Electronic Supplementary Material (ESI) for RSC Advances.

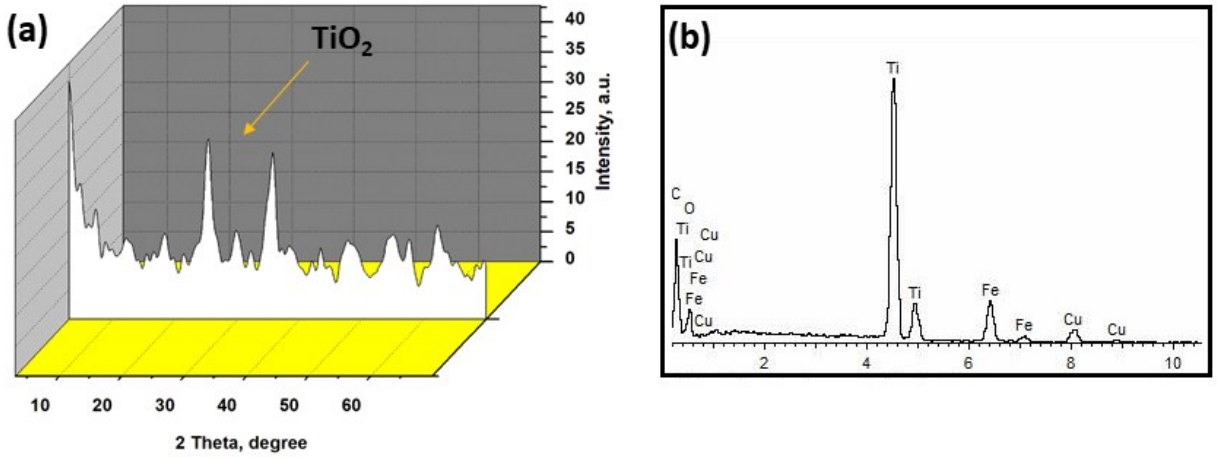

Figure 1(a) X-ray diffraction pattern and (b) EDX analysis of as-synthesized TiO_2/GO/$CuFe_2O_4$ nanocomposite

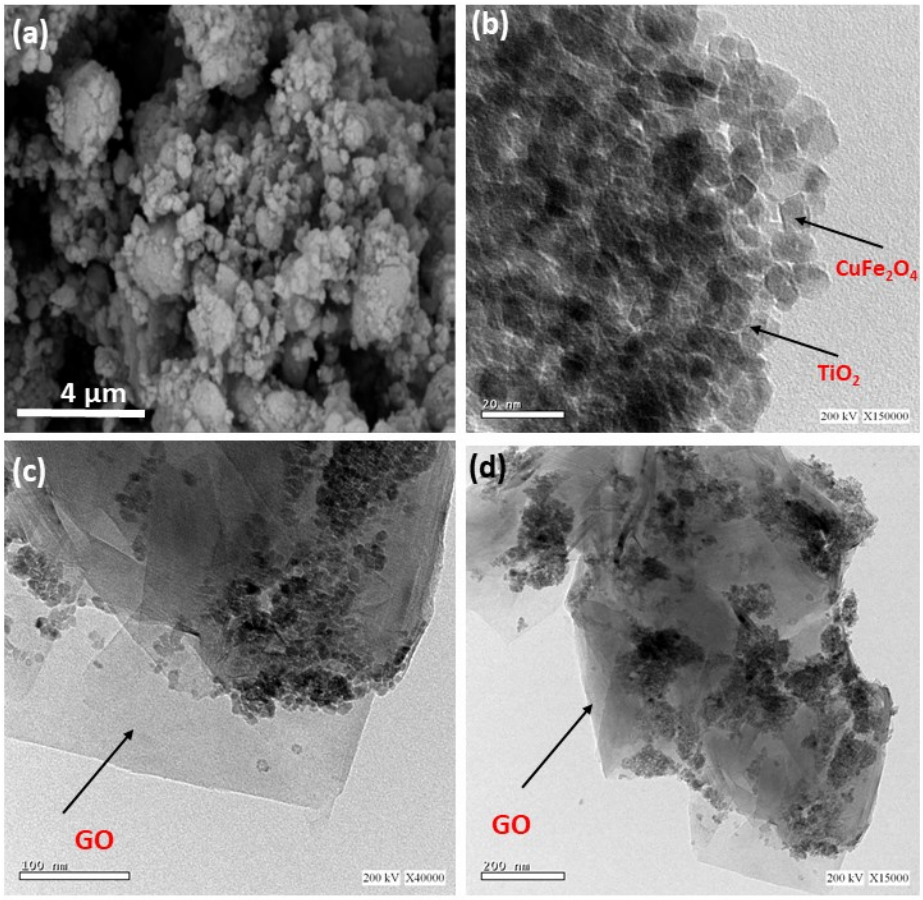

Figure 2(a) SEM and (b-d) TEM images of as-synthesized TiO_2/GO/$CuFe_2O_4$ nanocomposite

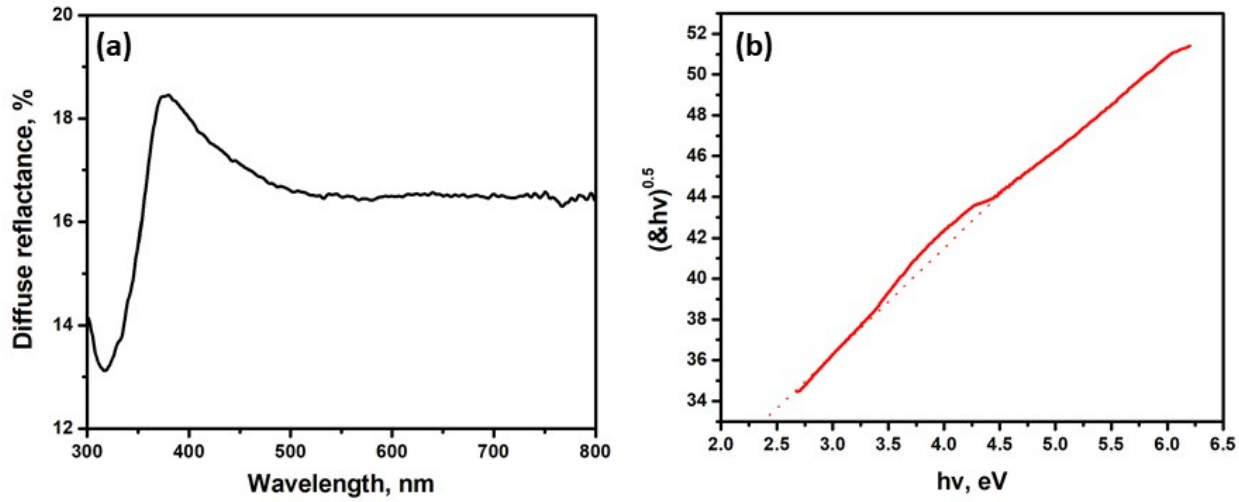

Figure 3(a) Diffused reflectance spectra and (b) Tauc plot of TiO_2/GO/$CuFe_2O_4$ nanocomposite

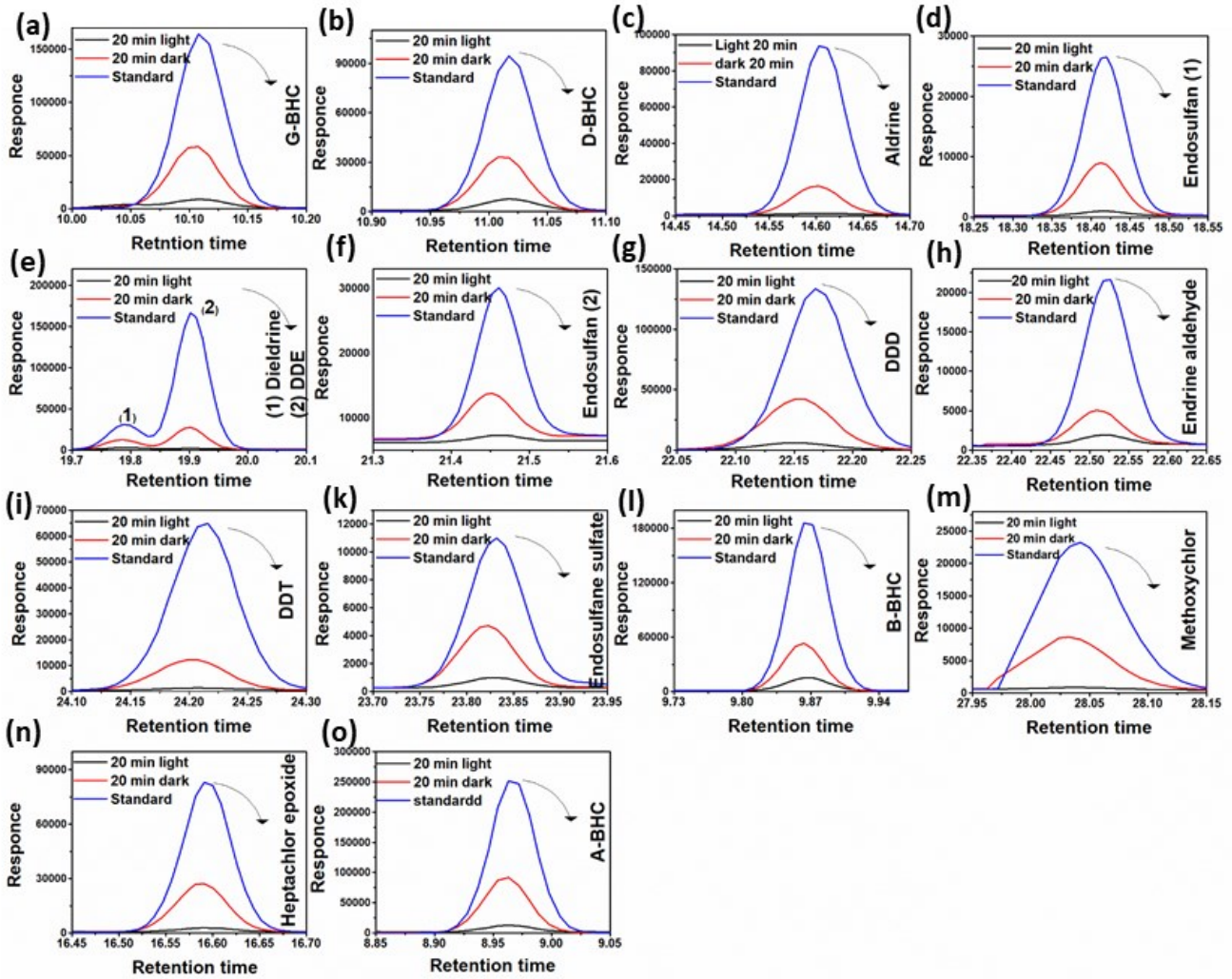

Figure 4(a-o) Peak elution change of selected pesticides vs retention times' usingTiO_2/GO/ $CuFe_2O_4$ nanocomposite

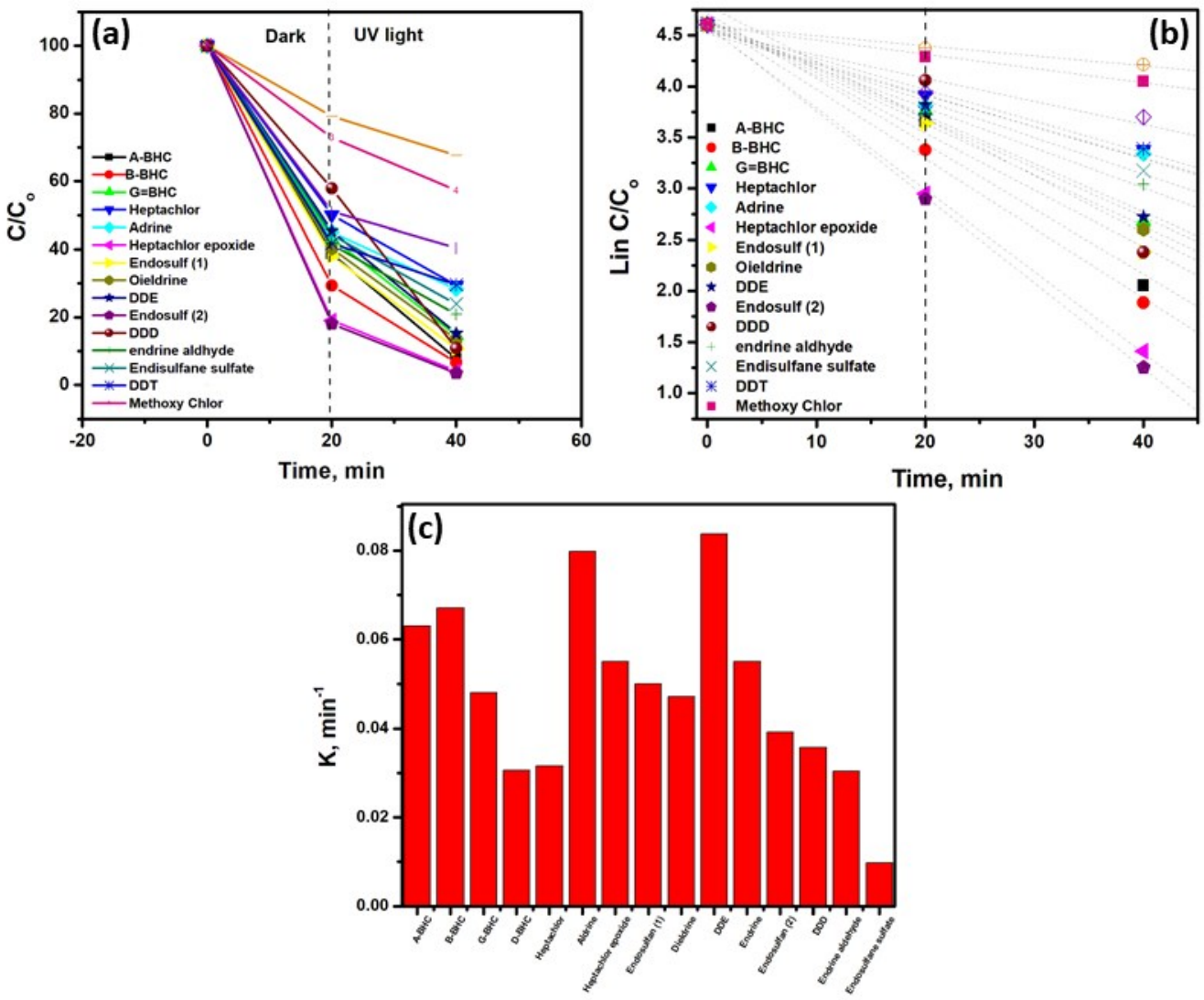

Figure 5 (a) Removal efficiency of selected pesticides as function of irradiation time, (b) ln(C /C o) vs. time (min) curve for photodegradation of selected pesticides and (c) photodegradation rate in the presence of TiO_2/GO/$CuFe_2O_4$ nanocomposite

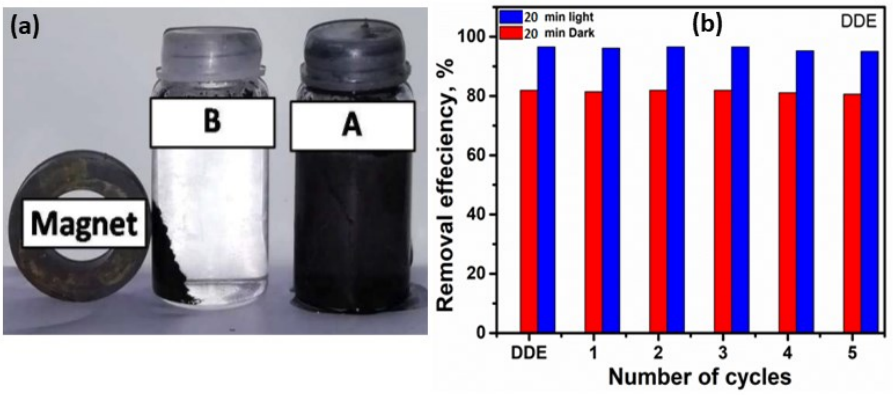

Figure 6 (a) Photograph of the magnetic nanocomposite solution, (b) the recyclability of DDE type of pesticide by TiO_2/GO/$CuFe_2O_4$ nanocomposite

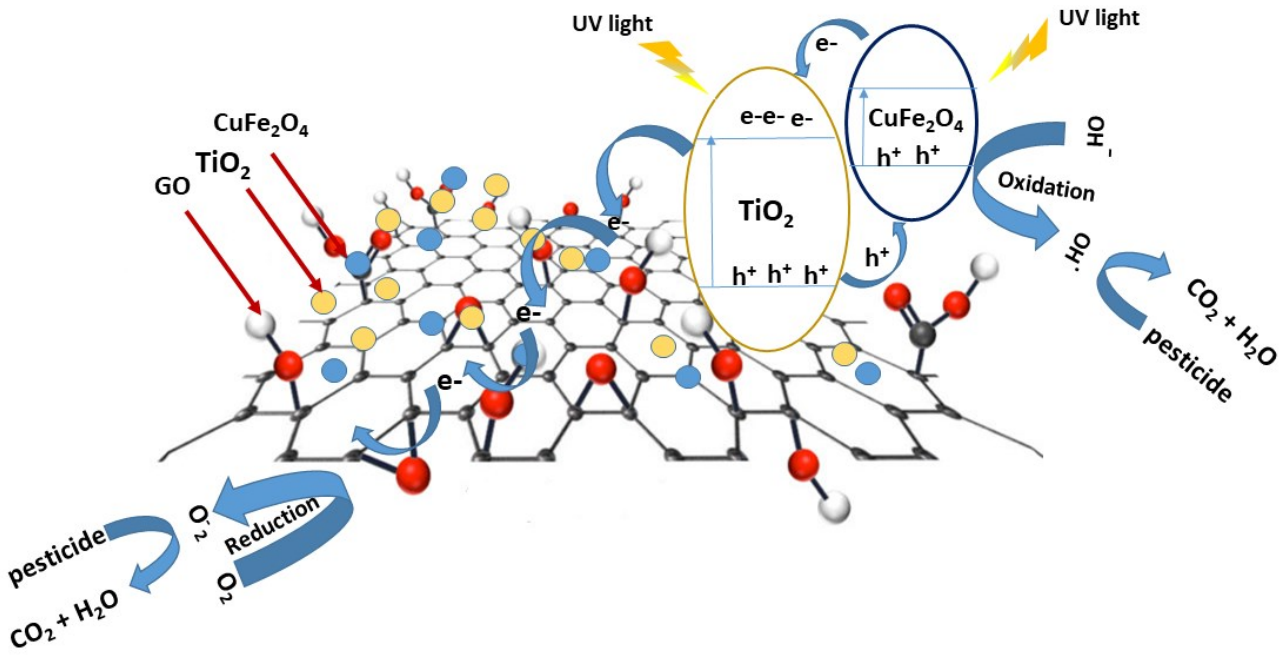

Figure 7 Proposed mechanisms of charge separation via direct Z-type scheme under UV illumination