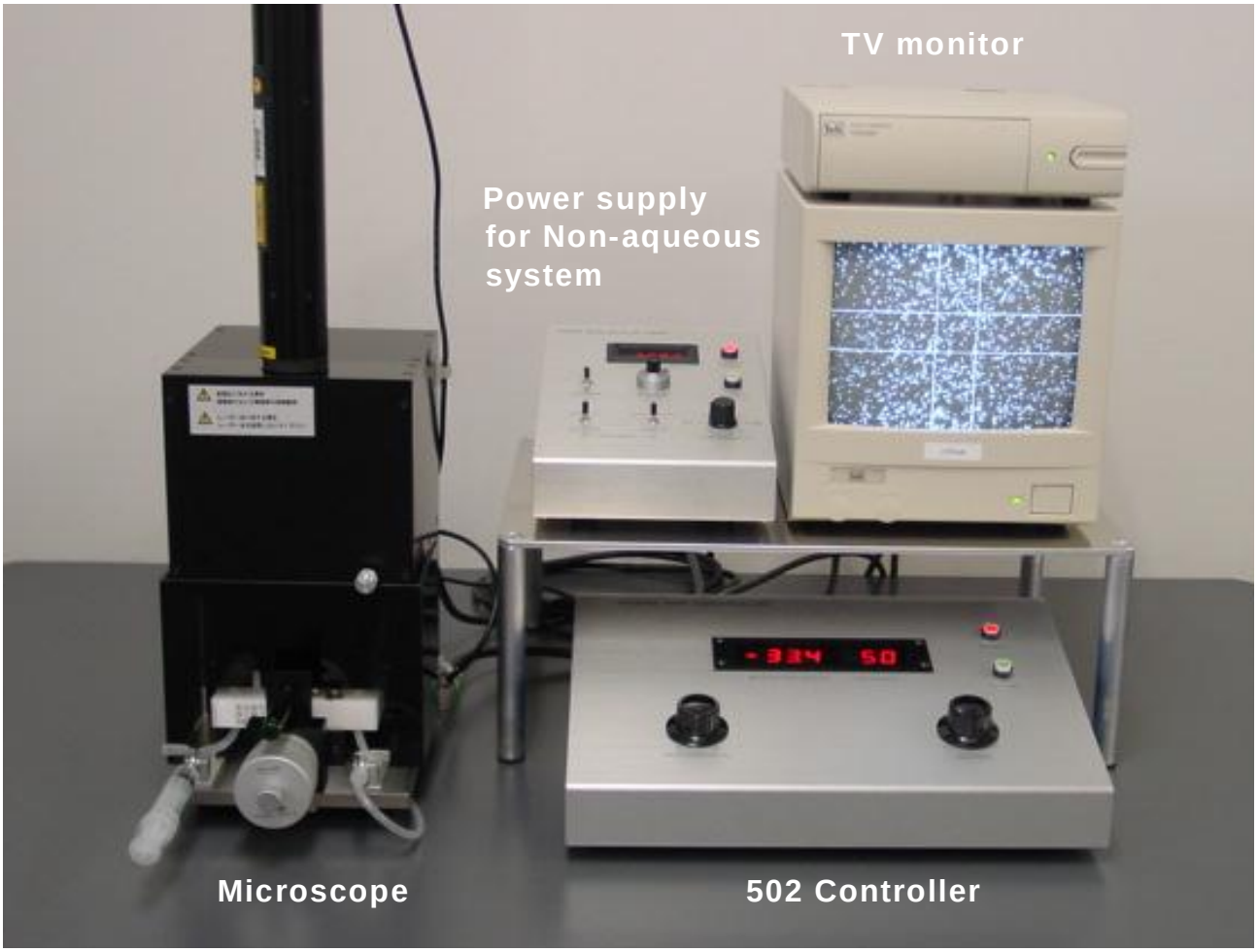
The Simple Solution to Zeta Potential Measurements in Diluted Colloids

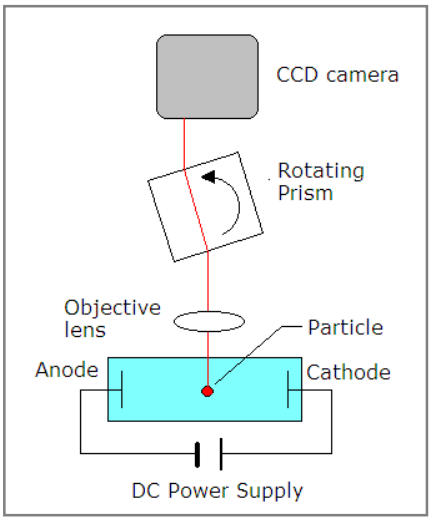
Zeta Potential Meter

Model 502



Rotating Prism Technique

When light passes a rectangular prism, the object seems to move as a course of the light is out of position when a prism was rotated slowly. A microscope has a prism (rotating prism) in conjunction with a galvanometer built-in, and the rotating speed and rotating direction of prism can be regulated. The particle is observed with a television monitor with a lattice. Many particles move electrophoretically when we apply the electric field. The zeta potential value of the particle (20 degrees Celsius, water system) is displayed digitally when we adjusted the observed particles to appear stationary using the rotating prism technique.



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FEATURE

●Traditional measurement principle

Model 502 measures the Zeta potential of colloidal particles by traditional MicroElectrophoresis. There is no black box compared with the laser scattering electrophoresis.

●Observation of nanoparticles by laser dark field illumination

502's unique ultra-microscope design provides a high contrast image even for nano-sized particles. Depending on the refractive index of the particles relative to the suspending media, measurements can be made on particles as small as 20nm.

Picture of 130 nm PSL

●Observation of the particles in stational layer

High level laser optical system and high performance CCD camera can observe only the particles in stational layer. It provides a highly precise result without being affected by the electroosmotic flow.

●The rectangular electrophoresis cell which was put up horizontally

The horizontally stood rectangular cell provides a highly precise result. Because the layout is hard to occur the non-symmetrization of the electroosmotic flow caused by the sedimentation of particles on the chamber wall.

TECHNICAL DATA

● Principle: User adjust rotating prism for stationary image. Or measurement of the transit time of particle by stopwatch ● Measurement range: ±100 mV ● Particle size range: Typically 40 nm to 50 μm depending on refractive index and sedimentation ● Sample required: 8 cc ● Optical system: Light source: 632.8 nm He-Ne laser Microscope magnification: ×280 TV monitor: CCD monochrome camera and 8.4" monochrome LCD monitor		● Electrophoresis chamber: cross section: 1×10 mm construction: pure silica electrode separation: 4.88 cm max field strength: 30 V/cm anode: molybdenum cathode: palladium electrode compartments:derlin ● Supply voltage: 0～150 V ● Power required: 100 VAC, 50/60 Hz ● Dimensions: ● Weight:

Specifications and descriptions in this brochure subject to change without notice.

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