

## Supplementary material

Application Complex-GAPI tool for green assessment of deep  
eutectic solvent-based ferrofluid assisted liquid-liquid  
microextraction method for detection of dimethyl phthalate in  
beverage samples

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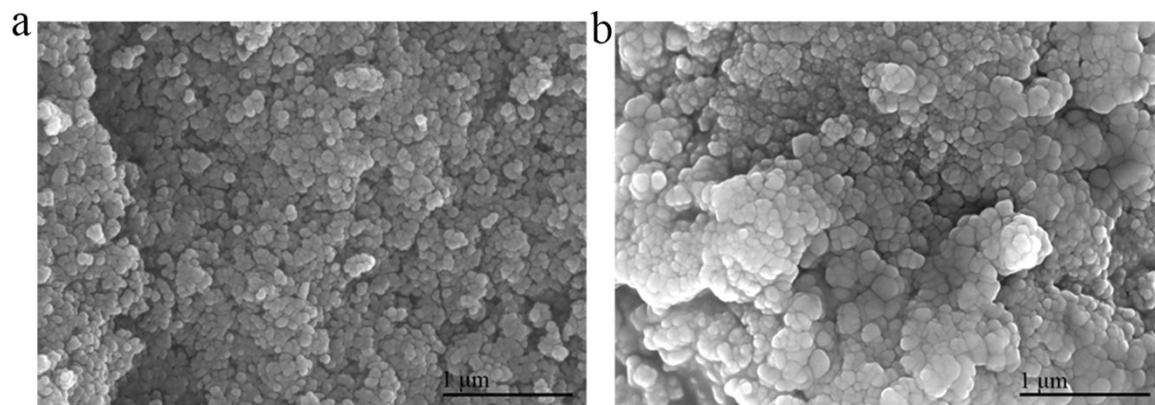


Fig. S1. SEM imaged of Fe<sub>3</sub>O<sub>4</sub>@OA (a) and ferrofluid (b).

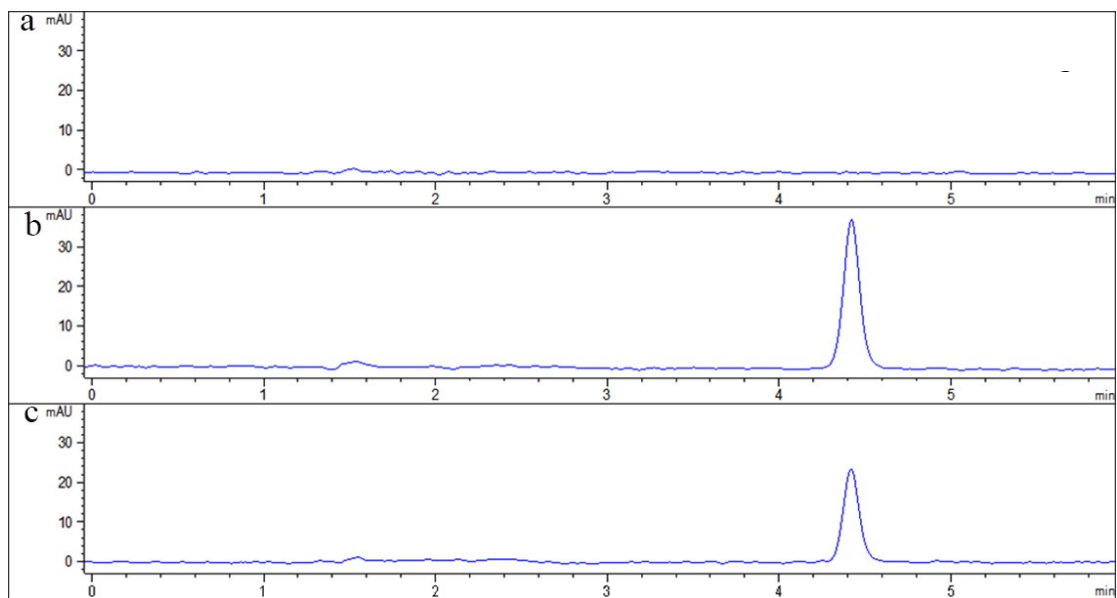


Fig. S2. The chromatograms of the blank solution (a), the standard solution (b), and spiked sample solution (c).

**Table S1** The composition and molar ratio of DESs synthesized in this work.

| Component 1 | Component 2   | Molar ratio | Abberviation |
|-------------|---------------|-------------|--------------|
| DL-Menthol  | Thymol        | 1:2         | DES-1        |
|             | Decanoic acid | 1:2         | DES-2        |
|             | Octanoic acid | 1:2         | DES-3        |
|             | Oleic acid    | 1:2         | DES-4        |