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Supporting Information for

Aggregation-Induced Emission from the Crowded Coronal Chains of Block Copolymer Micelles

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Figure S12. GPC traces of the (a) PtBA polymers and (b) diblock copolymers.



ure S13. TGA traces of the (a) PtBA polymers and (b) diblock copolymers.



Figure S14. DSC traces of the (a) PtBA polymers and (b) diblock copolymers.



Figure S15. Plot of the variation of absorbance of the solution versus the concentration of TPEA in THF solution. Red dash line is the linear fitting of the data points.



Figure S16. Exemplar ¹H NMR spectrum of the polymerization solution of *t*BA (90 mol%) and TPEA (10 mol%) at time 0 s.



Figure S17. Normalized UV-vis absorbance spectra of the (a) PtBA polymers and (b) diblock copolymers in their THF solutions (at a concentration of 8.5×10^{-6} mmol / mL).



Figure S18. (a) Photographs of the copolymers (BCP-1, BCP-2) under UV-irradiation ($\lambda_{ex} = 310 \text{ nm}$, left) and room light (right). Photoluminescence spectra of the (b) P*t*BA polymers and (c) diblock copolymers in their THF solutions (at a concentration of $8.5 \times 10^{-6} \text{ mmol} / \text{mL}$).



Figure S19. (a) Photoluminescence spectra and (b) photographs (under UVirradiation, $\lambda_{ex} = 310$ nm) of the PtBA-1 and PtBA-2 in mixed solutions (THF : water = 40 : 60, v/v ; 0.5 mg / mL).



Figure S20. Photoluminescence intensity (under UV-irradiation, $\lambda_{ex} = 310$ nm) of the the solution *versus* the content of H₂O or DMSO in the THF solution of P*t*BA-1 and P*t*BA-2 (weight concentrations of polymers were 0.5 mg / mL, molar concentrations of TPE were $C_{TPE} = 3.57 \times 10^{-5}$ mmol / mL). The precipitation of polymers started at 60 % of H₂O in THF, and 95 % of DMSO in THF.

				1 2		1 2
	Sample	$M_{\rm w}^{\rm a}$ (kDa)	$M_{n^{a}}$ (kDa)	$M_{ m w}$ / $M_{ m n}^{ m a}$	m ^b	n ^c
	PtBA-1	15.8	14.4	1.10	109	N.A.
	PtBA-2	14.8	13.4	1.11	100	N.A.
	PtBA-3	15.4	14.0	1.09	99	N.A.
	BCP-1	70.5	58.8	1.19	109	84
	BCP-2	70.0	58.3	1.20	100	85
	BCP-3	59.5	49.2	1.20	109	66
	BCP-4	56.8	47.7	1.19	100	65
	BCP-5	75.6	63.0	1.20	109	92
	BCP-6	78.9	66.8	1.18	99	100
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Table S1. Molecular characteristics of the PtBA polymers and diblock copolymers

^a: obtained from GPC;

^b: degree of polymerization of the first block, calculated by dividing the M_n from GPC results by the molecular weight of monomers;

^c: degree of polymerization of the PCholMA block, calculated from the value of *m* and the block ratio from ¹H NMR.

Tuble 52. If E contents of the Tibly homopolymens and choloek copolymens.									
	PtBA-1	PtBA-2	PtBA-3	BCP-1	BCP-2	BCP-3	BCP-4	BCP-5	BCP-6
UV-vis absorption ^a	0.193	0.179	0.901	0.192	0.178	0.194	0.181	0.191	0.895
TPE content ×10 ⁻³	3.501	3.260	15.661	3.483	3.242	3.517	3.294	3.466	15.558
(mg/mL)									
TPE content mol. %	1.06	1.10	5.76	0.66	0.62	0.70	0.68	0.63	2.89
from UV									
TPE content mol. %	1 10	1.21	5.90	0.7	0.64	0.72	0.72	0.64	2.02
from ¹ H NMR	1.18	1.21	5.89	0.07	0.04	0.73	0.72	0.04	5.02

Table S2. TPE contents of the PtBA homopolymers and diblock copolymers.

^a: polymers are dissolved in THF at a concentration of 8.5×10^{-6} mmol / mL, and $\lambda_{ex} = 310$ nm.

	0h	1h	2h	3h	4h	6h	8h	10h	14h
Integration from $tPA (\times 10^{-2})$	10.683	10.617	10.197	9.899	9.655	9.360	9.111	9.040	8.731
<i>i</i> DA (^10 ⁻)									
Conversion of	0	0.62	4.55	7.34	9.62	12.38	14.72	15.37	18.28
<i>t</i> BA (%)									
Integration from	1.155	1.148	1.099	1.065	1.045	1.016	0.984	0.970	0.951
TPEA (×10 ⁻²)									
Conversion of	0	0.61	4.85	7.79	9.52	12.03	14.81	16.02	
TPEA (%)									17.75
% of TPEA in	0	10.19	9.38	9.42	10.10	10.29	9.95	0.00	10.20
polymer ^a								9.60	10.30

Table S3. Results from the ¹H NMR characterization of the copolymerization experiment of tBA (90 mol%) and TPEA (10 mol%)

^a: calculated by the comparing the integration of residual TPEA and *t*BA monomers

Table S4. The fluorescence quantum yields of the diblock copolymers in THF, THF / n-BuOH mixture solvent (5 : 95, v/v) and in solid. (polymer at a concentration of 8.5×10^{-6} mmol / mL).

	BCP-1	BCP-2	BCP-3	BCP-4	BCP-5	BCP-6
Quantum yield in	0.26	0.64	8.29	0.61	9.71	11 0
mixture solvent (%)	9.30					44.0
Quantum yield in	0.38	0.35	0.37	0.35	0.39	0.64
THF (%)						0.04
Quantum yield in	31.4	28.7	20.5	20.0	21.6	(7.4
solid (%)			30.5	29.9	31.0	07.4