550 nm Resonant Silica Shelled Silver Nanoplates

Lot Number: JMW1797

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Diameter (TEM):</td>
<td>55.6 nm</td>
</tr>
<tr>
<td>Coefficient of Variation:</td>
<td>12.9 %</td>
</tr>
<tr>
<td>Core Diameter (TEM):</td>
<td>30.3 nm</td>
</tr>
<tr>
<td>Shell Thickness (TEM):</td>
<td>12.7 nm</td>
</tr>
<tr>
<td>Peak Wavelength:</td>
<td>566.0 nm</td>
</tr>
<tr>
<td>Mass Concentration (Ag):</td>
<td>1.04 mg/mL</td>
</tr>
<tr>
<td>pH of Solution:</td>
<td>8.64</td>
</tr>
<tr>
<td>Particle Surface:</td>
<td>Silanol</td>
</tr>
<tr>
<td>Solvent:</td>
<td>10 mM Bicarbonate Buffer</td>
</tr>
</tbody>
</table>

**Size Distribution**

<table>
<thead>
<tr>
<th>Particle Diameter (nm)</th>
<th>Relative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>30</td>
<td>5</td>
</tr>
<tr>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>60</td>
<td>15</td>
</tr>
<tr>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>80</td>
<td>25</td>
</tr>
<tr>
<td>90</td>
<td>25</td>
</tr>
<tr>
<td>100</td>
<td>30</td>
</tr>
</tbody>
</table>

**Optical Properties**

- $\lambda_{\text{max}} = 566 \text{ nm}$
- MaxOD = 112.38

- **Characterization Instrumentation**
  - Diameter and Size Statistics: JEOL 1010 Transmission Electron Microscope
  - Mass Concentration: Thermo Fisher X Series 2 ICP-MS
  - Spectral Properties: Agilent 8453 UV-Visible Spectrometer
  - Hydrodynamic Diameter/Zeta Potential: Malvern Zetasizer Nano ZS.

**Storage and Handling:** Cool, dry place away from light. DO NOT FREEZE. AVOID INHALATION. Sonicate to resuspend.