Visible light driven Imine formation using CuO-R_G photocatalyst

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Supplementary Information

Synthesis of Graphene oxide (G)

G (graphene oxide) was synthesized using well known Hummers' method. 2 g graphite flakes and 2 g $NaNO_3$ were taken, followed by addition of 90 mL 98% H_2SO_4 maintaining the temperature less than 15°C. $KMnO_4$ was introduced gradually keeping the temperature of reaction under 15ºC. Subsequently, deionized water was added gradually to the resultant solution along with constant stirring at low temperature. The resultant solution was added to a round bottom flask. It was then refluxed at 98ºC for 15 min, subsequently, the temperature was progressively decreased to 30ºC and it was maintained with constant stirring. The temperature was reduced to 25ºC, subsequently drop by drop addition of 30% H_2O_2. Then, the solution was transferred into beaker, containing 200 mL deionized water. Then, the beakers were kept undisturbed for 8-10 h allowing the particles to sediment to the bottom. Then, resultant solid precipitates were washed with 10% HCl by centrifugation followed by deionized water until the neutral pH is achieved. The final resulting product obtained was dried at 80°C in an oven, subsequently, crushed and grinded in mortar and pestle to obtain powder form.