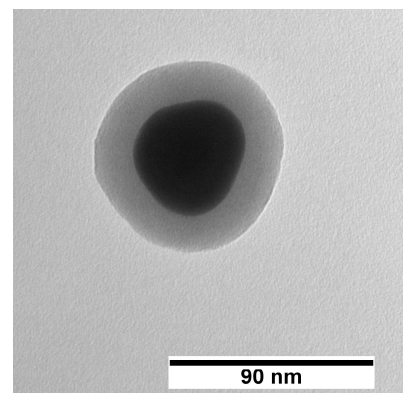
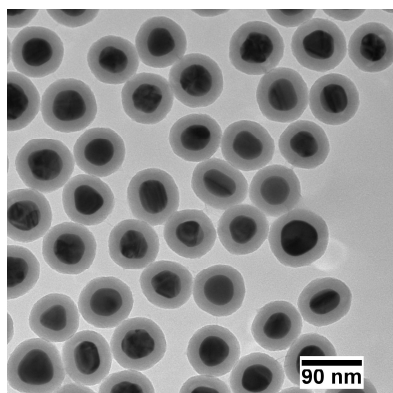
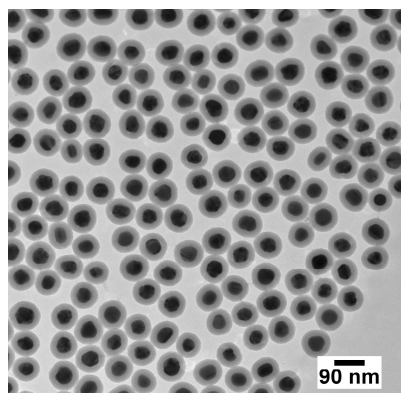


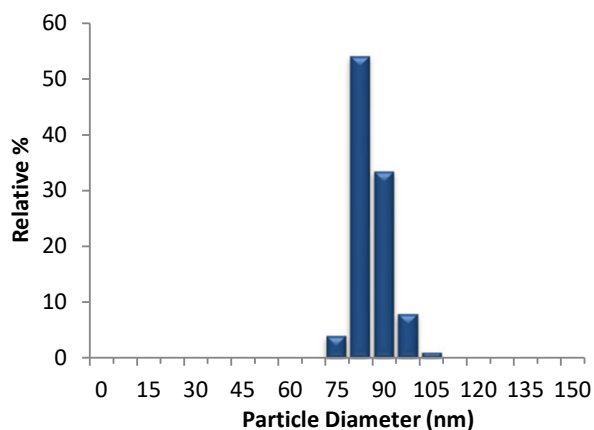
Silica Shelled 50 nm Silver Nanospheres, NanoXact™

Product Number: AGSH50
Lot Number: JRO0068

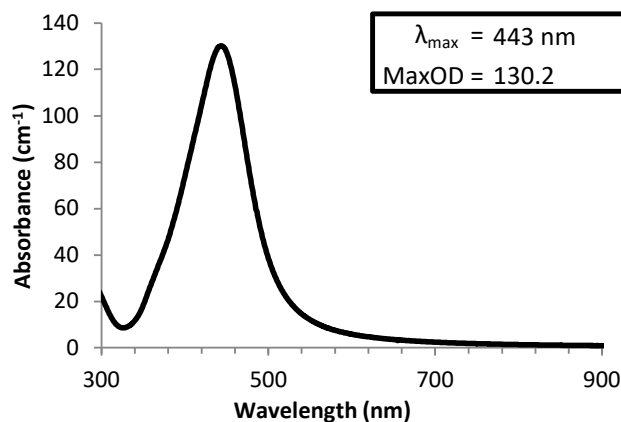
Total Diameter ± Std.Dev (TEM):	82 ± 5 nm	Hydrodynamic Diameter:	120 nm
Coefficient of Variation:	5.8 %	Zeta Potential:	-49 mV
Core Diameter ± Std.Dev (TEM):	47 ± 5 nm	Zeta pH:	6.6
Shell Thickness (TEM):	18 nm	Zeta Solvent:	USP Purified Water
Surface Area (Calc'd):	19.6 m ² /g	Particle Surface:	Silanol
Particle Concentration (Calc'd):	1.9E+12 particles/mL	Solvent:	Ethanol
		Mass Concentration (Ag):	1.07 mg/mL



Size Distribution



Optical Properties



Characterization Instrumentation

Diameter and Size Statistics:	JEOL 1010 Transmission Electron Microscope; Image J
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 away from light. **DO NOT FREEZE.**

To minimize ethanol evaporation, store in a cool place, minimize bottle head space and cap tightly.