Supporting Information

Photo-controlled self-assembly behavior of novel amphiphilic polymers with rosin-based azobenzene group

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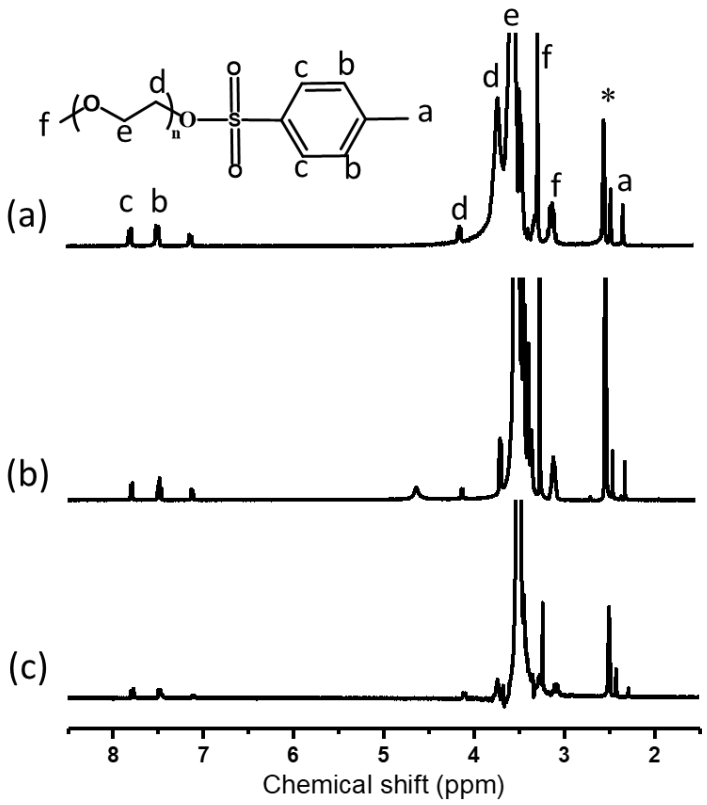

Figure S1： ^{1}H NMR spectra of (a) PMP_{17}, (b) PMP_{34}, and (c) PMP_{69} in DMSO-d6. (The corresponding assignment used PMP_{17} as an example. * represents solvent peak)

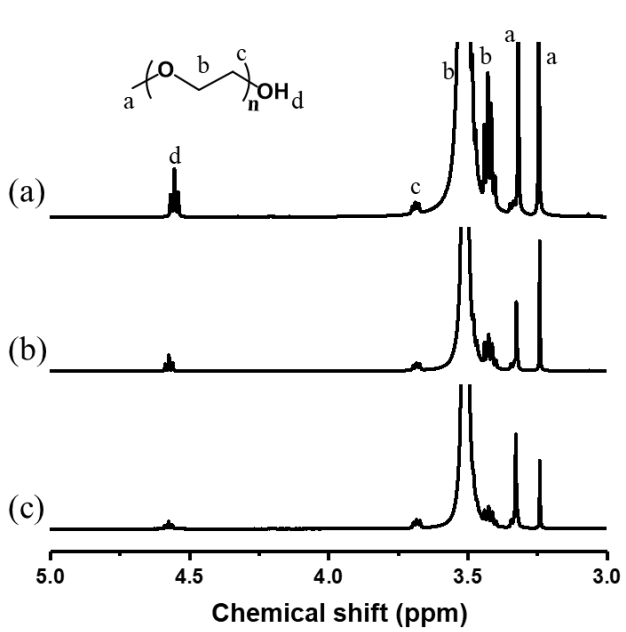

Figure S2： ^{1}H NMR spectra of (a) PEG_{17}, (b) PEG_{34}, and (c) PEG_{69} in DMSO-d6. (The corresponding assignment used PEG_{17} as an example.)

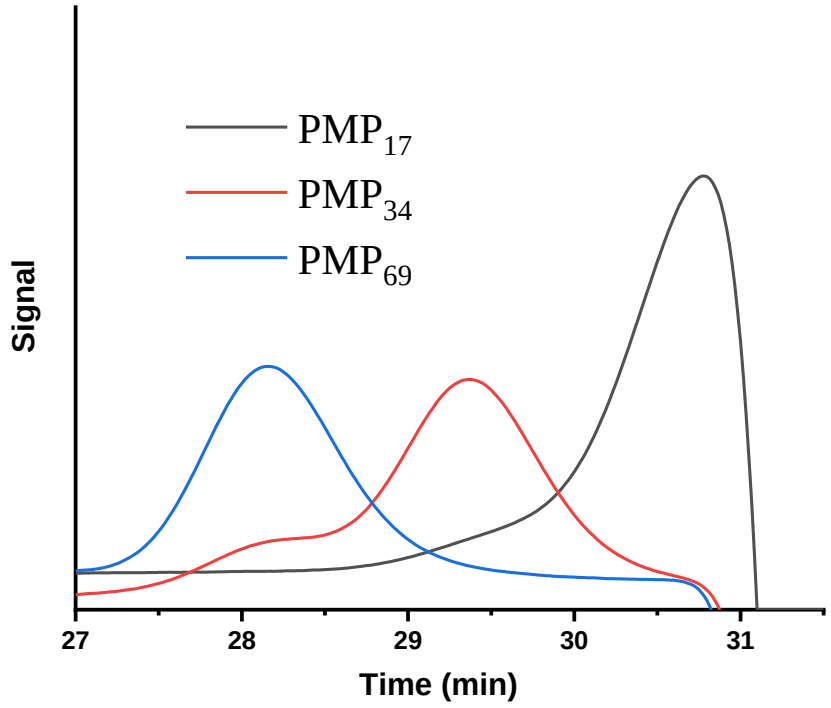

Figure S3： GPC of PMP_{17}, PMP_{34}, and PMP_{69}.

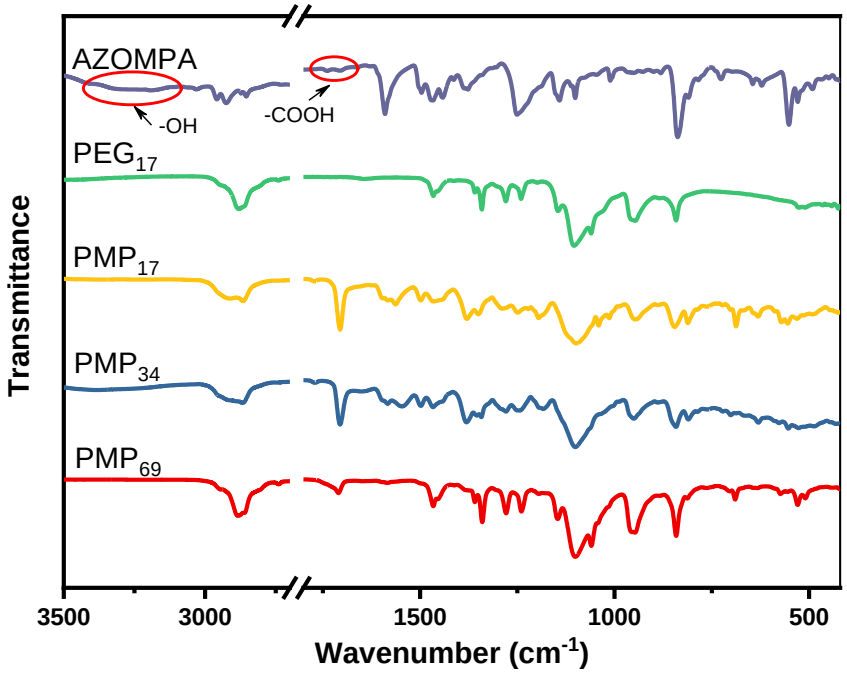

Figure S4： FTIR spectra of AZOMPA, PEG_{17}, PMP_{17}, PMP_{34}, and PMP_{69}.

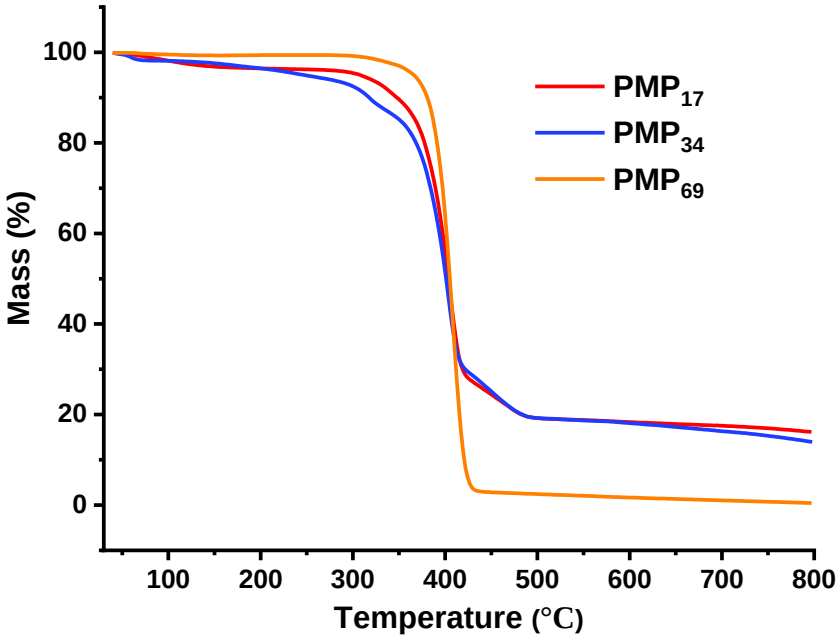

Figure S5: Weight loss curve determined by TGA of PMP_{17}, PMP_{34}, and PMP_{69}.

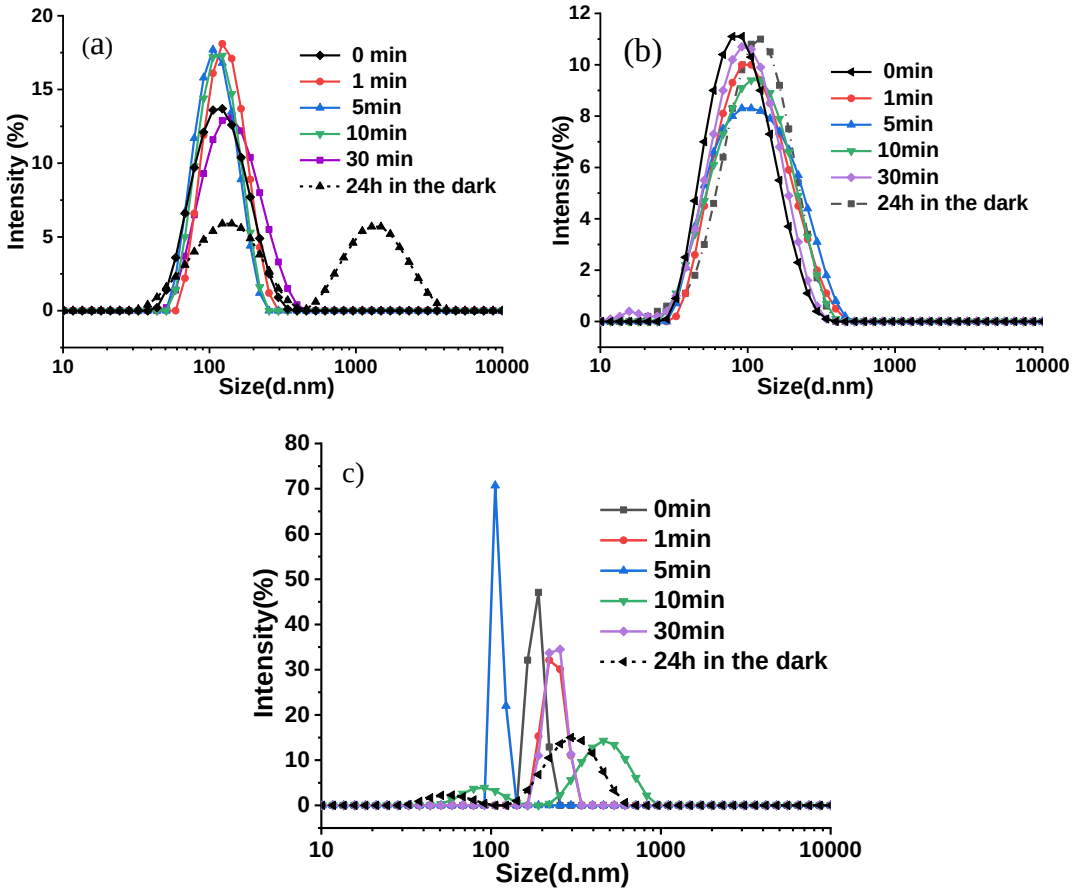

Figure S6: DLS of (a) PMP_{17}, (b) PMP_{34}, (c) PMP_{69} water dispersions under UV irradiation.

Table S1. Mean Hydrodynamic Diameters (Dh) and Polymer dispersity index (PDI) of the micelles

	D_h (nm)/PDI					
sample	0s	1min	5min	10min	30min	24h in the dark
PMP_{17}	98/0.196	123/0.214	112/0.273	119/0.409	125/0.257	(140,1490)/0.565
PMP_{34}	75/0.389	105/0.328	106/0.364)	113/0.404	114/0.385	87/0.295
PMP_{69}	185/0.847	236/0.324	110/0.507	(90,479)/0.801	239/1.000	(58,312)/0.926