Electronic Supplementary Material (ESI) for RSC Advances.

Persea Americana Seed Extract Mediated Gold Nanoparticles for Mercury (II)/ Iron (III) sensing, 4-nitrophenol reduction, and organic dye degradation

Naveen Kumar Reddy Bogireddy*[a] and Vivechana Agarwal*[a]

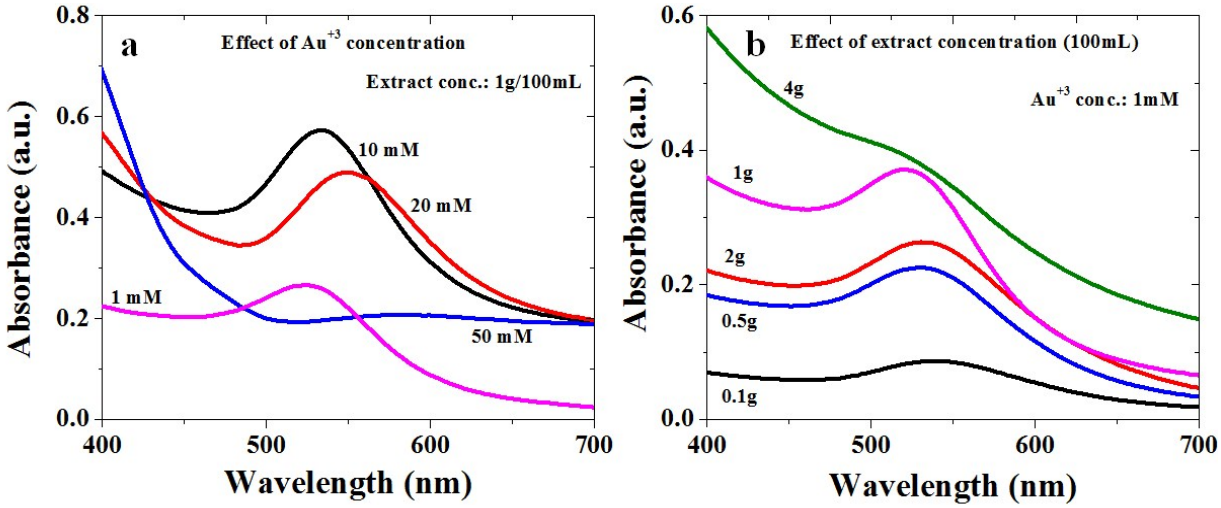

Fig. S1 UV-visible absorbance spectra of the colloidal Av-AuNPs by controlling the concentrations of (a) Au^{+3} ion (i.e., as-prepared avocado seed extract is maintained constant 2mL) and (b) seed extract is varied from 0.1 to 4g/100 mL (i.e., Au^{+3} ion concentration maintained as 1mM).

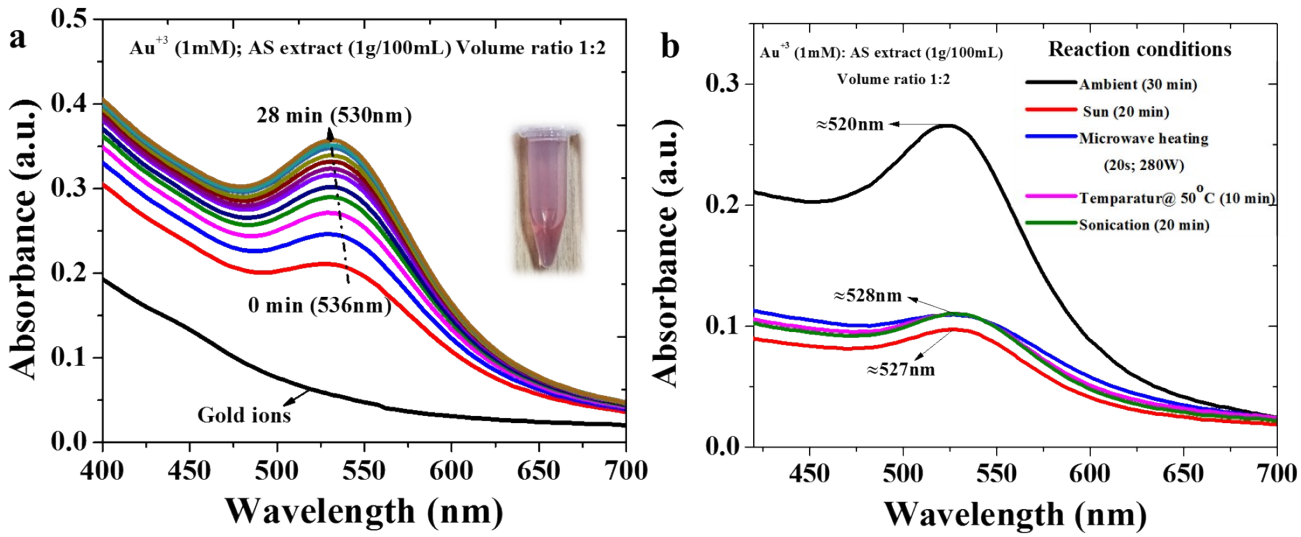

Figure S2 (a) Real time monitoring of Av-AuNPs synthesis (1mM Au^{+3} salt reduced with 1g/100mL of AS extract with 1:2 volume ratio) in UV-vis absorbance spectroscopy and (b) effect of controlling the external conditions in the formation of Av-AuNPs.

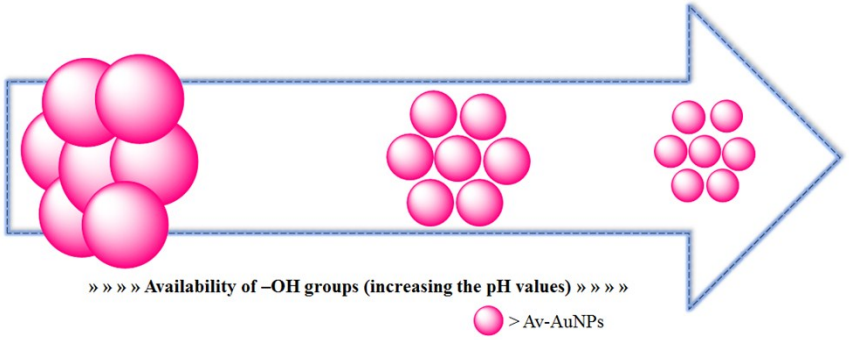

Figure S3 The possible effect of avocado seed extract-controlled pH values on the size control of the AuNPs.

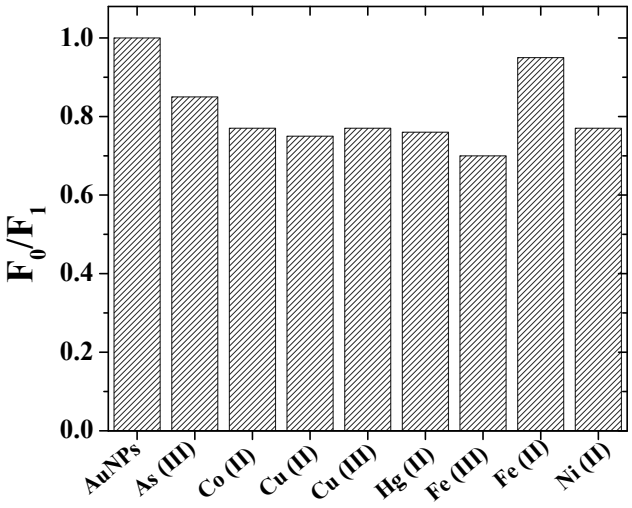

Figure S4 Normalized absorbance intensities of different heavy metal ions (i.e., F1, F0 represent the absorbance intensity before and after the incorporation of the metal ions in Av-AuNPs).

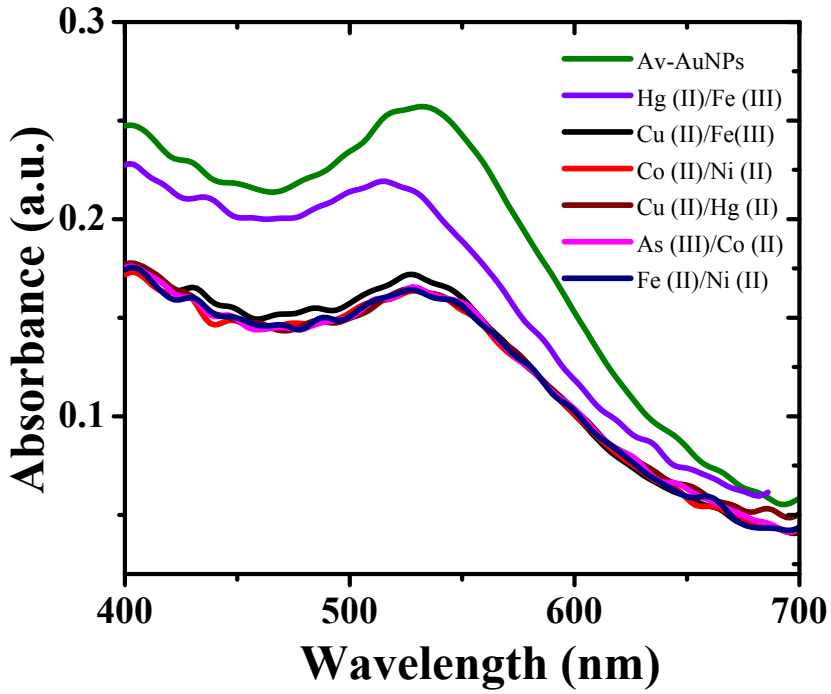

Figure S5. Absorbance spectra corresponding to the sensing of Hg (II)/Fe (III) as compared with other metal ion combinations using Av-AuNPs.