

Supplementary Information

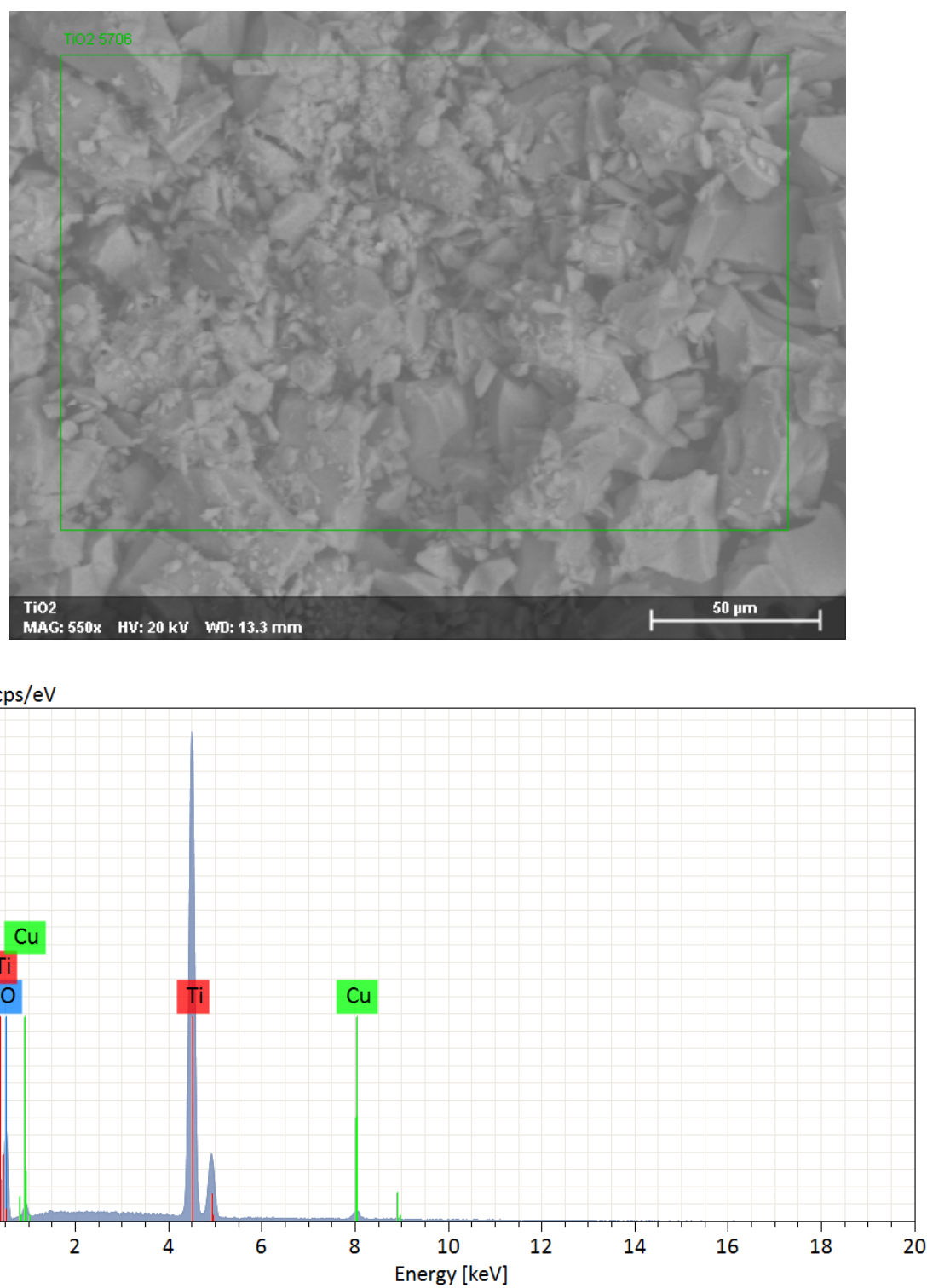


Figure S1. Energy Dispersive Spectroscopy analyzes for the Cu/TiO₂ catalyst.

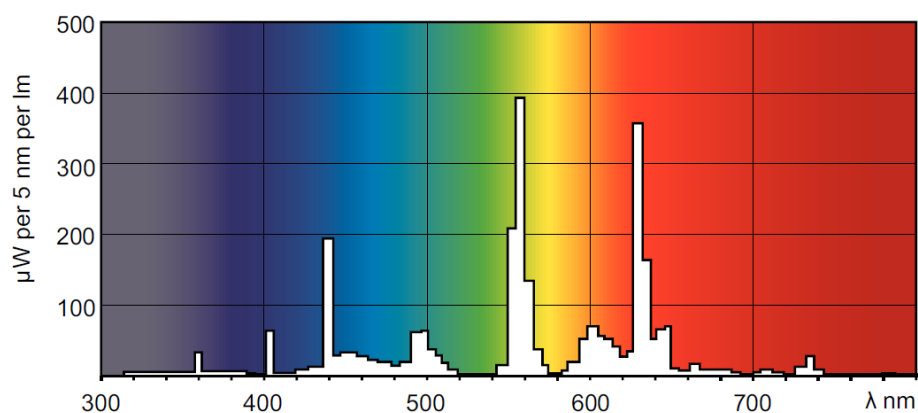


Figure S2. Photometric spectrum of the visible radiation lamp used during the photocatalytic tests.

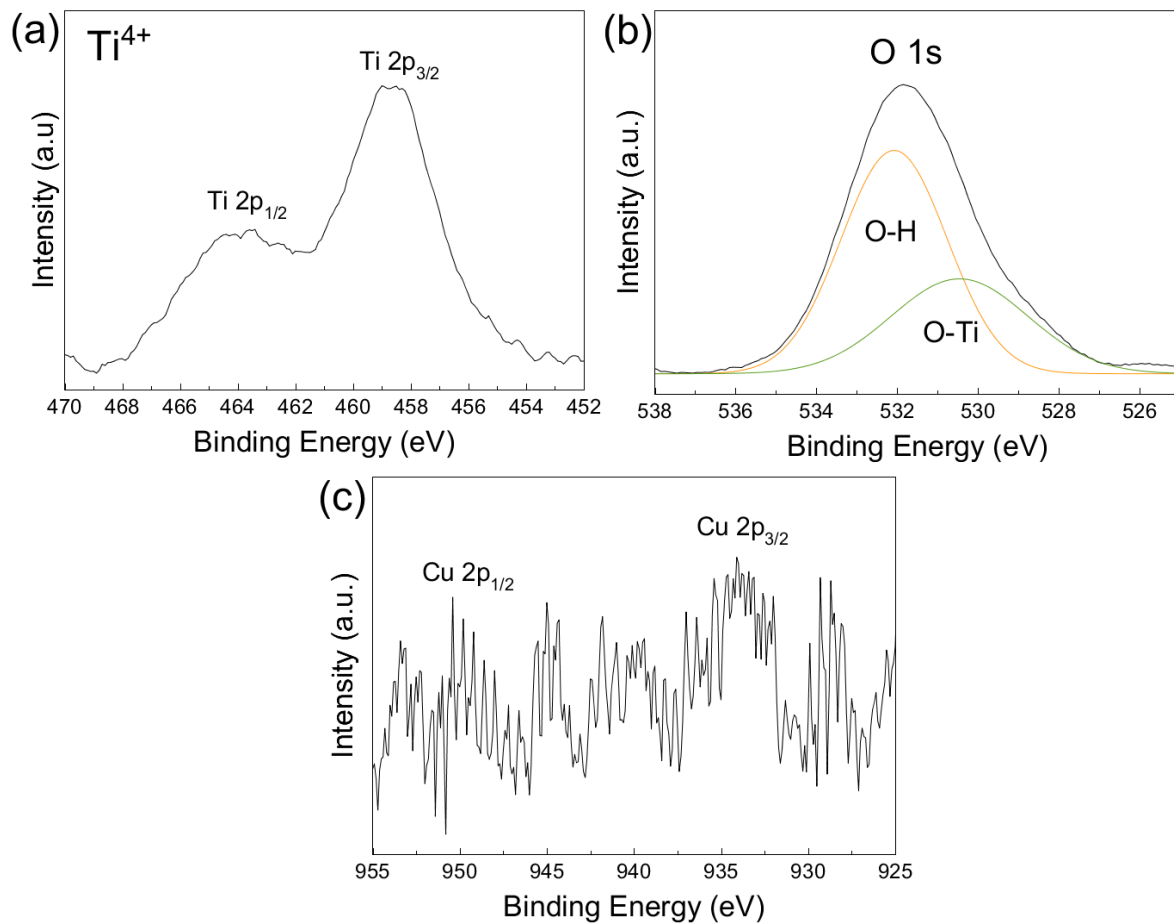


Figure S3. XPS spectra of (a) Ti 2p, (b) O 1s, and (c) Cu 2p for the Cu/TiO₂ catalyst after first use.

Table S1. ANOVA for Quadratic modelResponse 1: GCDx10⁴

Transform: Square Root

Constant: 0

Model	11.40	9	1.27	119.76	< 0.0001	significant
A-Catalyst	2.52	1	2.52	238.55	< 0.0001	
B-Temperature	3.13	1	3.13	295.79	< 0.0001	
C-Glycerol	2.84	1	2.84	268.37	< 0.0001	
AB	0.0028	1	0.0028	0.2670	0.6166	
AC	0.6599	1	0.6599	62.37	< 0.0001	
BC	1.38	1	1.38	130.67	< 0.0001	
A ²	0.1997	1	0.1997	18.87	0.0015	
B ²	0.0874	1	0.0874	8.26	0.0166	
C ²	0.2558	1	0.2558	24.18	0.0006	
Residual	0.1058	10	0.0106			
Lack of Fit	0.1058	5	0.0212			
Pure Error	0.0000	5	0.0000			
Cor Total	11.51	19				

Fit Statistics

Std. Dev.	0.1029	R²	0.9908
Mean	3.60	Adjusted R²	0.9825
C.V. %	2.86	Predicted R²	0.9286
		Adeq Precision	48.5260

Response 2: FDx10⁴

Transform: Square Root

Constant: 0

Model	36.13	9	4.01	214.91	< 0.0001	significant
A-Catalyst	12.24	1	12.24	655.13	< 0.0001	
B-Temperature	17.51	1	17.51	937.07	< 0.0001	
C-Glycerol	0.0488	1	0.0488	2.61	0.1373	
AB	0.1897	1	0.1897	10.15	0.0097	
AC	0.4103	1	0.4103	21.96	0.0009	
BC	1.67	1	1.67	89.37	< 0.0001	
A ²	0.7287	1	0.7287	39.01	< 0.0001	
B ²	1.30	1	1.30	69.84	< 0.0001	
C ²	1.85	1	1.85	98.81	< 0.0001	
Residual	0.1868	10	0.0187			

Lack of Fit	0.1868	5	0.0374			
Pure Error	0.0000	5	0.0000			
Cor Total	36.32	19				

Fit Statistics

Std. Dev.	0.1367		R²	0.9949
Mean	6.17		Adjusted R²	0.9902
C.V. %	2.22		Predicted R²	0.9132
			Adeq Precision	64.4128

Response 3: FAx10⁴

Transform: Square Root

Constant: 0

Model	2.78	9	0.3087	76.55	< 0.0001	significant
A-Catalyst	0.4072	1	0.4072	100.96	< 0.0001	
B-Temperature	1.48	1	1.48	366.78	< 0.0001	
C-Glycerol	0.2026	1	0.2026	50.25	< 0.0001	
AB	0.0014	1	0.0014	0.3459	0.5695	
AC	0.1776	1	0.1776	44.04	< 0.0001	
BC	0.3694	1	0.3694	91.59	< 0.0001	
A ²	0.0570	1	0.0570	14.13	0.0037	
B ²	0.1010	1	0.1010	25.06	0.0005	
C ²	0.0044	1	0.0044	1.09	0.3205	
Residual	0.0403	10	0.0040			
Lack of Fit	0.0403	5	0.0081			
Pure Error	0.0000	5	0.0000			
Cor Total	2.82	19				

Fit Statistics

Std. Dev.	0.0635		R²	0.9857
Mean	2.26		Adjusted R²	0.9728
C.V. %	2.81		Predicted R²	0.9045
			Adeq Precision	42.3236