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MICROPLASTICS IN COASTAL MOLLUSCS AND VALORISATION OF RECOVERED PET TOWARDS CARBON DOT PRODUCTION

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Introduction

Plastic pollution highlights the need to investigate environmental contaminantion and develop waste valorisation strategies. This study examines microplastics in benthic molluscs and the production of carbon dots (CDs) from polyethylene terephthalate (PET).

Objectives

- Investigate the presence of microplastics in benthic molluscs.
- Synthesise PET-derived carbon dots and characterise their particle size and optical properties.

Methodology



Results



Figure 1. Microplastics observed in benthic molluscs

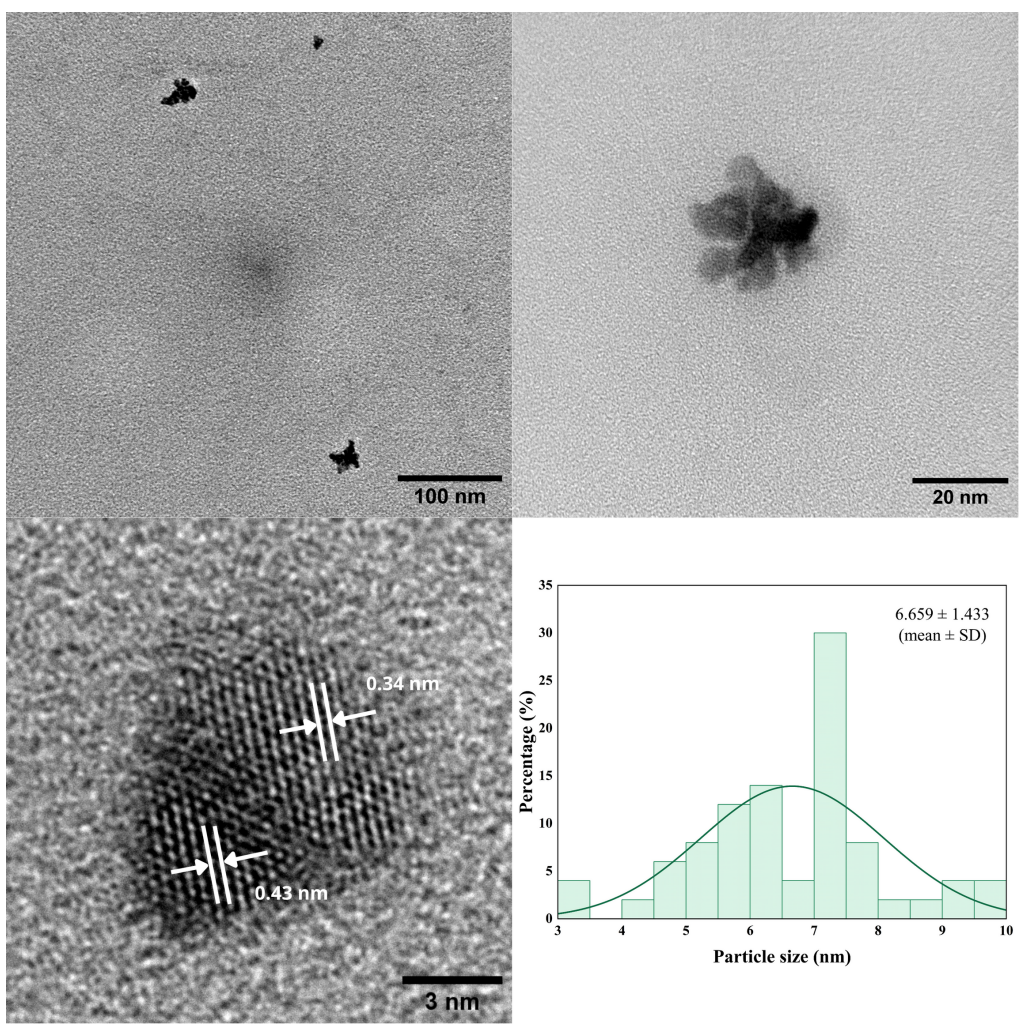


Figure 2. Morphology and size distribution of CDs

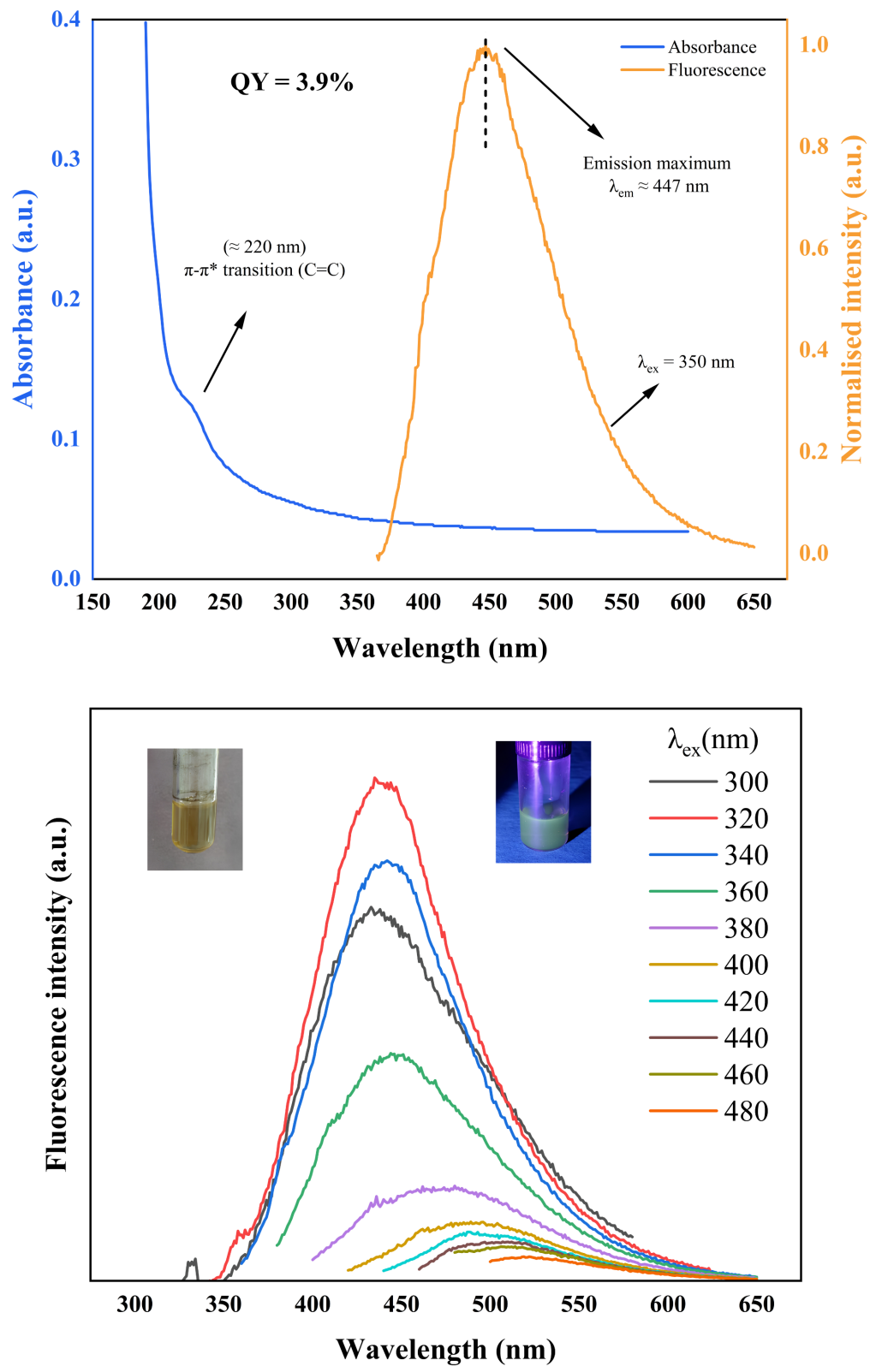


Figure 3. Optical properties of CDs

Conclusions

Microplastics were observed in benthic molluscs' samples. PET-derived carbon dots with nanometre-scale dimensions were successfully obtained, demonstrating the potential of PET as precursor for carbon nanomaterials.

References

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