

Organic Gold Nanoparticles for use in Organic Solvents

Product Information:

Nanopartz™ has developed and optimized Organic Gold Nanoparticles specifically for use in organic applications. Organic Gold nanoparticles are coated in a layer of polymers that shield the gold surface and provide the ability to resuspend the particles in many solvents.

Product	Gold Mass	Volume	Storage
Organic Gold Nanoparticles	Dependent on size. See specifications on website	0.2-0.35mL	Store at 4°C (Use within 3 months)

Important Information:

- Organic Gold Nanoparticles are supplied dried and are ready for dilution in solvents.
- Store Organic Gold Nanoparticles at 4°C

General Protocol for Nsol Gold Nanorod Resuspension and Application to glass

- Materials Needed:
 - o Pipette
 - o Sonicator/Vortexer
 - o Solvent
 - o Centrifuge or other tubing
- Centrifuge bottle to remove any nanoparticles trapped in the tube lid. 1-2 minutes at 1000 rpm is sufficient.
- Add solvent to Organic Gold Nanoparticles. Sonicate and vortex to resuspend. Depending on solvent, nanoparticles will remain suspended for 1-5 days.
- Use UV-VIS to confirm suspension.
- To coat glass slides, add dropwise and let solvent evaporate for 5 minutes.

Observations

Fig. 1 exhibits the even distribution of Organic Gold Nanoparticles on a glass slide. Whereas nanoparticles in water tend to aggregate to the ring with water, in solvent, they are more evenly distributed. Fig. 2 shows an AFM of the Organic Gold Nanoparticles on the slide. Note the packing. Fig. 3 shows the change in SPR depending on host solvent.

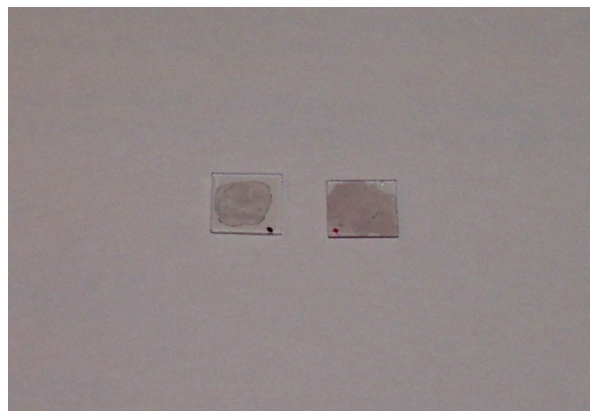
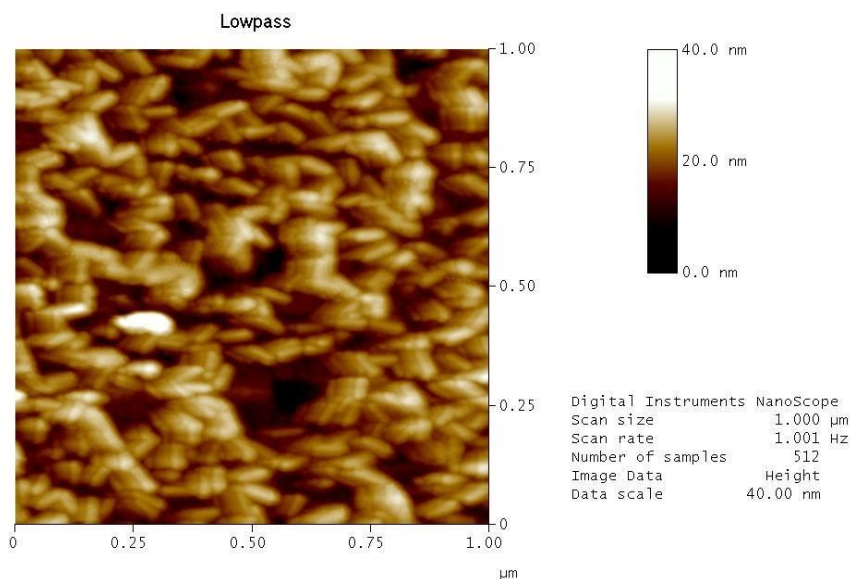


Fig. 1 Nanorodz™ in water placed dropwise on slide (left). Organic Gold Nanoparticles in ethanol placed dropwise on slide (right) showing even distribution.



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Fig. 2 AFM of Organic Gold Nanoparticles in ethanol placed dropwise on glass slide.

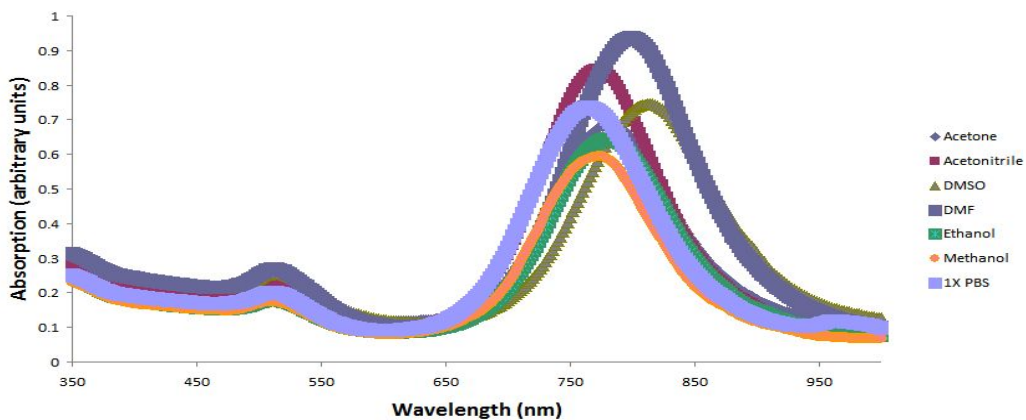


Fig. 3 UV-VIS for Organic Gold Nanoparticles (808nm nanorods) in different solvents