



Innovative Analytical Solutions

### Rapid Assessment of the Stability of Colloids & Dispersions

#### The Stabino® II

from Analytik is a fast and easy-to-operate zeta potential instrument for analysing and optimising the stability of colloids and dispersions, based on measurement of streaming potential.



#### Determining the stability

of colloids or dispersions is a critical factor in quality assurance or development and formulation of new products. Many analytical systems for determining stability are based on electrophoresis techniques that rely on a limited number of low-resolution measurements of the zeta potential.



### Innovative Analytical Solutions

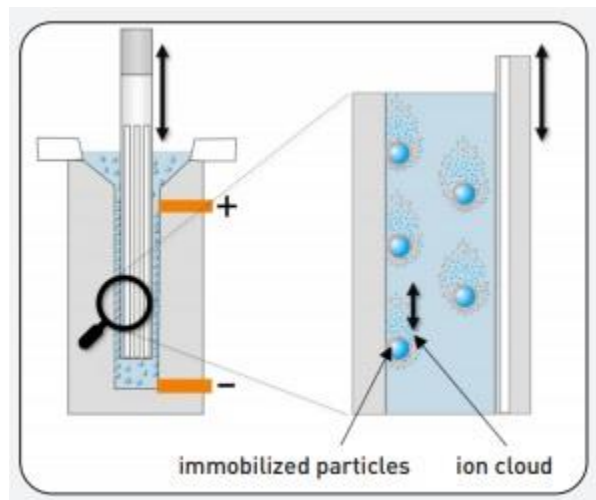
These systems can be slow and imprecise leading to an inconclusive analysis of the colloid / dispersion stability and incorrectly formulated products.

#### **Based upon rapid pH and polyelectrolyte titrations,**

the Stabino® II is able to provide very fast, precise and reproducible measurement of the surface charge of particles in the range of 0.3 nm to 300 µm in just minutes. With each measuring point, the Stabino® II provides valuable information about the conductivity, zeta potential, streaming potential, temperature and pH of your sample. Benefiting from a unique oscillating piston design the Stabino® II provides continuous sample mixing avoiding sedimentation of samples (0.3 nm to 300 µm) – often a problem when a titration approaches the iso-electric point.

#### **The non-optical measuring principle**

of the Stabino II enables the assessment of stability of colloids and dispersions at their original concentration (up to 40% by volume). Due to the additional titration capability, stability ranges and aging processes can be detected very quickly. The influence of the individual titration additions on



the stability can also be determined and optimized during formulation and shortens the development time. The determination of the isoelectric point and the charge titration are important features in the quality control of products or starting materials and help to select suitable starting materials.

#### **Intuitive, easy-to-use software**

on the Stabino® II makes setting up a measurement extremely quick and easy. Just pour in 1 - 10 mL sample into the Teflon beaker of the Stabino® II, open the software and start the measurement. Using Stabino® II software, your entire titration can be tracked in real time, with each titrated droplet a zeta potential measuring point is generated on the graph that includes all 5 measurement parameters.

#### **Applications t**

hat can benefit from the unique measurement capabilities of the Stabino® II include the printing industry, pigments, ceramics, pharmaceutical formulation, brewing, beverages, coatings and material science.



Innovative Analytical Solutions

**For further information**

on Stabino® II please visit <https://analytik.co.uk/stabino-zeta-potential-analyser-for-optimising-colloids-and-dispersions/> or contact Analytik Ltd. on +44(0)1954 232 776 or email [info@analytik.co.uk](mailto:info@analytik.co.uk).

**About us**

For over 15 years - Analytik has been a trusted supplier of cutting-edge scientific instrumentation to leading organisations throughout the UK and Ireland. Specialists in providing and supporting pioneering technology, we deliver added value through specialised consultative expertise and comprehensive pre and post-sales support to ensure that our customers get the most out of their investment. For further information please visit [www.analytik.co.uk](http://www.analytik.co.uk).

**Images:**

A: Stabino® II zeta potential instrument ;

B: Stabino® II operating principle: streaming potential measurement by immobilising the nano particle and shearing the ion cloud from the diffuse layer to measure zeta potential

-----

**Worldwide HQ**

**Analytik Ltd**

Barn B, 2 Cygnus Business Park  
Middle Watch, Swavesey  
Cambridgeshire CB24 4AA  
UK

tel: +44-1954-232776

email: [info@analytik.co.uk](mailto:info@analytik.co.uk)

web: [www.analytik.co.uk](http://www.analytik.co.uk)