

**Cr(VI) mediated homogeneous Fenton oxidation for decolorization of Methylene Blue dye:  
sludge free and pertinent to wide pH range**

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## SUPPORTING INFORMATION

### Table of Content (Supporting Information)

**Table ST1:** Time required for complete MB decolorization at different MB concentrations.

**Figure S1:** Fluorescence plot of 7-hydroxycoumarin.

**Table S1:** Time required for complete MB decolorization at different MB concentrations.

Concentration of Methylene blue ( $\mu\text{M}$ )	Time taken for Complete decolorization (min)
7.8	20 $\pm$ 2
15.7	30 $\pm$ 2
23.5	45 $\pm$ 3
31.4	70 $\pm$ 2
39.2	120 $\pm$ 3

**Figure S1:** Fluorescence intensity of 7 hydroxycouarin in Cr(VI)/H<sub>2</sub>O<sub>2</sub> and H<sub>2</sub>O<sub>2</sub> system. Reaction conditions: [Coumarin] = 0.1mM, [Cr(VI)]=3mM, [H<sub>2</sub>O<sub>2</sub>]=19.4 mM, temperature=298K and pH =6.