

ELECTRONIC SUPPLEMENTARY INFORMATION

A ‘smart’ approach towards the formation of multifunctional nano-assemblies by simple mixing of block copolymers having a common temperature sensitive segment

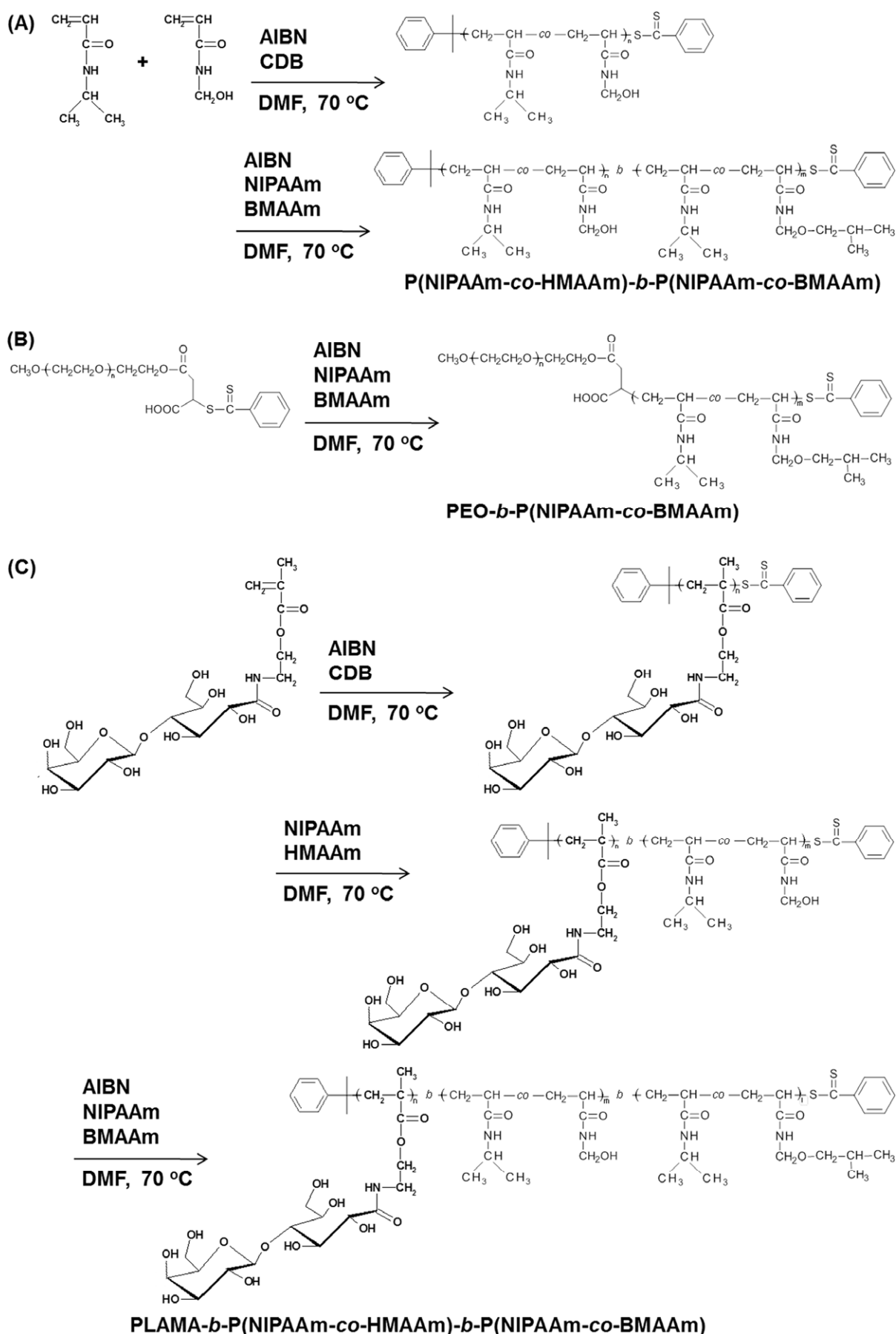
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Scheme S1. Synthesis of (A) P(NIPAAm-co-HMAAm)-b-P(NIPAAm-co-BMAAm), (B) PEO-b-P(NIPAAm-co-BMAAm), and (C) PLAMA-b-P(NIPAAm-co-HMAAm)-b-P(NIPAAm-co-BMAAm).

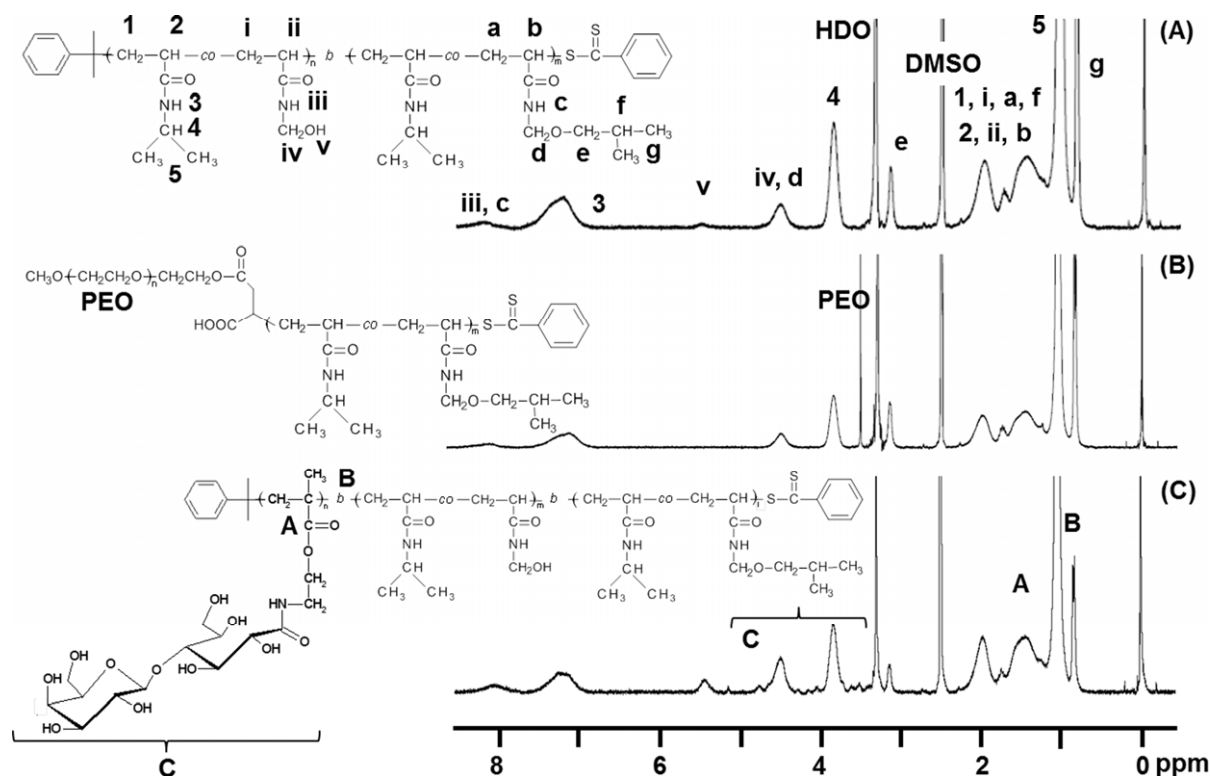


Figure S1. ^1H NMR spectra of (A) $\text{P}(\text{NIPAAm}_{112}\text{-co-HMAAm}_{14})\text{-b-P}(\text{NIPAAm}_{54}\text{-co-BMAAm}_{12})$, (B) $\text{PEO}_{113}\text{-b-P}(\text{NIPAAm}_{85}\text{-co-BMAAm}_{19})$, and (C) $\text{PLAMA}_2\text{-b-P}(\text{NIPAAm}_{79}\text{-co-HMAAm}_{35})\text{-b-P}(\text{NIPAAm}_{28}\text{-co-BMAAm}_6)$.

**Mixture solution of micelle of
 $\text{P}(\text{NIPAAm}_{112}\text{-co-HMAAm}_{14})\text{-b-P}(\text{NIPAAm}_{54}\text{-co-BMAAm}_{12})$ and
 $\text{PEO}_{113}\text{-b-P}(\text{NIPAAm}_{85}\text{-co-BMAAm}_{19})$ at 25 °C**

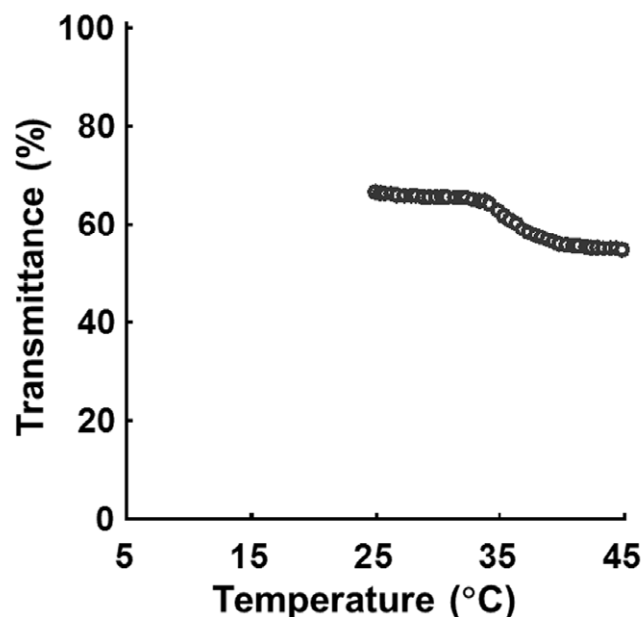


Figure S2. Temperature-dependent behavior of 0.1 w/v% (total concentration) aqueous solution of the prepared micelle of $\text{P}(\text{NIPAAm}_{112}\text{-co-HMAAm}_{14})\text{-b-P}(\text{NIPAAm}_{54}\text{-co-BMAAm}_{12})$ and $\text{PEO}_{113}\text{-b-P}(\text{NIPAAm}_{85}\text{-co-BMAAm}_{19})$ separately.