

# Ultrasensitive aptamer biosensor for arsenic(III) detection in aqueous solution based on surfactant-induced aggregation of gold nanoparticles

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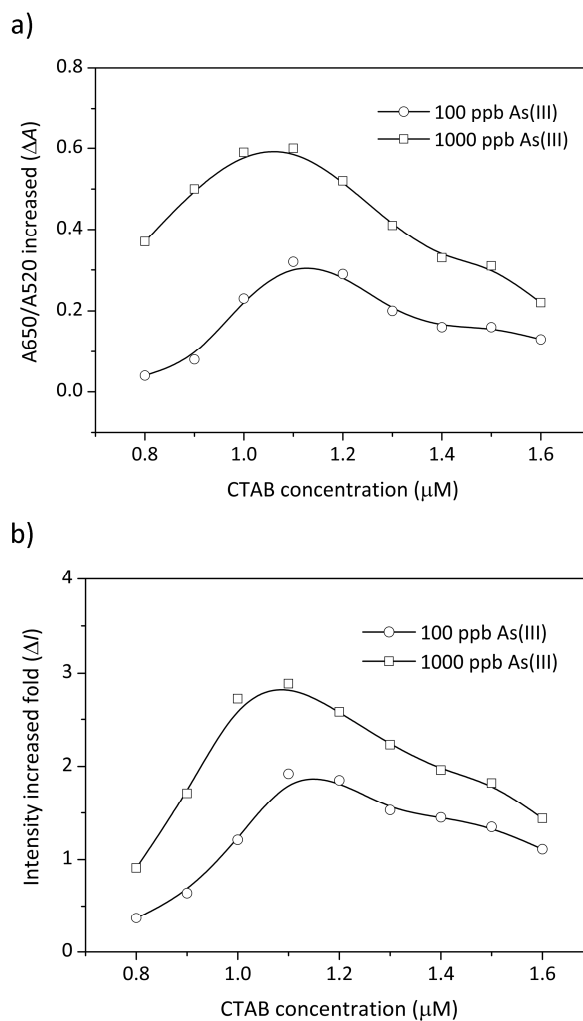
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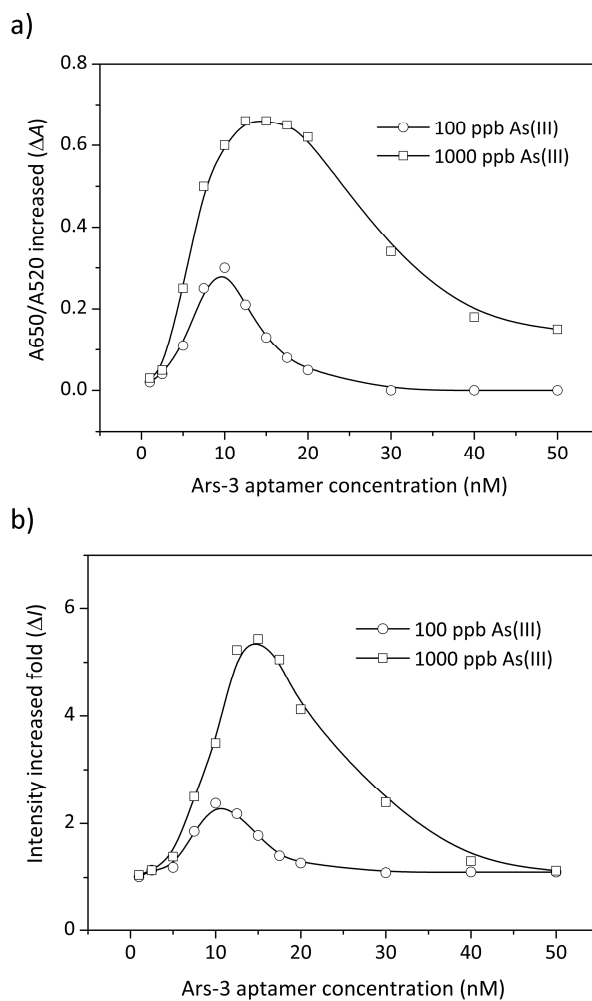
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## Electronic Supplementary Information

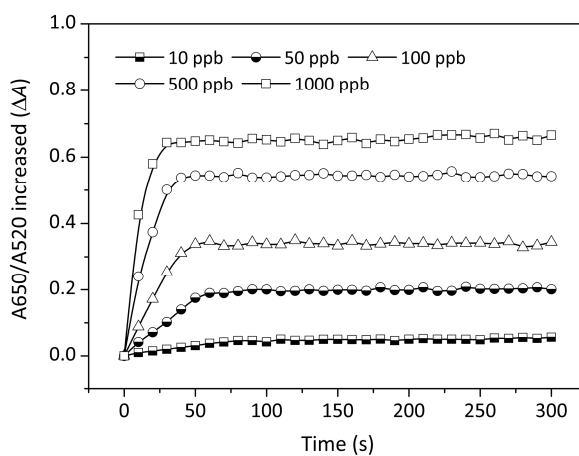
### Supplementary figures:



**Fig. S1.** Effect of CTAB concentrations on As(III) detection based on the colorimetric (a) and RS (b) assay. The concentration of Ars-3 aptamer was 7.5 nM.



**Fig. S2** Effect of Ars-3 aptamer concentrations on As(III) detection based on the colorimetric (a) and RS (b) assay. The concentration of CTAB was 1.1 M.



**Fig. S3** Kinetics of the  $\Delta A$  increases in the sensing solutions treated with different concentrations of As(III).