Supporting information for

Concentrated Solar Irradiation Protocols for The Efficient Synthesis of Tri-color Emissive Carbon Dots and Photophyiscal Studies

Dong Lu a,Yiping Tang b, Jinwei Gao c, Qianming Wang a

a Key Laboratory of Theoretical Chemistry of Environment, Ministry of Education, School of Chemistry and Environment, South China Normal University, Guangzhou 510006, P. R. China

b College of Material Science and Engineering, Zhejiang University of Technology, Hangzhou, Zhejiang, 310014, China

c Guangdong Provincial Engineering Technology Research Center For Transparent Conductive Materials, South China Normal University, Guangzhou 510006, China

* To whom the correspondence should be addressed. E-mail: qmwang@scnu.edu.cn
Tel: 86-20-39310258; Fax: 86-20-39310187
**Figure S1** Digital photo of blue CDs under sunlight radiation.

**Figure S2** Experimental set-up for concentration solar radiation reaction.
**Figure S3** XRD patterns for the tricolor CDs.

**Figure S4** XPS survey (a) and deconvoluted high-resolution XPS spectra of green carbon dots for C1s (b), N1s (c) and O1s (d).
**Figure S5** XPS survey (a) and deconvoluted high-resolution XPS spectra of red carbon dots for C1s (b), N1s (c) and O1s (d).

**Figure S6** Emission spectra of raw materials and tricolor CDs.
**Figure S7** Emission intensities of tricolor CDs at different time duration.
Figure S8 a), b) Photostability of the white-emissive material under consecutive excitation at 365 nm for one hour, c), d) Time dependence of emission intensities of the white-emissive material during seven days.