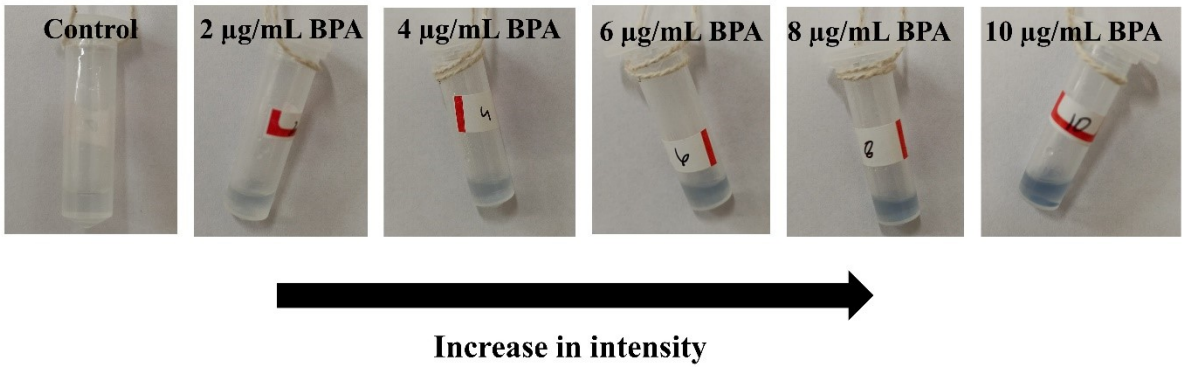
Supplementary Information

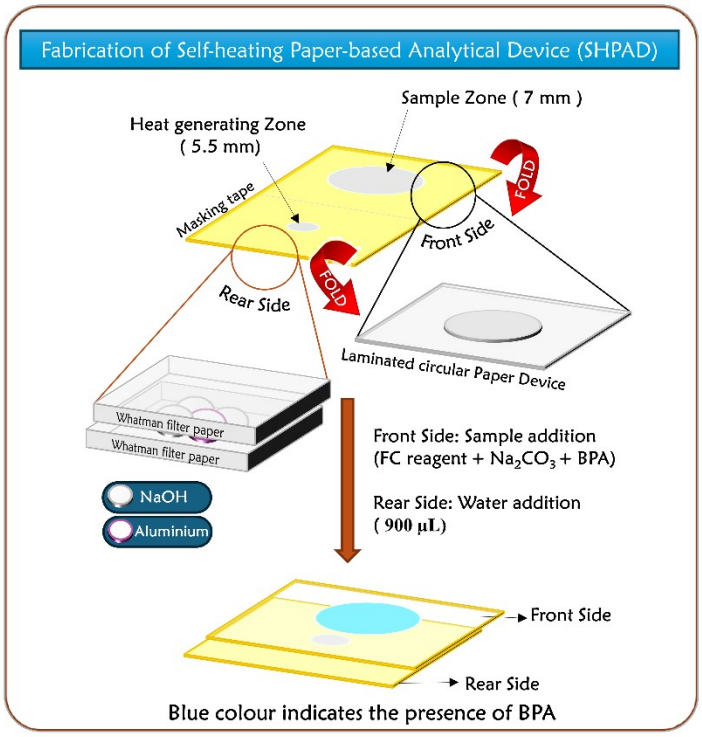


	Control	2 µg/mL BPA	4 µg/mL BPA	6 µg/mL BPA	8 µg/mL BPA	10 µg/mL BPA
Absorbance @ 760 nm	0.088 ± 0.020	0.158 ± 0.0026	0.259 ± 0.0055	0.347 ± 0.0316	0. 383 ± 0.0051	0.424 ± 0.0532

Supplementary Figure 1. Bulk assay between Folin-Ciocalteu (FC) reagent and BPA with their respective absorbance at 760 nm.

Supplementary Table 1: Comparison of advantages and disadvantages of Wax chalk and Self-Heating PAD.

Method	Advantages	Disadvantages
Wax Chalk	• Simple fabrication • Easily accessible & Cost-effective • Can be integrated with pen plotter	• Reproducibility issues • Unable to confine certain surfactants • Requirement of an external heat source
Self-Heating PAD	• All in one multiplexed device • Cost-effective • Can be integrated with Smart phone	• Slightly expensive • Lamination sheet is non-biodegradable • Fabrication time exceeds that of the wax chalk device



Supplementary Figure 2: Fabrication of Self-Heating Paper-based Analytical Device (SH PAD)