

**BI-ZTU** 

# Autotitrator for NanoBrook Zeta Potential and Particle Size Analyzers

#### Applications

- » Determine isoelectric point with acid/base or reagent titration
- » Optimize surfactant concentration
- Measure effect of additives and salt concentrations (ionic strength) on zeta potential and particle size

The **BI-ZTU** Autotitrator option for Brookhaven's NanoBrook zeta potential and particle size analyzers is ideal for analysis of zeta potential as a function of pH, and automatic determination of the isoelectric point, or IEP, of colloidal materials. Four pumps provide unparalleled flexibility for optimizing reagent use. The dramatic savings of reduced labor costs enables larger scale studies that will produce more valuable results.

In addition, the **BI-ZTU** can be used to evaluate the effect of salt concentration on zeta potential and particle size. Also, the surfactant costs can be minimized. Use the **BI-ZTU** to find the minimum concentration at which the zeta potential and particle size do not significantly change.



Example of pH titration measurement results for isoelectric point determination. Data was collected and analyzed automatically, saving labor and time.



#### Features at a Glance

- » Titrations with acids, bases, salts, and surfactants
- » 4 metering pumps for ultimate versatility
- » Disposable sample cups

# **Easy Operation**

Attach the power supply to the rear of the **BI-ZTU**. Connect the **BI-ZTU** to the NanoBrook instrument using the standard USB cable. Fill the four 100 mL standard reagent bottles. Insert the tubes. Replace the plug-in electrode assembly with the flow cell. You are ready to go.

## Integrated, Simple Software

When the **BI-ZTU** option is added to a NanoBrook, the titrator command appears in the main menu bar. The software automatically guides the user through an autotitration experiment. User-friendly dialog boxes guide operators through each step.

Key Features & Specifications	
pH Range	pH 2 to pH 12.
Sample Cells	Zeta Potential flow cell included; for use with NanoBrooks configured for zeta potential. Optional particle size flow cell available.
Tubing	1 mm (0.04") or greater I.D. Teflon, PEEK, and EPDM.
External Fittings	1/4" - 28 flat bottom.
Includes	pH probe and four 100 mL screw-capbottles.
Size (H x W x D)	310 x 180 x 290 mm.
Power	110/115/220/240 VAC,50/60 Hz, 25 watts.

A policy of continual improvement may lead to specification changes.

### About Brookhaven Instruments

Our talented team of scientists and engineers is dedicated to delivering the most accurate, reliable, and easy-to-use particle characterization instruments on the market. Our modular instrument design allows us to fully customize every aspect of our products, ensuring that our customers receive precisely what they need to meet their research goals. We are continuously improving our products based on feedback from customers, building on our legacy of innovation in particle science.

We strive to act as partners with our customers to ensure they get the most benefit and maximum value from their Brookhaven equipment. We offer extensive post-sale support to educate and empower customers. Whether you have questions about a specific function or are trying to set up a new experiment, our experts will be there to help you every step of the way.







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