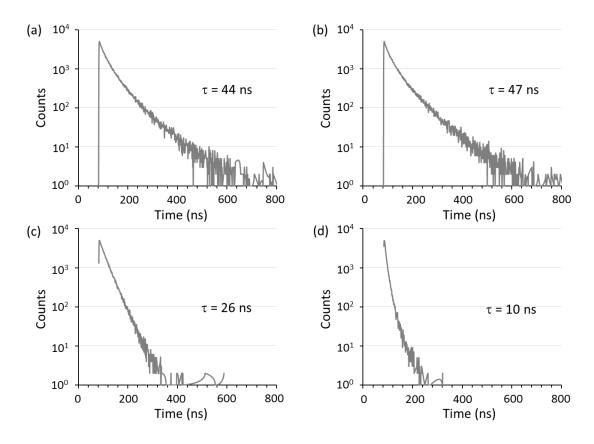


Fig. S6 The emission decay kinetics of (a) OS-NC, (b) OS- $C_{0.5}N_{0.5}$, (c) OS- C_{z} , and (d) OS-Ni on excitation at 380 nm.