



ZETA电位分析仪

STABINO ZETA

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.

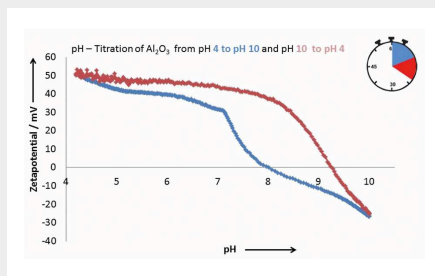


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FLAWLESS TITRATION

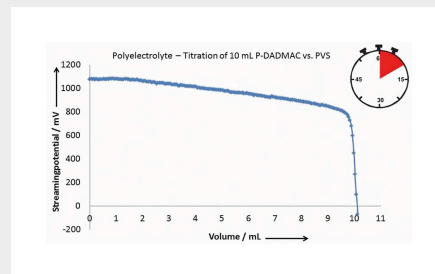
The STABINO ZETA also has a built-in titration function in which all parameters are determined simultaneously at each titration dosing step. The determination of the isoelectric point is one of the titration options and is determined within a few minutes. Your titration options are:

PH TITRATION



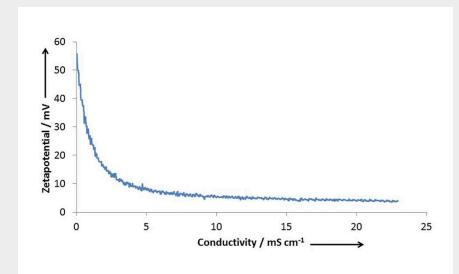
- | Determination of the isoelectric point
- | Stable pH ranges

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

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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.

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EXTENSION: IN-SITU SIZE DISTRIBUTION

You are not only interested in the zeta potential of your sample, but also want to determine the particle size distribution?

The NANOTRAC FLEX can easily be combined with the STABINO ZETA, i.e. the NANOTRAC FLEX measuring probe can be integrated into the STABINO ZETA measuring cell. This allows the size distribution to be determined either alone or, for example, during a charge titration. Coagulation becomes "visible" in-situ based on particle size, and it is possible to identify the critical agglomeration point of a sample. This is very helpful to evaluate colloidal systems even more precisely.

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附件配件

Measuring cell 1 ml and
3 ml with pestle



Measuring cell 10 ml -
black -



Tempered measuring
cell 0 - 90 °C



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

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典型应用

多功能性是动态光散射 (DLS) 的一大优势，这使得该方法适用于研究和工业中的各种应用，例如药物、胶体、微乳液、聚合物、工业矿物、油墨等等。



药品



乳剂



钢铁

- | 药品
- | 油墨
- | 生命科学
- | 陶瓷
- | 饮料 & 食物

- | 胶体
- | 聚合物
- | 微乳
- | 化学品
- | 化学试剂

- | 环境
- | 粘合剂
- | 金属
- | 工业矿物
- ...等等！

要找到满足您的颗粒表征需求的最佳解决方案，请访问我们的应用数据库

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技术参数

计算方法	Zeta streaming potential
计算模型	none, as calibrated
测量角度	none, as mechanical measurement
Size measurement	yes (only in combination with NANOTRAC FLEX)
样品池	Teflon (10 ml, 3 ml, 1 ml)
Zeta电位分析	是
Zeta streaming potential analysis	是
Zeta measurement range (charge)	-3000 mV - +3000 mV
Zeta测量范围 (尺寸)	0.3 nm - 300 µm
电泳流动性	Max. 14 (µm/s) / (V/cm)
pH measurement	是
pH measurement range	1 to 14
电导率测量	是
电导率范围	Up to 350 mS cm ⁻¹
温度范围	0°C - 90°C
温度精度	± 0.1°C
温度控制	是
滴定法	是
Titration endpoints	pH, zeta potential, conductivity, volume and time
可重复性 (尺寸)	Refer to NANOTRAC FLEX
可重复性 (Zeta)	2% with standard dispersion
样品体积Zeta测量	0.95 ml - 10 ml
样品浓度	Up to 40 %
载体流体	Water, polar organic solvents, acid and base
湿度	90 %不凝结
设备尺寸 (宽x高x深)	180 x 300 x 260 mm

www.microtrac-mrb.cn/stabino-zeta