

NsoI™

NsoI™ gold nanorods (GNRs) are coated in a dense layer of polymers that shield the gold surface and give the particles long-suspension times in organic solvents. As opposed to their uncoated parent form *Nanorodz™*, NsoI™ nanorods are highly stable and are transferable between a variety of organic solvents including: Acetone, acetonitrile, DMSO, DMF, ethanol and methanol



Features

- ❖ Highly accurate and monodisperse in size, shape, and batch to batch uniformity
- ❖ Wavelength accuracy better than 10 nm in many cases
- ❖ Size monodispersity better than 10% CV
- ❖ Greater than 95% rods, less than 5% other shapes
- ❖ Available in aspect ratios from 1.67 to 4.5, resulting in extinctions from 550 to 850 nm
- ❖ High anisotropy
- ❖ High non-linear coefficients. Extremely efficient for frequency conversion
- ❖ Near IR absorptions four orders of magnitude larger than quantum dots in the visible
- ❖ Photothermal cross sections that leads to highly efficient optical to heat conversion
- ❖ Relative absorption to scattering contribution may be tuned by change in dimensions

Benefits

- ❖ Monodisperse shapes and sizes in production volumes satisfies high volume applications
- ❖ Tunable scattering/absorptions from the VIS to NIR create colored gold good for multi-label diagnostics and imaging
- ❖ NIR absorptions are advantageous for near-IR filters
- ❖ High photothermal conversion is advantageous for solar cell efficiency enhancement

Applications

Sensors
Solar Cells
Optical Polarizers and Filters (Flexible)
Spin coating
Negative refractive index materials
Liquid Crystals
Security anti-forgery materials

Product Number

	Nsol Part #
550 nm	30-NS-550
600 nm	30-NS-600
650 nm	30-NS-650
700 nm	30-NS-700
750 nm	30-NS-750
780 nm	30-NS-780
808 nm	30-NS-808
850 nm	30-NS-850