Supplementary Materials for

Three-Dimensional $Zn_{0.5}Cd_{0.5}S$/Reduced Graphene Oxide Hybrid Aerogel: Facile Synthesis and the Visible-Light-Driven Photocatalytic Property for Reduction of Cr(VI) in Water

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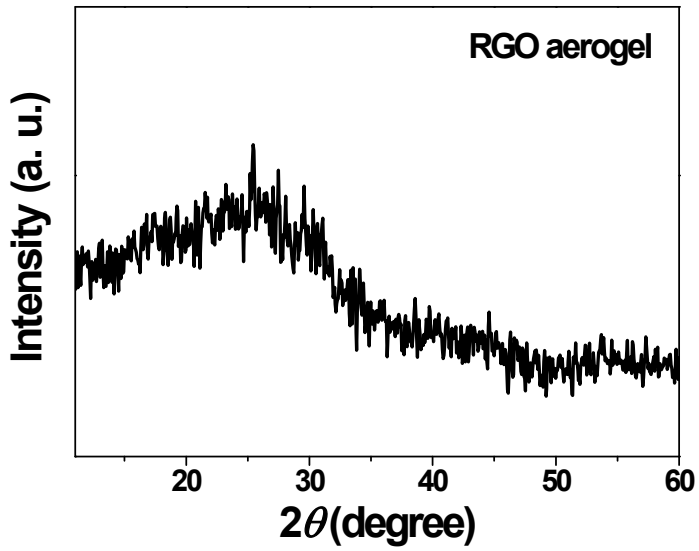

Figure S1. XRD pattern of RGO aerogel, showing a characteristic broad peak at 2θ = 25°.

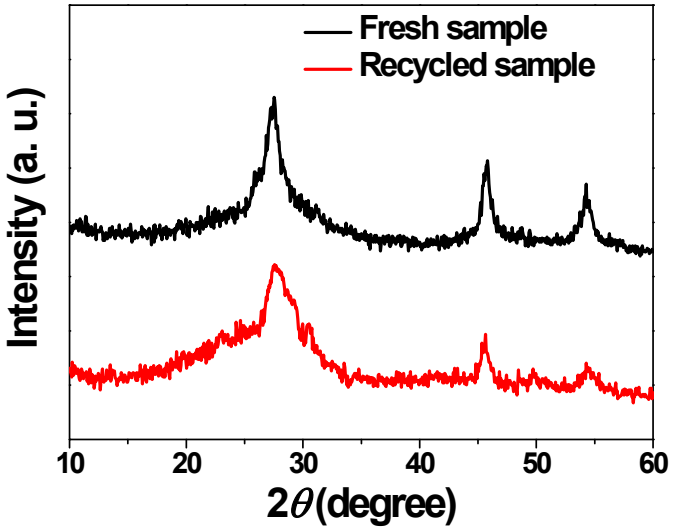

Figure S2. XRD patterns of fresh $Zn_{0.5}Cd_{0.5}S$/RGO hybrid aerogel (black curve) and recycled $Zn_{0.5}Cd_{0.5}S$/RGO hybrid aerogel material (red curve), which was consecutively used for visible-light-driven photocatalytic reduction of Cr(VI) for five cycles.

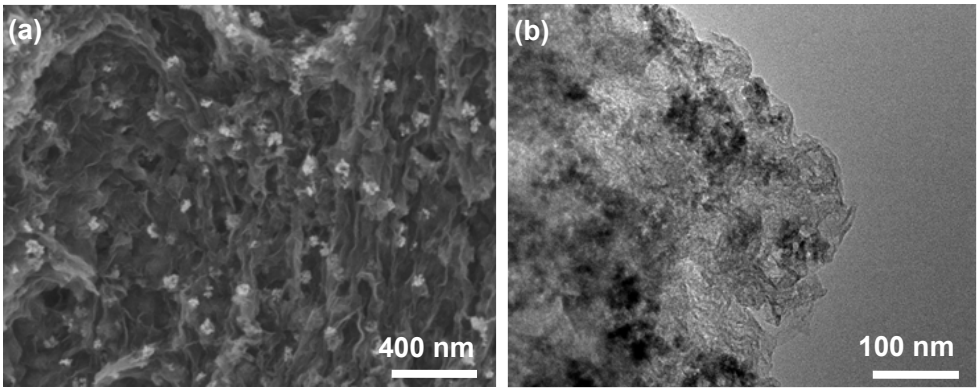

Figure S3. (a) SEM and (b) TEM images of $Zn_{0.5}Cd_{0.5}S$/RGO hybrid aerogel material after being consecutively used for visible-light-driven photocatalytic reduction of Cr(VI) for five times. The recycled $Zn_{0.5}Cd_{0.5}S$/RGO hybrid aerogel material retained its initial hierarchically porous architecture with $Zn_{0.5}Cd_{0.5}S$ solid solution uniformly distributed within the RGO backbone, demonstrating the satisfactory durability and robustness.