

## Electronic Supplementary Information

# Biocompatible amphiphilic hyperbranched nanocapsules with a functional core: Synergistic encapsulation and asynchronous release properties towards multi-guest molecules

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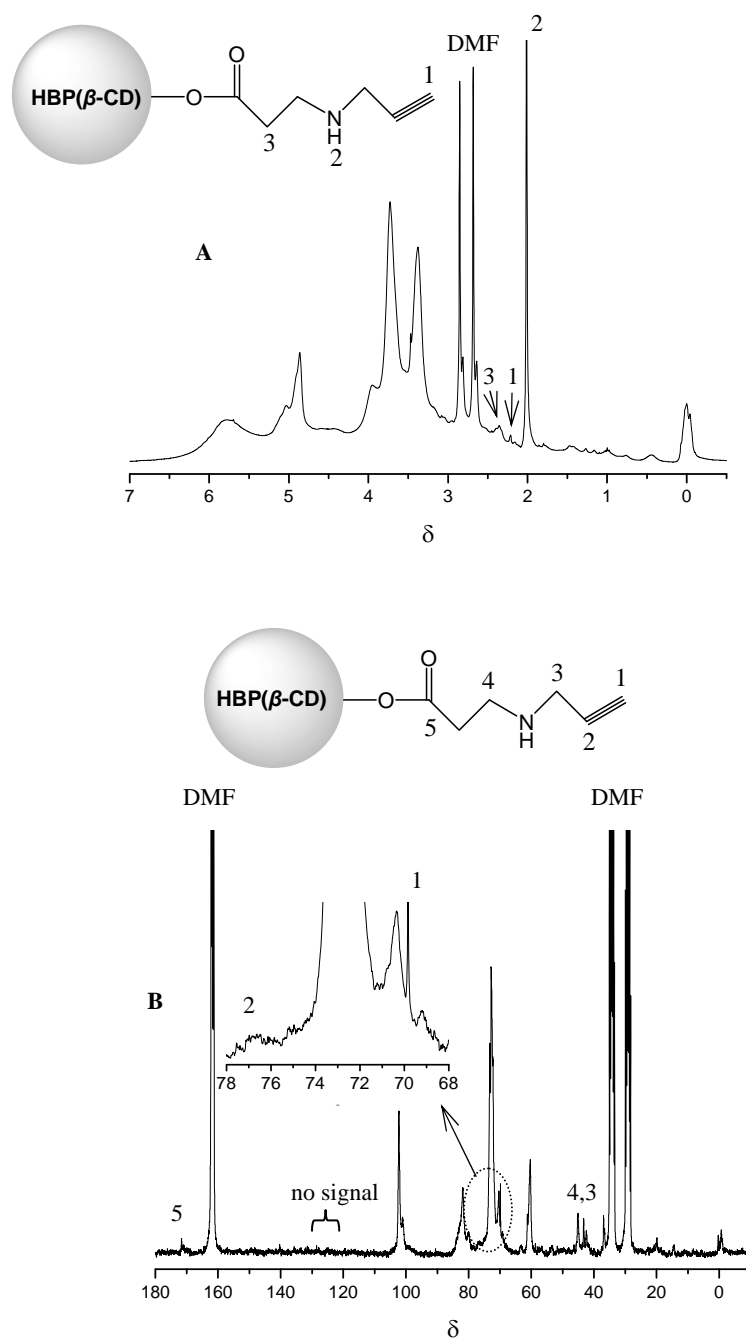
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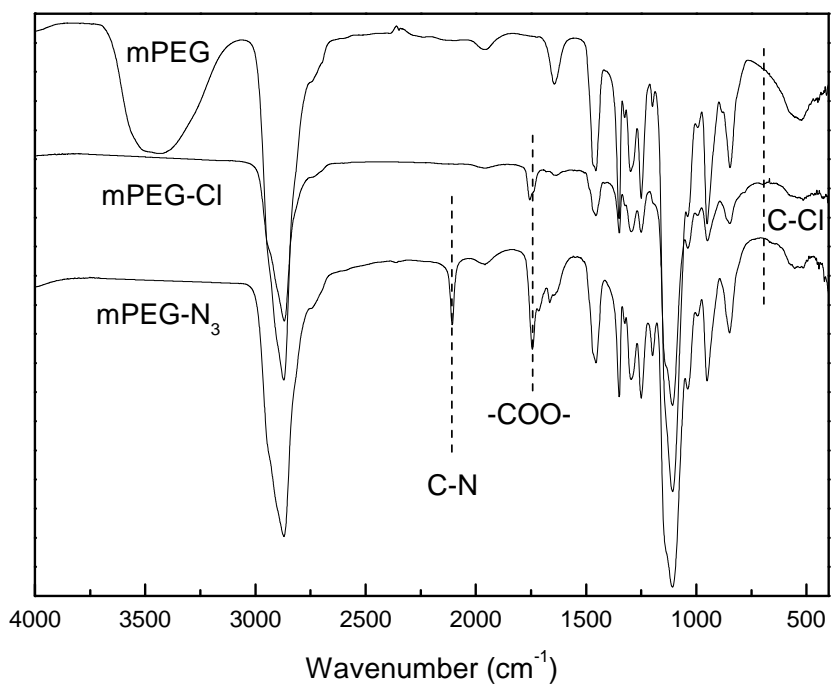
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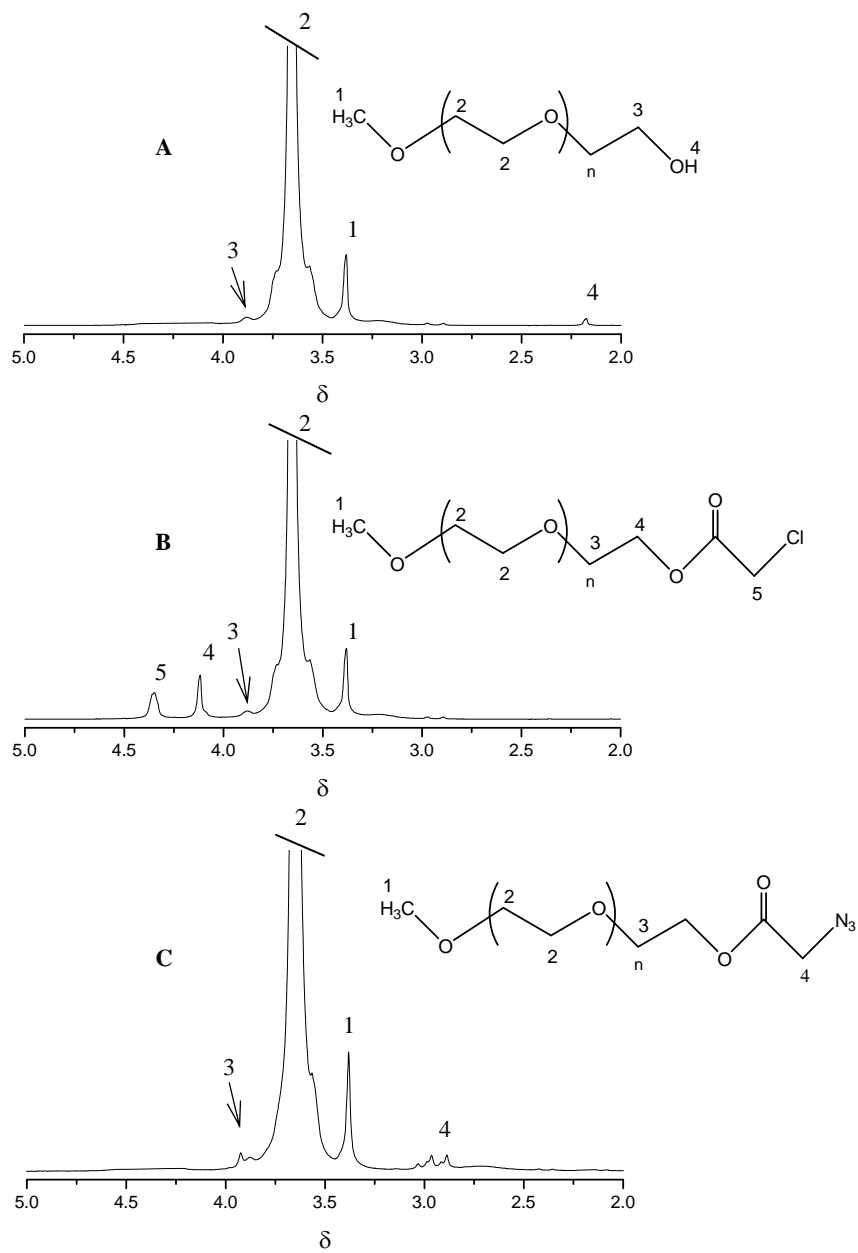
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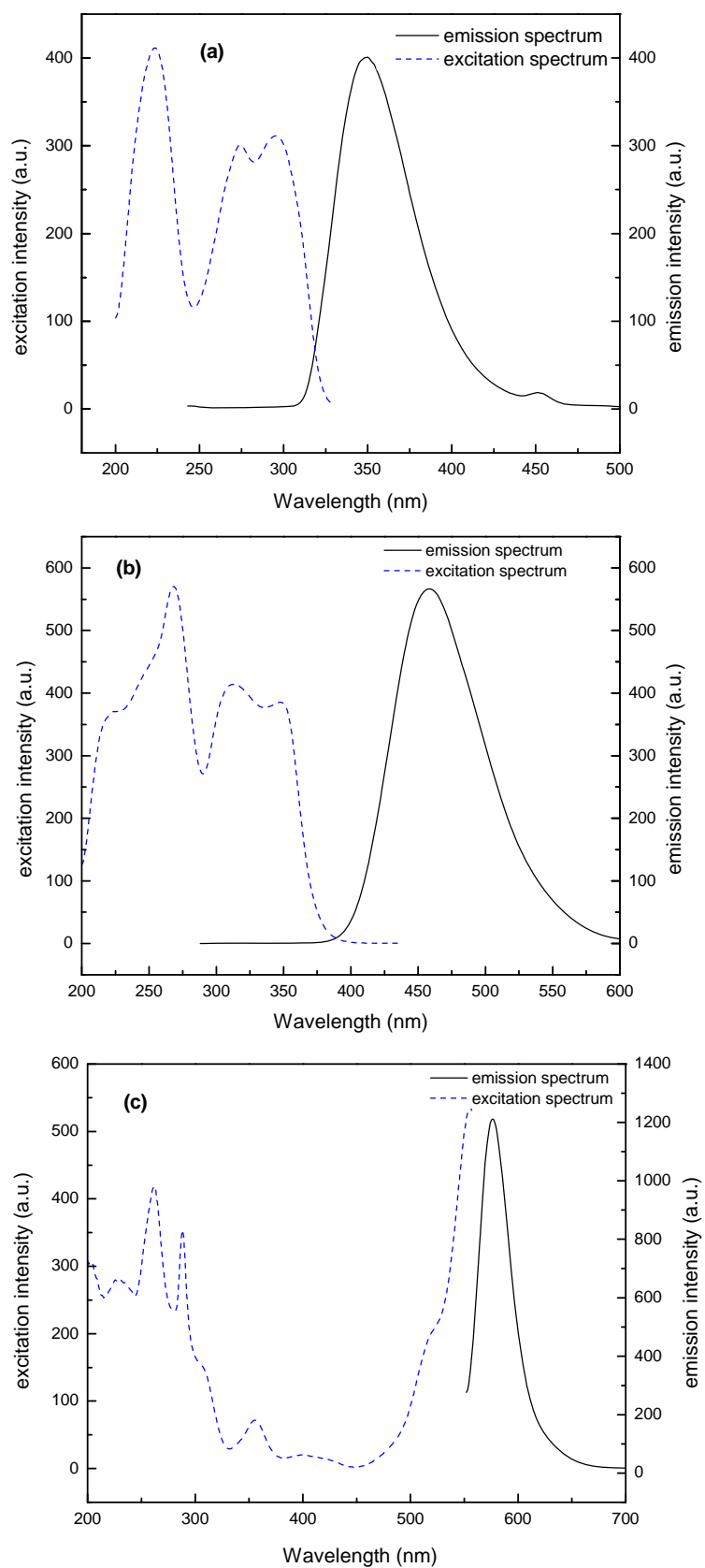
**Figure S1.**  $^1\text{H}$  NMR (A) and  $^{13}\text{C}$  NMR (B) spectra of HBP( $\beta$ -CD)-C $\equiv$ CH



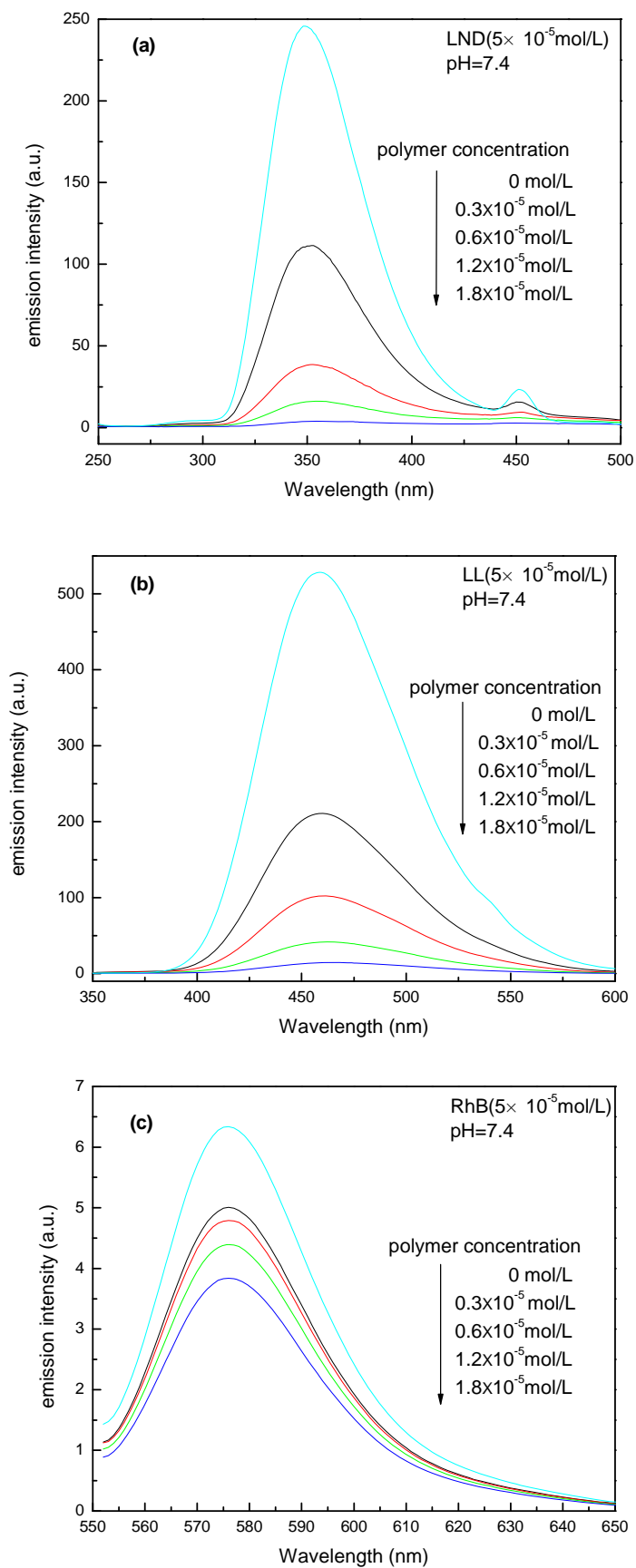
**Figure S2.** FTIR spectra of MPEG, MPEG-Cl and MPEG-N<sub>3</sub>



**Figure S3.**  $^1\text{H}$  NMR spectra of MPEG (A), MPEG-Cl (B) and MPEG-N<sub>3</sub> (C)



**Figure S4.** Fluorescence excitation and emission spectra of LND (a), LL (b) and RhB (c) in aqueous solution



**Figure S5.** Fluorescence emission spectra of LND (a), LL (b) and RhB (c) solution in the presence of AHN at pH=7.4