

## Sunlight mediated degradation of spent wash using hydrothermally synthesized orthorhombic shaped Cu-TiO<sub>2</sub> nanoparticles.

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### Electronic Supplementary Information (ESI)

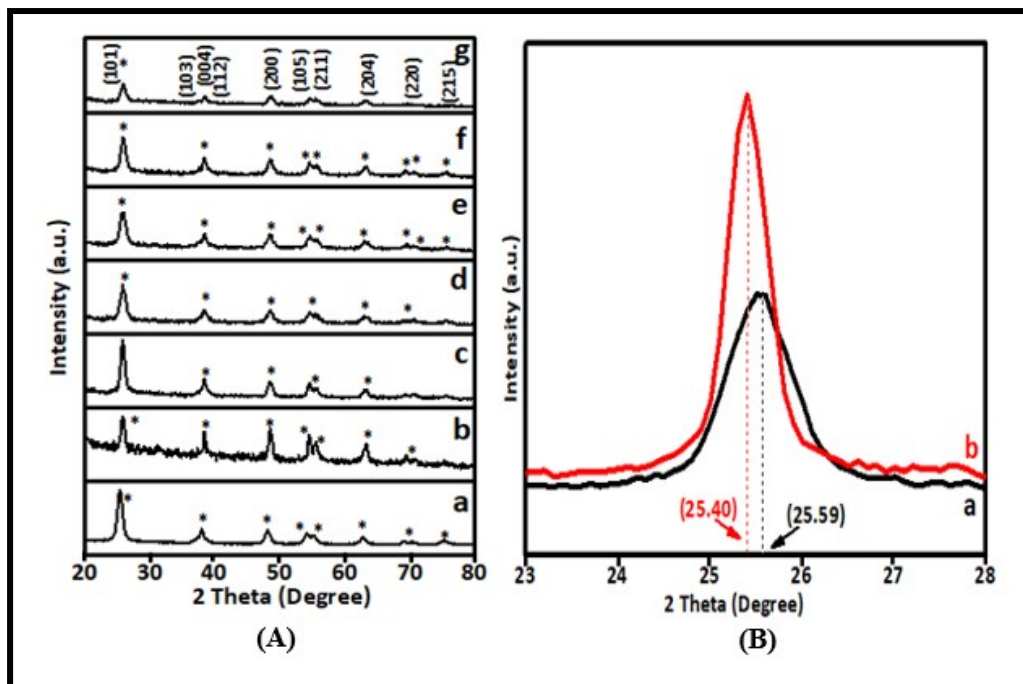


Fig S1. (A) XRD pattern of (a)  $\text{TiO}_2$ , (b) 0.5%, (c) 1%, (d) 2%, (e) 3%, (f) 4% & (g) 5% Cu doped  $\text{TiO}_2$  synthesized at  $150^\circ\text{C}$  for 12 hr. (B) Enlarged XRD main peak (101) of (a)  $\text{TiO}_2$  and (b) 1%Cu- $\text{TiO}_2$ .

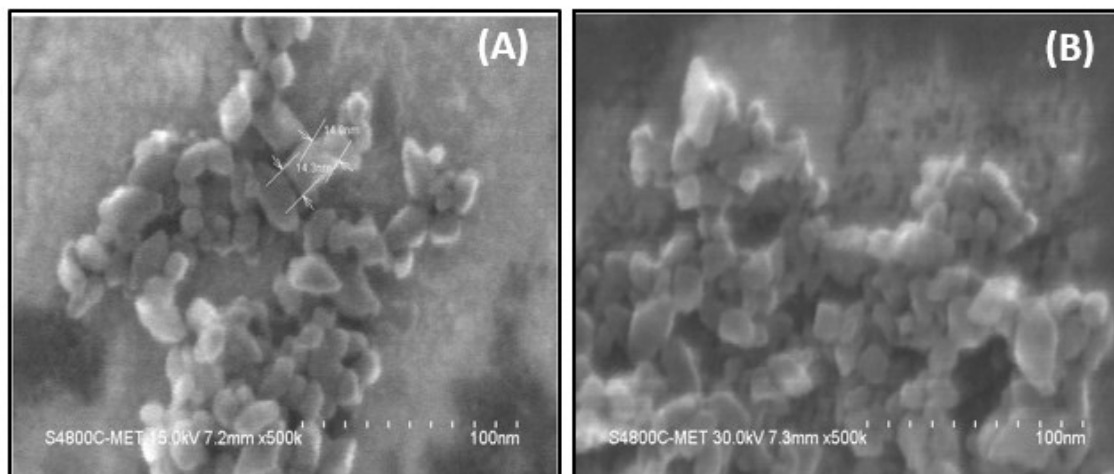


Fig. S2 FESEM images of Cu-  $\text{TiO}_2$  at  $150^\circ\text{C}$  for 12 h.

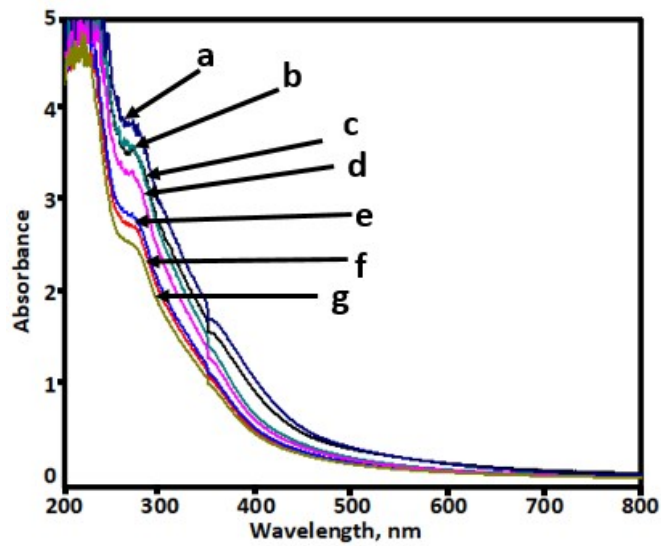


Fig.S3. UV Visible spectra of spentwash solution after irradiation with sunlight using 1% Cu-TiO<sub>2</sub> catalyst for (a) 0 h, (b) 1 h, (c) 2 h, (d) 2.30 h, (e) 3 h, (f) 4 h and (g) 5 h.

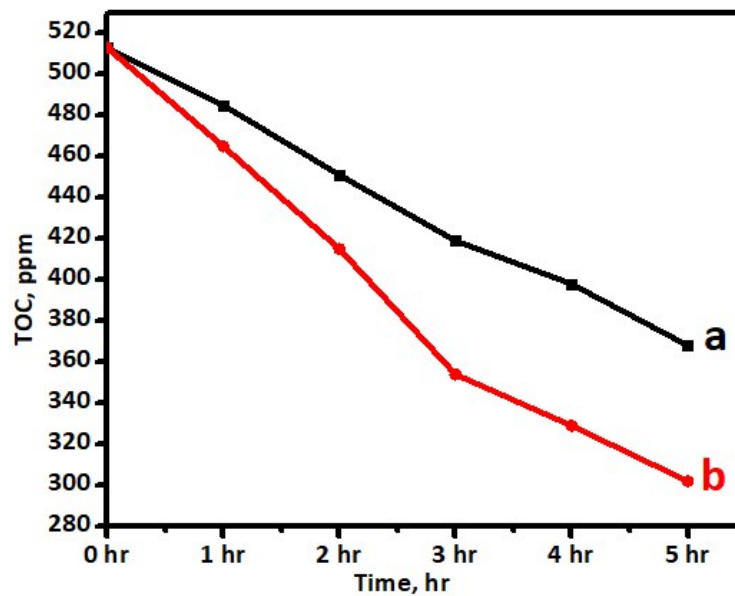


Fig.S4. Total Organic Carbon (TOC) content of spentwash solution after irradiation with sunlight using (a) TiO<sub>2</sub>, (b) 1% Cu-TiO<sub>2</sub> photo-catalysts.