

Figure S1. Plot of $(\alpha h\nu)^2$ vs. photon energy for AC.

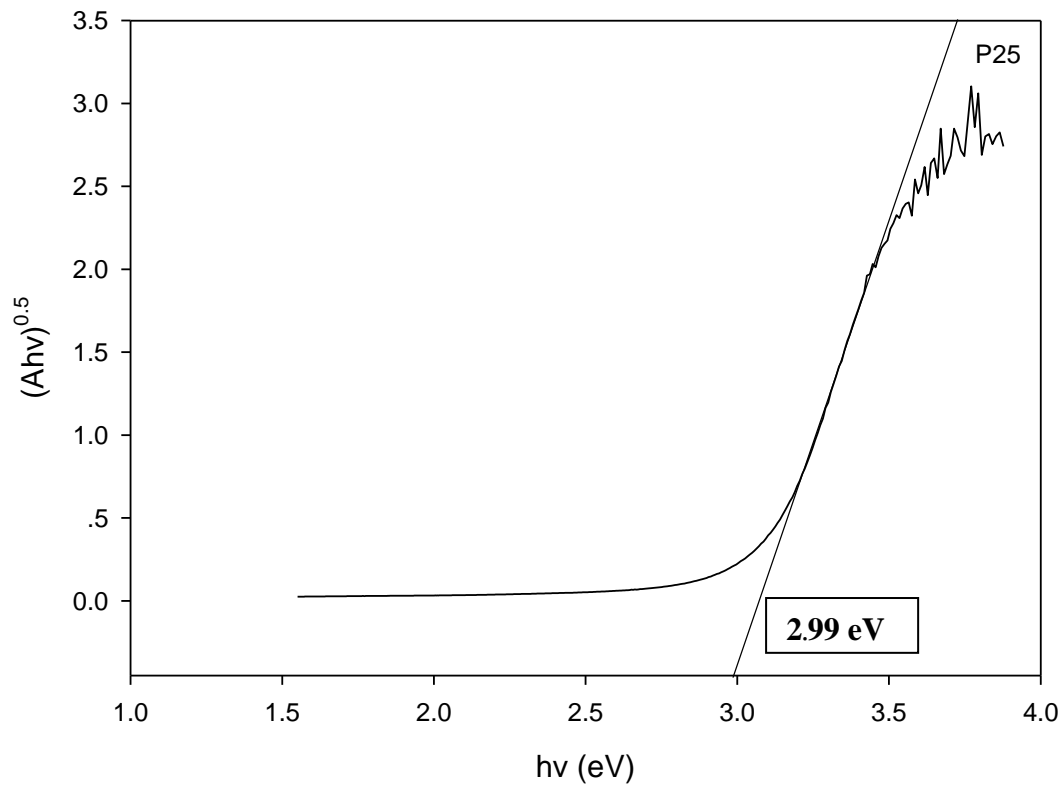


Figure S2. Plot of $(\alpha h\nu)^2$ vs. photon energy for TiO₂ (Degussa P25).

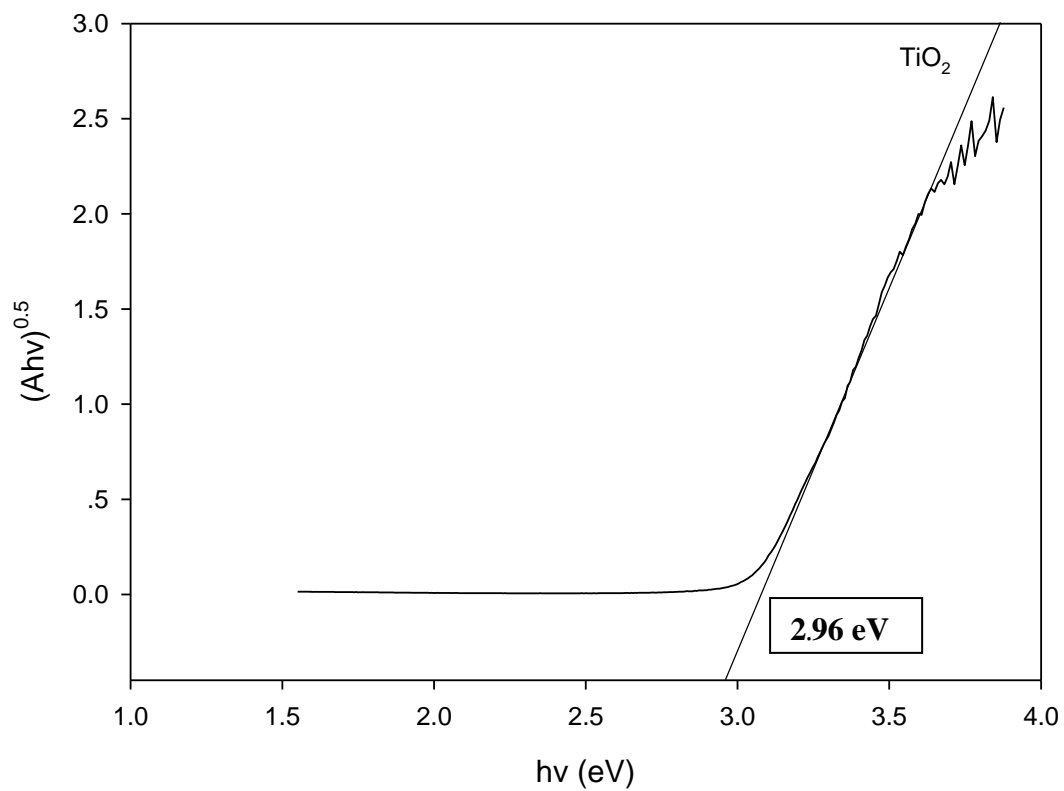


Figure S3. Plot of $(\alpha h\nu)^2$ vs. photon energy for TiO_2 prepared by sol-gel method.

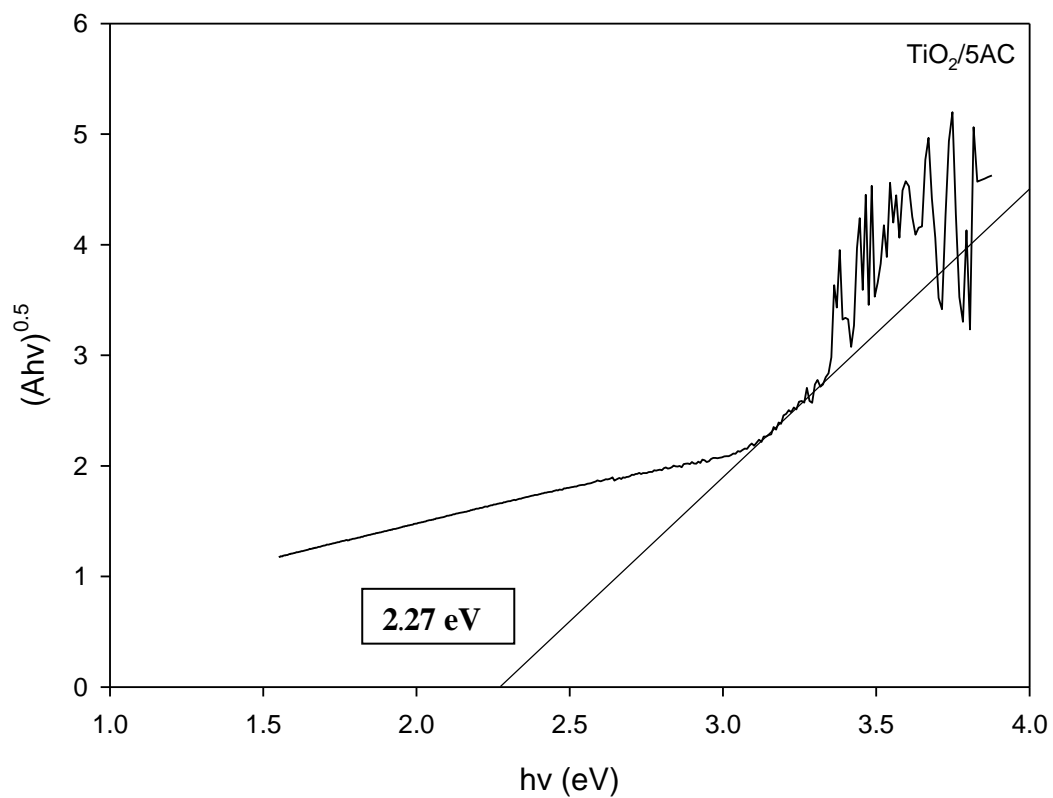


Fig. S4 plot of $(\alpha h\nu)^2$ vs. photon energy for $\text{TiO}_2/5\text{AC}$

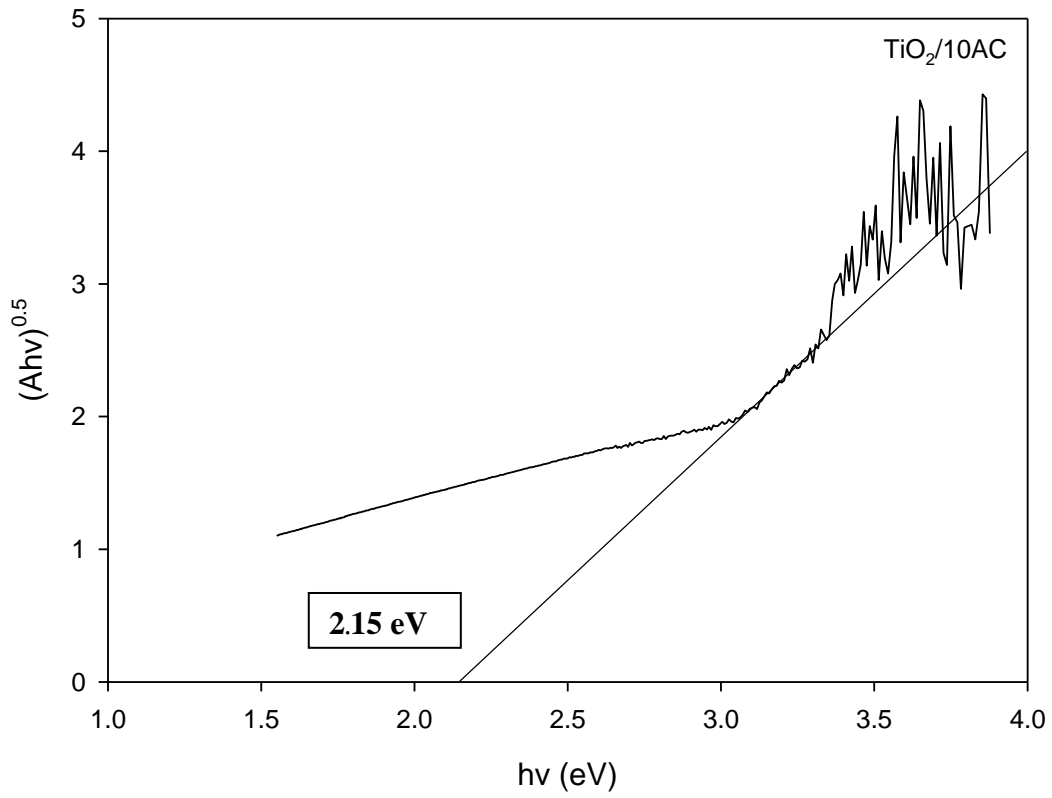


Figure S5. Plot of $(\alpha h\nu)^2$ vs. photon energy for $\text{TiO}_2/10\text{AC}$.

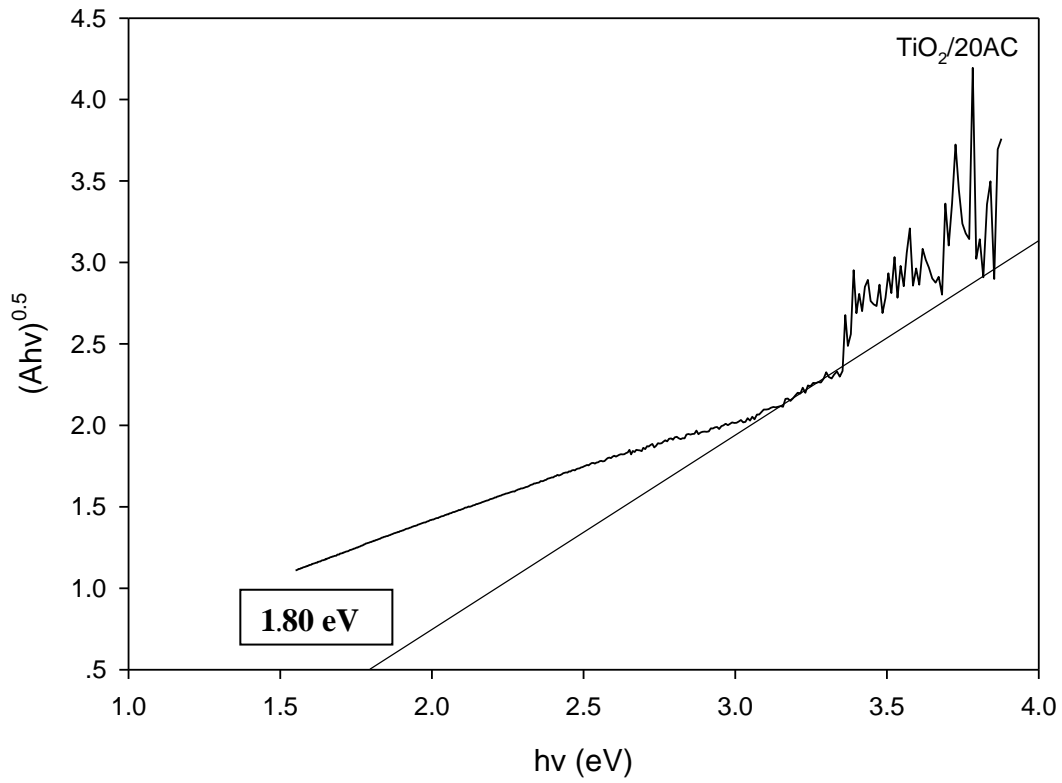


Figure S6. Plot of $(\alpha h\nu)^2$ vs. photon energy for $\text{TiO}_2/20\text{AC}$.

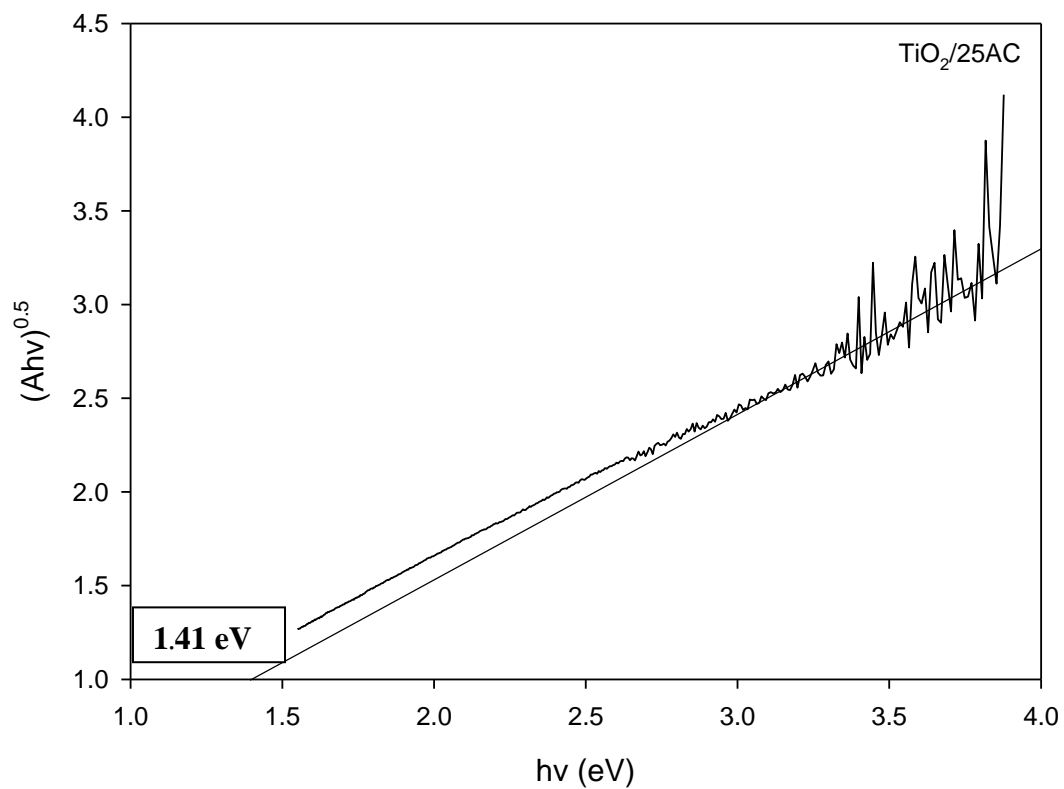


Figure S7. Plot of $(\alpha h\nu)^2$ vs. photon energy for $\text{TiO}_2/25\text{AC}$.

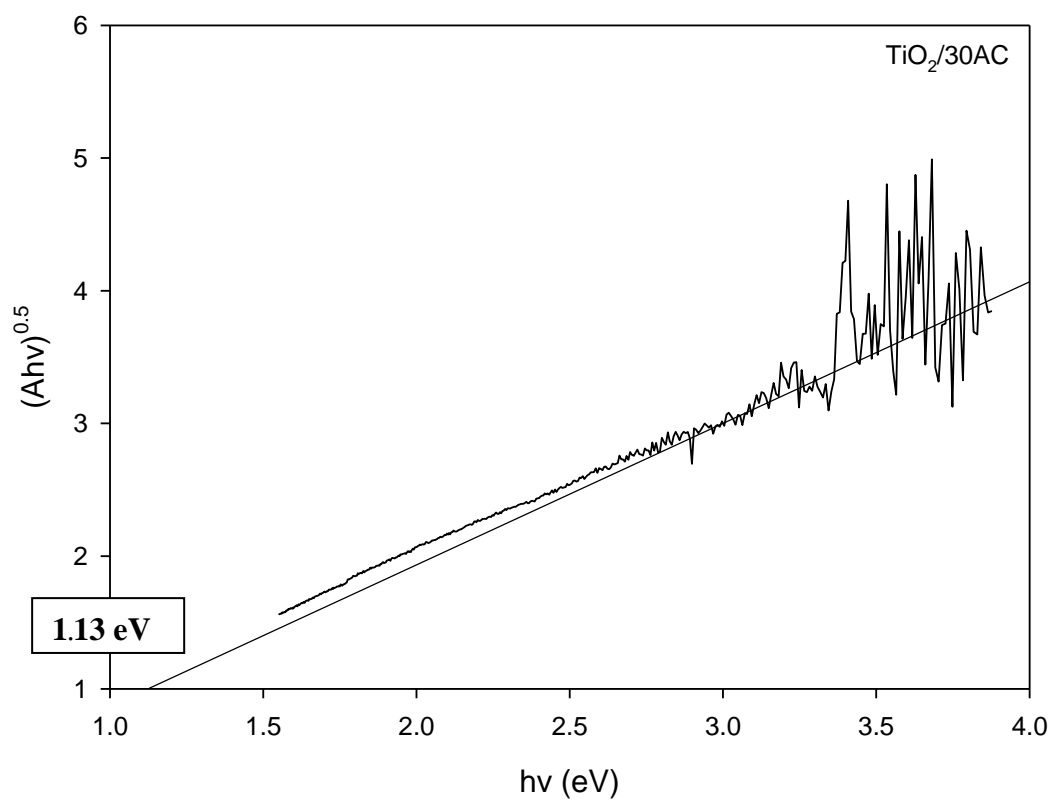


Figure S8. Plot of $(\alpha h\nu)^2$ vs. photon energy for $\text{TiO}_2/30\text{AC}$.

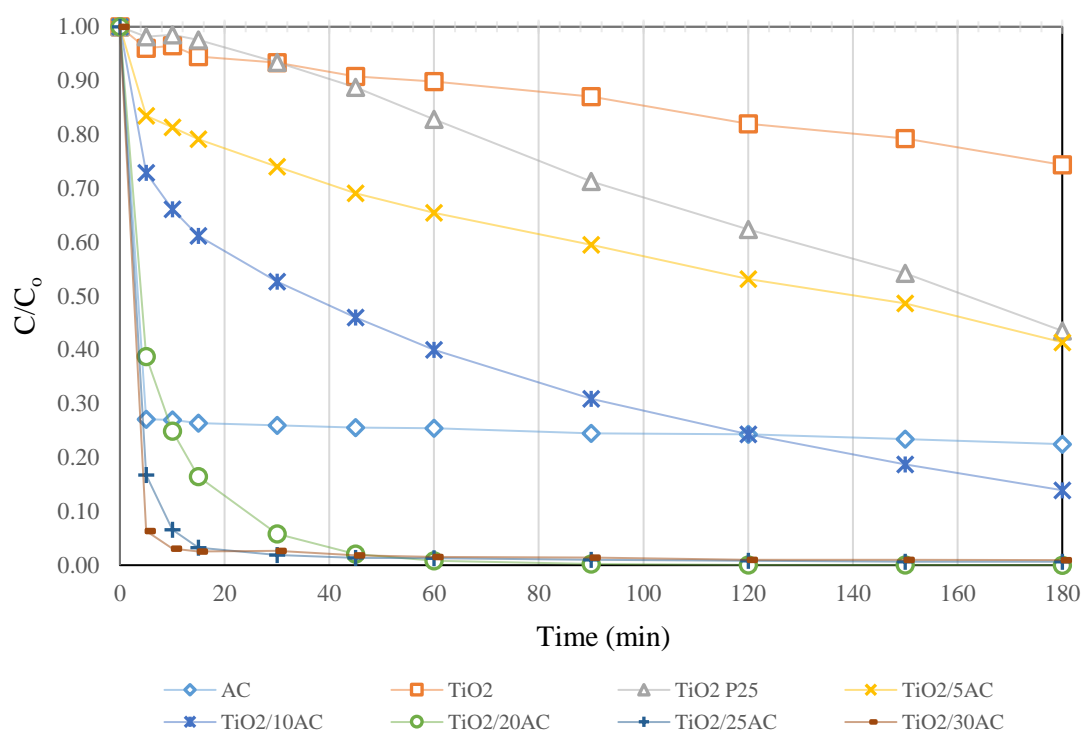


Figure S9. Dye removal of AC TiO₂ TiO₂ (P25) and TiO₂/AC in the presence of UV-light illumination.

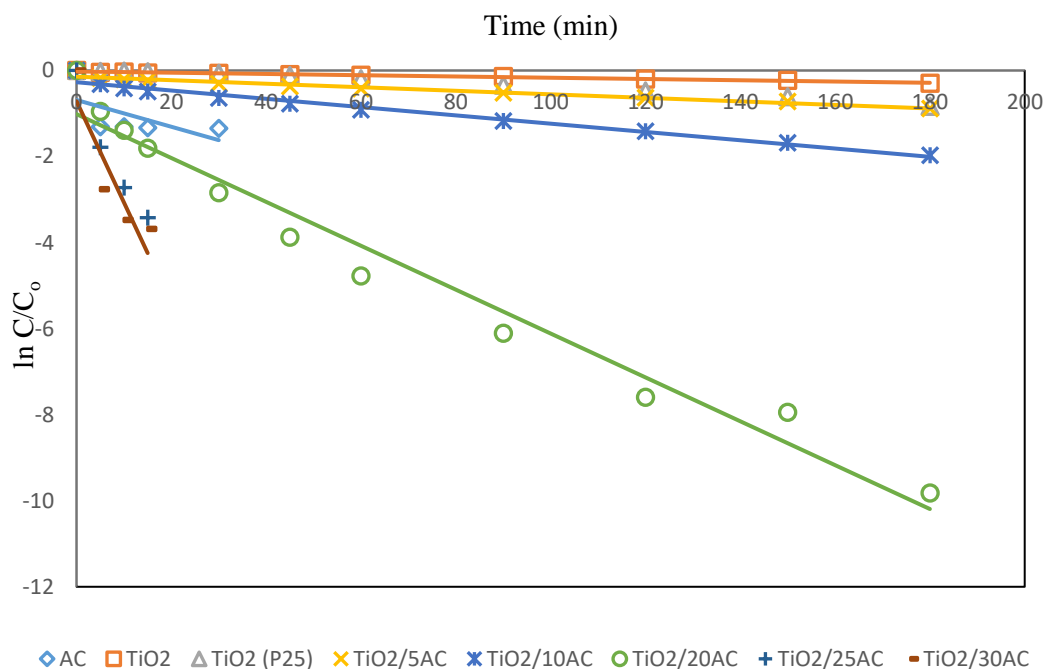


Figure S10. ln C/C₀ vs time for AC TiO₂ TiO₂ (P25) and TiO₂/AC in the presence of UV-light illumination for dye removal.