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Supplementary Materials: A Facile Urea-Assisted Thermal Decomposition Process of TiO_2 Nanoparticles and Their Photocatalytic Activity

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Table S1. Various structural parameters of TiO_2 obtained from XRD analysis.

Sample	2θ (°)	θ (°)	d_{cal} (Å)	d_{std} (Å)	*Hkl*	*a* (Å)	*c* (Å)	*D* (nm)
	25.14	12.57	3.5389	3.520	101			
	37.68	18.84	2.3850	2.378	004			
	47.96	23.98	1.8951	1.892	200			
	53.82	26.91	1.7017	1.699	105			
TU0	54.88	27.44	1.6713	1.666	211	3.800	9.534	19
	62.58	31.29	1.4829	1.480	204			
	68.76	34.38	1.3639	1.364	116			
	70.24	35.12	1.3388	1.337	220			
	75.08	37.54	1.2640	1.264	215			
	25.14	12.57	3.5389	3.520	101			
	37.72	18.86	2.3826	2.378	004			
	47.84	23.92	1.8995	1.892	200			
	53.86	26.93	1.7006	1.699	105			
TU1	54.88	27.44	1.6713	1.666	211	3.805	9.511	18
	62.58	31.29	1.4829	1.480	204			
	68.48	34.24	1.3688	1.364	116			
	70.12	35.06	1.3408	1.337	220			
	74.92	37.46	1.2663	1.264	215			
	25.10	12.55	3.5445	3.520	101			
	37.34	18.67	2.4059	2.378	004			
	47.86	23.93	1.8988	1.892	200			
	53.72	26.86	1.7047	1.699	105			
TU2	54.92	27.46	1.6702	1.666	211	3.805	9.564	17
	62.56	31.28	1.4834	1.480	204			
	68.72	34.36	1.3646	1.364	116			
	70.14	35.07	1.3405	1.337	220			
	74.96	37.48	1.2658	1.264	215			
	25.12	12.56	3.5417	3.520	101			
	37.66	18.83	2.3862	2.378	004			
	47.92	23.96	1.8965	1.892	200			
	53.76	26.88	1.7035	1.699	105			
TU3	54.90	27.45	1.6708	1.666	211	3.804	9.516	16
	62.66	31.33	1.4812	1.480	204			
	68.44	34.22	1.3695	1.364	116			
	70.08	35.04	1.3415	1.337	220			
	74.88	37.44	1.2669	1.264	215			
	25.20	12.6	3.5306	3.520	101			
	37.64	18.82	2.3875	2.378	004			
	47.98	23.99	1.8943	1.892	200			
	53.82	26.91	1.7017	1.699	105			
TU4	55.00	27.5	1.6680	1.666	211	3.794	9.538	14
	62.60	31.3	1.4825	1.480	204			
	68.74	34.37	1.3643	1.364	116			
	70.22	35.11	1.3391	1.337	220			
	75.04	37.52	1.2646	1.264	215			
TU5	25.12	12.56	3.5417	3.520	101	3.804	9.538	15

37.60	18.8	2.3899	2.378	004
47.90	23.95	1.8973	1.892	200
53.86	26.93	1.7006	1.699	105
54.84	27.42	1.6725	1.666	211
62.56	31.28	1.4834	1.480	204
68.54	34.27	1.3678	1.364	116
70.00	35	1.3428	1.337	220
75.04	37.52	1.2646	1.264	215

2θ; Bragg angle, d_{cal}; Calculated interplanar spacing, d_{std}; Standard interplanar spacing, *h, k, l*; miller indices, *a*; lattice parameter, *c*; lattice parameter, *D*; Crystalline size.

Table S2. Comparison of photodegradation performance of TiO_2 with reported photocatalysts.

Seril Number	Synthesis Method	Photocatalyst	Pollutant	Degradation Time (min)	Photocatalytic Activity (%)	References
1	Hydrothermal	TiO_2	Methyl Orange	150	67	29
2	Sol-gel	TiO_2	Methyl Orange	240	67	30
3	Thermal Decomposition	TiO_2	Methyl Orange	100	99.93	Present Work