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Harnessing the Synergistic Dual Role of Lignin-Derived Blue Carbon Dots over TiO_2 for Highly Efficient Solar Photocatalytic Degradation of Tetracycline

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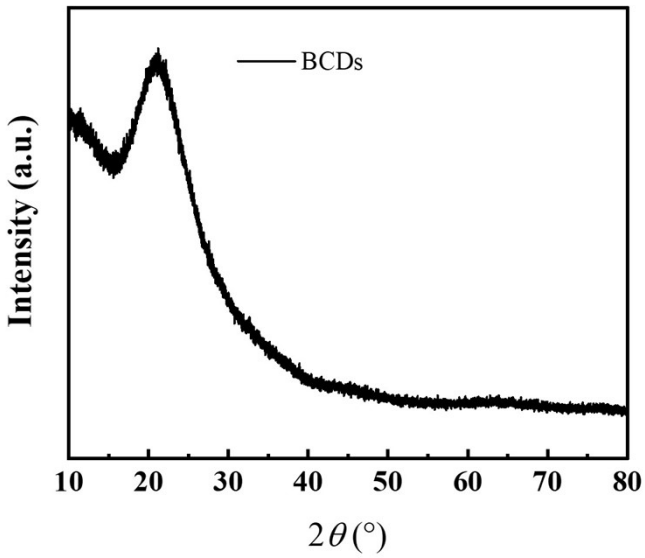

Fig. S1 XRD of BCDs

Table S1 Summary of PL lifetimes of the BCDs

Sample	Lifetime (ns)	A_1 (%)	τ_1	A_2 (%)	τ_2
BCDs	8.26	37.71	1.8121	62.28	9.0391

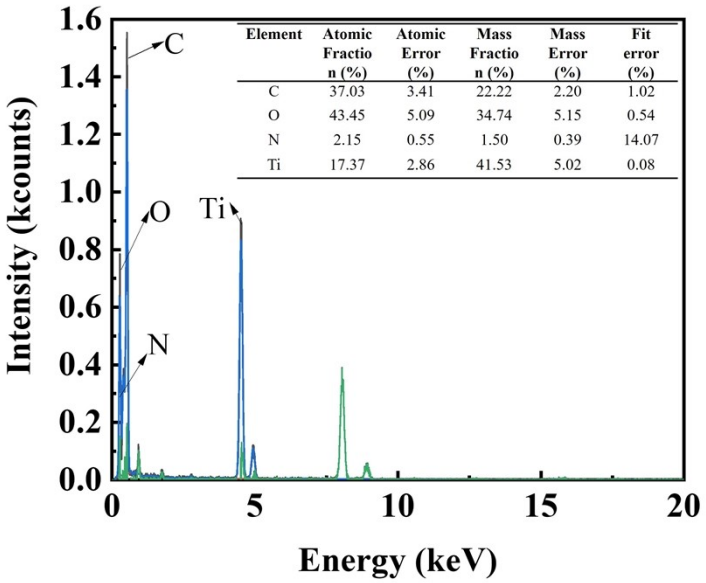

Fig. S2 EDS of BCDs/TiO_2

Table S2. The specific surface area and pore structure of different sample

Sample	Total pore Volume (cm^3g^{-1})	Average pore size (nm)	Specific surface area (m^2g^{-1})
TiO_2	0.15	13.45	45.40
BCDs/TiO_2	0.15	13.82	41.31

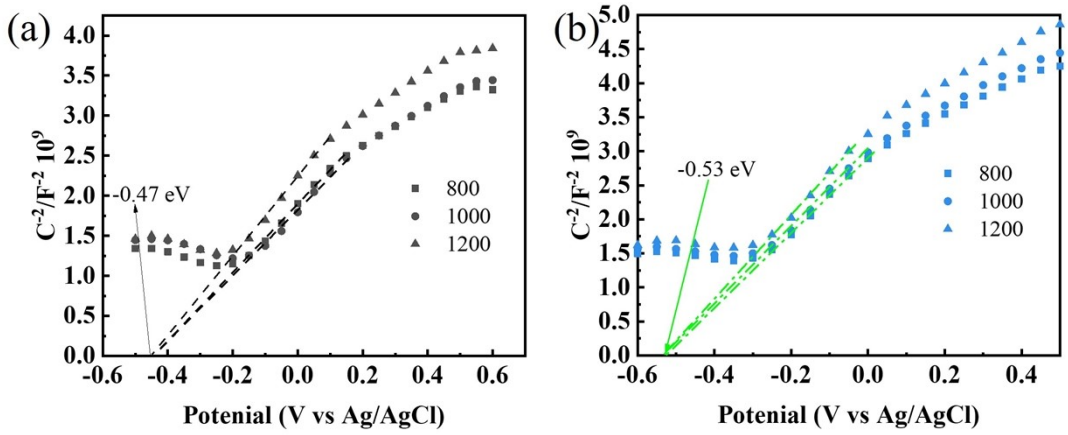

Fig. S3 Model- Schottky curve of (a) TiO_2 and (b)BCDs/TiO_2

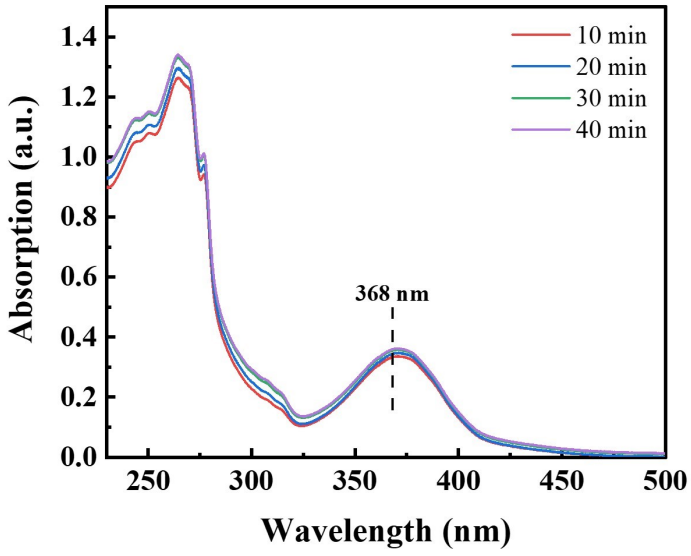

Fig. S4 UV-vis absorption spectrum of the solution under dark adsorption

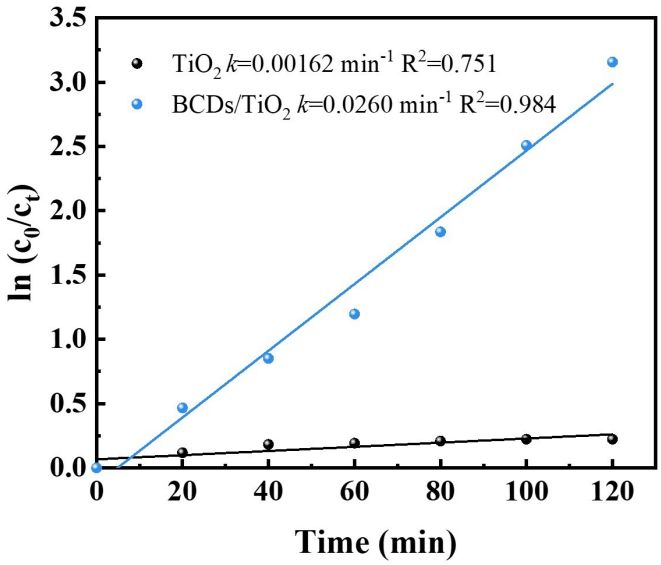

Fig. S5 The kinetic fit curve of catalytic degradation of TC

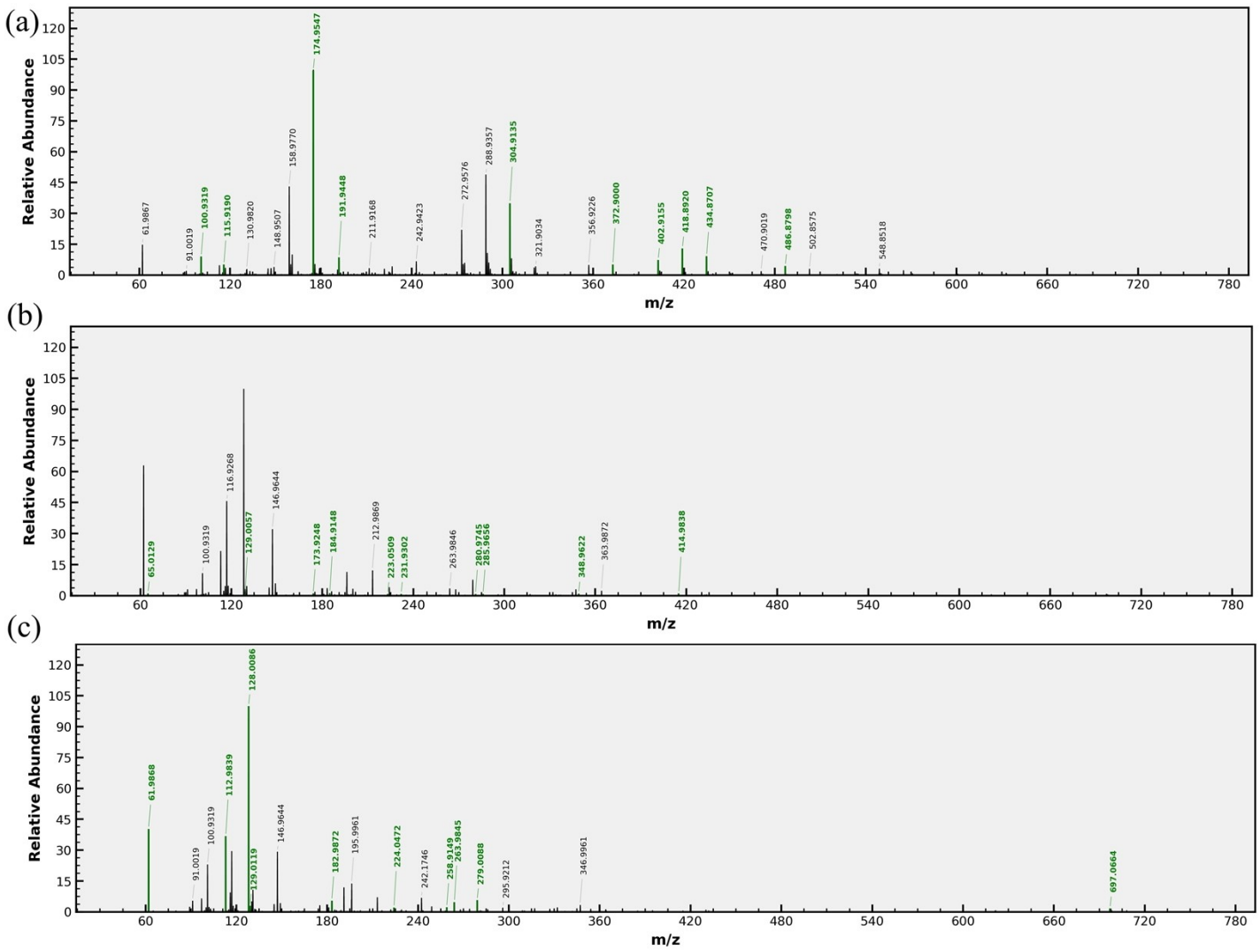

Fig. S6. Mass spectra of the photodegradation intermediates of TC at different times: (a) 30 min, (b) 60 min, (c) 90 min.