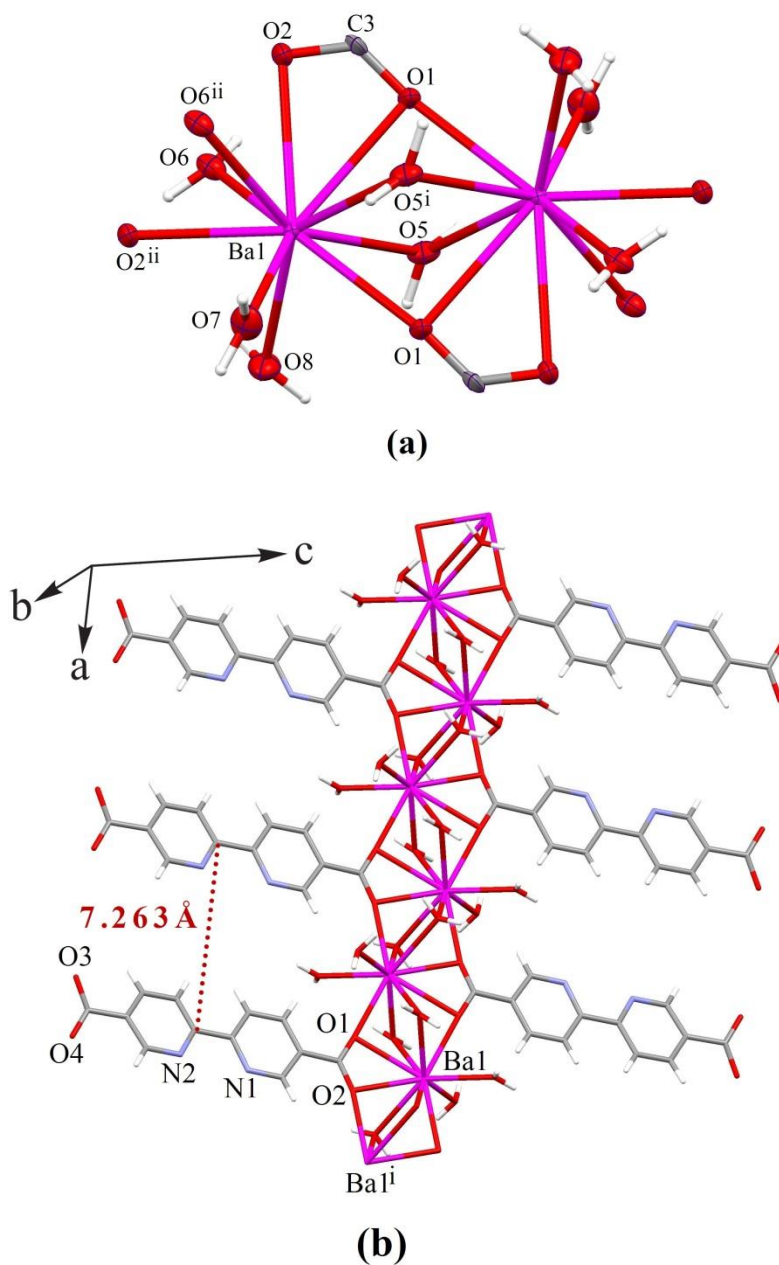
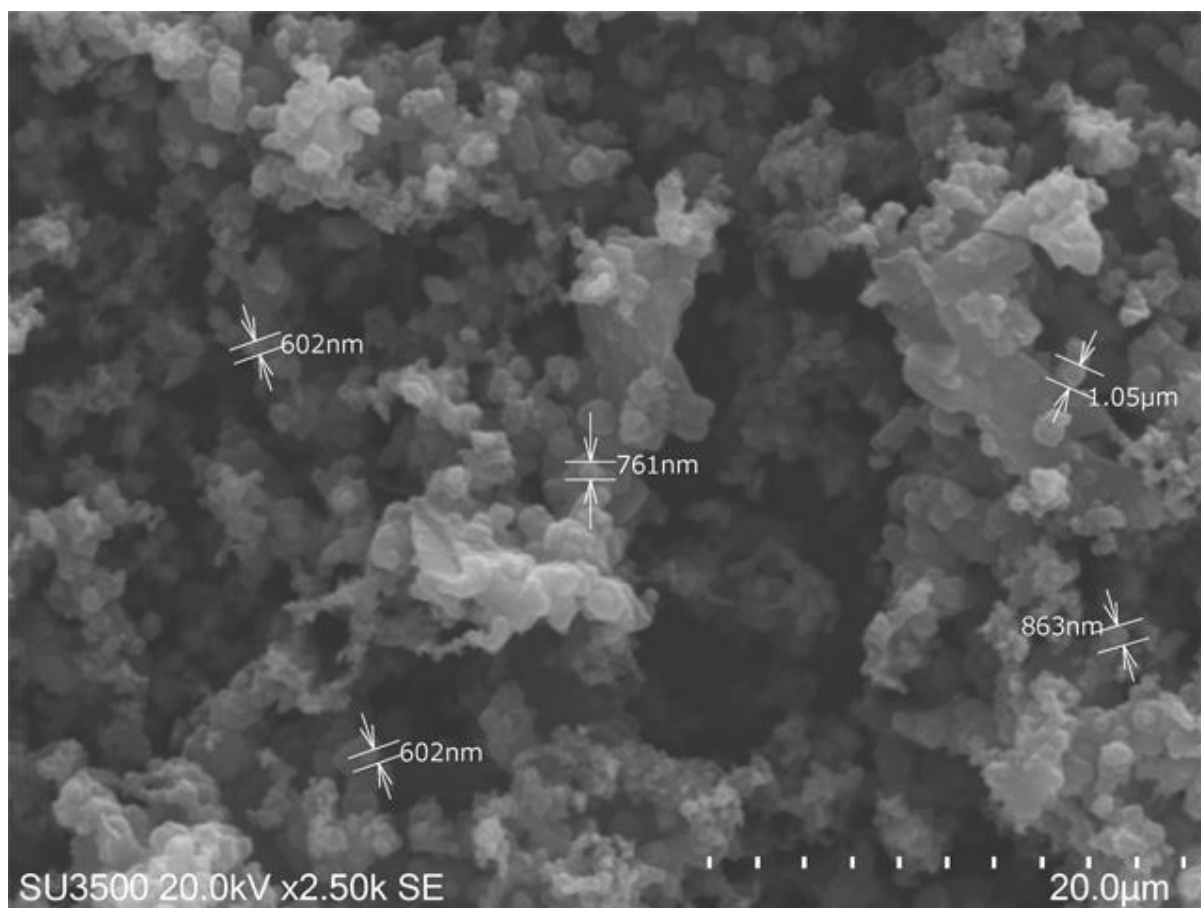
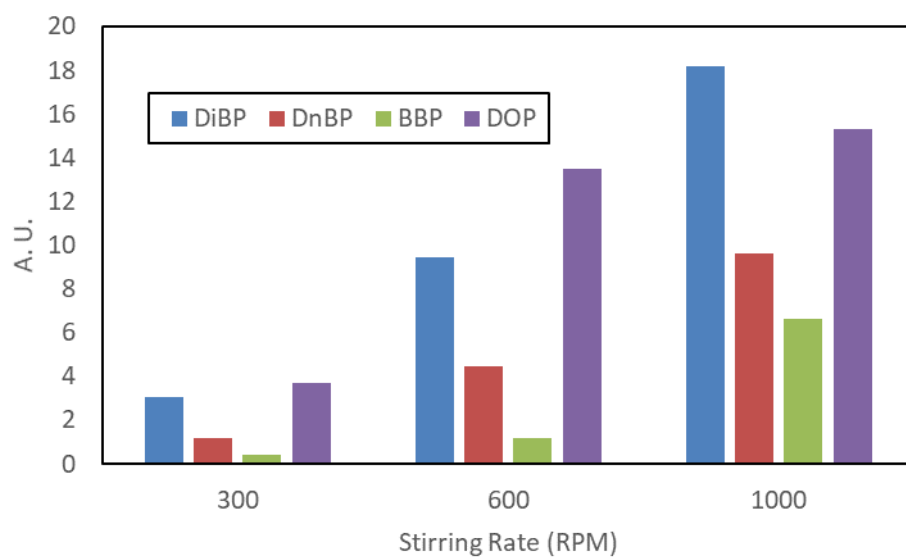




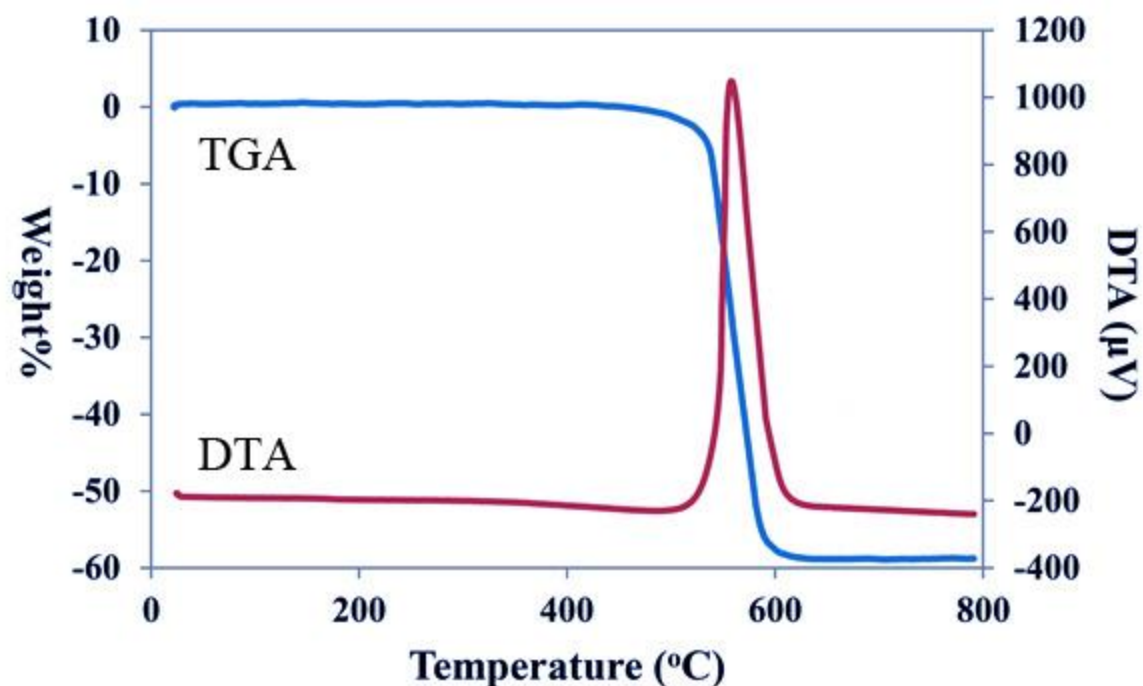
ESM-Fig. 1. (a) Local coordination environment of two Ba(II) cations in **1**. (b) One-dimensional coordination polymer of **1** along a-direction. Symmetry codes: (i) 1-x,1-y,1-z and (ii) 2-x,1-y,1-z.



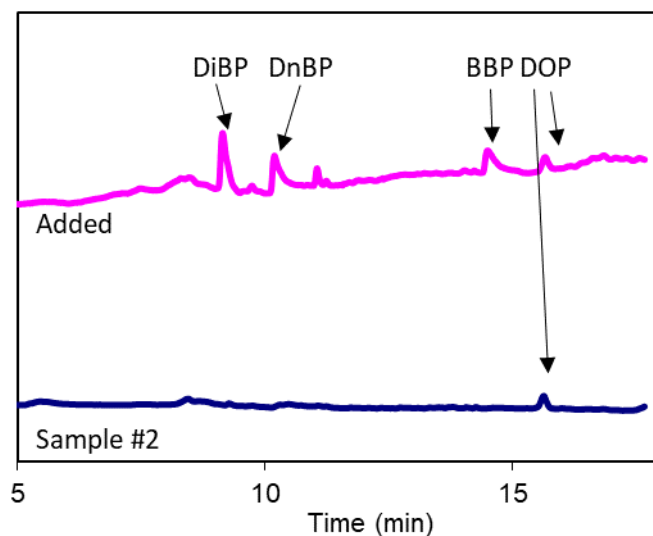
ESM-Fig. 2. Particle size of the coating.



ESM-Fig. 3. The effect of stirring rate on extraction.



ESM-Fig 4 TGA of $\text{Ba}(5,5'\text{-dcbipy})(\mu\text{-H}_2\text{O})_2(\text{H}_2\text{O})_2$



ESM-Fig 5 Chromatograms of real sample #2 (down) and one level spiked (up) of it.

Solid phase microextraction procedure

The extractions were carried out from the aqueous samples (20 mL) were spiked with appropriate aliquot of the standard solution and different amounts of NaCl content. A small magnetic bar, sand bath and a heater/stirrer were used to adjust the rotation speed and the extraction temperature. A home-made thermoelectric cooler was used to cool the fibers while the extraction media was heated, during extraction. The extraction started by placing the vial in sand bath for 2 min to reach

the equilibrium, then inserting the fiber into solution. After the extraction period, the fiber removed from the vial and placed into the GC inlet for thermal desorption.

Method optimization, validation and real sample analysis

Main factors affect the extraction including: salt concentration, time and temperature at different levels were studied by the one at a time method.

The analytical performance of the SPME method by using the title SPME fiber was validated through determining the limit of detection (LOD), linear range (LR) and intra-day and inter-day precisions under the optimized SPME conditions. The intra-day relative standard deviations (RSD) of the peak area were calculated on a single day using extractions from the aqueous solution (n=4), spiked at 5 and 55 $\mu\text{g L}^{-1}$. The extraction from aqueous solution of 5 $\mu\text{g L}^{-1}$ over three different days.

Two brine samples (aqueous solution of cheese and of cucumber barrel) were analysed to study the feasibility of the method in the analysis of real samples. No sample pretreatment step and salt-addition were used. Different levels of phthalates spiked to each sample and extracted. A regression line has been obtained, after extraction and GC analysis of the spiked samples. The amount of each phthalate was calculated by dividing intercept to slope of the regression line. A regression line has been obtained by adding different amounts of each phthalate. The relative recoveries for each case were calculated from the difference between the found and the blank values, divided by the added value.