

Supplementary Information

Enhanced Photocatalytic Coupling of Benzylamine to N-Benzylidene Benzylamine over the Organic-Inorganic Composites F70-TiO₂ Based on Fullerenes Derivatives and TiO₂

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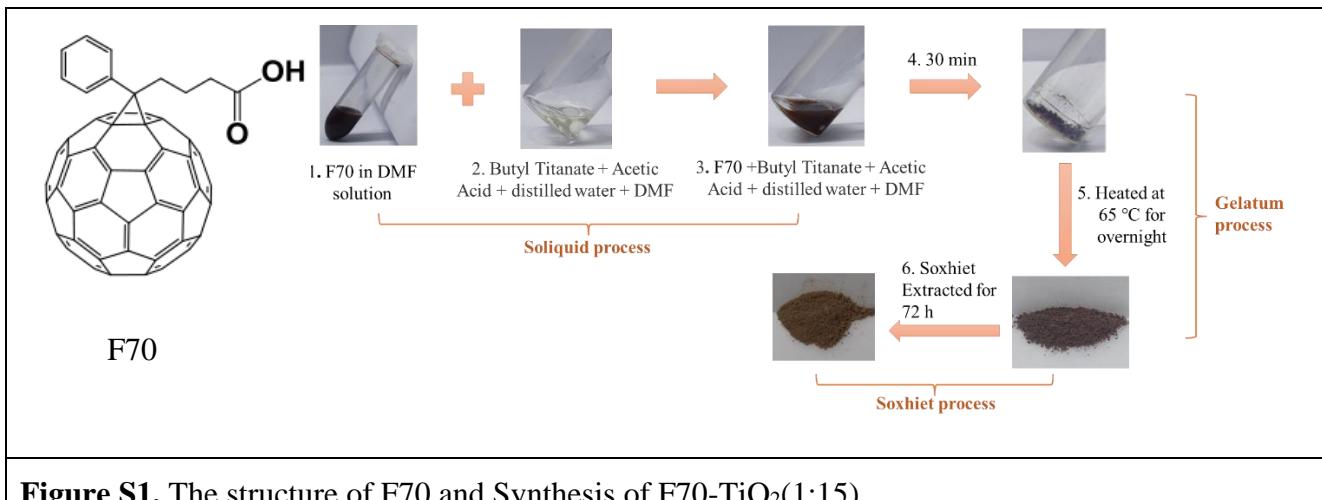


Figure S1. The structure of F70 and Synthesis of F70-TiO₂(1:15).

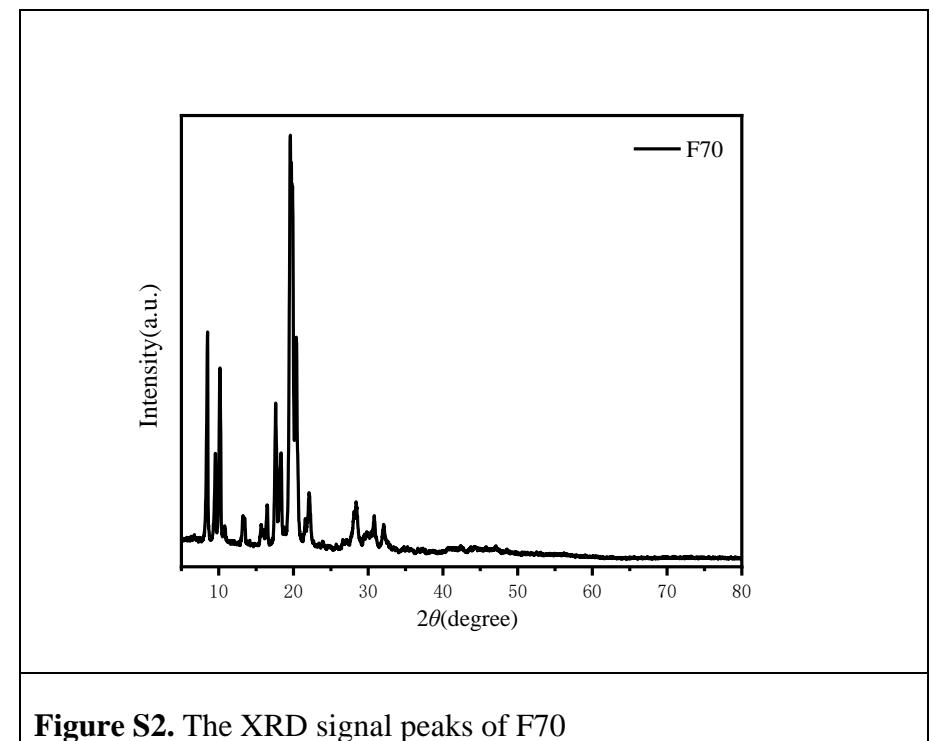


Figure S2. The XRD signal peaks of F70

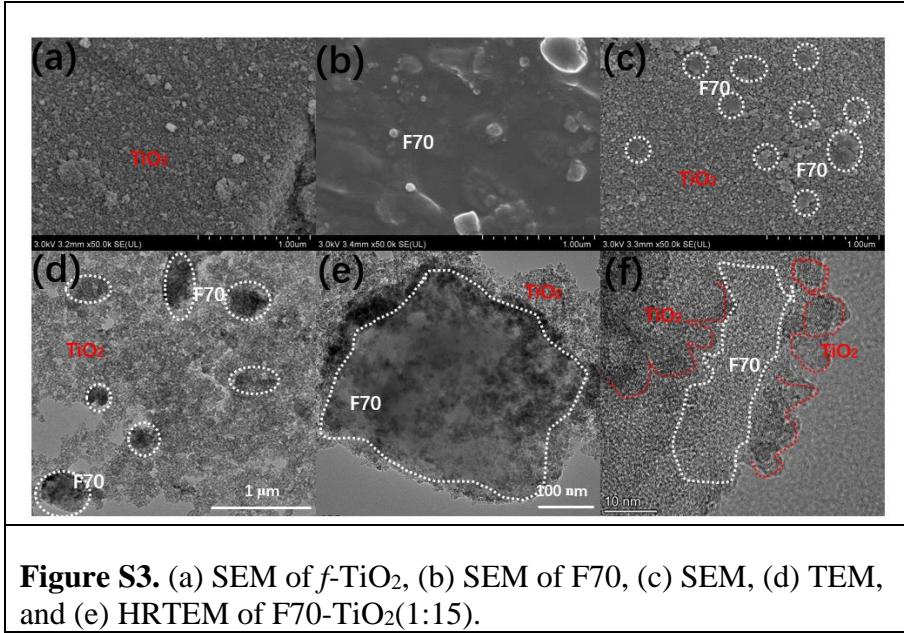
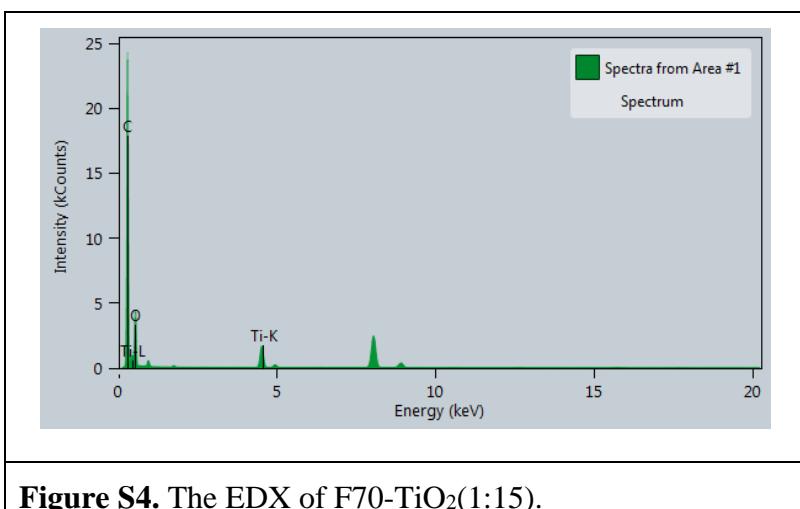


Table S1. The BET surface area and the pore size distributions of $f\text{-TiO}_2$ and F70- TiO_2 (1:15).

Sample	BET Surface area (m^2/g)	Pore size (nm)	Pore volume (cm^3/g)
F70- TiO_2 (1:15)	178.8	4.452	0.2380
$f\text{-TiO}_2$	198.6	4.386	0.2636

**Figure S4.** The EDX of F70-TiO₂(1:15).**Table S2.** The Atom percentages and the binding energy of *f*-TiO₂ and F70-TiO₂(1:15) by the XPS analysis.

Sample (eV)	Ti2p _{3/2} (eV)	Ti2p _{1/2} (eV)	C1s	O1s
<i>f</i> -TiO ₂	458.6	464.3	284.8 285.8 288.7	529.9 531.2
Atomic %	24.5		23.7	51.8
F70-TiO ₂ (1:15)	458.7	464.5	284.8 285.6 288.9	530.0 531.3
Atomic %	21.7		33.4	44.9

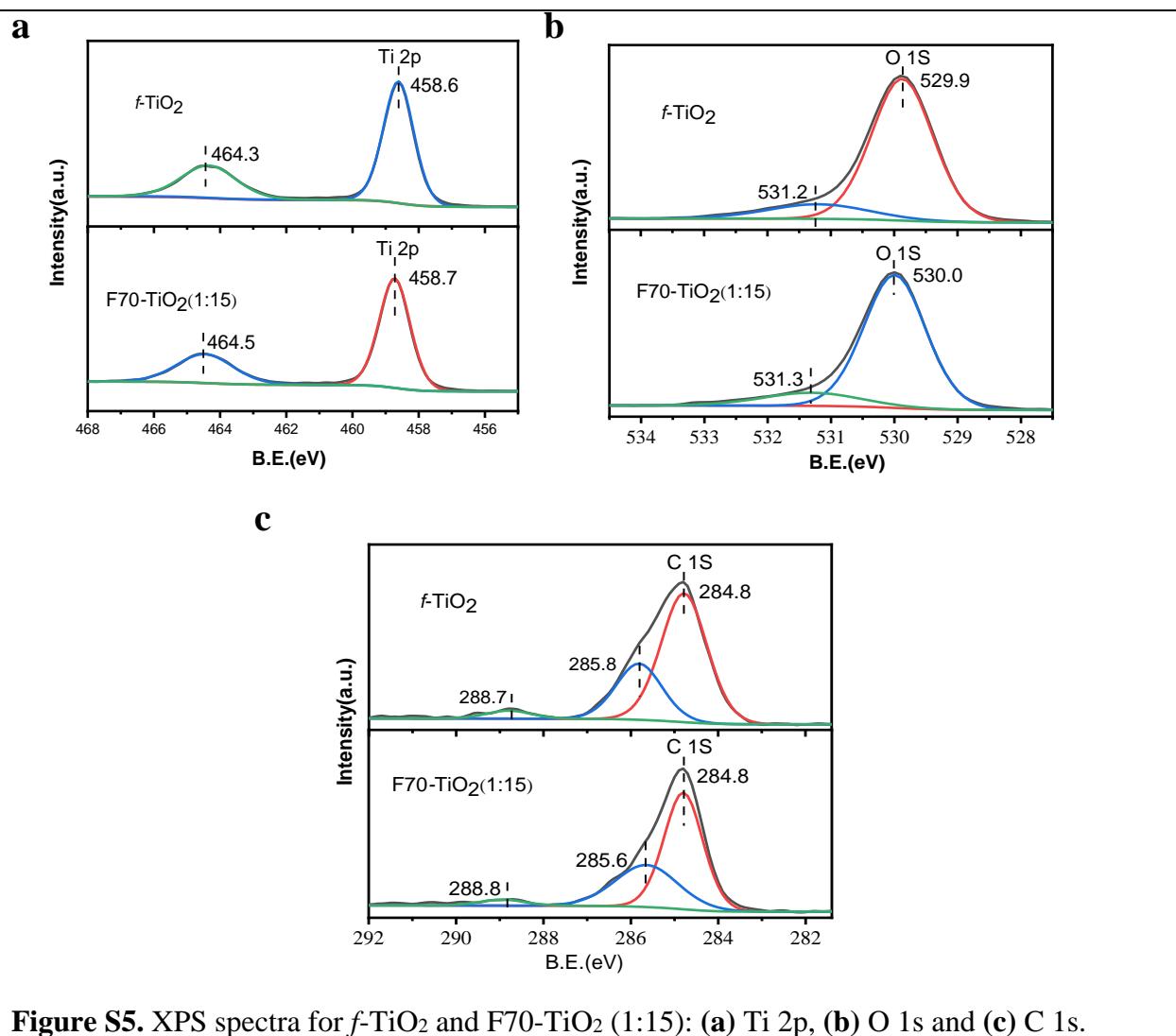


Figure S5. XPS spectra for $f\text{-TiO}_2$ and F70- TiO_2 (1:15): **(a)** Ti 2p, **(b)** O 1s and **(c)** C 1s.

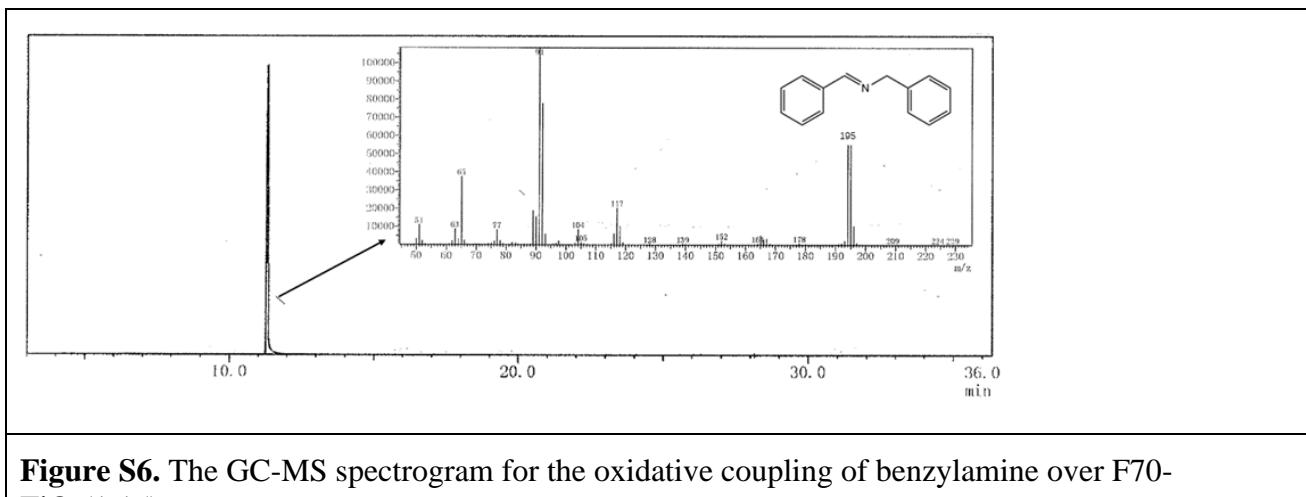


Figure S6. The GC-MS spectrogram for the oxidative coupling of benzylamine over F70-TiO₂(1:15).

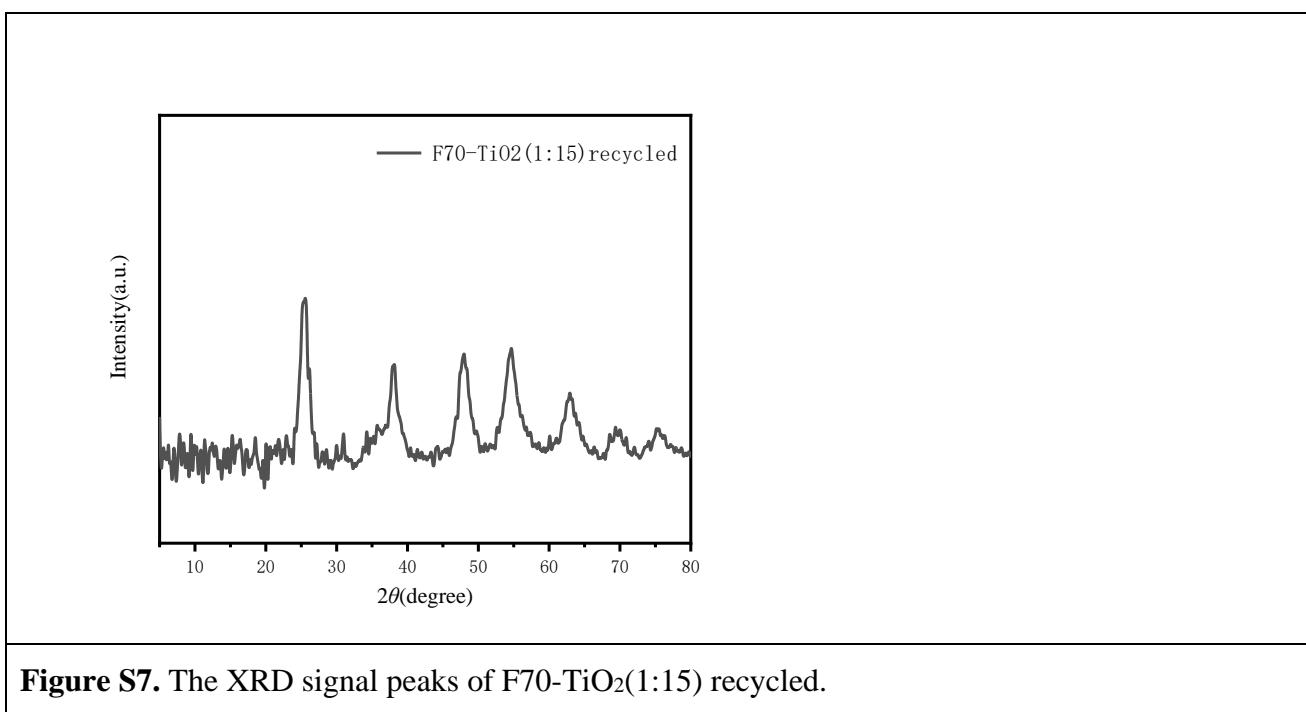


Figure S7. The XRD signal peaks of F70-TiO₂(1:15) recycled.