





RED EMISSIVE GRAPHENE QUANTUM DOTS FOR BIOMEDICAL APPLICATIONS

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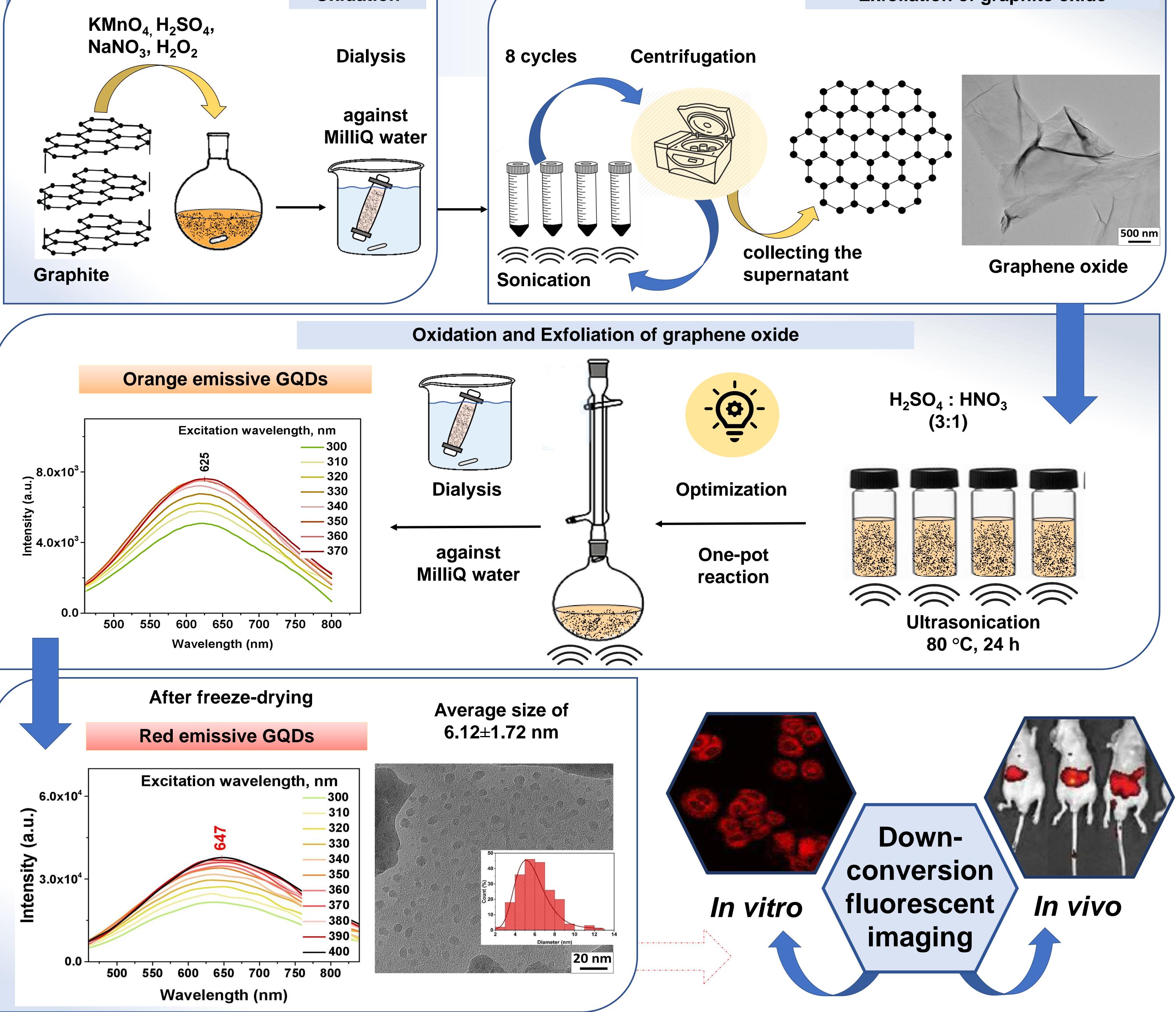
INTRODUCTION

Graphene quantum dots (GQDs) are fluorescent carbon nanoparticles characterized by high solubility in water, high biocompatibility, and low toxicity, characteristics determining their wide applications in bioimaging, biosensing, drug delivery, diagnosis, and cancer therapy, and other more.¹⁻⁴

Hummer's method

Oxidation

Exfoliation of graphite oxide



CONCLUSIONS: The obtained red emissive GQDs, due to their nanoscale size, high water solubility, and photoluminescent properties, are promising for investigating biological systems both *in vitro* and *in vivo* by down-conversion fluorescent imaging.

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