

# NANOPARTZ™

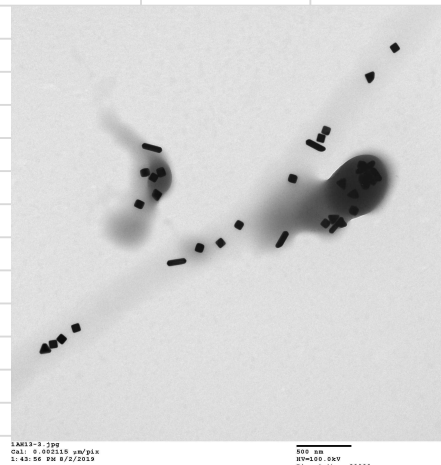
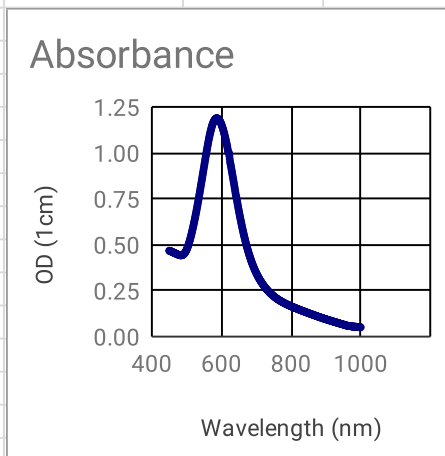
The gold nanoparticle for nanotechnology

## Certificate of Analysis

Product Family	Cubic Gold Nanoparticles			
Product Number	A1C-90-CIT-DIH-1-5			
Lot #	SPEC			
Form	Gold Colloid			
Capping Agent	Citrate			
Solution	18MEG DI Water			
Source	1AH13-3			
Edge	nm	measured	DLS	90
SPR Abs	OD	measured	UV/VIS	1.1
PDI	stddev/size	measured	DLS	10%
SPR Peak	nm	measured	UV/VIS	590
pH		measured	Orion	7
Zeta Potential	mV	measured	DLS	-38
Concentration	nps/mL	calc		3.91E+09
Wt. conc.	mg/mL	calc		0.055
ppm		calc		55
Wt. %	%	calc		0.0055%
Molarity	pM	calc		6.5
Number	moles	calc		6.52E-15
Molar Ext.	M-1cm-1	calc		1.53E+11
Abs Molar Ext.	M-1cm-1	calc		1.22E+11
Scat Molar Ext.	M-1cm-1	calc		3.16E+10
Surf Area	nm <sup>2</sup>	calc		48600
Citrate	mM	measured		3
Volume	mL	measured		5

Date 10/26/2023  
Exp Date 4/23/2024

Alex Schoen, Manager Quality Control



1AH13-3\_399  
CALI 0.00235 nm/pix  
1:03:06 PM 8/2/2019

500 nm  
HW=500.000  
GUSUMI:HW: 80000x