Supporting Information

Enhanced UV-Vis photodegradation of nanocomposite reduced graphene oxide/ferrite nanofiber films prepared by laser-assisted evaporation

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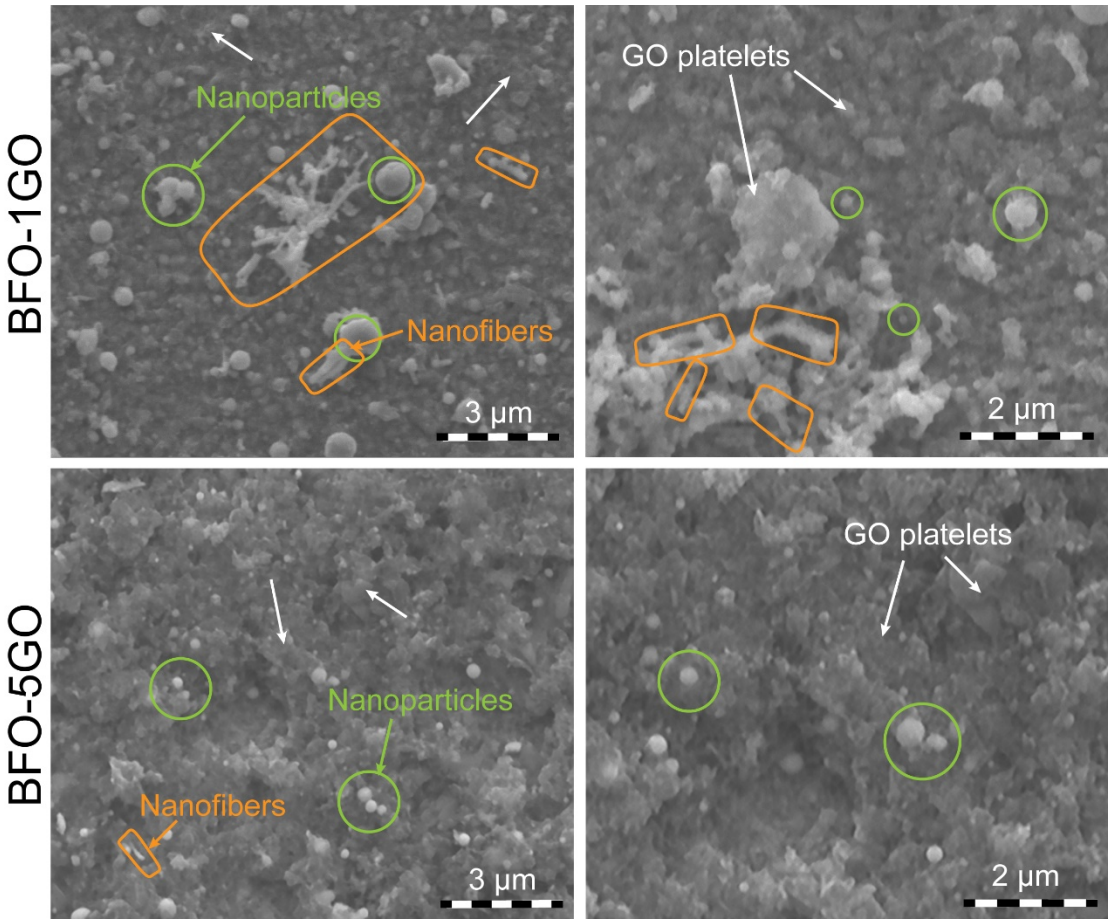

Figure S1. Additional SEM micrographs of the nanocomposite films containing BFO nanofiber and 1% and 5% GO concentrations.

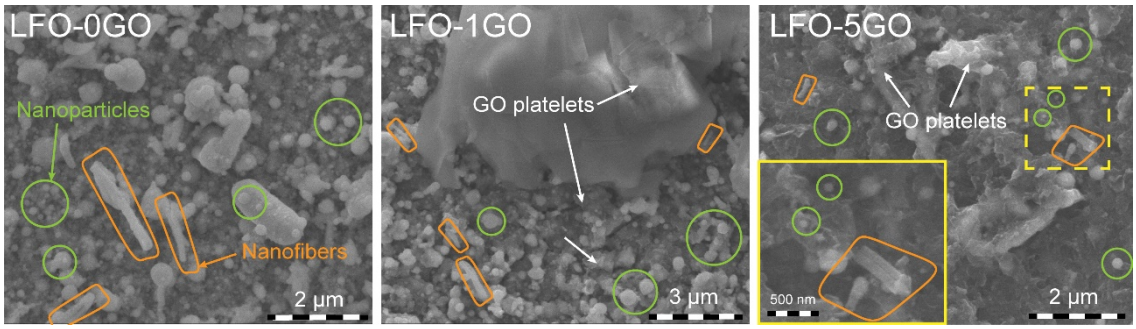

Figure S2. Additional SEM micrographs of the nanocomposite films containing LFO nanofiber and 1% and 5% GO concentrations.

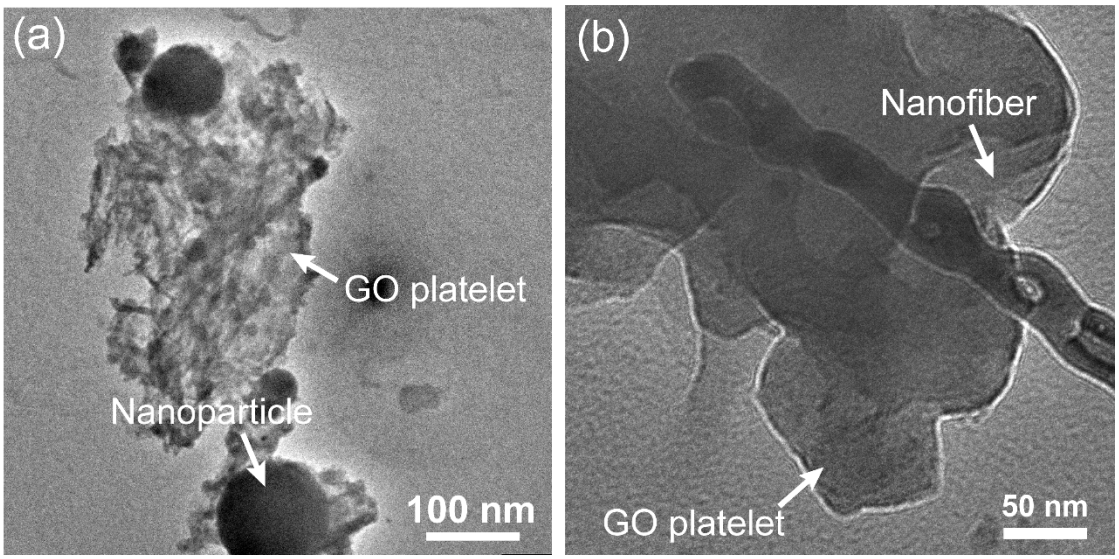

Figure S3. HRTEM images showing the LFO/GO nanocomposite films after MAPLE deposition for a GO concentration of 5%: (a) area with GO platelets and nanoparticles, and (b) GO and nanofibers.

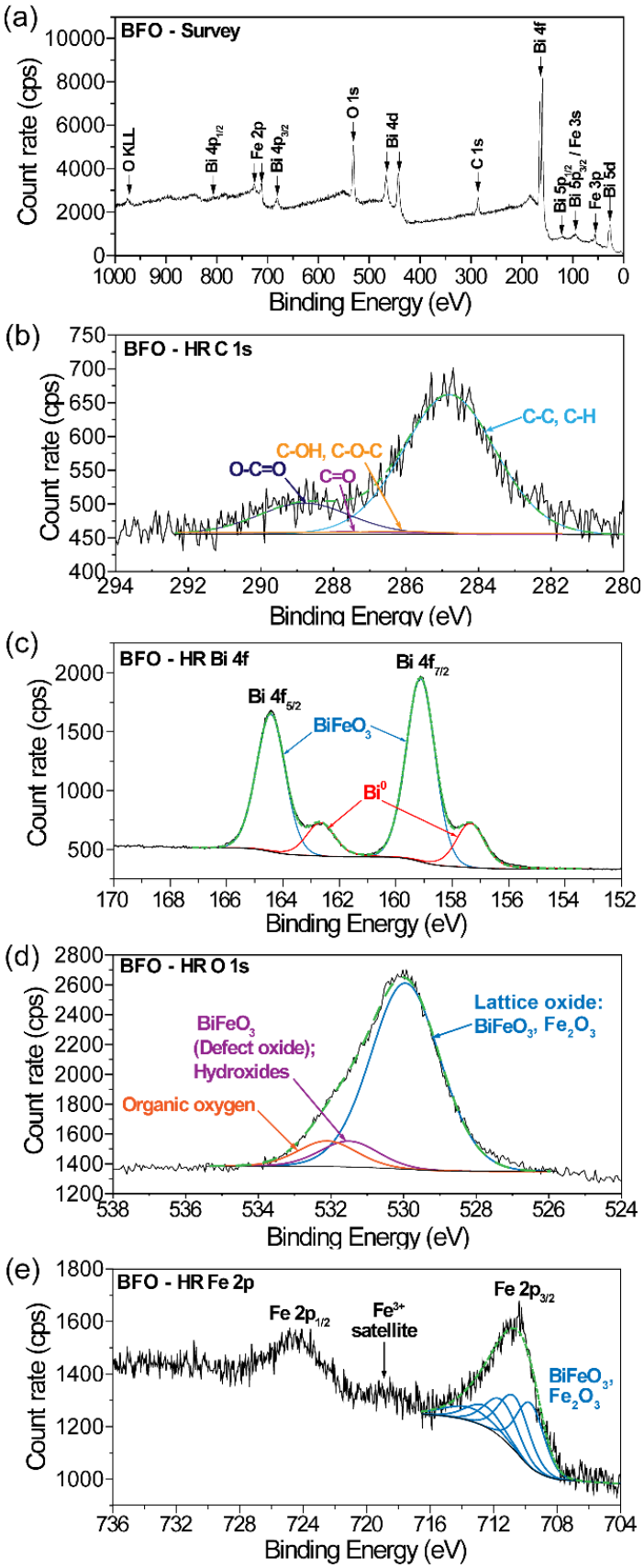

Figure S4. XPS (a) survey, and (b-e) high-resolution spectra, (b) C 1s, (c) Bi 4f, (d) O 1s, and (e) Fe 2p regions of BFO nanofibers.

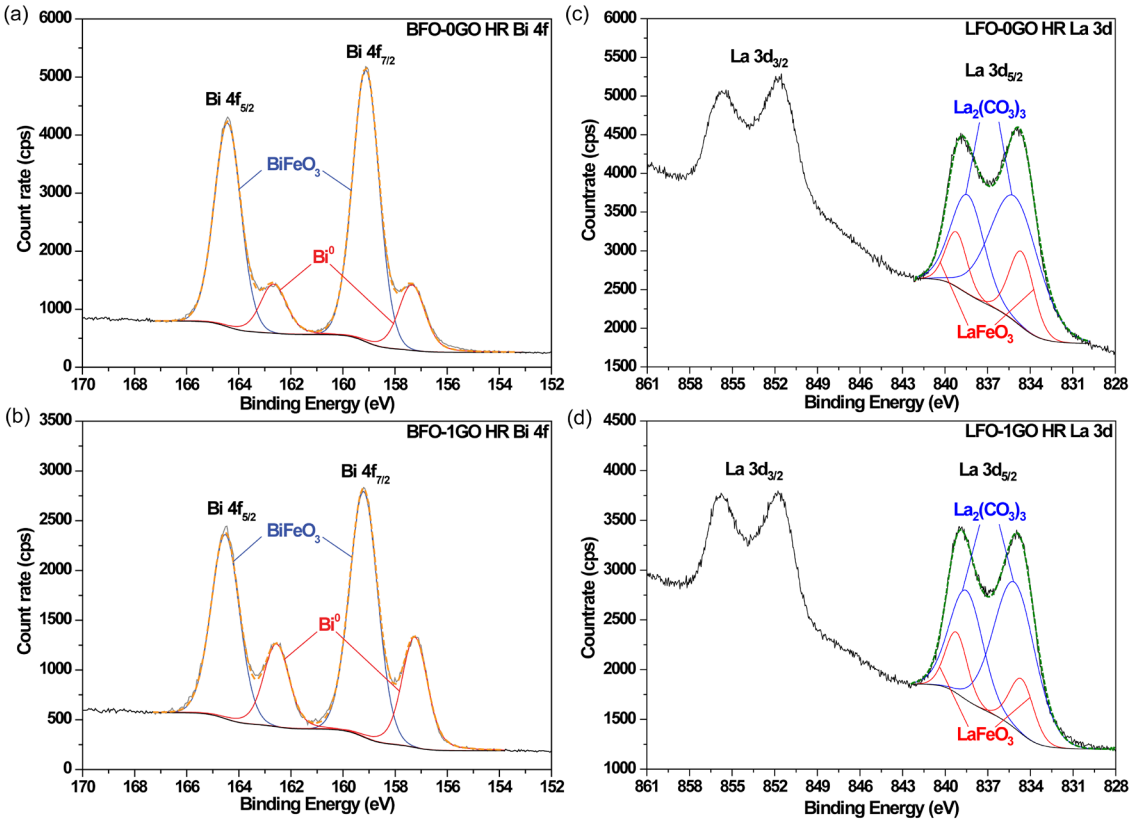

Figure S5. High resolution Bi 4f spectra of the GO/BFO nanofiber films with GO concentrations of (a) 0 % and (b) 1 %. High resolution La 3d spectra of the GO/LFO nanofiber films with GO concentrations of (c) 0 % and (d) 1 %.

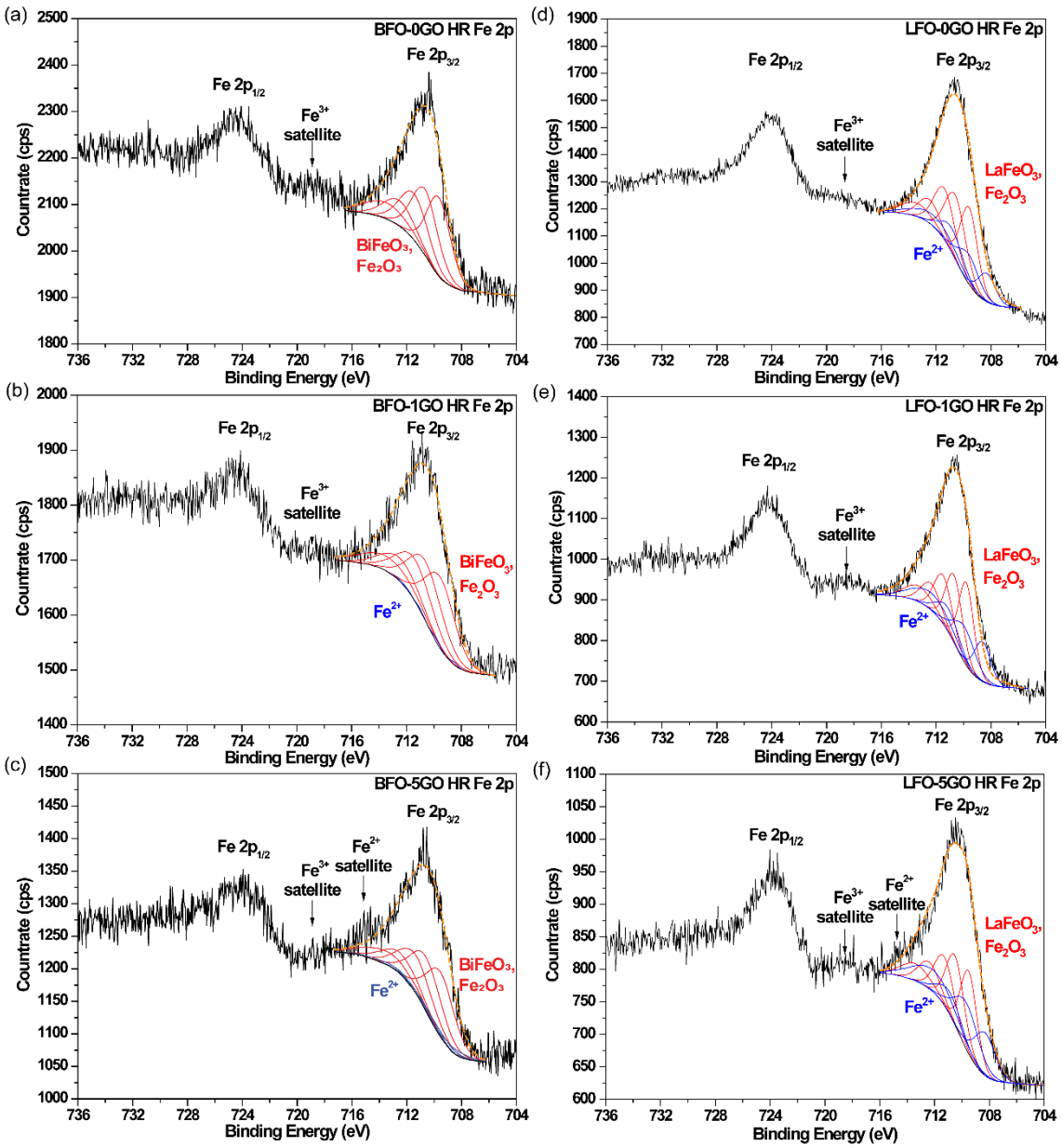

Figure S6. High resolution Fe 2p spectra of GO/BFO nanofiber films with GO concentrations of (a) 0 %, (b) 1 % and (c) 5 % and GO/LFO nanofiber films with GO concentrations of (d) 0 %, (e) 1 % and (f) 5 %.

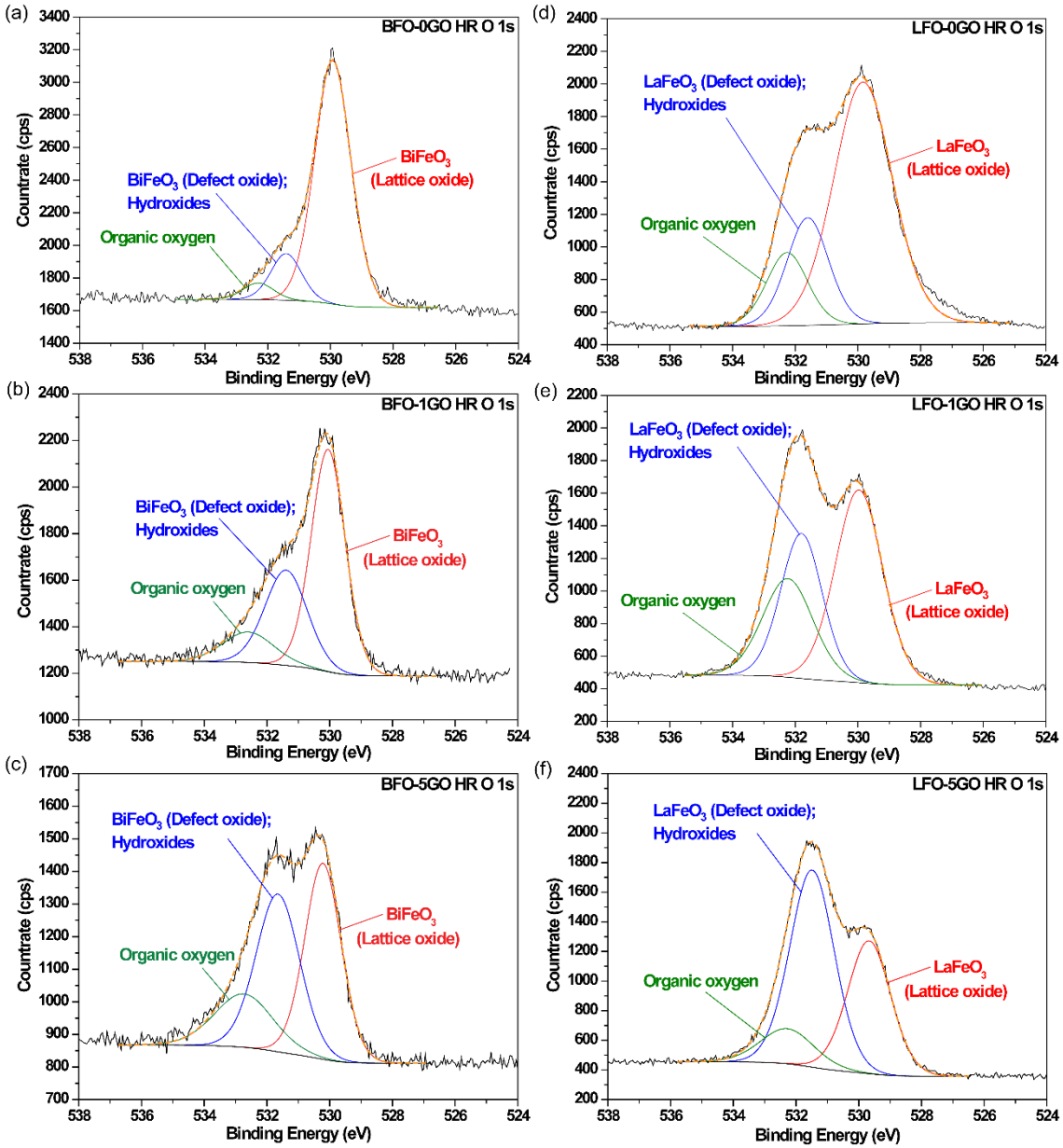

Figure S7. High resolution O 1s spectra of the GO/BFO nanofiber films with GO concentrations of (a) 0 %, (b) 1 % and (c) 5 %. High resolution O 1s spectra of the GO/LFO nanofiber films with GO concentrations of (d) 0 %, (e) 1 % and (f) 5 %.

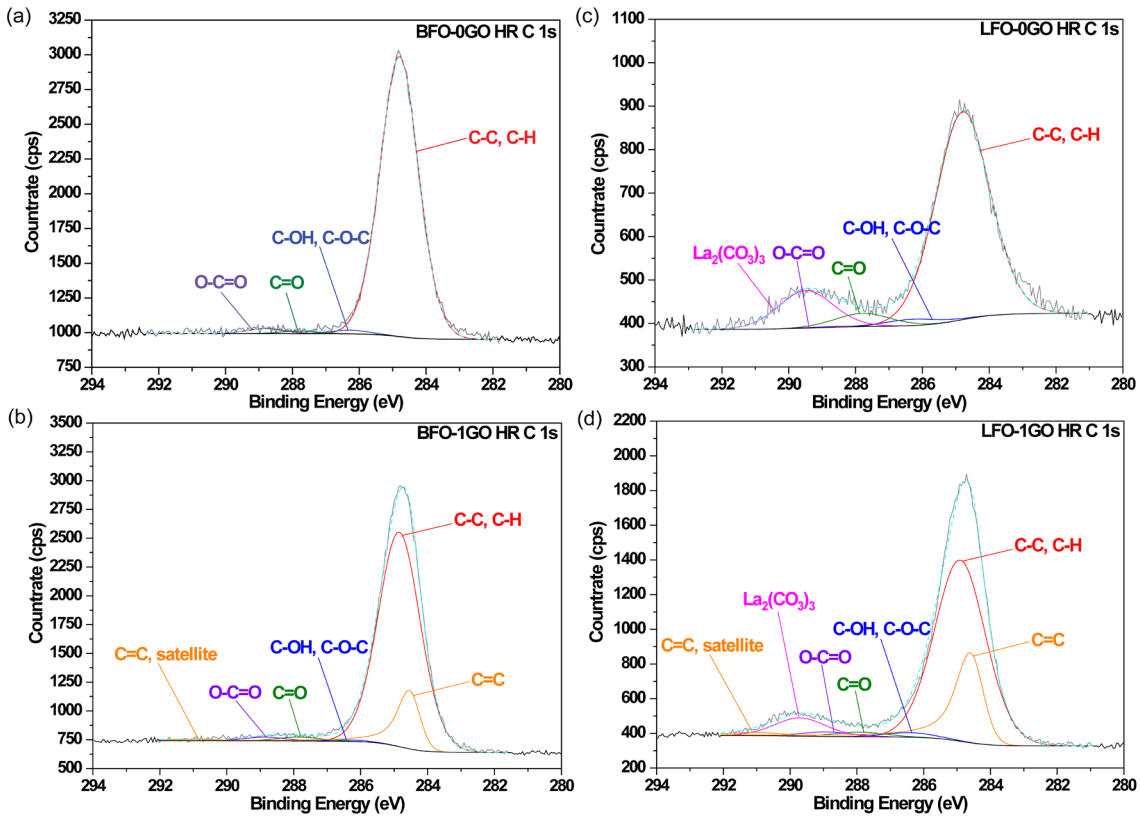

Figure S8. High resolution C 1s spectra of the GO/BFO nanofiber films with GO concentrations of (a) 0 % and (b) 1 %. High resolution C 1s spectra of the GO/LFO nanofiber films with GO concentrations of (d) 0 % and (e) 1 %.

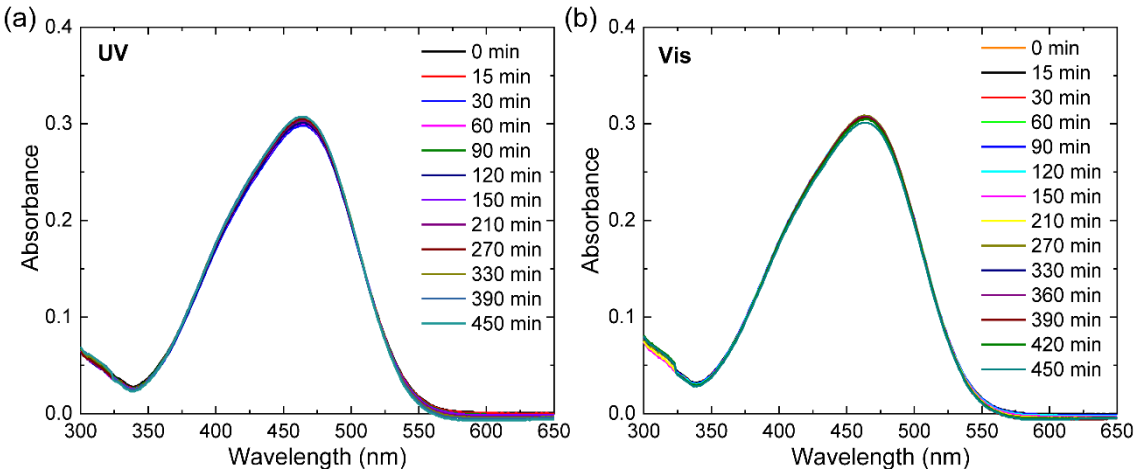

Figure S9. Absorption spectra of MO 4 ppm reference degradation under (a) UV and (b) Vis light irradiation between 0 and 450 min.

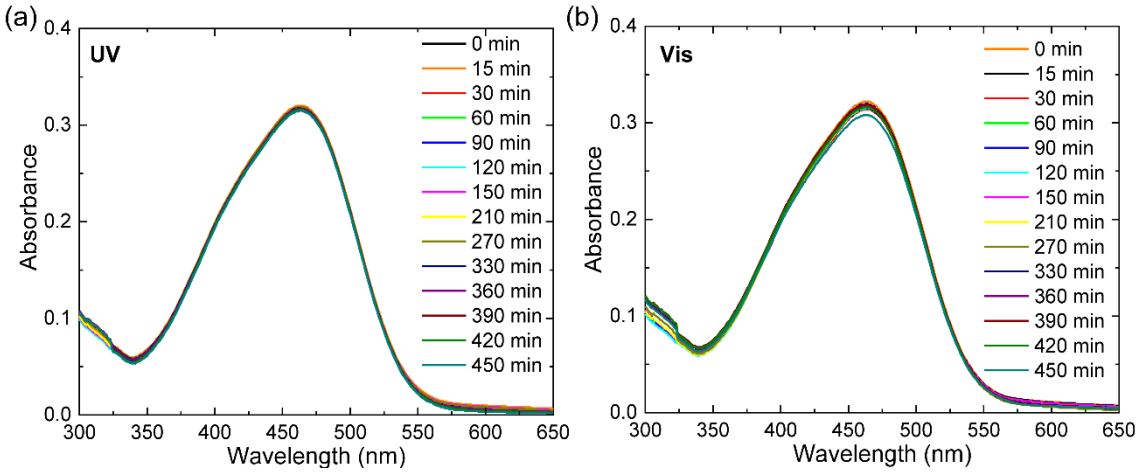

Figure S10. Absorption spectra of MO 4 ppm degradation due to the GO 5 % sample, under (a) UV and (b) Vis light irradiation between 0 and 450 min.

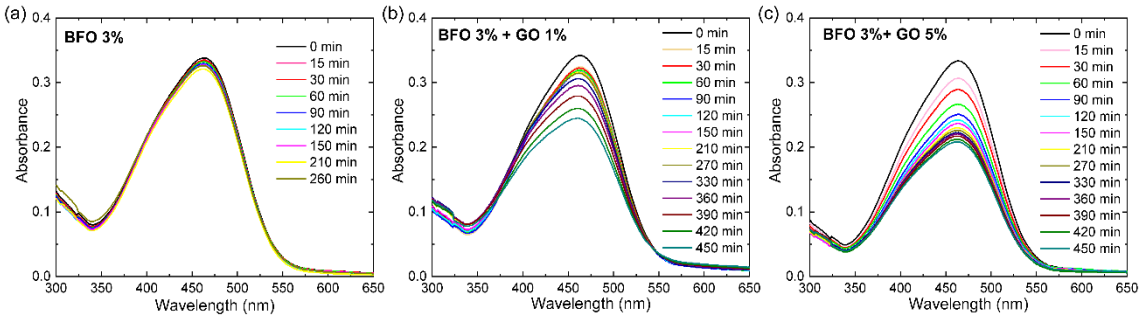

Figure S11. Absorption spectra of MO 4 ppm degradation under UV light irradiation between 0 and 450 min for: (a) BFO 3 %, (b) BFO 3 % + GO 1 % and (c) BFO 3 % + GO 5 % samples.

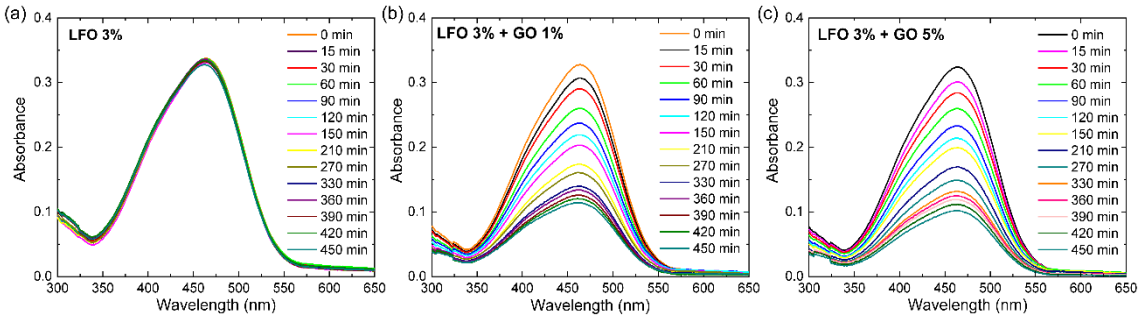

Figure S12. Absorption spectra of MO 4 ppm degradation under UV light irradiation between 0 and 450 min for: (a) LFO 3 %, (b) LFO 3 % + GO 1 % and (c) LFO 3 % + GO 5 % samples.

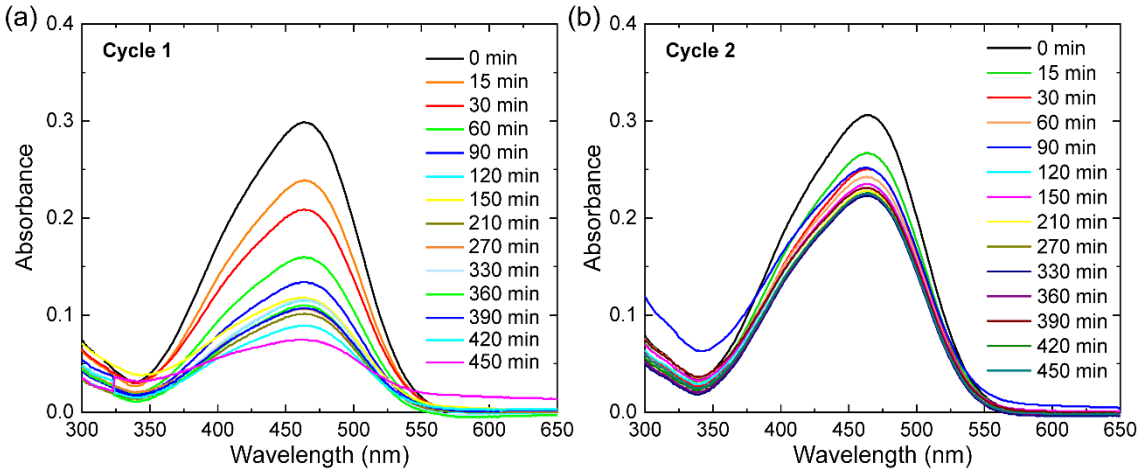

Figure S13. Absorption spectra of MO 4 ppm degradation under Vis light irradiation between 0 and 450 min for LFO 3 % + GO 5 % after (a) one and (b) two degradation cycles.