

Step 1: Solution preparation part II

Chemicals

No new chemicals are required for this step

Calculations

No calculations are required for this step

Procedure

CTAB solution preparation

- 1) Once the CTAB solution is completely dissolved, using the ultrapure water, bring the volume to 155mL.
- 2) To do this, pour the CTAB solution in a graduated cylinder (>250mL), and then add ultra pure water to bring the volume to 155mL. Gentle pouring will avoid the formation of bubbles. The solution is now ready to use. Keep the CTAB solution heated above 40oC to prevent precipitation of the CTAB. The solution is now ready for use

Seed solution preparation

- 1) In a clean 20 mL glass vial, transfer 2.5 mL of the gold solution from the mother solution into the glass vial and stir with a magnetic stirbar.
- 2) Add 2.5 mL of ultra pure water to the stirring gold solution from previous step. The solution will be almost colorless
- 3) Transfer 5mL of the CTAB solution the stirring seed solution from the previous step 2. The solution will turn a orange yellow color. Leave stirring rapidly

