

Supplementary Information

Sequential sorption-photocatalytic method using polypyrrole@TiO₂ nanocomposites for the removal of agrochemicals

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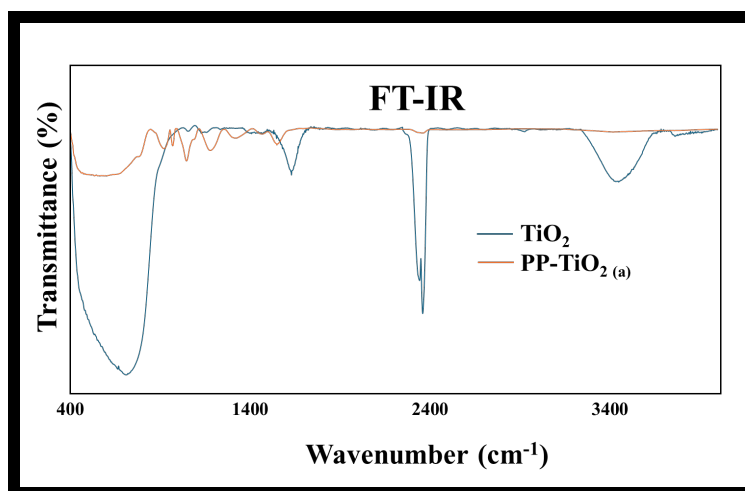


Fig. S1 —FT-IR spectra illustrating the functional constituents of PP-TiO_{2(a)} and TiO₂

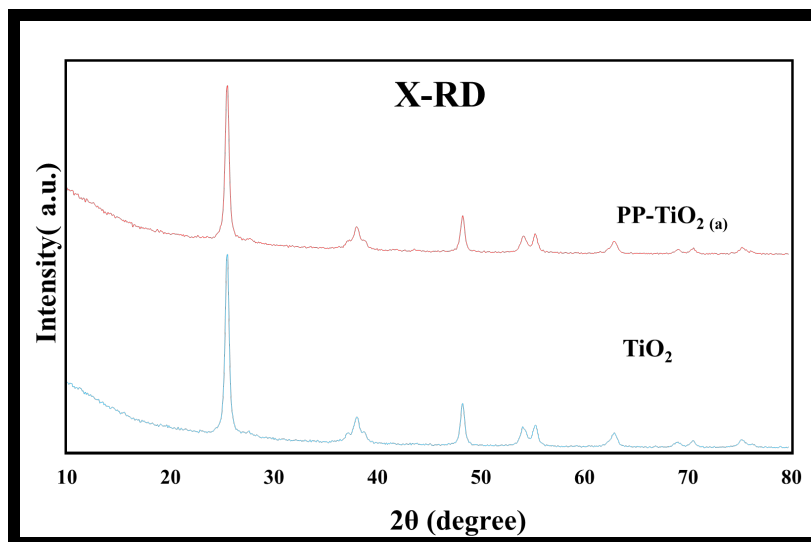


Fig. S2 —XRD patterns of PP-TiO_{2(a)} and TiO₂

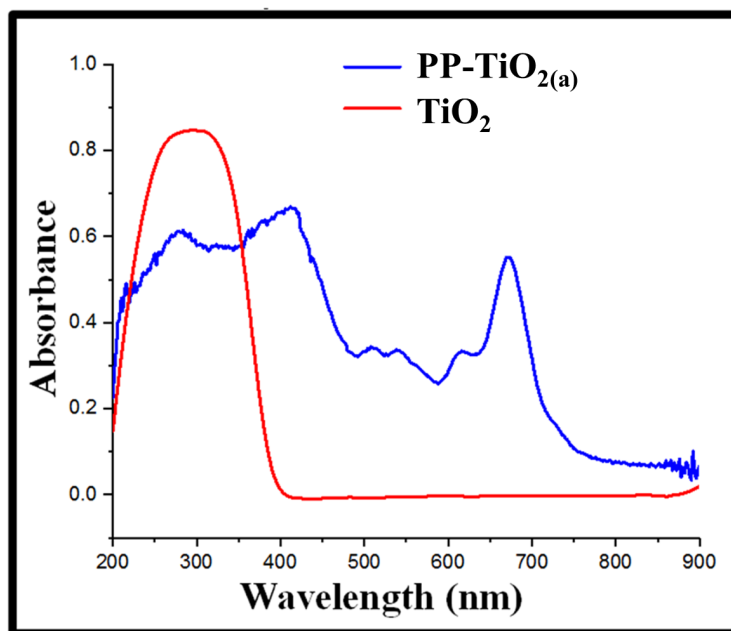


Fig. S3 — UV-Vis spectral profile of TiO₂ and PP-TiO_{2(a)}

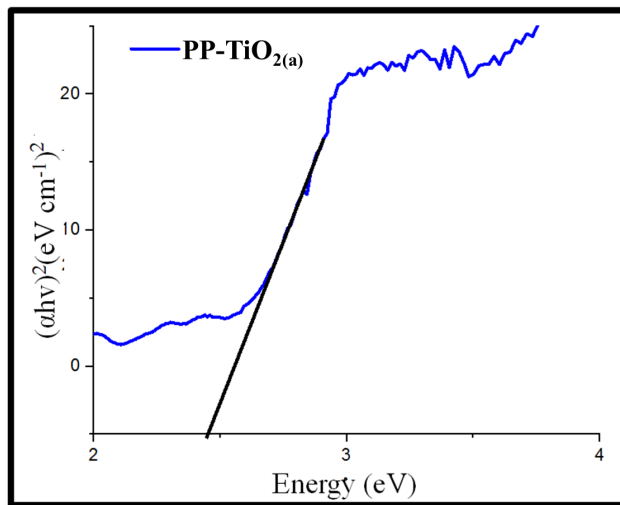
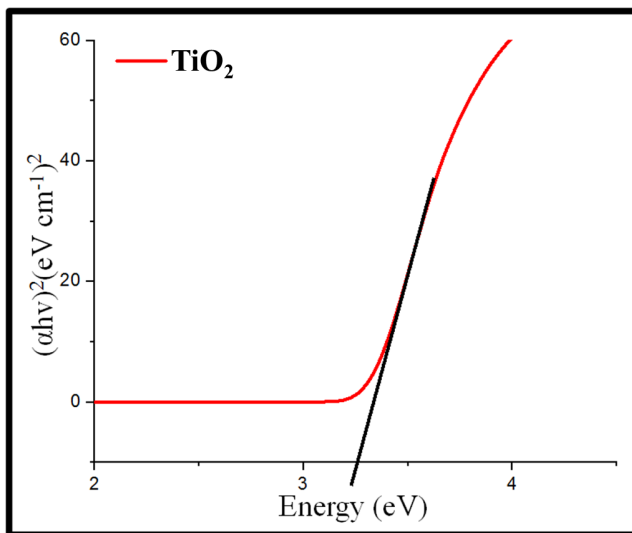
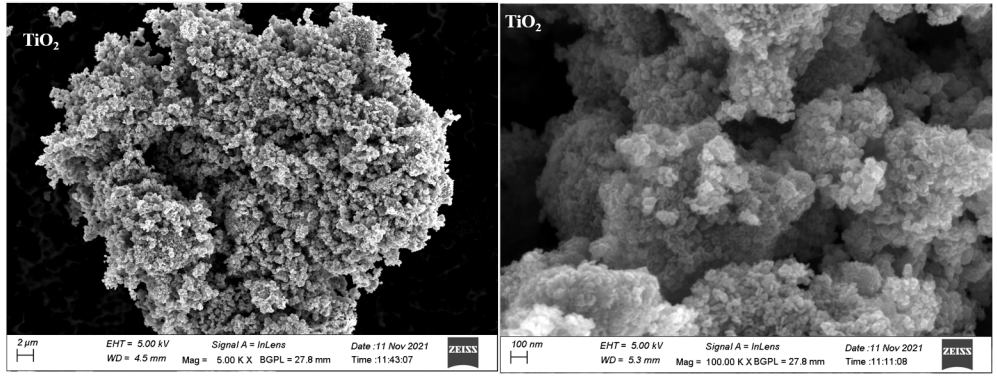
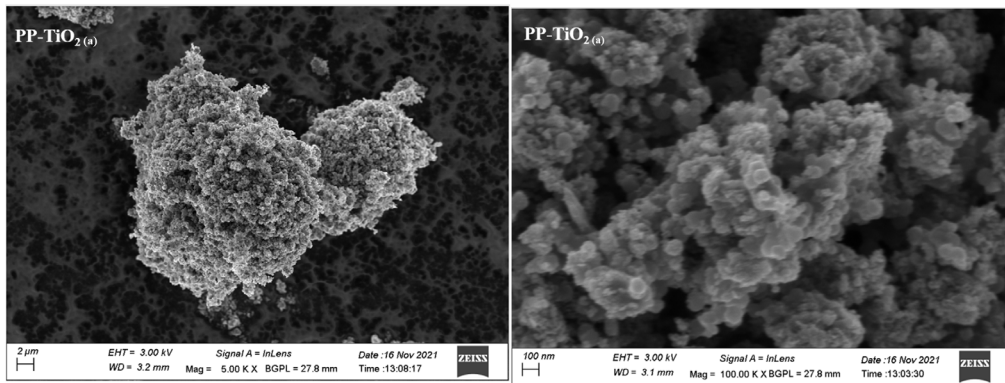


Fig. S4 —Tauc's plot of TiO_2 and $\text{PP-TiO}_{2(a)}$



(a)



(b)

Fig. S5 —FE-SEM images at 5 KX and 100 KX of (a) TiO₂ and (b) PP-TiO_{2(a)}

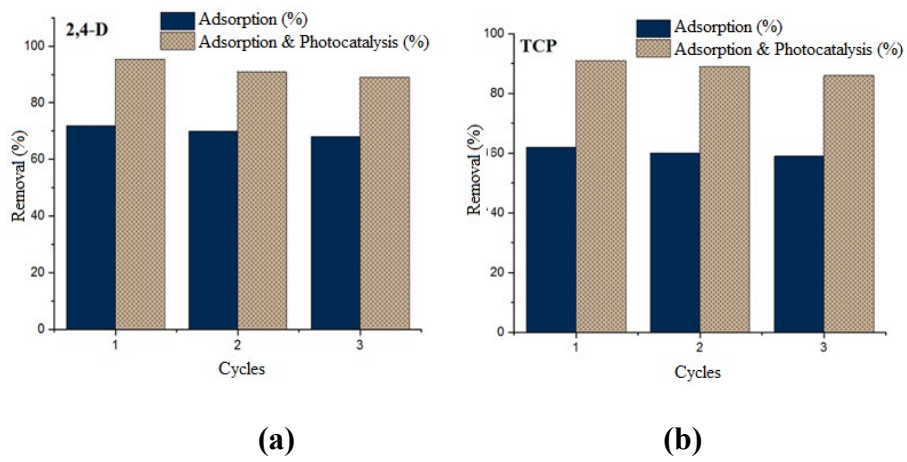


Fig. S6 — Reusability of PP-TiO_{2(a)} for the removal of (a) 2,4-D and (b) TCP

Table S1 — ANOVA output for k_{app} model developed for the removal of 2,4-D and TCP by PP-TiO_{2(a)}

	Degrees of Freedom	Sum of squares	Mean square	F-value	Prob. >F	R^2	Adjusted R^2
2,4-D							
Model	1	4.7x10 ⁻⁴	4.7x10 ⁻⁴	3718.82	1.3x10 ⁻⁹	0.998	0.998
Error	6	7.6 x10 ⁻⁷	1.2x10 ⁻⁷				
Total	7	4.7 x10 ⁻⁴					
TCP							
Model	1	1.78x10 ⁻³	0.00178	4298.35	8.5x10 ⁻¹⁰	0.998	0.998
Error	6	2.5x10 ⁻⁶	4.15x10 ⁻⁷				
Total	7	1.79x10 ⁻³					