

NANOPARTZ™

The gold nanoparticle for nanotechnology

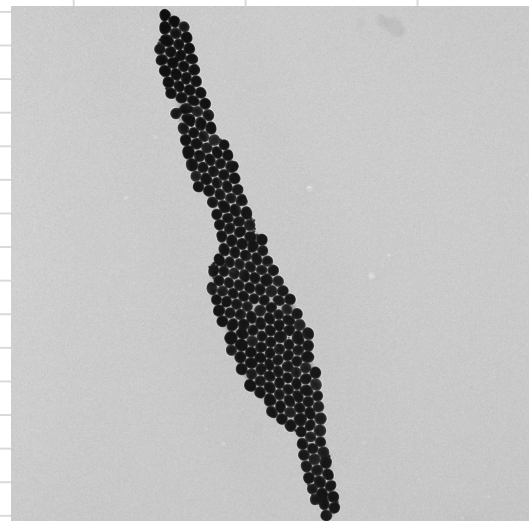
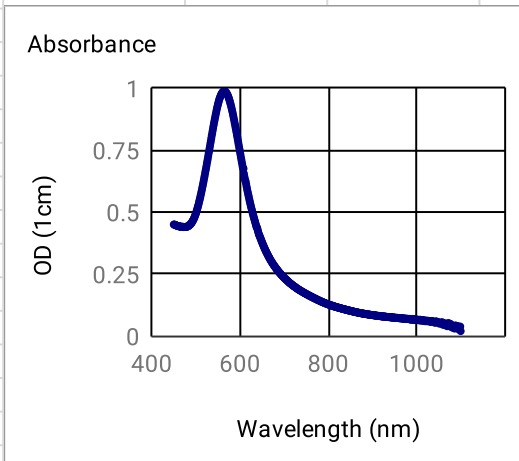
Certificate of Analysis

Product Family	Accurate Spherical Gold Nanoparticles
Product Number	A11-90-CIT-DIH-1-25
Lot #	SPEC
Form	Gold Colloid
Capping Agent	Citrate
Solution	18 MEG DI water
Source	11J304

Diameter	nm	measured average	TEM, DLS, UVVIS	90
SPR Abs	OD	measured	UV/VIS	1
PDI	stddev/size	measured	TEM	4%
SPR Peak	nm	measured	UV/VIS	560
pH		measured	Orion	7
Zeta Potential	mV	measured	DLS	-38
Concentration	nps/mL	calc		6.81E+09
Wt. conc.	mg/mL	calc		0.05
ppm		calc		50
Wt. %	%	calc		0.0050%
Molarity	uM	calc		1.13E-05
Molar Ext.	M-1cm-1	calc		8.81E+10
Citrate	mM	measured		5
Volume	mL	measured		25

Date 10/4/2019
Exp Date 4/1/2020

Alex Schoen, Manager Quality Control



11J304.jpg
Date: 9/27/2019 10:51:28 PM
Size: 9/27/2019

500 nm
HV:100.0kV
Direct Mag: 30000x