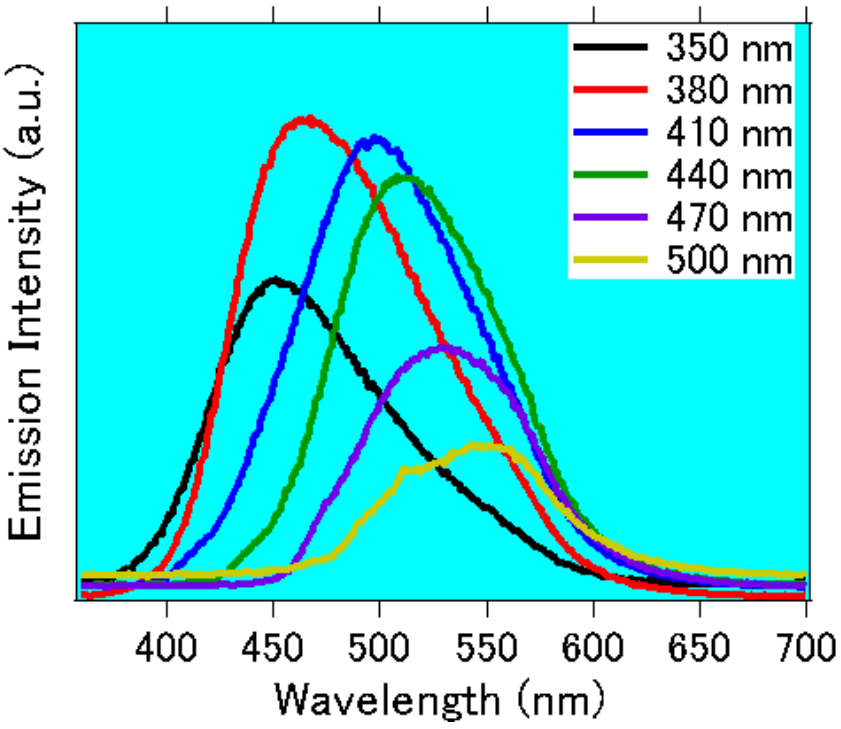
Carbon Quantum Dot

Quantum dot is the semiconductor its properties depends on the size, shape and morphology. They can be applied to computer, LED, solar cell, light, display, laser, bio-imaging, medical picture apparatus etc…Nowadays, quantum dot are normally based on material such as CdSe, InP, ZnS, PbS etc… These materials are relatively expensive and toxic, especially Cd, Se, Pb. Recently, as the alternative quantum dot, Carbon quantum dot has been proposed as the next generation quantum dot. With carbon material, quantum dot can be economically friendly, and safe and ideally cheap LED material can be expected. In addition, since carbon has high compatibility with human body, or any animal cell, they can be expected to be applied for bio-imaging, protein analysis, cell tracking, and many other bio-medical application usage. We have recently established the large manufacturing process of this carbon quantum dot. Quantum efficiency is over 45 % at this stage. We will keep improving the quantum efficiency.



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