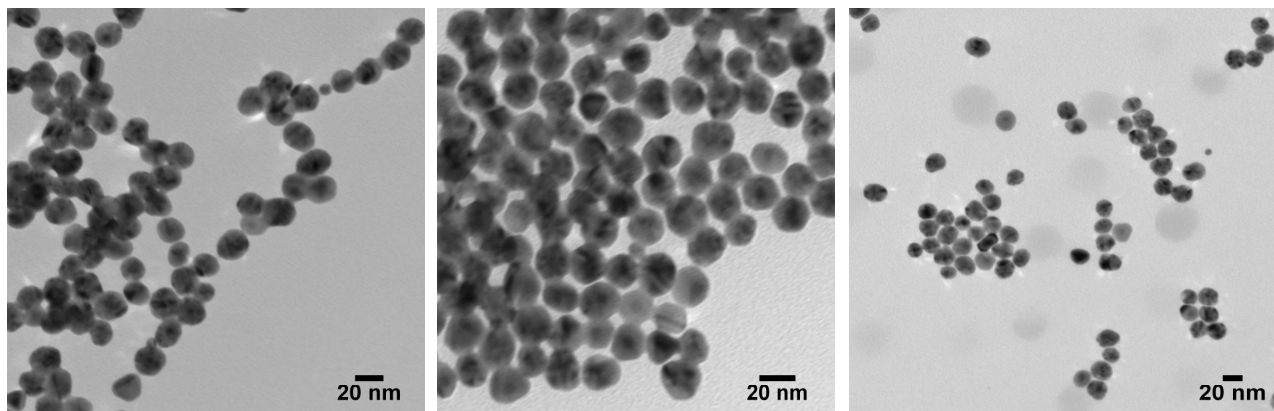


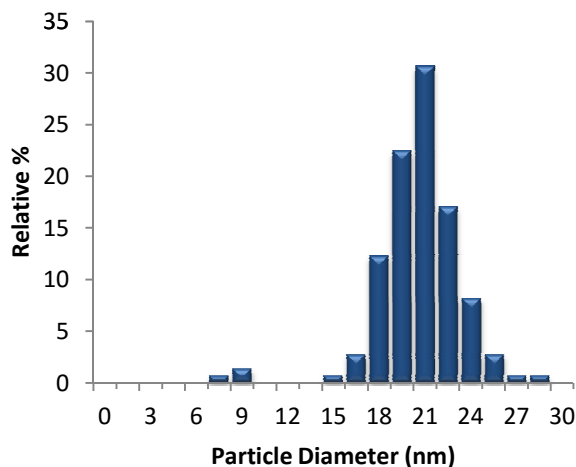
# 20 nm Silver Shelled Gold Nanospheres, Citrate, NanoXact™

Lot Number: DAC1565

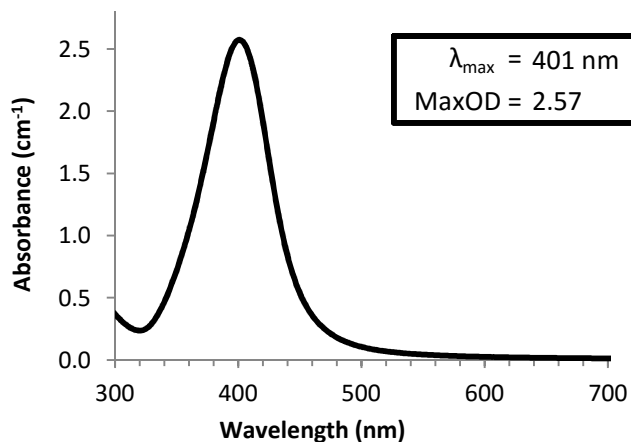
<b>Total Diameter (TEM):</b>	19.9 ± 2.8 nm	<b>Mass Concentration (Ag):</b>	0.020 mg/mL
<b>Coefficient of Variation:</b>	14.2 %	<b>Mass Concentration (Au):</b>	0.002 mg/mL
<b>Core Diameter (TEM):</b>	6.6 ± 0.5 nm	<b>Hydrodynamic Diameter:</b>	23 nm
<b>Shell Thickness (Calc'd):</b>	6.4 nm	<b>Zeta Potential:</b>	-39 mV
<b>Surface Area (Calc'd):</b>	26.9 m <sup>2</sup> /g	<b>pH of Solution:</b>	7.1
<b>Particle Concentration:</b>	4.9E+11 particles/mL	<b>Particle Surface:</b>	Sodium Citrate
<b>Total Mass Conc. (Au/Ag):</b>	0.022 mg/mL	<b>Solvent:</b>	Aqueous 2mM Citrate



**Size Distribution**



**Optical Properties**



## Characterization Instrumentation

**Diameter and Size Statistics:**

**Mass Concentration:**

**Spectral Properties:**

**Hydrodynamic Diameter/Zeta Potential:**

JEOL 1010 Transmission Electron Microscope

Thermo Fisher X Series 2 ICP-MS

Agilent 8453 UV-Visible Spectrometer

Malvern Zetasizer Nano ZS.

Storage: 2-8 °C away from light. DO NOT FREEZE.