Product Family Product Number A12-10-700-CTAB-DIH-1-25 Lot # 12M595-12842 Form Gold Colloid Capping Agent Solution Source 12H129 SPR Peak Nm measured UV/VIS SPR Abs OD measured UV/VIS LSPR Abs OD measured UV/VIS DIAB LSPR Abs OD Me			P nanoparticle fo			
Product Family Nanopartz Gold Nanorods A12-10-700-CTAB-DIH-1-25 Lot # 12M595-12842 Form Gold Colloid CTAB Solution 18MEG DI Water Source 12H129 SPR Peak nm measured UV/VIS 705 SPR Abs OD measured UV/VIS 1.2 LSPR Peak nm measured UV/VIS 513 LSPR Abs OD measured UV/VIS 0.25 pH measured Expt. 7 Zeta Potential mV measured Expt. 7 Zeta Potential mV measured TEM 10 Length nm measured TEM 30 Aspect Ratio Calc 3.0 Concentration ppm calc 42 Wt Conc. mg/mL calc 0.042 Concentration ppm calc 42 Wt % Calc 0.00% Molarity nM calc 1.734 Molar Ext. M-1cm-1 calc 6.9E+08 CTAB mM measured TEM 5 Date 1.25 1.00 0.25 0.25 0.25 0.00	O = 14:6: = = 4 = = 4				9)	
Product Number	Certificate of	Anaiysis				
Product Number						
Lot # 12M595-12842 Form	Product Family					
Gold Colloid Capping Agent	Product Number	r A12-10-700-C			1-25	
Capping Agent CTAB Solution 18MEG DI Water Source 12H129 SPR Peak nm measured SPR Abs OD measured LSPR Peak nm measured LSPR Abs OD measured LSPR Abs OD measured PH measured Expt. Zeta Potential mV measured DLS 33 Diameter nm measured Length nm measured Aspect Ratio calc 3.0 Concentration nps/mL calc 3.0 Concentration ppm calc 0.042 Concentration ppm calc 0.00% Wt % calc 0.00% Molarity nM calc 6.9E+08 CTAB mM measured 5 Volume mL measured 5 Alex Schoen, Manager Quality Control 1.14/2024 <	Lot #		12M595-12842			
Solution Source 12H129 SPR Peak nm measured UV/VIS 705 SPR Abs OD measured UV/VIS 1.2 LSPR Peak nm measured UV/VIS 513 LSPR Abs OD measured UV/VIS 0.25 measured Expt. 7 Zeta Potential mV measured DLS 33 Diameter nm measured TEM 10 Length nm measured TEM 30 Aspect Ratio Calc Concentration nps/mL calc calc calc 0.042 Concentration ppm calc 42 Wt. conc. mg/mL calc 0.00% Molarity nM calc 1.734 Molar Ext. M-1cm-1 calc 6.9E+08 CTAB mM measured TSM TS				d		
SPR Peak nm measured UV/VIS 705						
SPR Peak nm measured UV/VIS 705 SPR Abs OD measured UV/VIS 1.2 LSPR Peak nm measured UV/VIS 513 LSPR Abs OD measured UV/VIS 0.25 pH measured Expt. 7 Zeta Potential mV measured DLS 33 Diameter nm measured TEM 10 Length nm measured TEM 30 Aspect Ratio calc 3.0 Concentration nps/mL calc 1.0E+12 Wt. conc. mg/mL calc 0.042 Concentration ppm calc 0.042 Concentration ppm calc 0.00% doubt 1.734 Molarity nM calc 0.00% doubt 6.9E+08 CTAB mM measured 5 Doubt 25 Date 7.8/2023 1.4/2024 1.4/2024				Water		
SPR Abs	Source		12H129			
SPR Abs	ODD David			111/4/10	705	
LSPR Peak						
Date						
Description						
Description		OD				
Diameter		m\/			-	
Length						
Aspect Ratio						
Concentration nps/mL calc 1.0E+12 Wt. conc. mg/mL calc 0.042 Concentration ppm calc 42 Wt % % calc 0.00% Molarity nM calc 1.734 Molar Ext. M-1cm-1 calc 6.9E+08 CTAB mM measured 5 Volume mL measured 25 Date 7/8/2023 Exp Date 1/4/2024 Absorbance 1.25 1.00 0.75 0.50 0.25 0.00 0.25 0.00 0.00 0.00		11111		I LIVI		
Wt. conc. mg/mL calc 0.042 Concentration ppm calc 42 Wt % % calc 0.00% Molarity nM calc 1.734 Molar Ext. M-1cm-1 calc 6.9E+08 CTAB mM measured 5 Volume mL measured 25 Date 7/8/2023 Exp Date 1/4/2024 Alex Schoen, Manager Quality Control Absorbance	•	nns/ml				
Concentration ppm calc 42 Wt % % calc 0.00% Molarity nM calc 1.734 Molar Ext. M-1cm-1 calc 6.9E+08 CTAB mM measured 5 Volume mL measured 25 Date 7/8/2023 Exp Date 7/8/2024 Alex Schoen, Manager Quality Control Absorbance 1.25 1.00 0.75 0.50 0.25 0.00						
Wt % % calc 0.00% Molarity nM calc 1.734 Molar Ext. M-1cm-1 calc 6.9E+08 CTAB mM measured 5 Volume mL measured 25 Date 7/8/2023 Exp Date 1/4/2024 Alex Schoen, Manager Quality Control Absorbance 1.25 1.00 0.75 0.50 0.50 0.25 0.00						
Molarity						
Molar Ext.						
CTAB mM measured 5 Volume mL measured 25 Date 7/8/2023 Exp Date 1/4/2024 Alex Schoen, Manager Quality Control Absorbance 1.25 1.00 0.75 0.50 0.25 0.00	•					
Volume mL measured 25 Date 7/8/2023 Exp Date 1/4/2024 Alex Schoen, Manager Quality Control Absorbance 1.25 1.00 0.75 0.50 0.25 0.00	CTAB	mM				
Alex Schoen, Manager Quality Control Absorbance 1.25 1.00 0.75 0.50 0.25 0.00	Volume	mL	measured		25	
Alex Schoen, Manager Quality Control Absorbance 1.25 1.00 0.75 0.50 0.25 0.00						
Alex Schoen, Manager Quality Control Absorbance 1.25 1.00 0.75 0.50 0.25 0.00	Date				7/8/2023	
Absorbance 1.25 1.00 0.75 0.50 0.25 0.00	Exp Date				1/4/2024	
Absorbance 1.25 1.00 0.75 0.50 0.25 0.00						
1.25 1.00 0.75 0.50 0.25 0.00	Alex Schoen, Mar	nager Quality C	ontrol			
1.25 1.00 0.75 0.50 0.25 0.00						
1.25 1.00 0.75 0.50 0.25 0.00	Absorbance	1		1		1
1.00 0.75 0.50 0.25 0.00				1		•
0.75 0.50 0.25 0.00	1.25				.1	
0.50 0.25 0.00	1.00	 				
0.50 0.25 0.00				31065	58	•
0.25	1cu			الأرار	· 12	
0.25	0.50	/ 		82035		= ·
0.00	0.25	/ \ 		77/13		
				15.50		30
12 1195		00 800 100	0 -	-	13755	
				17 11	1.918	