

Dynamic Light Scattering Particle Analyzer

(For Particle size, Molecular weight and Zeta potential measurement)

Having Dry gas Purge port tube connection

Quantity: 01

Power: 220V, 50 Hz

Measurement Principle

- i. Particle size : Dynamic light scattering
- ii. Molecular weight : Debye plot method (static scattered light)
- iii. Zeta potential : Laser Doppler electrophoresis

Measurement Range

- i. Particle Size : 0.3 nm to 100 μm
- ii. Molecular Weight : 1000 to 2×10^7 Da (Debye plot)
540 to 2×10^7 Da (MHS Equation)
- iii. Conductivity range : 0 to 20 S/m

Particle Size measurement accuracy

$\pm 2\%$ for NIST traceable polystyrene latex 100 nm sphere

Measurement angles

90° and 173° (automatic or manual selection)

Measurement optical system

Light source: Diode pumped frequency double laser (532 nm, 100 mW)

Laser classification : Class I

Detectors : photomultiplier tubes (PMT)

Computer and Printer

Connected to personal computer (operating system windows 10, 64 bit) and color Laserjet printer.

Accessories

- i. Micro cell, 200 μl , for aqueous & non-aqueous (05 Nos)
- ii. Semi-micro cell, 500 μl , for aqueous & non-aqueous (05 Nos)
- iii. Glass cell with lid, 1.2 ml, for aqueous & non-aqueous (05 Nos)
- iv. Micro cell (90° only), 12 μl , for aqueous & non-aqueous (05 Nos)
- v. Flow Cell, 100 μl , for aqueous & non-aqueous (05 Nos)
- vi. Non-aqueous zeta potential cell, volume 100 μl (05 Nos)
- vii. Disposable zeta potential cell for aqueous samples, volume 100 μl (100 Nos)