

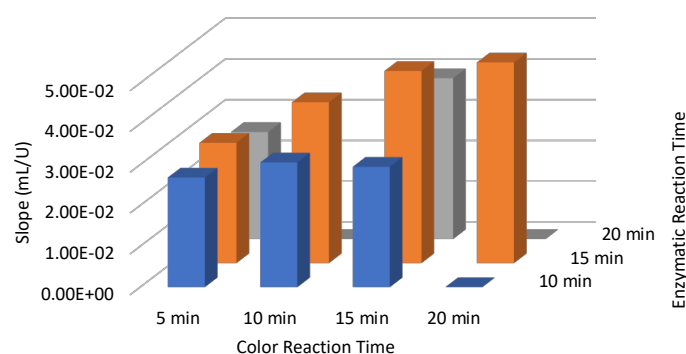
## ELECTRONIC SUPPLEMENTARY MATERIAL

### A microfluidic paper-based device for monitoring the urease activity in saliva

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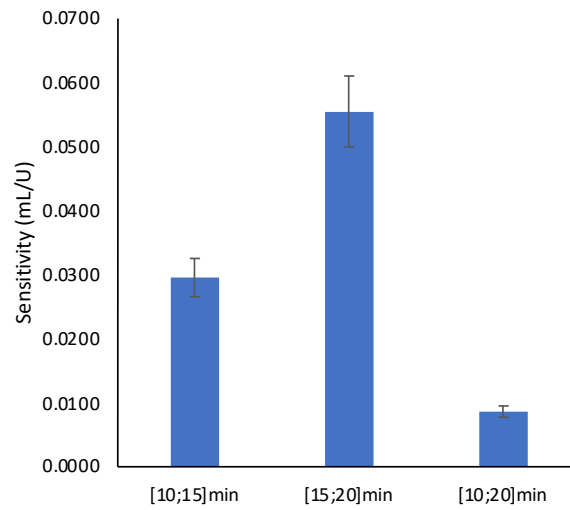
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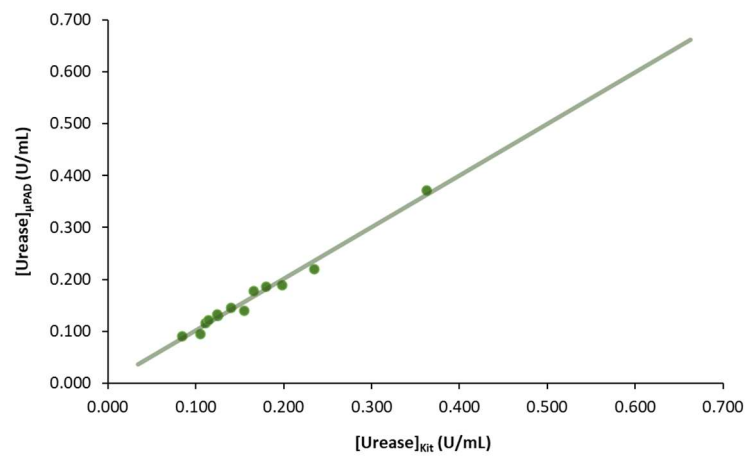
**ESM Figure S1.** Study of the influence of the Enzymatic Reaction Time (10, 15, 20 minutes) and of the Color Reaction Time (5, 10, 15 and 20 minutes) in the calibration curve slope.

**ESM Table S1.** Preliminary assessment of the effectiveness of the kinetic determination; variation of the absorbance reading in different time intervals for two urease standards (0.1 and 0.5 U/mL) and one sample without any addition (Sample), with addition of  $\text{NH}_4^+$  (Sample\_  $\text{NH}_4^+$ ), and with addition of Urease (Sample\_Urease).

	$\Delta A$	
	[10-15] min	[15-20] min
0.1 U/mL	0.009	0.005
0.5 U/mL	0.022	0.037
Sample	0.003	0.002
Sample_ $\text{NH}_4^+$	0.003	0.004
Sample_Urease	0.041	0.035



**ESM Figure S2.** Influence of the enzymatic reaction time interval (in minutes) in the sensitivity of the developed device; the error bars correspond to a 10% deviation.



**ESM Figure S3.** Linear relationship between the results obtained with the developed  $\mu$ PAD ( $[\text{Urease}]_{\mu\text{PAD}}$ ) and with the commercially available kit ( $[\text{Urease}]_{\text{Kit}}$ ).