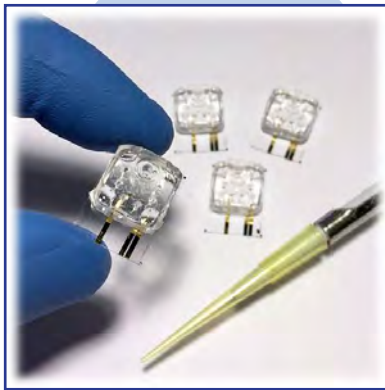


# The Spectradyne nCS1 – Instrument Capabilities

## Key Features:

- Measures particle size distribution and absolute concentration
- Minimum detectable particle size: 30 - 50 nm
- Concentration range: approx.  $10^7$  –  $10^{12}$  particles/mL
- Counts particles individually
- High resolution size distributions
- Max particle detection rate: approx. 10,000 particles/s
- Acceptable particle types: All materials (e.g., transparent/opaque, conducting/insulating)
- Small bench top footprint: 13" W x 15" L (33 cm W x 38 cm L)
- Instrument control interface: USB to Windows computer

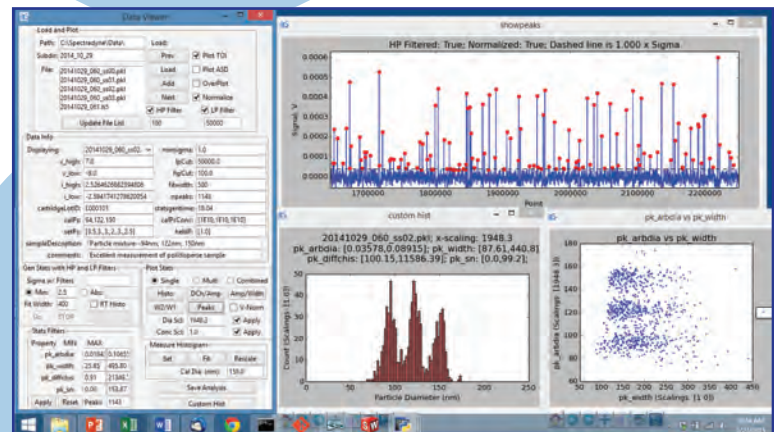


## Single-use Analysis Cartridges:

- Eliminates contamination and cleaning requirements
- Sample volume required: 2-3 microliters
- Sizing precision:  $< \pm 3\%$
- On-board filtering: no sample pre-filtering required
- Compact and easy-to-use cartridge design

## Data Analysis Software:

- Proprietary signal extraction method
- Streamlined process flow
- Multi-dimensional data visualization
- Rapid concentration measurements in any measured size range
- Automated particle distribution analysis



Analytical parameters are set in the main panel (left) and various modes of data visualization are available to the user. Particle events in raw data (top right) are highlighted by red circles. The high resolution histogram and correlation plot (bottom panels) clearly show three subpopulations of particles in a mixture, with measured mean diameters 94 nm, 122 nm, and 150 nm.

Spectradyne's nCS1 provides accurate, high-resolution particle size and concentration distributions for particles of all material types. For more information or to arrange a demonstration of the technology, please visit our website or contact us by email.