Electronic Supplementary Material (ESI) for Environmental Science: Processes & Impacts. This journal is © The Royal Society of Chemistry 2014

**Supporting Information Cover Sheet** 

**Environmental Science: Processes & Impacts:** 

Manuscript title: A Portable Optic Fiber Aptasensor for Sensitive, Specific and Rapid

**Detection of Bisphenol-A in Water Samples** 

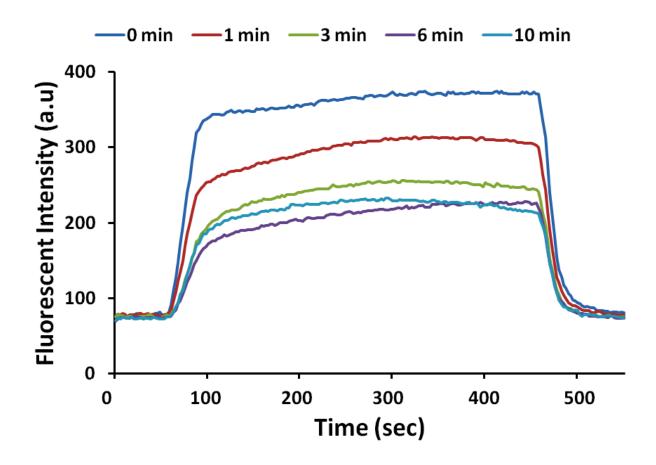
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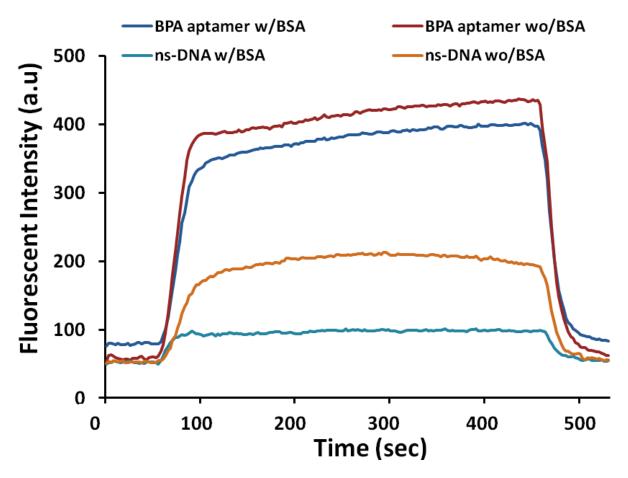
**Number of Pages: 5** 

**Number of Figures: 4** 

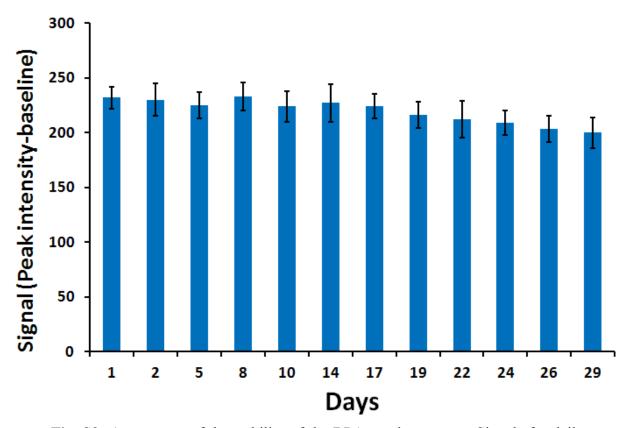
**Number of Tables: 1** 



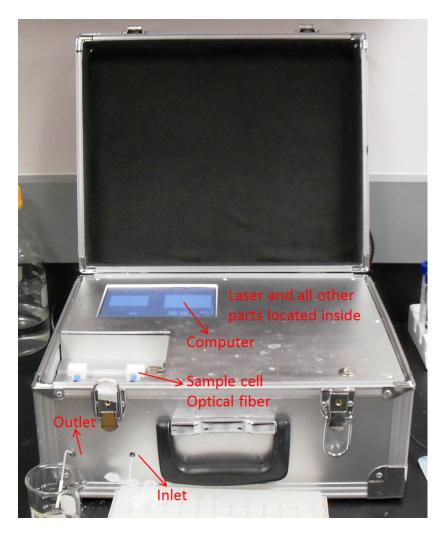
**Fig. S1-** The fluorescent intensities obtained with different pre-mixing time of Bisphenol A (10 nM) and its specific aptamer (100 nM).



**Fig. S2-** Sensor's performance and responses to various controls; w/BSA; experiment with BSA injection, w/o BSA; experiment without BSA injection, nsDNA; experiment with nonspecific DNA.



**Fig. S3-** Assessment of the stability of the BPA sensing system. Signals for daily average of two measurements of 25 nM BPA detection.



**Figure S4.** The original picture of the portable optical-fiber sensing platform.

Detector	Sample	Detection limit	Chromatographic data	Ref. no.
GC-MS	Drinking water	$0.4 \text{ ng L}^{-1}$	CC: HP-1 (30 m × 0.32 mm i.d. × 0.25 μm)	30
GC-MS	Drinking water	1 ng mL <sup>-1</sup>	CC: DB-35MS (30 m × 0.258 mm i.d. × 0.25 µm)	31
GC-MS	Drinking water	$0.6 \text{ ng mL}^{-1}$	CC: DB-1 (30 m $\times$ 0.32 mm i.d. $\times$ 0.25 $\mu$ m)	32
HPLC- FL	Drinking water	0.03 μg L <sup>-1</sup>	MPh: methanol-water-acetonitrile 25:26.2:48.8 (%, v/v) MoS: isocratic elution C: Shandon Hypercarb S (150 mm × 4.6 mm i.d. × 7 μm)	33
HPLC- UV	Drinking water	0.36 ng L <sup>-1</sup>	MPh: 20 mM phosphate buffer–acetonitrile 65:35 (%, v/v) MoS: gradient elution C: Shim-pack VP-ODS (150 mm × 4.6 mm i.d. × 5 μm)	34

**Table S1.** Determination of bisphenol A by standard chromatographic methods.