

## Supporting Information

### **Ultrasound-assisted extraction and dispersive liquid-liquid microextraction coupled with gas chromatography-mass spectrometry for the sensitive determination of essential oil components in lavender**

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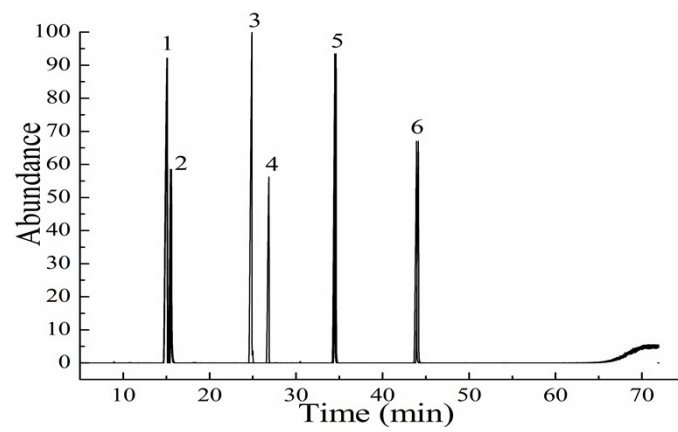
**Table S1** Quantitation results of six main compounds in lavender under optimized UAE-DLLME conditions.

| Compounds            | $t_R^a$                              | Regression equation                         | $R^2$  | Linear range<br>$\mu\text{g}$ | LOD <sup>b</sup><br>ng | Recovery<br>% | Content<br>mg/g | m/z <sup>c</sup>       |
|----------------------|--------------------------------------|---|--------|-------------------------------|------------------------|---------------|-----------------|------------------------|
| linalool             | 15.31, 15.35, 15.37,<br>15.30, 15.39 | $y = 0.53 \times 10^6 x + 3.93 \times 10^6$ | 0.9991 | 8.80-400                      | 1.75                   | 97.62         | 2.61±0.12       | 71, 93, 55,<br>43, 41  |
| l-octen-3-yl-acetate | 15.50, 15.55, 15.59,<br>15.41, 15.42 | $y = 0.34 \times 10^6 x + 1.09 \times 10^6$ | 0.9982 | 0.02-173.40                   | 4.41                   | 90.32         | 0.46±0.01       | 43, 99, 54,<br>41, 67  |
| linalyl acetate      | 24.93, 24.92, 24.98,<br>24.95, 24.95 | $y = 0.30 \times 10^6 x + 4.32 \times 10^6$ | 0.9995 | 8.80-400                      | 2.94                   | 94.38         | 23.27±1.02      | 93, 43, 80,<br>41, 121 |
| lavandulyl acetate   | 26.72, 26.72, 26.71,<br>26.72, 26.70 | $y = 0.32 \times 10^6 x + 1.05 \times 10^6$ | 0.9986 | 4.40-200                      | 3.41                   | 103.84        | 4.72±0.09       | 69, 93, 43,<br>41, 68  |
| caryophyllene        | 34.67, 34.45, 34.68,<br>34.47, 34.76 | $y = 0.39 \times 10^6 x + 1.26 \times 10^6$ | 0.9994 | 2.20-200                      | 7.50                   | 108.38        | 1.43±0.32       | 93, 133,<br>91, 41, 79 |
| caryophyllene oxide  | 44.14, 44.17, 44.16,<br>44.22, 43.92 | $y = 0.36 \times 10^6 x + 0.63 \times 10^6$ | 0.9991 | 1.20-200                      | 3.00                   | 87.91         | 1.51±0.06       | 43, 41, 79,<br>93, 91  |

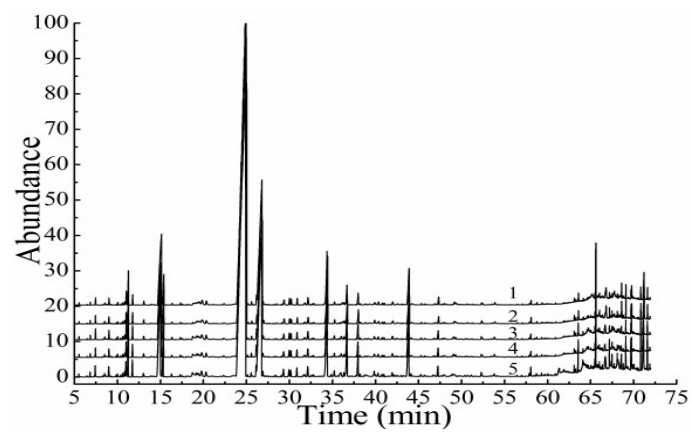
<sup>a</sup> Retention time of five replicate experiments.

<sup>b</sup> LOD, limit of detection, for a S/N = 3.

<sup>c</sup> Five largest peaks in mass spectra.



**Fig.S1** The total ion chromatograms of the standard mixture. Peak identity: 1, linalool; 2, 1-octene-3-yl-acetate; 3, linalyl acetate; 4, lavandulyl acetate; 5, caryophyllene; and 6, caryophyllene oxide.



**Fig.S2** GC-MS total ion chromatograms of five replicate experiments.