Supplementary Information

Dynamic Light Scattering as Efficient Tool to Study Glyconanoparticle-Lectin Interactions

Xin Wang¹, Olof Ramström^{2,*}, Mingdi Yan^{1,2*}

¹Department of Chemistry, Portland State University, P.O. Box 751, Portland, Oregon, 97207-0751; ²Department of Chemistry, KTH - Royal Institute of Technology, Teknikringen 30, S-10044 Stockholm, Sweden

Table of Contents

- 1. TEM and DLS of 40 nm Au NPs
- 2. LOD of Au-M-GNP with Con A
- 3. DLS of 35 nm, 110 nm, and 470 nm silica particles
- 4. LOD of S-G-GNP with RCA₁₂₀
- 5. K_D of Au-M-GNP with Con A and S-G-GNP with RCA₁₂₀

1. TEM and DLS of 40 nm Au NPs



Fig. 1S TEM image of Au NPs (scale bar: 100 nm).



Fig. 2S DLS size distribution of Au NPs.

2. LOD of Au-M-GNP with Con A



Fig. 3S Dynamic linear range of median diameter of **Au-M-GNP** vs. Con A concentration, from which the LOD was determined to be 15 nM according to Eq. 1 (see article text).

3. DLS of 35 nm, 110 nm, 470 nm silica particles



Fig. 4S DLS particle size distribution of synthesized silica particles.



Fig. 5S Dynamic linear range of median diameter of **S-G-GNP** vs. RCA₁₂₀ concentration, from which the LOD was determined to be 6.6 nM according to Eq. 1 (see article text).

5. Saturation curves of S-G-GNP with RCA120 and Au-M-GNP with Con A



Fig. 6S The change in particle diameter (ΔD) of **S-G-GNP** vs. RCA₁₂₀ concentration: experimental data (solid circles) and the corresponding Hill fitting curve (line).

4. LOD of S-G-GNP with RCA₁₂₀



Fig. 7S The change in particle diameter (ΔD) of **Au-M-GNP** vs. Con A concentration: experimental data (solid circles) and the corresponding Hill fitting curve (line).