Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting Information

A controllable Y-shaped DNA structure assisted aptasensor for simultaneous detection of AFB_1 and OTA based on ARGET ATRP

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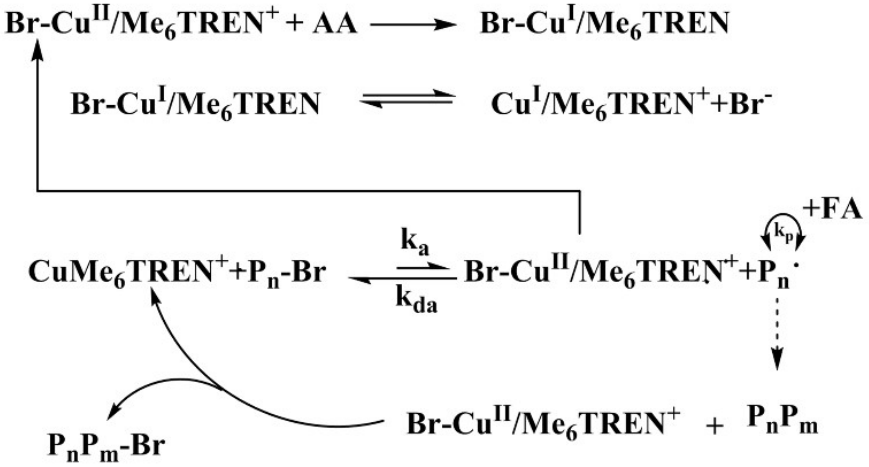

Fig. S1 ARGET ATRP reaction mechanism diagram.

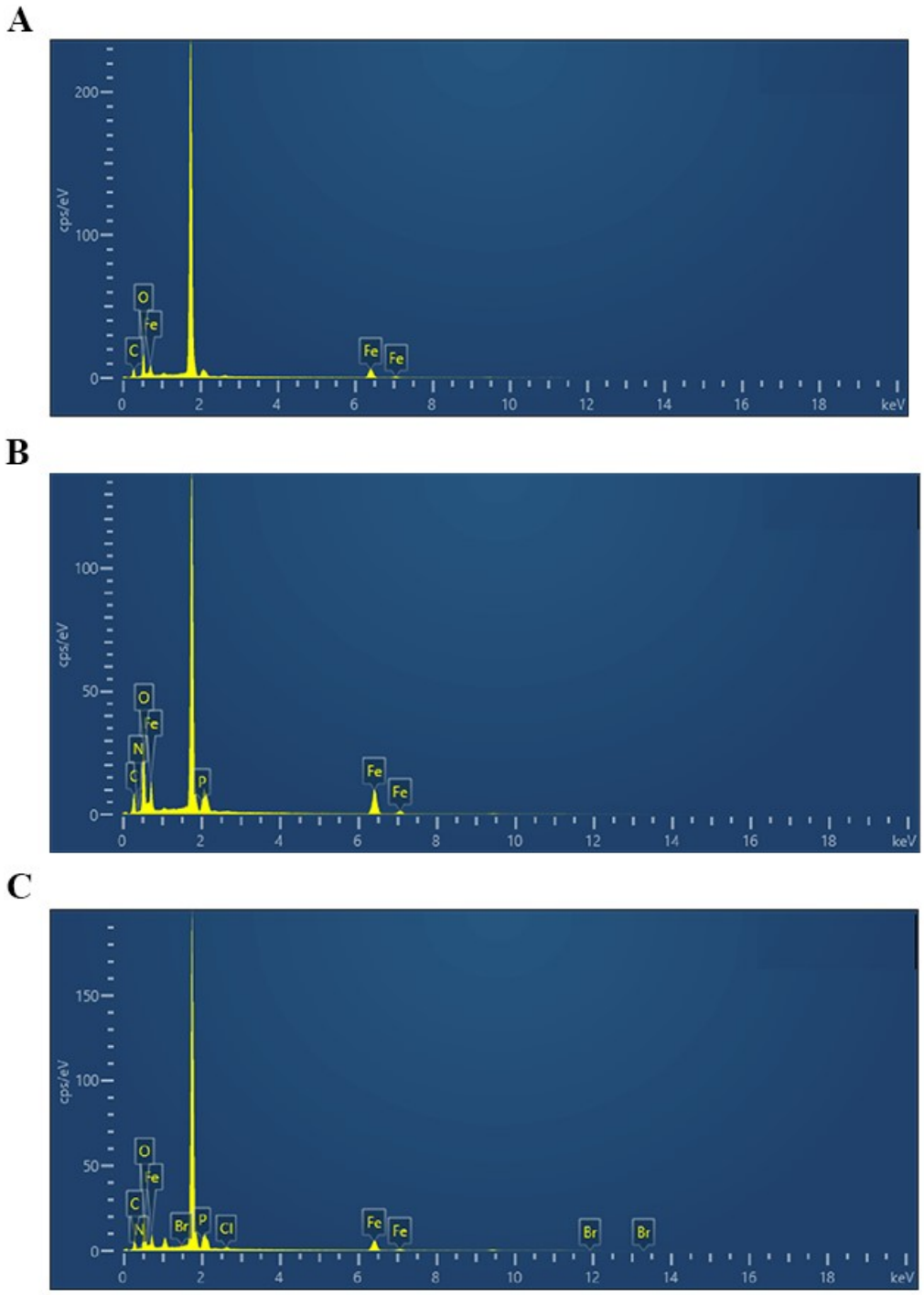

Fig. S2 EDS spectra of unmodified MBs (A), MBs modified with Y-shaped DNA (B), and MBs modified with Y-shaped DNA, targets and antibody conjugates (C).

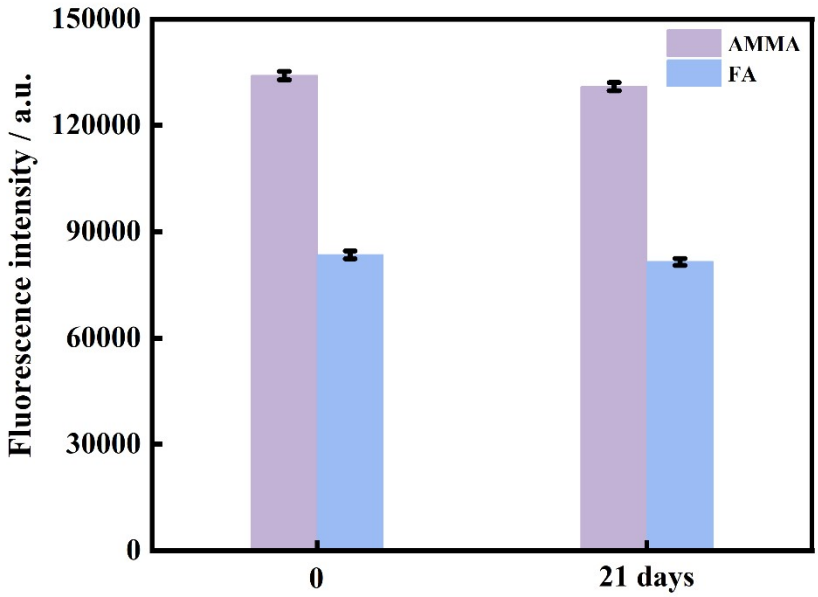

Fig. S3 Stability results of sensor.

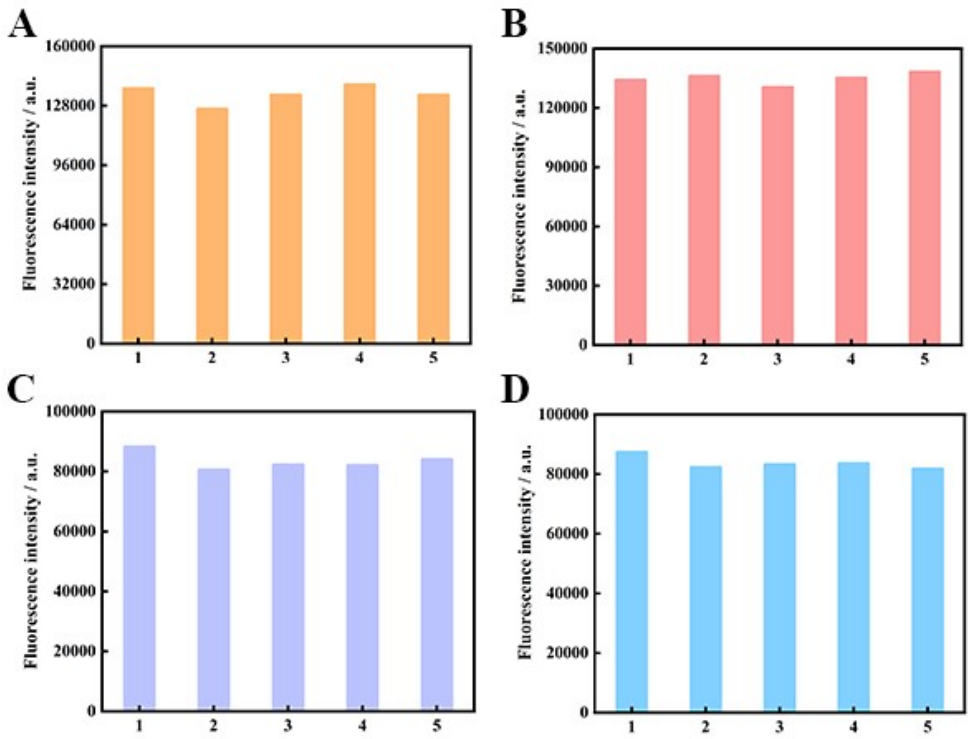

Fig. S4 Reproducibility results of sensor. The fluorescence intensity of this sensor in AFB_1 (A) and OTA (C) groups. The fluorescence intensity of this sensor between groups of AFB_1 (B) and OTA (D).

Table S1 Comparison of the linear range and LOD of the sensor system with other methods for detecting OTA and AFB_1.

Methods	Linear range (ng/mL)		LOD (pg/mL)		Ref.
	OTA	AFB_1	OTA	AFB_1	
Fluorescence	0.01-100	0.005-10	5	10	1
Colorimetry	0.5-80	5-250	-	-	2
Electrochemical	0.03-10	0.01-3.0	13.3	4.3	3
Fluorescent	0.001-0.05	0.001-0.05	0.2	0.3	4
Fluorescence	0.002-5	0.005-10	0.67	1.70	5
IAC	0.26-6.18	0.006-0.119	126	4	6
Fluorescence	0.002-2000	0.002-2000	0.0016	0.01862	**This Work**

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