

NANOPARTZ™

The gold nanoparticle for nanotechnology

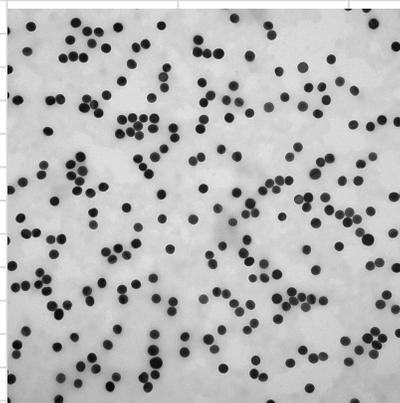
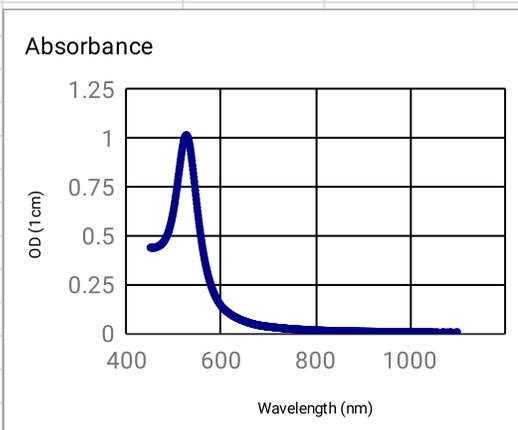
Certificate of Analysis

Product Family	Accurate Spherical Gold Nanoparticles
Product Number	A11-45-CIT-DIH-1-10
Lot #	SPEC
Form	Gold Colloid
Capping Agent	Citrate
Solution	18MEG DI Water
Source	11J233

Diameter	nm	measured average	TEM, UVVIS	45
SPR Abs	OD	measured	UV/VIS	1.0
PDI	stddev/size	measured	TEM	3%
SPR Peak	nm	measured	UV/VIS	526
pH		measured	Orion	7
Zeta Potential	mV	measured	DLS	-33
Concentration	nps/mL	calc		5.45E+10
Wt. conc.	mg/mL	calc		0.05
ppm		calc		50
Wt. %	%	calc		0.0050%
Molarity	uM	calc		9.08E-05
Molar Ext.	M-1cm-1	calc		1.10E+10
Citrate	mM	measured		3
Volume	mL	measured		10

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

Alex Schoen, Manager
Quality Control



11J233-004
CAL: 0.950093 nm/pix
2.54-45.00 5/20/2019

100 nm
09/01/2019
Direct Mag: 8000x