

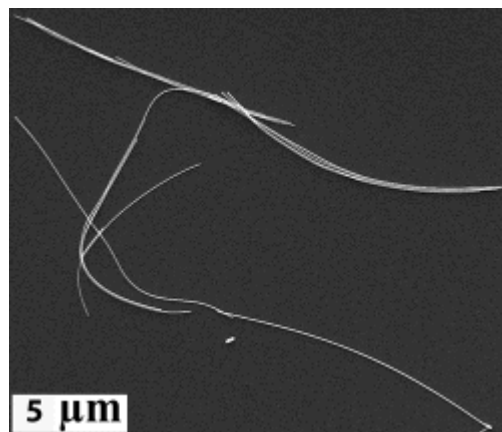
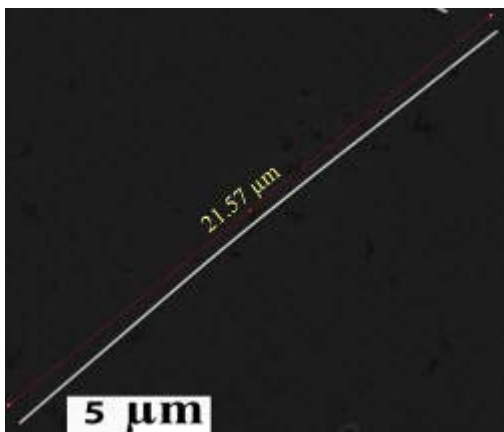
Nanopartz™ has developed a brand new nanomaterial – *Gold Nanowires*. These nanowires are 30 nm in axial diameter, and range from 4.5 μm to 6 μm in length. In the bare form, these nanowires are immersed in DI water with excess CTAB capping agent to minimize aggregation. These nanowires can also be covalently conjugated to our proprietary polymers terminated with amine, biotin, carboxyl, methyl, or neutravidin. In these forms, they are delivered in DI water and purified of CTAB.

Features

- Highly stable, minimal to no aggregation
- Conjugation choices to amine, biotin, carboxyl, methyl or neutravidin
- Available in aspect ratios from 150 to 200

Benefits

- Long wire lengths for nanoelectronics, nanoantennas
- Applications in tribological additives
- Light conduction for digital computers
- Thermal conduction



Specifications

In batch size variation	< 20% CV length
Shape monodispersity	> 95% nanowires
Axial sizes available	30 nm
Zeta charge	
Bare	+40mV typ
Methyl	0
Carboxyl	-20
Amine	+10
Biotin	-5
Neutravidin	-0.5
CTAB	
Bare	<0.1%
Conjugated	<0.0001%

Nanowire Part #	Axial Diameter (nm)	Long Size (nm)	NPS/ml	Wt. conc (µg/ml)	Wt. %	PPM	Molarity (pM)
50-XX-4500-VV	30	4500	9.8E+08	60	0.0060%	60	2
50-XX-5500-VV	30	5500	5.3E+08	40	0.0040%	40	1
50-XX-6000-VV	30	6000	6.1E+08	50	0.0050%	50	1

Shape monodispersity (% rods) > 95%

Size variation +/-20% (both dimensions)

All specs typical. May vary batch to batch. Exact values are measured for each batch

Custom Formulation and Production

Quantity

Bare nanowires come in volumes of 20mL at approximately 0.05mg/mL. Conjugated nanowires come in volumes of 10mL at the same concentration.

For larger quantities, or for orders amounting over 1L per annum, please contact sales for quantity pricing.

Delivery

Shipped sealed in low retention polystyrene containers.

All are stored in water at pH=7, except for carboxyl and neutravidin which are stored in DI water plus a dilute buffer and and surfactant.

Orders come with a [Certificate of Analysis](#) with size, concentration, and zeta charge.

Most conjugations ship in 1 week.

All shipments are made Fed Ex Standard Overnight delivery. International orders shipped Fedex Priority 2 day. No shipments on Fridays.

Part #s

PN#50-**XX-SSSS-VV**

-**XX** is conjugation; Methyl -*PM*; Carboxyl -*PC*; Amine -*PA*; Biotin -*PB*; Neutravidin -*PN*; Bare is -*30*

-**SSSS** is nanoparticle size; 4500, 5500, or 6000

-**VV** is volume; This product ships in volumes of 10mL for conjugated and 20mL for bare.

Examples: Bare 30x4500 nanowires: 50-30-4500-20; Carboxyl 30x6000 nanowires: 50-PC-6000-10.

Price

Bare, 20mL \$490

Conjugated, 10mL \$520

Nanowire Part Numbers

Nanowire size	Bare	Methyl	Carboxyl	Amine	Biotin	Neutravidin
30x4500	50-30-4500-20	50-PM-4500-10	50-PC-4500-10	50-PA-4500-10	50-PB-4500-10	50-PN-4500-10
30x5500	50-30-5500-20	50-PM-5500-10	50-PC-5500-10	50-PA-5500-10	50-PB-5500-10	50-PN-5500-10
30x6000	50-30-6000-20	50-PM-6000-10	50-PC-6000-10	50-PA-6000-10	50-PB-6000-10	50-PN-6000-10