

Synthesis of Carbon Dots, its Photoluminescence property and its various applications
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1. Abstract:

Synthesis of Carbon dots (C-dots) from natural sources is a much researched subject now-a-days. The demand for green chemistry and cost-effectiveness lead us to synthesize C-dots from natural sources. Nanometer sized carbon dots with unique optical properties be experimental during the study. Natural Carbon Dots were prepared from Natural sources by hydrothermal method. The synthesized NCDs giving good water dispersibility, strong blue fluorescence emission color with a fluorescent carbon yield, excellent photo and pH stabilities. It is showing that the fluorescence of NCDs is resistant to the interference of bio molecules, metal ions and high ionic strength. Here we report a simple, low-cost and green route for synthesis of fluorescent natural carbon dots (NCDs), showing their applications in sensing, coding and providing a one-step way for production. Carbon dots with less than 100 nm sizes have been appearing as a fascinating tool. Natural Carbon dots are synthesized from and natural sources but they need different methods for the different natural sources. Natural Carbon dots can naturally extracted from some plants, plant flowers, plant leaves, plant seeds or etc. In this paper we focused on synthesis and application of natural carbon dots derived from natural sources.