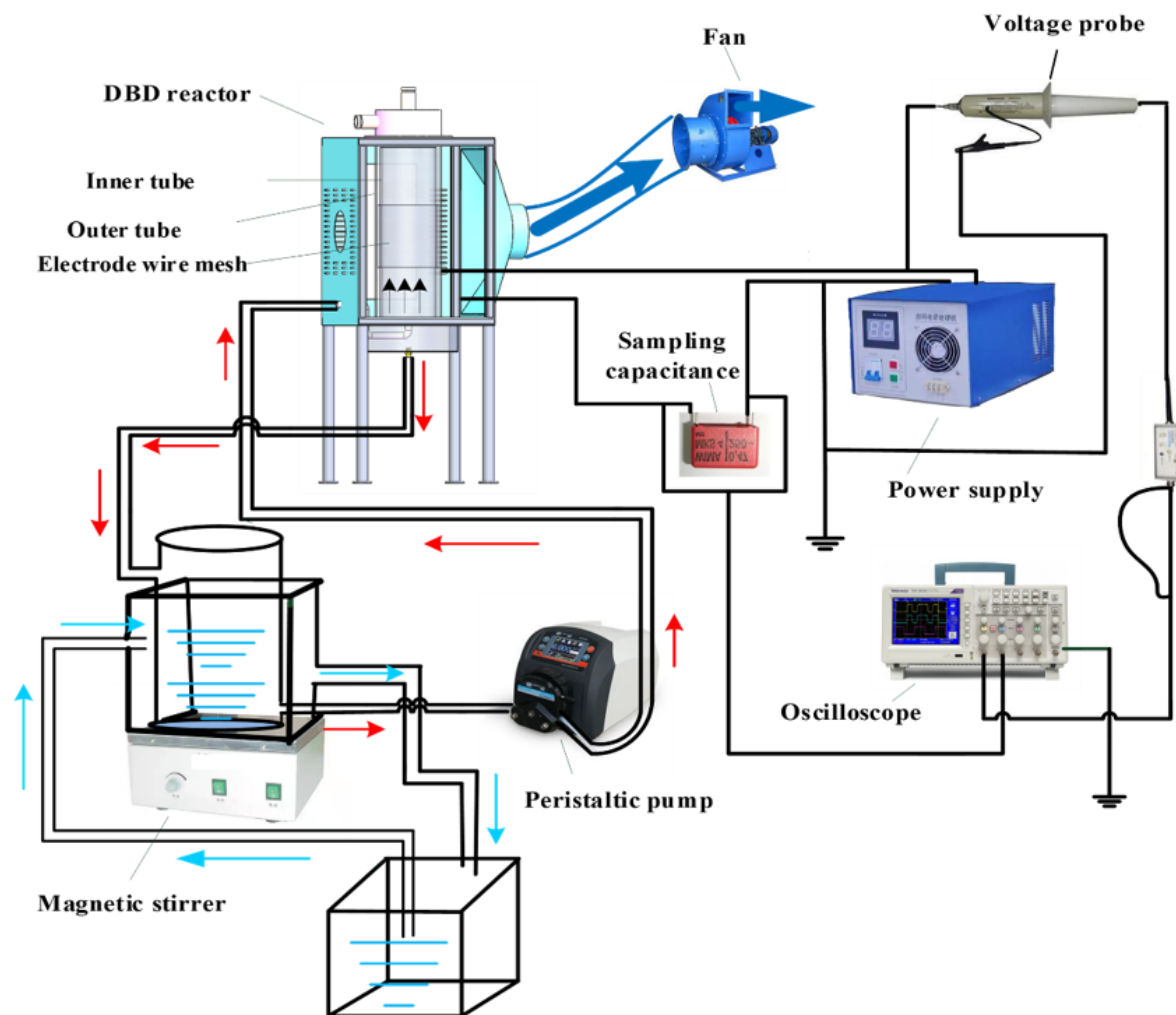




Supplementary Materials



Ice bath cooling system

Fig. S1 Drawing of the experimental setup for ENR deterioration.

Table S1 The corresponding calculation methods of ENR degradation

Calculation methods	Formula
ENR degradation efficiency (%)	$\frac{C_0 + C_t}{C_0} \times 100\%$
Energy yield (G_{50} , mg (kWh) ⁻¹)	$\frac{0.5 V C_0}{f c s t_{50}}$
Synergetic Factor (SF)	$\frac{K_{DBDP/PDS}}{K_{DBDP} + K_{PDS}}$
Input Power	$1/T \int_0^t U I dt = \frac{C}{T} \int_0^t U \frac{dU}{dt} dt = f c \phi U I U c = f c s$

where C_0 (mg·L⁻¹) ---initial concentration of ENR; C_t (mg L⁻¹)---the ENR concentration obtained after t min reaction; V (L) ---the solution volume; f (Hz) ---the applied discharge frequency; C (F) --- the internal sampling capacitance of the power supply; S --- the area of Lissajous figure; t_{50} (h) --- the time taken when 50% ENR is degraded (obtained from the kinetic analysis results of ENR degradation). $k_{DBDP+PDS}$ --- the kinetic constant of ENR degradation in the DBDP/PDS system; k_{DBDP} --- the kinetic constant of ENR degradation in the DBDP-alone system; k_{PDS} is the kinetic constant of ENR removal by the effect of PDS alone addition.

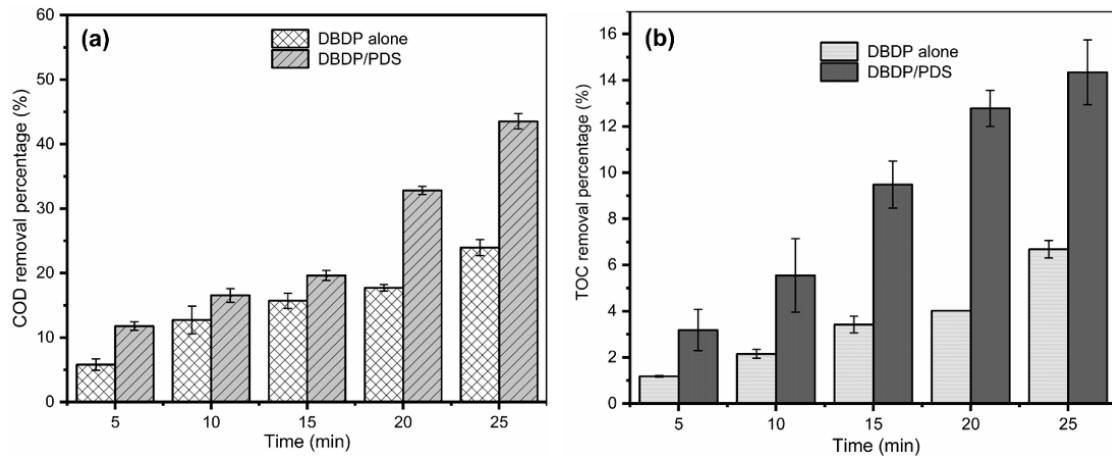


Fig. S2 COD and TOC removal (a) COD, (b) TOC. Experimental conditions: P=0.8 kW, PDS=3 mM, $C_0=20$ mg L⁻¹.

