



Linkoptik Application Note #4

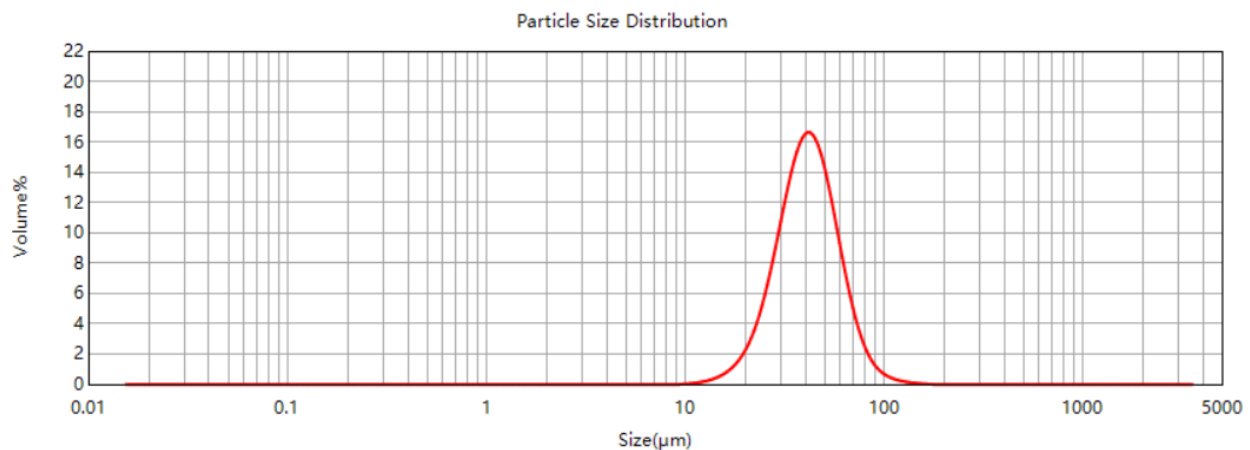
Glass Beads – Measurement Accuracy of LT3600 Plus Laser Diffraction Platform

A series of glass beads were run on the LT3600 Plus and Hydrolink Wet Sample Dispersion Unit. The results were then compared to the expected values provided by the supplier to demonstrate system accuracy across a range of sizes.

Glass Bead 1

Analysis conditions:

Particle RI	Absorption	Dispersant	Dispersant RI	Obscuration	Pump	Stirrer
1.52	0.00	Water	1.33	8-15%	1800 RPM	600 RPM



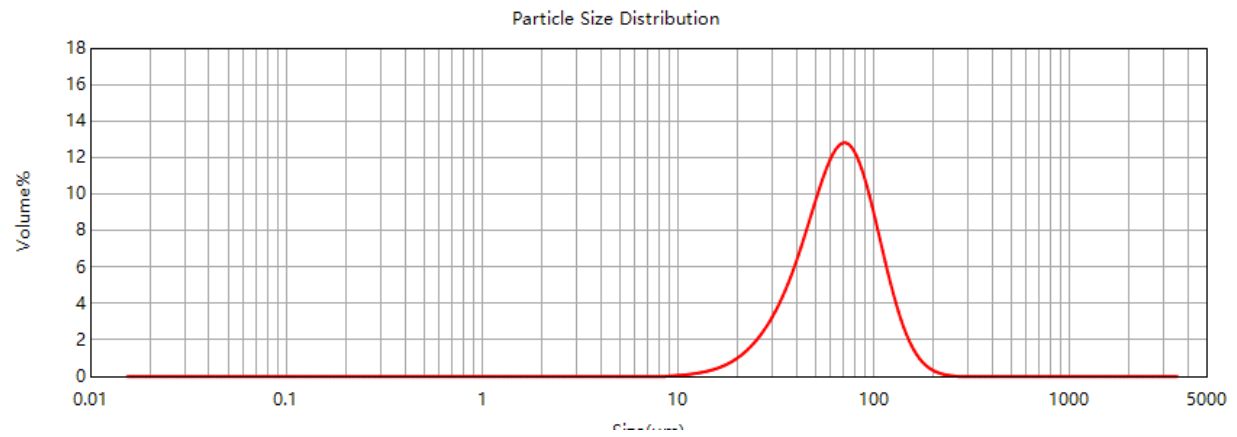
Measurement results:

	D10	D50	D90
Expected Results	25.80 +/- 0.90 um	41.10 +/- 1.20 um	63.30 +/- 2.00 um
LT3600 Plus Results	25.70 μm	41.18 μm	64.69 μm

Glass Bead 2

Analysis conditions:

Particle RI	Absorption	Dispersant	Dispersant RI	Obscuration	Pump	Stirrer
1.52	0.00	Water	1.33	8-15%	1800 RPM	600 RPM



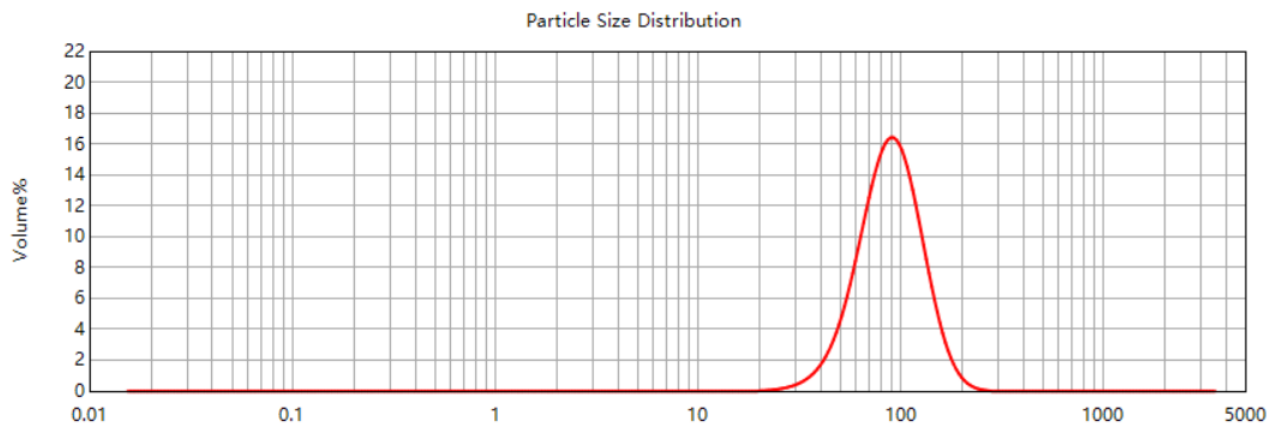
Measurement results:

	D10	D50	D90
Expected Results	33.00 +/- 1.20 µm	64.00 +/- 2.00 µm	110.80 +/- 3.40 µm
LT3600 Plus Results	33.38 µm	65.74 µm	112.96 µm

Glass Bead 3

Analysis conditions:

Particle RI	Absorption	Dispersant	Dispersant RI	Obscuration	Pump	Stirrer
1.52	0.00	Water	1.33	8-15%	2000 RPM	600 RPM



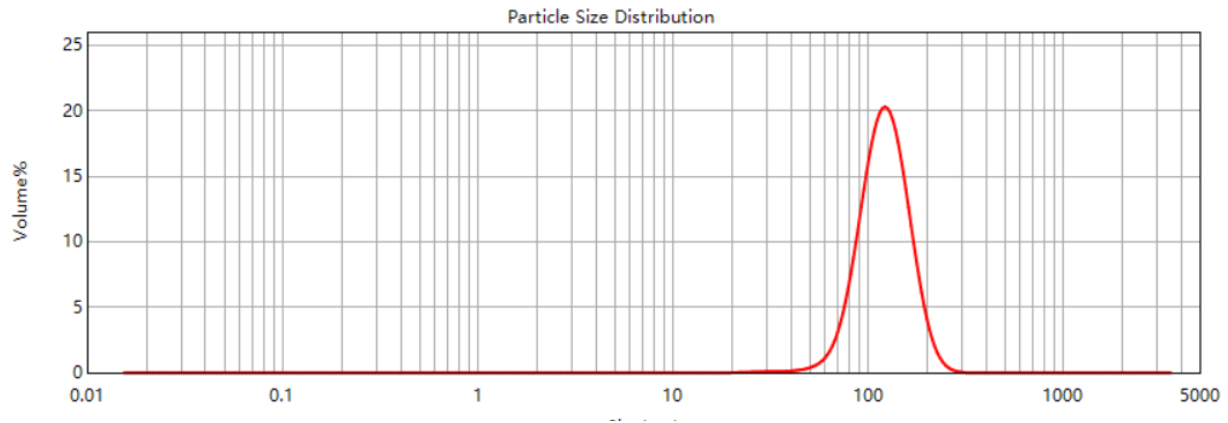
Measurement Results:

	D10	D50	D90
Expected Results	55.60 +/- 2.00 µm	89.10 +/- 2.50 µm	134.80 +/- 4.10 µm
LT3600 Results	54.59 µm	88.24 µm	136.45 µm

Glass Bead 4

Analysis conditions:

Particle RI	Absorption	Dispersant	Dispersant RI	Obscuration	Pump	Stirrer
1.52	0.00	Water	1.33	8-15%	2000 RPM	1000 RPM



LT3600 Plus Results:

	D10	D50	D90
Expected Results	84.5 +/- 2.70 µm	121.2 +/- 3.10 µm	170.60 +/- 5.15 µm
LT3600 Results	82.61 µm	120.260 µm	171.693 µm

The LT3600 Plus demonstrates particle size measurement accuracy across a range of sizes and distributions.