Conjugation of antigen to gold nanoparticles

A. Preparation：
   - Measure the concentration of antigen at O.D. 280 nm
   - Know the quantity of the final product
   - Know the pH of the final product (adjusted by K_2CO_3)

B. Theory：

   Gold nanoparticles tend to conjugate on antigen due to the van der Waals force

C. Material & Method：
   - Prepare 400 μl 5X gold nanoparticle buffer, diluted by 2mM borax buffer and filtered by 0.22 μm filter
   - add ____ μg antibody (diluted 10X in 0.01M PBS)，add into the solution in step1
   - RT stir 5~6 rpm， 60 min (particles are shown in bright red)
   - Add 10%BSA to 0.01M PBS，filter through 0.45μm filter，add solution 220 μL to the gold solution，the final concentration will be 1% BSA. RT stir for 30 minutes
   - Distribute the solution into 2 tubes，centrifuge at 4℃，13000rpm for 30 minutes
   - Remove the supernatant，restore the pellet by buffer A, 90 μL each
   - Store the conjugated antigen in a 4ml vial, 4℃freezer
   - Final solution are shown in burgundy red, results： I is larger than 20ppb~50ppb