Supplementary Information

Effects of natural organic matter type and concentration on the aggregation of citratestabilized gold nanoparticles

Jeffrey A. Nason*, Shannon, A. McDowell, and Ty Callahan

*School of Chemical, Biological and Environmental Engineering, Oregon State University, Corvallis, OR 97331. (541) 737-9911 jeff.nason@oregonstate.edu

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Fig. S1 The scattering intensity, I(q), as a function of the modulus of the scattering vector $Q = (4\pi/\lambda)\sin(\theta/2)$, where θ is the scattering angle and λ is the wavelength of the X-rays for 10 mg/L cit-AuNPs in DDI water

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Fig. S2 Particle size distribution fit to the scattering data shown in Fig. S1. The average size of the cit-AuNPs in DDI water was 12.8 nm.



Fig. S3 Scattering intensity and fitted particle size distribution for 10 mg/L cit-AuNPs in 80 mM KCl after 15 minutes. Significant aggregation was detected as evidenced by particles 25-35 nm in diameter.



Fig. S4 Scattering intensity and fitted particle size distribution for 10 mg/L cit-AuNPs in 1 mg C/L as SRHA and 80 mM KCl after 15 minutes. cit-AuNPs remained stable with a measured core size of 12.4 nm. Some slight aggregation was detected.



Fig. S5 Time-resolved dynamic light scattering results of cit-AuNPs suspended in various concentrations of SRFA at I = 80 mM (KCl).



Fig. S6 Time-resolved dynamic light scattering results of cit-AuNPs suspended in various concentrations of SRHA at I = 80 mM (KCl).



Fig. S7 Time-resolved dynamic light scattering results of cit-AuNPs suspended in various concentrations of SRNOM at I = 80 mM (KCl).



Fig. S8 Time-resolved dynamic light scattering results of cit-AuNPs suspended in various concentrations of PLFA at I = 80 mM (KCl).