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Electron-rich heterocycle induced tunable emitting fluorescence of graphitic carbon nitride quantum dots

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Abstract

A novel graphitic carbon nitride based quantum dots with controllable fluorescence emission wavelength were prepared by changing the primary framework of tri-s-triazine structure. Electron-rich heterocycle embedding of carbon nitride quantum dots with pyrimidine donors effectively increased the conjugation effect of electrons on triazine ring. More importantly, with the increase of asymmetrical heterocycle structures, the fluorescence emission peaks of the

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