

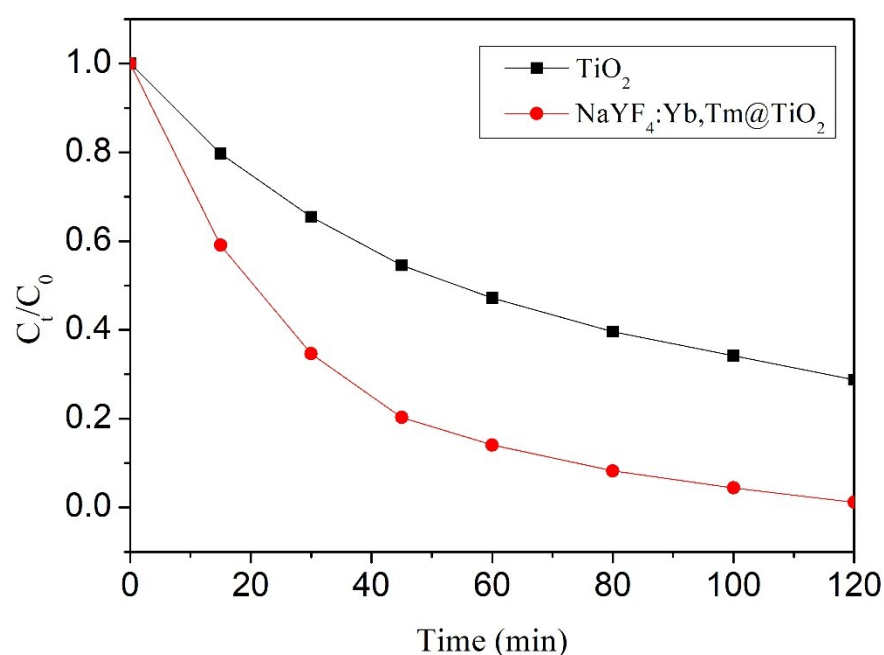


Fig. S1. The calculated time-dependent ratios of C_t/C_0 under Xe lamp in the presence of TiO_2 and $\text{NaYF}_4:\text{Yb,Tm@TiO}_2$, respectively.

Table S1. Comparison of pseudo first order model's parameters, rate constants (k , min^{-1}) and R^2 under different $\text{NaYF}_4:\text{Yb,Tm@TiO}_2$ dosages.

$\text{NaYF}_4:\text{Yb,Tm@TiO}_2$ dosage (g/L)	K (min^{-1})	R^2
0.4	0.015	0.989
0.6	0.018	0.991
0.8	0.026	0.991
1.1	0.034	0.978
1.2	0.028	0.991

Table S2. Comparison of pseudo first order model's parameters, rate constants (k , min^{-1}) and R^2 under different concentrations of CIP.

Concentrations of CIP (M)	K (min^{-1})	R^2
5×10^{-6}	0.034	0.937
10^{-5}	0.034	0.963
2.5×10^{-6}	0.009	0.978
5×10^{-5}	0.006	0.969

Table S3. Comparison of pseudo first order model's parameters, rate constants (k , min^{-1}) and R^2 under different pH values.

pH values	K (min^{-1})	R^2
4	0.006	0.997
6	0.018	0.995
8	0.019	0.981
10	0.016	0.946