

## SUPPLEMENTARY MATERIAL

**Table S1.** Two-phase systems tested for separation by CPC.

System	CyHex:MeOAc:EtOH:H <sub>2</sub> O	Equilibration time (min)
<b>I</b>	0.5:9:3:5.5	1.30
<b>II</b>	0.5:9:1.5:5.5	4.50
<b>III</b>	1:9:1:5.5	2.43
<b>IV</b>	2.5:9:0.5:5.5	0.55
<b>V</b>	2.5:4.5:0.5:5.5	0.44
<b>MeOAc:BuOH:H<sub>2</sub>O</b>		
<b>VI</b>	2.5:2.5:5	0.32
<b>VII</b>	3:2:5	0.58
<b>VIII</b>	5:3:5	1.42

**Table S2.** Calibration curve with rutin standard. Colorimetric method, UV-vis.

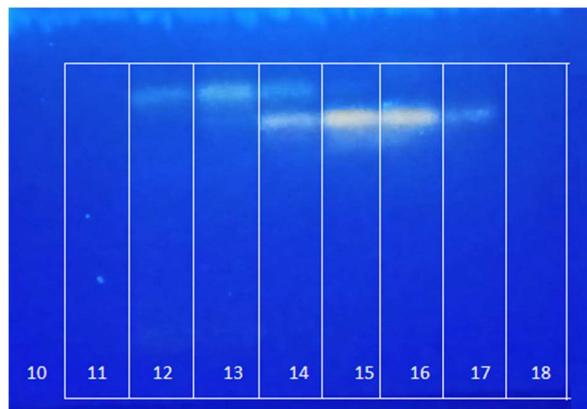
Concentration $\mu\text{g mL}^{-1}$	Absorbance	RSD <10%
<b>5</b>	0.054 $\pm$ 0.003	5.45
<b>10</b>	0.126 $\pm$ 0.008	6.38

<b>20</b>	$0.290 \pm 0.005$	1.79
<b>30</b>	$0.492 \pm 0.022$	4.40
<b>40</b>	$0.669 \pm 0.027$	3.97
<b>50</b>	$0.891 \pm 0.036$	4.00
<b>Extract <i>K. pinnata</i></b>	<b><math>0.132 \pm 0.001</math></b>	<b>1.07</b>
<b>100</b>		

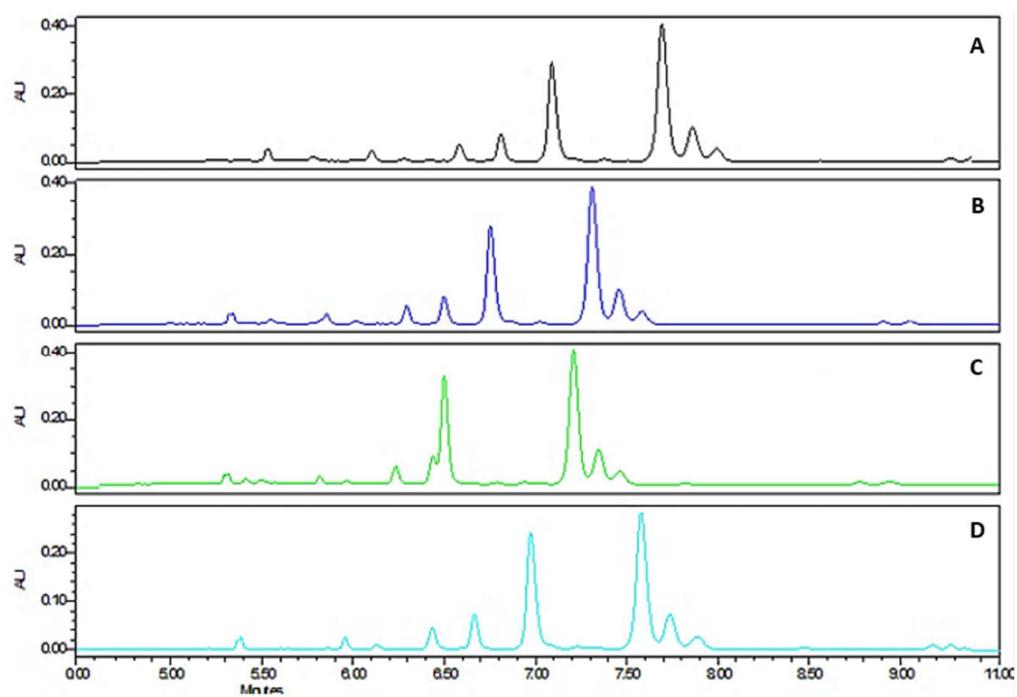
**Table S3.** Flavonoid content in the aqueous extract determined by UPLC-DAD.

Peak	Average areas	RSD	$\text{mg mL}^{-1}$	mg/mg extract	% mg
<b>1</b>	85305	4.59	8.330	0.0028	0.28
<b>3</b>	56250	0.152	5.955	0.0020	0.20
<b>4</b>	29697	0.235	3.784	0.0013	0.13
<b>5</b>	141883	0.049	12.955	0.0043	0.43
<b>6</b>	235512	0.043	20.609	0.0069	0.69
<b>7</b>	895990	0.009	74.600	0.0249	2.48
<b>8</b>	34513	0.081	4.178	0.0014	0.14
<b>9</b>	30440	0.112	3.845	0.0013	0.13
<b>10</b>	1478949	0.006	122.255	0.0408	4.07

<b>11</b>	409369	0.009	34.821	0.0116	1.16
<b>12</b>	164273	0.016	14.785	0.0049	0.49
<b>13</b>	40154	0.029	4.639	0.0015	0.15
<b>14</b>	38928	0.034	4.539	0.0015	0.15
<b>Total</b>	3641263	0.018	299.0156	0.0997	9.97



**Figure S1.** TLC of the fractions obtained by CPC. Stationary phase: silica gel F<sub>254</sub> 60. Mobile phase: Ethyl acetate: Formic acid: Acetic acid: Water (100:11:11:26). Revelator: NP and UV light at 365 nm.



**Fig. S2.** Robustness. Chromatograms of the extract by UPLC-PDA at  $3 \mu\text{g mL}^{-1}$ . **(A)** Extract chromatogram with validated method. **(B)** Increase in the pH of the mobile phase; Formic acid 0.5 %. **(C)** Decrease in column temperature at  $25^\circ\text{C}$ . **(D)** Decreased flow;  $0.3 \text{ mL min}^{-1}$ .