Electronic Supplementary Material (ESI) for Nanoscale.

Multicolour carbon:excitation wavelength independent fluorescent carbon dots toward light-emitting devices

Yijun Zhang, Rongrong Yuan, Meiling He, Guangcai Hu, Jutao Jiang, Tao Xu, Lei Zhou, Wei Chen, Weidong Xiang*, Xiaojuan Liang*

College of Chemistry and Materials Engineering, Wenzhou University, Wenzhou 325035, China.

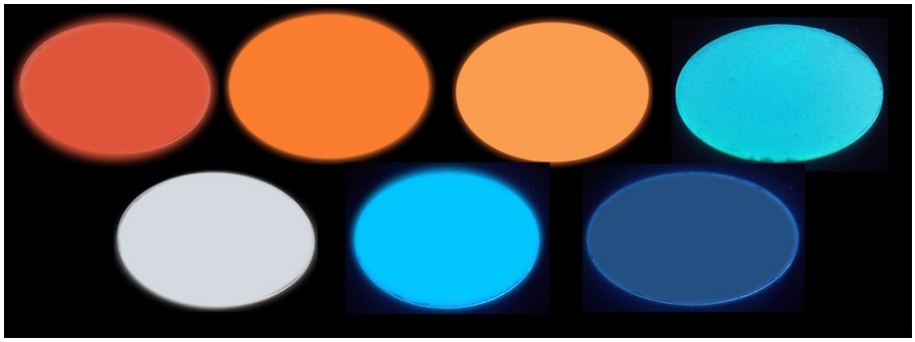

Fig.S1. The multicolour fluorescent CD-based sandwich glasses

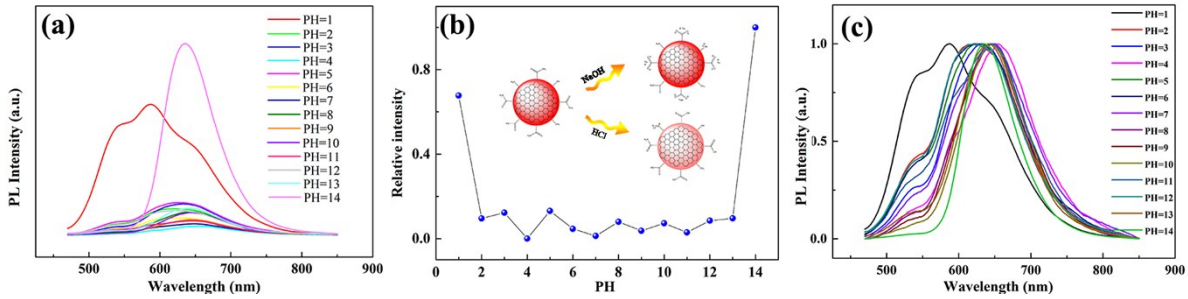

Fig.S2. (a) PL spectra of the RCDs solutions with different pH values (from 1 to 14); (b) PH dependence of the normalized fluorescenceintensity of the maximum fluorescence emission of RCDs; (c) PH dependence of the normalized fluorescence intensity of RCDs fluorescence emission. The inset of (b) was the possible growth mechanism for RCDs.

College of Chemistry and Materials Engineering, Wenzhou University, Wenzhou, Zhejiang , 325035, China. E-mail: xiangweidong001@126.com ; Fax: +86 577-86689644 Tel: +86 577-86596013

Table S1. Preparation conditions and parameters of the multicolour CDs.

Samples	Color	AC:EDTA	T(℃)	Time (h)
RCDs	Red	1 : 0		
OCDs	Orange	4 : 1		
YCDs	Yellow	3 : 2		
WCDs	White	1 : 4	160	6
CCDs	Cyan	1 : 9		
BCDs	Blue	2 : 3		
DCDs	Dark blue	0 : 1		

Table S2. Biexponential Fit Values and QYs of the multicolour CDs.

Samples	λ_{ex}	α_1 [%]	τ_1 [ns]	α_2 [%]	τ_2 [ns]	τ_{av} [ns]	QY [%]
RCDs		17.71	1.716	82.29	8.068	7.79	30.4
OCDs		21.12	2.180	78.88	8.139	7.74	31.6
YCDs		22.46	2.310	77.54	7.978	7.54	32.8
WCDs	360nm	26.21	2.497	73.79	7.028	6.52	35.9
CCDs		20.65	1.513	79.35	5.813	5.54	46.1
BCDs		22.82	1.939	77.18	5.527	5.19	67.4
DCDs		22.21	2.341	77.79	5.502	5.16	65.8