

Supporting Information of
One-pot synthesis of gold nanoparticles by using 4-aminoantipyrine as a novel reducing and capping agent for simultaneous colorimetric sensing of four triptan-family drugs

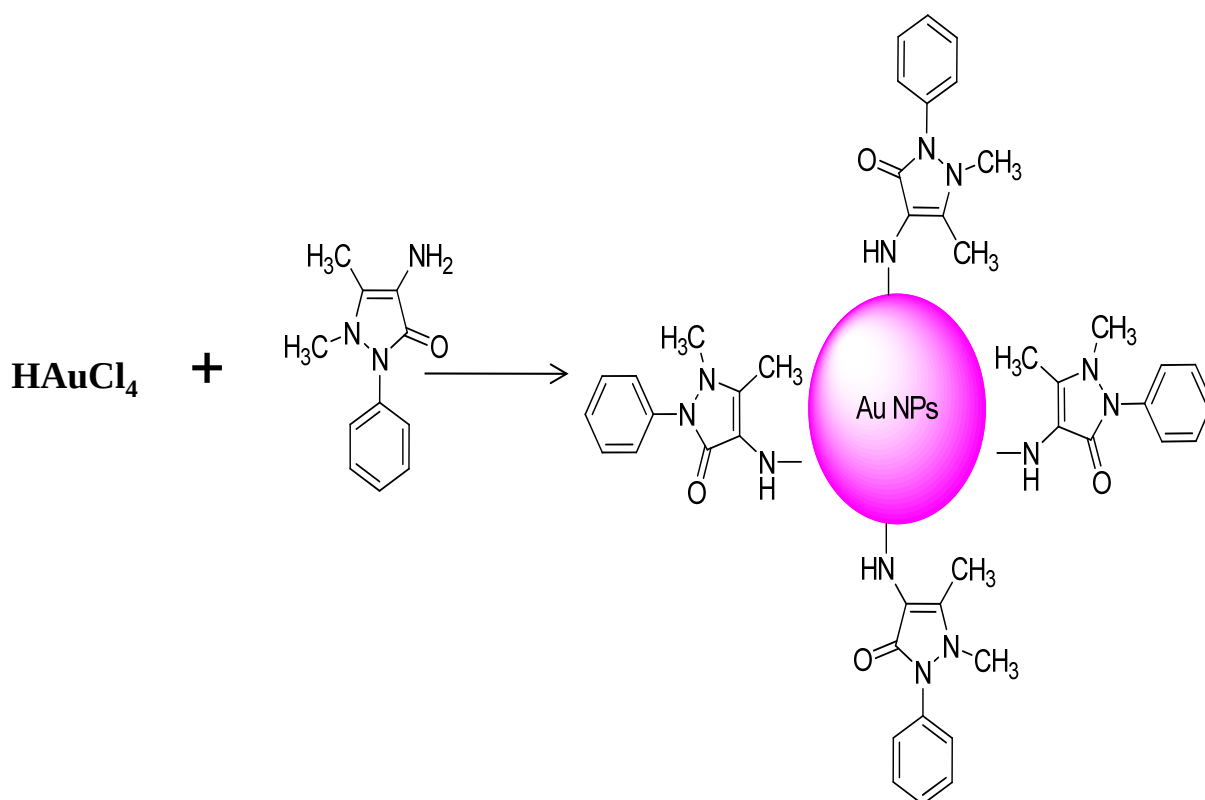
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Scheme S1. One step synthesis for preparation of AuNPs by using AAP as a reducing and capping agent.

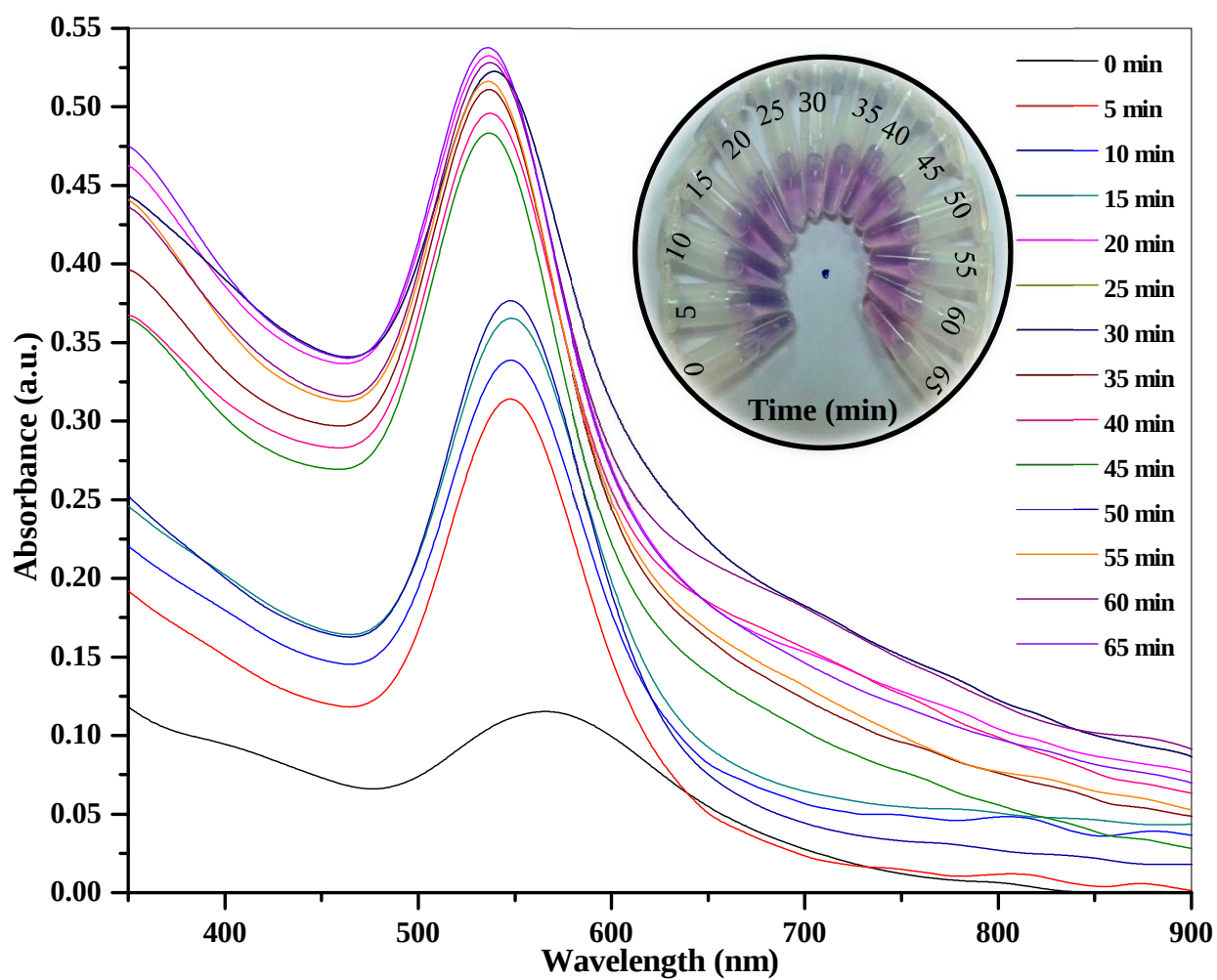


Figure S1. UV-visible absorption spectra of AuNPs prepared by using 0.5 mM of AAP at different reaction time from 0 – 65 min. Inset image is the corresponding photographs of AuNPs color at different time intervals.

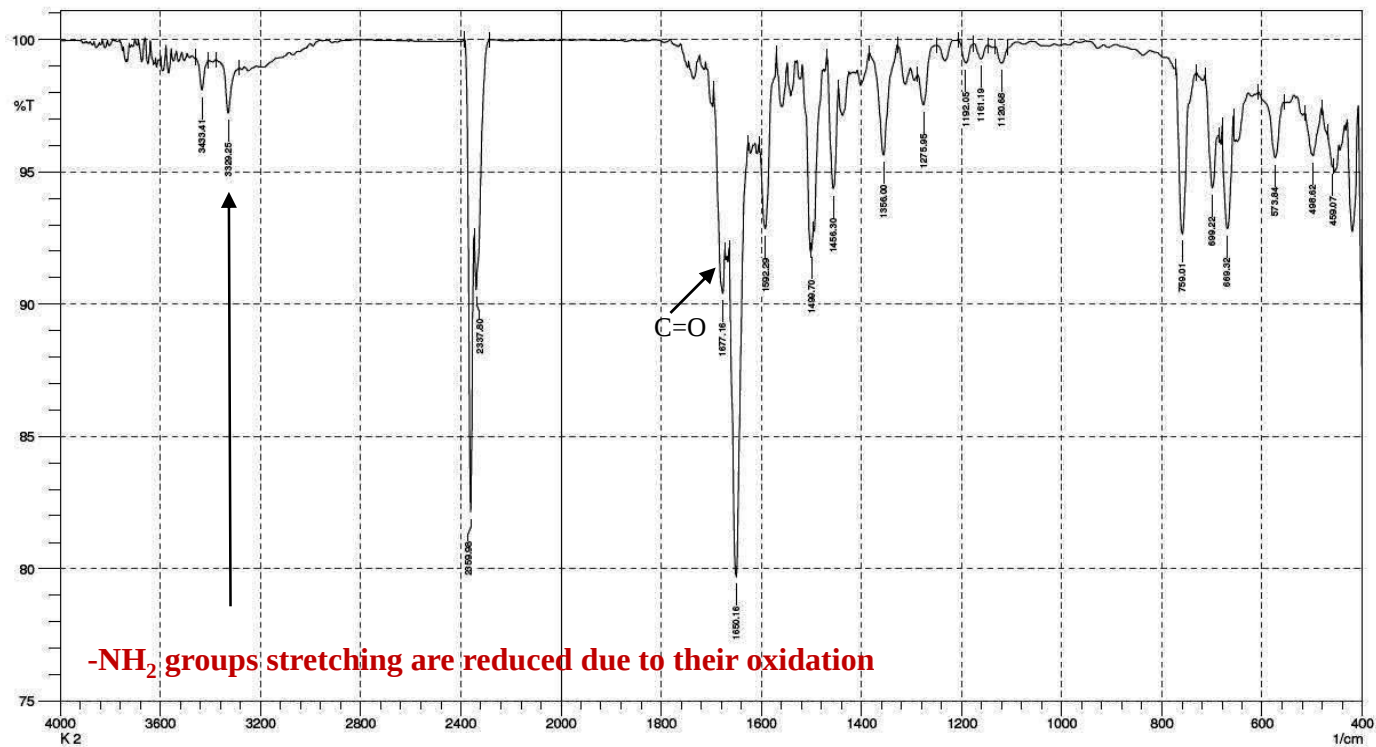
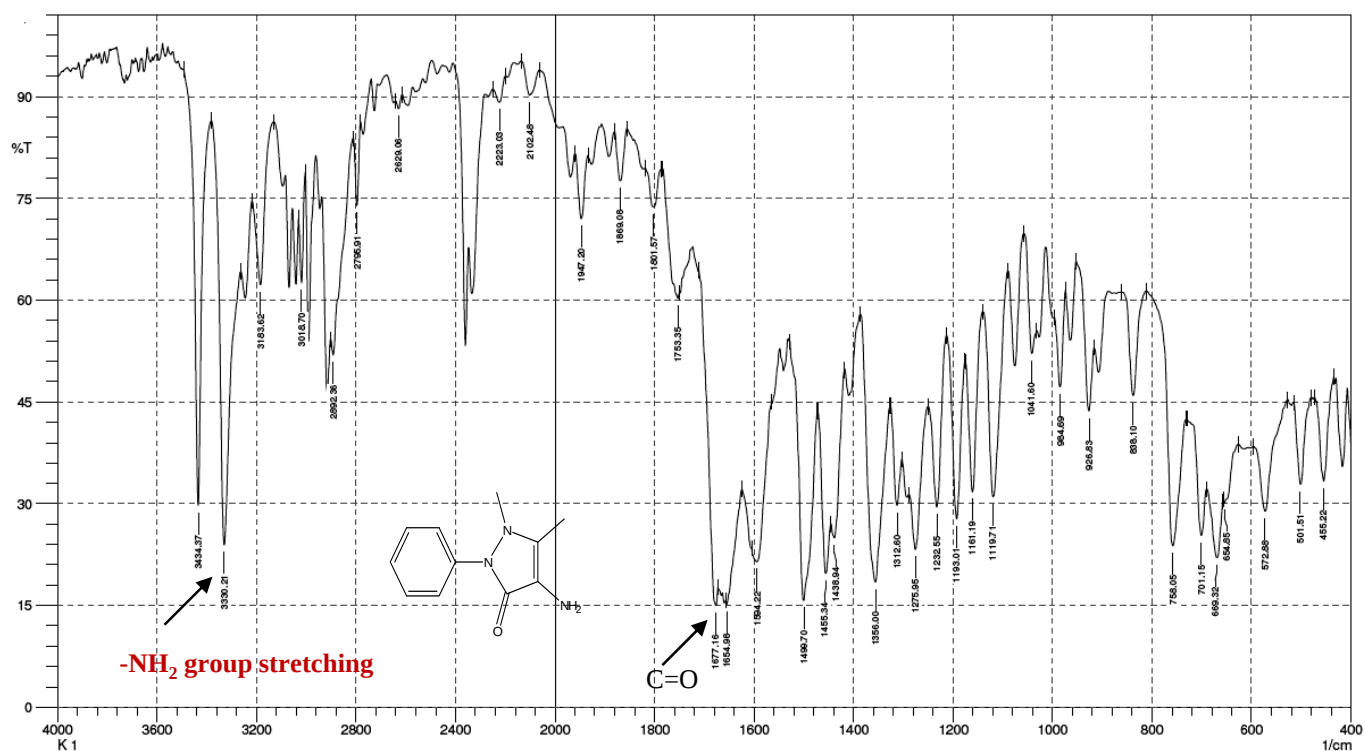


Figure S2. FT-IR spectra of (a) pure AAP and (b) AAP-AuNPs.

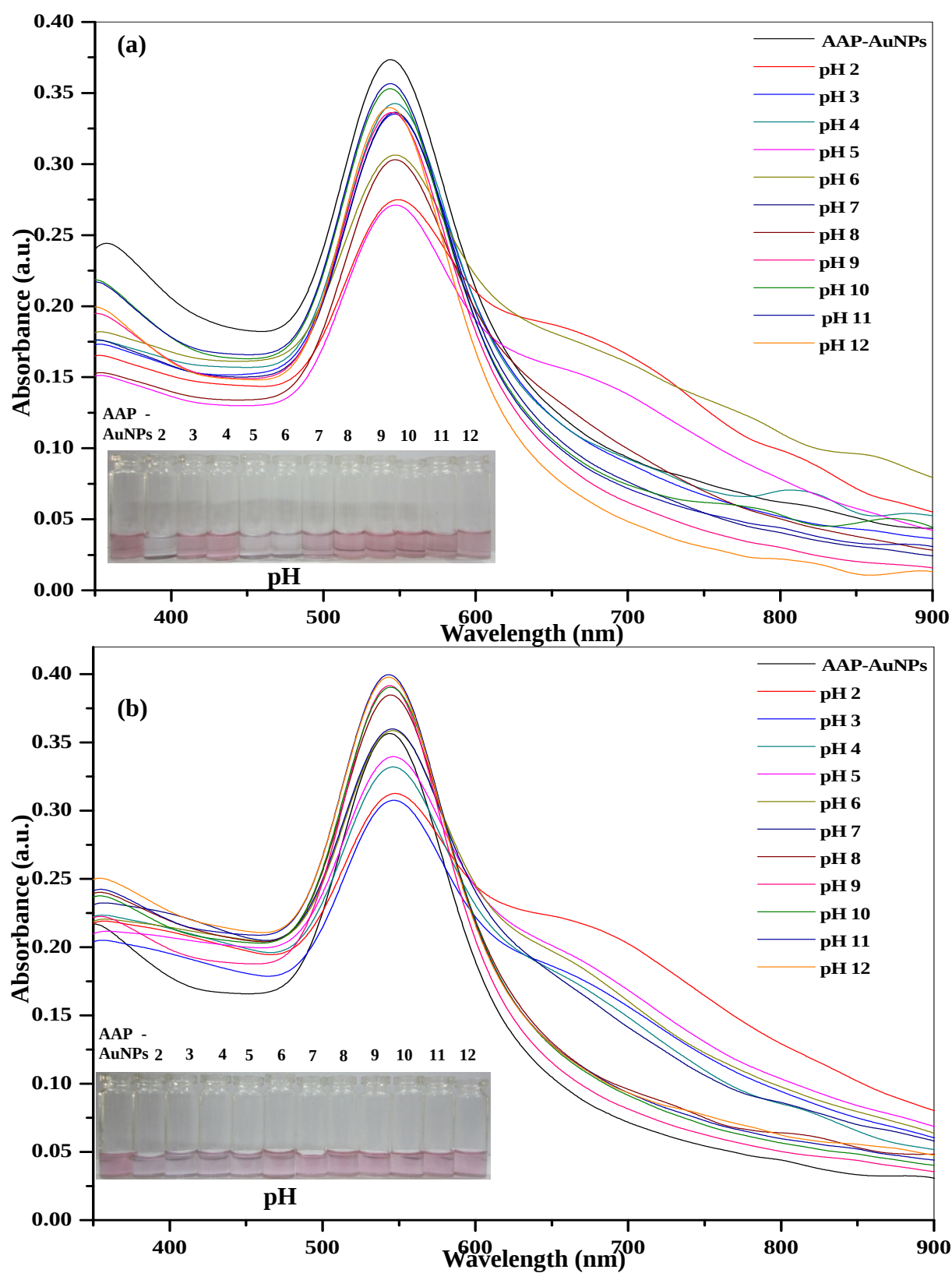


Figure S3. Effect of (a) ammonium acetate and (b) Tris-HCl-NaOH buffers pH range from 2 to 12 on the AAP-AuNPs induced aggregation with naratriptan. Inset images correspond for the colour change of AAP-AuNPs.

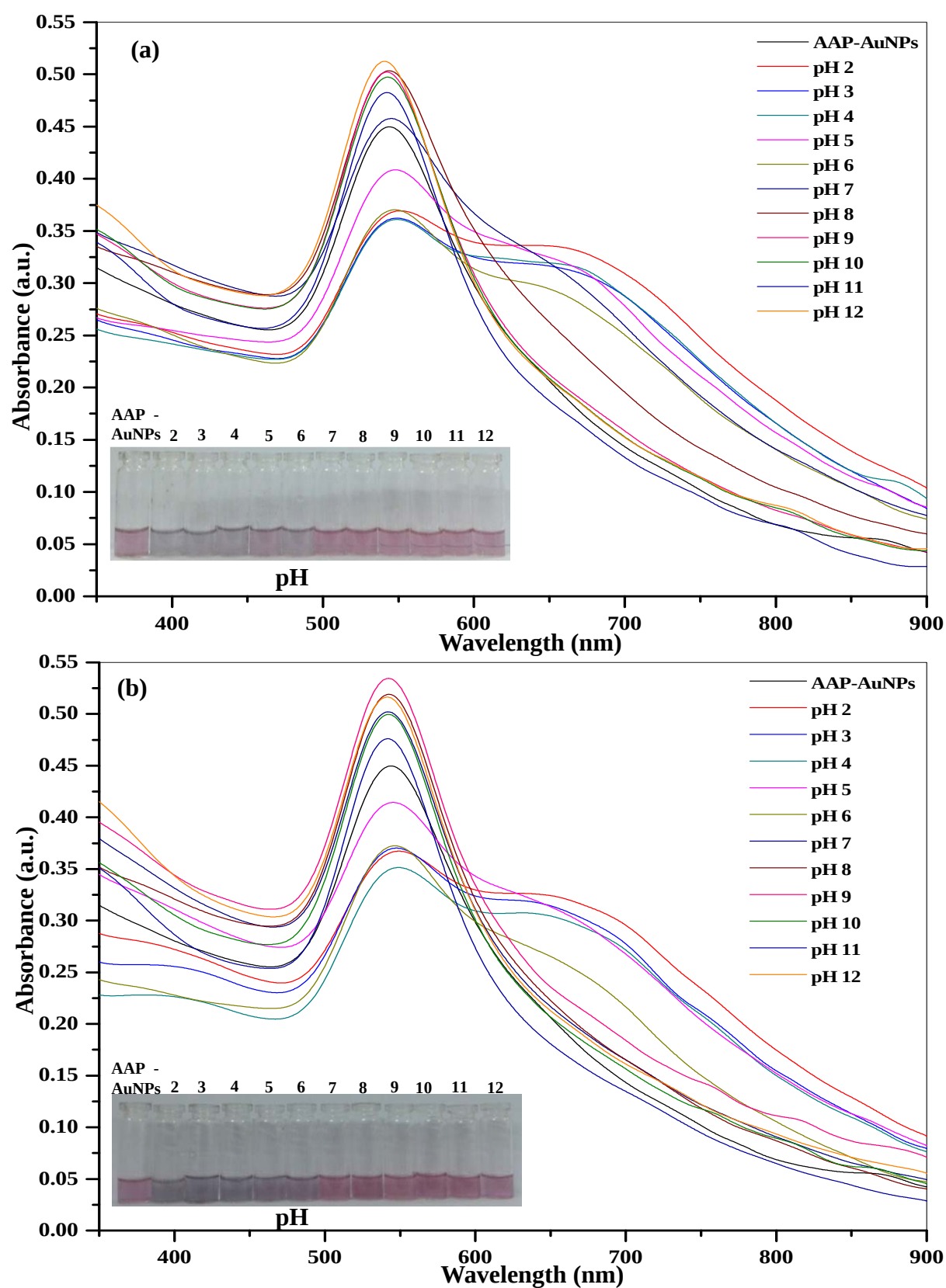


Figure S4. Effect of PBS buffer pH range from 2 to 12 on the AAP-AuNPs induced aggregation with (a) sumatriptan (1.0 mM) and (b) rizatriptan (1.0 mM). Inset images correspond for the colour change of AAP-AuNPs.

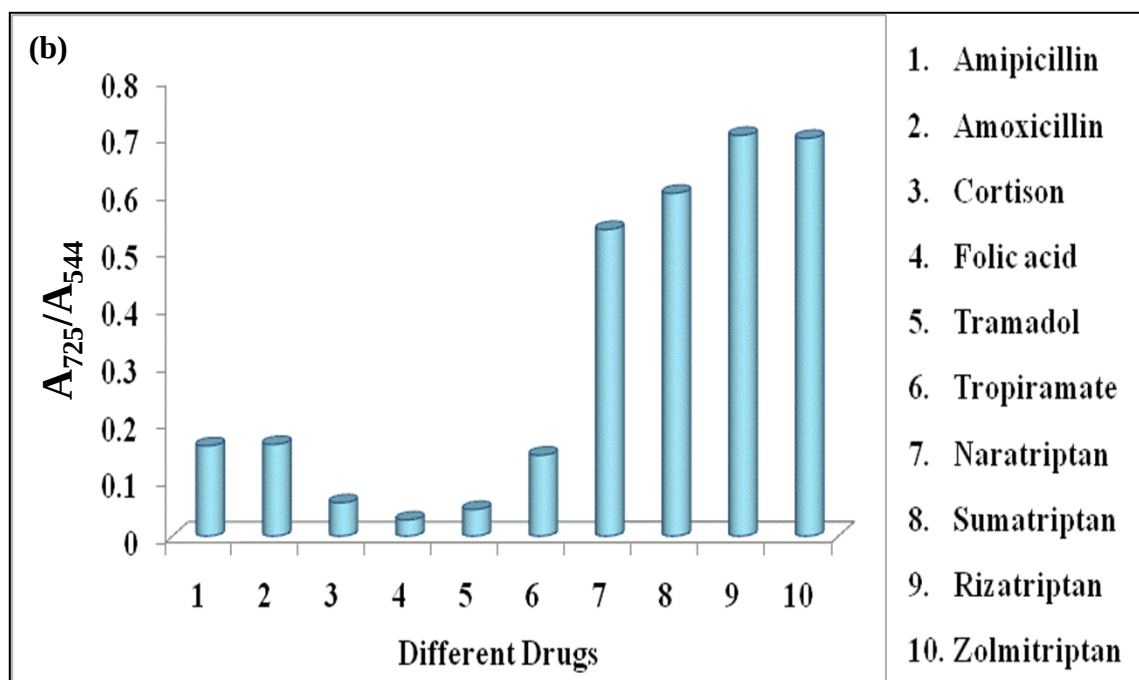
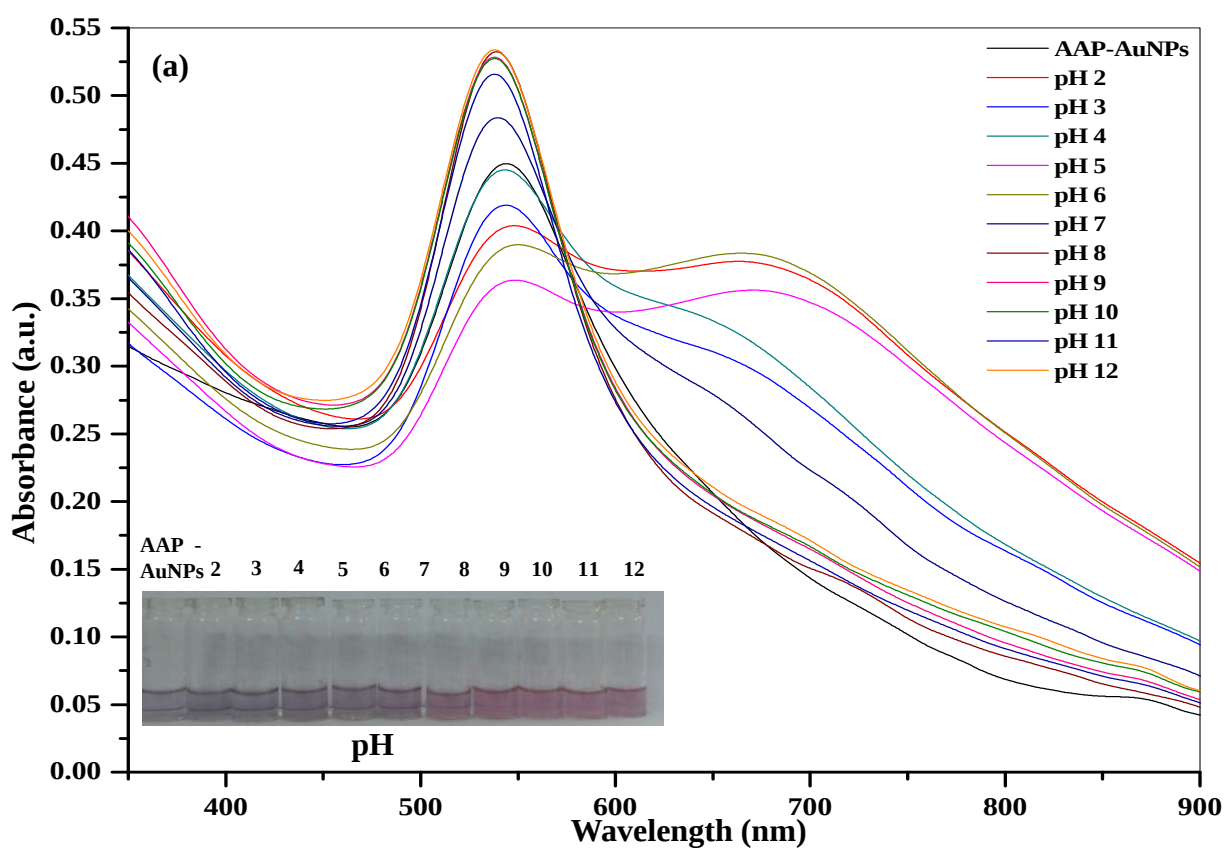


Figure S5. (a) Effect of PBS buffer pH range from 2.0 to 12.0 on the AAP-AuNPs induced aggregation with zolmitriptan (1.0 mM). Inset images corresponds to AAP-AuNPs color change with pH. **(b)** Selectivity of AAP-AuNPs for induced aggregations with four triptan-family drugs in the presence of PBS buffer pH 6.

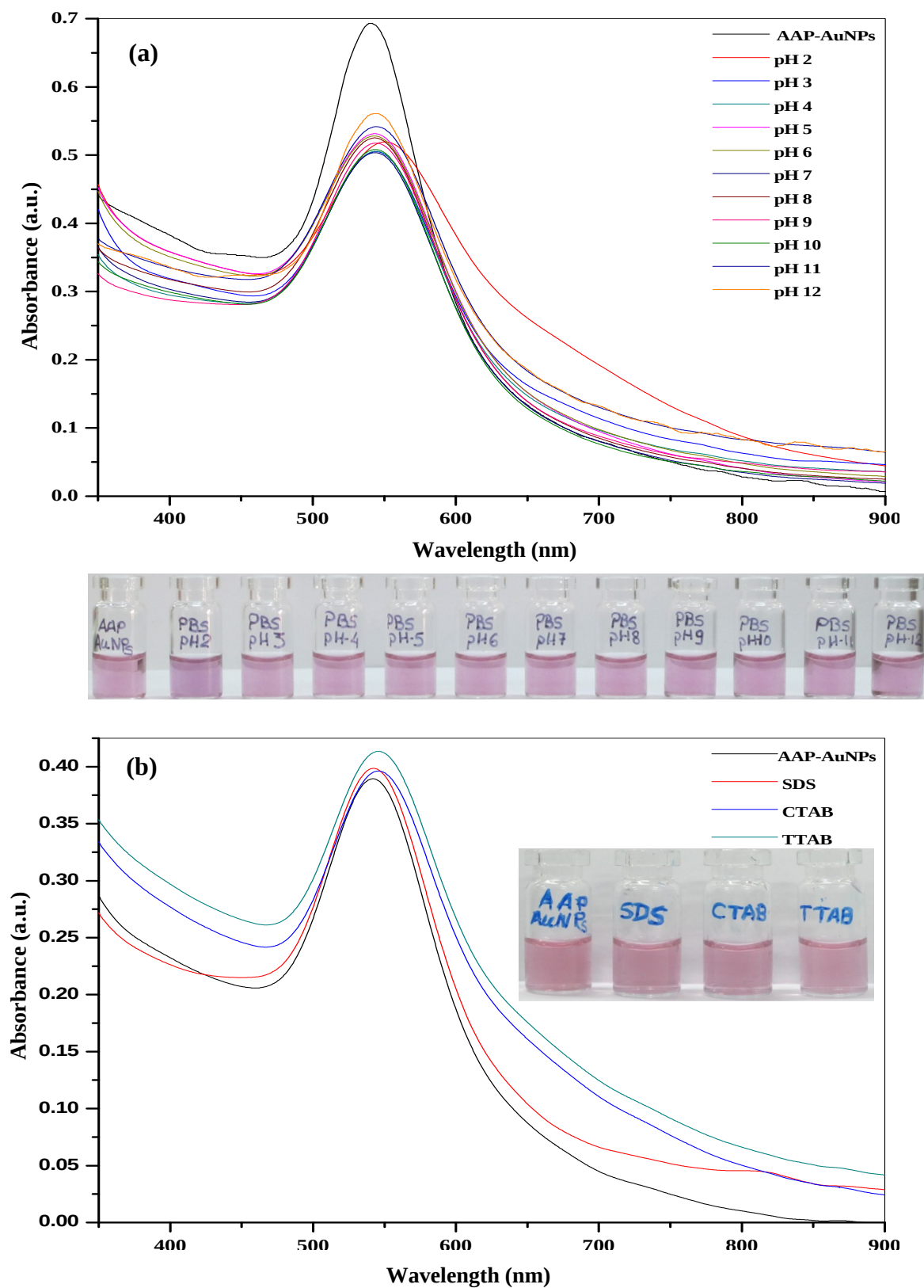


Figure S6. UV-visible spectra of AAP-AuNPs with (a) 1 mM of different surfactant and with different pH solution of PBS buffer without addition of analyte.

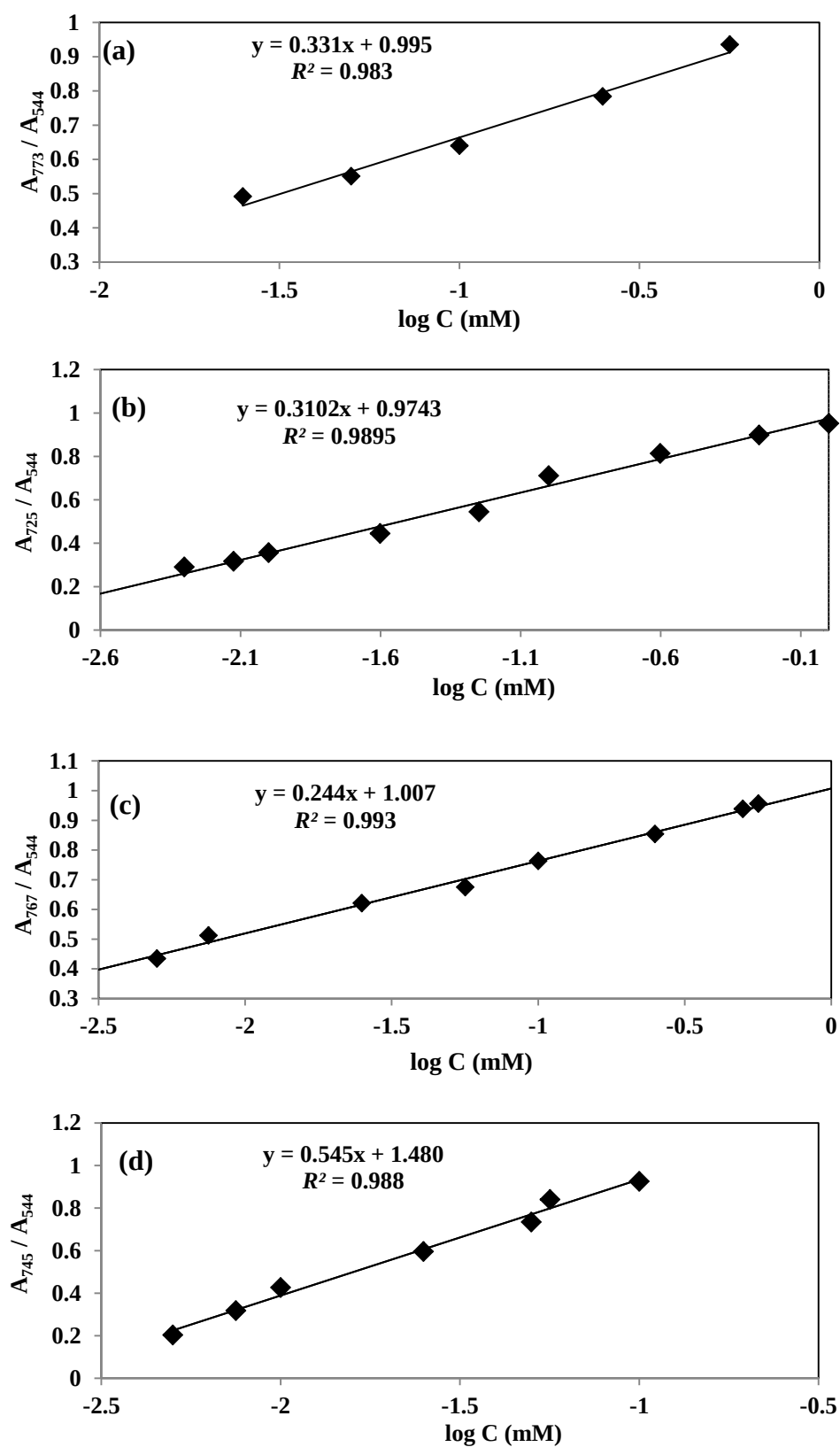


Figure S7. Calibration graph for detection of (a) naratriptan (b) sumatriptan (c) rizatriptan and (d) zolmitriptan by using AAP-AuNPs-based UV-visible spectrometry.