



Correction

## Correction to: Expoloriting of graphene oxide for improving physical properties of TiO<sub>2</sub>(NPs): toward photovoltaic devices and wastewater remediation approaches

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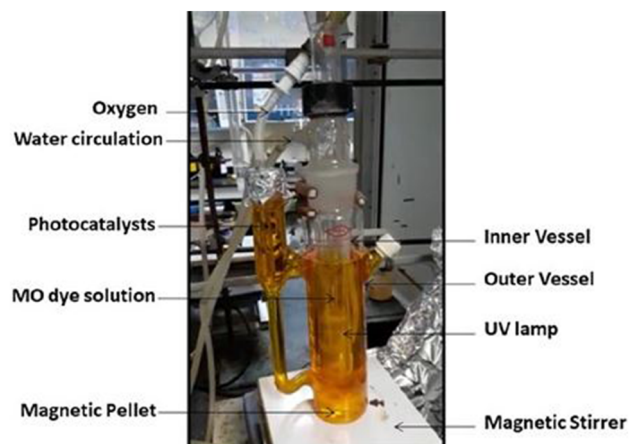
### Correction to: Eur. Phys. J. Plus (2022) 137:1160

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In this article, the author name K. Althagafy was incorrectly written as K. Althagafi.

The wrong figures appeared as Figs. 2–13; the figures should have appeared as shown below. The original article has been corrected.

**Fig. 2** Experimental setup of photocatalytic reactor for degradation of MO dye



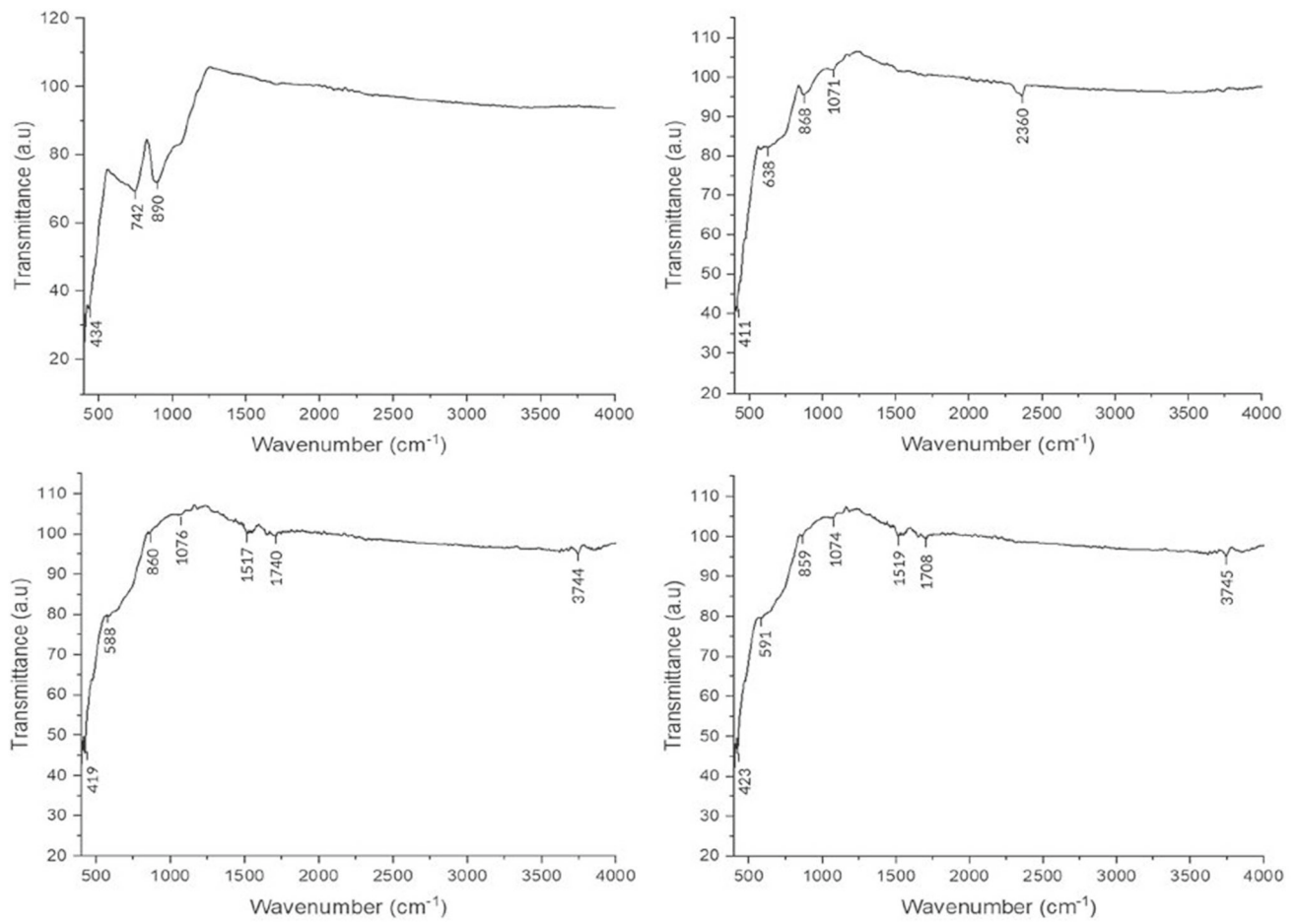
The original article can be found online at <https://doi.org/10.1140/epjp/s13360-022-03289-z>.

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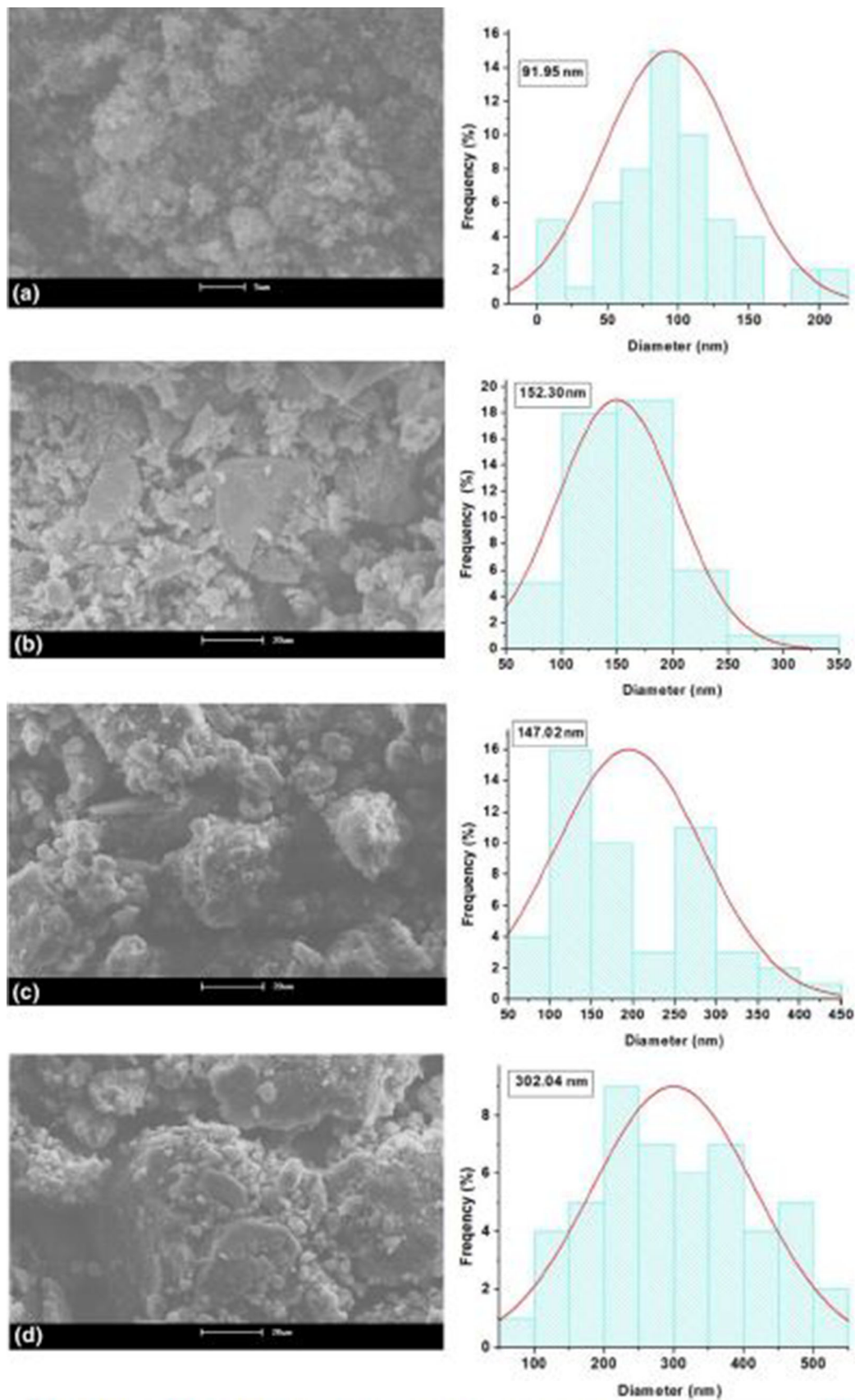
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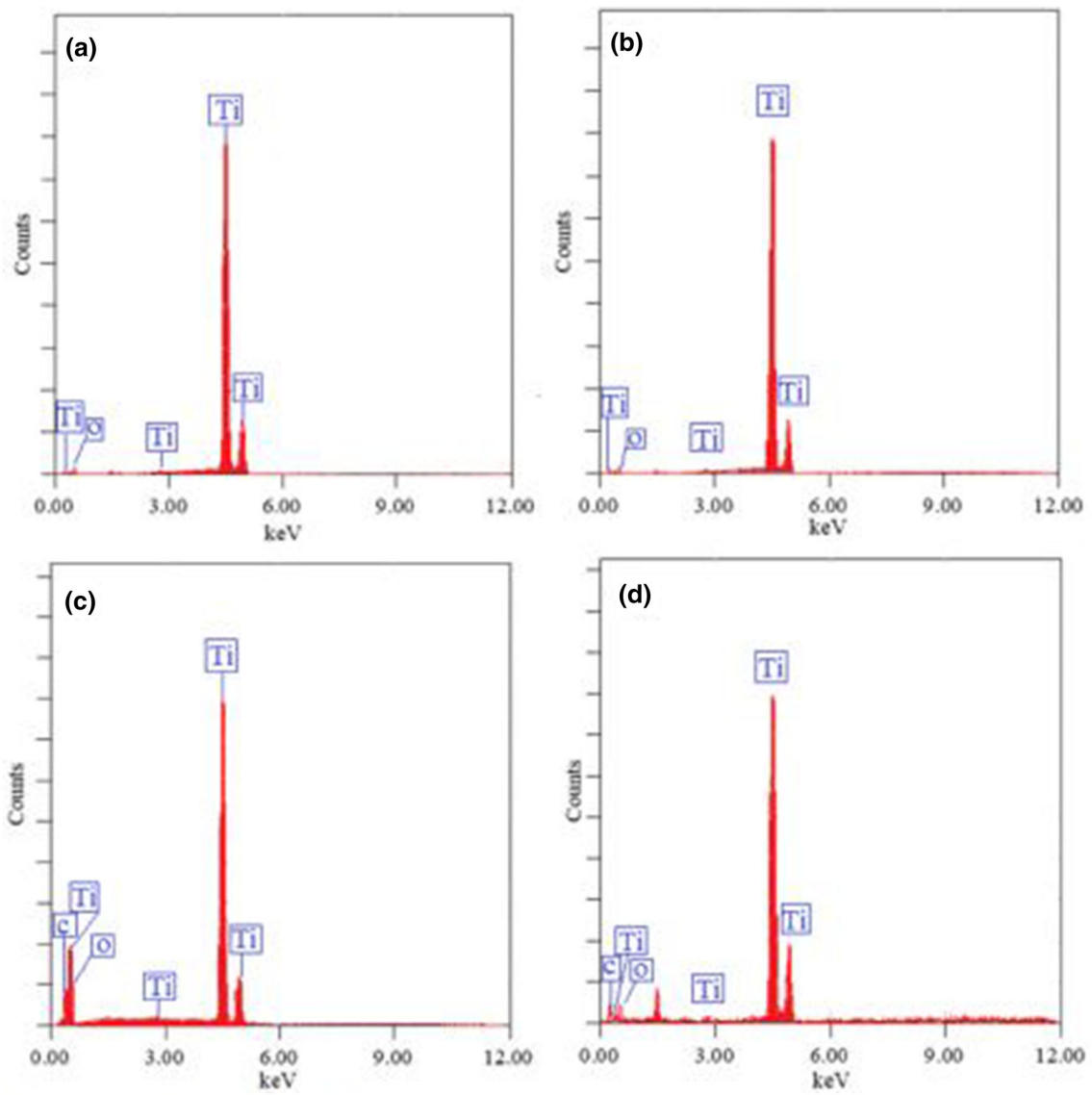
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**Fig. 3** FTIR spectra of **a** TiO<sub>2</sub> (NPs), **b** (0.2 wt.%) GO-TiO<sub>2</sub>, **c** (0.4 wt.%) GO-TiO<sub>2</sub>, **d** (0.6 wt.%) GO-TiO<sub>2</sub> nanocomposites thin films



**Fig. 4** SEM images and the grain size distribution of **a** TiO<sub>2</sub> (NPs), **b** (0.2 wt.%) GO-TiO<sub>2</sub>, **c** (0.4 wt.%) GO-TiO<sub>2</sub>, **d** (0.6 wt.%) GO-TiO<sub>2</sub> nanocomposites thin films



**Fig. 5** EDX spectrum of **a**  $\text{TiO}_2$  and of **b–d**  $\text{GO-TiO}_2$  nanocomposite

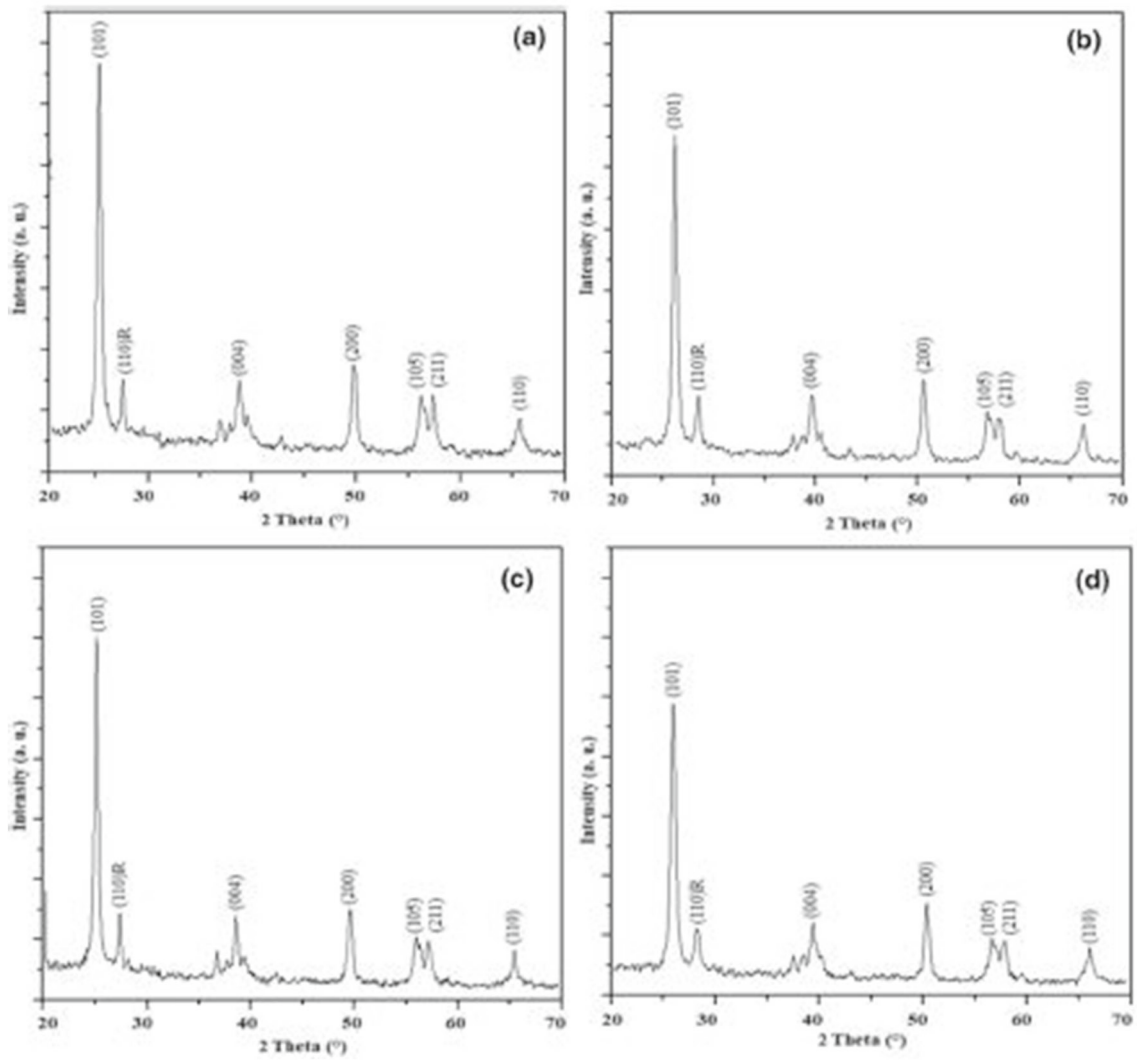


Fig. 6 XRD analysis of a TiO<sub>2</sub> and of b–d GO-TiO<sub>2</sub> nanocomposite

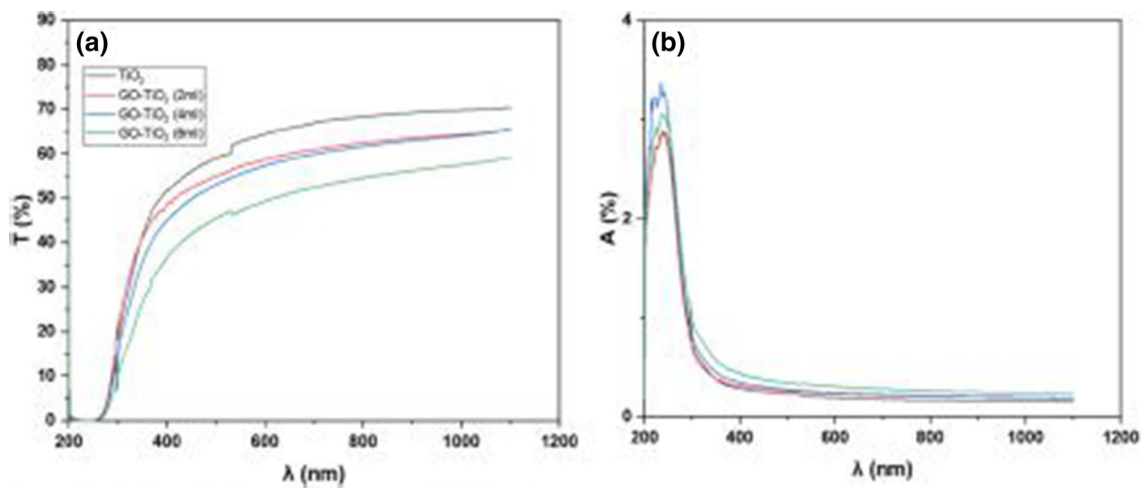
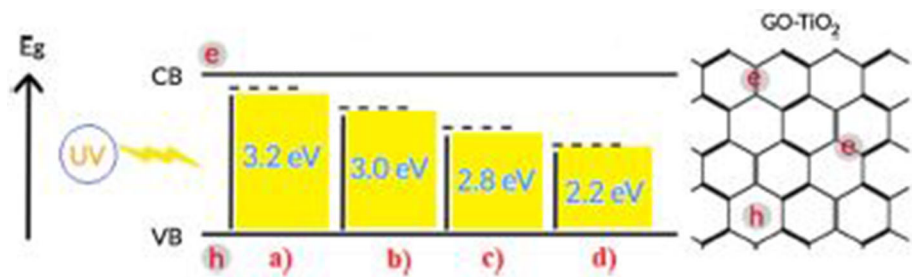
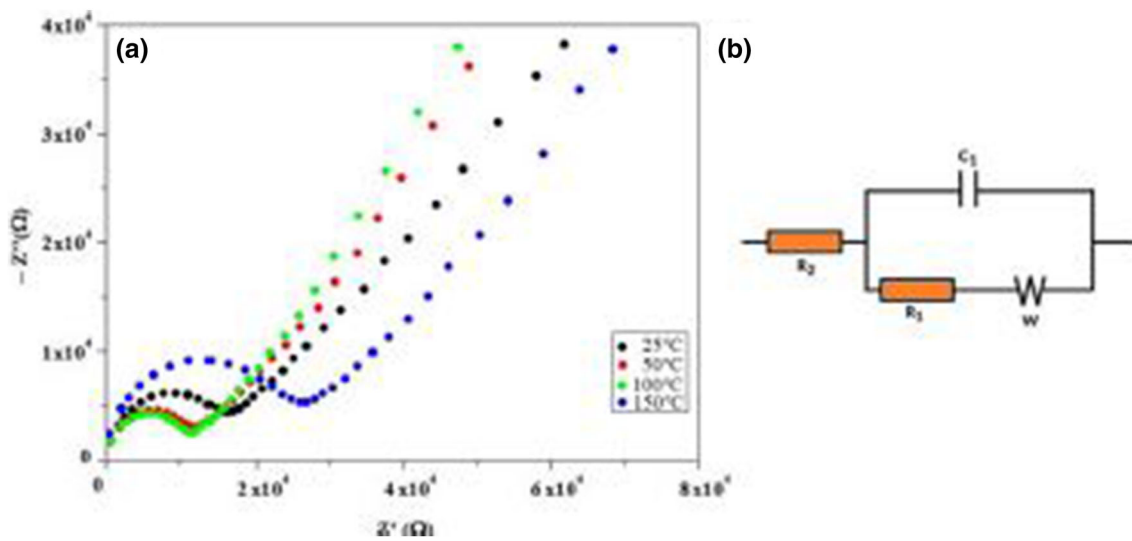
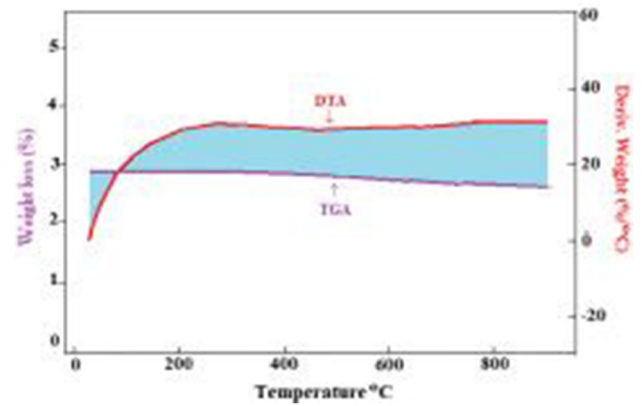


Fig. 7 a UV–Visible Spectroscopy transmission and b absorption spectra

**Fig. 8** Schematic representation of the charge transfer under UV–Vis irradiation and the variation of the optical band gap of **a** TiO<sub>2</sub> (NPs), **b** (0.2 wt.%), **c** (0.4 wt.%) and **d** (0.6 wt.%) GO–TiO<sub>2</sub> nanocomposites



**Fig. 9** Thermal analysis data (TGA) and (DTA)



**Fig. 10 a** The Nyquist plot of ( $Z'$  vs.  $-Z''$ ) of TiO<sub>2</sub> nanocomposite in pellet form at different temperatures and **b** equivalent proposal circuit

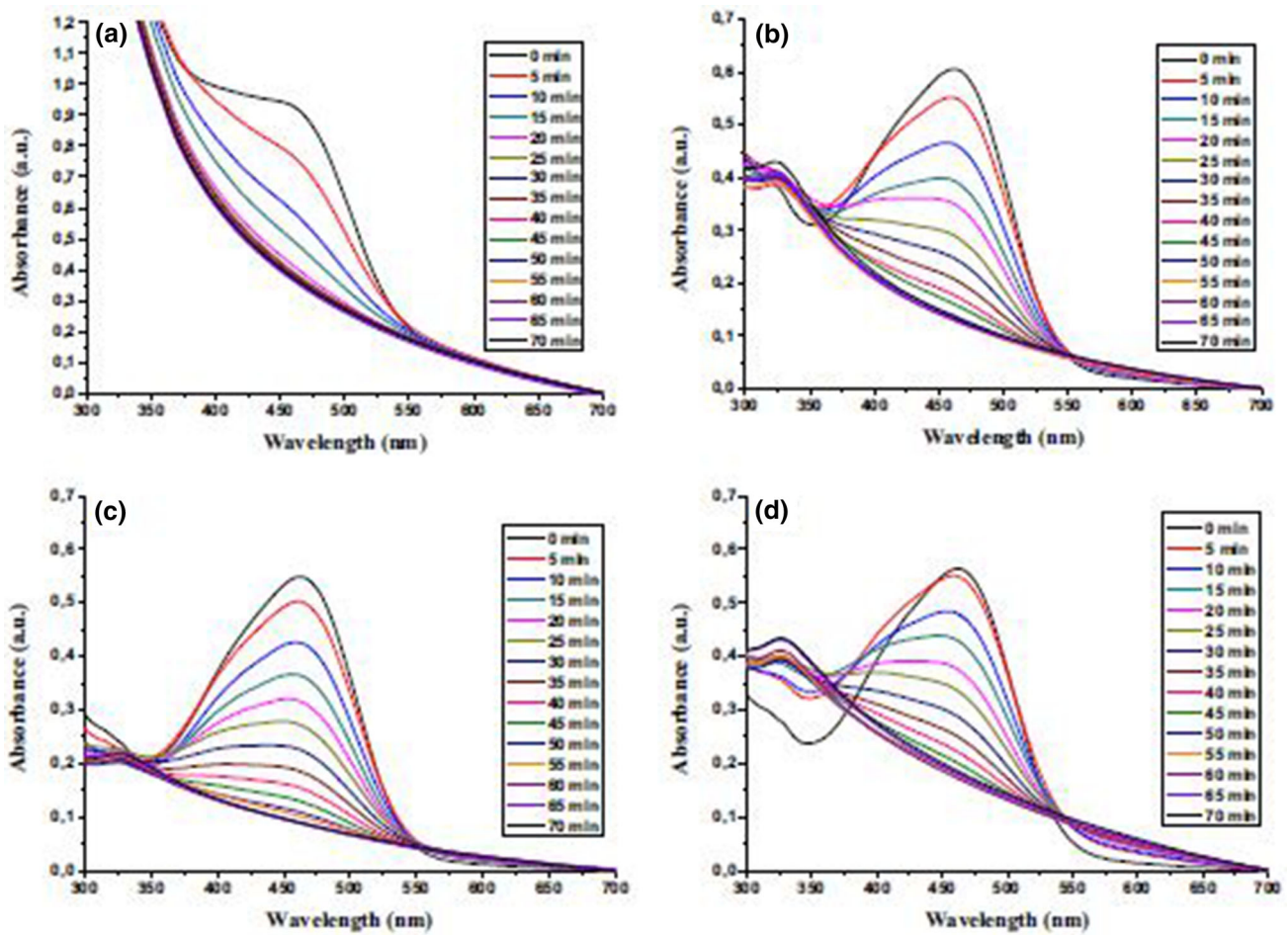


Fig. 11 The absorption spectra of the degradation of MO under UV light irradiation at different time intervals using a TiO<sub>2</sub> (NPs) b (0.2 wt.%) c (0.4 wt.%) and d (0.6 wt.%) GO-TiO<sub>2</sub> nanocomposites

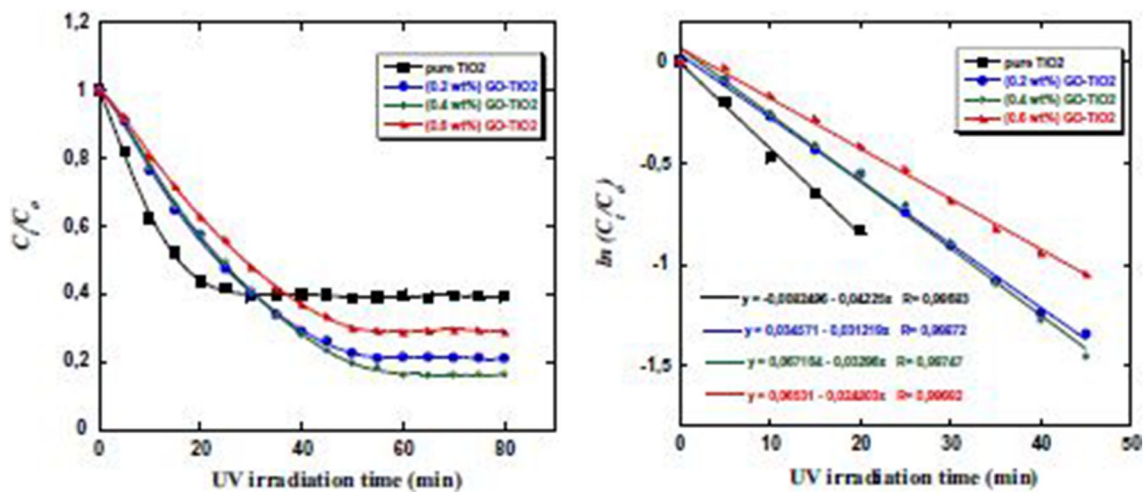


Fig. 12 The kinetic spectra of MO degradation using TiO<sub>2</sub> (NPs), (0.2 wt.%), (0.4 wt.%) and (0.6 wt.%) GO-TiO<sub>2</sub> nanocomposites

**Fig. 13** The mechanism of photocatalytic degradation of MO with GO-TiO<sub>2</sub> nanocomposites under UV-light irradiation

