Efficient and stable white fluorescent carbon dots and CD-based glass

thin-films via screen-printing technology using in W-LED

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Samples	C (mol%)	O (mol%)	N (mol%)	O/C (mol%)	N/C (mol%)
RCDs	60.88	23.22	15.9	38.1	26.1

Table S1. XPS elemental analysis results of RCDs



Fig.S1 RCDs under sunlight (a) and UV light (b).



Fig.S2 TEM images (a) WCDs-1, and (c) WCDs-2, the corresponding HRTEM images (b) and (e), as well as size

distribution images (c) and (f).

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Fig.S3 XPS full survey (a), high-resolution XPS of the C1s (b), O1s (c) and N1s (d) region scan spectrum of the

WCDs-1.



Fig.S4 XPS full survey (a), high-resolution XPS of the C1s (b), O1s (c) and Si 2p (d) region scan spectrum of the

WCDs-2.



Fig.S5 FTIR spectra of WCDs-1 (a) and WCDs-2 (b).



Fig.S6 (a) PL spectra (λ_{ex} =400 nm) of WCDs-2 (solid state) under diverse storage times. (b) Graph of

fluorescence intensity under diverse storage times (λ_{ex} =400 nm).\



Fig.S7 Representation for the PL mechanism of WCDs.



Fig.S8 UV-vis absorption spectra of WCDs-1 and WCDs-2.