

Supporting Information

Solvent-free mechano-chemical grinding of bifunctional P25-graphene oxide adsorbent-photocatalysts and their configuration as porous beads

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S1. Scanning electronic microscopy (SEM) of TiO₂, GO and the mechanically grinded materials

S2. Photo-degradation kinetics of methylene blue, malachite green, congo red and methyl orange.

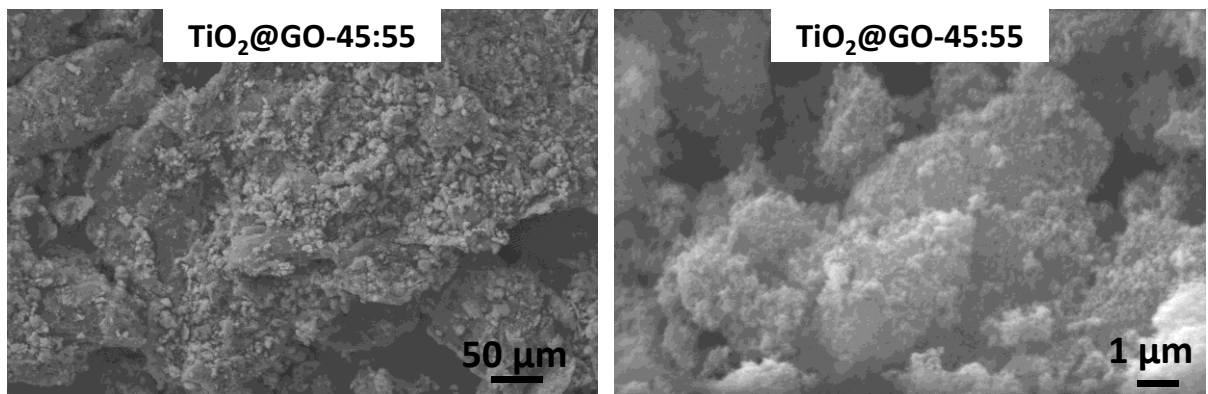
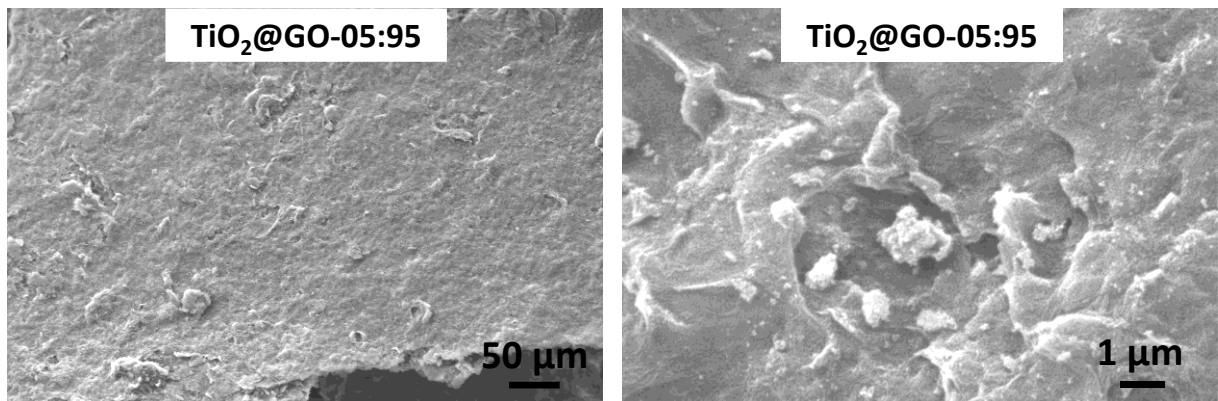
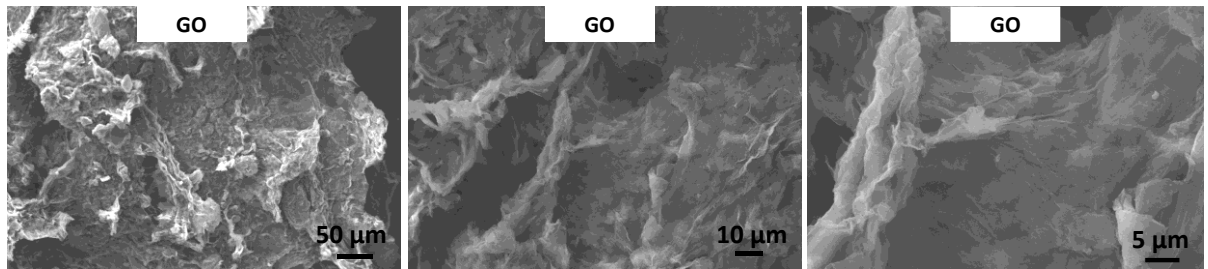
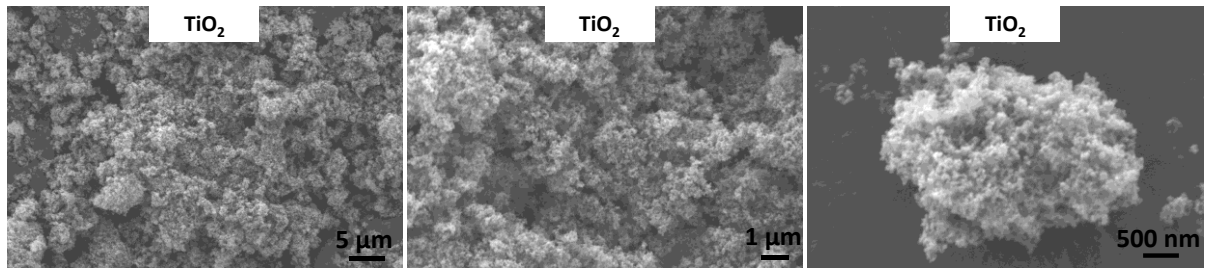
S3. Photodegradation activity of Degusa P25 versus **TiO₂@GO**

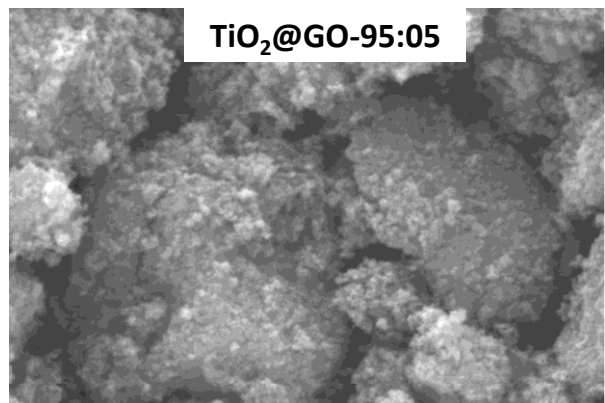
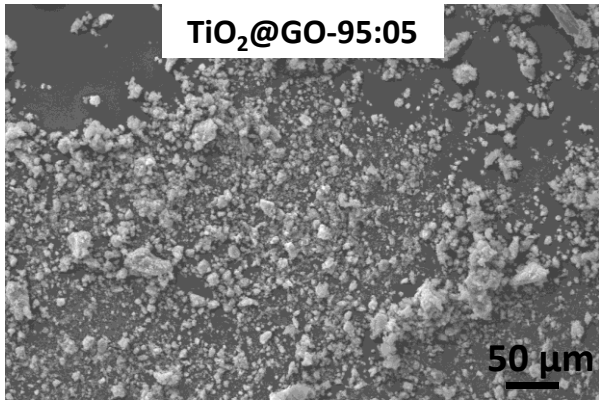
S4. Characterisation of **TiO₂@CS_pyr**

S5. Infrared spectra of the mechanically grinded materials before and after irradiation

S6. XRD patterns of the mechanically grinded materials before and after irradiation

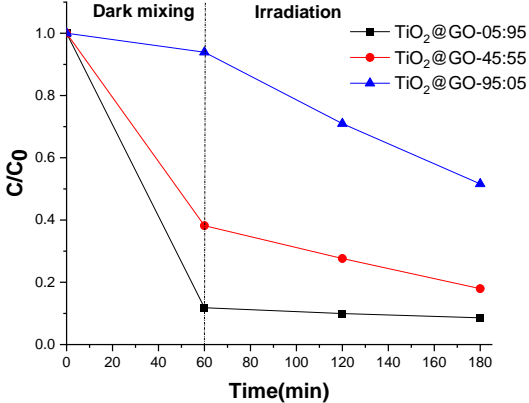
S1. Scanning electronic microscopy (SEM) of TiO_2 , GO and the mechanically grinded $\text{TiO}_2@GO$ materials



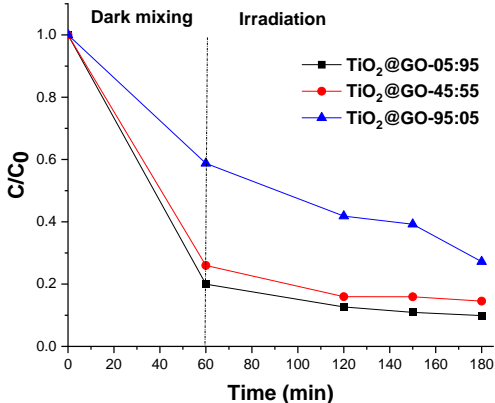


S2. Photo-degradation kinetics of methylene blue, malachite green, congo red and methyl orange.

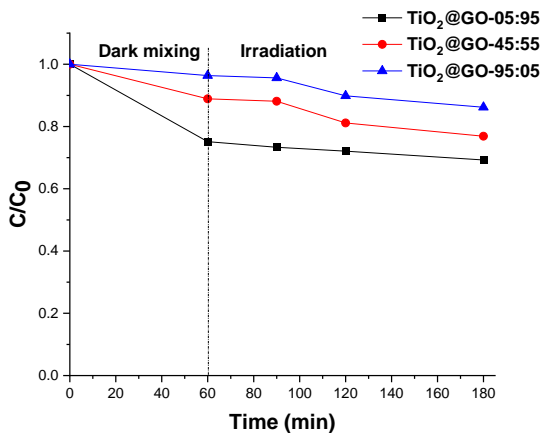
Methylene blue



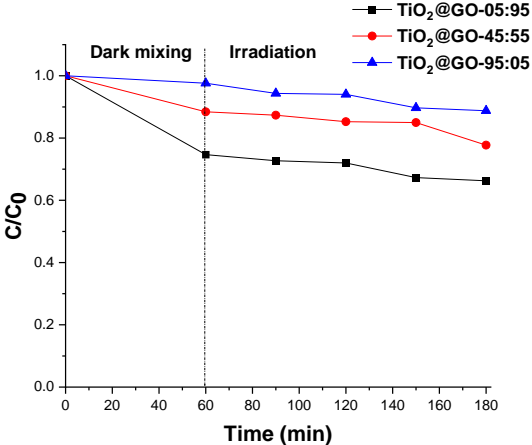
Green malachite



Congo red

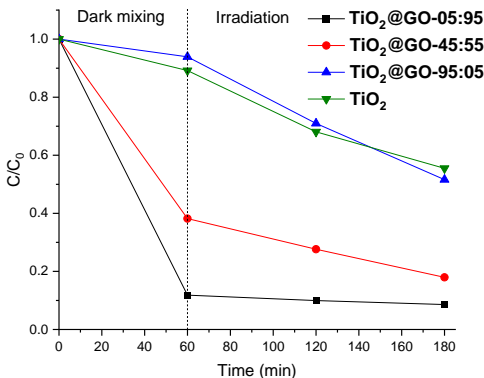


Methyl orange

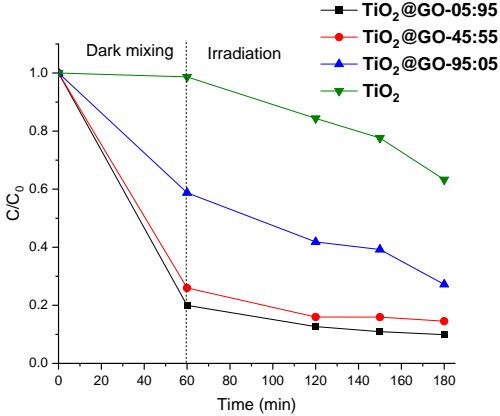


S3. Photodegradation activity of Degusa P25 versus TiO₂@GO

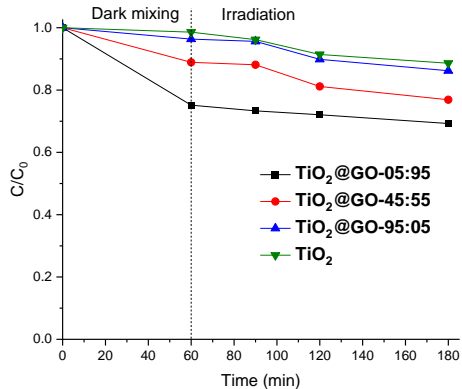
Methylene blue



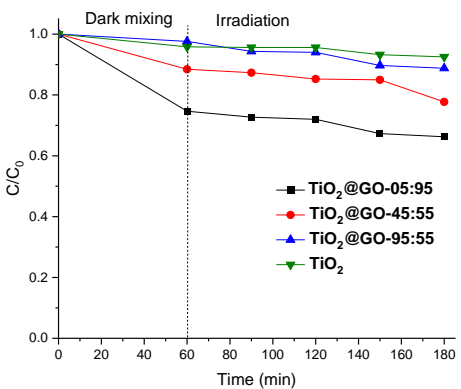
Green malachite



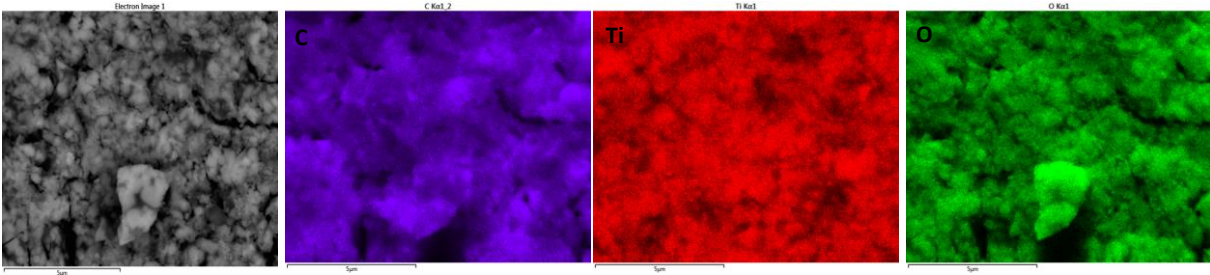
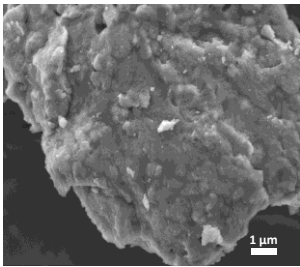
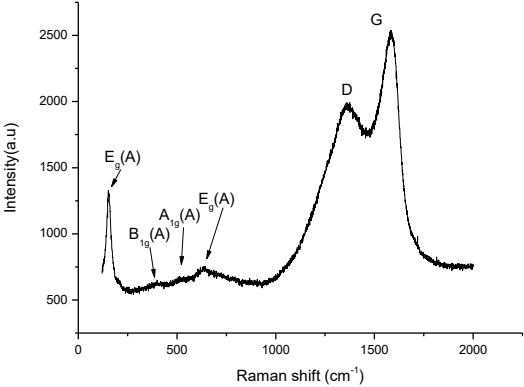
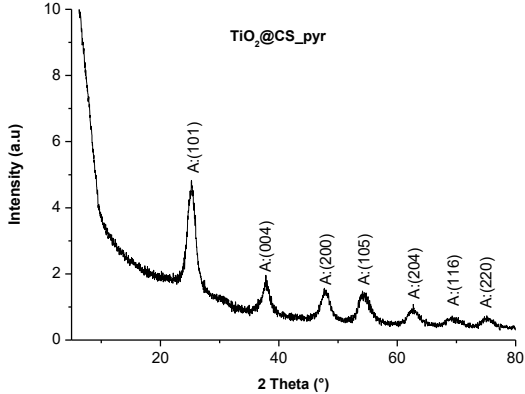
Congo red



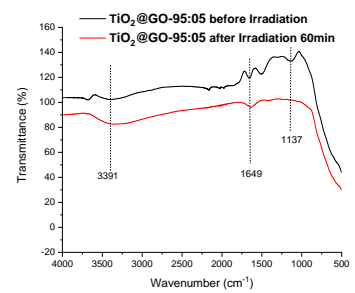
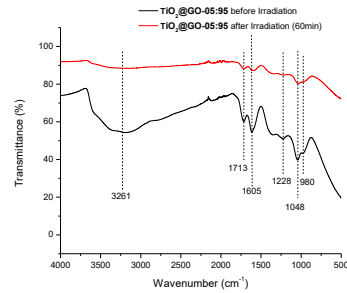
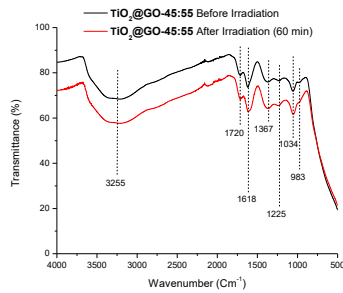
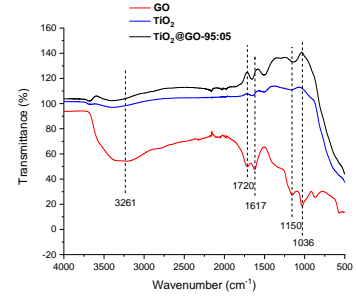
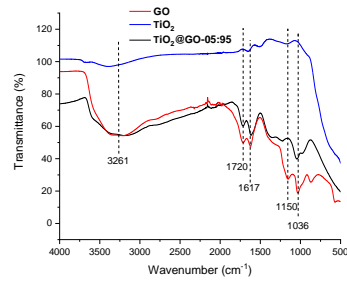
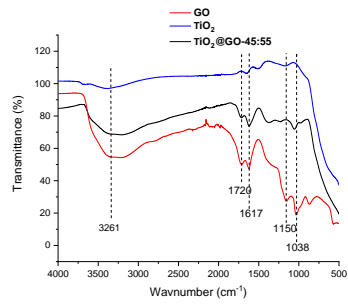
Methyl orange



S4. Characterisation of *TiO₂@CS_pyr*



S5. Infrared spectra of the mechanically grinded materials before and after irradiation



S6. XRD patterns of the mechanically grinded materials before and after irradiation

