

-Supporting Information-

**A portable visual coffee ring based on carbon dots sensitized
lanthanide complexes coordination to detect bisphenol A in water**

Yixiao Li, Qi Min, Yunfei Wang, Xuming Zhuang*, Xiaowen Hao, Chunyuan Tian,
Xiuli Fu, Feng Luan*

College of Chemistry and Chemical Engineering, Yantai University, Yantai 264005,
China

*Corresponding author.

E-mail address: xmzhuang@iccas.ac.cn (X. Zhuang); fluan@sina.com (F. Luan).

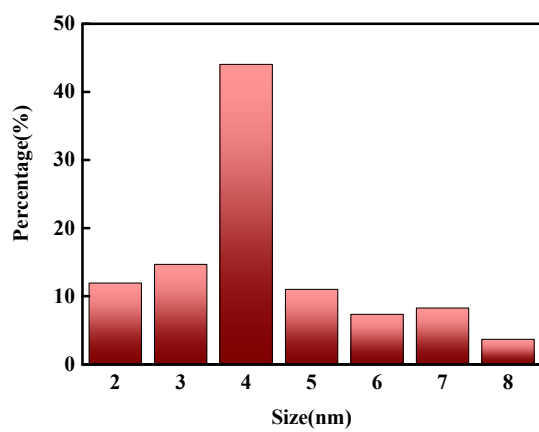


Fig. S1. Particle size distribution of CDs.

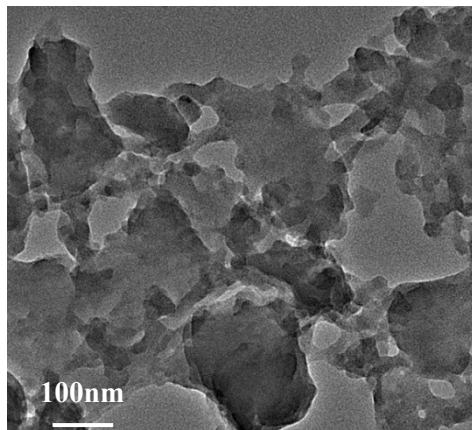


Fig. S2. TEM image of Eu-AMP.

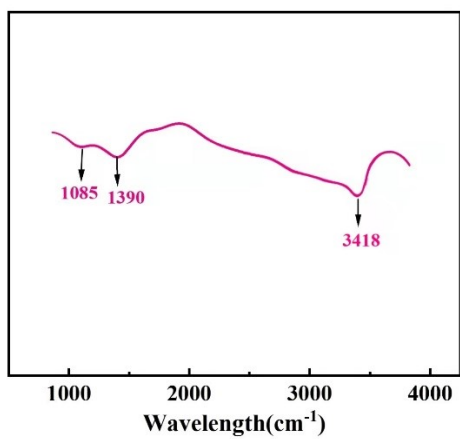


Fig. S3. FTIR spectra of Eu-AMP.

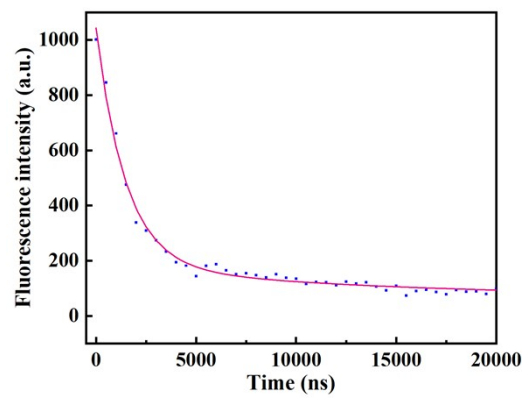


Fig. S4. The fluorescence decay curve of CD@Eu-AMP at 623 nm.

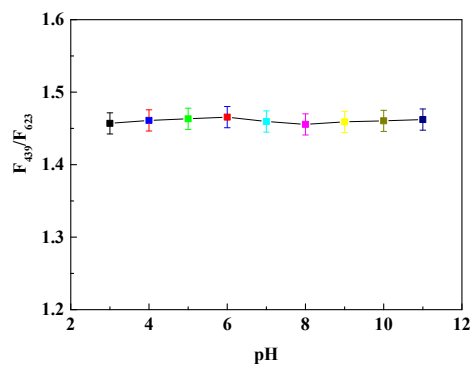


Fig. S5. Effects of pH on the fluorescence of CDs@Eu-AMP.

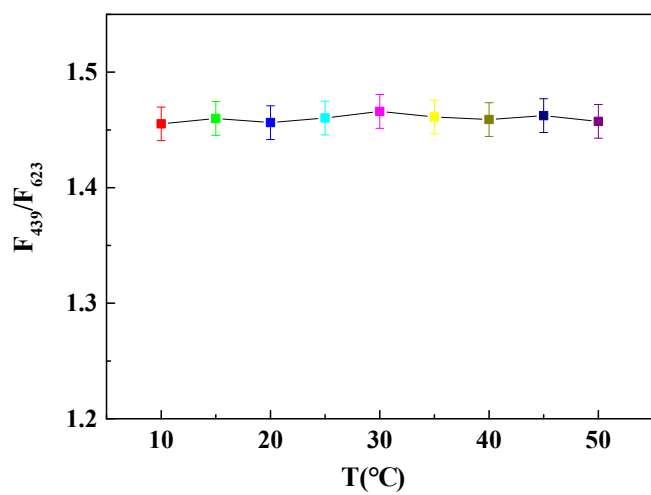


Fig. S6. Fluorescence intensity ratio (F_{439}/F_{623}) of CD@Eu-AMP for different temperature.

Table S1. Comparisons of the linear detection range and limit of different methods for BPA detection.

Methods	Materials	Detection limit (μM)	Linear range (μM)	Ref.
Fluorescence	β -CD functionalized ZnO	0.19	2-10	[1]
	Berberine/BPA-aptamer	0.032	0-1300	[2]
	TMR ^a	0.5	0.5-1000	[3]
	M-R-MIPs@d-NPs ^b	0.029	0.5-2.0	[4]
	CDs@Eu-AMP ^c	0.020	0. 10-100	this work
SPME-GC-MS	BSTFA ^d	0.070	0.22-43.8	[5]
	AA ^e	0.1095	0.43-43.8	[5]
CE-MS		0.1314	0.43-438	[6]
MIP		0.066	2.0-10	[7]

^a tetramethylrho-damine (TMR) labeled short 35-mer DNA aptamer

^b Mesoporous structured BPA imprinted ratiometric fluorescence sensors

^c coordination polymerization of Eu^{3+} and 5'-adenosine monophosphate on the surface of carbon dots

^d bis-(trimethylsilyl)trifluoroacetamide.

^e acetic anhydride

References

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