

Supplementary material

Table S1. Different conditions tested and optimization results of the SIA system developed.

Parameter	Range	Selected value
pH	6; 7.4; 8	7.4
MPO	Concentration	0.30 U/mL; 0.40 U/mL; 0.60 U/mL
	Volume	10 μ L; 30 μ L; 50 μ L
ADHP	Concentration	10 μ M; 20 μ M; 40 μ M
	Volume	10 μ L; 20 μ L; 30 μ L; 40 μ L
H ₂ O ₂	Concentration	9.8 mM- 0.26 mM
	Volume	10 μ L; 30 μ L
Division and order of aspiration of the aliquots	H ₂ O ₂ -ADHP-buffer-enzyme (◆)	ADHP-buffer-enzyme-H ₂ O ₂ (×)
	H ₂ O ₂ -buffer-enzyme-ADHP (■)	
	ADHP-H ₂ O ₂ -buffer-enzyme (▲)	
	ADHP-buffer-enzyme-H ₂ O ₂ (×)	
Propulsion time to the reactor	15; 20; 30 seconds	20 seconds
Stopped flow period	1; 3; 5 minute	5 minutes

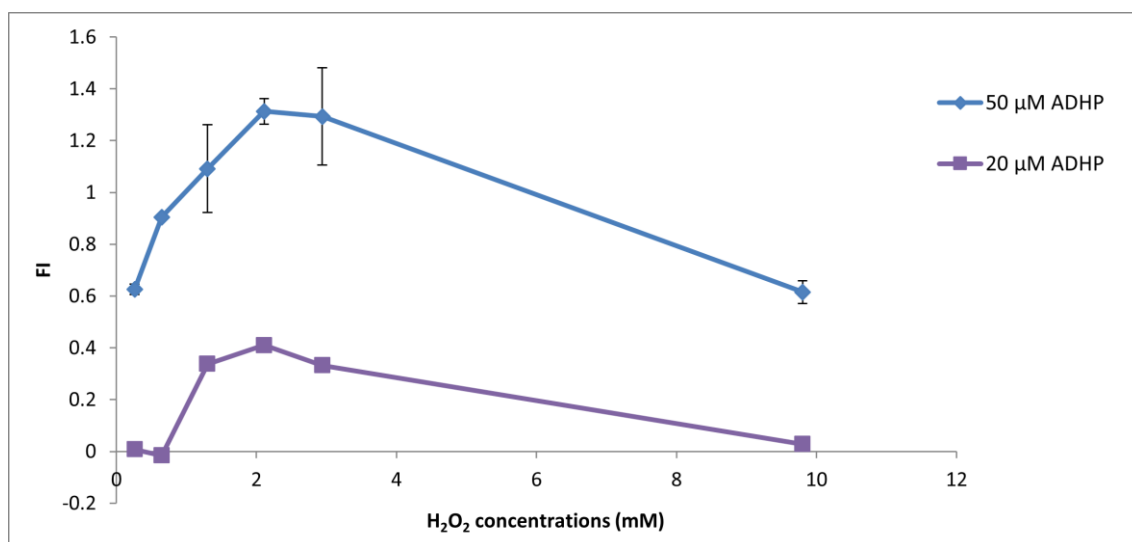


Figure S1. Influence of H₂O₂ concentration on the analytical signal of the enzymatic reaction.

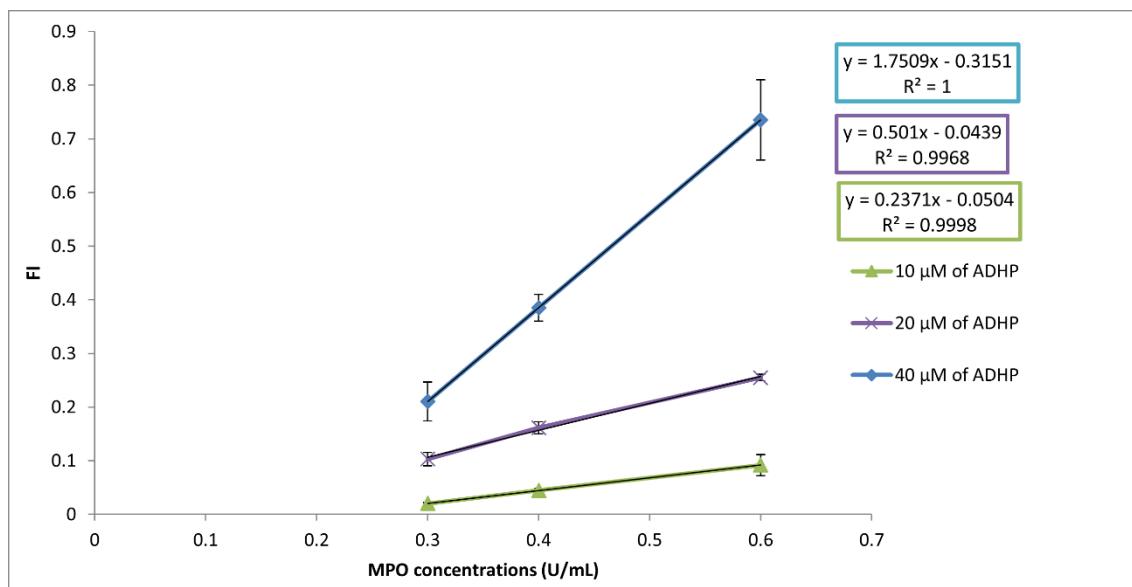
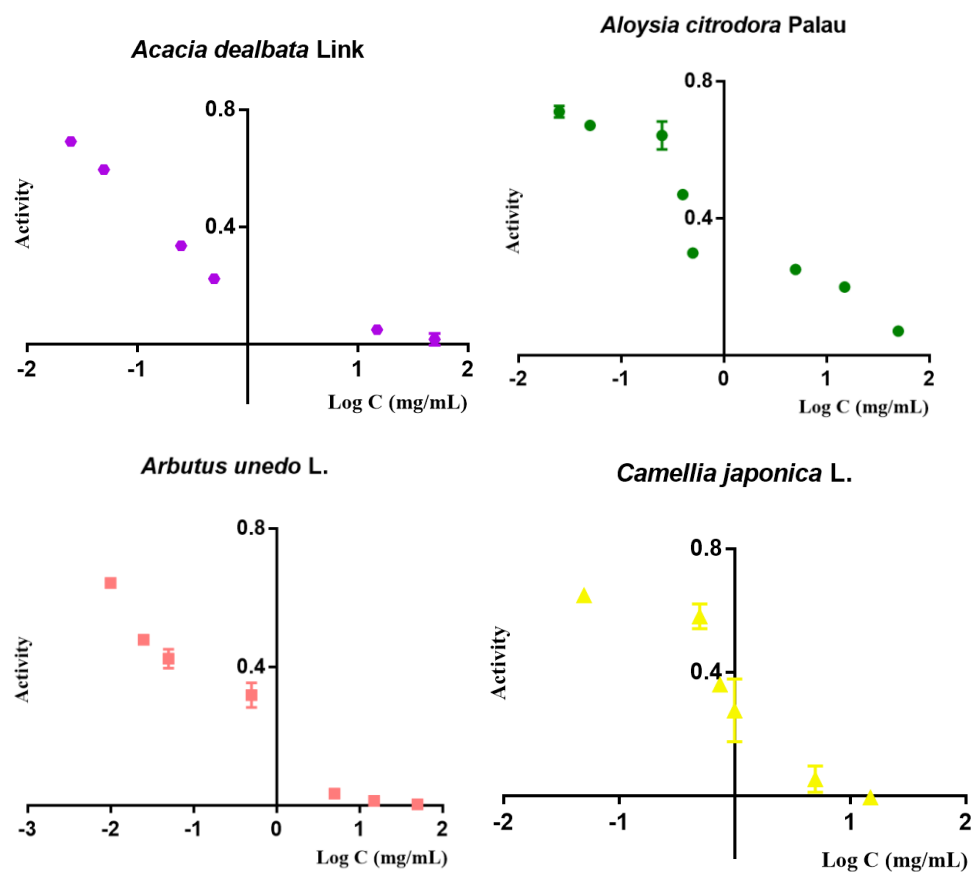


Figure S2. Influence of MPO and ADHP concentration on the analytical signal of the enzymatic reaction.



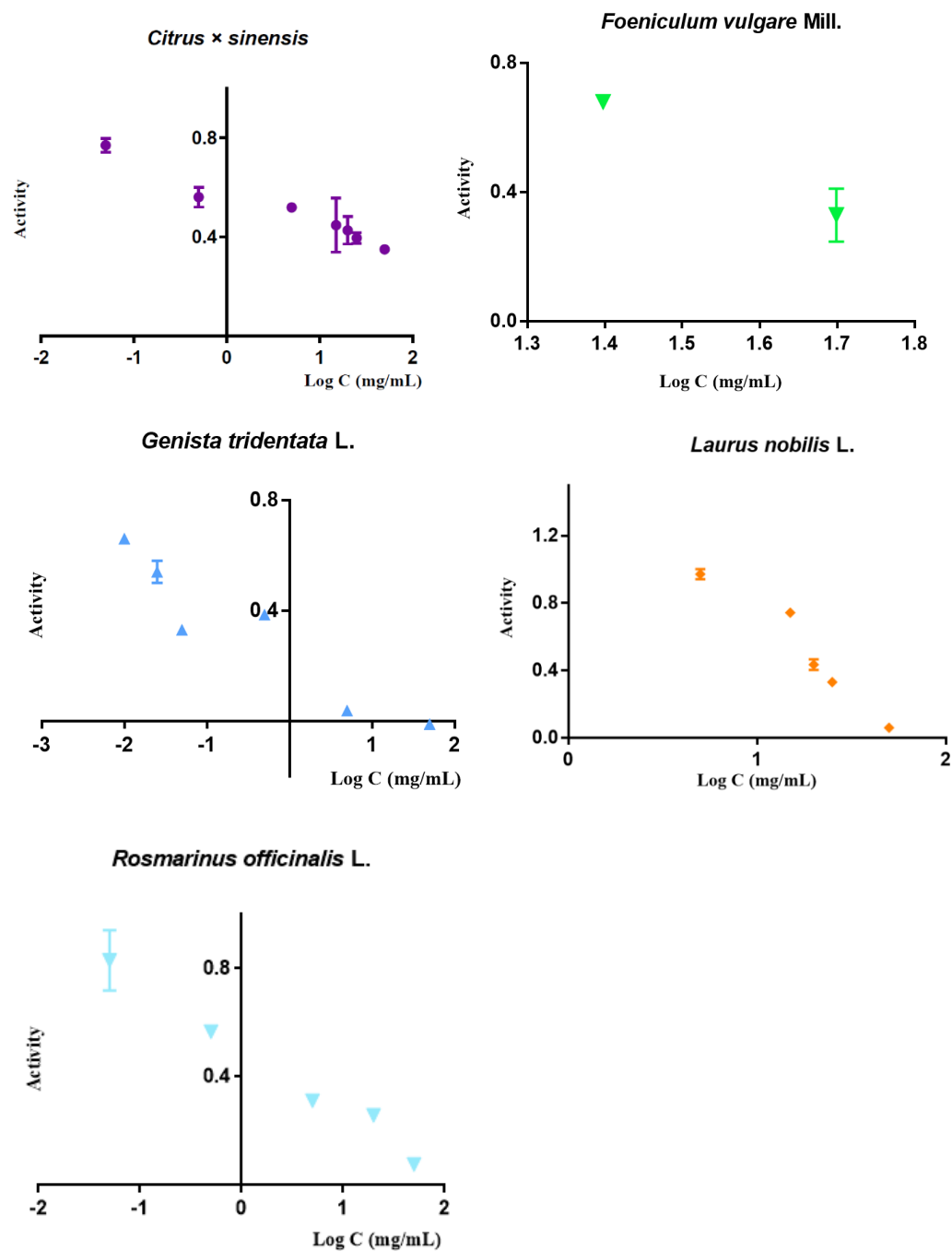


Figure S3. Experimental inhibition data of the plant extracts tested in the MPO inhibition assays in SIA.

Table S2. Analytical cycle developed and optimized in the SIA system.

Step	Position Valve	In/Out	Number of steps	Time (s)	Event
3	2	Out	-320	2.4	Aspiration of ADHP
4	4	Out	-80	1.2	Aspiration of buffer/sample
5	6	Out	-240	1.8	Aspiration of enzyme

6	3	Out	-80	1.2	Aspiration of H ₂ O ₂
7	5	Out	2670	20	Propulsion to the reaction tube
8	5	Out	0	300	5 minutes of stopped flow in the thermo- static bath
9	5	Out	18500	139	Propulsion to the detector
