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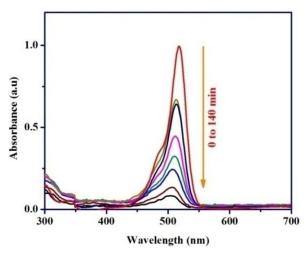


Fig.S1 UV-vis absorption spectra of Eosin dye over the Cu<sub>2</sub>SnS<sub>3</sub>/RGO (3%) composite

**Fig. S1** displays the concentration changes of Eosin aqueous solution in the presence of the Cu<sub>2</sub>SnS<sub>3</sub>/RGO (3%) nanocomposite under the visible-light irradiation. During the photocatalytic degradation process, the main absorption peak of Eosin at about 519 nm decreased gradually upon increasing the irradiation time, indicating the decolorization of this dye in the solution. After 140 min of the light irradiation the major absorption peak of Eosin dye solution has almost disappeared. The absorption in the UV region indicates that stable intermediates have not formed during the decolorization process of Eosin solution.