

Supplementary Material

Effect of solvent polarity on the Ultrasound Assisted Extraction and antioxidant activity of phenolic compounds from habanero pepper leaves (*Capsicum chinense*) and its identification by UPLC-PDA-ESI-MS/MS

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Table S1

Table 1. Experimental design for the evaluation of the effect of method and solvent on the total phenolic content (TPC) and antioxidant activity of habanero pepper (*C. chinense*) leaves extracts.

Treatment	Factor Levels		Responses (Y ₁ , Y ₂ , Y ₃)
	A: Extraction Method	B: Solvent	
1	CE	W	Content of Phenolic Compounds
2	CE	1% AcOH	
3	CE	20% MeOH	
4	CE	50% MeOH	
5	CE	80% MeOH	
6	CE	80% Ace	
7	CE	MeOH	
8	CE	Ace	
9	CE	AcOEt	
10	CE	Hx	
11	UAE	W	
12	UAE	1% AcOH	
13	UAE	20% MeOH	
14	UAE	50% MeOH	
15	UAE	80% MeOH	
16	UAE	80% Ace	
17	UAE	MeOH	
18	UAE	Ace	
19	UAE	AcOEt	
20	UAE	Hx	

CE: Conventional Extraction; **UAE:** Ultrasound-Assisted Extraction; **W:** water; **1% AcOH:** 1% acetic acid; **20% MeOH:** 20% methanol; **80% MeOH:** 80% methanol; **80% Ace:** 80% acetone; **MeOH:** methanol; **Ace:** acetone; **AcOEt:** ethyl acetate; **Hx:** hexane.

Figure S1

Conventional extraction (CE) representation

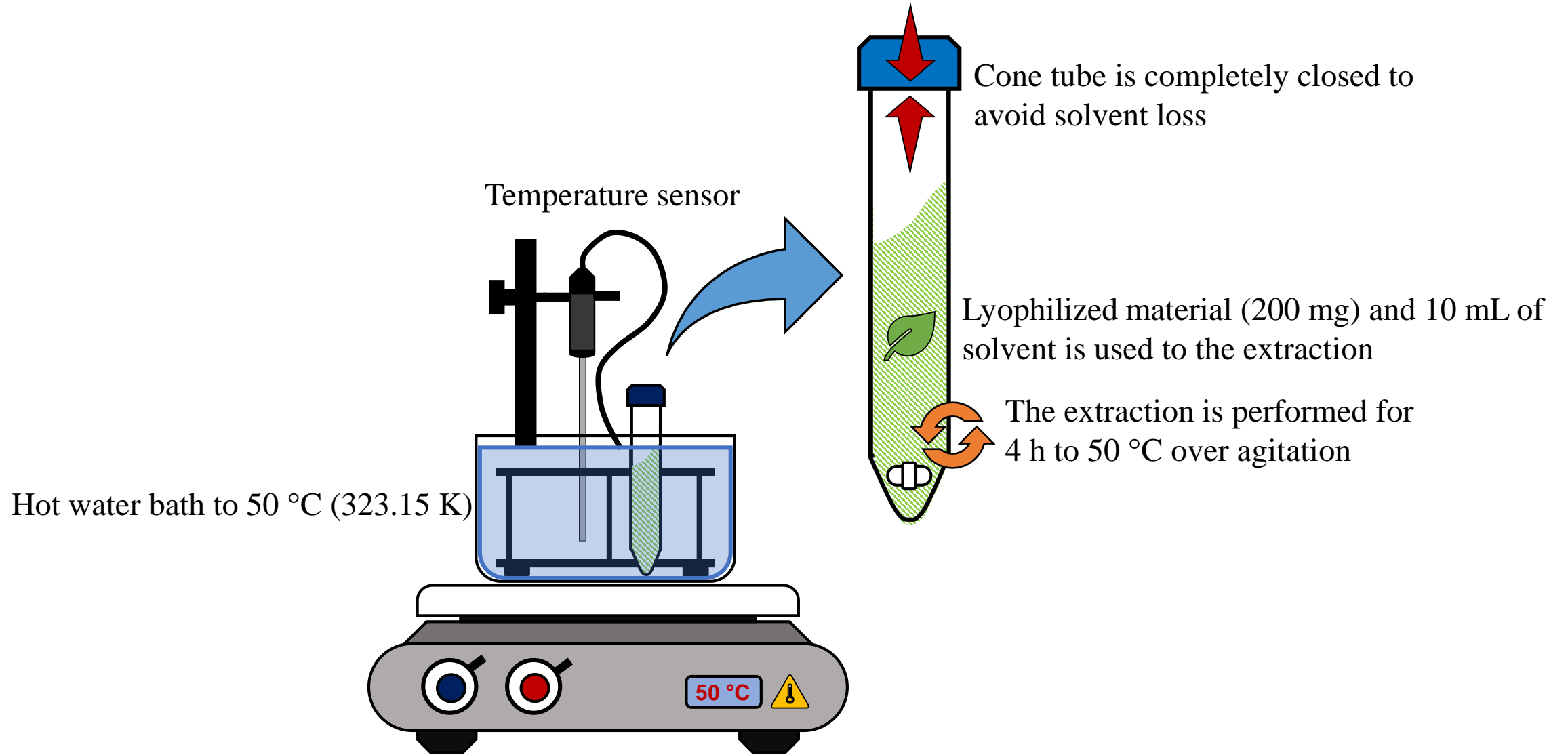
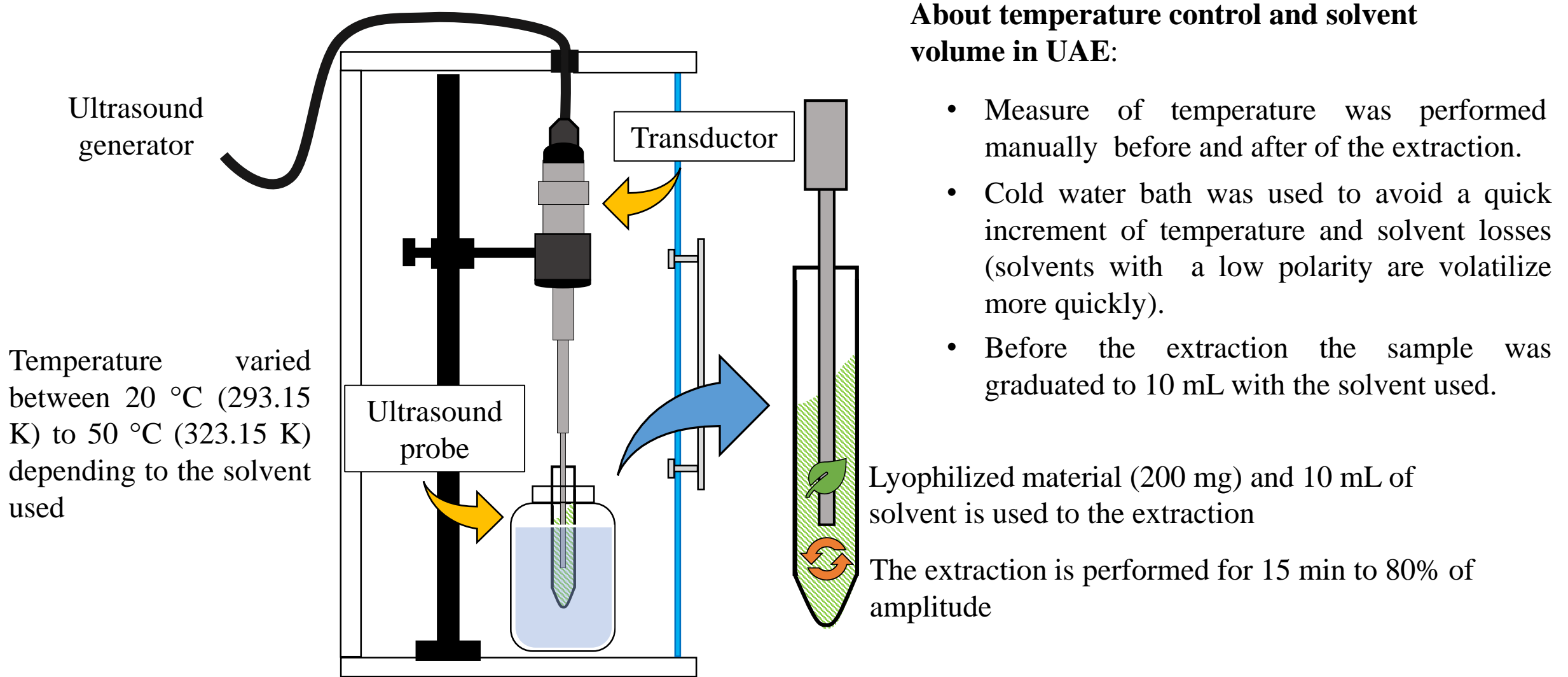


Figure S2

Ultrasound assisted extraction (UAE) representation



About temperature control and solvent volume in UAE:

- Measure of temperature was performed manually before and after of the extraction.
- Cold water bath was used to avoid a quick increment of temperature and solvent losses (solvents with a low polarity are volatilize more quickly).
- Before the extraction the sample was graduated to 10 mL with the solvent used.

Cavitations produced the rupture of cell wall and release phenolic compounds. That allow the solvation of phenolics in solvent used

Figure S3

Method used to obtain hydrolyzed extract

