

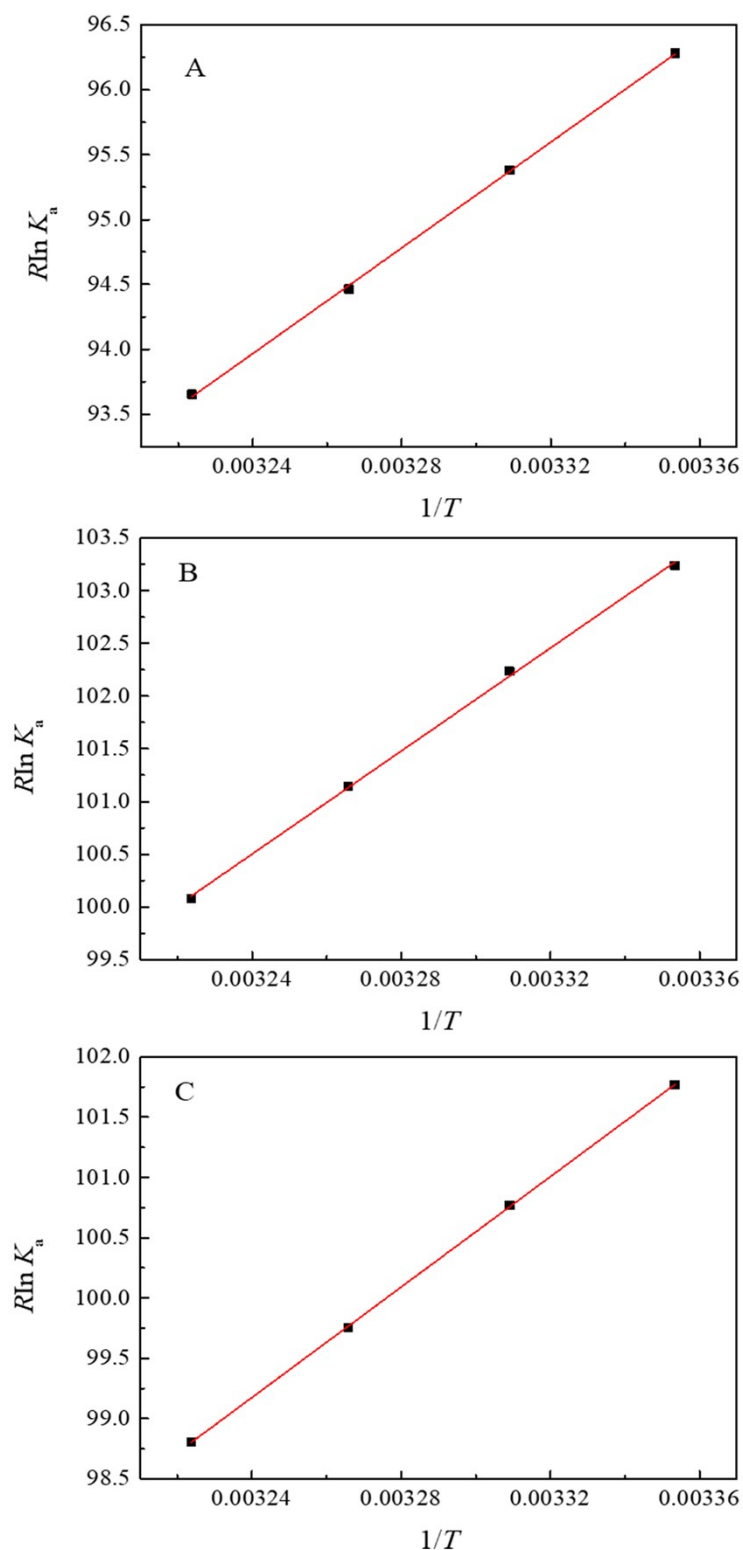


Fig. S1 Van't Hoff plots for the interaction of EGCG (A), PIC (B) or OXY (C) with β -LG.

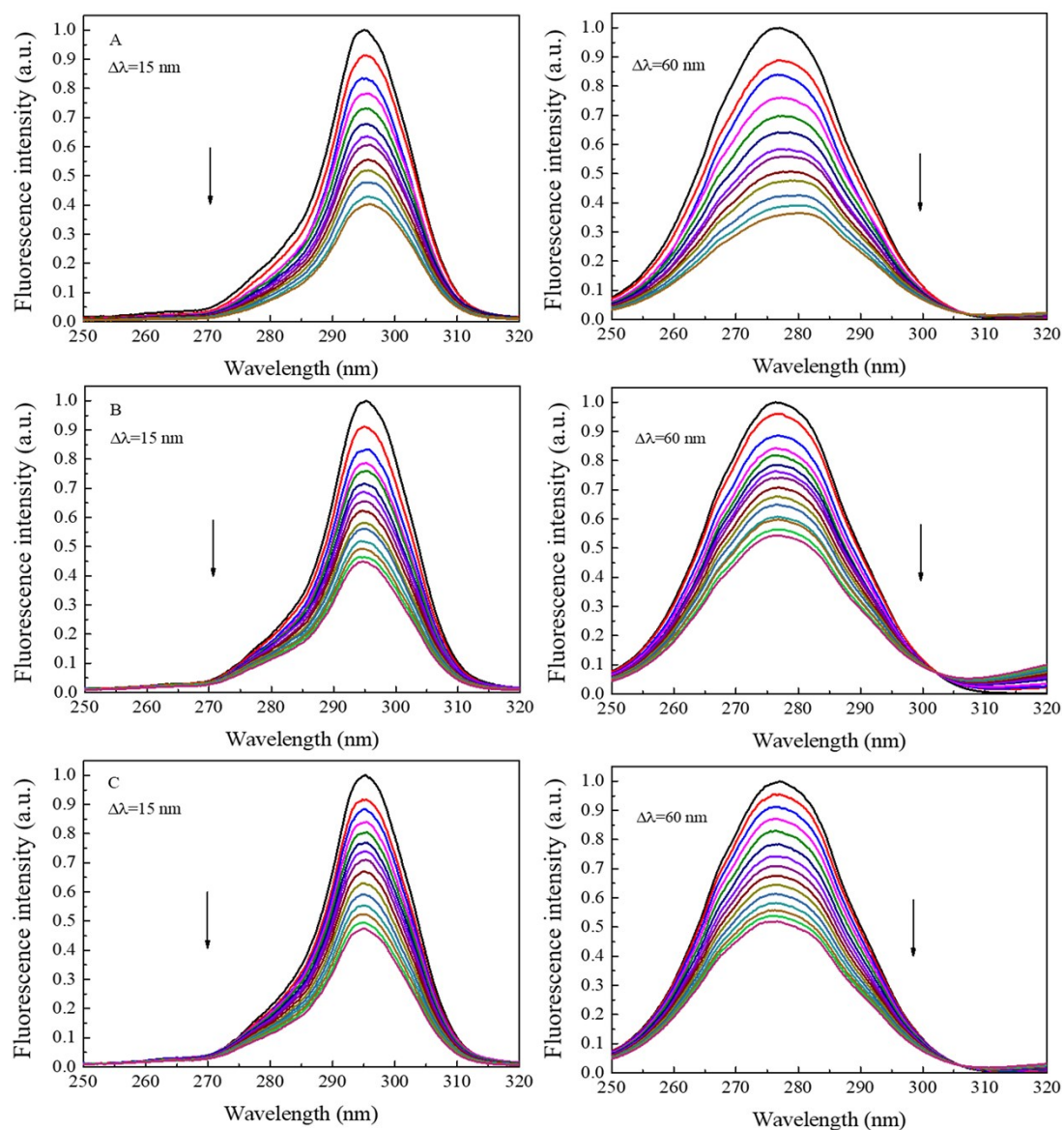


Fig. S2 Synchronous fluorescence spectra of β -LG in the absence and presence of EGCG (A), PIC (B) and OXY (C) at 298.2 K. The molar ratios of EGCG, PIC and OXY to β -LG from top to bottom were 0-12, 0-2.8 and 0-4.2, respectively.

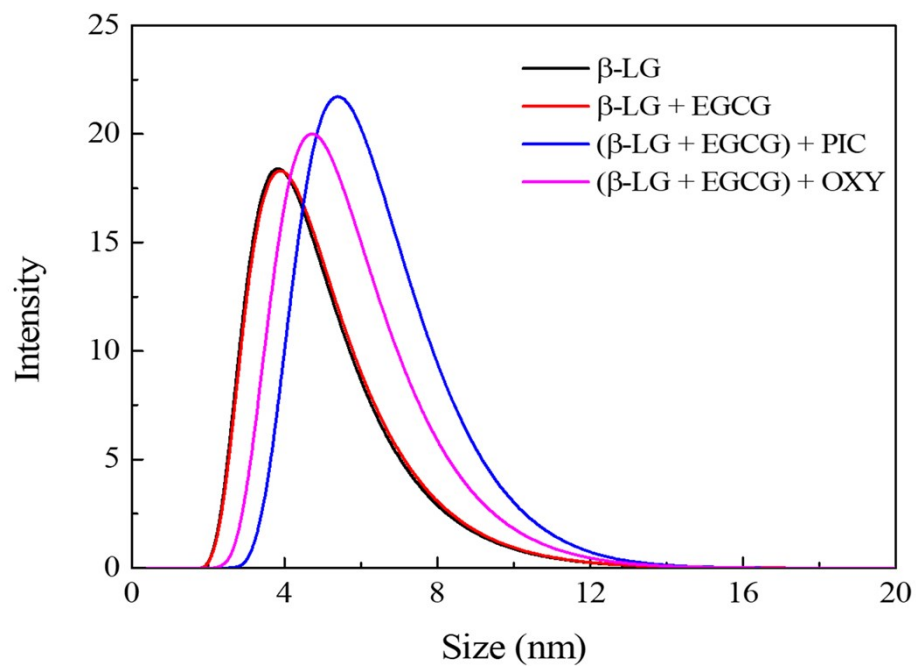


Fig. S3 Hydrodynamic diameters distribution of β -LG, β -LG + EGCG, $(\beta$ -LG + EGCG) + PIC/OXY. The concentrations of β -LG, EGCG, PIC and OXY were 100 μ M.

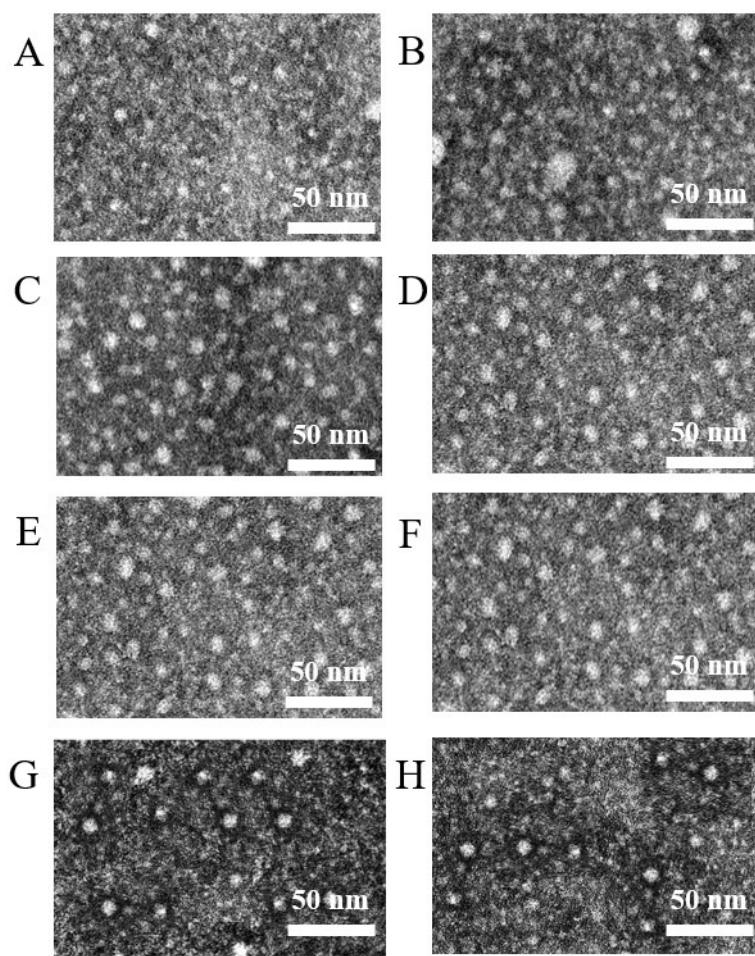


Fig. S4 TEM images of β -LG (A), β -LG + EGCG (B), β -LG + PIC (C), β -LG + OXY (D), (β -LG + EGCG) + PIC (E), (β -LG + PIC) + EGCG (F), (β -LG + EGCG) + OXY (G) and (β -LG + OXY) + EGCG (H). Scale bar: 50 nm.

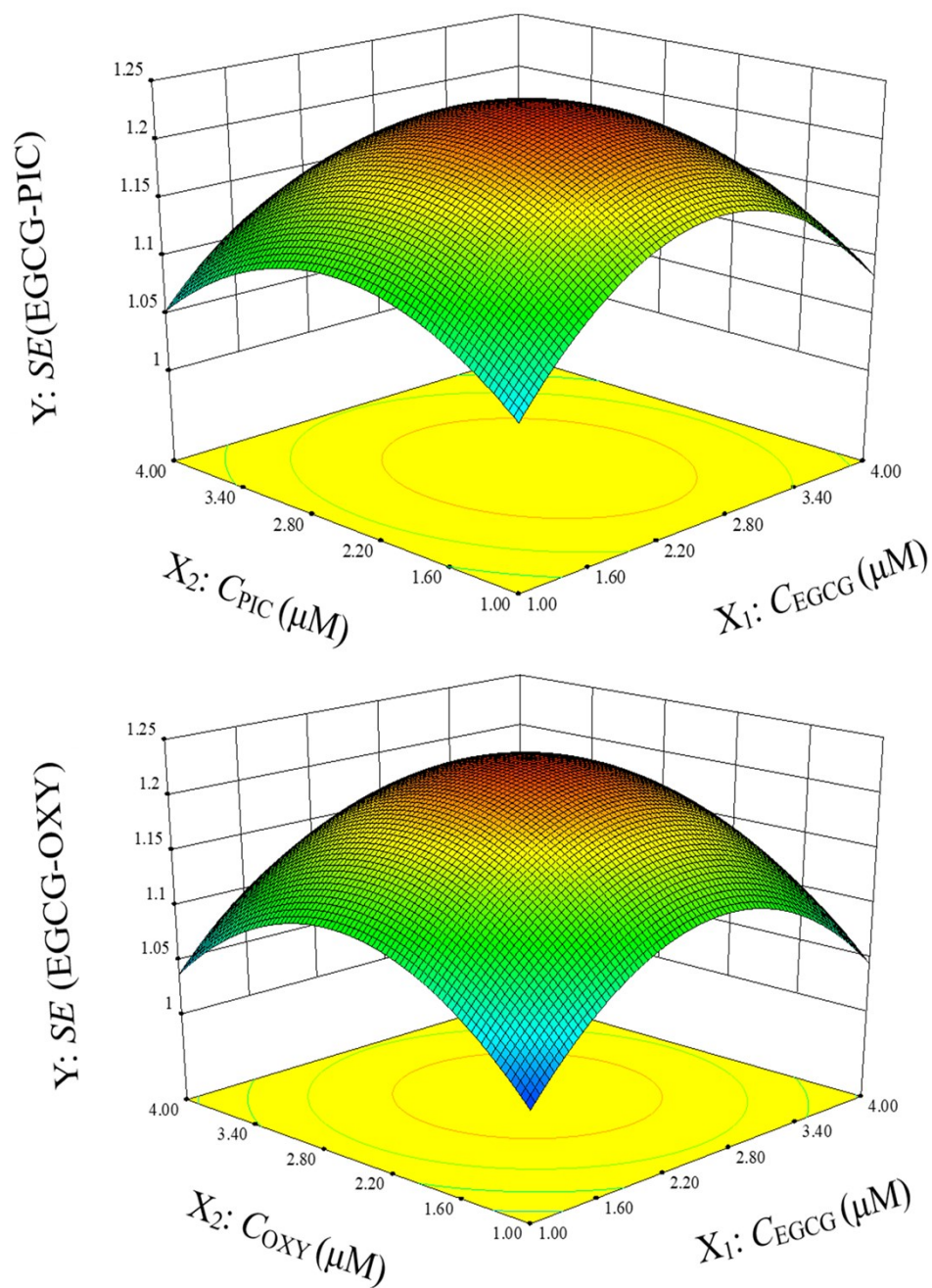


Fig. S5 Three-dimensional (3-D) response surface plots of the influence of different concentrations of EGCG and PIC (A) or OXY (B) on the synergistic effect (SE).

Table S1 Variables and their levels in the Box–Behnken experimental design.

Variables	Levels used				
	-2	-1	0	+1	+2
X ₁ : C _{EGCG} (μM)	0.38	1.00	2.50	4.00	4.62
X ₂ : C _{PIC/OXY} (μM)	0.38	1.00	2.50	4.00	4.62

Table S2 Experimental design with measured responses in the Box–Behnken experimental design.

Formulation	Variables		Response	
	X ₁ : C _{EGCG} (μM)	X ₂ : C _{PIC/OXY} (μM)	Y: SE (EGCG-PIC)	Y: SE (EGCG-OXY)
1	2.50	2.50	1.22	1.24
2	4.00	1.00	1.09	1.07
3	2.50	2.50	1.23	1.24
4	2.50	0.38	1.09	1.03
5	4.00	4.00	1.03	1.07
6	2.50	4.62	1.06	1.05
7	1.00	4.00	1.07	1.02
8	2.50	2.50	1.23	1.22
9	4.62	2.50	1.03	1.01
10	2.50	2.50	1.24	1.22
11	1.00	1.00	1.08	1.00
12	2.50	2.50	1.24	1.23
13	0.38	2.50	1.00	1.07