Supporting information for

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

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Figure S1 Digital photo of blue CDs under sunlight radiation.



Figure S2 Experimental set-up for concentration solar radiation reaction.



Figure S3XRD 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.