

Figure S1. (a) Effect of PMS on PFOA degradation in the absence of ZnO under UV and visible light irradiation. (b) Different vessels used for evaluation of the photocatalytic/photoelectrocatalytic degradation of PFOA (i: ZnO films, ii: suspended ZnO nanoparticles, iii: PMS (in the absence of ZnO)).

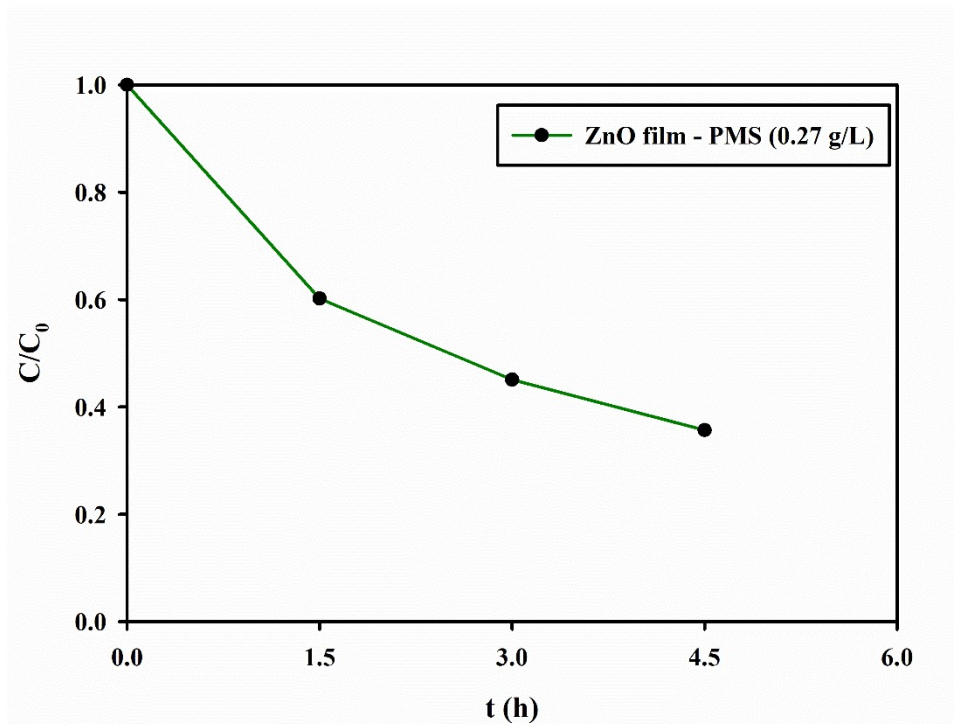


Figure S2. Effect of the irradiation time on the photocatalytic PFOA degradation over the ZnO electrode with the addition of PMS ( $\sim 0.27 \text{ g L}^{-1}$ ) under UV irradiation.

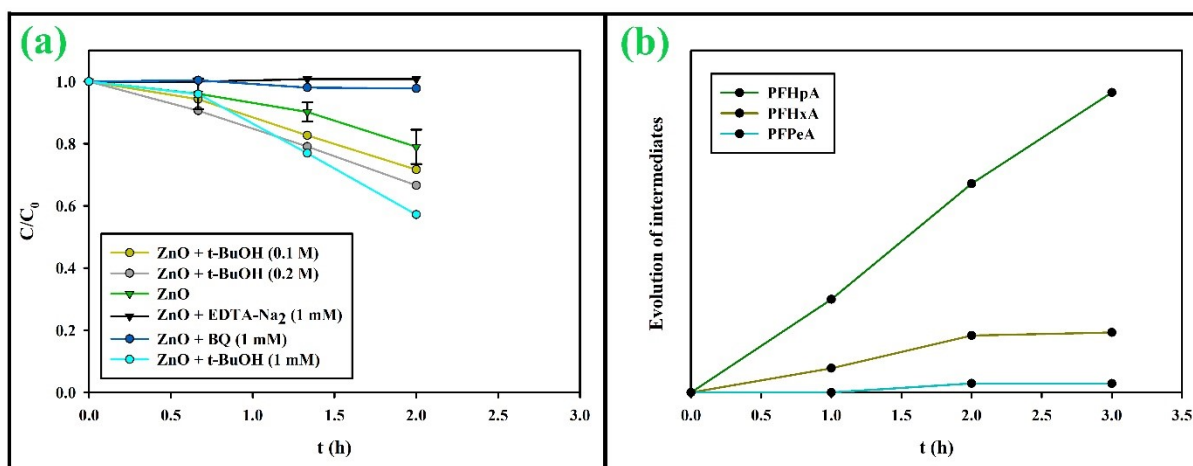


Figure S3. (a) Effects of the scavengers on PFOA ( $53 \text{ mg L}^{-1}$ ) photocatalytic degradation under UV irradiation using suspended ZnO nanoparticles ( $0.53 \text{ g L}^{-1}$ ). (b) Evolution of intermediates during the photocatalysis of PFOA ( $53 \text{ mg L}^{-1}$ ) under UV irradiation using suspended ZnO nanoparticles ( $0.53 \text{ g L}^{-1}$ ) with the addition of PMS ( $0.53 \text{ g L}^{-1}$ ).

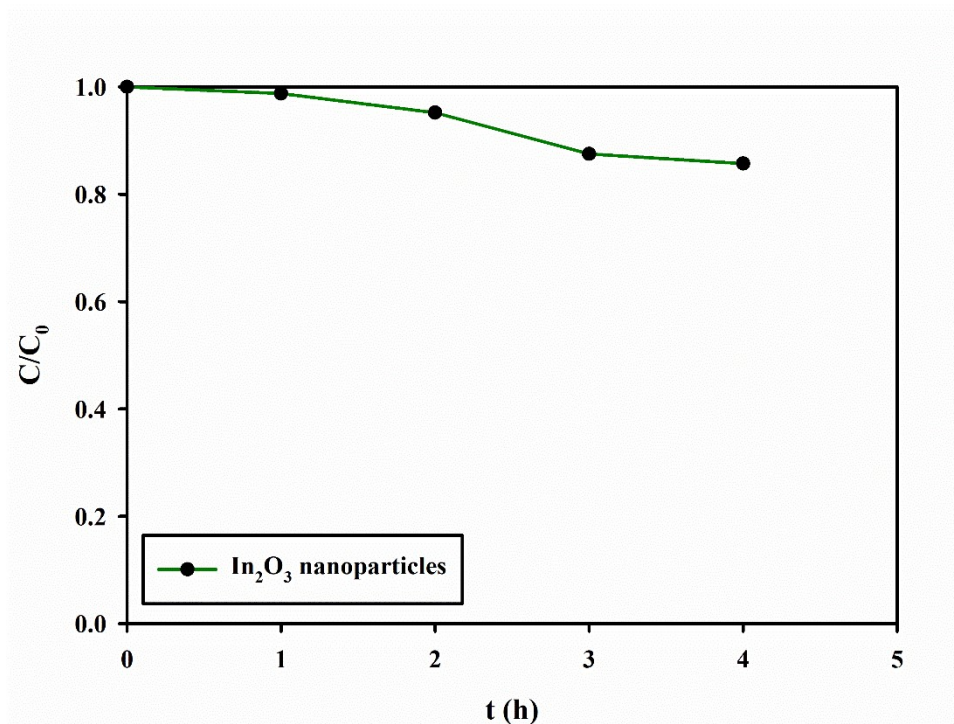


Figure S4. Photocatalytic degradation of PFOA ( $\sim 53 \text{ mg L}^{-1}$ ) using suspended  $\text{In}_2\text{O}_3$  nanoparticles ( $\sim 0.53 \text{ g L}^{-1}$ ) under UV irradiation.