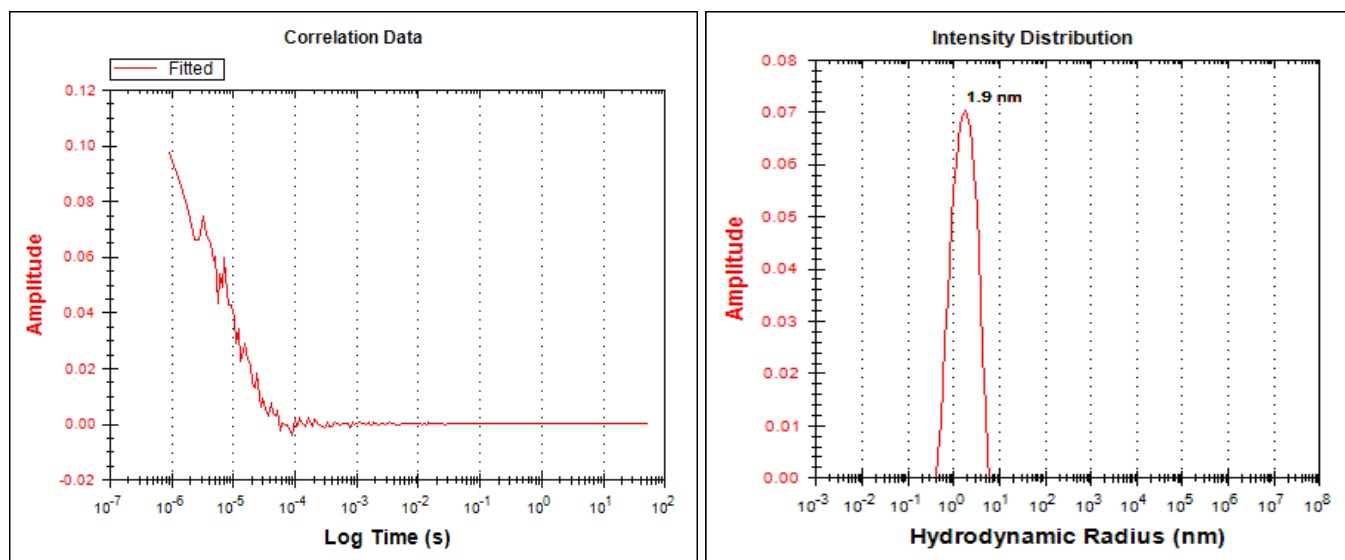


## pUNk Sensitivity: Measuring 0.1mg/ml Lysozyme

The Unchained Labs pUNk dynamic light scattering system and i-Size software provide a quick and accurate measurement of hydrodynamic size of sub-micron particles and molecules. To measure extremely low concentrations of weakly scattering protein molecules requires cleanliness, care and patience, but follow these basic rules and it is perfectly possible to measure just 0.1mg/ml of lysozyme(14kDa monomer) with confidence.

### Sample Preparation & Measurement

A concentration of 0.1mg/ml lysozyme powder in filtered PBS was prepared and allowed to settle for 1 hour. 12µl of the prepared solution was filtered through a 0.02µm pore size and then pipetted into a scrupulously cleaned, quartz glass cuvette. The prepared sample was placed in the temperature controlled cell holder and measured by the pUNk for a total of 60 seconds.



### Results

The resulting correlation function and size distribution reported by i-Size software indicates a single peak of radius 1.9nm, which is appropriate for lysozyme.

### Summary

Measuring at the limits of DLS sensitivity requires care, but the pUNk and i-Size software are powerful enough to produce reliable results from the most extreme challenges.