

# NANOPARTZ™

The gold nanoparticle for nanotechnology

## Certificate of Analysis

|                |                          |          |        |          |
|----------------|--------------------------|----------|--------|----------|
| Product Family | Nanopartz Gold Nanorods  |          |        |          |
| Product Number | A12-10-1400-CTAB-DIH-1-5 |          |        |          |
| Lot #          | 12K440-12552             |          |        |          |
| Form           | Gold Colloid             |          |        |          |
| Capping Agent  | CTAB                     |          |        |          |
| Solution       | 18MEG DI Water           |          |        |          |
| Source         | 12G74                    |          |        |          |
| SPR Peak       | nm                       | measured | UV/VIS | 1400     |
| SPR Abs        | OD                       | measured | UV/VIS | 1        |
| LSPR Peak      | nm                       | measured | UV/VIS | 508      |
| LSPR Abs       | OD                       | measured | UV/VIS | 0.2      |
| pH             |                          | measured | Eopt.  | 6.0      |
| Zeta Potential | mV                       | measured | DLS    | 32       |
| Diameter       | nm                       | measured | TEM    | 10       |
| Length         | nm                       | measured | TEM    | 100      |
| Aspect Ratio   |                          | calc     |        | 10.0     |
| Concentration  | nps/mL                   | calc     |        | 2.4E+11  |
| Wt. conc.      | mg/mL                    | calc     |        | 0.035    |
| Concentration  | ppm                      | calc     |        | 35       |
| Wt %           | %                        | calc     |        | 0.0035%  |
| Molarity       | nM                       | calc     |        | 0.40     |
| Molar Ext.     | M-1cm-1                  | calc     |        | 2.5E+09  |
| CTAB           | mM                       | measured |        | 5        |
| Volume         | mL                       | measured |        | 5        |
| Date           |                          |          |        | 7/8/2023 |
| Exp Date       |                          |          |        | 1/4/2024 |

Alex Schoen, Manager Quality Control

