Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Electronic Supplementary Information (ESI)

How do nitrogen-doped carbon dots generate from molecular precursors? An investigation of formation mechanism and a solution-based large-scale synthesis

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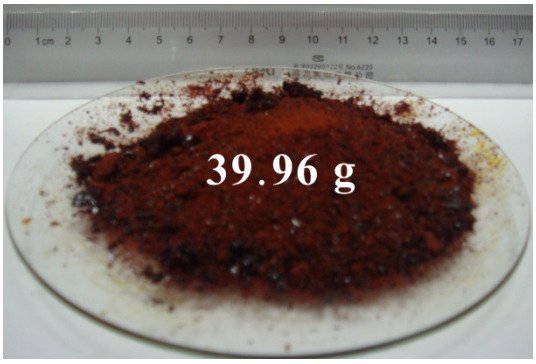

Fig. S1 Bulk quantity of the N-C-dots prepared from citric acid in MEA system.

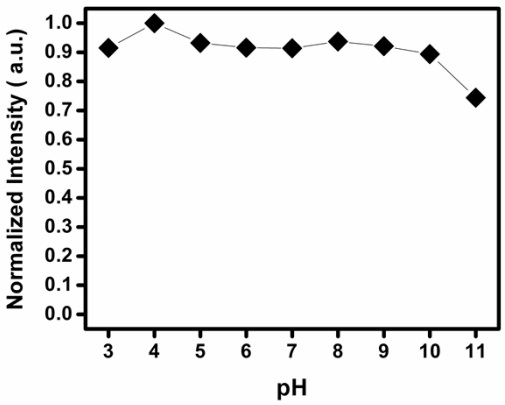

Fig. S2 Effect of pH on the PL intensity of the N-C-dots.

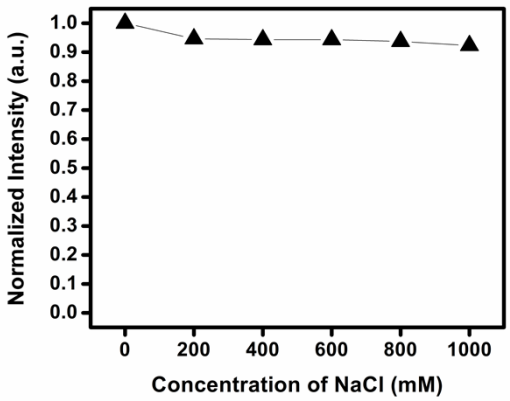

Fig. S3 Effect of NaCl concentration on the PL intensity of the N-C-dots.

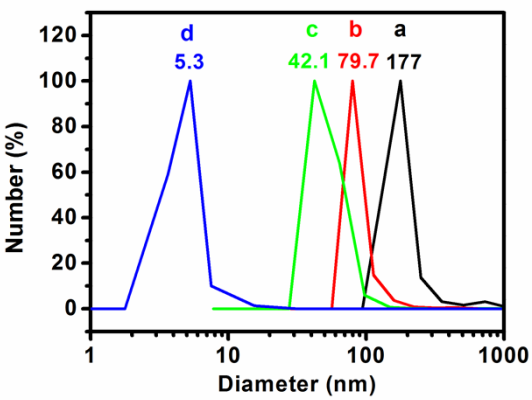

Fig. S4 DLS curves of the products obtained at different reaction stages: the temperature reached 130 °C (a), 150 °C (b), 170 °C (c), and maintained at 170 °C for 10 minutes (d).

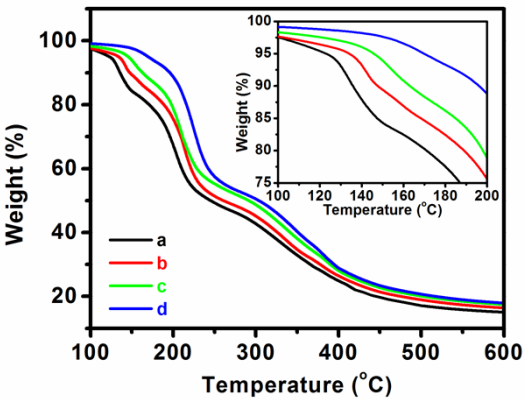

Fig. S5 Thermogravimetric analysis (TGA) of the products obtained at different reaction stages: the temperature reached 130 °C (a), 150 °C (b), 170 °C (c), and maintained at 170 °C for 10 minutes (d). Inset: enlarged TGA traces in the temperature range of 100-200 °C.

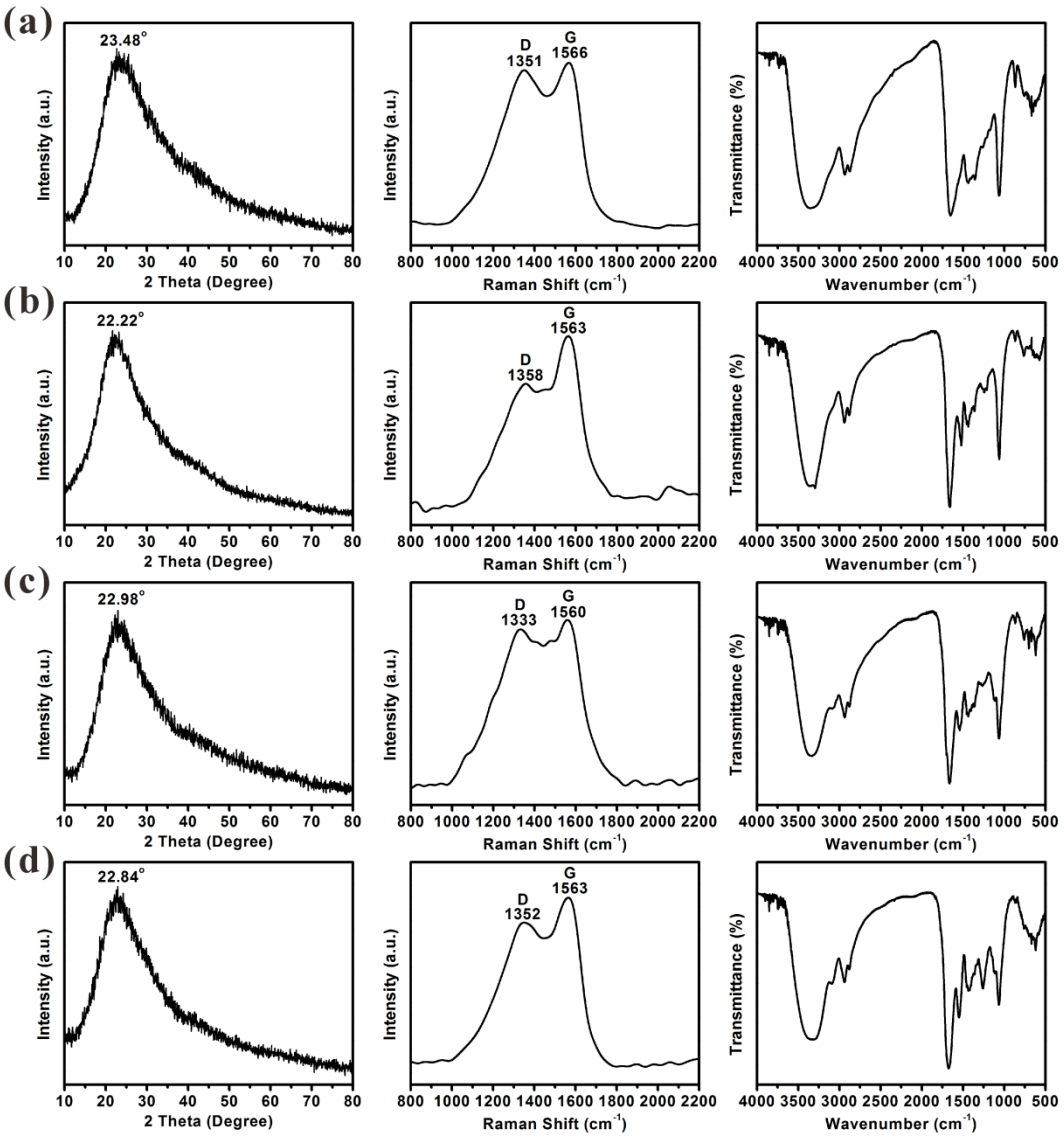

Fig. S6 XRD patterns (left), Raman spectra (middle), and FTIR spectra (right) of the C-dots prepared from glucose (a), ascorbic acid (b), cysteine (c), and glutathione (d) in MEA system.

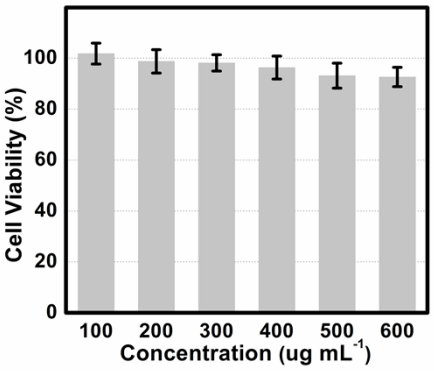

Fig. S7 Cell viability values (%) estimated by MTT assay in Hela cells, which are incubated with serial concentrations of the C-dots for 48 h at 37 °C.