

Supporting information

Noncovalent fabrication and tunable fusion of block copolymer-giant polyoxometalate hybrid micelles

Liying Zhang, Haolong Li* and Lixin Wu*

State Key Laboratory of Supramolecular Structure and Materials, College of Chemistry, Jilin University, Changchun 130012, China.

*Corresponding author. E-mail: hl_li@jlu.edu.cn; wulx@jlu.edu.cn

Table S1. Elemental analysis results of C-Mo. The chemical formula of C-Mo is $(\text{CDDA})_{41}(\text{NH}_4)\text{Mo}_{132}$.

	C (%)	H (%)	N (%)
Experimental results	39.14	6.01	1.22
Calculated value	38.68	6.42	1.34

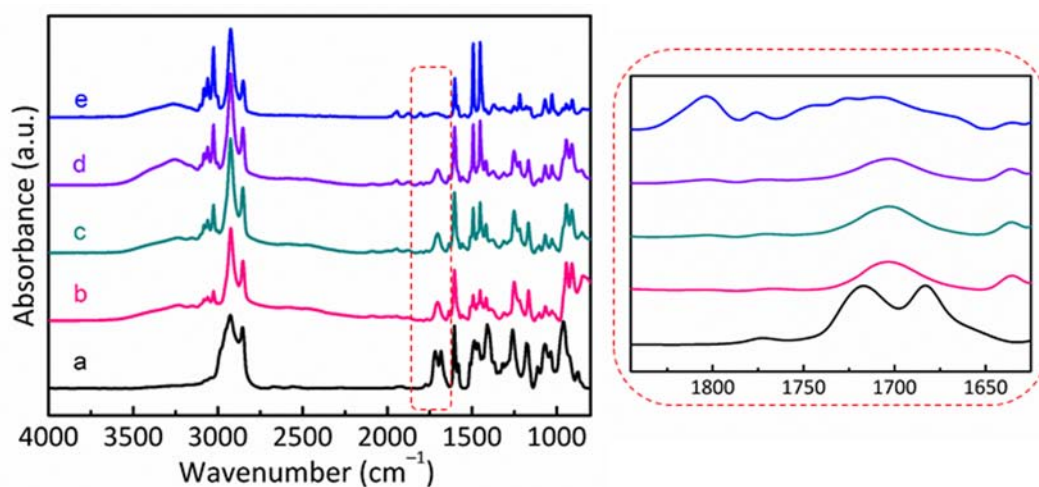


Fig. S1 FT-IR spectra of (a) C-Mo, (b) PS.8/C-Mo, (c) PS24/C-Mo, (d) PS47/C-Mo and (e) PS310/C-Mo by casting PS-*b*-P4VP/C-Mo chloroform solution on CaF_2 substrates (left) and its magnified spectra in the red column (right).

Table S2. DLS data of PS-*b*-P4VP/C-Mo according to Fig. 3.

	PS24/C-Mo	PS47/C-Mo	PS310/C-Mo
D_h (nm)	120	101	157
PDI	0.233	0.100	0.057

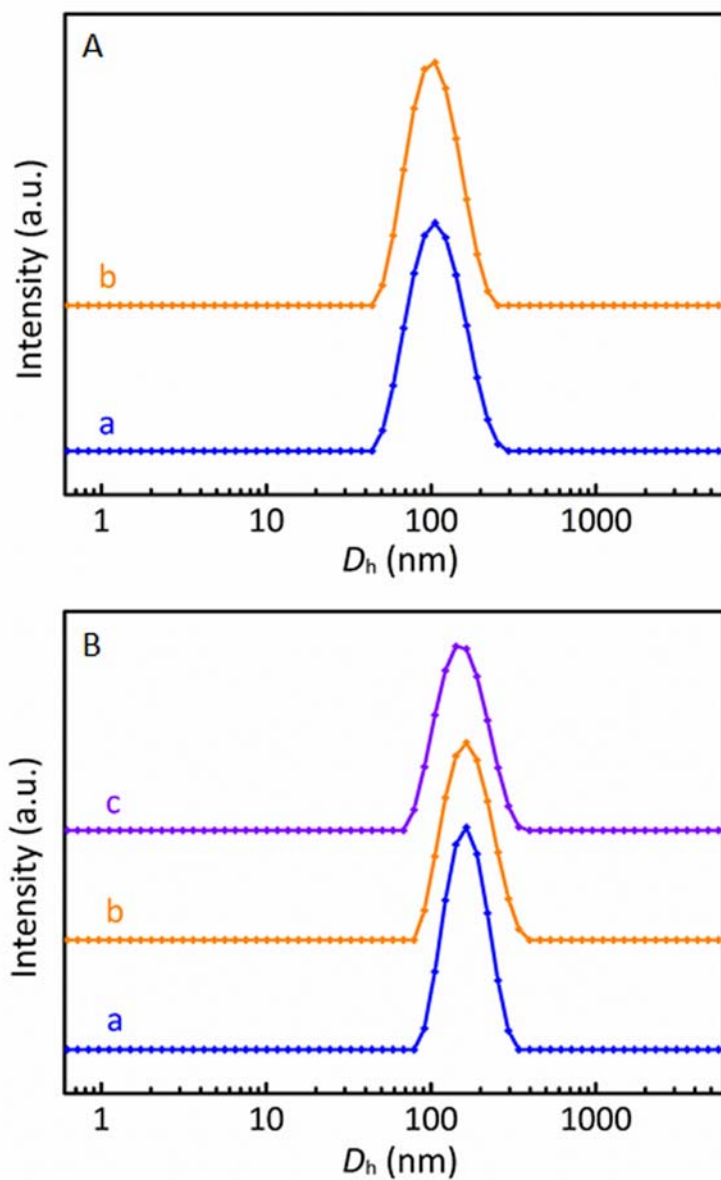


Fig. S2 DLS diagrams of (A) PS47/C-Mo chloroform solution when the concentration is (a) 2×10^{-6} mol/L and (b) 2×10^{-7} mol/L regarding polymer part and (B) PS310/C-Mo chloroform solution when the concentration is (a) 2×10^{-6} mol/L, (b) 2×10^{-7} mol/L and (c) 2×10^{-8} mol/L regarding polymer part.

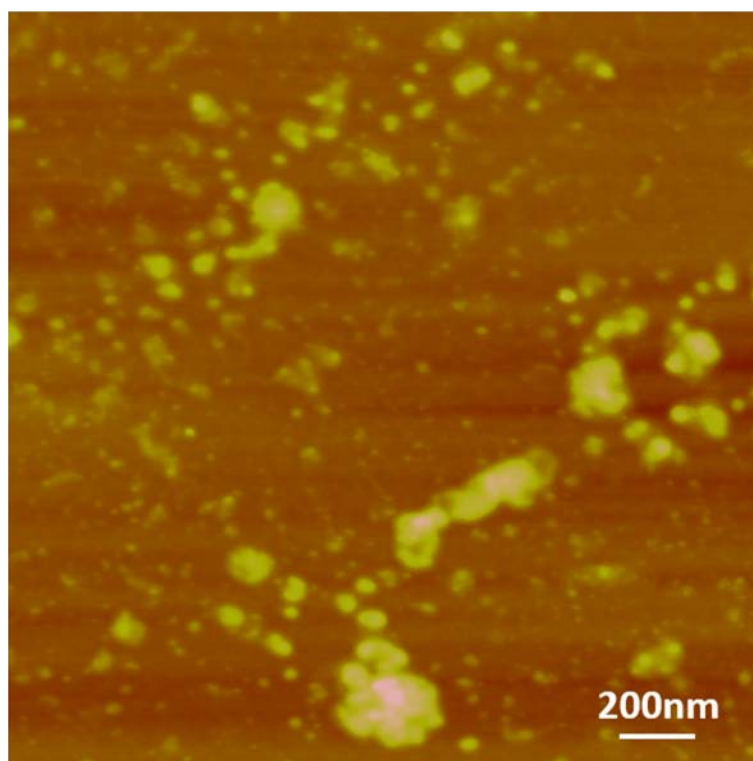


Fig. S3 AFM height image of PS9.8/C-Mo assemblies by spin-coating its chloroform solution on Si substrate when the concentration is 2×10^{-6} mol/L.

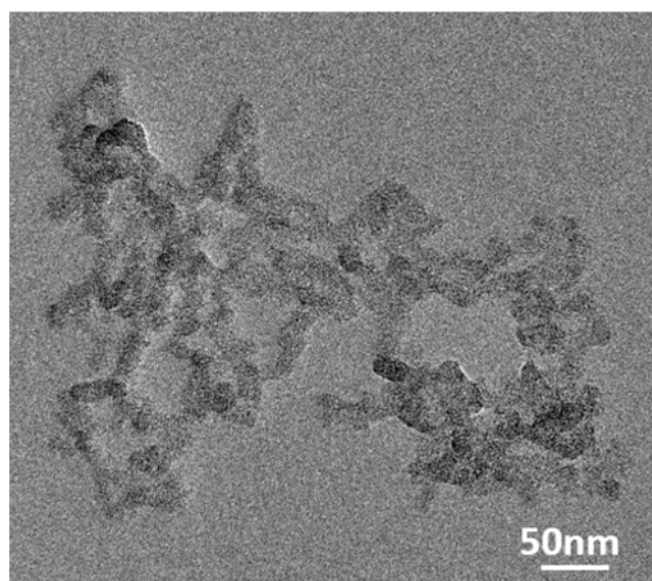


Fig. S4 TEM image of PS9.8/C-Mo assemblies by casting its chloroform solution on carbon-coated copper grid when the concentration is 2×10^{-6} mol/L.

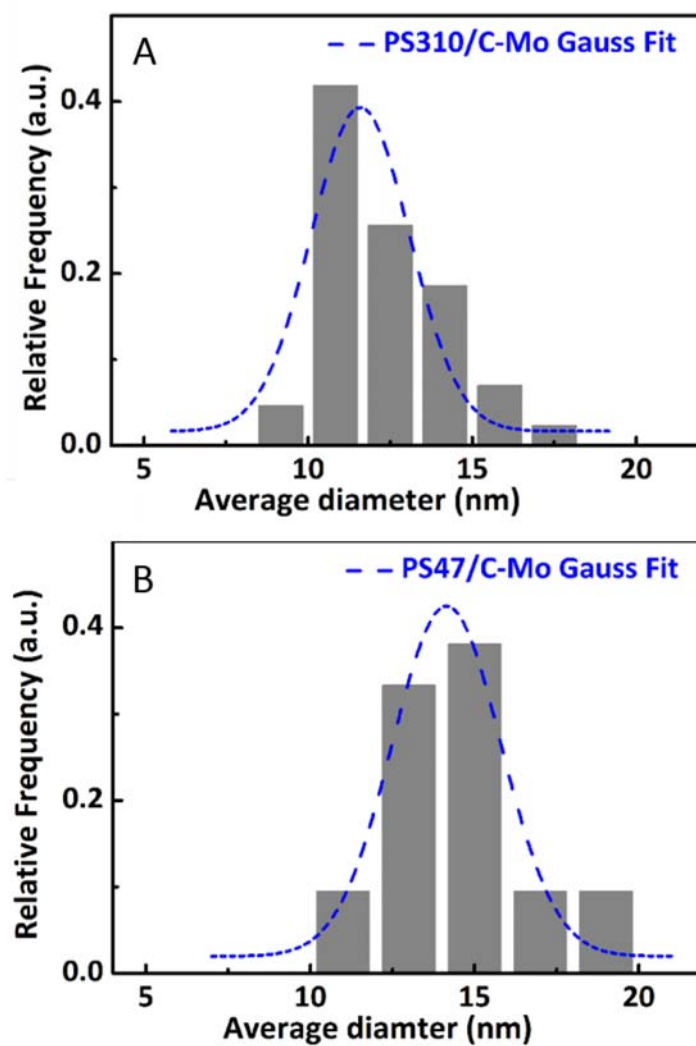


Fig. S5 Core diameter distribution histograms and their corresponding Gaussian fits of PS310/C-Mo (A) and PS47/C-Mo (B) according to their TEM images in Fig. 5a and Fig. 5c.

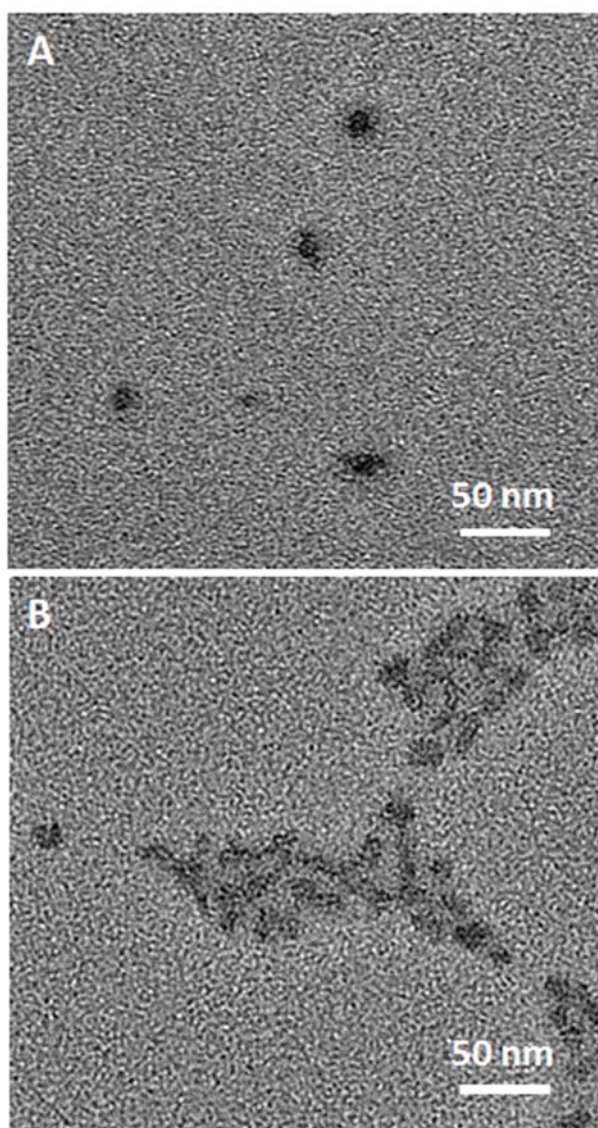


Fig. S6 TEM images of PS47/C-Mo (A) and PS24/C-Mo (B) after RuO₄ staining.

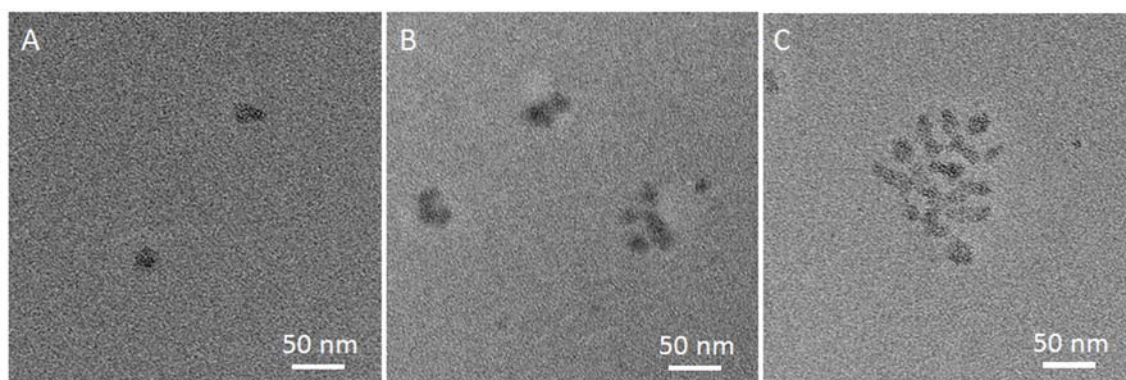


Fig. S7 TEM images of PS24/C-Mo core-fused kinetics from initial isolated micelles (A) to fused micelles in a slightly linked state (B) and then fused micelles with a network structure (C).