

Nsol™ Gold Nanorods for use in Organic Solvents

Product Information:

Nanopartz™ has developed and optimized Nsol™ Nanorods specifically for use in organic applications. Nsol™ Nanorods are coated in a dense layer of hydrophilic polymers that shield the gold surface and provide the ability to resuspend the particles in many solvents.

Product	Concentration	Volume	Storage
Nsol™ Gold Nanorods	Dependent on size. See Data Sheet	.125 ml (in water)	Store at 4°C (Use within ~2 months)

Important Information:

- Nsol™ Gold Nanorods are supplied highly concentrated in water and are ready for resuspension in solvents.
- Store Nsol™ Gold Nanorods at 4°C

General Protocol for Nsol™ Gold Nanorod Resuspension and Application to glass

- Materials Needed:
 - Pipette
 - Sonicator/Vortexer
 - Solvent
 - Centrifuge or other tubing
- Add Nsol™ dropwise to solvent. 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 Nsol™ nanorods 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 Nsol™ nanorods on the slide. Note the packing. Fig. 3 shows the change in SPR depending on host solvent.

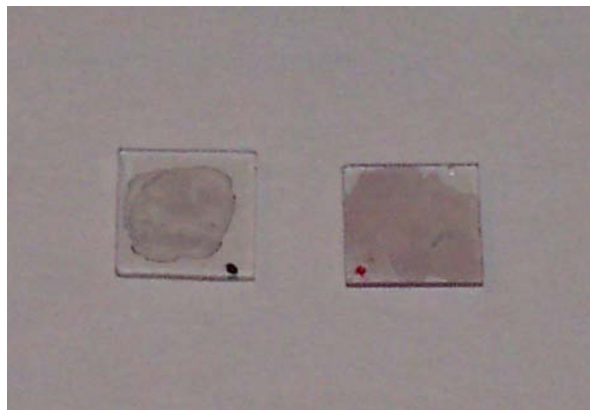


Fig. 1 Nanorodz™ in water placed dropwise on slide (left). Nsol™ in ethanol placed dropwise on slide (right) showing even distribution.

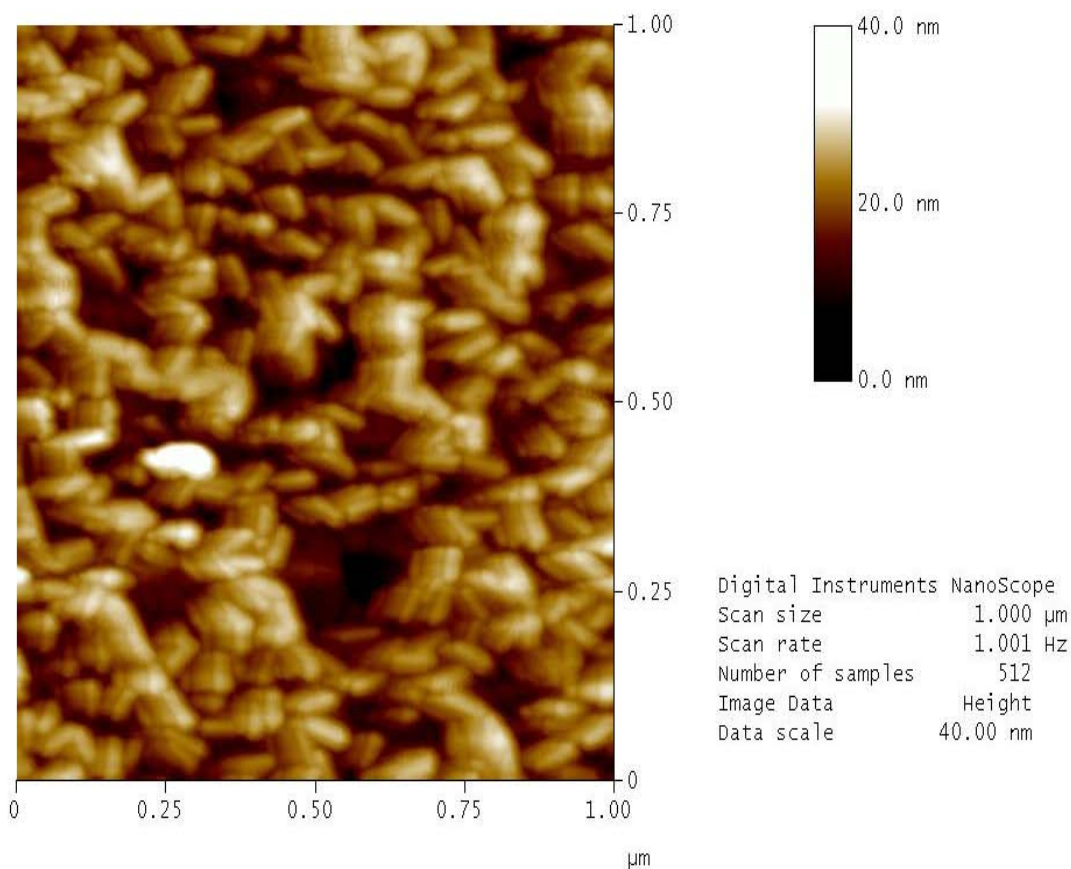


Fig. 2 AFM of Nsol™ in ethanol placed dropwise on glass slide.

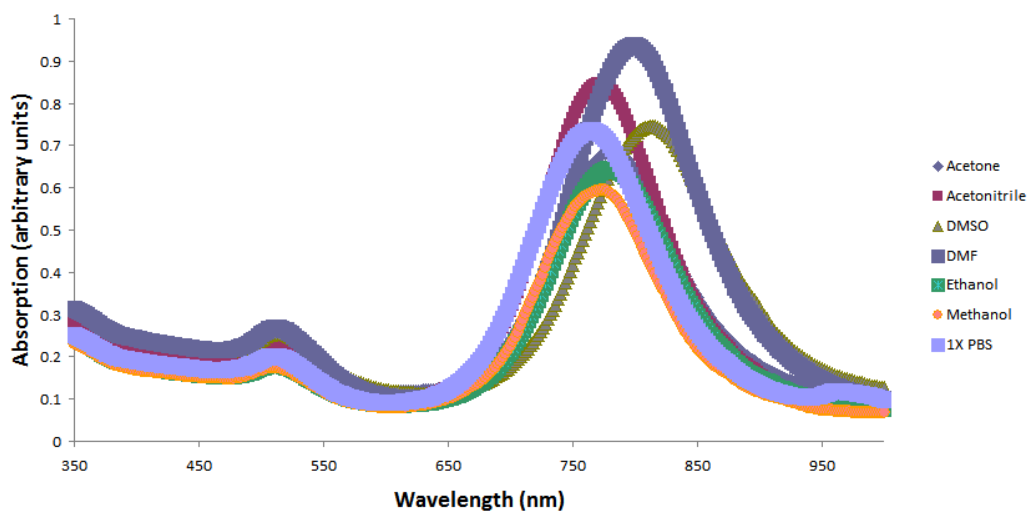


Fig. 3 UV-VIS for Nsol™ 30-NS-808 in different solvents