Supplementary Material (ESI) for Analyst

Electronic Supporting information

Melamine sensing through riboflavin stabilized gold nanoparticles

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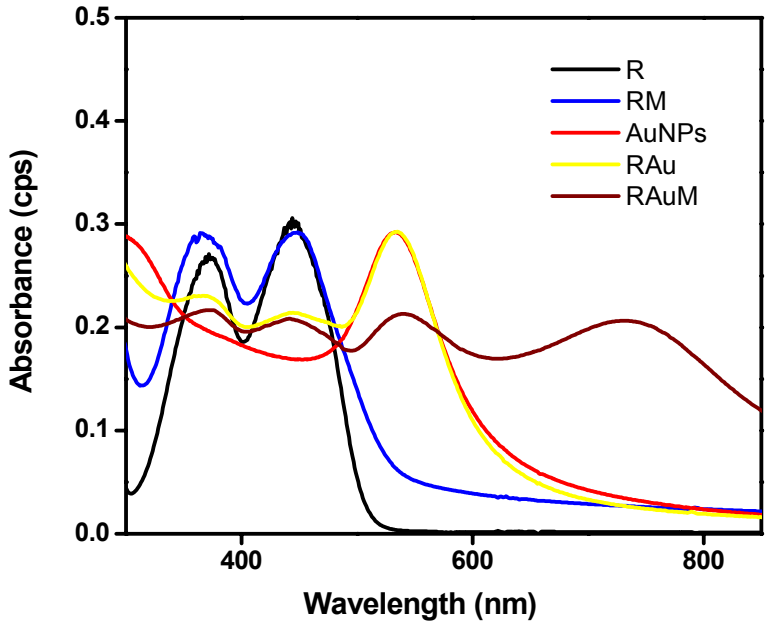


Fig. S1: UV-vis spectra of pure R, RM, Au NPs, R-Au NPs and melamine sensed R-Au NPs (RAuM).

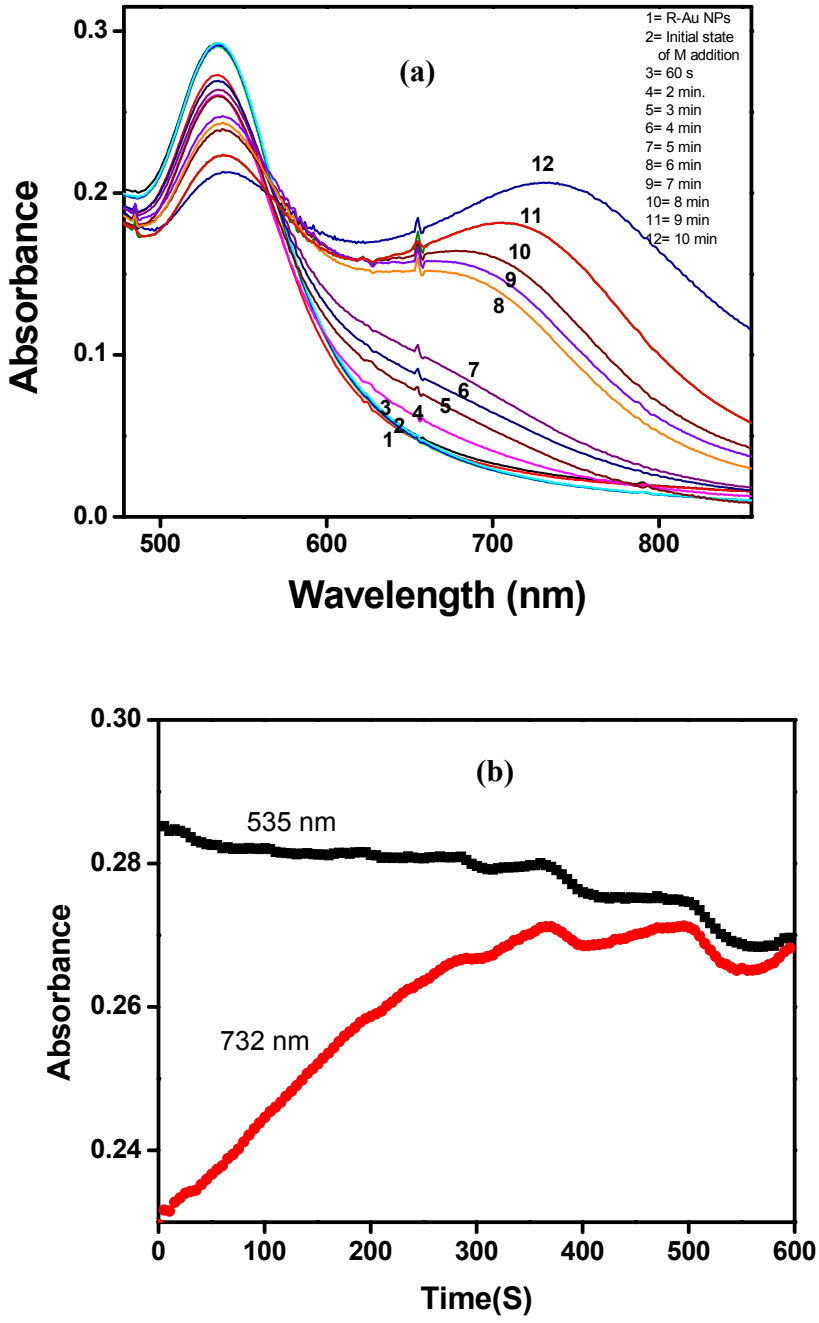


Fig. S2: (a) Absorbance spectra of R-Au NP (Au Np = 1 µM and R=7.5 µM). containing 2 µM M at 30 ^{0}C with indicated times. (b) Intensity of UV-vis peaks λ_{max} = 535 and 732 nm vs time plot from fig. S2(a).

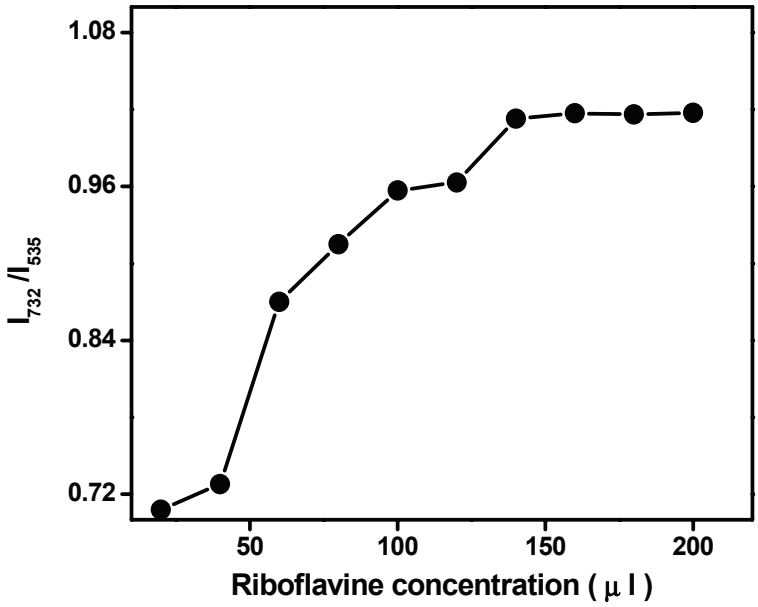


Figure S3: Ratio of peak intensity (I_{732}/I_{535}) vs riboflavin concentration with same concentration of Au NPs and melamine (1 μM).

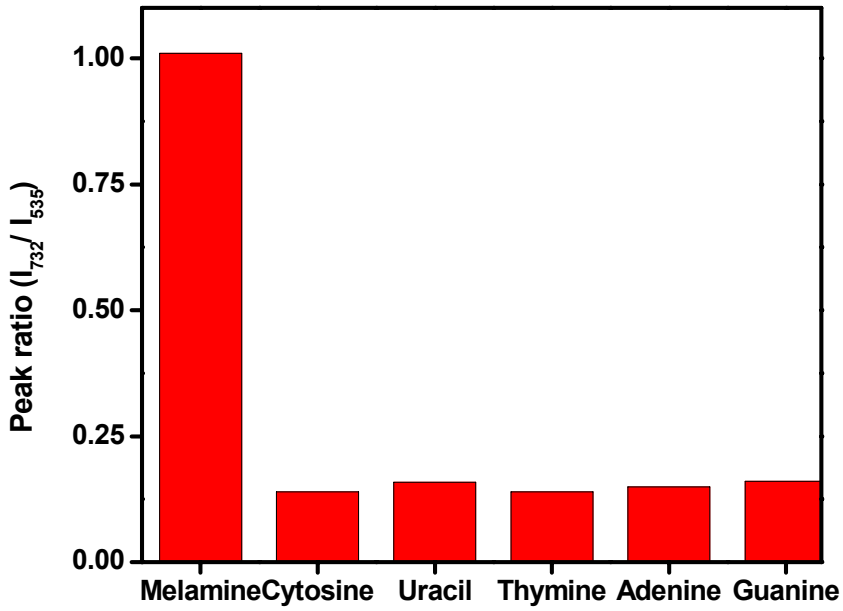
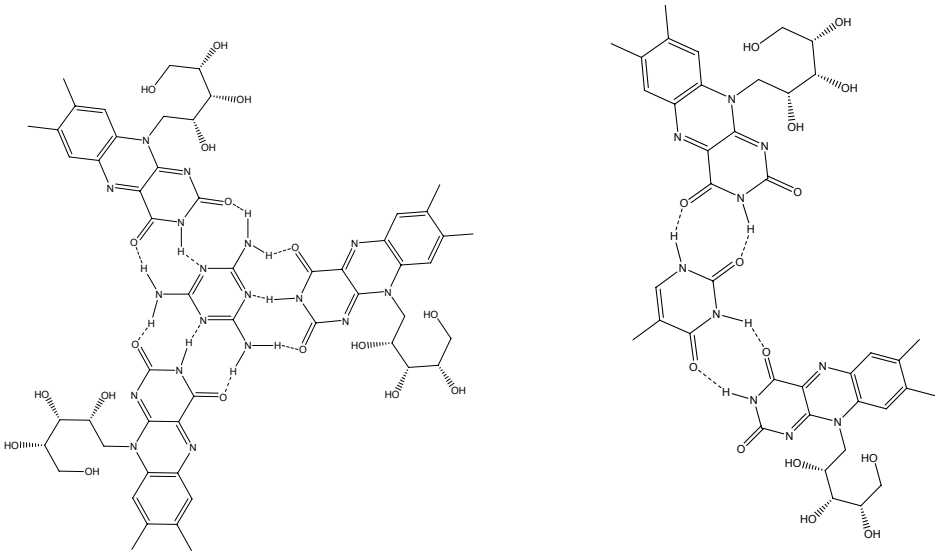


Figure S4: The selectivity of the optimized sensor for melamine in presence of different pyrimidine and purine molecules under similar condition.



RM31 RT21

Figure S5: Comparison of H-bonding degree of R with melamine (RM31) and thymine (RT21).