Electronic Supplementary Information (ESI)

Portable smartphone-based new PDMS microfluidic kit for simultaneous colorimetric detection of arsenic and mercury

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Synthesis of GNPs

Briefly, 120 mL solution containing 1 mM of $HAuCl_4$ was prepared and heated under reflux. At the boiling point of the solution, 5 mL of 40 mM of trisodium citrate was added to this solution under vigorous stirring and the mixture was heated under reflux for an additional 15 min during which the color changed to deep red, indicating the formation of GNPs. The solution was allowed to cool at room temperature and stored at 4 ^{0}C for further use.

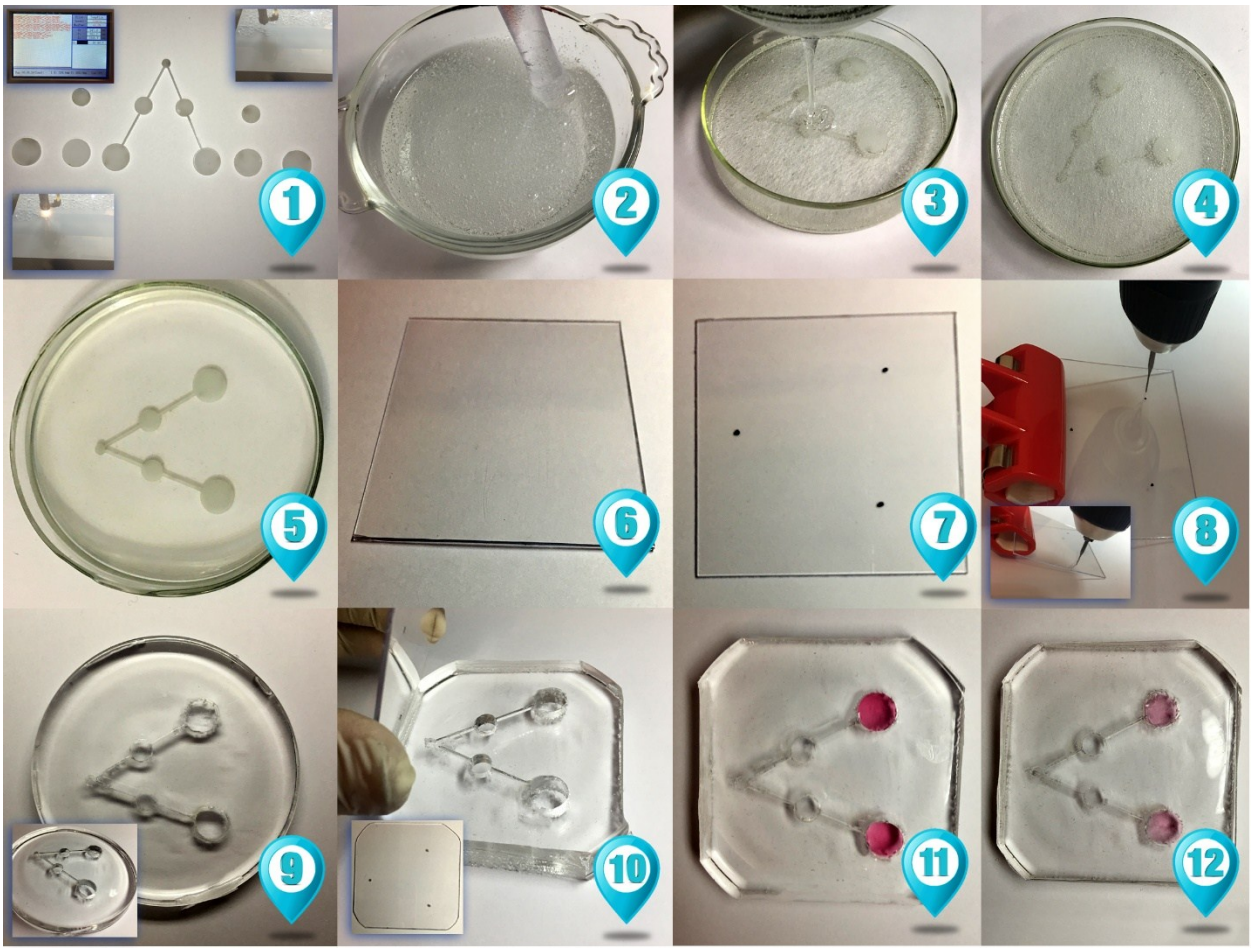

Fig. S1. The steps of fabrication microfluidic kit

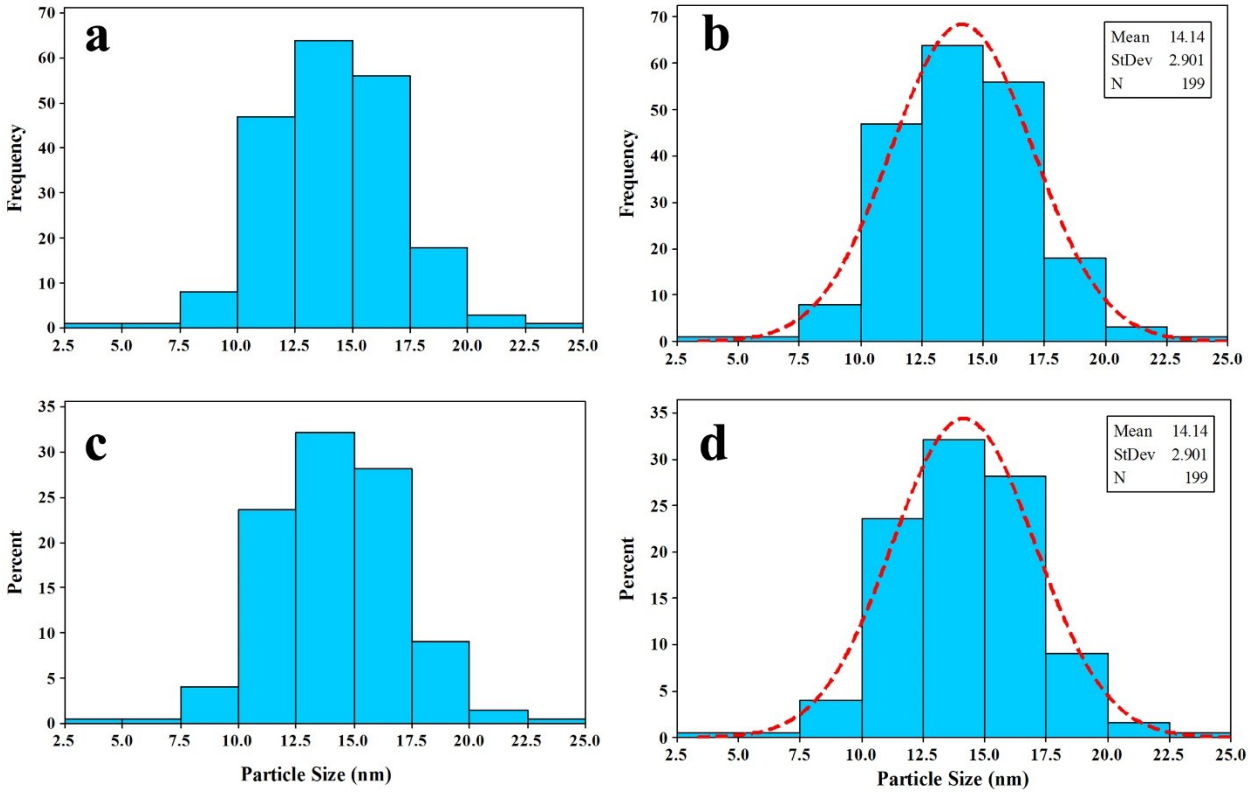

Fig. S2. The mean diameters, the diameter size frequency in the samples and the corresponding histogram

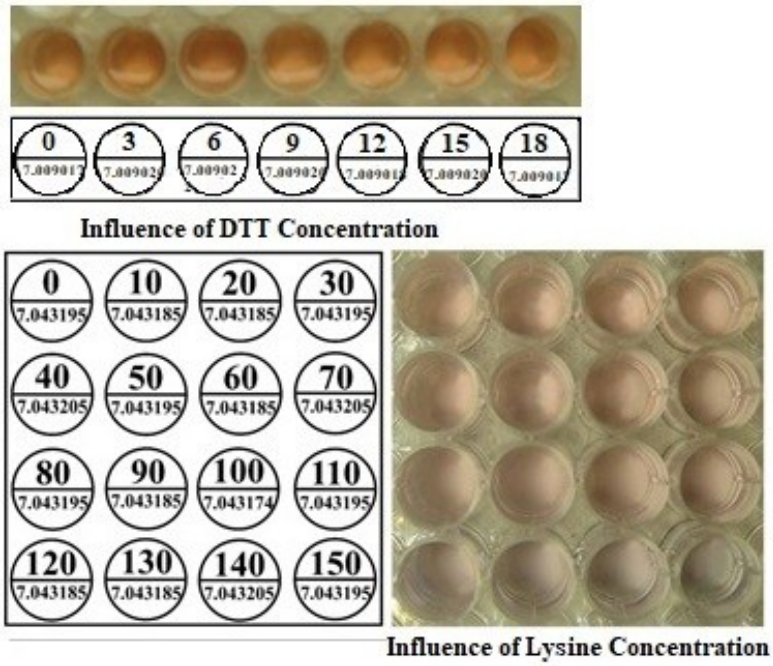

Fig. S3. Influence of DTT and Lys concentration

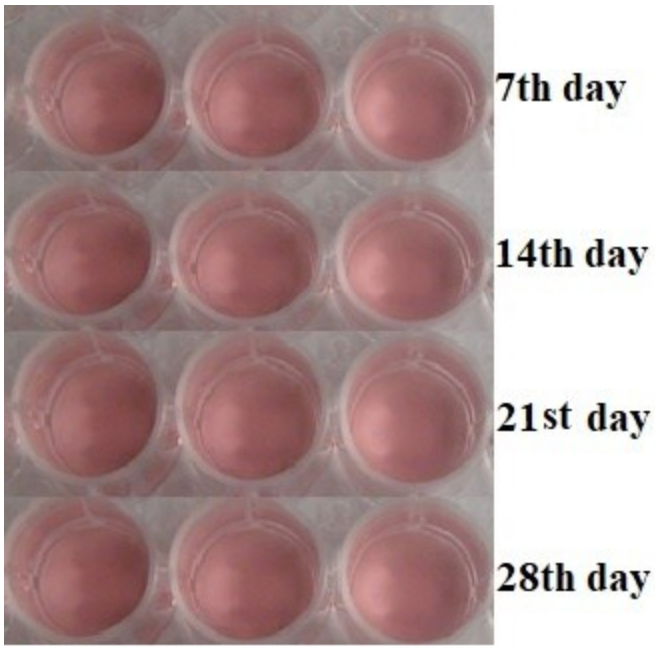

Fig. S4. Stability for colorimetric responses