## Supporting Information Reduction and Transformation of Fluorinated Graphene Induced by Ultraviolet Irradiation

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Figure S1. The variation of fluorine's weight content with the extension of irradiation time measured by XPS, EDS and OFC, respectively.



**Figure S2.** The elemental composition maps of FG, iFG-0.5h, iFG-1h, iFG-6h, iFG-24h and iFG-36h; the red and green dots are carbon and fluorine, respectively.



Figure S3. The XRD spectra of iFGs with 0h, 0.5h, 1h, 2h, 4h and 6h irradiation, respectively.

Table S1. The Chemical Composition of FG without (n-FG) and with (FG) dispersed in toluene Measured by XPS in

		at%.		
Sample	С	F	0	F/C ( ± 0.001)
n-FG	52.38	36.82	10.80	0.701
FG	52.66	36.83	10.51	0.699



Figure S4. The F/C ratio of iFG obtained from XPS after irradiated 24h in different solvents.



Figure S5. The TGA (a) and DTG (b) spectra of iFG after irradiated 24h in different solvents.



Figure S6. (a) UV-vis absorption spectra of original FG and iFG-12h. (b) UV-vis absorption spectra of FG dispersed in different solvents.