Surface Coatings Regulate the Biodynamics and Trophic Transfer of Silver Nanoparticles: Insights from Au@Ag Core-Shell Nanoparticle

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Number of sections: 1

Section1. The correlation between the P content and cell density in *Tetrahymena thermophila*

T. thermophila in the logarithmic growth phase was centrifuged (10000 × g, 10 min), and washed twice with ultrapure water. Then, dilute to five different concentration levels, with 50 ml for each concentration. Subsequently, the cell density at the corresponding concentrations was determined using the Z2 Coulter counter (Beckman Coulter, Inc., IN). Take 1 ml of the cell solution and add 1 ml nitric acid for overnight digestion. Repeat this process three times for each concentration group. Using inductively coupled plasma-mass spectrometry (ICP-MS, NexLON 350D, PerkinElmer, US) in Kinetic Energy Discrimination (KED) mode with a helium flow rate of 3 mL/min, the elemental contents of P in the samples were determined. Throughout the determination process, 20 μg/L indium was used as an internal standard. The results showed that there is a strong linear correlation between the P content and the cell density in *Tetrahymena thermophila* (Fig. S1).

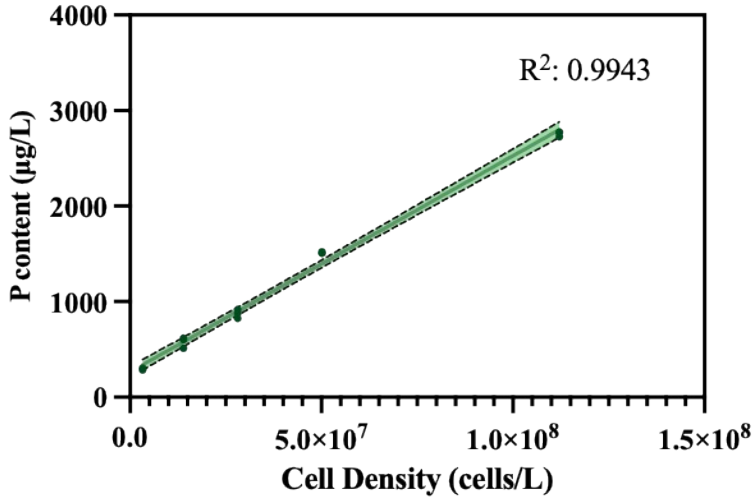

Figure S1. The correlation between the P content and cell density in *Tetrahymena thermophila*