Synthesis of Fluorescent Ag₈ Clusters

Synthesis of fluorescent Ag₈ nanoclusters surrounding a Ag nanoparticle shell

The procedure described in detail below is taken from the following publications. If this procedure is followed, please cite appropriately.


http://pubs.acs.org/doi/full/10.1021/jz300940c#cor1

1. Take 104 mg of lipoic acid and 18.4 mg of NaBH₄ mix with 5 ml of H₂O sonication for 30 minutes then get light yellowish DHLA solution.

2. Add 2 ml of 0.1 M AgNO₃ into DHLA solution, you should see yellowish precipitate (Ag-DHLA complex).

3. Take 2 ml of Ag-DHLA complex then add fresh prepared 15 mg of NaBH₄ in 2 ml H₂O solution. After 6 hours the solution color from brown turn into bright orange indicates Ag₈ cluster formation.