

## One pot ultrasonic green synthesis of carbon dots and their application in visible light induced dye photocatalytic studies

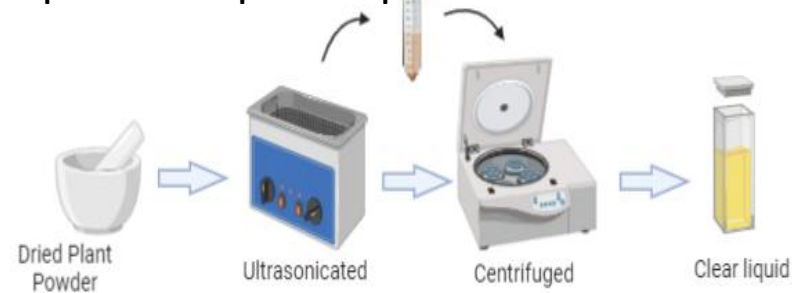
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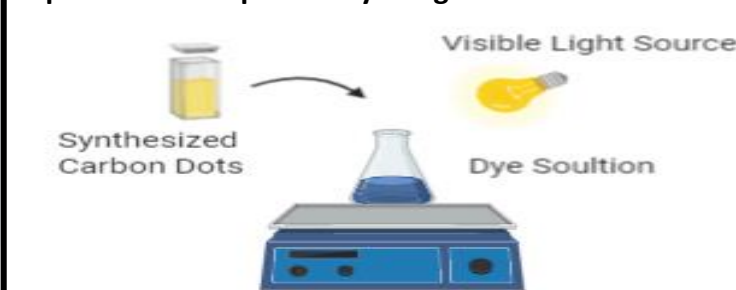
### Introduction

- Among carbon based nanostructures, **carbon dots** have received attention in recent years
- Particles with less than 10 nm size
- Peculiar characteristics of low cost, biocompatible and water soluble nature
- Prepared by physical and chemical methods
- Need to discover **green methodologies**
- Plants are cost effective approach to prepare carbon dots
- These green synthesized carbon dots are employed for dye degradation studies
- Methylene blue and congo red dye are used

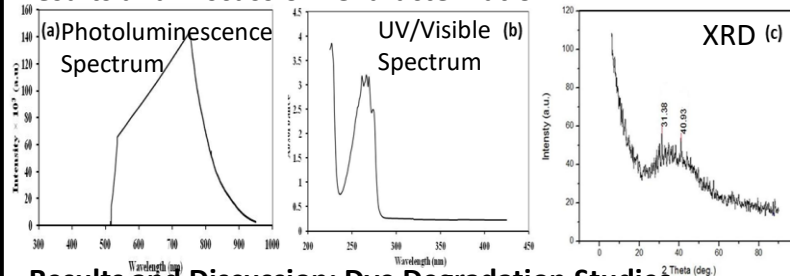
### Experimental Step no 1: Preparation of Carbon Dots



### Experimental Step no 2: Dye Degradation Studies



### Results and Discussion: Characterization

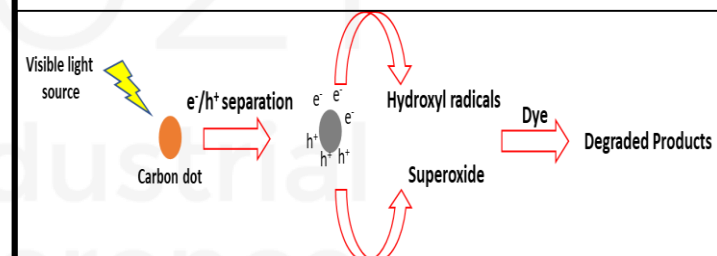


### Results and Discussion: Dye Degradation Studies

Dyes	pH	Concentration	Contact Time
Methylene Blue	8	5 mg/L	60 min
Congo red	6	5 mg/L	90 min

### Conclusion:

- A simple and environment friendly method is used to prepare carbon dots
- Green synthesized carbon dots successfully performed degradation of dyes



### References

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