

Supplementary Information

PI/TiC/TiO₂ with Z-scheme heterostructure for photocatalytic degradation of organic dyes

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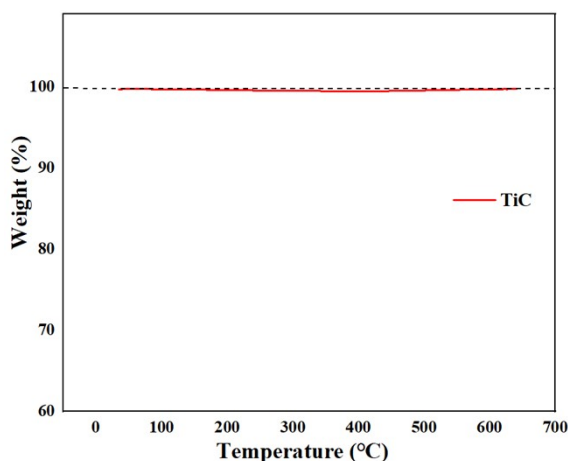


Fig.S1 TGA curves of TiC

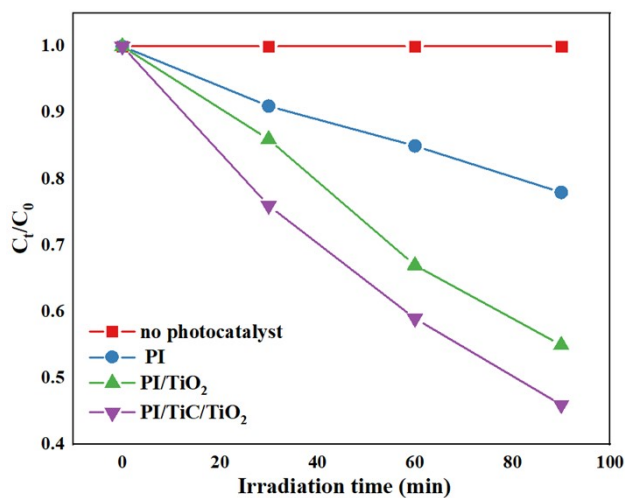


Fig.S2 Photocatalytic degradation of amoxicillin by PI, PI/TiO₂ and PI/TiC/TiO₂.

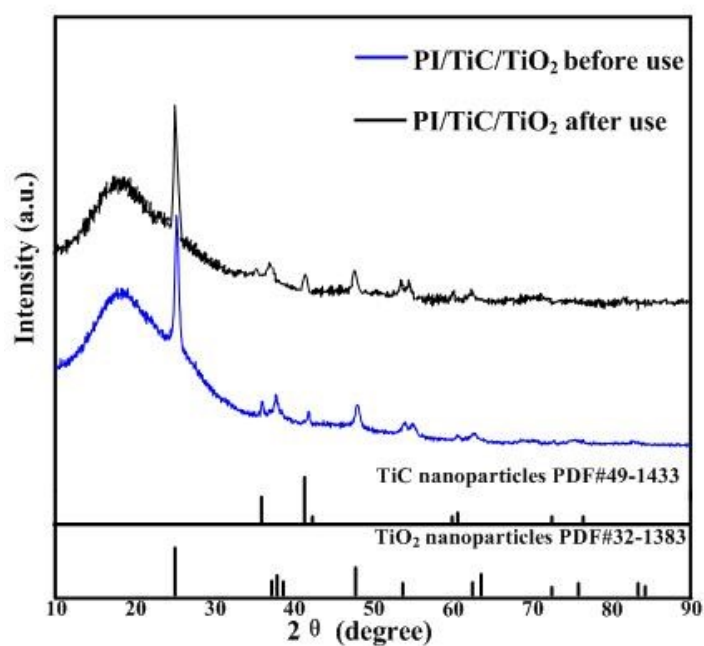


Fig.S3 XRD patterns of PI/TiC/TiO₂ before and after cyclic degradation.

Table S1 Reaction kinetic parameters for different photocatalysts. [Reaction conditions: Initial concentration = 12 mg/L, photocatalyst = 0.2 g, natural pH, t = 90 min, simulated sunlight irradiation]

Samples	Dyes	$k_{app}(\text{min}^{-1})$	R^2
PI	RhB	0.0026	0.99
	MB	0.0024	0.98
	MO	0.0013	0.99
	CR	0.0017	0.99
PI/TiO ₂	RhB	0.0044	0.98
	MB	0.0037	0.99
	MO	0.0020	0.99
	CR	0.0027	0.99
PI/TiC/TiO ₂	RhB	0.0104	0.98
	MB	0.0092	0.99
	MO	0.0039	0.99

CR

0.0065

0.99
