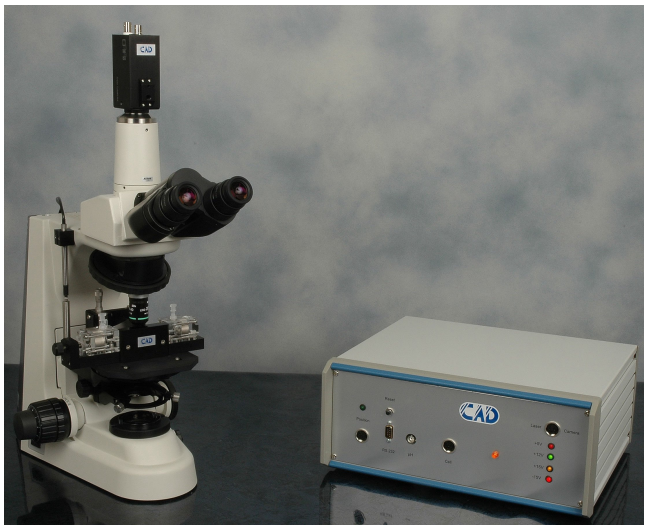
CAD Instrumentation

ZetaPhoremeter IV®



High resolution Zeta potential analyser, ZetaphoremeterIV® uses the well established micro electrophoresis technique.

Automatic tracking using a dedicated image analysis software offers the best instrument resolution achievable

Zetaphoremeter IV®

Live Visualisation of Measured Particles

High Resolution Spectrum of Mobility

Parameters Measured

- Electrophoretic Mobility
- Zeta Potential
- pH
- Conductivity
- Temperature
- Cell Position

Features and Benefits

- A modular tool designed to tackle all the problems encountered when measuring the electrophoretic mobility and calculating the zeta potential of colloidal suspensions
- Laser illumination and video interface allows submicronic particle measurement
- The CELL consists of two pairs of palladium electrodes fitted into perfectly symmetrical chambers
- A kinematics mounting gives easy access to the quartz chamber. It allows rapid and precise positioning of the cell after cleaning
- Sample temperature is permanently measured in-situ by a fast response micro-probe
- Fully Automatic tracking of particles with state of the art image analysis software

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CAD Instrumentation offers a wide range of services to help you take advantage of this new measurement device. The ZetaPhoremeterIV can be used for major industrial and academic applications including:

- Ceramics
- Polymer latex
- Nanoparticles
- Cement
- Emulsion
- Micro-emulsion
- Liposomes
- Water treatment
- Pulp & Paper
- Clays
- Pigments
- Flotation
- Biology
- Immunology

ZetaPhoremeter IV® Specifications

Technology

Micro-Electrophoresis

Electronics Units

Electric field generator	250V – 10mA
Conductivity meter	10µS/cm – 100mS/cm
Communications	Via RS232C serial port
Positioning sensor resolution	1µm
Power supply	100V to 250V – 50 to 60Hz – 50 VA
Dimensions	W 450mm x D 300mm x H 150mm
Weight	6kg

Measuring Cell

Cell	Quartz interchangeable capillaries
Rectangular section	5x2x70mm
Main electrodes	Palladium
Secondary electrodes	Platinum for measuring electric field
Temperature sensor precision	0.1°C
Sample volume	6mL

Microscope

- Compatible with all currently available microscopes. *Contact your local agent for supply of specific cell support*. Basic NIKON ECLIPSE 50i™ is supplied as standard.
- Optional viewing method depending on sample characteristics
- Dark field, phase contrast, fluorescence, polarisation, laser.

Minimum Computer Specification (if supplied by customer)

- Pentium IV class, 512 Mb RAM, Windows 2000

Note: These specifications may change in the interest of product development
The ZetaPhoremeterIV was designed in cooperation with University of CAEN.

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