

NANOPARTZ™

The gold nanoparticle for nanotechnology

Certificate of Analysis

| | |
|----------------|---------------------------------------|
| Product Family | Accurate Spherical Gold Nanoparticles |
| Product Number | A11-50-NPC-DIH-Bulk |
| Lot # | Y6016 |
| Form | Gold Colloid |
| Capping Agent | Nanopartz Carboxylic Acid |
| Solution | 18 MEG DI water |
| Source | 11G58 |

| | | | | |
|----------------|-------------|------------------|-----------------|----------|
| Diameter | nm | measured average | TEM, DLS, UVVIS | 50 |
| SPR Abs | OD | measured | UV/VIS | 1.1 |
| PDI | stddev/size | measured | TEM | 4% |
| SPR Peak | nm | measured | UV/VIS | 531 |
| pH | | measured | Orion | 7 |
| Zeta Potential | mV | measured | DLS | -32 |
| Concentration | nps/mL | calc | | 4.37E+10 |
| Wt. conc. | mg/mL | calc | | 0.06 |
| ppm | | calc | | 55 |
| Wt. % | % | calc | | 0.0055% |
| Molarity | uM | calc | | 7.28E-05 |
| Molar Ext. | M-1cm-1 | calc | | 1.51E+10 |

| | |
|----------|-----------|
| Date | 8/20/2018 |
| Exp Date | 2/16/2019 |

Alex Schoen, Manager Quality Control

