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Autotitrator for Zeta Potential Analyzer

Testa Analytical Solutions e.K reports on how automation of isoelectric point measurement can be achieved using a BI-ZTU autotitrator in combination with a Nanobrook zeta potential analyzer.

The stability of a dispersion is commonly determined by zeta potential. However, the surface chemistry of solid particles in a dispersion can be modified by altering parameters such as pH, surfactant concentration and salt concentrations. Hence, it is important to determine how pH affects the zeta potential of a dispersion. By studying the isoelectric point, scientists can determine how pH affects zeta potential and therefore can determine at which pH the zeta potential is zero.

The BI-ZTU autotitrator option for NanoBrook zeta potential analyzers is ideal for automatic determination of the isoelectric point of colloids, for the detection of the onset of aggregation as a function of pH and for measure effect of salt concentration (ionic strength) on zeta potential. Incorporating four pumps the BI-ZTU autotitrator provides unparalleled flexibility for optimising reagent use. Using a BI-ZTU autotitrator enables automatic addition of acid or base to adjust the pH of your sample, recording of pH, and loading of sample into the electrode cell of a Nanobrook zeta potential analyzer. Using this set-up allows you to determine zeta potential at a particular pH and then automatically repeat the measurement for the next pH in the series.

By minimising manual labour requirements using the BI-ZTU in combination with the Nanobrook zeta potential analyzer the cost of isoelectric point determination is drastically reduced.

For further information on automatic determination of zeta potential isoelectric point please visit www.testa-analytical.com/index.html?dc=Zeta&sn=4 or contact Testa Analytical Solutions on +49-30-864-24076 / info@testa-analytical.com.

Testa Analytical Solutions e.K. is a company dedicated to supplying the best possible instrumental solutions for characterization of polymers, particles, nanomaterials and proteins. Drawing upon over 30 years' experience of technologies serving these markets, the staff at Testa Analytical are happy to share their knowledge with researchers worldwide to help provide them with a working solution for even the most demanding applications.

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