

Liquid NanoParticle Sizer

(LNS System Model 9310)

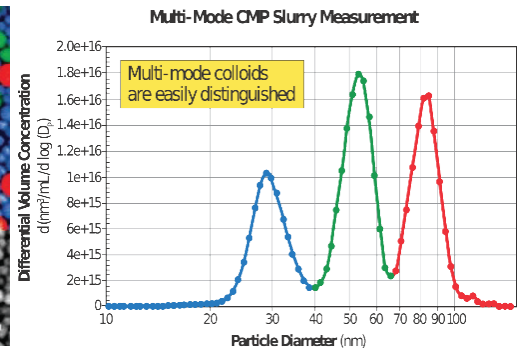
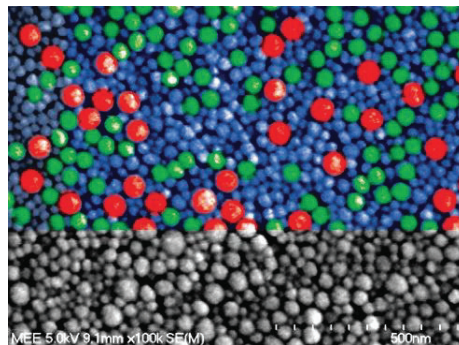
The Liquid NanoParticle Sizer System (LNS) is the ultimate tool for measuring the size and concentration of particles in colloidal suspensions. Whether in semiconductor CMP slurries or other critical applications, LNS provides unparalleled accuracy and ease of use, ensuring you meet the highest quality standards.

Size Nano Colloids Precisely & Quickly

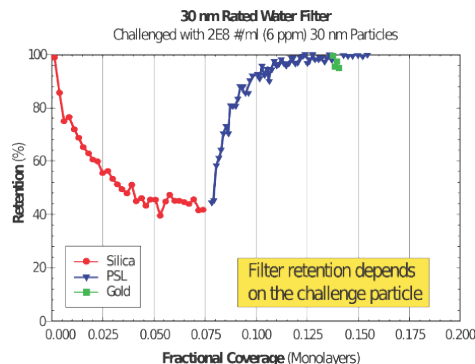
- 6 – 562 nm measurement range in under 5 minutes
- Any particle, any shape, any composition, any distribution (including multimodal)
- Great for CMP slurry, resin rinse, biopharma, and filter testing. Online or lab operation.
- Integrated UPW dilution.



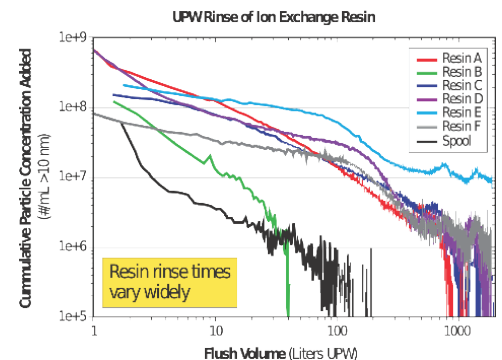
CMP Slurry Characterized with the LNS System



Filter Performance Testing



Resin Rinse Benchmarking

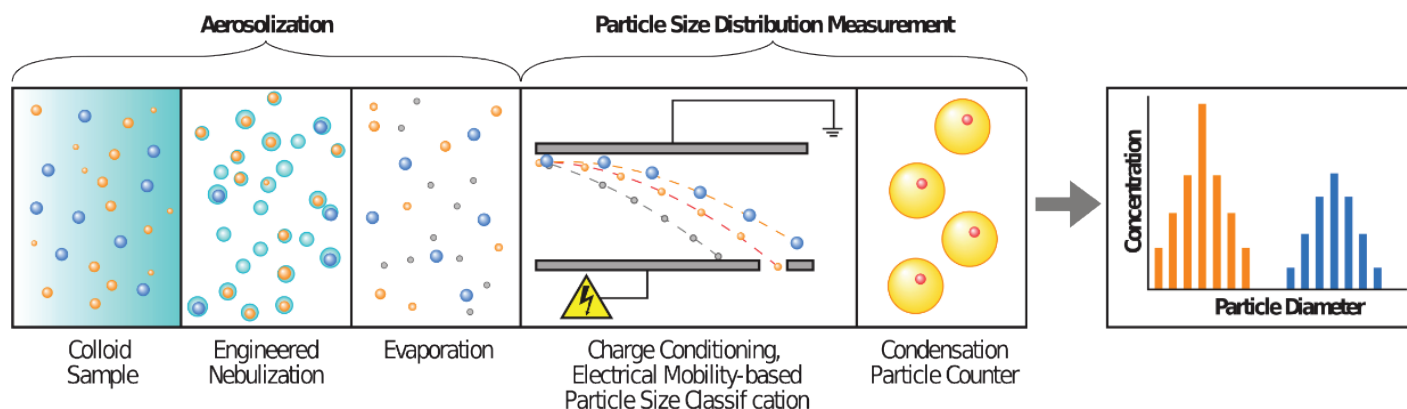


Industry Recognition

C79-0113 Guide to Evaluate the Efficacy of Sub-15 nm Filters Used in Ultrapure Water (UPW) Distribution Systems

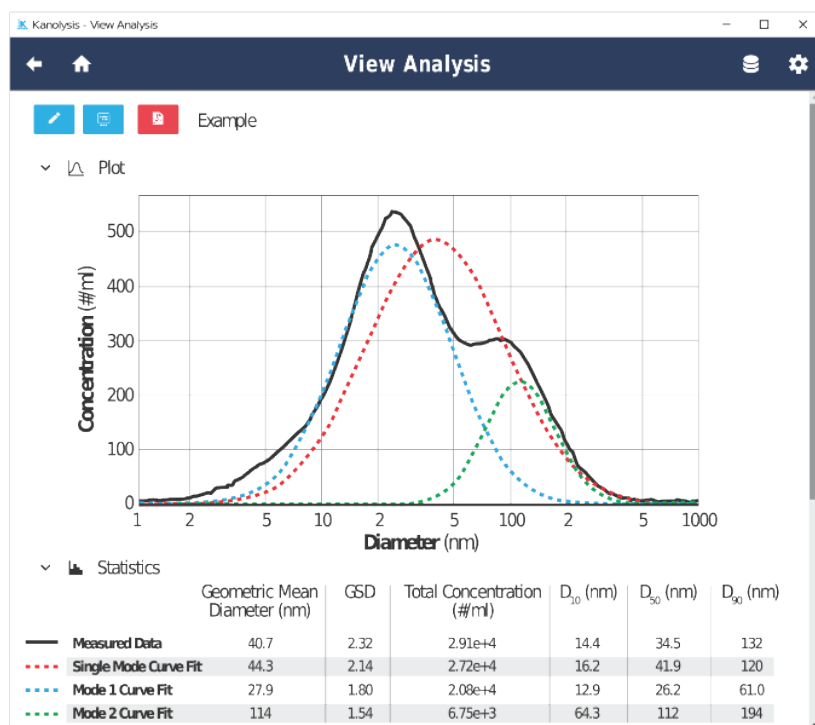
C93-0217 Guide for Determining the Quality of Ion Exchange Resin Used in Polish Applications of Ultrapure Water Systems

Principle of Operation



Integrated Software Platform – Kanalysis

- All-in-one control of the LNS system
- Automated sampling sequence
- Real-time data analysis



Specifications

Particle size range: 6-316 nm (high resolution), 10-562 nm (wide range)

Particle size resolution: 64 channels per decade of size (high resolution), 32 channels per decade of size (wide range)

Measurement time: <5 minutes

Inspection volume rate: 0.2-1.0 $\mu\text{L}/\text{min}$

Total liquid sample flow rate (online): 50-200 mL/min

Dilution factor range: 50-20,000

Sample conc. range (post offline and/or online dilution): 3E7-3E11 number/mL

Sample percent solids (post offline and/or online dilution): 10 ppm maximum

Response time to concentration change: <90 seconds

Inlet water pressure (online): 200-300 kPa (30-45 psig)

Compressed air flow rate/pressure: 2.5 std L/min CDA or Nitrogen 2.8 bar (50 -60 psi)

Wetted Surfaces (before nebulization): PFA, PTFE, sapphire, 316L stainless steel, PEEK

CPC working fluid: n-butyl alcohol (butanol)

I/O Communications: Ethernet, internal memory

Power requirements: 100/115/220/240 VAC; 50-60 Hz

Operating temperature: 10-35 °C

Operating humidity: 0-90% RH non-condensing

Storage temperature: 5-35 °C

Dimensions: 10 x 9 x 36 inches (D/W/H) (not including peristaltic pump)

Software – computer operating system: Windows 10

Refer to individual product sheets for component details. Computer not included.

Specifications subject to change without notice.

The LNS System was developed in collaboration with CT Associates, Inc.

The LNS System uses a soft X-ray charge conditioner.

Patent Protected

- Patent numbers 8,272,253 and 8,573,034 have been issued to CTA and licensed to Kanomax FMT.
- Kanomax FMT has applied for additional domestic and international patents for technology contained within the LNS System.
- Patent number 7,852,465 has been issued to Kanomax.



A Kanomax Company

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