

1 Supplementary material

2 **Application of alkali damage technique and natural deep eutectic solvent for the**
3 **greener extraction from peanut shells: optimization and kinetic study**

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Table S1 The accuracy and precision of the proposed method

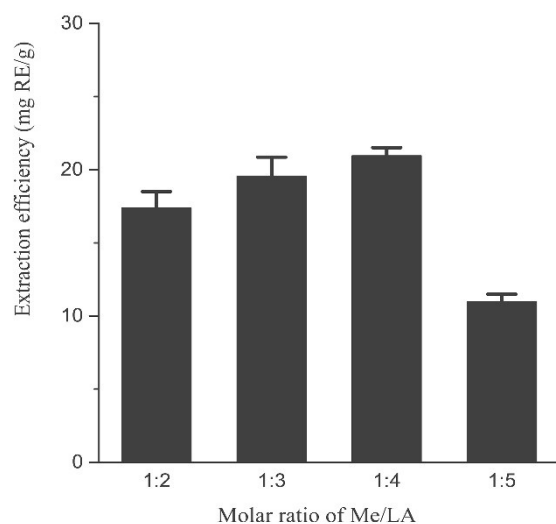
Samples extract	Accuracy (%)	Precision	
		Intra-day (%)	Inter- day (%)
Low (50%)	98.10	1.27	1.34
Medium (100%)	99.80	0.91	1.36
High (150%)	98.33	0.66	0.83

23 **Table S2** Flavonoids concentration (mg RE/mL) in the Me/LA extract at different
 24 times and temperatures

Extraction on time (min)	Extraction temperature (°C)				
	60	65	70	75	80
65	0.3650±0.00 12	0.4057±0.01 01	0.4704±0.00 41	0.5245±0.00 09	0.5530±0.00 45
75	0.3790±0.00 14	0.4204±0.00 27	0.4919±0.00 57	0.5419±0.00 37	0.5642±0.00 39
85	0.3876±0.00 46	0.4292±0.00 71	0.5041±0.00 26	0.5563±0.00 73	0.5696±0.01 41
95	0.3968±0.01 16	0.4339±0.00 58	0.5175±0.00 34	0.5624±0.01 27	0.5729±0.00 74
105	0.4031±0.01 09	0.4374±0.00 48	0.5241±0.00 61	0.5667±0.00 45	0.5753±0.00 47
115	0.4169±0.00 92	0.4450±0.00 71	0.5351±0.00 25	0.5734±0.00 78	0.5771±0.00 62

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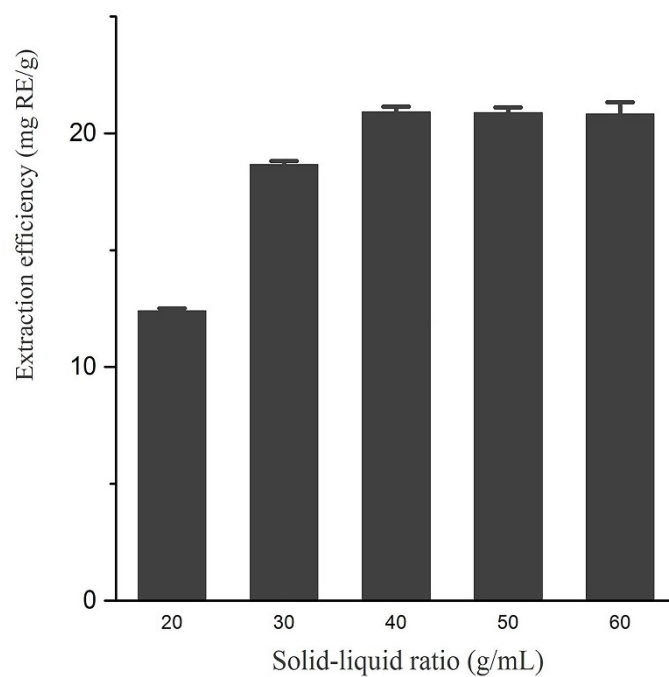


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28 **Fig. S1** Effects of different molar ratios of Me/LA on the extraction efficiency of

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flavonoids from peanut shells in ultrasonic extraction.



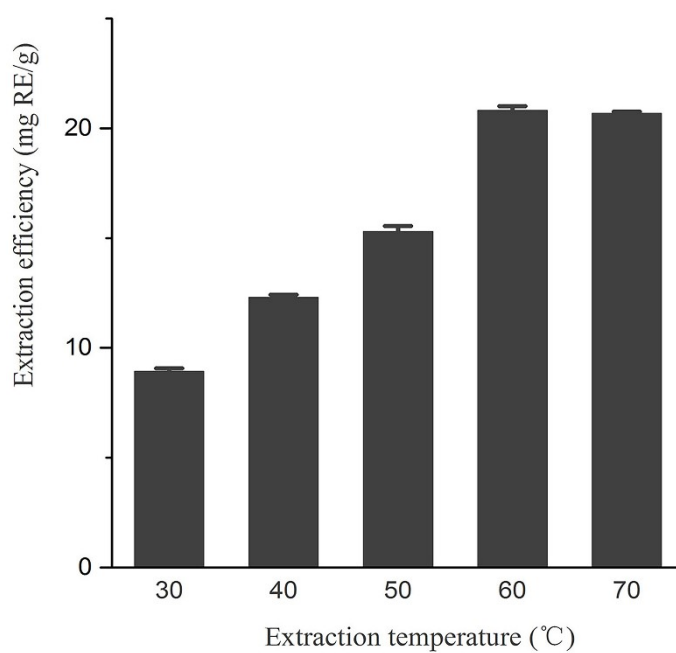
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31 **Fig. S2** Effect of solid-liquid ratio on extraction efficiency of flavonoids from peanut

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shells in ultrasonic extraction.

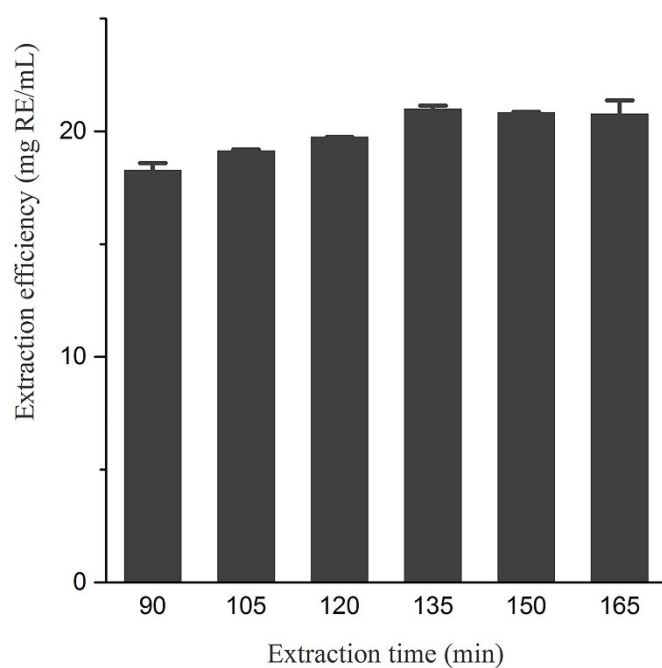
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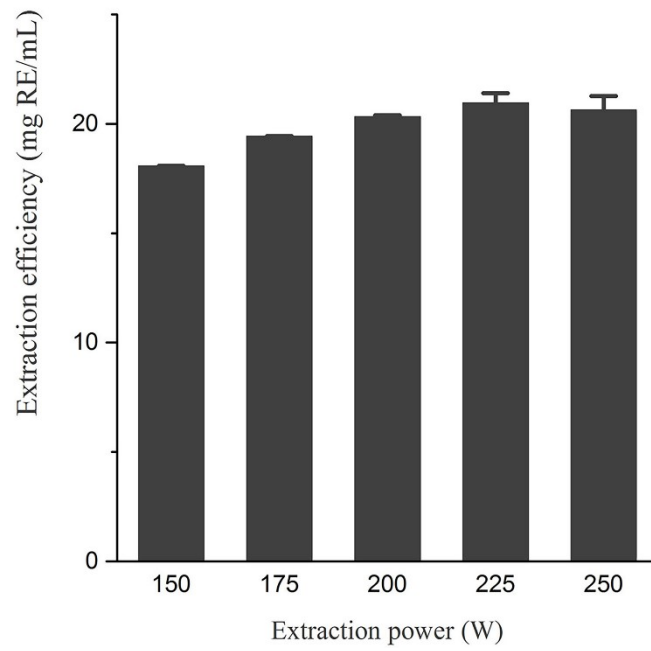
35 **Fig. S3** Effect of extraction temperature on extraction efficiency of flavonoids from
 36 peanut shells in ultrasonic extraction.

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39 **Fig. S4** Effect of extraction time on extraction efficiency of flavonoids from peanut
 40 shells in ultrasonic extraction.



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42 **Fig. S5** Effect of extraction power on extraction efficiency of flavonoids from peanut

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shells in ultrasonic extraction.

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