MICROTRAC
a VERDER company



ZETA POTENTIAL ANALYZER

STABINO ZETA

microtrac.com/nl/producten/zeta-potentiaal/stabino-zeta/

STABINO ZETA

ZETA POTENTIAL ANALYZER

For the accurate determination of the zeta potential and colloidal stability, the STABINO ZETA is the first choice. It can replace the classical zeta potential measurement and is able to perform very fast titrations.

Nowadays, particle surface charge and interface potentials, such as the zeta potential and the streaming potential, are widely used to characterize the stability of suspensions, emulsions and nanoparticles. These parameters have established as a typical measure representing the electrostatic repulsion between particles.

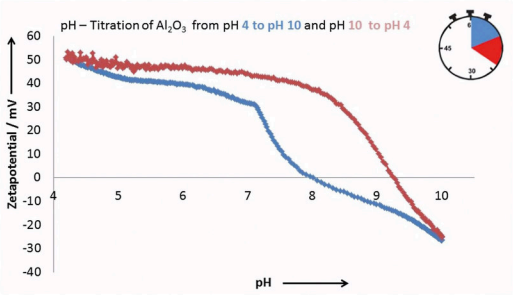


The STABINO ZETA has a high resolution and data point density, which allows very fast, precise and reproducible zeta potential measurements. It is possible to measure the zeta potential of particles in the range of 0.3 nm to 300 µm in a concentration range of up to 40 volume percent. Regarding the optimized measurement technology, the STABINO ZETA can measure up to 5 parameters simultaneously and within a few seconds: Zeta potential, streaming potential, conductivity, pH value, and temperature. In combination with our unique NANOTRAC FLEX, the particle size can also be measured as a sixth parameter simultaneously in the same sample.

STABINO ZETA

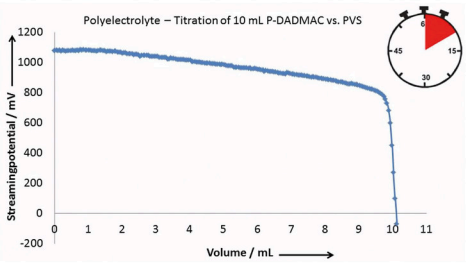
FLAWLESS TITRATION

The STABINO ZETA also has a built-in titration function in which all parameters are determined simultaneously at each titration dosing step. The determination of the isoelectric point is one of the titration options and is determined within a few minutes. Your titration options are:



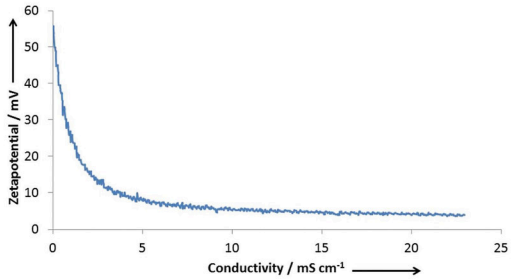
PH TITRATION

- Determination of the isoelectric point
- Stable pH ranges



POLYELECTROLYTE TITRATION

- Statements about stability
- Charge density
- Dispersant optimization
- Optimization in the formulation of your products



TITRATION WITH SALTS

- Zeta potential as a function of conductivity

STABINO ZETA

YOUR ADVANTAGES AT A GLANCE

5 MEASUREMENT PARAMETERS AT THE SAME TIME

To determine the quality of your samples, do you need more than just one measurement parameter? The STABINO ZETA provides you with information about the conductivity, zeta potential, streaming potential, temperature and pH of your sample with each measuring point.

"MIX AND MEASURE" – AN ENORMOUS ADVANTAGE

Due to the continuous and rapid mixing of the sample and the titration solution, a charge titration is completed in minutes and additionally prevents sedimentation.

MEASURING DURING TITRATION

With the STABINO ZETA software you can follow your entire titration or measurement in real time by means of the curve progression, because for each titrated drop you receive a measuring point with all 5 measuring parameters.

ADJUSTED TITRATION SPEED

The titration speed of the STABINO ZETA can be adapted to the reaction speed of your sample. For this purpose, the software offers the possibility to define standard operating procedures (SOPs) as desired.

FAST MEASUREMENT TIME

Most known analytical systems are based on the zeta potential of electrophoresis, where titrations are often too inaccurate and time-consuming. For high sample throughput and thus valuable time savings, the STABINO ZETA has been optimized so that parameters required for quality assurance, for example, can be determined within seconds. For a polyelectrolyte or pH titration, the STABINO ZETA requires only 5 - 15 minutes and can record several hundred data points.

SIMPLE OPERATION

To focus only on the results, the software has been made as easy-to-use as possible. Just pour in 1 - 10 mL sample into the Teflon beaker of the STABINO ZETA, open the software and start the measurement.

STABINO ZETA

NANOTRAC DUO – PRECISION IN PARTICLE AND ZETA POTENTIAL ANALYSIS

The DUO unites two proven technologies – NANOTRAC FLEX and STABINO ZETA – into one complete characterization suite. This integration allows simultaneous measurement of size and zeta potential within the same sample, enhancing efficiency and providing comprehensive data.

EXPERIENCE THE DUO ADVANTAGE

- Comprehensive Analysis: Simultaneous size and stability measurements
- Sample Preservation: No additional dilution required
- Time Efficiency: Rapid, sequential measurements in one workflow
- Data Correlation: Direct correlation between particle size distribution and zeta potential results
- Flexible Use: Each instrument can be operated independently or seamlessly together as a single integrated solution



APPLICATIONS

- Nanomaterials & Advanced Materials
- Pharmaceutical Suspensions & Biotech Solutions
- Coatings, Paints, and Pigments
- Food, Beverages, and Nutraceuticals
- Chemical Manufacturing & Polymers
- Environmental Water Testing

STABINO ZETA

TOEBEHOREN



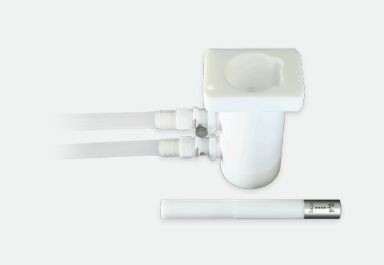
MEASURING CELL

Measuring cell 1 ml and 3 ml with pestle



MEASURING CELL – BLACK

Measuring cell 10 ml - black -



TEMPERED MEASURING CELL

Tempered measuring cell 0 - 90 °C



PISTON SET

Piston set: 100 µ - 200 µ - 400 µ - 1000 µ - 1200 µ - 1500 µ - 2000 µ - conical

STABINO ZETA

TYPISCHE TOEPASSINGEN

Universele inzetbaarheid is een grote sterkte van Dynamische Licht Verstrooiing (DLS). Dit maakt de methode geschikt voor diverse toepassingen voor zowel onderzoek als industrie, zoals geneesmiddelen, colloïdale suspensies, micro-emulsies, polymeren, industriële mineralen, inkten en nog vele andere.



farmaceutica

- farmaceutica
- inkten
- life sciences
- keramiek
- dranken & voedsel



emulsies

- colloidale suspensies
- polymeren
- micro-emulsies
- cosmetica
- chemicaliën



staal

- milieu
- zelfklevers
- metalen
- industriële mineralen

... en meer!

Om de beste oplossing te vinden voor uw deeltjes-karakterisatie behoeften, kunt u onze toepassingsdatabase consulteren.

TOEPASSINGSDATABASE →
microtrac.com/nl/toepassingen/toepassingsdatabase/

STABINO ZETA

TECHNISCHE GEGEVENS

Methode	Zeta streaming potential
Berekeningsmodel	none, as calibrated
Metingshoek	none, as mechanical measurement
Size measurement	yes (only in combination with NANOTRAC FLEX)
Meetcel	Teflon (10 ml, 3 ml, 1 ml)
Zeta potentiaal analyse	ja
Zeta streaming potential analysis	ja
Zeta measurement range (charge)	-3000 mV - +3000 mV
Zeta meetbereik (grootte)	0.3 nm - 300 µm
Electroforetische mobiliteit	Max. 14 (µm/s) / (V/cm)
pH measurement	ja
pH measurement range	1 to 14
Conductiviteitsmeting	ja
Conductiviteitsbereik	Up to 350 mS cm^-1
Temperature range	0°C - 90°C
Temperatuursnauwkeurigheid	± 0.1°C
Temperatuurscontrole	ja
Titratie	ja
Titration endpoints	pH, zeta potential, conductivity, volume and time
Reproduceerbaarheid (grootte)	Refer to NANOTRAC FLEX
Reproduceerbaarheid (zeta)	2% with standard dispersion
Monster volume zeta meting	0.95 ml - 10 ml
Monster concentratie	Up to 40 %
Meetvloeistoffen	Water, polar organic solvents, acid and base
Vochtigheid	90 % niet-condenserend
Afmetingen (B x H x D)	180 x 300 x 260 mm

STABINO ZETA

CONTACTEER ONS →

microtrac.com/nl/contact-services/general-request/?prefilltext=contact_form.request&product=718

OFFERTE-AANVRAAG →

microtrac.com/nl/contact-services/quote-request-form/?prefilltext=contact_form.quote_request&product=718



MICROTRAC
a VERDER company

microtrac.com/nl/producten/zeta-potentiaal/stabino-zeta/

© Microtrac – microtrac.com / Content may be subject to modifications or corrections