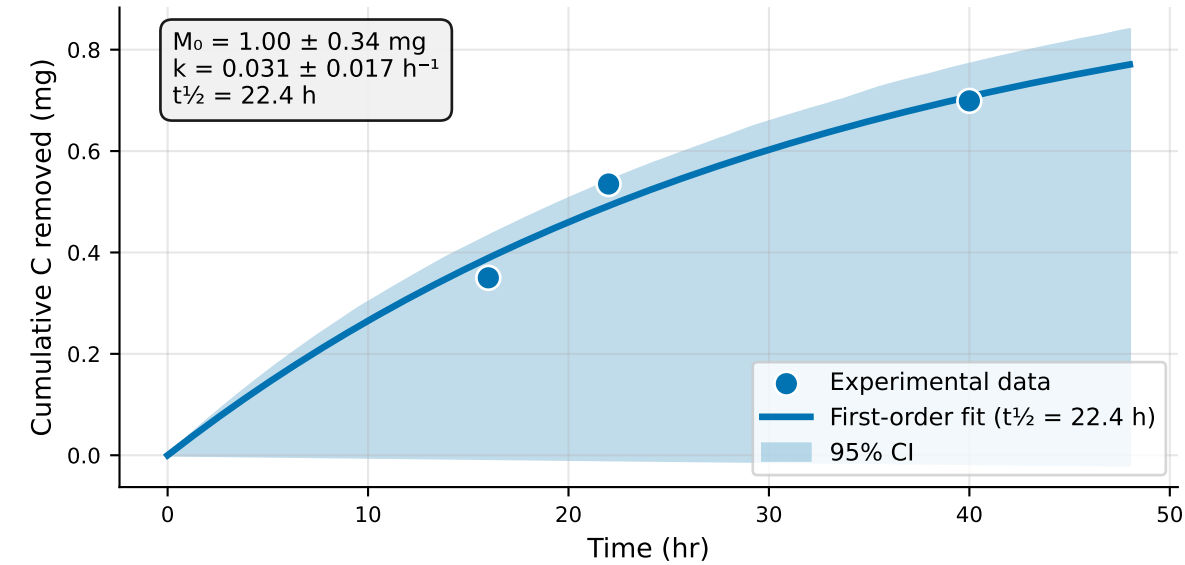
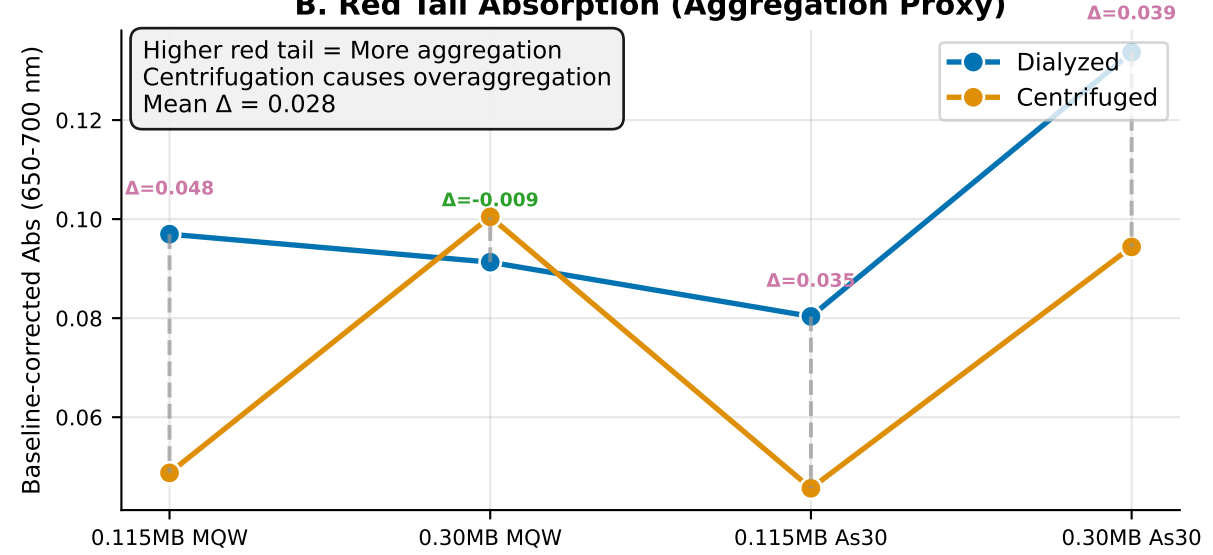


# Figure 2: The Purification Journey - Dialysis Creates Superior AuNP Platform

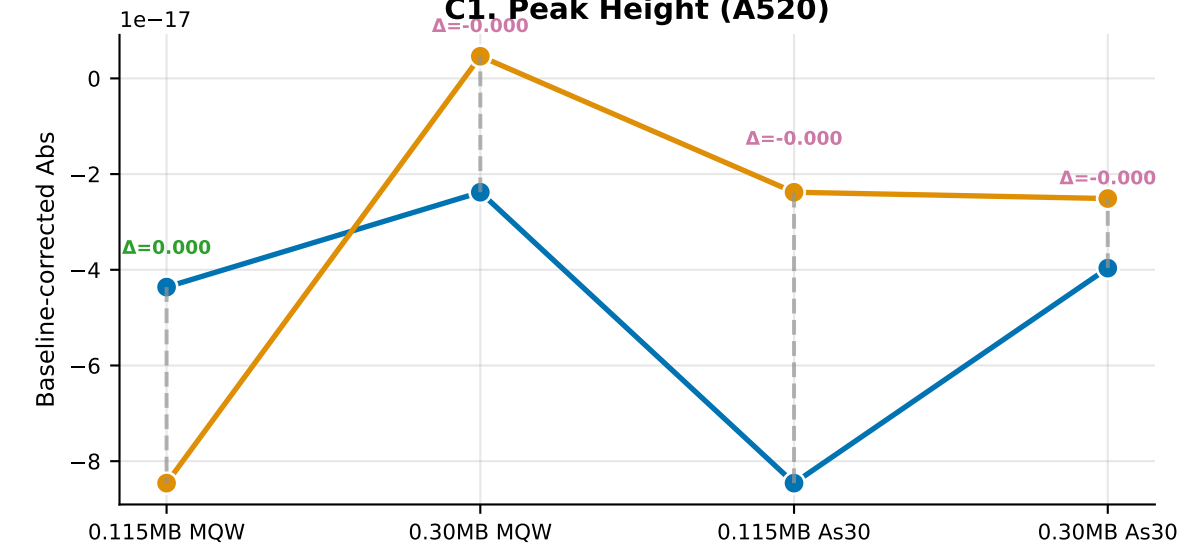
A. Dialysis Kinetics



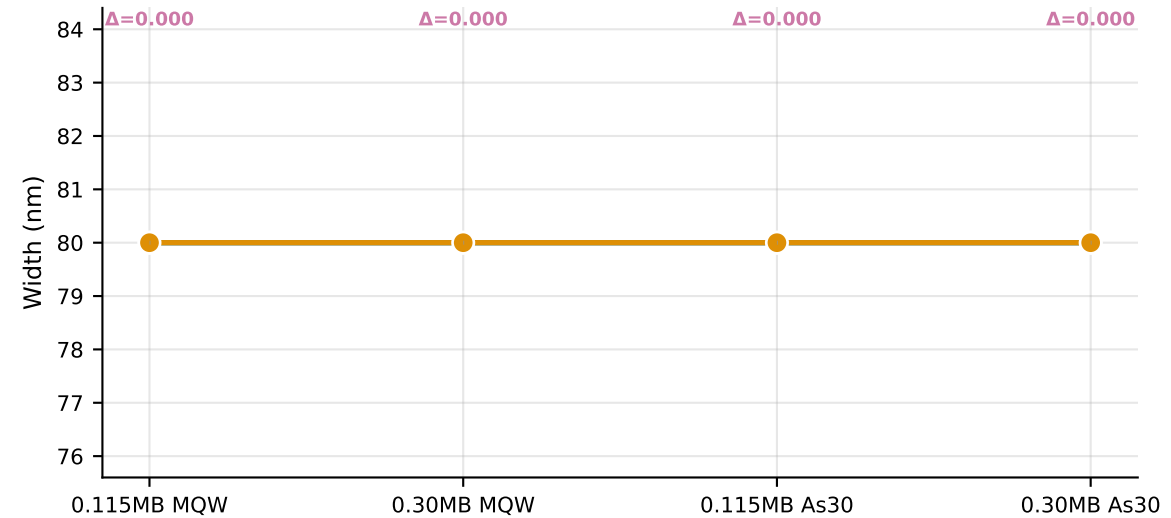
B. Red Tail Absorption (Aggregation Proxy)



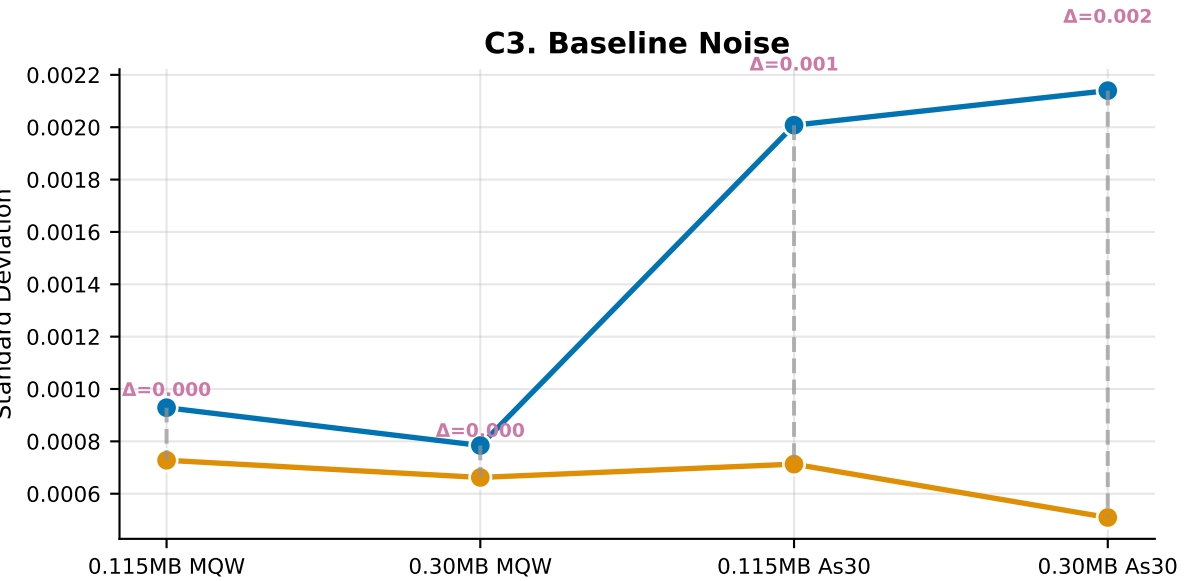
C1. Peak Height (A520)



C2. Peak Width (FWHM)



C3. Baseline Noise



C4. Statistical Summary

Metric	Mean $\Delta$	Improvement	p-value	Significant
A520	-0.0000	-48.7%	0.513	No
FWHM	0.0000	+0.0%	N/A	N/A
Red Tail	0.0283	+39.1%	0.114	No
Noise	0.0008	+124.4%	0.124	No

Comprehensive analysis of all 4 dialysis vs centrifugation dataset pairs. Panel A shows first-order kinetics of citrate removal during dialysis. Panel B demonstrates that centrifugation causes overaggregation (higher red tail absorption in 650-700nm region). Panel C provides detailed quality metric comparisons across all experimental conditions. Statistical analysis uses paired t-tests with significance threshold  $p < 0.05$ .