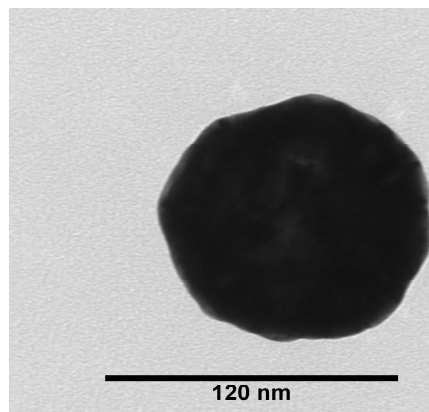
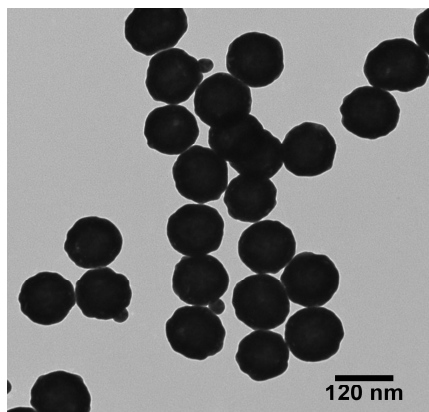
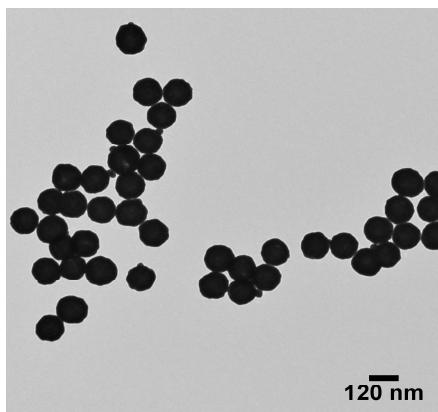
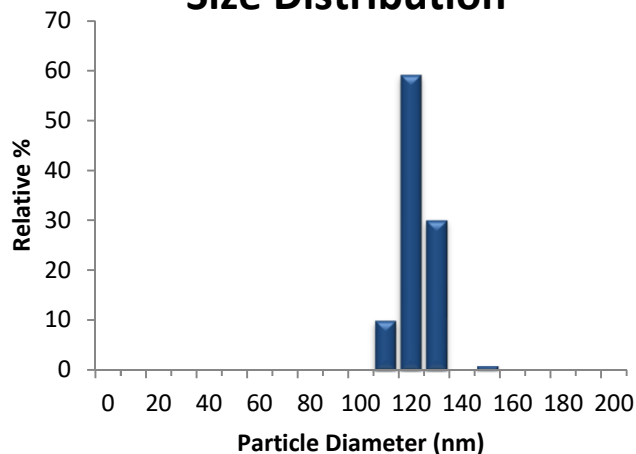
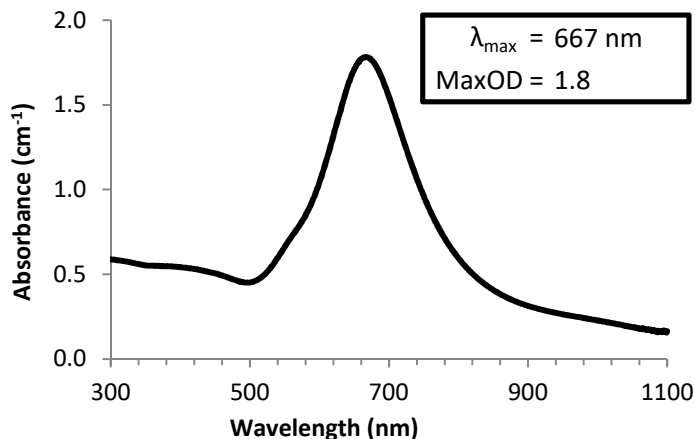


Gold Nanoshells, Peak Absorbance @ 660 nm, Lipoic Acid, NanoXact™
Product Number: GSLN660
Lot Number: WTJ0544

Total Diameter ± Std.Dev (TEM)*	117 ± 6 nm	Mass Concentration (Au):	0.053 mg/mL
Coefficient of Variation*:	5.0 %	Hydrodynamic Diameter:	129 nm
Core Diameter ± Std.Dev (TEM)*:	78 ± 5 nm	Zeta Potential:	-62 mV
Shell Thickness (Calc'd):	20 nm	pH of Solution:	7.7
Surface Area (Calc'd):	3.6 m ² /g	Particle Surface:	Carboxyl (Lipoic Acid)
Particle Concentration (Calc'd):	4.6E+09 particles/mL	Solvent:	0.02 mM Potassium Carbonate
% Absorbance at 660 nm:	99.3 %		


Size Distribution

Optical Properties

Characterization Instrumentation
Diameter and Size Statistics:

JEOL 1010 Transmission Electron Microscope; ImageJ

Mass Concentration:

Thermo Fisher X Series 2 ICP-MS

Spectral Properties:

Agilent 8453 UV-Visible Spectrometer

Hydrodynamic Diameter/Zeta Potential:

Malvern Zetasizer Nano ZS

pH:

Horiba - Laqua Twin pH Meter

Shake vigorously before use. Bath sonicate if needed. Storage: 2-8 °C. DO NOT FREEZE.

*Particle size data is based on measurements of singlet particles only.