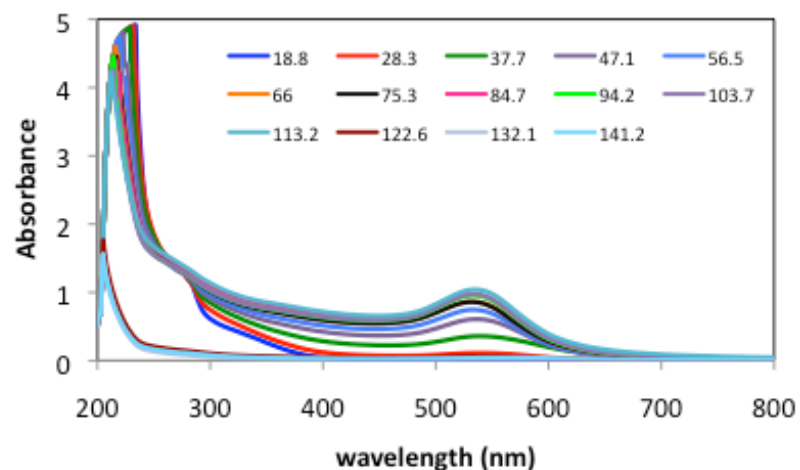
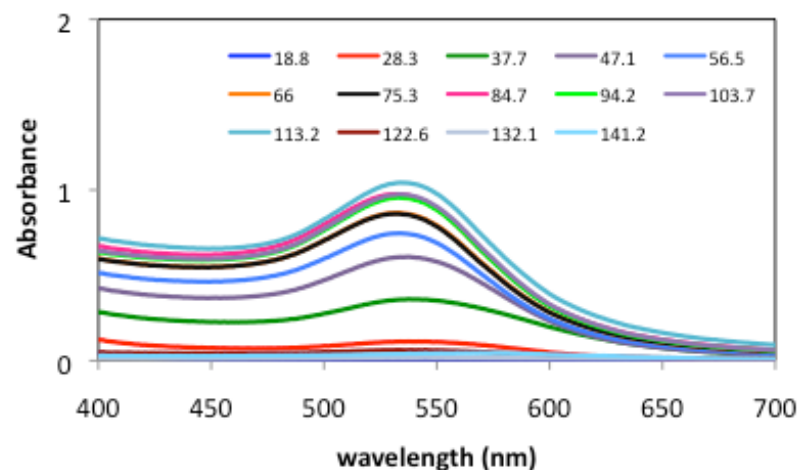


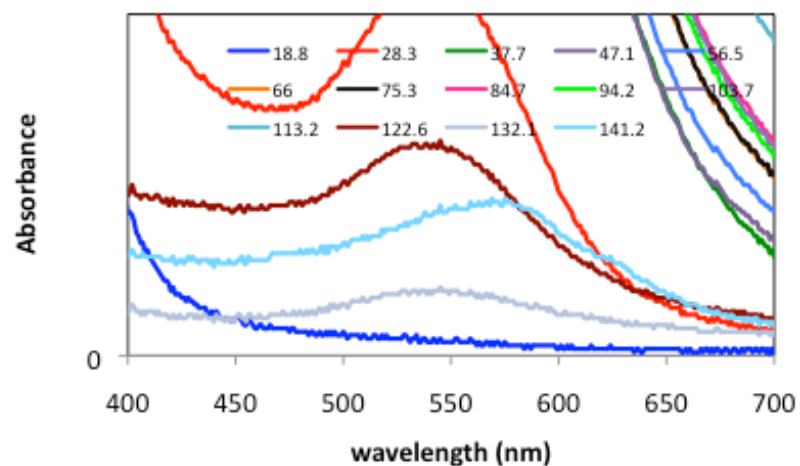
**BSA-AuNP conjugate UV-Vis
by Au/BSA ratio**



**BSA-AuNP conjugate UV-Vis
by Au/BSA ratio**



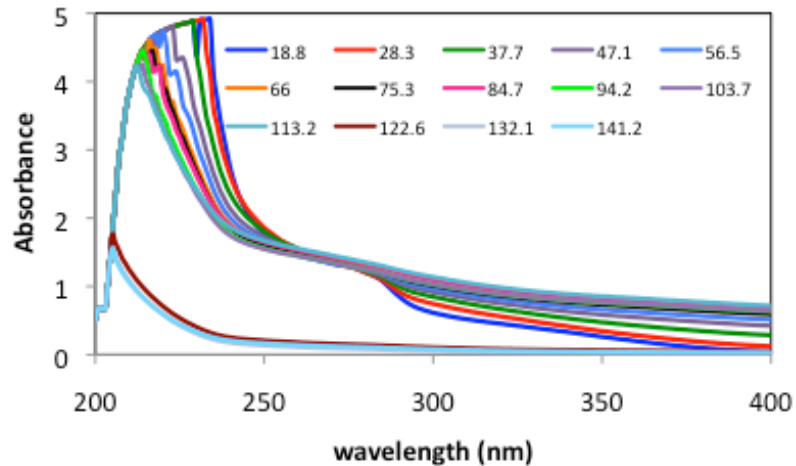
**BSA-AuNP conjugate UV-Vis
by Au/BSA ratio**



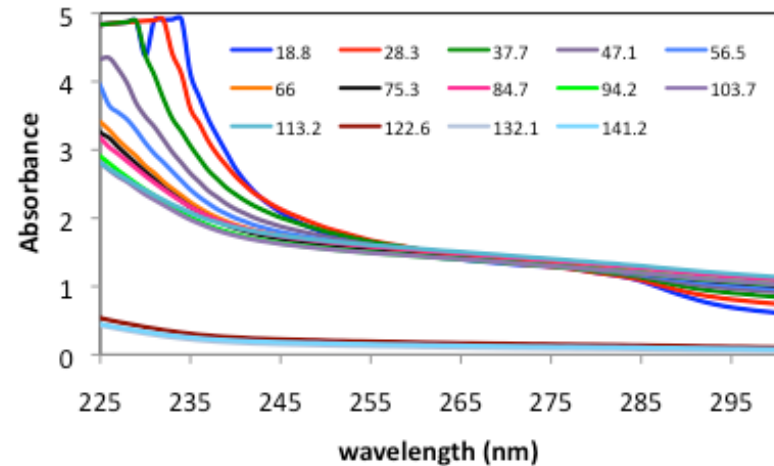
Au/BSA ratio	Peak Position (nm)	Peak Height
18.8	No Peak	No Peak
28.3	537	0.112
37.7	537	0.36
47.1	537	0.608
56.5	533	0.746
66	533	0.866
75.3	531	0.86
84.7	532	0.975
94.2	533	0.956
103.7	533	0.974
113.2	534	1.043
122.6	538	0.063
132.1	547	0.02
141.2	571	0.046

Note: I need to run this data again in order to check 160 and 170 ratios. I also need to check these spectra after centrifuging.

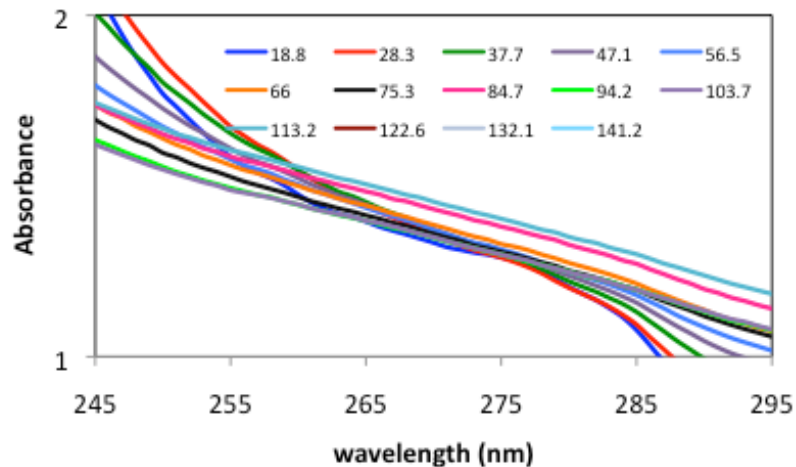
**BSA-AuNP conjugate UV-Vis
by Au/BSA ratio**



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**BSA-AuNP conjugate UV-Vis
by Au/BSA ratio**



Notes:

- 1) Possible isosbestic point at 268nm
- 2) At a ratio of 20 it appears as though there is still Au^{3+} in solution. (Shoulder at 325nm)
- 3) Up through a ratio of 120, the case can be made there is protein in solution - it could bound to Au^0 or free (peak at 280nm)
- 4) At ratios of 130 and above, there is no detectable Au^{3+} or protein in homogeneous solution. The presence of small peaks at 538nm, 547nm, and 571nm for Au/BSA ratios of 130, 140, and 150 warrants more observation

