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**Synthesis of (Ag, F)-Modified Anatase TiO<sub>2</sub> Nanosheets and  
Their Enhanced Photocatalytic Activity**

*Yidan Luo<sup>a</sup>, Shuohan Yu<sup>a</sup>, Bin Li<sup>a,\*</sup>, Lihui Dong<sup>a,\*</sup>, Fan Wang<sup>a</sup>, Minguang Fan<sup>a</sup>, and  
Feiyue Zhang<sup>a</sup>*

<sup>a</sup>Guangxi Key Laboratory Petrochemical Resource Processing and Process  
Intensification Technology, School of Chemistry and Chemical Engineering, Guangxi  
University, Nanning, Guangxi 530004, China

## Supporting Information.

XRF results of the major element content, Energy band gaps of catalysts, UV light photocatalysis degradation rates contents, visible light photocatalysis degradation rates contents, extra TEM images, EPR spectra.

**Table S1.** XRF results of the major element content of photocatalysts.

Sample	Composition (at%)			
	Ti	O	F	Ag
TS1F10	30.28	60.6	9.05	0.07
TS2F00	33.3	66.64	0	0.06
TS2F06	31.11	62.25	6.57	0.06
TS2F10	30.34	60.72	8.87	0.07
TS4F10	30.5	61.08	8.24	0.18

**Table S2.** Energy Band Gaps of the Samples.

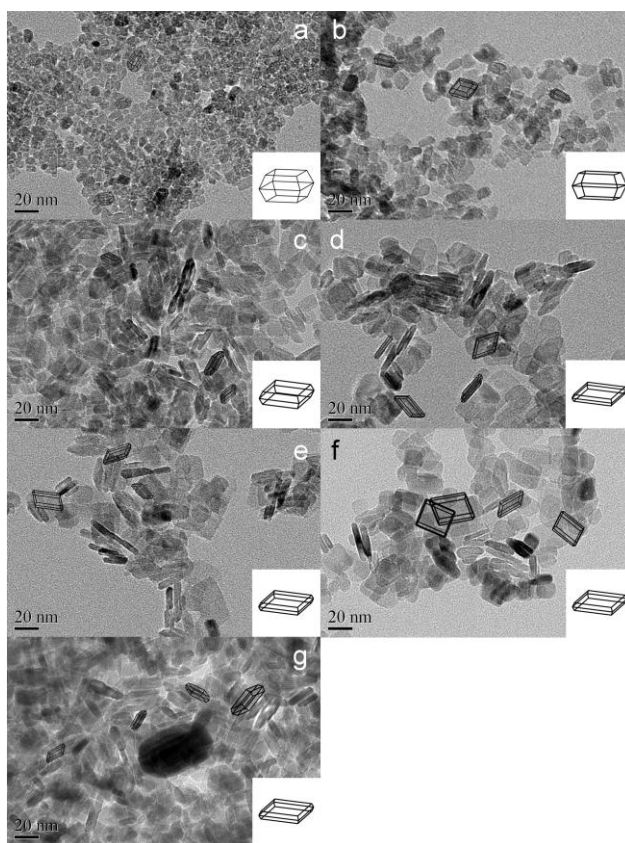
Samples	Eg1(eV)	Eg2(eV)
TS0F10	3.18	-
TS1F10	3.15	2.12
TS2F10	3.12	2.12
TS3F10	3.11	2.13
TS4F10	3.11	2.11
TS2F00	3.19	1.90
TS2F02	3.18	1.98
TS2F04	3.18	2.04
TS2F06	3.15	2.09
TS2F08	3.14	2.11
TS2F12	3.12	2.13

**Table S3.** UV Light Photocatalysis Degradation Rates Contents for TiO<sub>2</sub> Nanosheets and the Mean Square Errors.

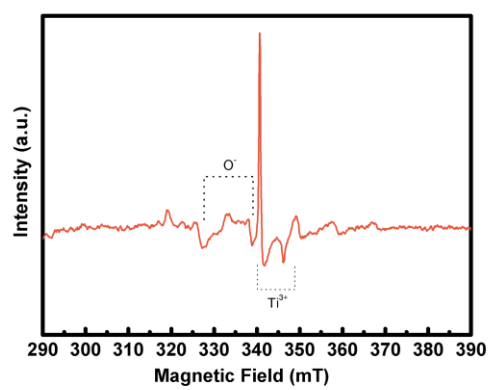
Samples	Degradation rate content (min <sup>-1</sup> )	R2
blank	0.00322	0.99941
TS0F10	0.01149	0.99932
TS1F10	0.01893	0.99298
TS2F10	0.03298	0.99891
TS3F10	0.02450	0.99780
TS4F10	0.01434	0.99509
TS2F00	0.00391	0.99736
TS2F02	0.00721	0.99785
TS2F04	0.00905	0.99987
TS2F06	0.01375	0.99788
TS2F08	0.02014	0.99698
TS2F12	0.03569	0.99844

**Table S4.** Visible Light Photocatalysis Degradation Rates Contents for TiO<sub>2</sub> Nanosheets and the Mean Square Errors.

Samples	Degradation rate content (min <sup>-1</sup> )	R2
blank	0.00112	0.98963
TS0F10	0.00205	0.99966
TS1F10	0.00471	0.99630
TS2F10	0.01082	0.99168
TS3F10	0.00717	0.99789
TS4F10	0.00365	0.99467
TS2F00	0.00349	0.99884
TS2F02	0.00407	0.99622
TS2F04	0.00498	0.98795
TS2F06	0.00559	0.99790
TS2F08	0.00902	0.99991
TS2F12	0.01184	0.99481



**Figure S1.** TEM image of TiO<sub>2</sub> nanosheets: (a) TS2F02, (b) TS2F04, (c) TS2F08, (d) TS2F12, (e) TS0F10, (f) TS1F10, and (g) TS4F10.



**Figure S2.** EPR spectra of TS2F10.