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Nickel Doped Graphitic Carbon Nitride Nanosheets and Its Application for Dye Degradation by Chemical Catalysis

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Graphical abstract



Research Highlights

- Nickel doped Graphitic carbon nitride (GCN) was synthesized chemically.
- Mott-Schottky was done to calculate the flat band potentials and donor densities of pure and doped samples.
- Toxic Methyl Orange dye was degraded efficiently by doped samples in the presence of NaBH₄ accompanied by hydrogen evolution.
- Enhancement of catalytic activity with increasing doping concentration was studied in presence of varying amount of NaBH₄.
- A plausible mechanism for catalytic degradation was discussed in details.

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