

Support information

CTAB-assisted synthesis of ultrathin MoSe₂ nanosheets perpendicular to graphene for adsorption and photodegradation of organic dyes under visible light

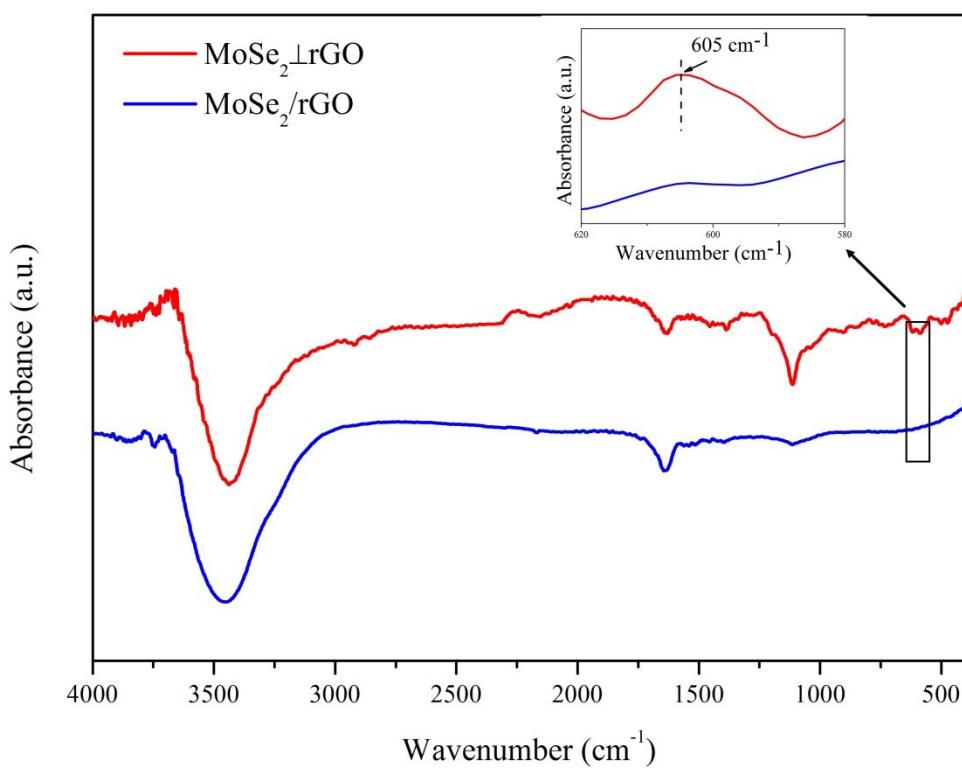


Fig. S1 FT-IR spectra of MoSe_2/rGO composites and $\text{MoSe}_2 \perp \text{rGO}$ heterostructures.

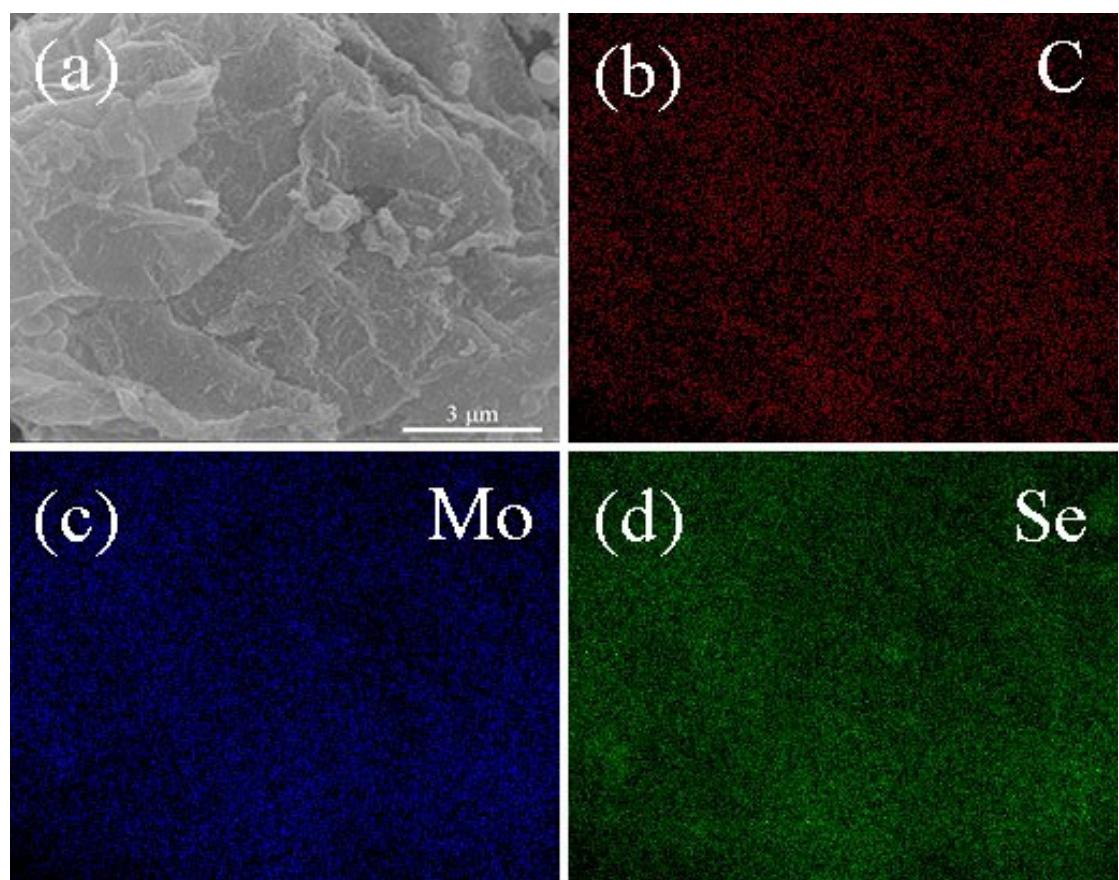


Fig. S2 A typical elemental mapping under SEM of $\text{MoSe}_2\text{-TrGO}$ heterostructure.

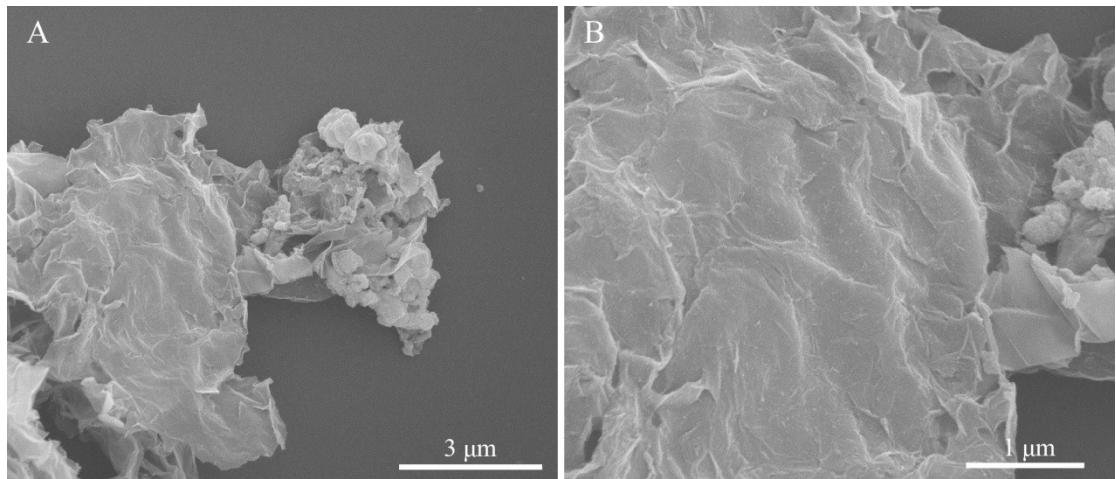


Fig. S3 SEM images of the sample with CTAB but in the absence of stirring.

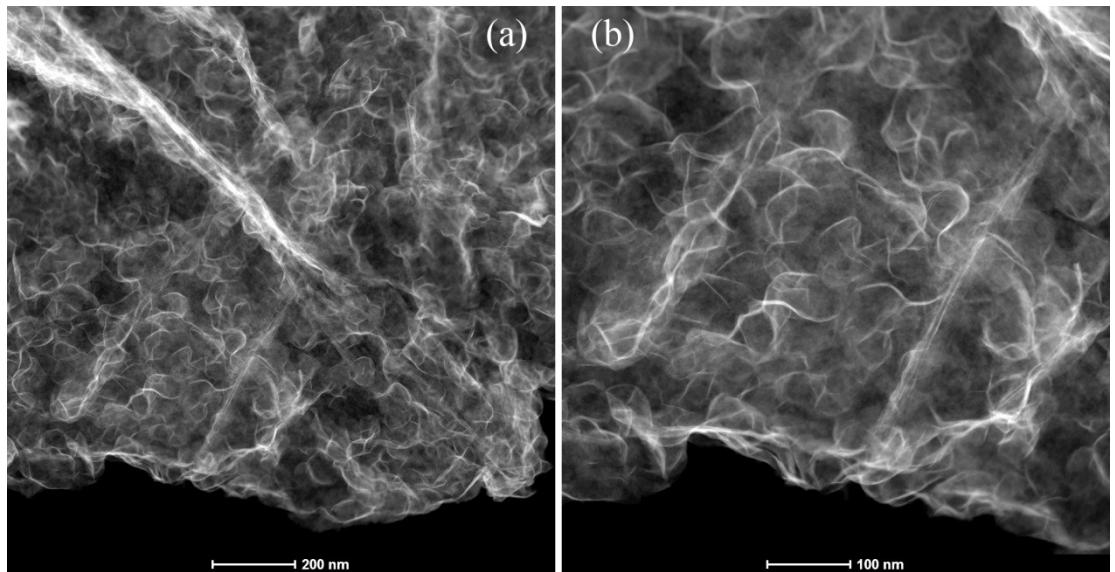


Fig. S4 STEM images of MoSe₂ ⊥ rGO heterostructure with different magnifications.

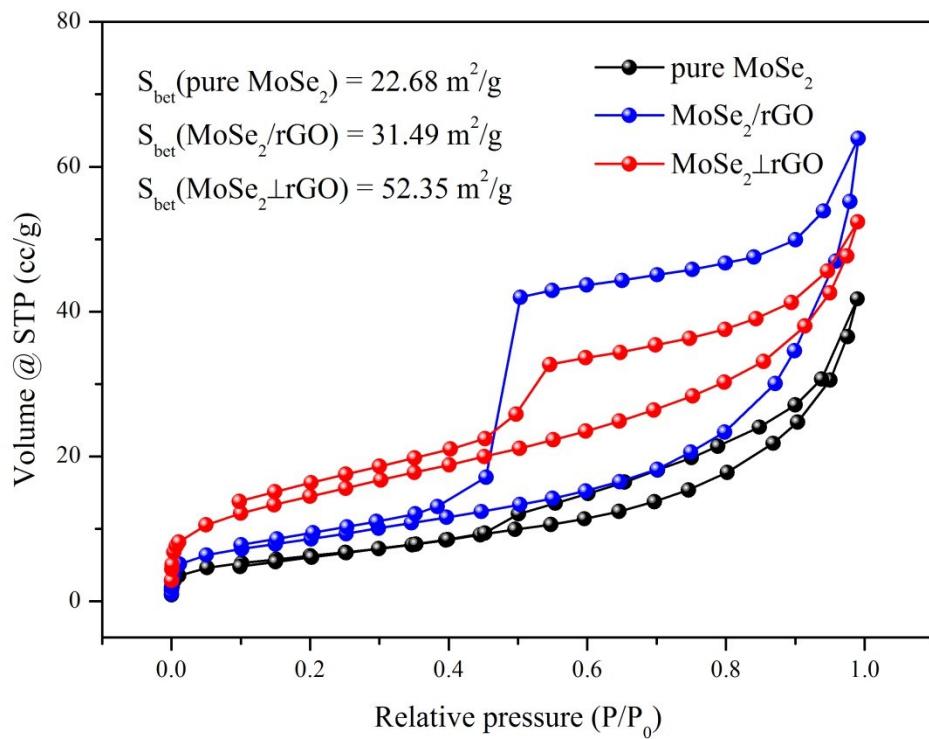


Fig. S5 The N_2 adsorption-desorption isotherms of pure MoSe_2 , MoSe_2/rGO composites and $\text{MoSe}_2\perp\text{rGO}$ heterostructure.

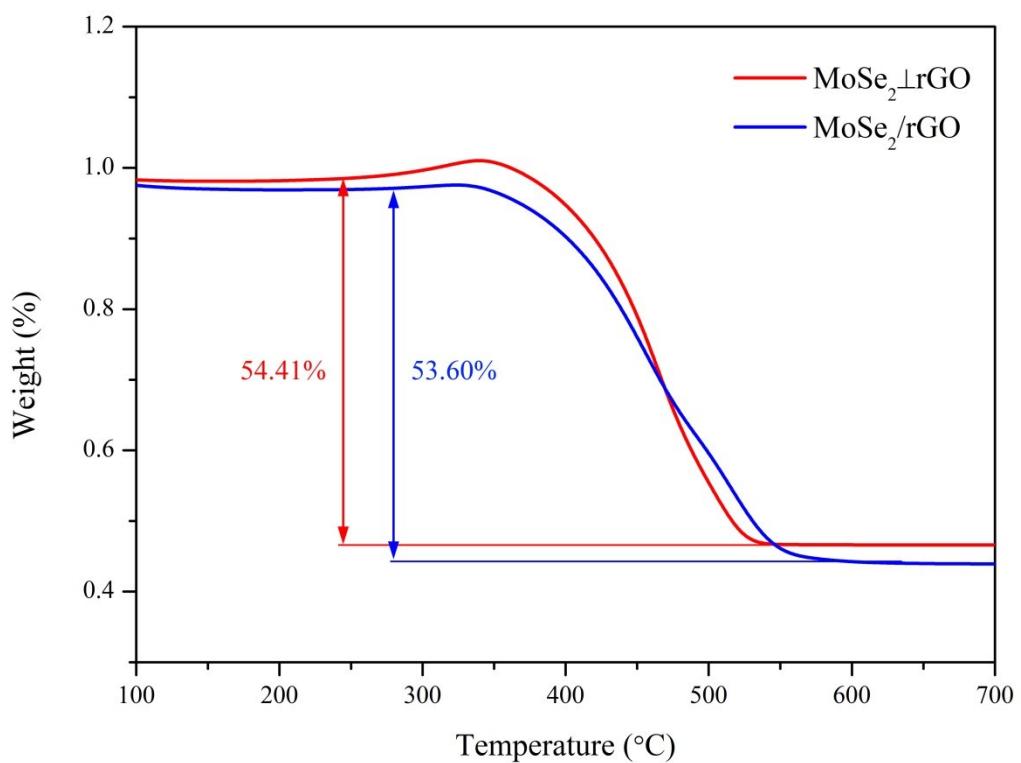


Fig. S6 TG curves of MoSe_2/rGO composites and $\text{MoSe}_2\perp\text{rGO}$ heterostructure.

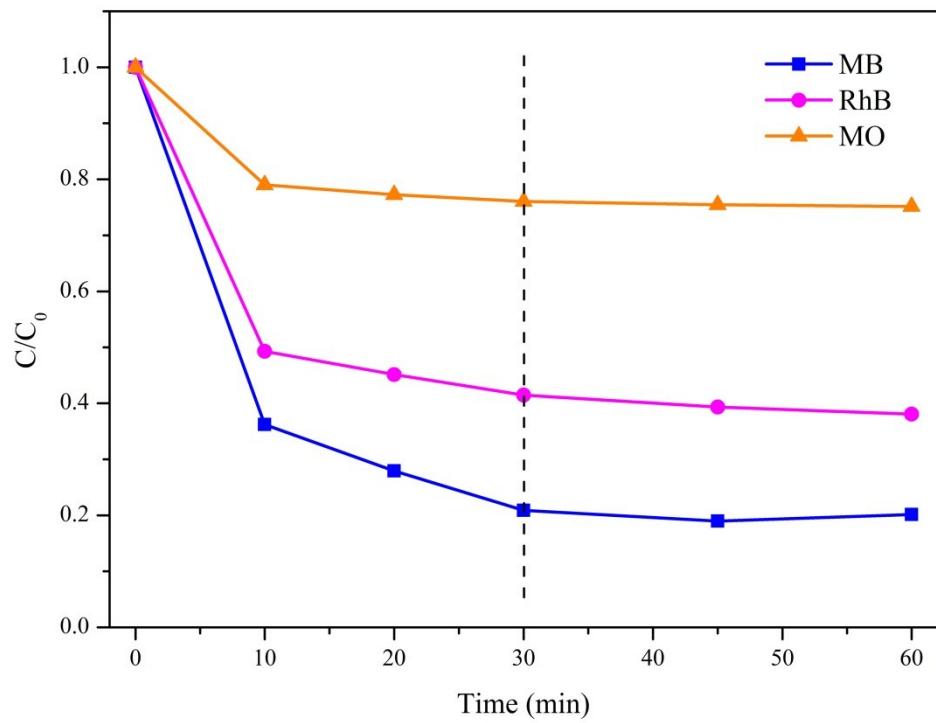


Fig. S7 Adsorption spectra of three organic dyes in darkness with MoSe₂/rGO heterostructure.