Supplementary Information (SI) for RSC Advances.

Bottom-up Microwave Transformation of Molecules to Carbon Dots for Detection and Encryption Applications

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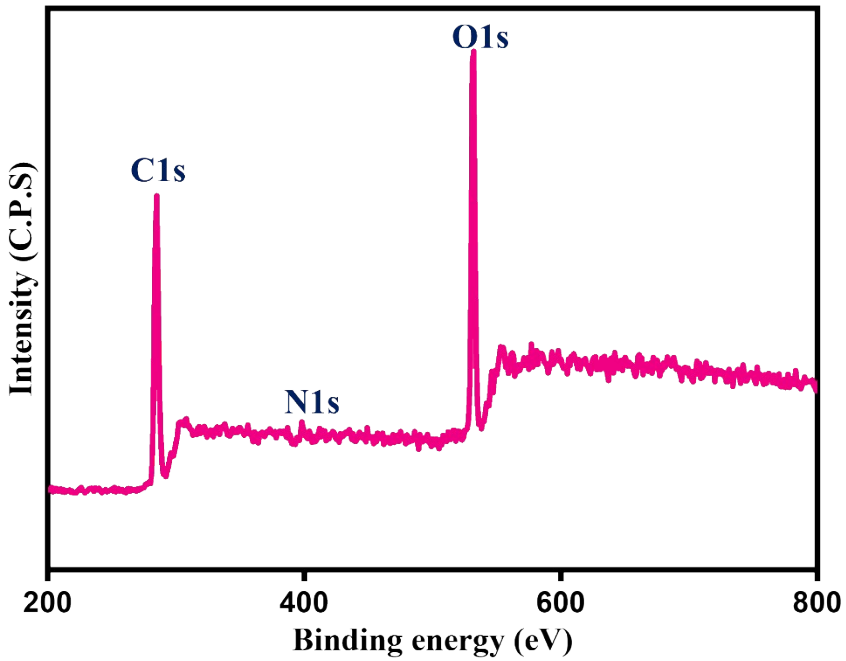

Figure S1: Survey spectra of CDs.

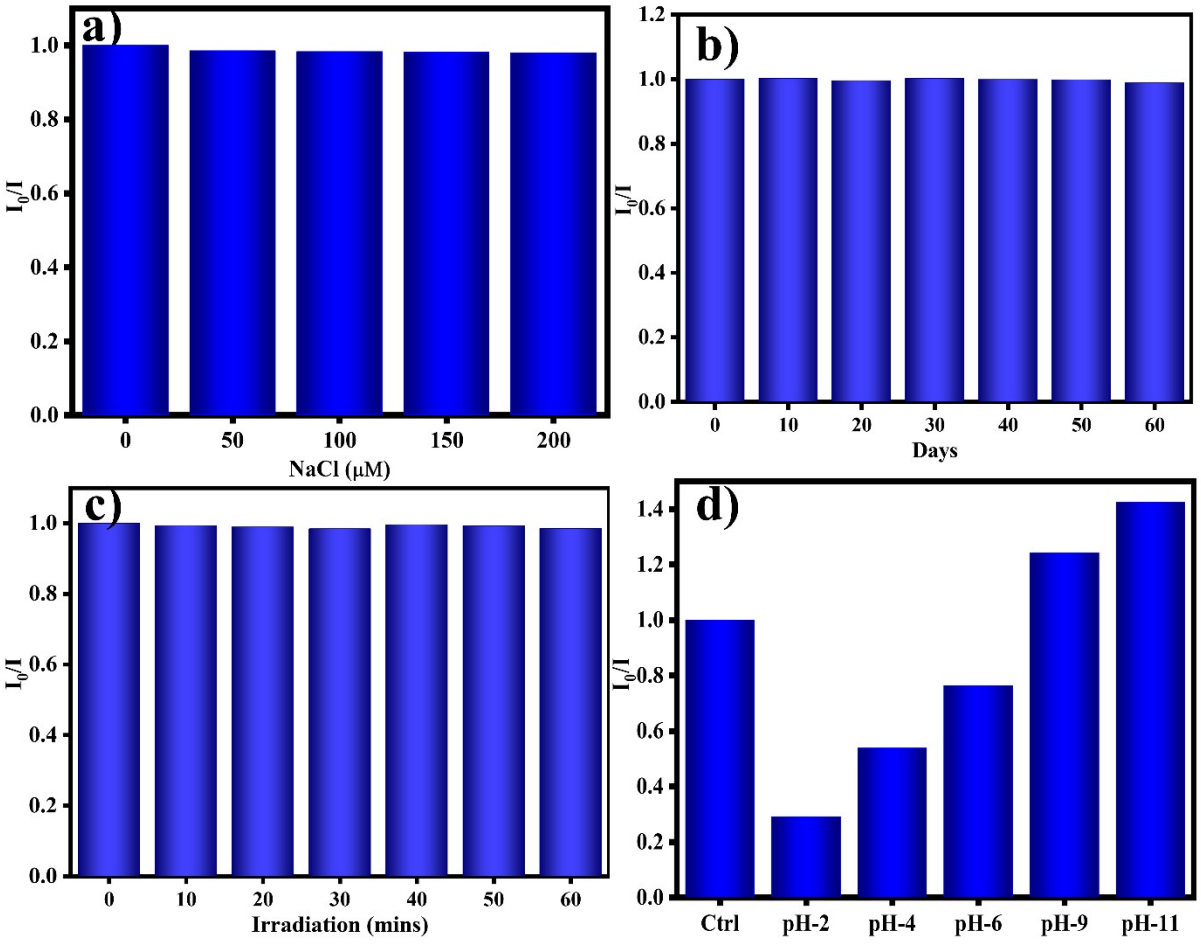

Figure S2: Stability of CDs under a) Ionic environment, b) Long duration of storage c) UV-light irradiation, d) Different pH environment.

Table S1:

Table for comparing the present work LOD of Cr^{6+} and Doc with already reported values based on fluorescence-based sensor probes.

Detection probe	Contaminant detected	Linear range	Detection Limit	Reference
CDs	**Cr^{6+}**	**0-100 µM**	**0.14 µM (140 nM)**	**This Work**
N-CDs	Cr^{6+}	1-100 µM	0.12 µM	[1]
CDs@Eu-MOFs	Cr^{6+}	2-100 µM	0.21 µM	[2]
N, S-CDs	Cr^{6+}	1-10 µM	0.2 µM	[3]
CDs-Ws	Cr^{6+}	0-50 µM	106.57 nM	[4]
CDs	Cr^{6+}	3-50 µM	0.09µM	[5]
Ru@CDs	Cr^{6+}	0-150 µM	0.128 µM	[6]
CDs	Cr^{6+}	0-117 µM	0.11 µM	[7]
CDs	Doc	10-1000 µM	16.35 µM	[8]
CDs@CaF_2: Eu^{3+}	Doc	0.1-30 nM	43 nM	[9]
S-Dots	Doc	0.5-25 µM	0.19 µM	[10]
CDs	Doc	0.05-500 µM	18 nM	[11]
S,N-CDs	Doc	0.5-500 µM	25 nM	[12]
CDs	**Doc**	**0-90 µM**	**0.09 µM (90 nM)**	**This work**

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