Electronic Supplementary Information (ESI)

Core-Shell Cylinder (CSC) Nanotemplates Comprised of Mussel-Inspired Catechol-Containing Triblock Copolymers for Silver Nanoparticle Arrays and Ion Conductive Channels

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Appendix

Figure S1 shows GPC chromatogram of synthesized polymers. The chromatogram shows molecular weights of synthesized polymers were monodisperse and gradually increased with elongating the polymer segments.

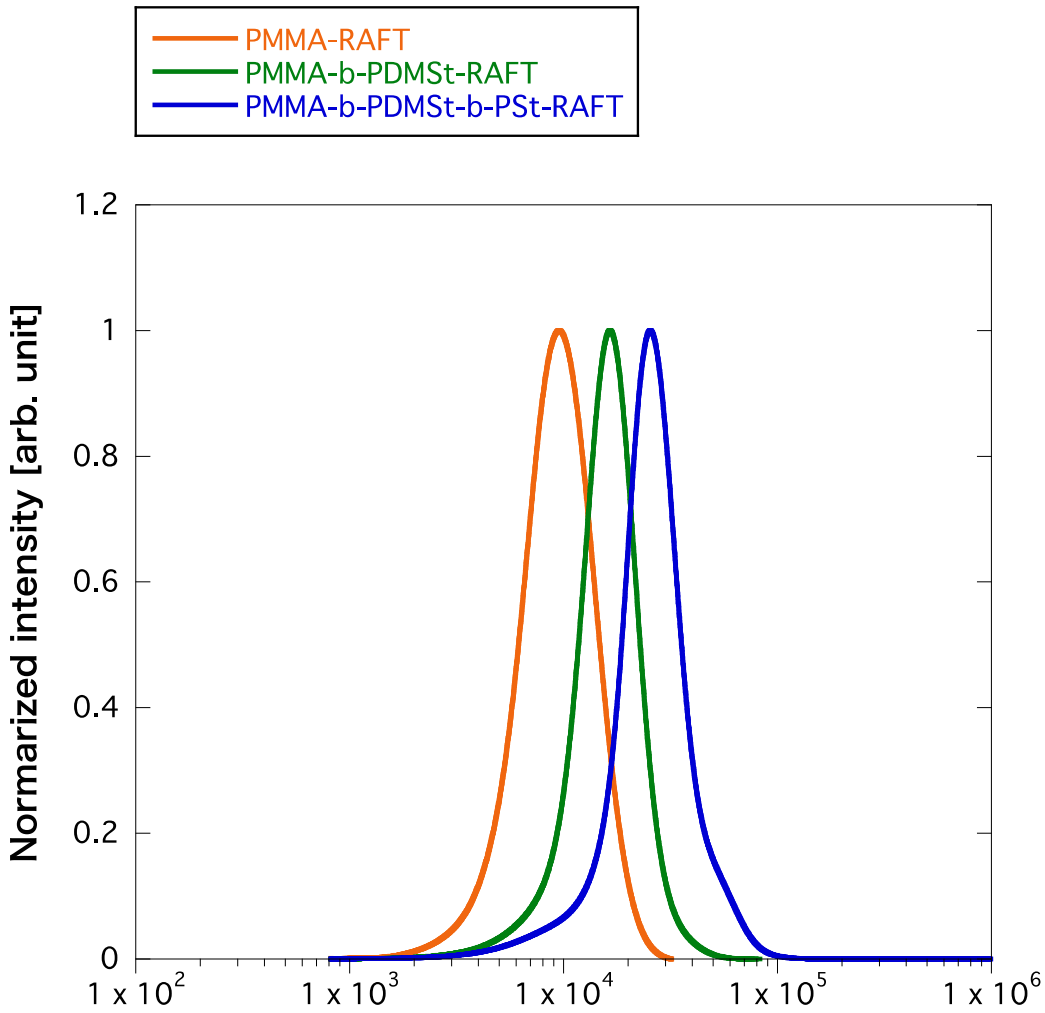

Figure S1. GPC chromatogram of PMMA-RAFT, PMMA-*b*-PDMSt-RAFT, and PMMA-*b*-PDMSt-*b*-PSt-RAFT. Horizontal axis shows molecular weights.

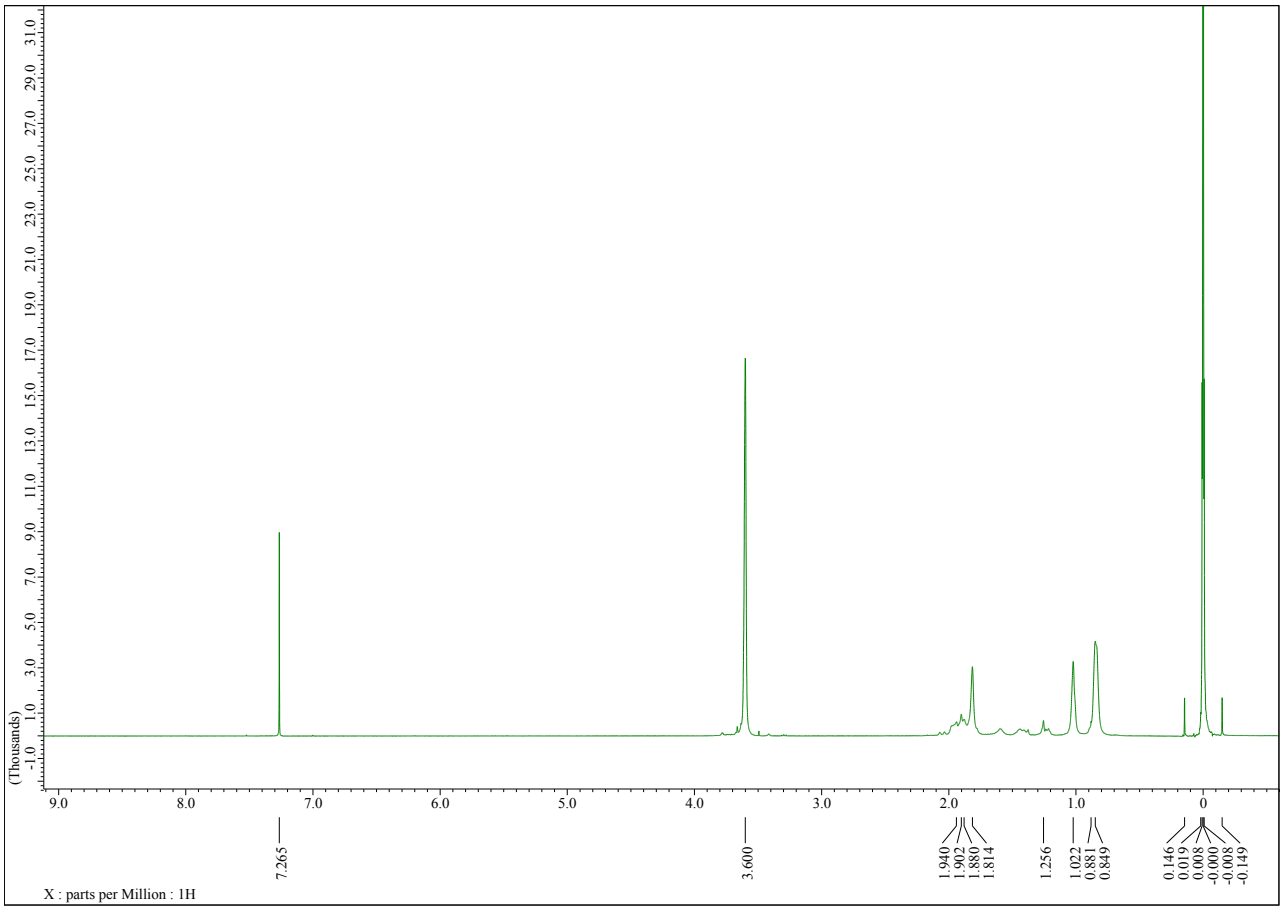

Figure S2. ^{1}H-NMR chart of PMMA-RAFT ($CDCl_3$).

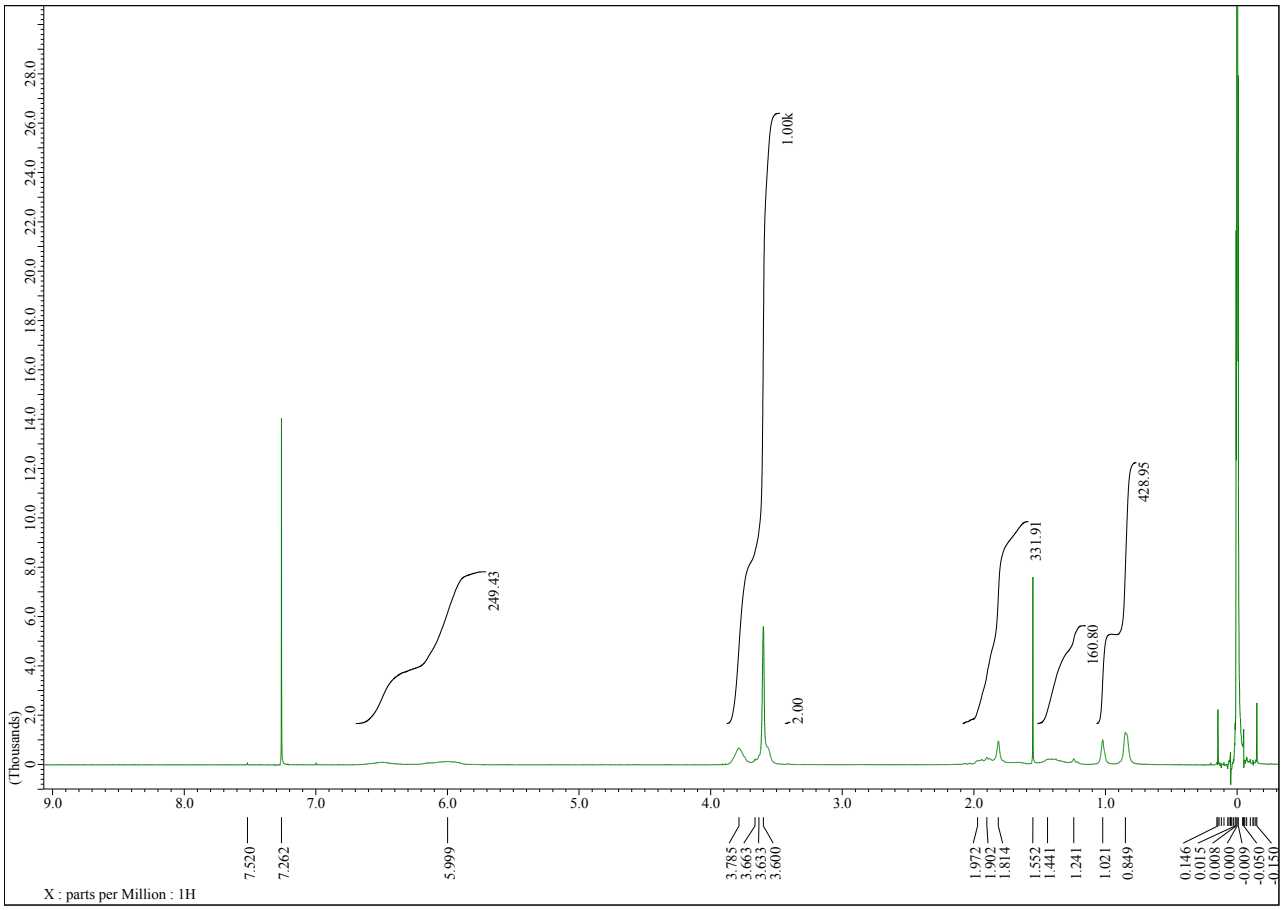

Figure S3. ^{1}H-NMR chart of PMMA-*b*-PDMSt-RAFT ($CDCl_3$)

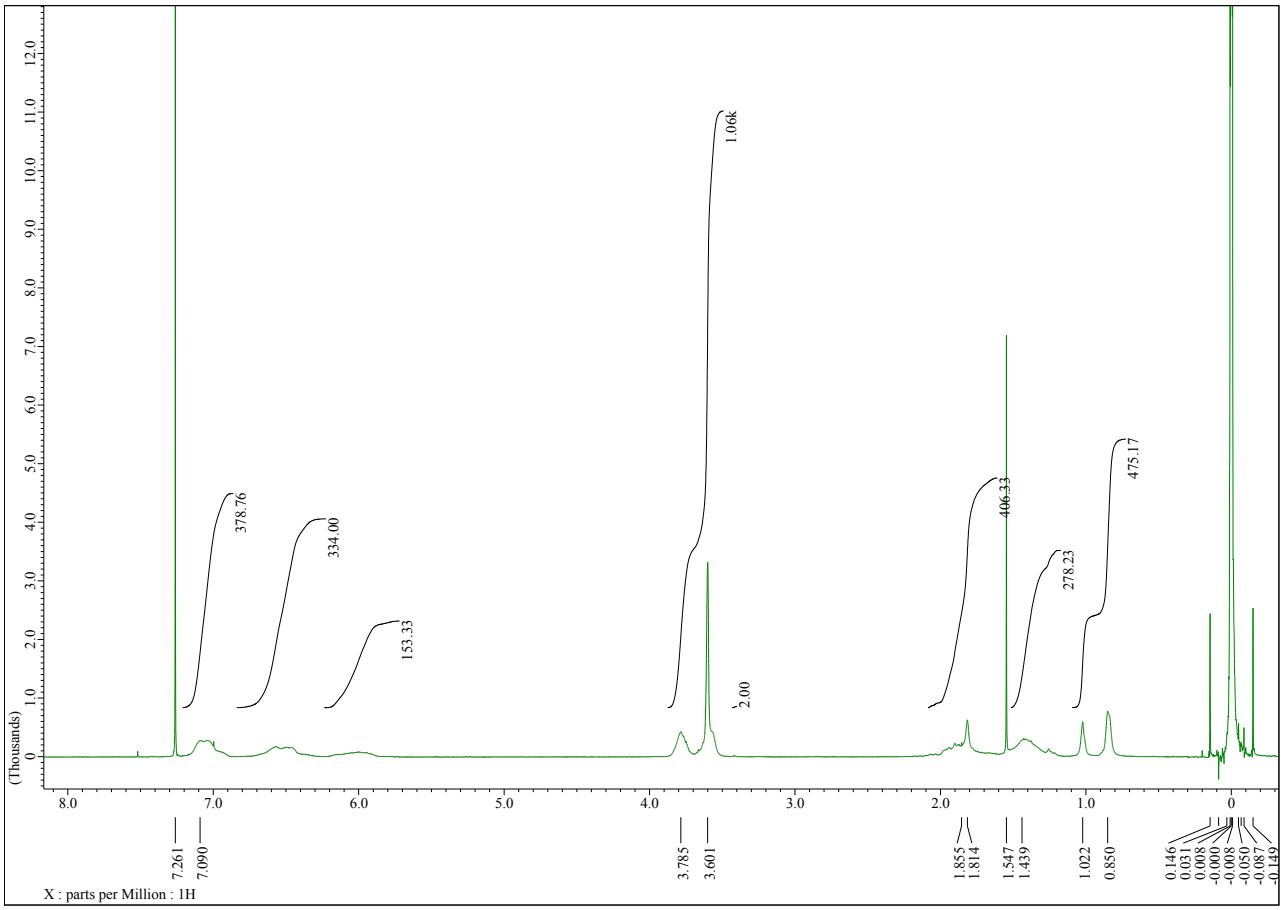

Figure S4. ^{1}H-NMR chart of PMMA-*b*-PDMSt-*b*-PSt-RAFT ($CDCl_3$)

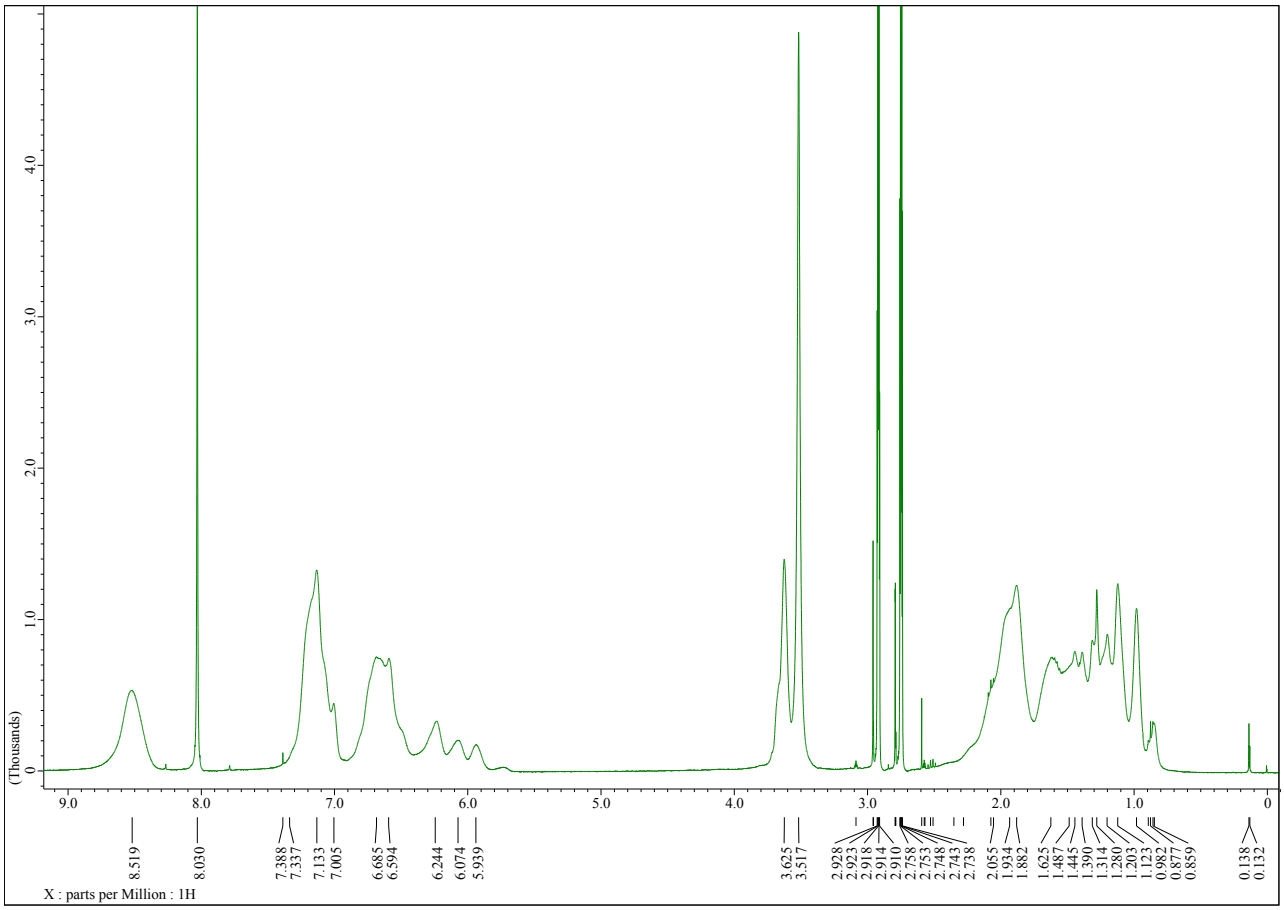

Figure S5. ^{1}H-NMR chart of PMMA-*b*-PVCa-*b*-PSt (*d*-DMF).

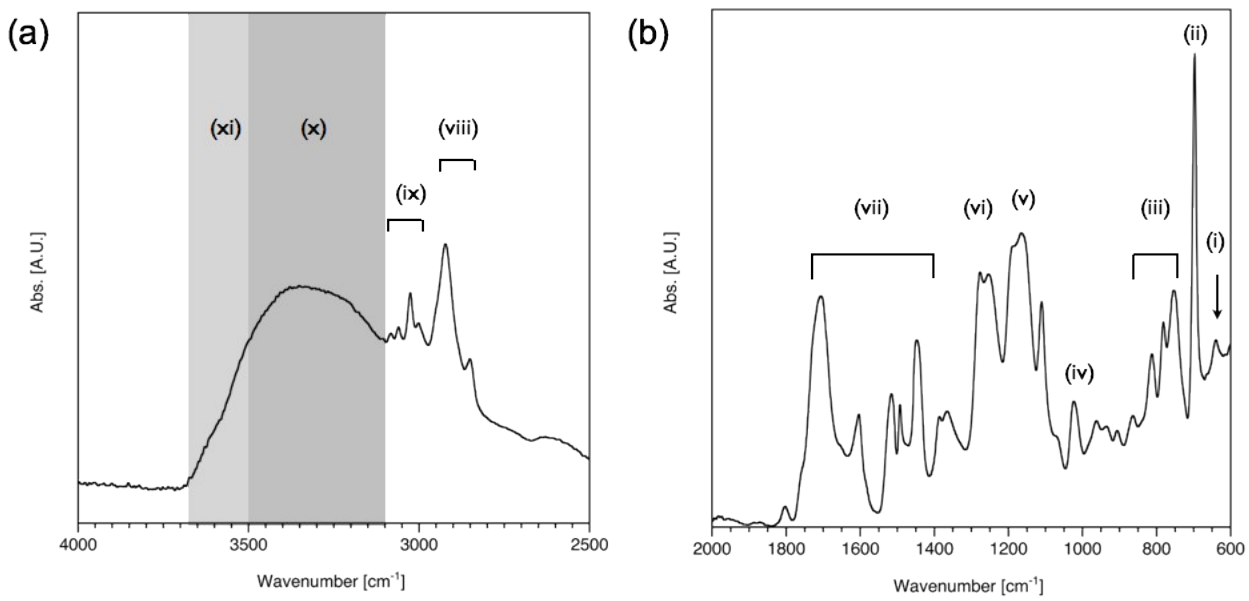

Figure S6. FT-IR spectra of PMMA-*b*-PVCa-*b*-PSt triblock copolymer ranging from 2500 cm^{-1} to 4000 cm^{-1} and from 600 cm^{-1} to 2000 cm^{-1}, respectively. Absorption attributed to the aromatic rings of styrene and catechol ($\delta_{C-H(styrene)}$ 700 cm^{-1}(ii), $\delta_{C-H(catechol)}$ 780−960 cm^{-1}(iii), $\delta_{C-H(aromatic)}$ 1,110 cm^{-1}(iv), ν_{C-C} 1,400^{-1}-1,600 cm^{-1}(vii)), the C−O vibration of catechol (ν_{C-O} 1,280 cm^{-1}(vi)), and free (ν_{O-H} 3,480−3,600 cm^{-1}(xi)) and hydrogen-bonded O−H groups (ν_{O-H} 3,125−3,480 cm^{-1}(x)) were clearly observed. From these spectra, formation of OH groups were confirmed.