Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting Information

Thermostable Polymeric Nanomicelles of Iridium (III) Complexes with Aggregation-induced Phosphorescence Emission Characteristics and Their Recyclable Double-strand DNA Monitoring

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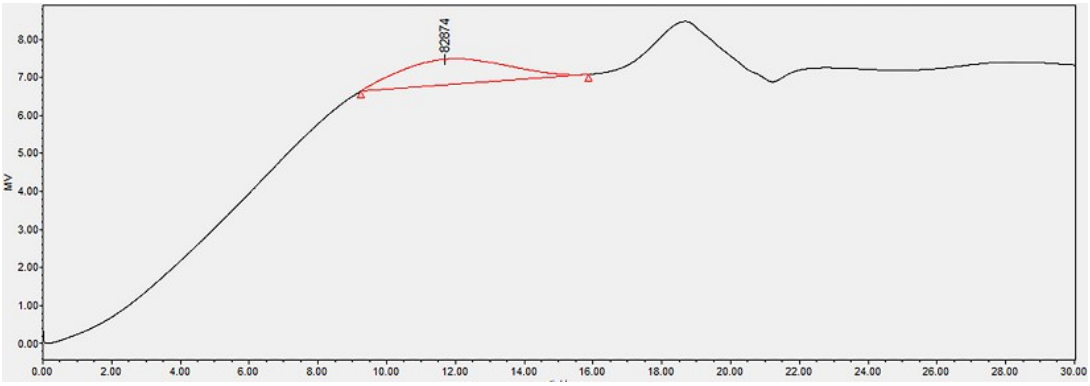

Fig. S1 The GPC result of $(DIP)_2Ir(ECA)$ polymer

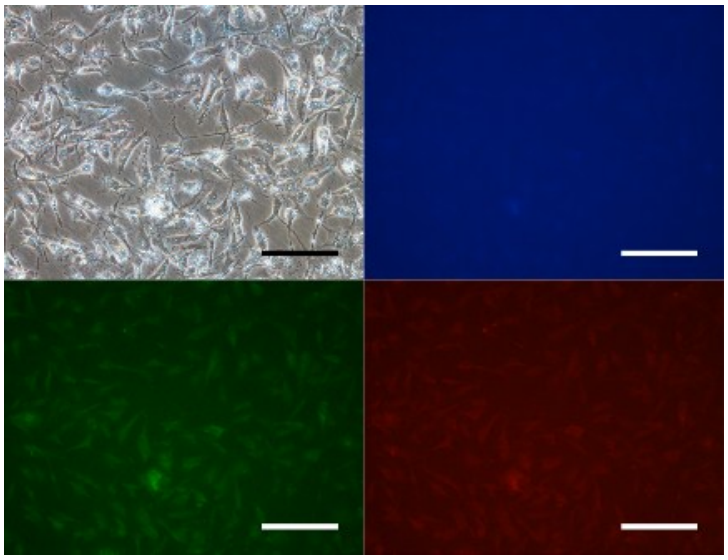

Fig. S2. The AIPE-active imaging in living cells. Scale bar=50 μm.

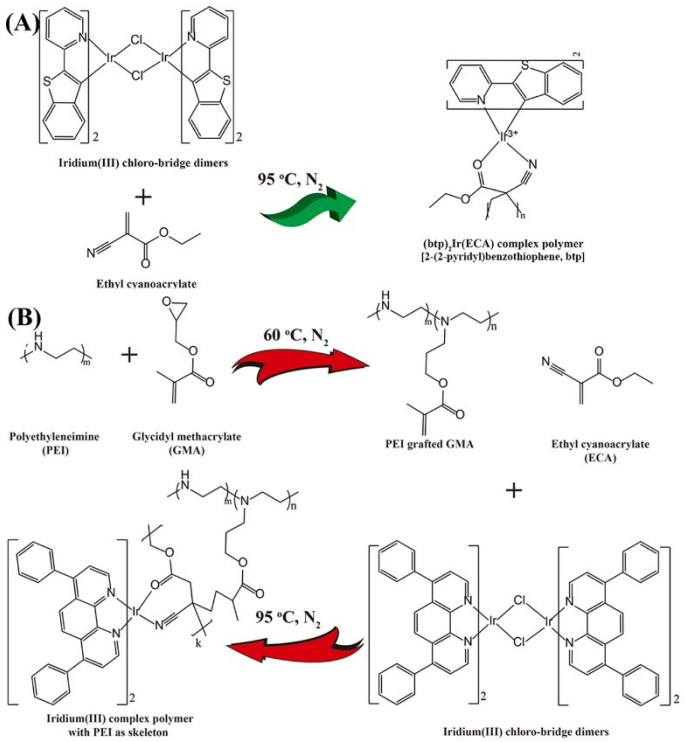

Fig. S3 The scheme of Ir(III) complex polymer with 2-(2-pyridyl)benzothiophene as ligand (A) and polyethyleneimine as skeleton (B) synthesis

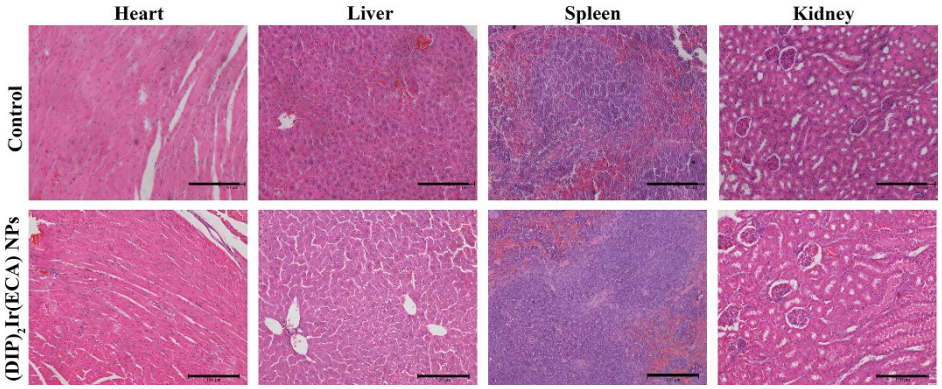

Fig. S4 The tissue section images of heart, liver, spleen and kidney of BALB/c mice treated by PBS and $(DIP)_2Ir(ECA)$ nanomicelles. Scale bar was 100 μm

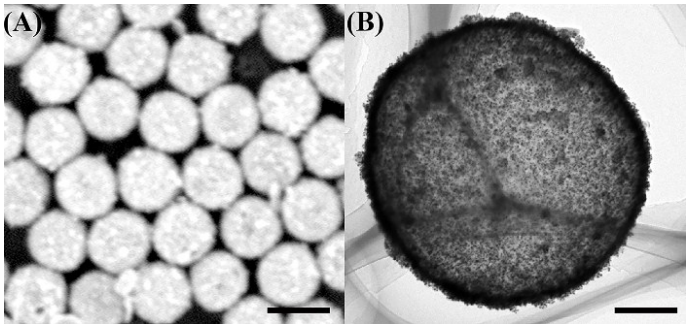

Fig. S5 (A) The SEM image of CS(2.0)-5. Scale bar= 2.0 μm. (B) The TEM image of CS(2.0)-5. Scale bar= 400 nm.

Table S1. The phosphorescence intensity and wavelength in H_2O/acetone mixed solvents.

Samples	**1**	**2**	**3**	**4**	**5**	**6**
acetone/H_2O ratio	acetone	3:1	1:1	1:3	1:7	H_2O
Intensity (×10^5 CPS)	3.20	3.25	15.04	33.92	89.15	49.58
Wavelength (nm)	542+420	516+433	448	446	445	446

Table S2. The phosphorescence wavelength with different H_2O-diluted times.

Samples	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
H_2O-diluted times	0	1.1	1.25	1.43	1.67	2.0	2.5	3.3	5	10	15	20	30	60
Wavelength (nm)	566	565	554	544	521	516	516	501	484	468	463	457	450	444

Table S3. Phosphorescence DNA quenching in concentration-dependent manner.

Samples	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
DNA (μL)	0	5	10	15	20	25	30	35	40	45	50
Wavelength (nm)	447	447	447	447	447	447	446	444	444	444	444
Phosphorescence (×10^4 CPS), n=3	567 598 615	551 574 595	540 558 585	525 542 572	513 528 558	503 515 545	492 501 533	479 489 521	470 475 507	459 464 496	451 454 485
Ave±SD (×10^4 CPS)	593.3±24.3	573.3±22.0	561.0±22.6	546.3±23.8	533.0±22.9	521.0±21.6	508.7±21.5	496.3±21.9	484.0±20.1	473.0±20.1	463.3±18.8