

DEGRADATION OF ORGANIC POLLUTANTS IN FLOCCULATED LIQUID DIGESTATE USING PHOTOCATALYTIC TITANATE NANOFIBERS: MECHANISM AND RESPONSE SURFACE OPTIMIZATION

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SUPPLEMENTARY MATERIALS

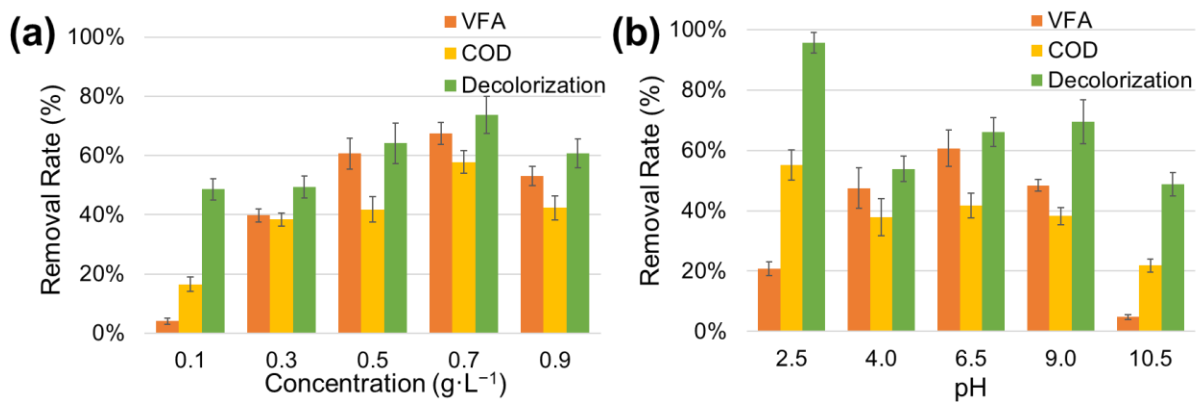


Fig. S1 (a) Effect of concentration of photocatalysts on photocatalytic degradation with TiO₂ pH of 6.5. (b) Effect of pH on photocatalytic degradation with TiO₂ dosage of 0.5 g·L⁻¹, reaction time of 18 h.

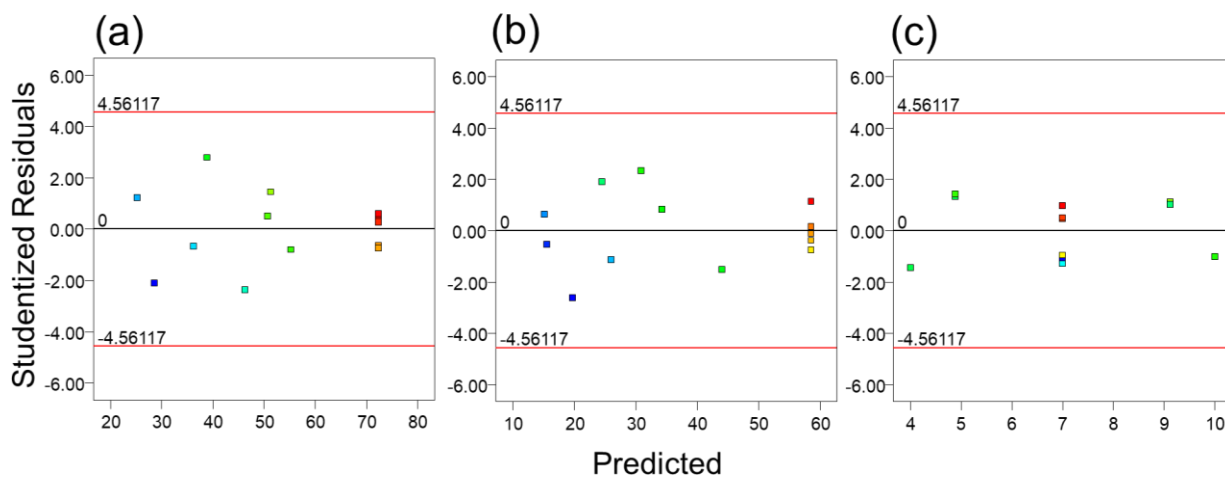


Fig. S2 The predicted vs. studentized residuals for VFA removal rate (a), COD removal rate (b), and decolorization rate (c).

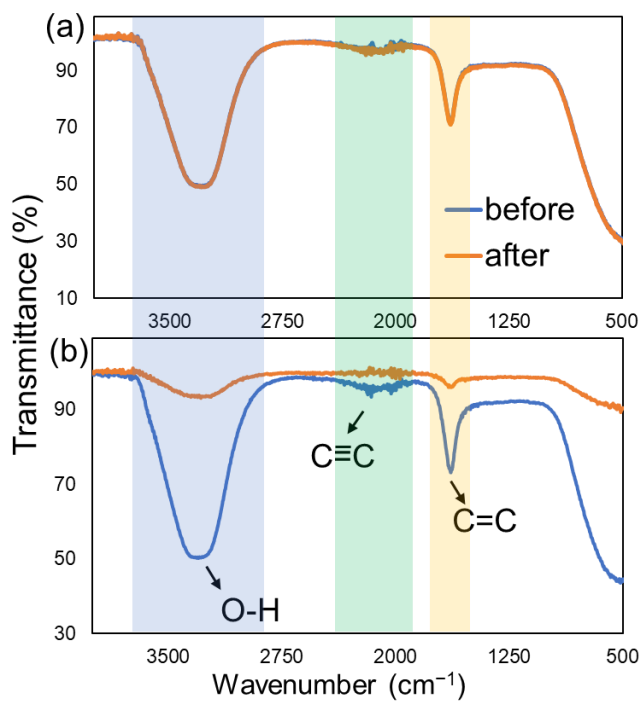


Fig. S3 FTIR spectra of flocculated digestate before and after the UV treatment for 18 hours: (a) without any photocatalyst; (b) with the addition of 0.5 $\text{g}\cdot\text{L}^{-1}$ sodium titanate.

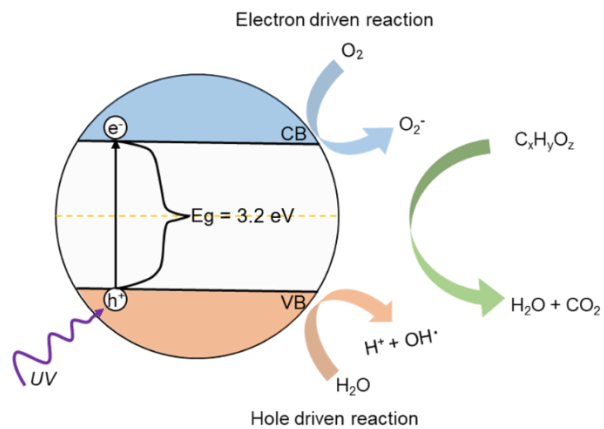


Fig. S4 Photocatalytic mechanism to decompose organic component.

Table S1 Optimum conditions and responses for tested parameters

pH	Dosage ($\text{mg}\cdot\text{L}^{-1}$)	VFA removal rate (%)	COD removal rate (%)	Decolorization rate (%)
6.82	0.870	73.9	57.5	64.0
6.43	0.760	72.3	59.4	66.3
7.22	0.692	70.0	57.0	67.8