Different types of carbon quantum dots obtained from wastes of fermentation

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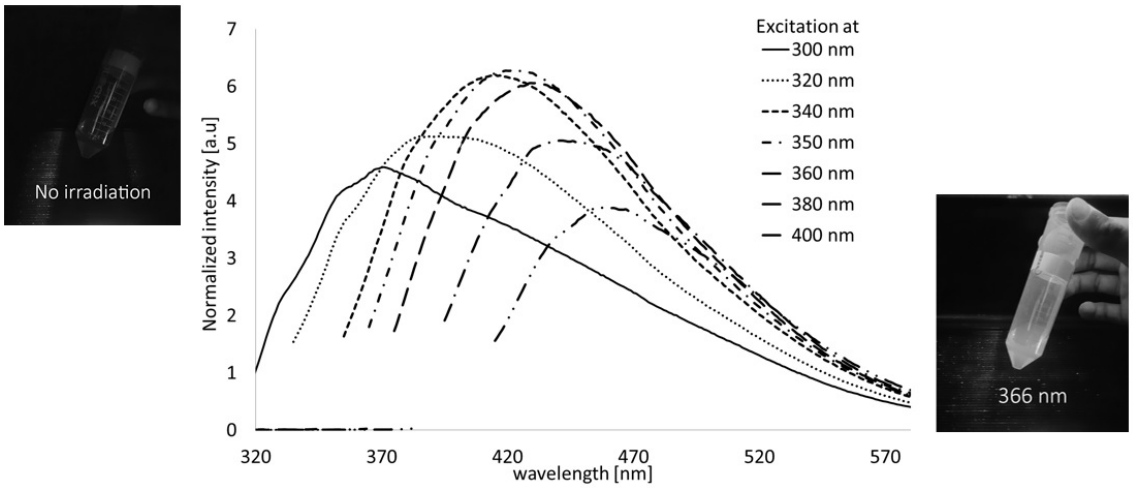
CQDs are a multifunctional material which knew a rapid growth of interest from its discovery in 2004,[1] because of their multiples applications: catalysis agents, bio-imaging chromophores, photoluminescent or electroluminescent materials, metal ions detectors and electron-acceptors for photovoltaics.[2, 3]

Many starting materials have been used to obtain the CQDs. Here we present a new material source which is the wine lees, an expensive-to-treat, phytotoxic waste resulting in vast amounts from the wine fermentation.[4]

We will present here the procedure leading to an easy, scalable synthetic process for CQDs as well as their characterisation (*e.g.* photoluminescence, fig.1).



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