

Article

Development, Characterization, and Antimicrobial Evaluation of Hybrid Nanoparticles (HNPs) Based on Phospholipids, Cholesterol, Colistin, and Chitosan Against Multidrug-Resistant Gram-Negative Bacteria

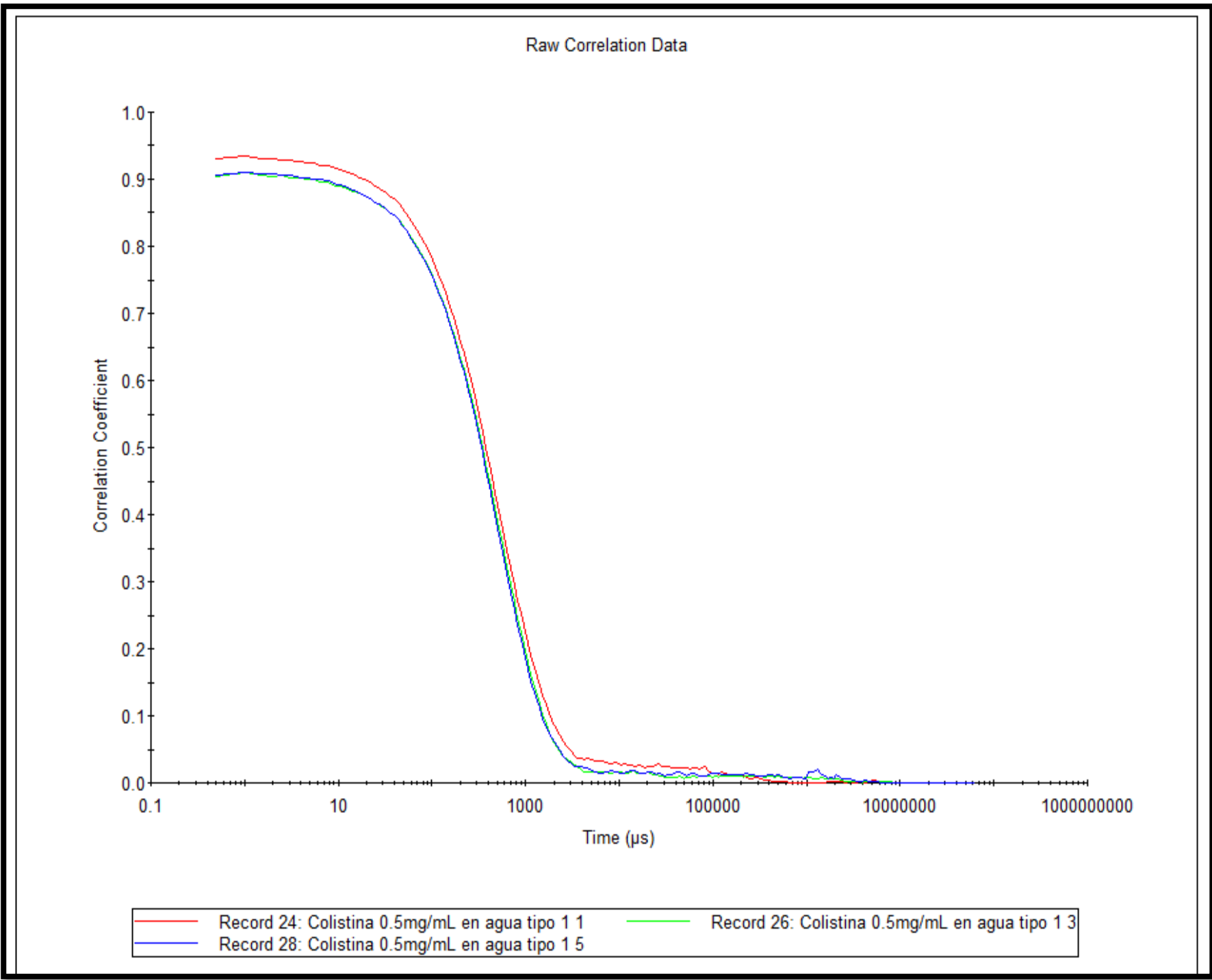
Supplementary material

Particle size and PDI data

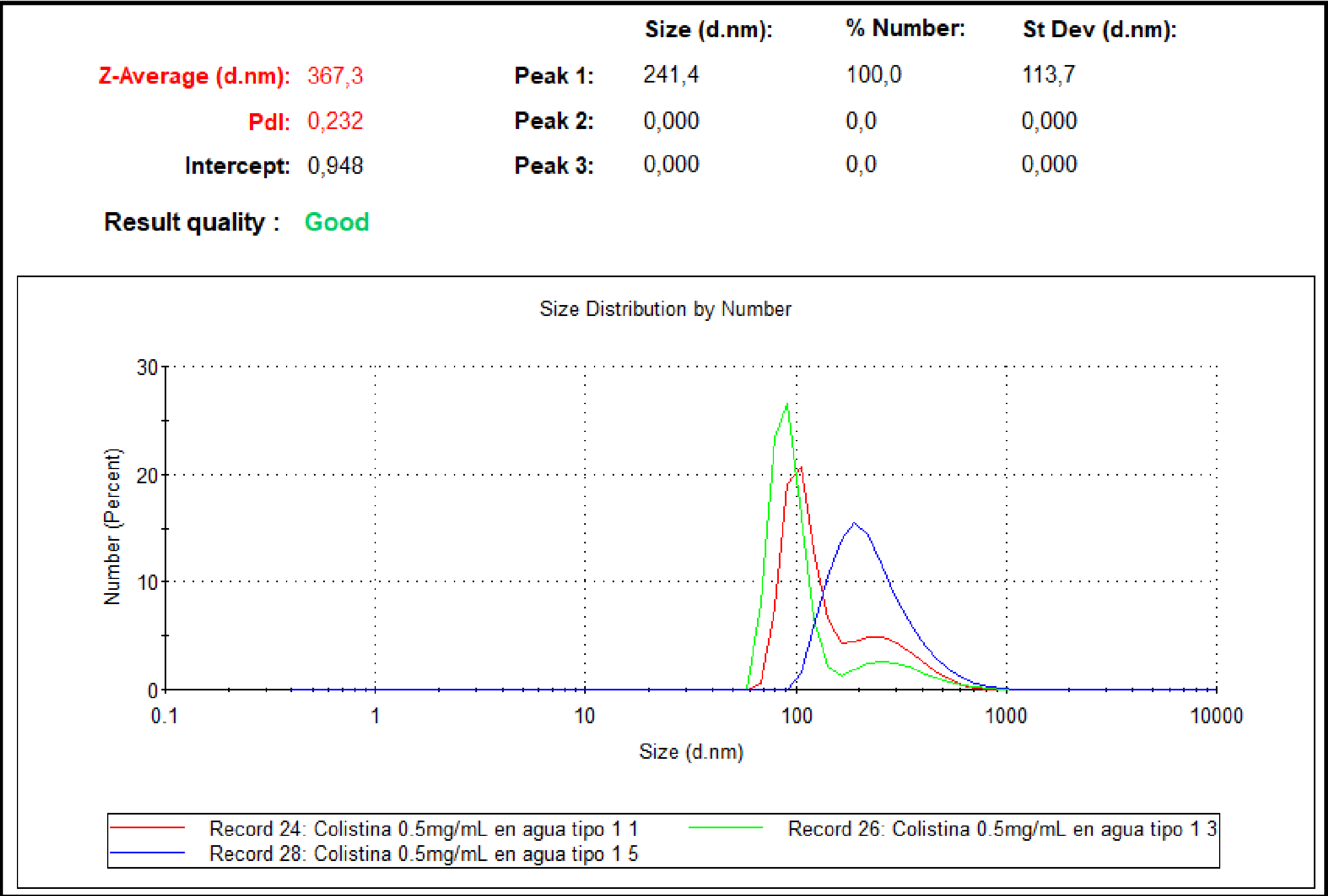
(A) Colistin aqueous dispersion (0.29 mM)

| | |
|---|---------------------------------|
| Temperature (°C): 25,0 | Duration Used (s): 60 |
| Count Rate (kcps): 293,4 | Measurement Position (mm): 4,65 |
| Cell Description: Glass cuvette with round aperture | Attenuator: 10 |

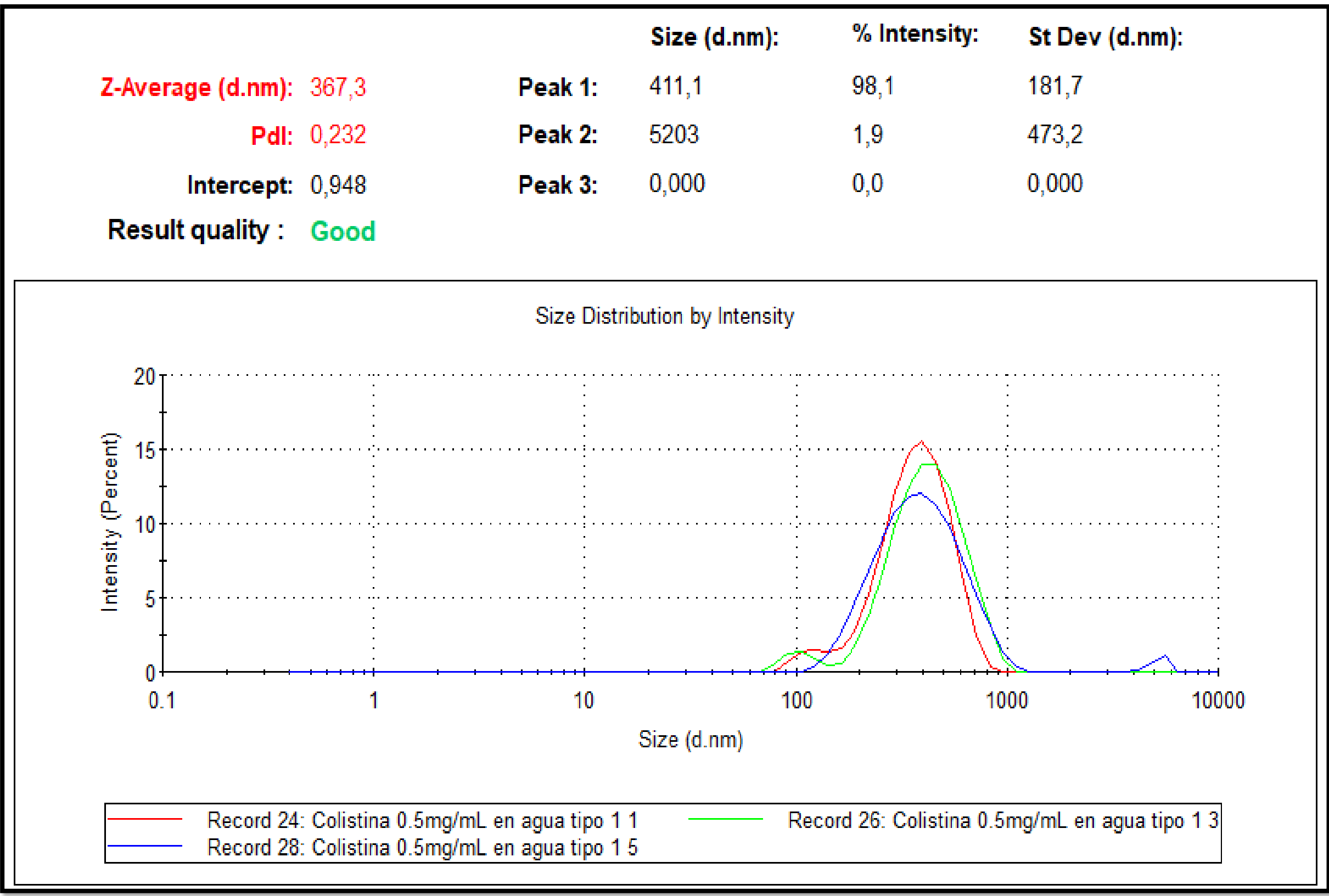
Correlogram Report



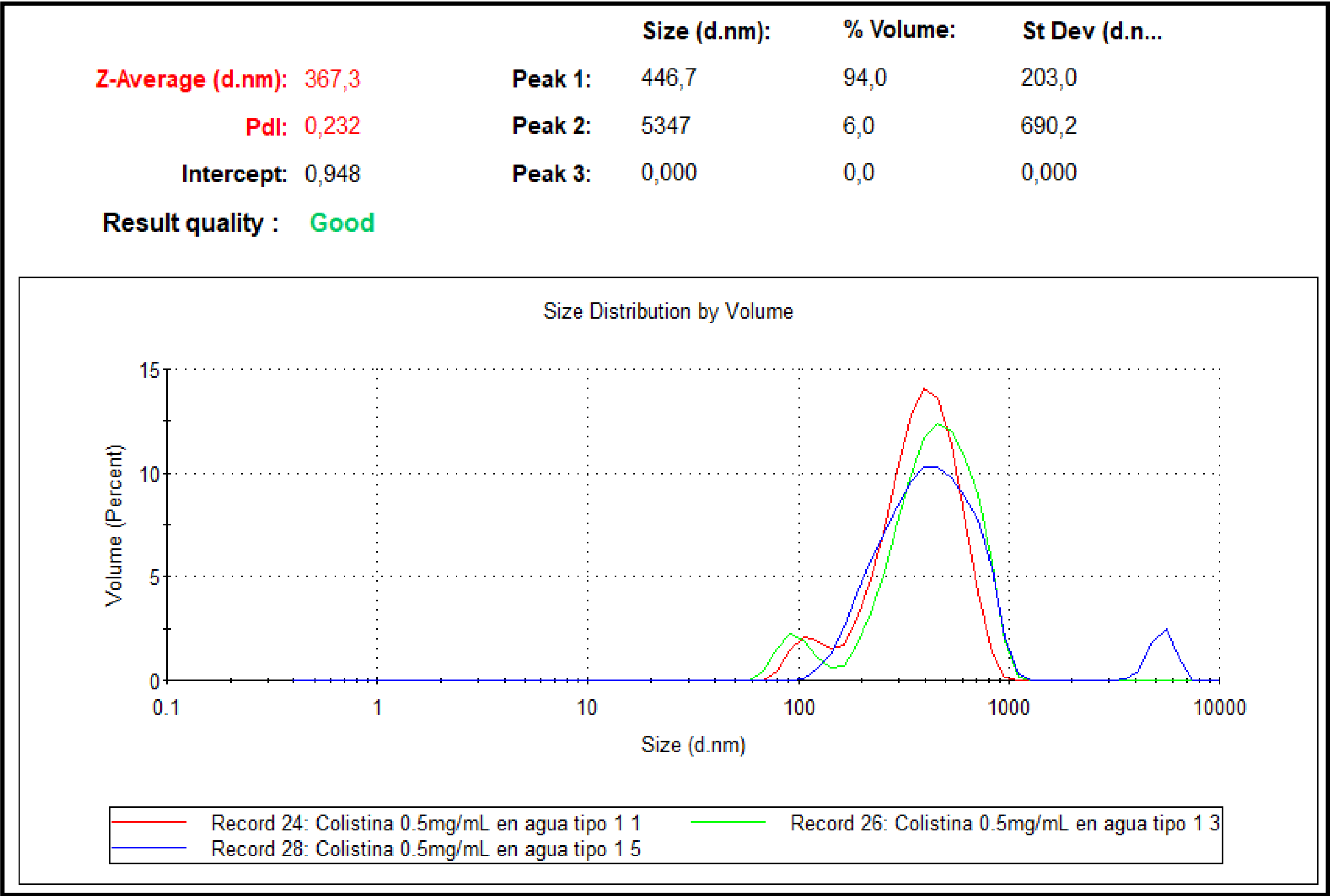
Size Distribution Report by Number



Size Distribution Report by intensity



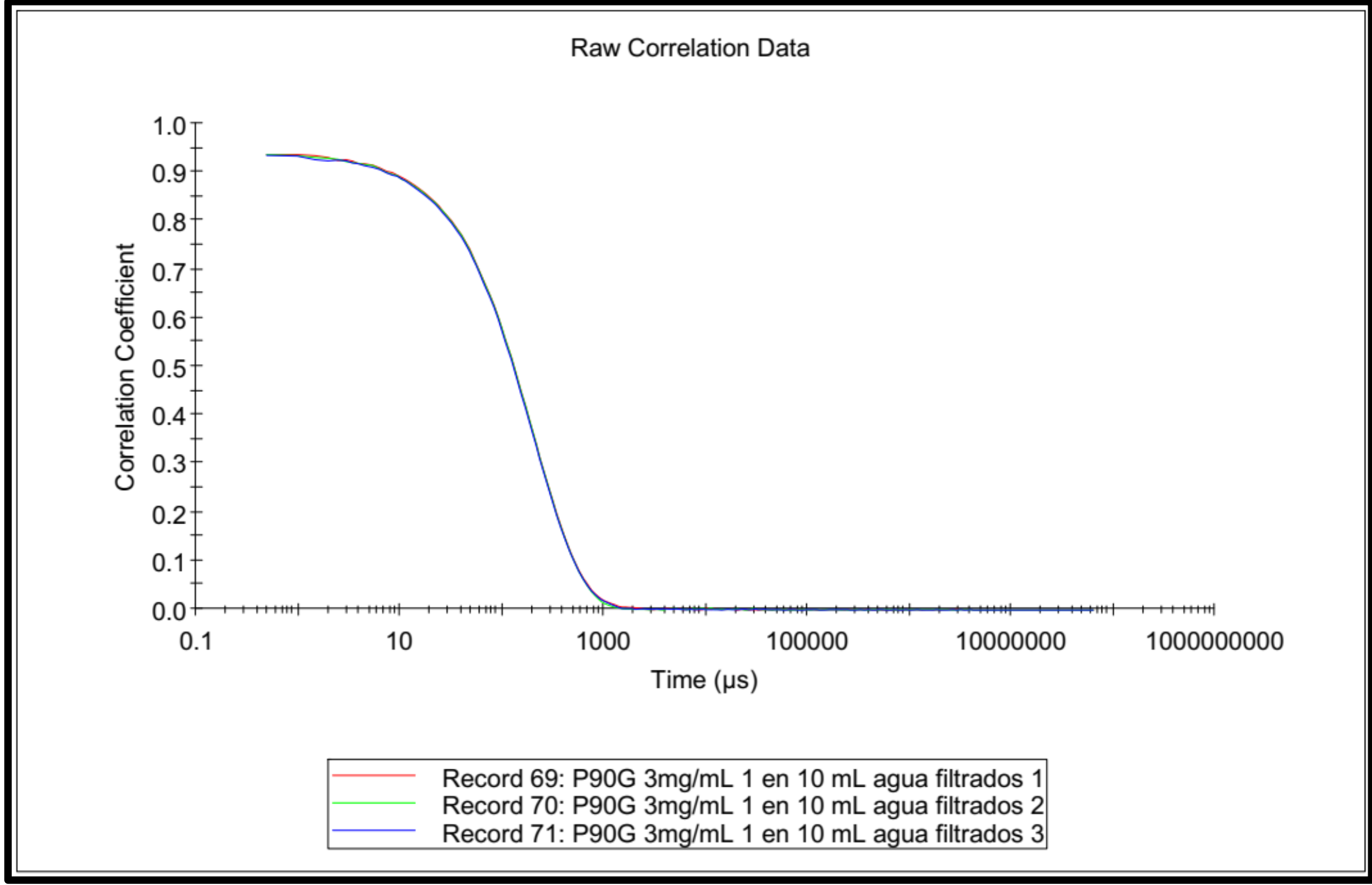
Size Distribution Report by Volume



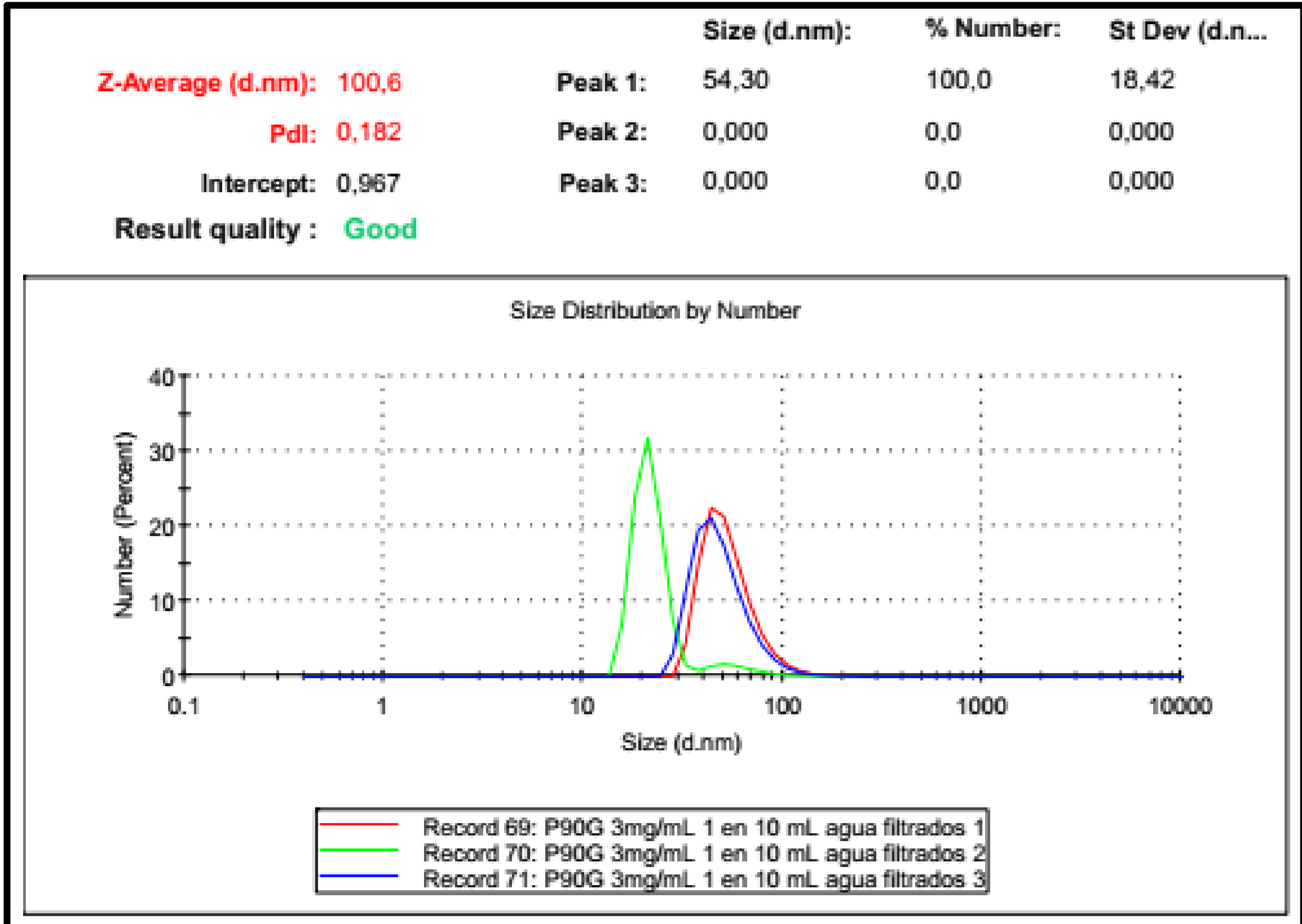
(B) Phospholipon ® aqueous dispersion (0.06 mM)

| | |
|---|---------------------------------|
| Temperature (°C): 25,0 | Duration Used (s): 70 |
| Count Rate (kcps): 175,3 | Measurement Position (mm): 4,65 |
| Cell Description: Disposable sizing cuvette | Attenuator: 9 |

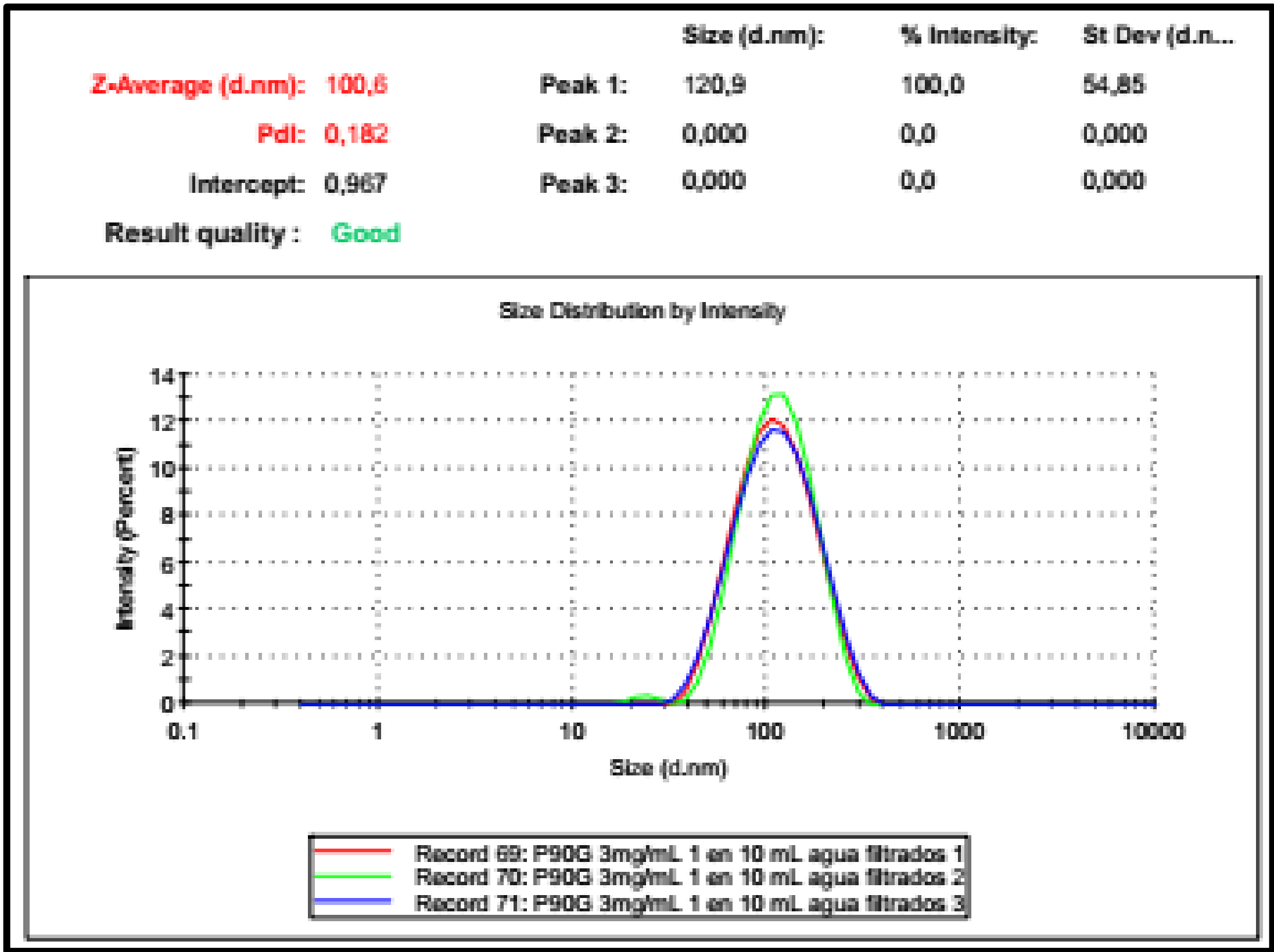
Correlogram Report



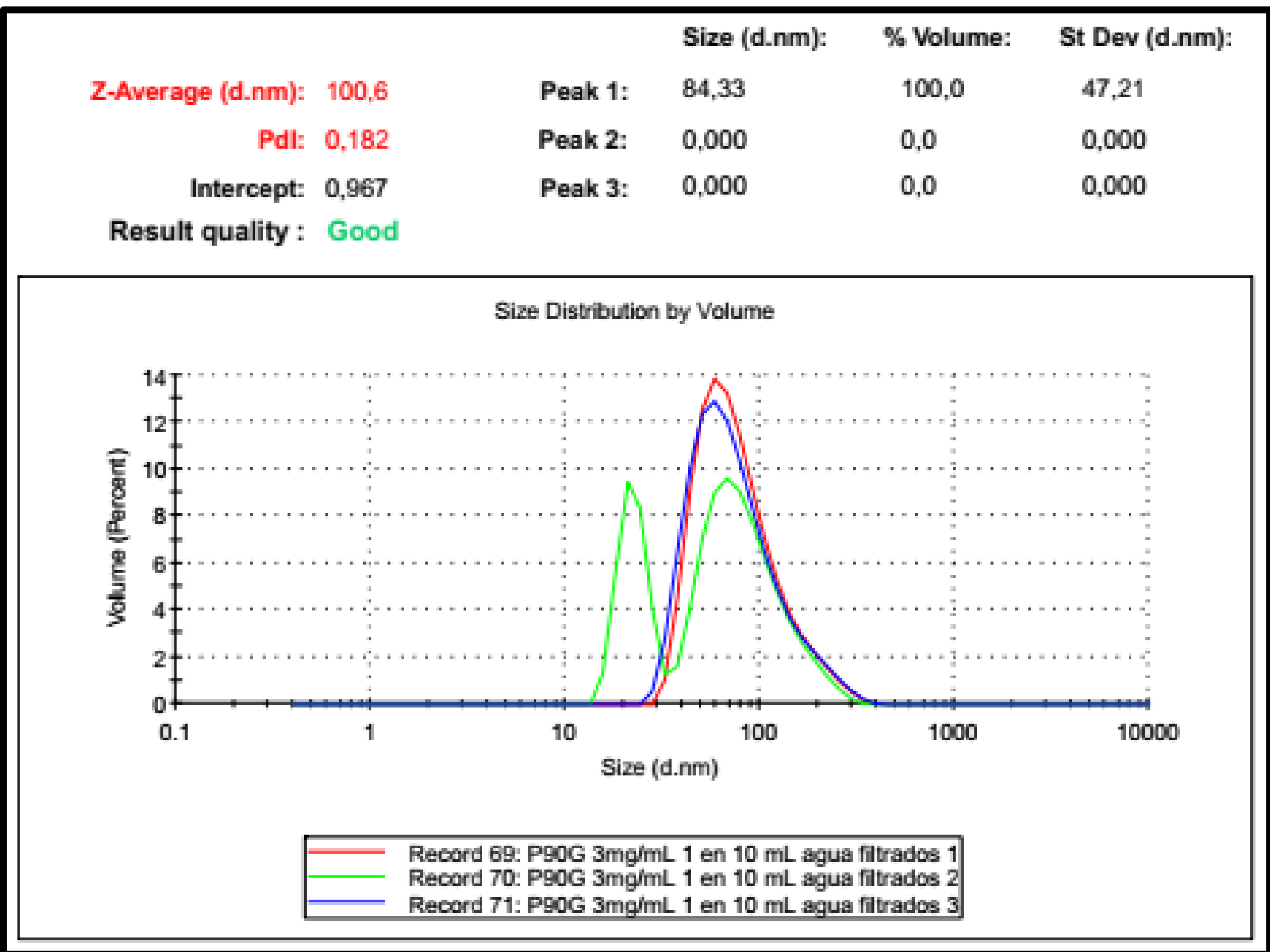
Size Distribution Report by Number



Size Distribution Report by intensity



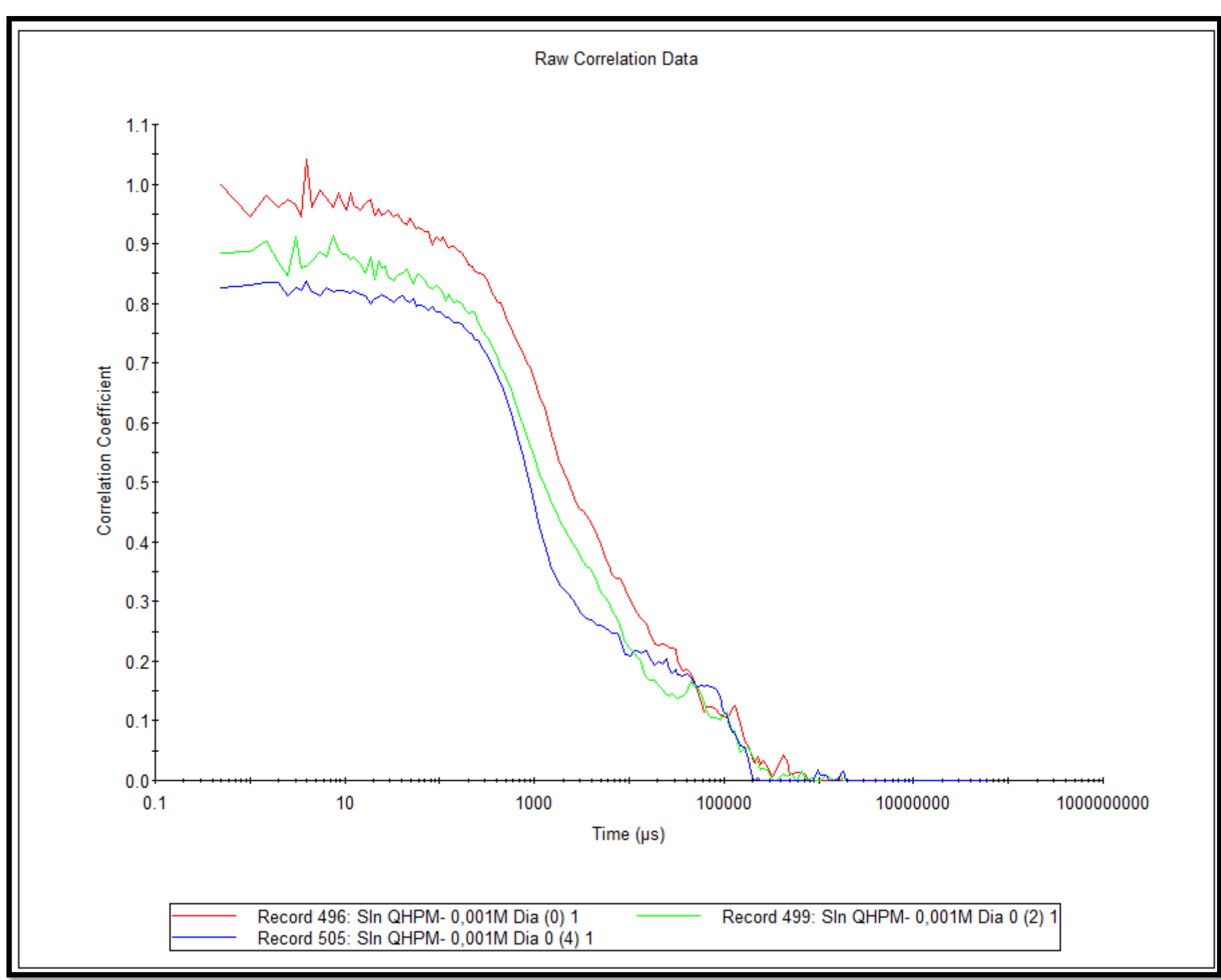
Size Distribution Report by Volume



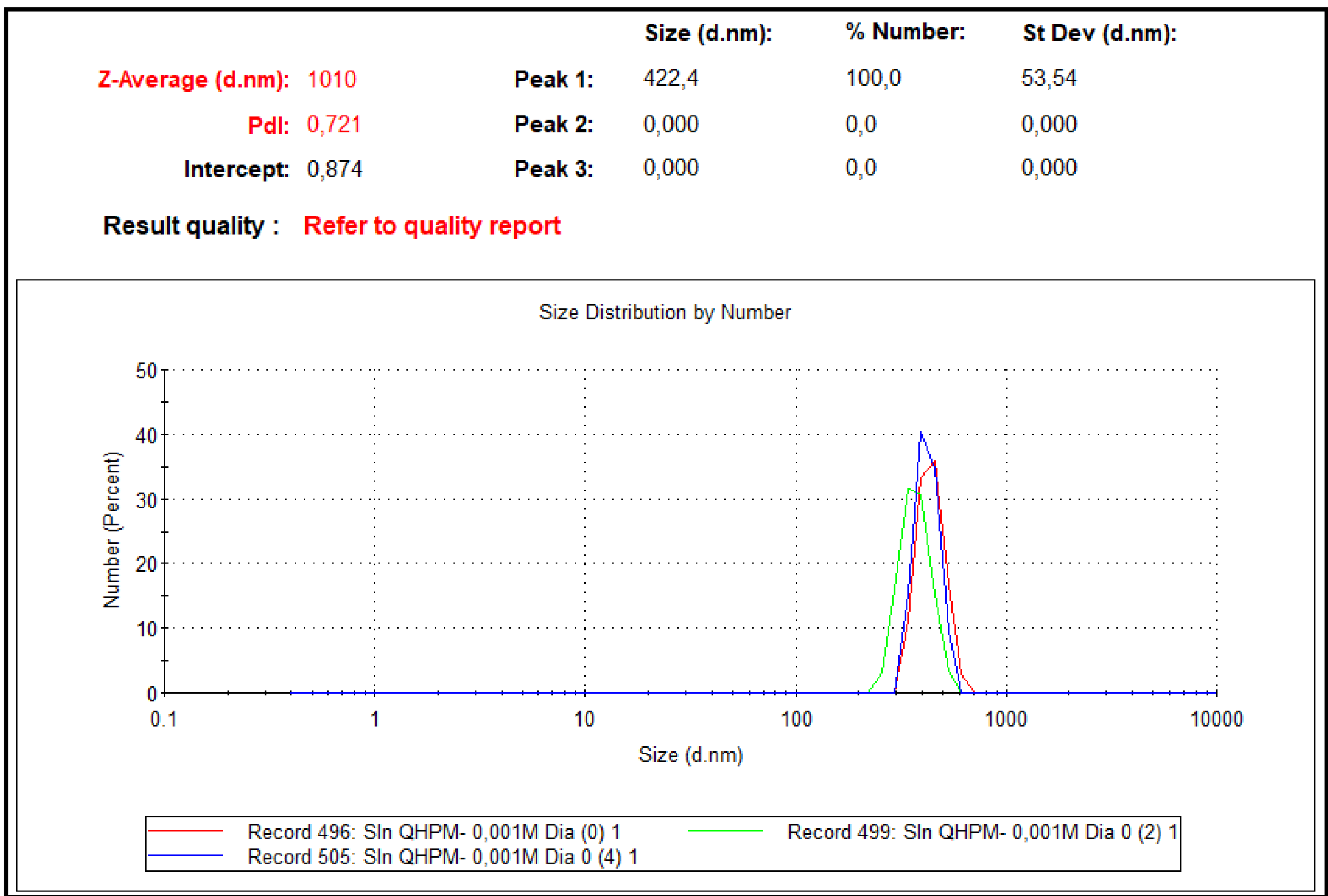
(C) Chitosan aqueous dispersion (1.0 mM)

| | |
|---|---------------------------------|
| Temperature (°C): 25,0 | Duration Used (s): 14 |
| Count Rate (kcps): 51,3 | Measurement Position (mm): 4,65 |
| Cell Description: Disposable sizing cuvette | Attenuator: 11 |

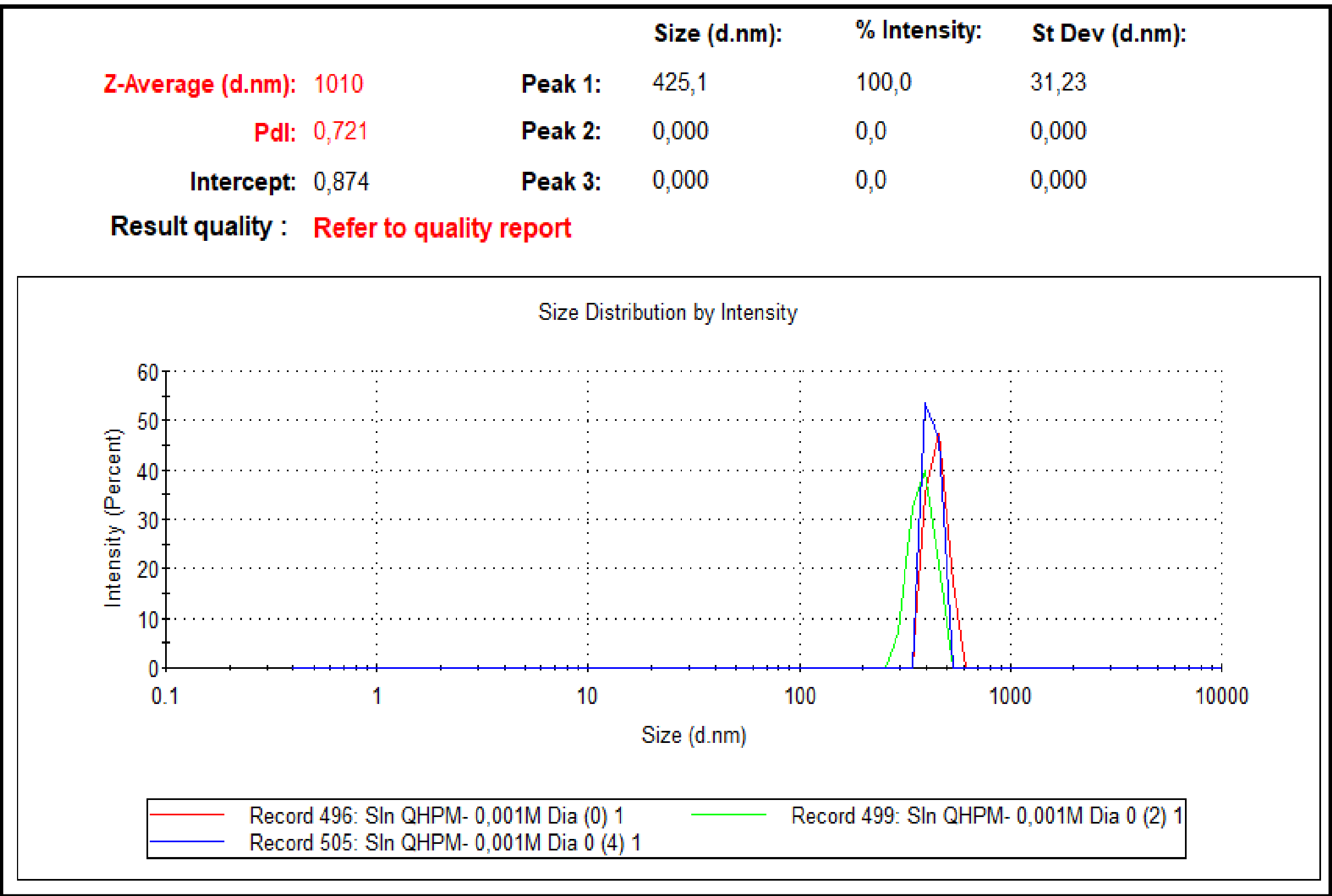
Correlogram Report



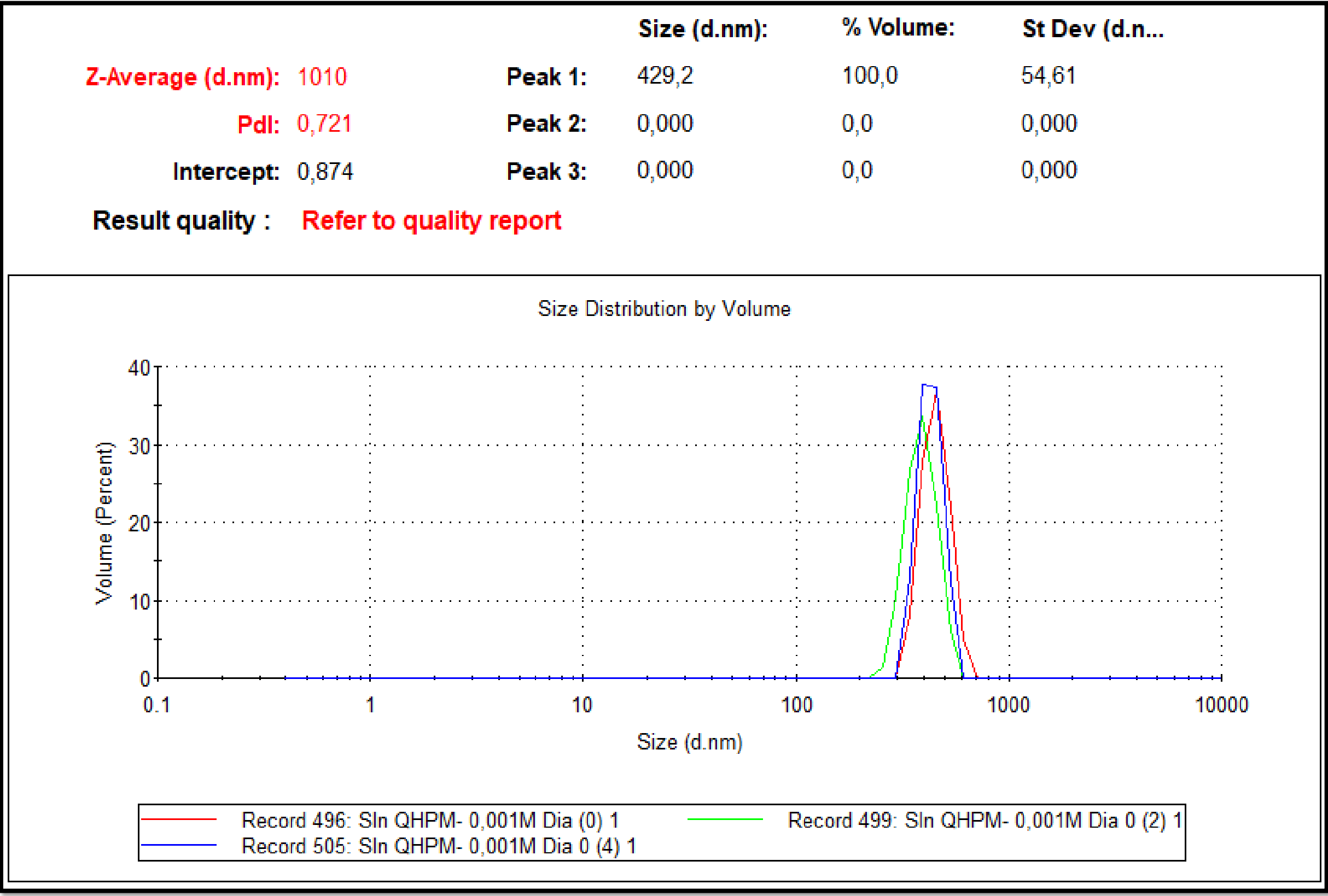
Size Distribution Report by Number



Size Distribution Report by intensity



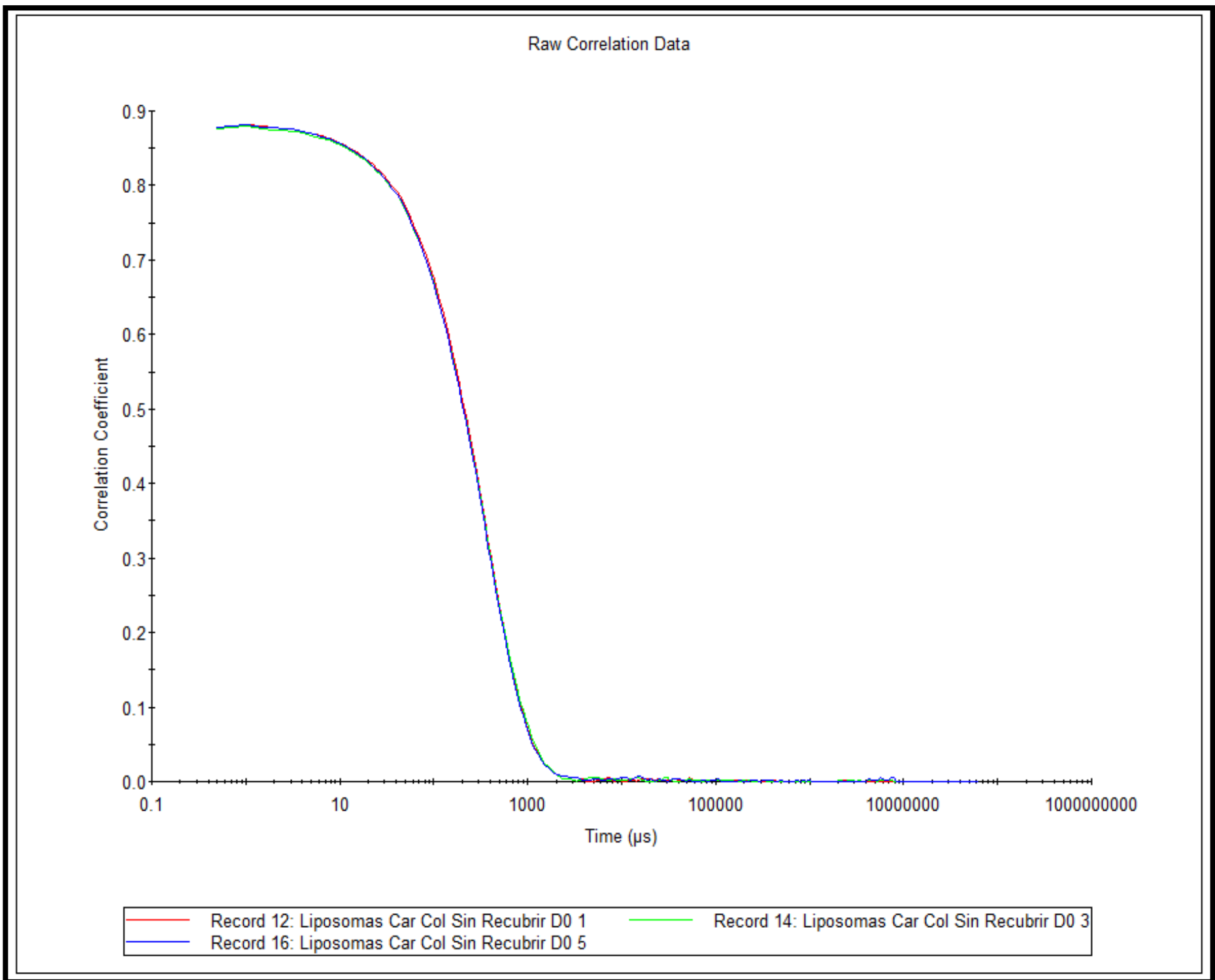
Size Distribution Report by Volume



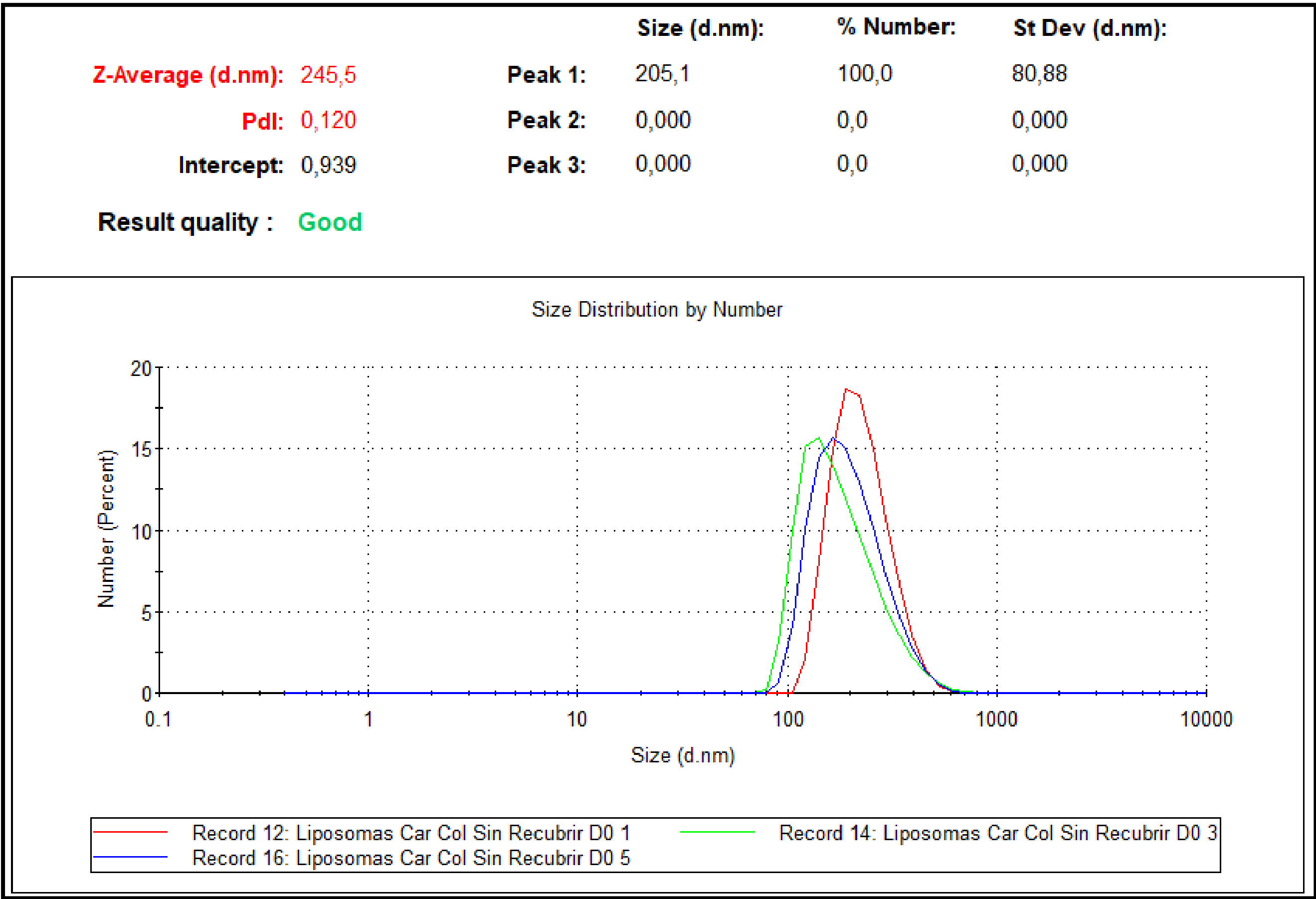
(D) U-HNPs

| | |
|---|---------------------------------|
| Temperature (°C): 25,0 | Duration Used (s): 45 |
| Count Rate (kcps): 486,8 | Measurement Position (mm): 4,65 |
| Cell Description: Disposable sizing cuvette | Attenuator: 8 |

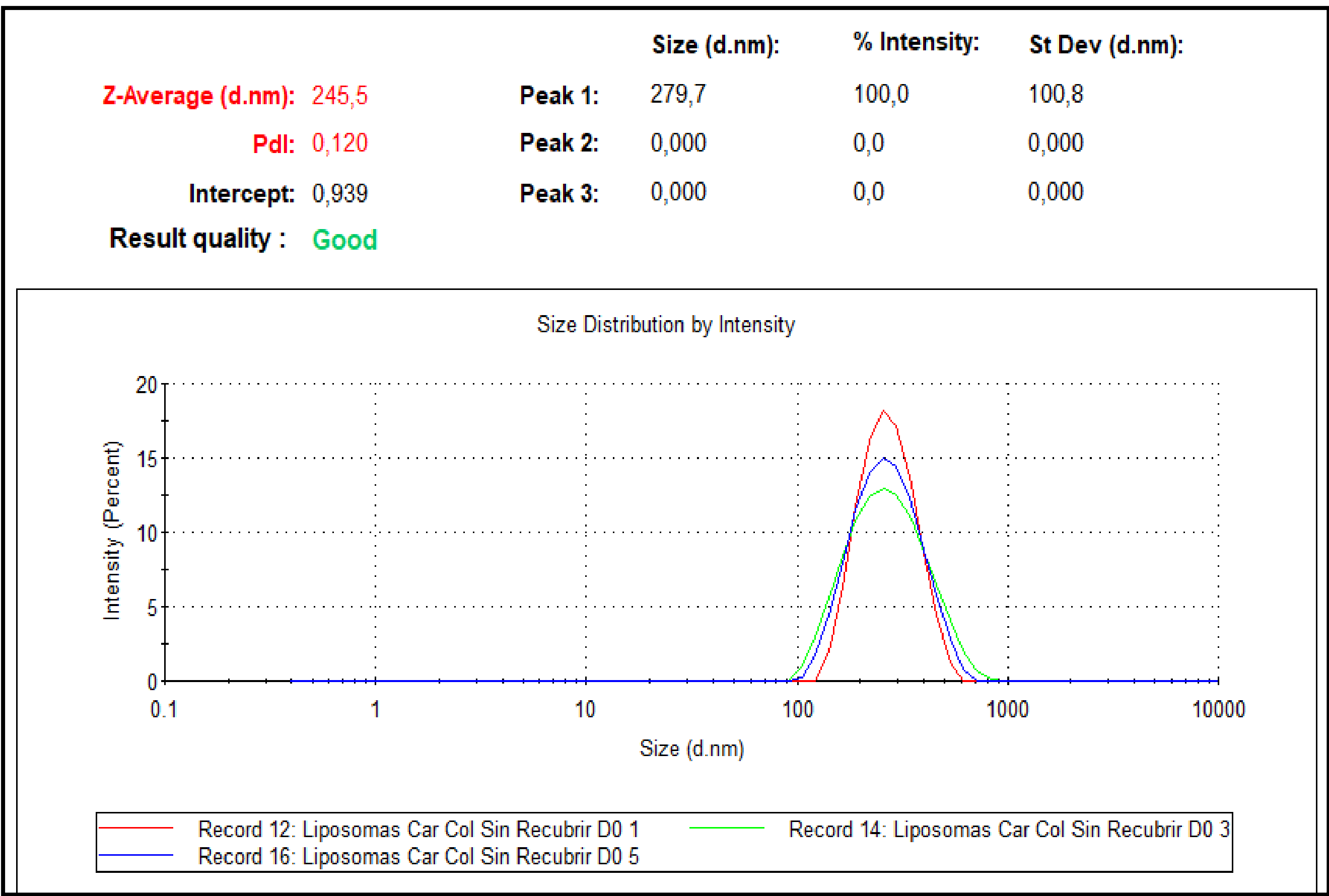
Correlogram Report



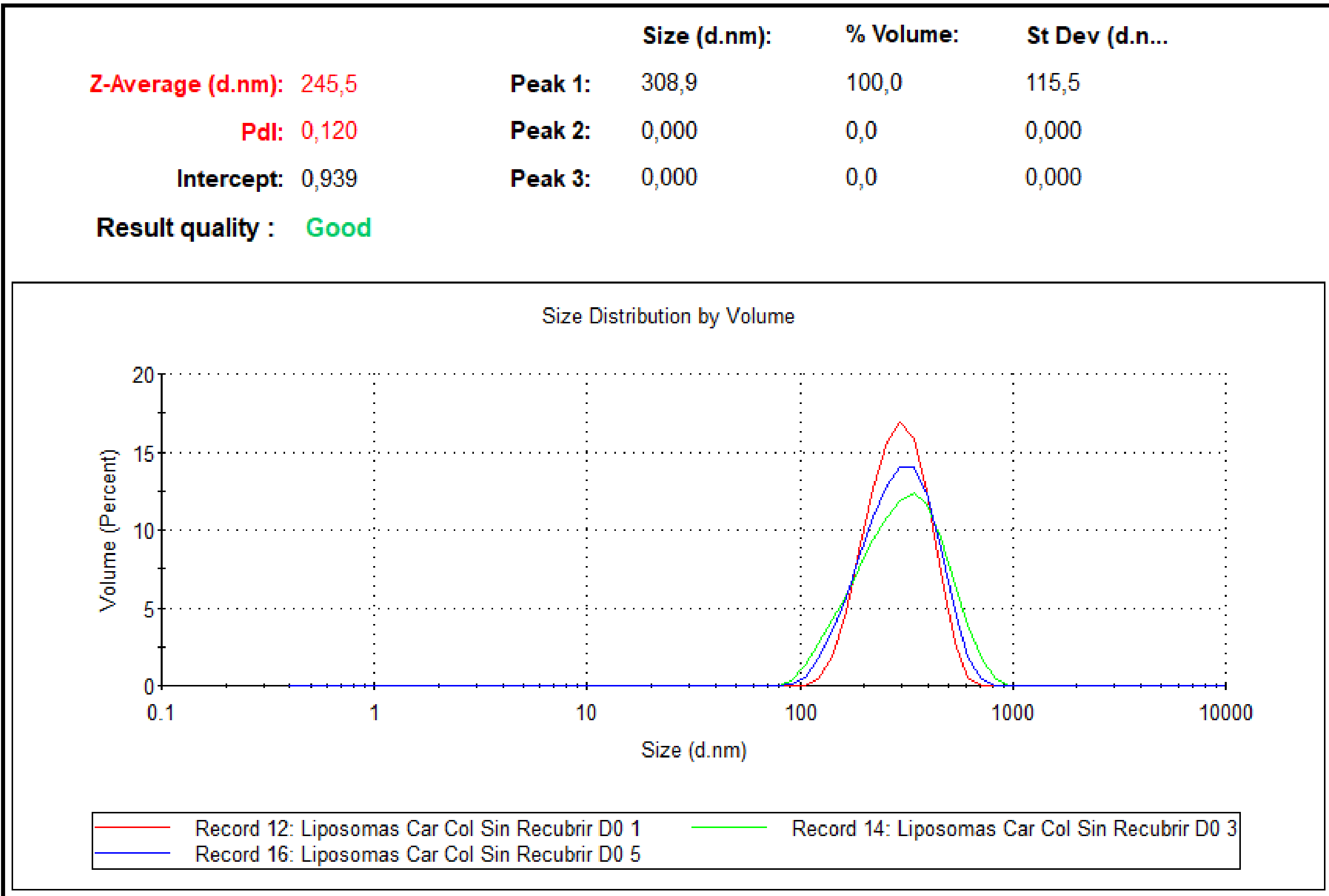
Size Distribution Report by Number



Size Distribution Report by intensity



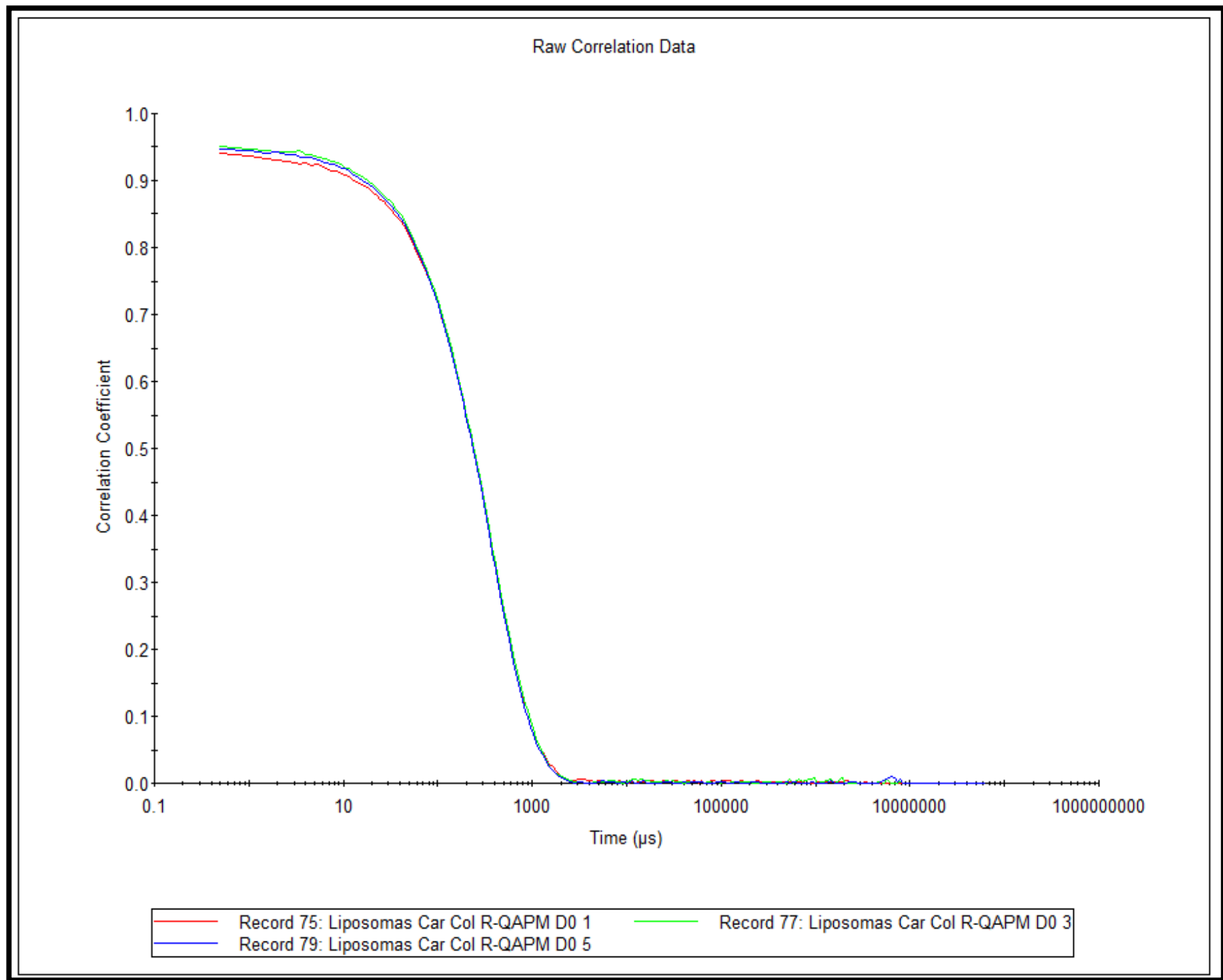
Size Distribution Report by Volume



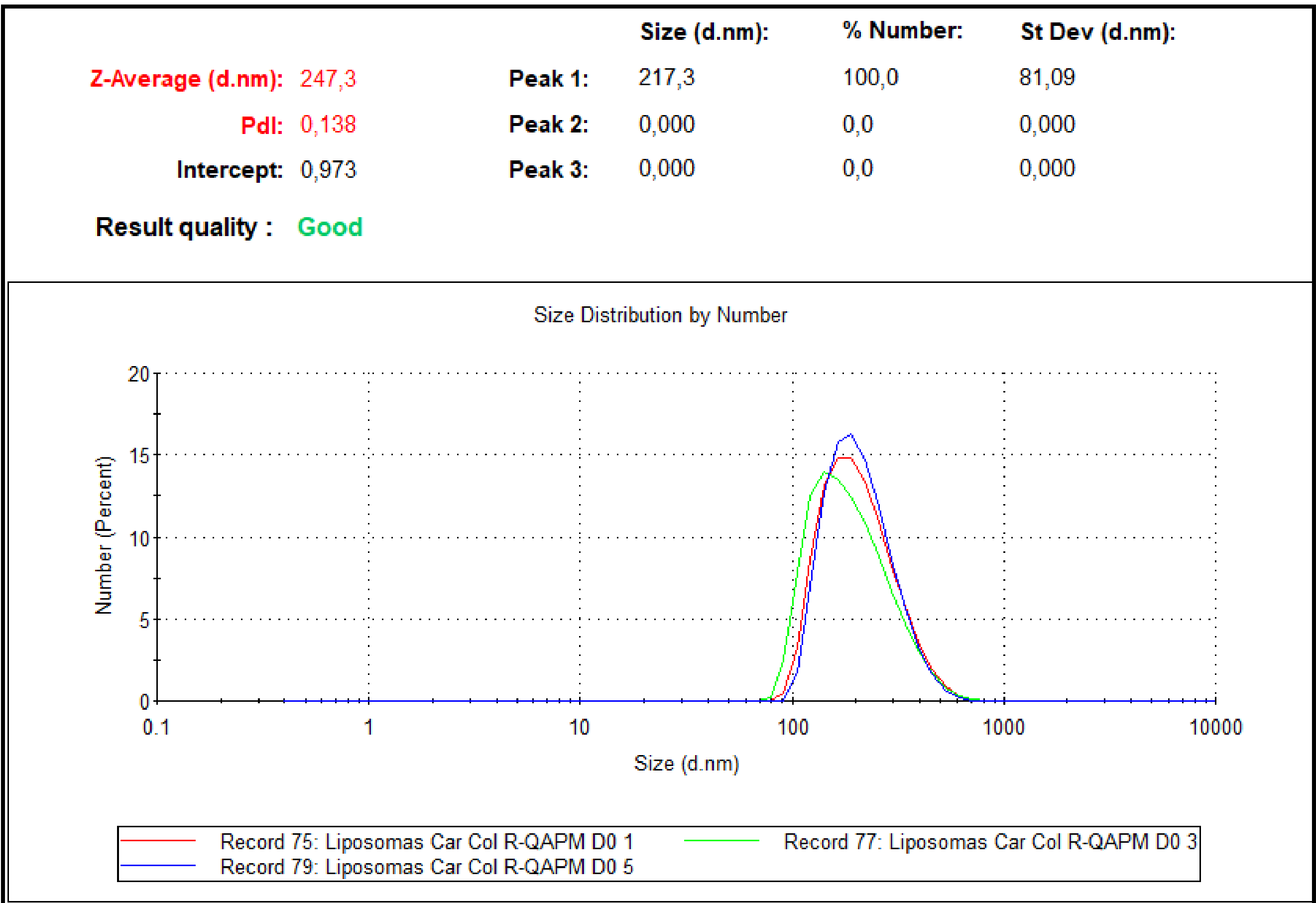
(E) Ch-HNPs

| | |
|---|---------------------------------|
| Temperature (°C): 25,0 | Duration Used (s): 45 |
| Count Rate (kcps): 182,0 | Measurement Position (mm): 4,65 |
| Cell Description: Disposable sizing cuvette | Attenuator: 7 |

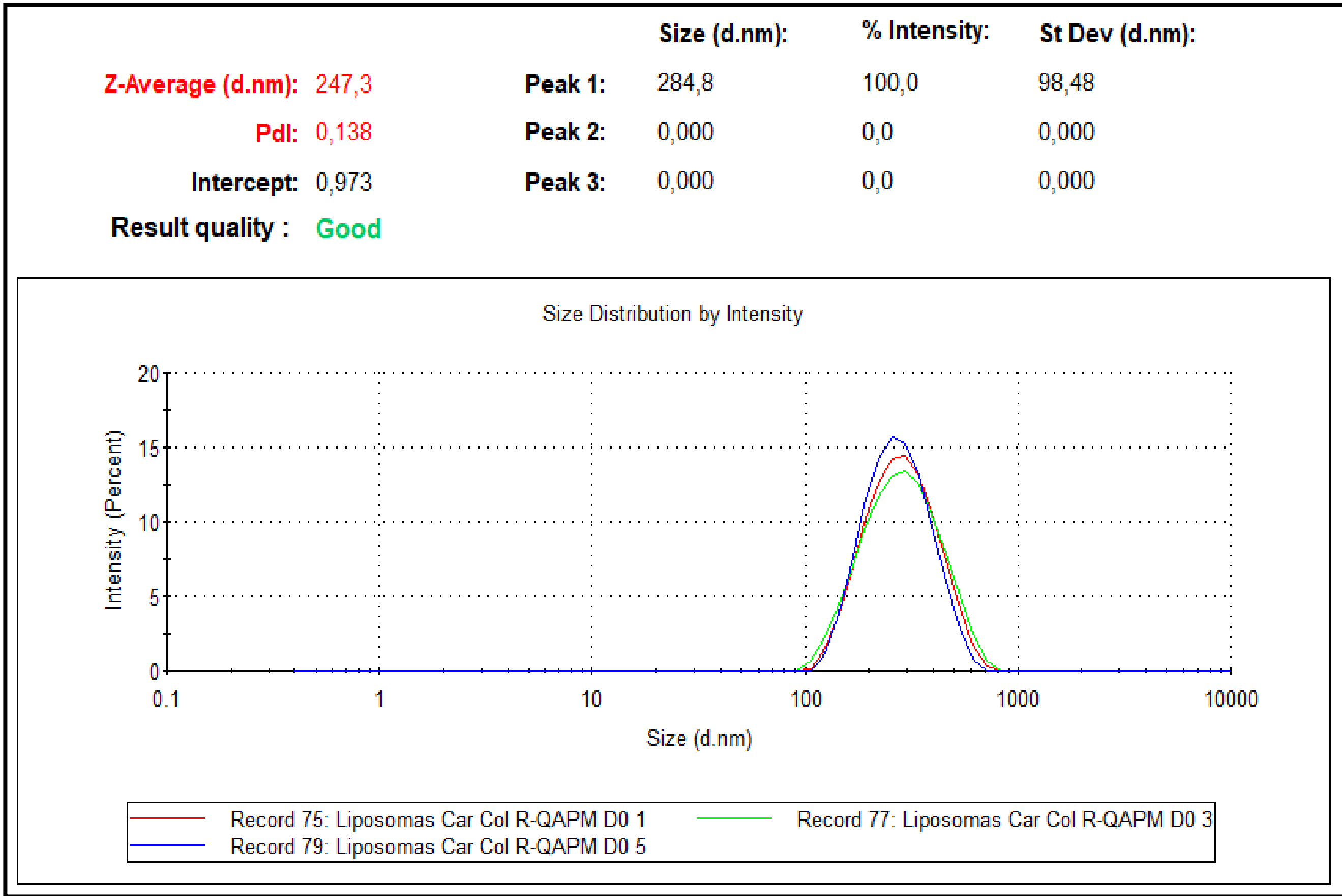
Correlogram Report



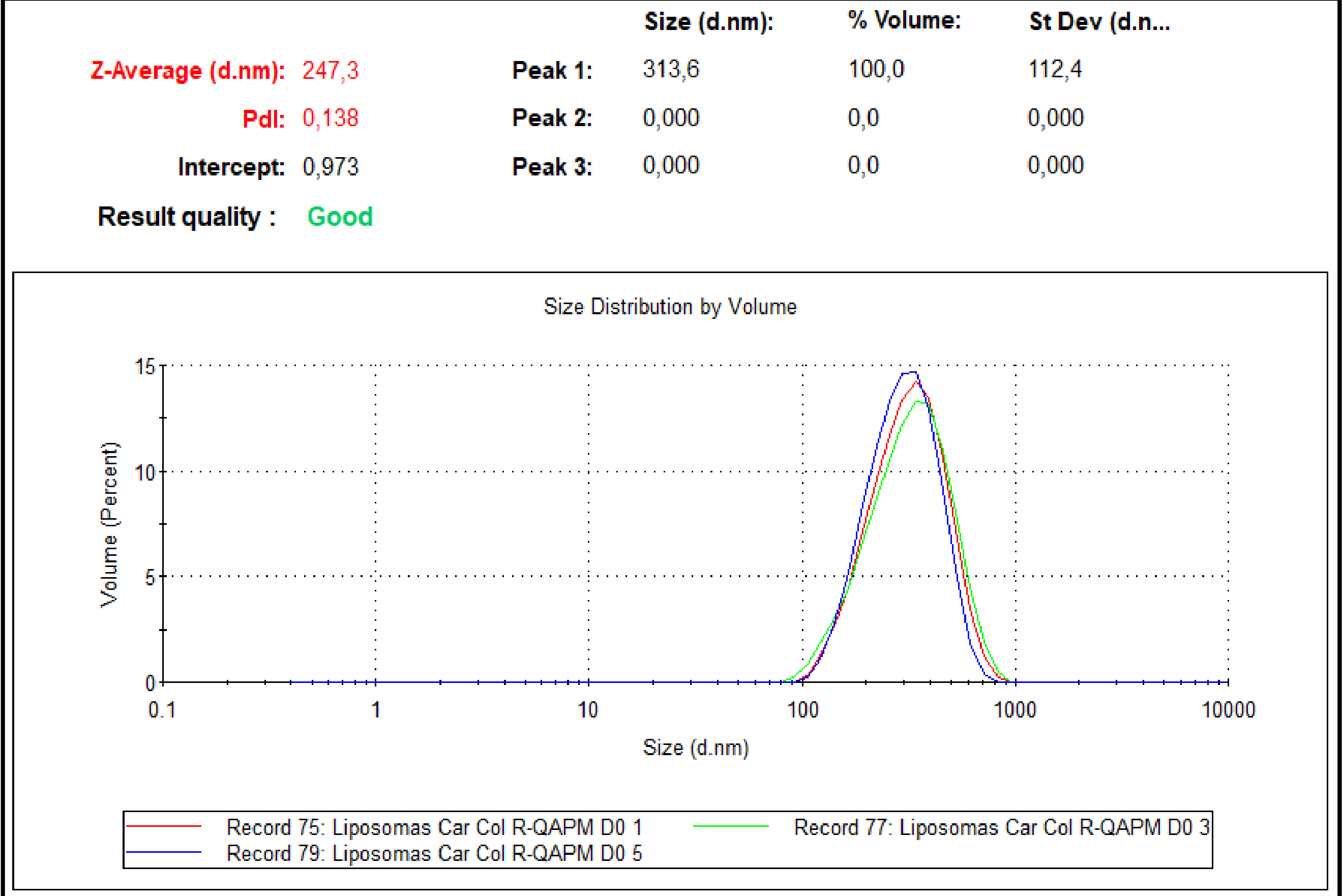
Size Distribution Report by Number



Size Distribution Report by intensity



Size Distribution Report by Volume

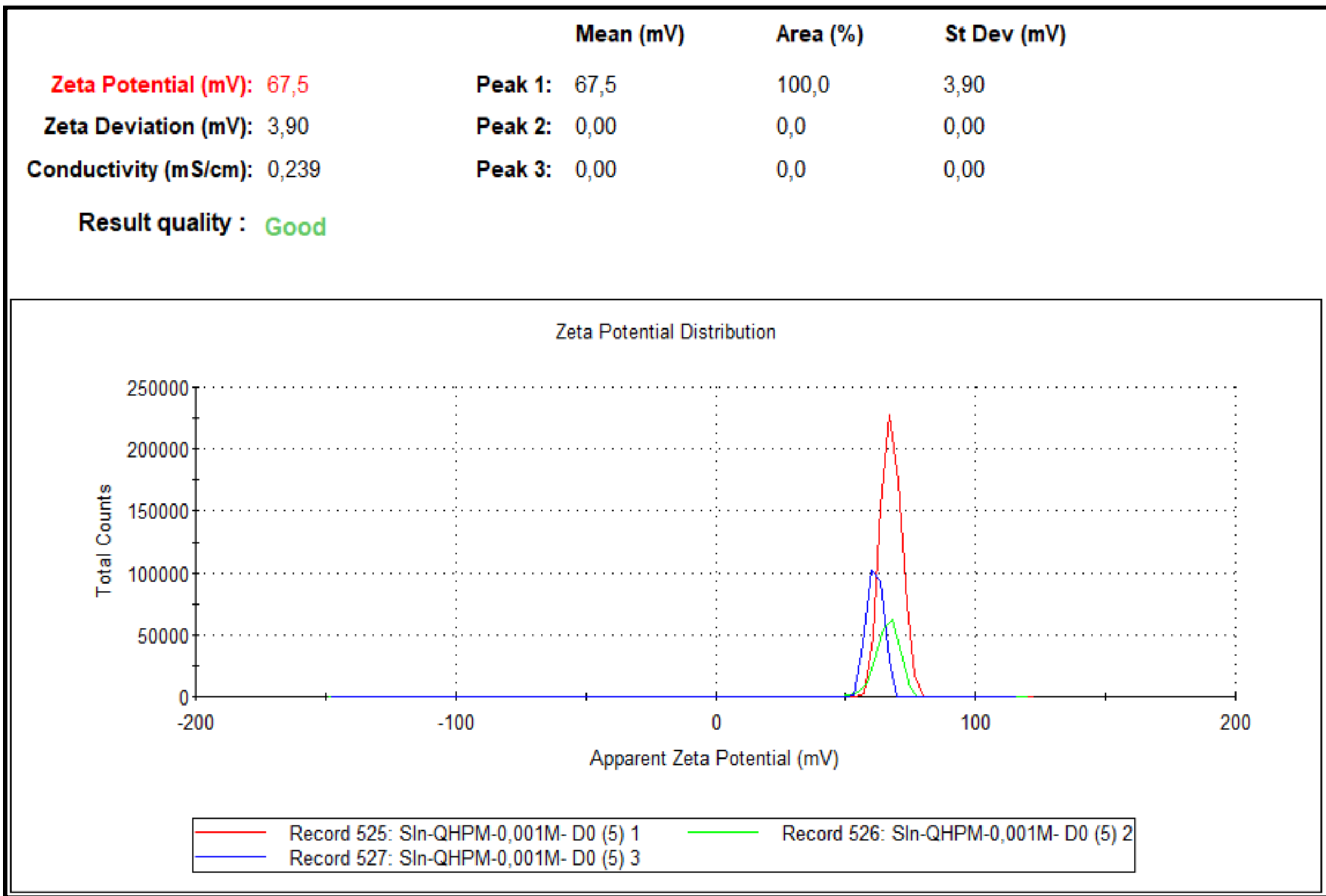


Zeta potential

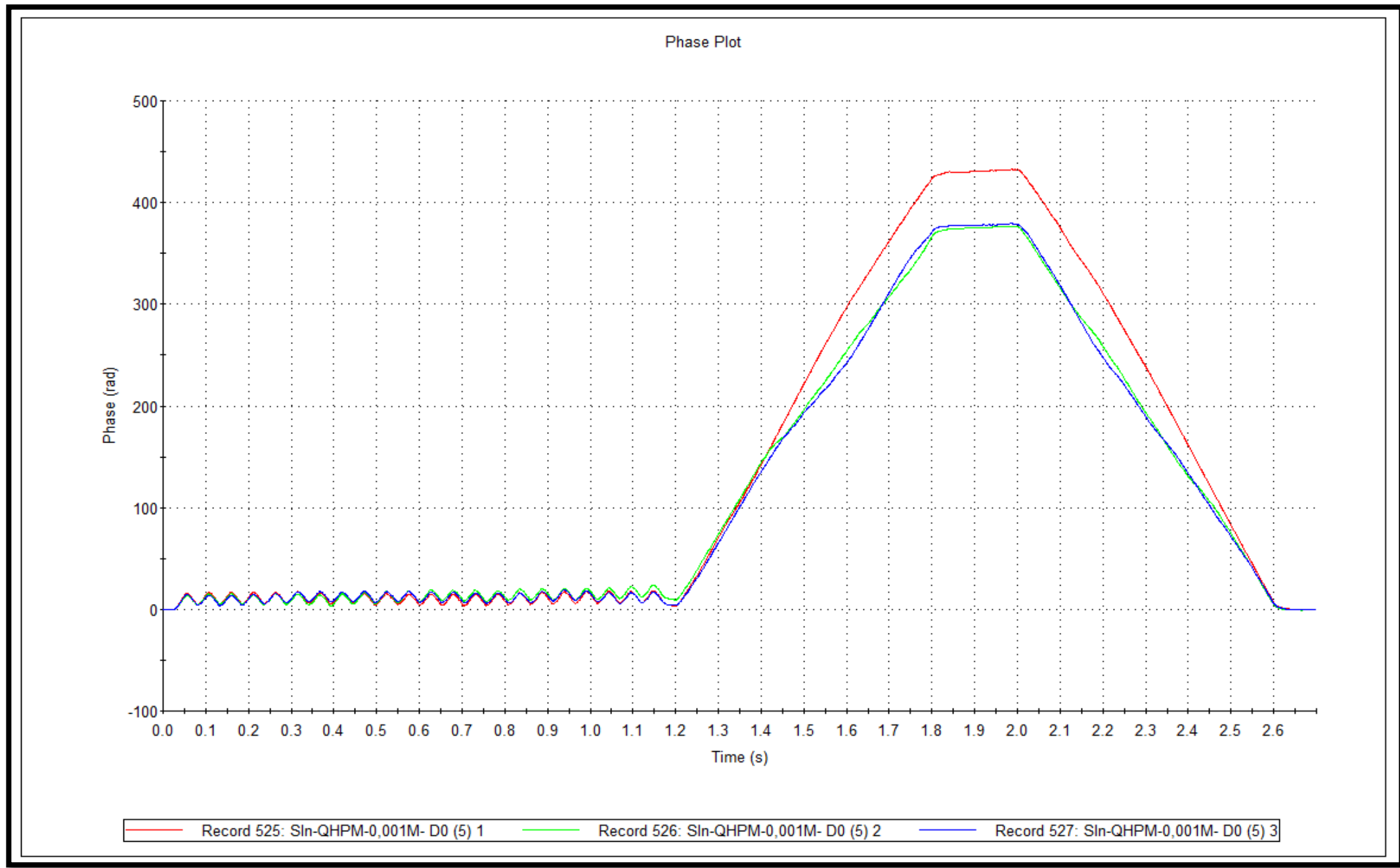
(A) Colistin aqueous dispersion (0.29 mM)

| | |
|--|---------------------------------|
| Temperature (°C): 25,0 | Zeta Runs: 10 |
| Count Rate (kcps): 63,5 | Measurement Position (mm): 2,00 |
| Cell Description: Clear disposable zeta cell | Attenuator: 10 |

Zeta Potential Report



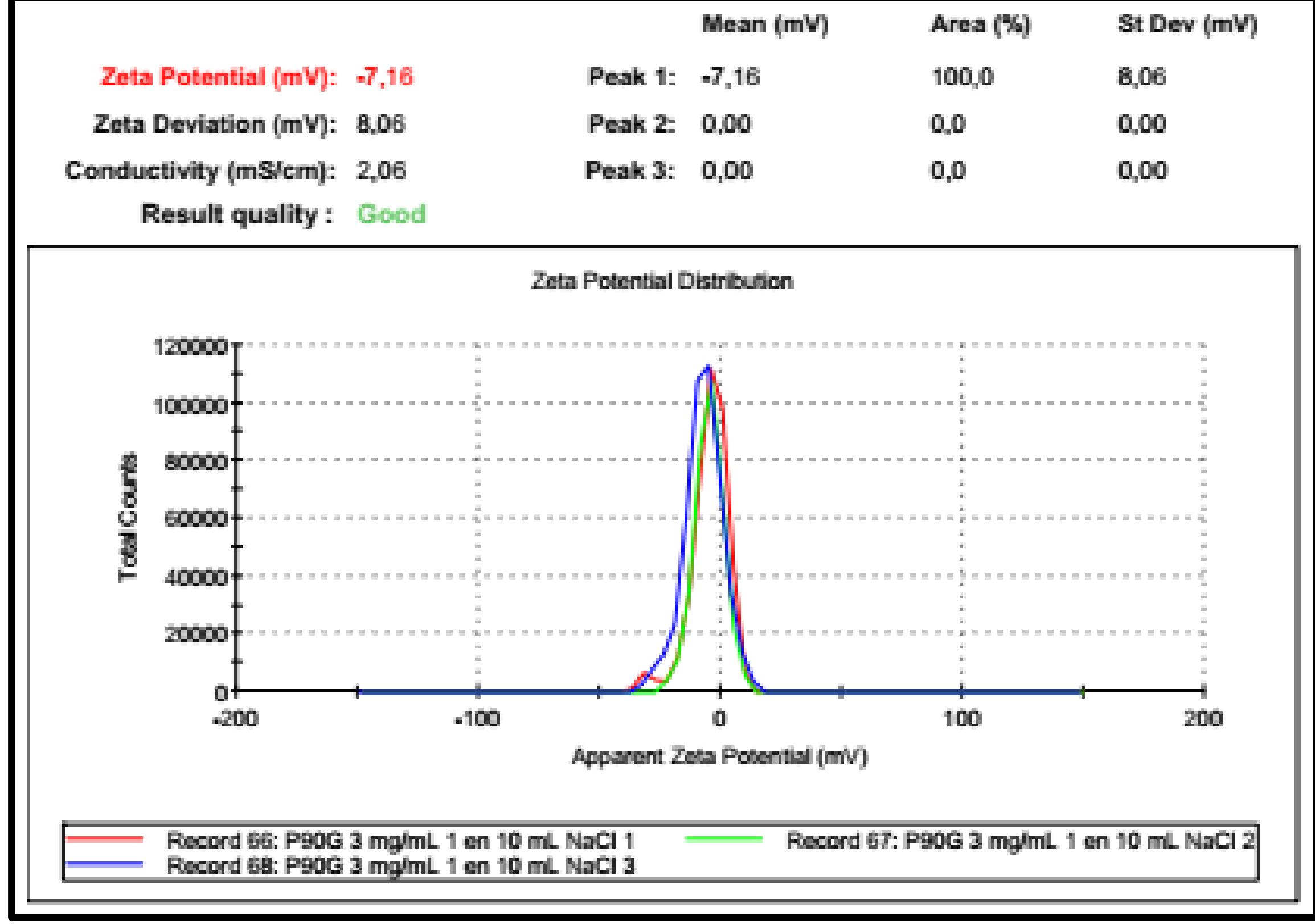
Phase Plot



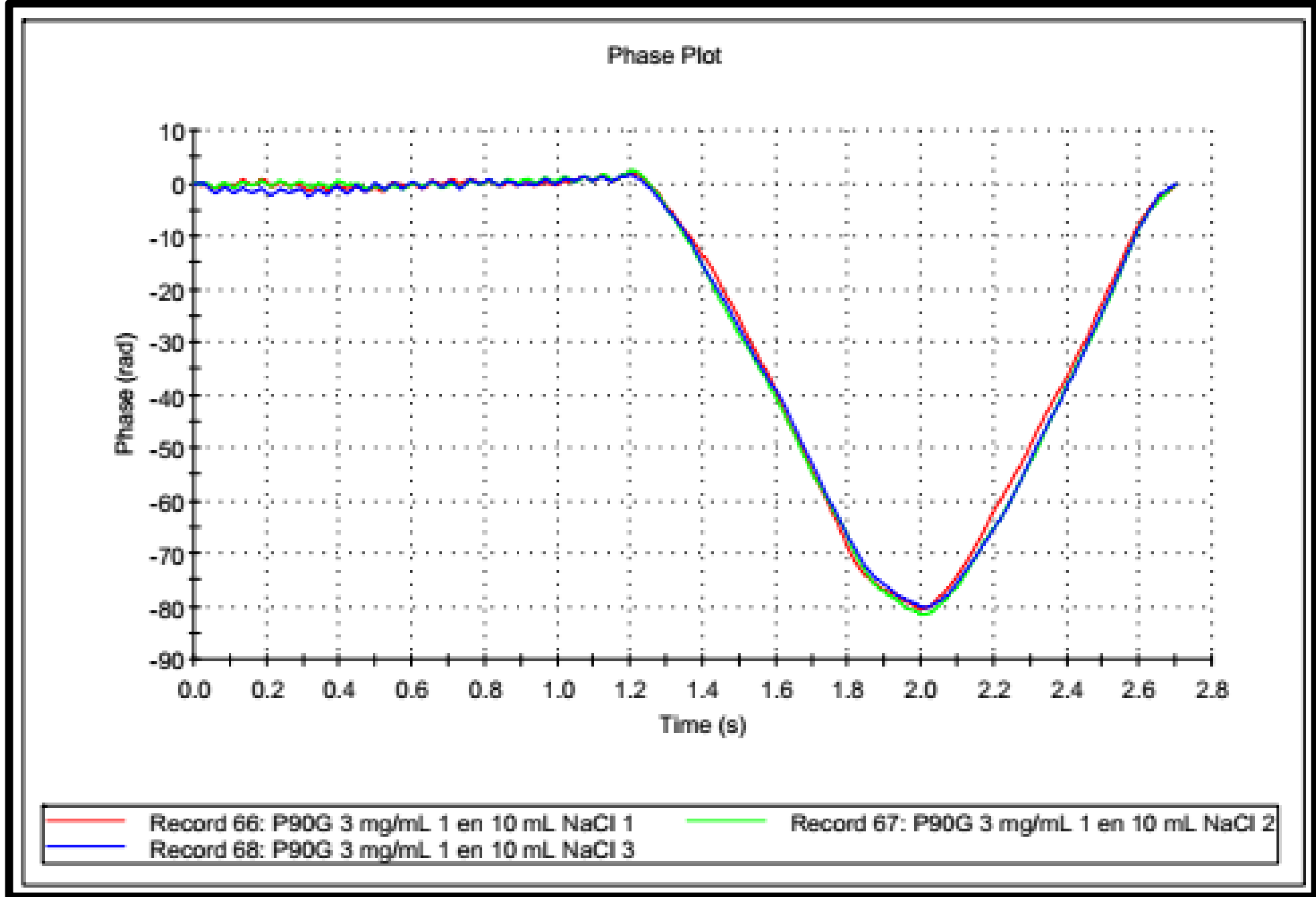
(B) Phospholipon ® aqueous dispersion (0.06 mM)

| | |
|--|---------------------------------|
| Temperature (°C): 25,0 | Zeta Runs: 14 |
| Count Rate (kcps): 74,8 | Measurement Position (mm): 2,00 |
| Cell Description: Clear disposable zeta cell | Attenuator: 6 |

Zeta Potential Report



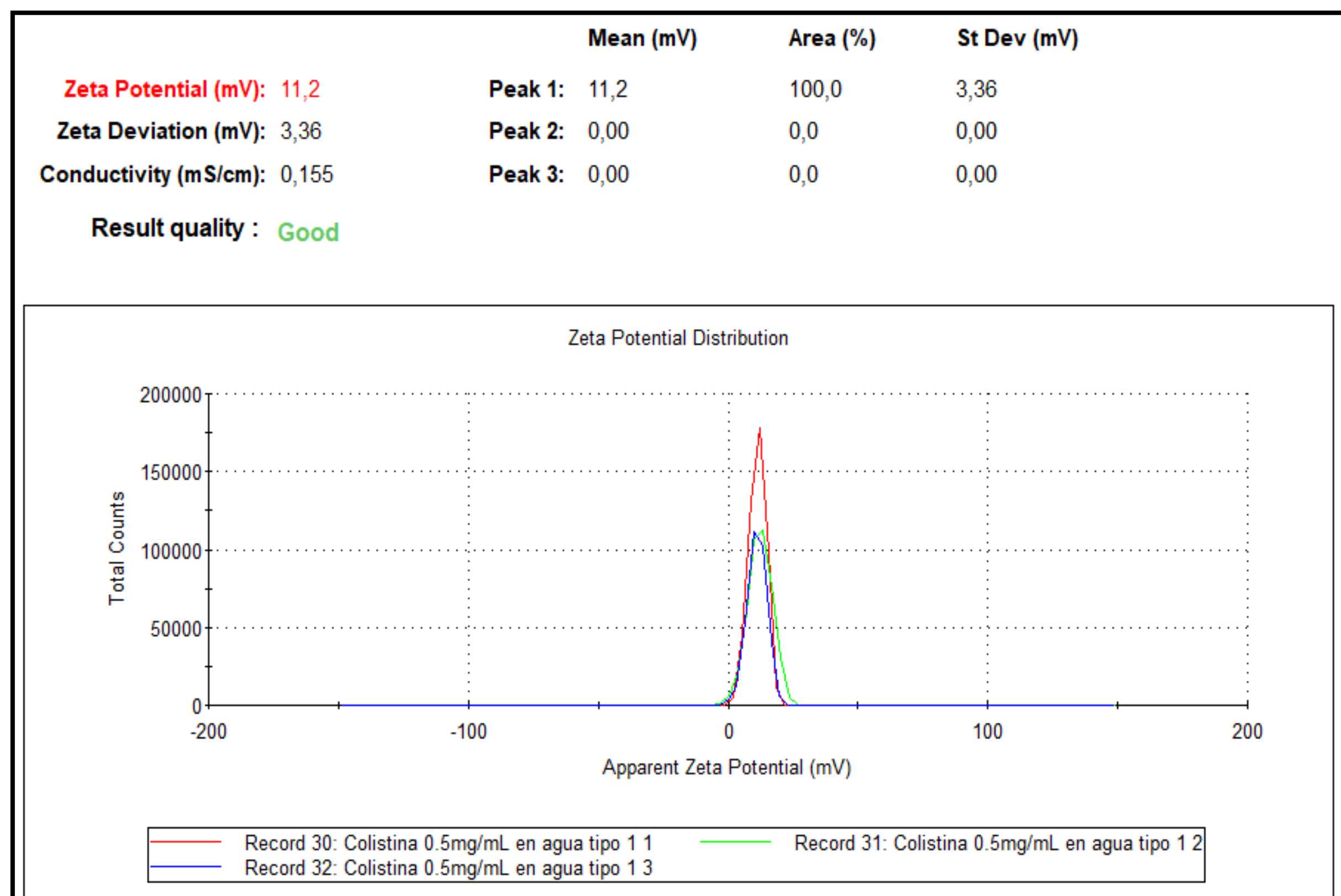
Phase Plot



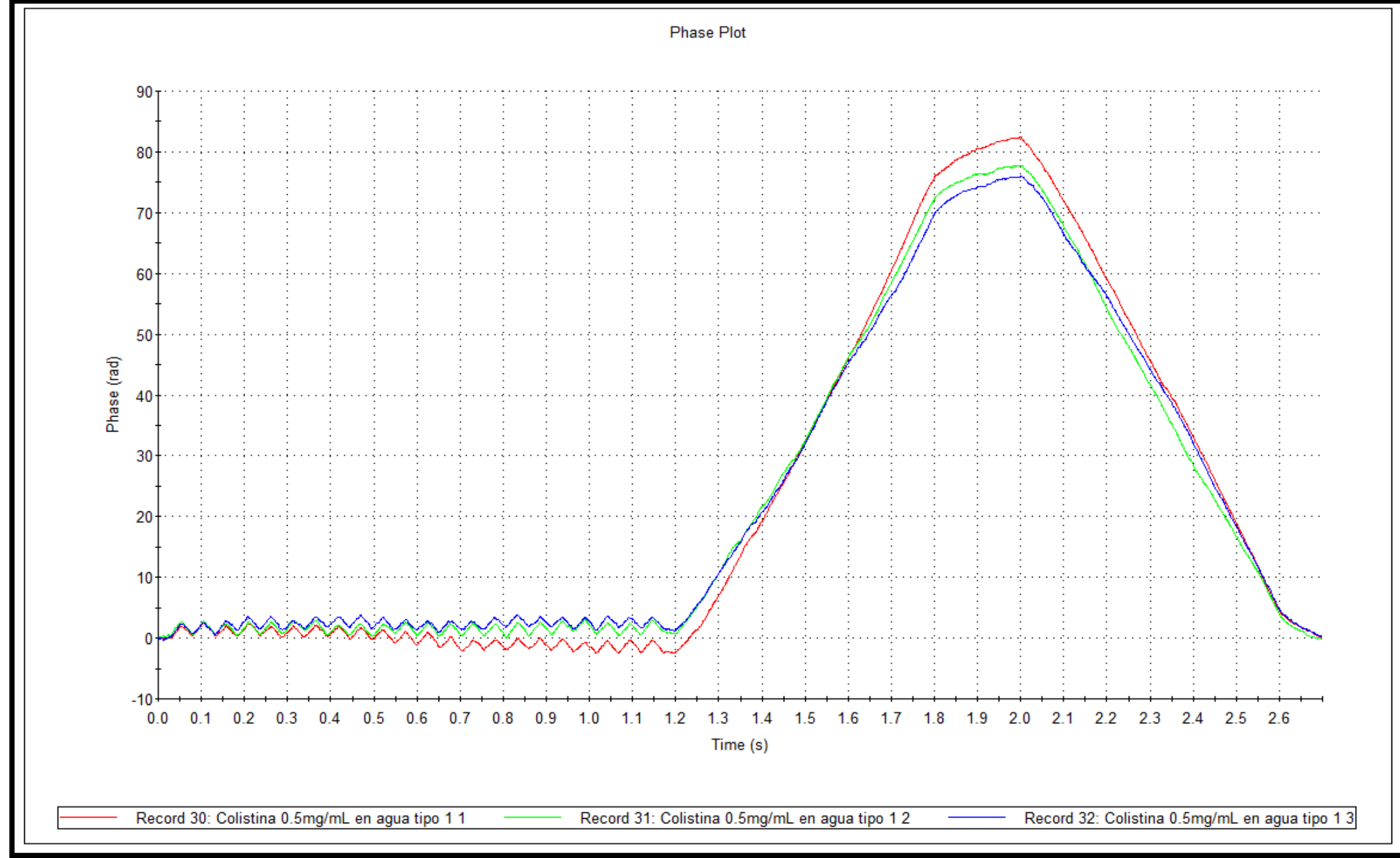
(C) Chitosan aqueous dispersion (1.0 mM)

| | |
|--|---------------------------------|
| Temperature (°C): 25,0 | Zeta Runs: 8 |
| Count Rate (kcps): 232,2 | Measurement Position (mm): 2,00 |
| Cell Description: Clear disposable zeta cell | Attenuator: 7 |

Zeta Potential Report



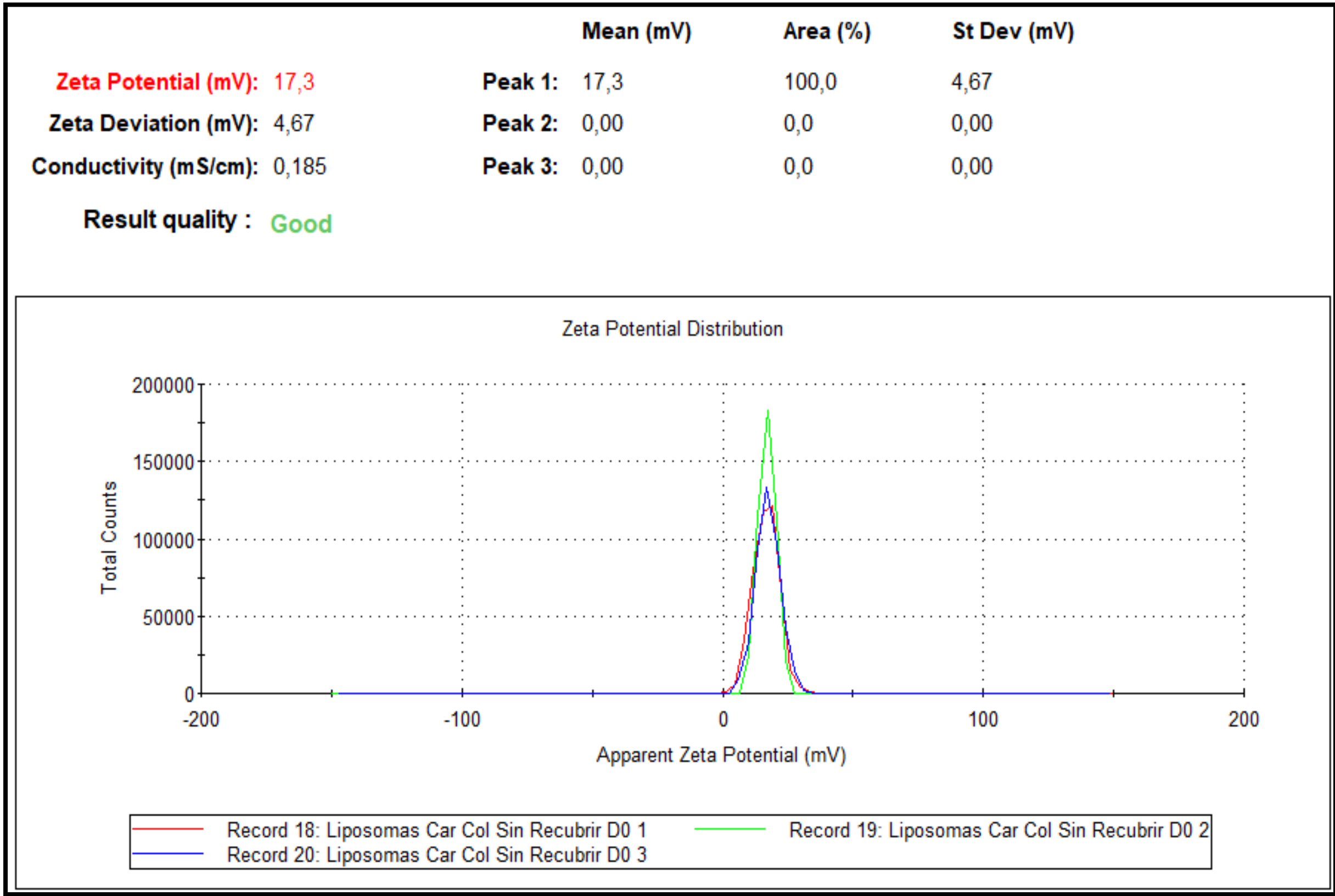
Phase Plot



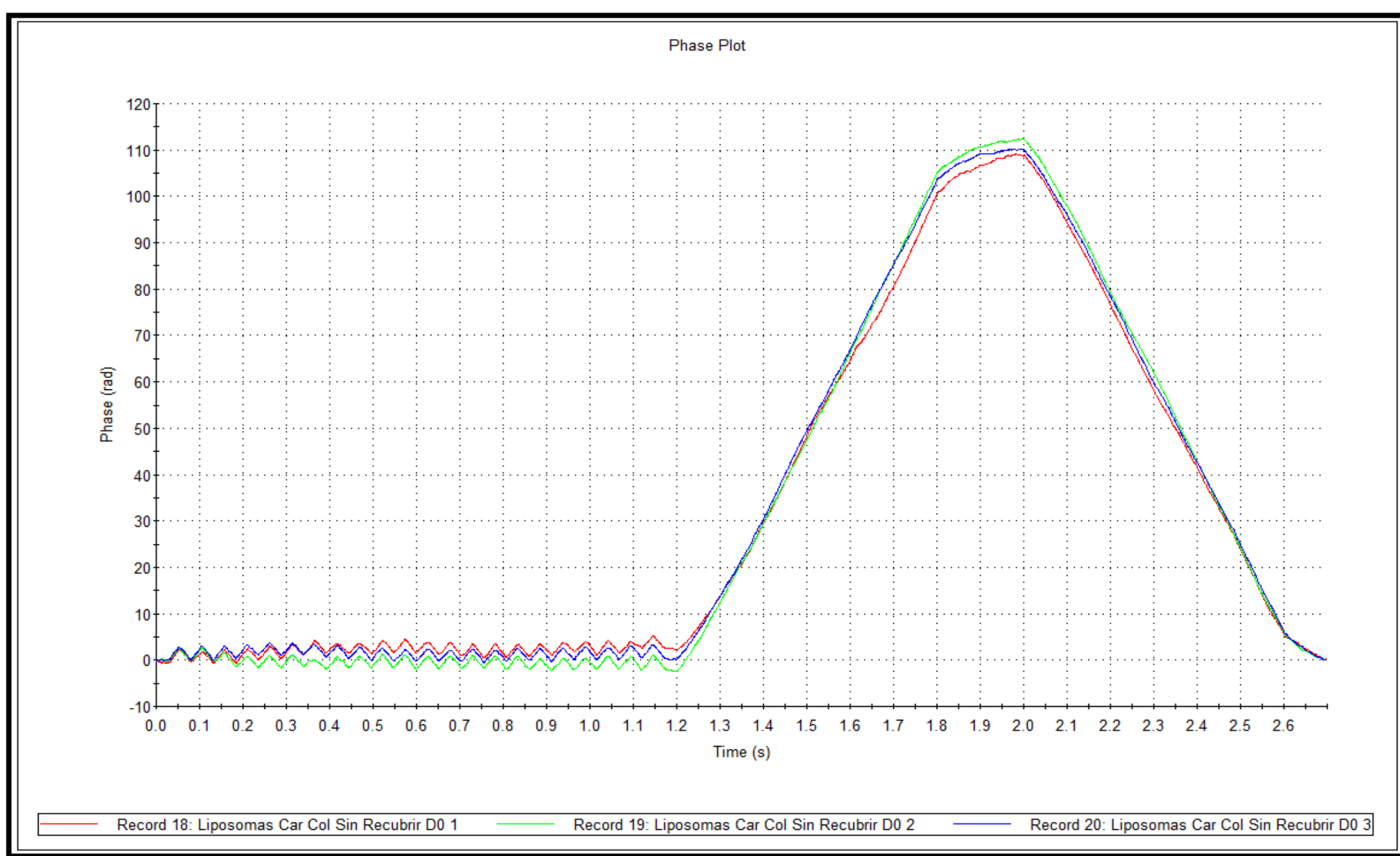
(D) U-HNPs

| | |
|--|---------------------------------|
| Temperature (°C): 25,0 | Zeta Runs: 8 |
| Count Rate (kcps): 331,5 | Measurement Position (mm): 2,00 |
| Cell Description: Clear disposable zeta cell | Attenuator: 5 |

Zeta Potential Report



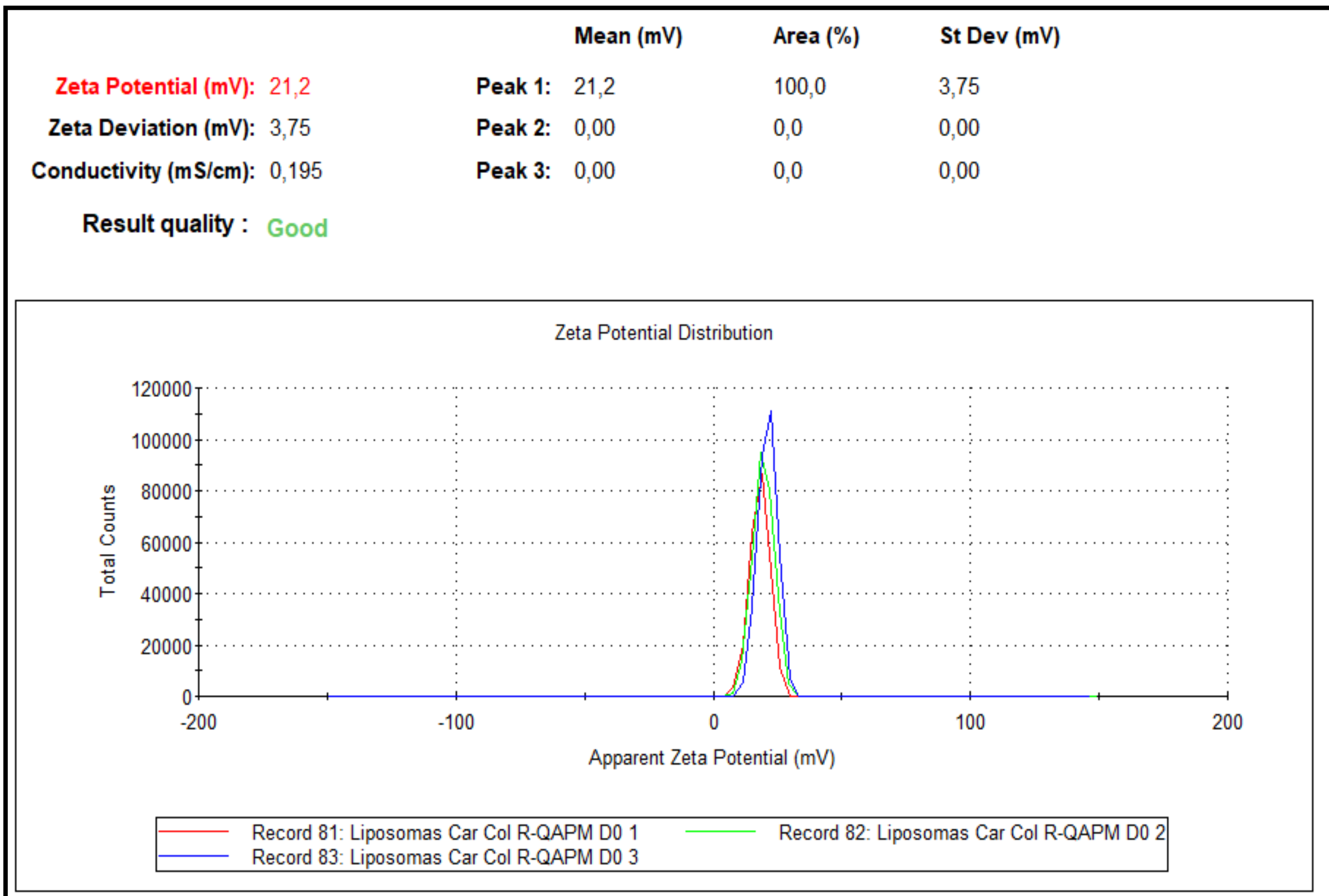
Phase Plot



(E) Ch-HNPs

| | |
|--|---------------------------------|
| Temperature (°C): 25,0 | Zeta Runs: 8 |
| Count Rate (kcps): 114,7 | Measurement Position (mm): 2,00 |
| Cell Description: Clear disposable zeta cell | Attenuator: 5 |

Zeta Potential Report



Phase Plot

