## Stable ultrathin films and hollow spheres fabricated from P(DSS-VP) and porphyrin derivatives

The porphyrin moieties in the crosslinked hollow sphere are very stable. The presence of the absorption at 428nm (Figure S1) shows the reservation of porphyrin moieties in the shell after immersion in DMF for 12 h.,

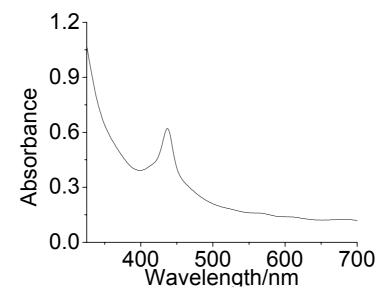


Figure S1 UV-vis spectrum of crosslinked hollow spheres with photo-crosslinked [P(DSS-*co*-VP)/TAPP]<sub>6</sub> as shell after immersion in DMF for 12 h. (determined in aqueous dispersion of hollow sphere)

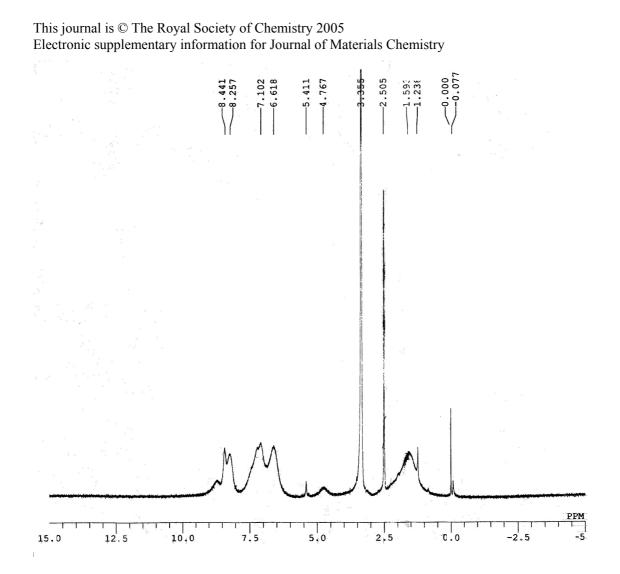


Figure S2 H<sup>1</sup> NMR spectra of P(DSS-VP) (D<sub>6</sub>DMSO 300 MHz)