

Green light-emitting carbon dots via eco-friendly route and their potentials in ferric ion detection and WLEDs

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Conditional experiments were conducted to optimize the preparation of G-CDs. Results indicates that with the reaction temperature or time increasing, the QY varies slightly. The QY firstly is increased with the reaction temperature, then gradually decreases. Typically, the reaction performed at 190 for 8 hours yields G-CDs with the maximum QY of 48.8 which is comparative and even superior to the reported values.

Table S1. QY of G-CDs under various reaction conditions

Sample	Temperature (°C)	Time (min)	QY (%)
1	160	8	30.2
2	170	8	37.6
3	180	8	43.2
4	190	8	48.8
5	200	8	46.5
6	210	8	47.5
7	220	8	45.3
8	190	4	35.2
9	190	6	42.2
10	190	10	48.5
11	190	15	46.2
12	190	30	48.2

Table S2. Luminous parameters of G-CDs-based WLEDs

Current /mA	CCT /K	CIE coordinate	Ra
20	4946	0.3448,0.3343	79.8
40	4706	0.3528,0.3475	74.8
60	4836	0.3475,0.3353	89.0
80	4987	0.3432,0.3273	82.6
100	4997	0.3437,0.3358	92.2
120	4939	0.3448,0.3326	90.3