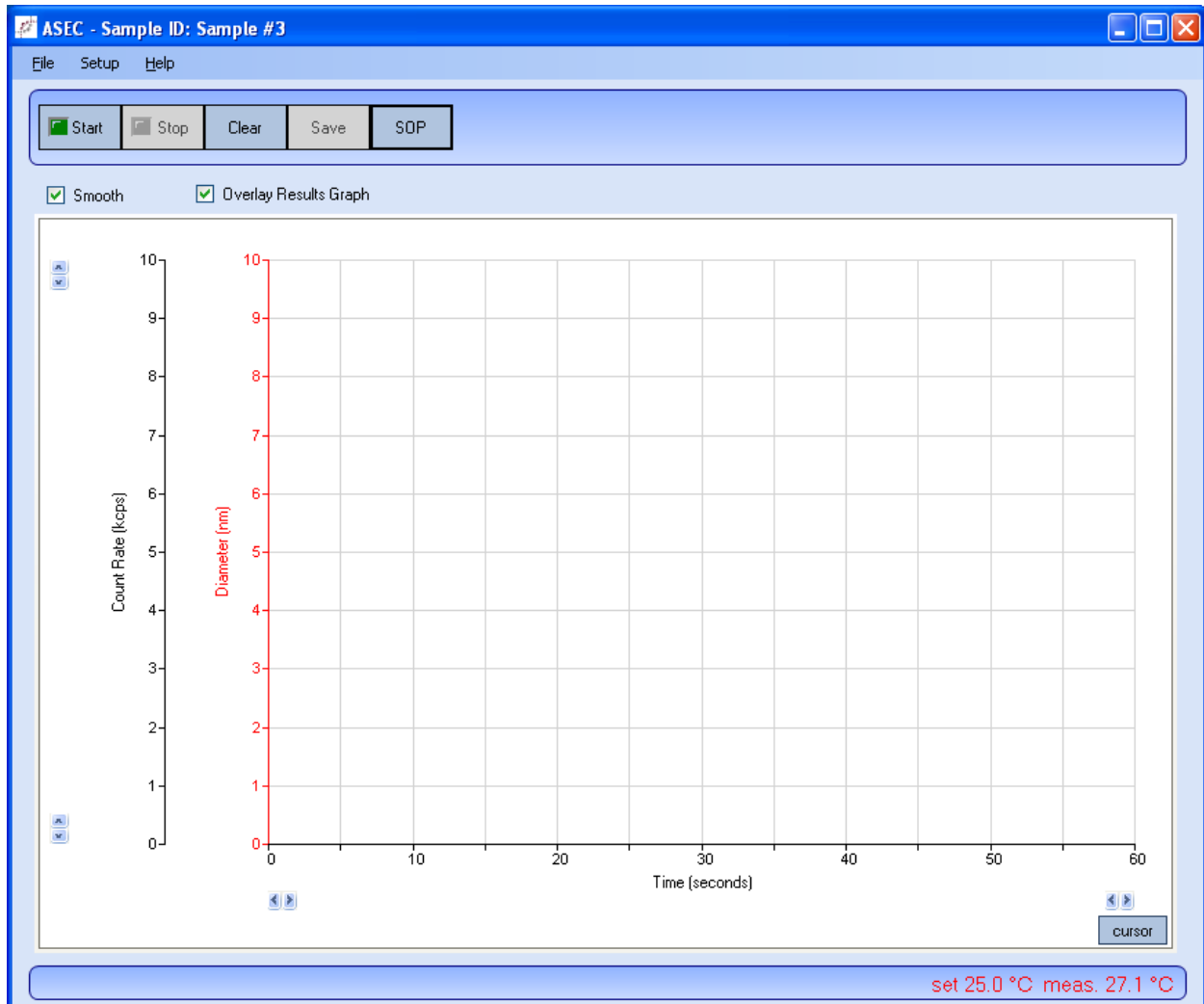


ASEC Measurement Quick Start Guide

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ASEC New Measurement Window

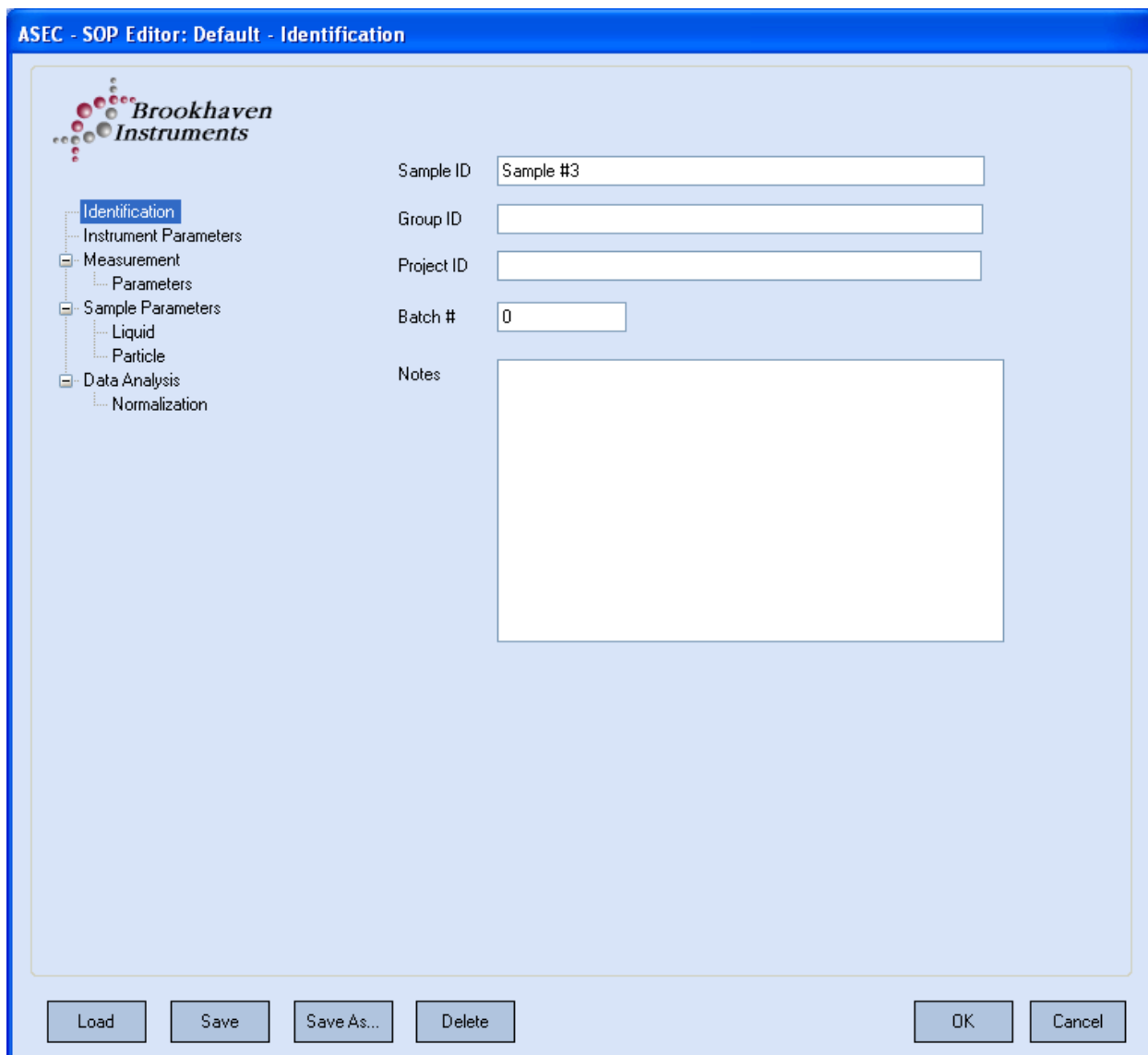


The ASEC measurement window is used to collect new measurements.

The Start and Stop buttons are used to initiate and terminate a measurement. When Start is pressed, a measurement will be collected as defined in the measurement SOP.

The Clear button can be used to clear the current measurement. Once a measurement is completed, it must be cleared before an operator can begin a new measurement.

ASEC SOP Identification Window



Measurement Identification parameters are indicated the identification window.

The SOP ID is the name of the SOP file that is currently in effect. You may load and save SOP files as needed before a measurement sequence is started. Once started, you may not change the SOP to a different file.

ASEC SOP Instrument Parameters

ASEC - SOP Editor: Default - Instrument Parameters

Brookhaven Instruments

- Identification
- Instrument Parameters**
- Measurement
 - Parameters
- Sample Parameters
 - Liquid
 - Particle
- Data Analysis
 - Normalization

Angle:

Wavelength: nm

Cell Type:

Buttons: Load, Save, Save As..., Delete, OK, Cancel

Instrument parameters are indicated in this window.

ASEC SOP Measurement : Parameters Window

The screenshot displays the 'ASEC - SOP Editor: Default - Measurement:Parameters' window. On the left, a tree view shows the following structure:

- Identification
- Instrument Parameters
- Measurement
 - Parameters (selected)
- Sample Parameters
 - Liquid
 - Particle
- Data Analysis
 - Normalization

The main area of the window contains two parameters:

- Temperature: 25.1 deg C
- Set Duration: 1 seconds

At the bottom of the window, there are six buttons: Load, Save, Save As..., Delete, OK, and Cancel.

Use Set Duration to indicate the measurement duration for each size calculation.

Once a measurement is started, many of the SOP parameters, such as measurement duration, cannot be changed and are used for the entire measurement sequence.

ASEC SOP Sample Parameters : Liquid Window

The screenshot displays the 'ASEC - SOP Editor: Default - Sample Parameters:Liquid' window. On the left, a tree view shows the following structure:

- Identification
- Instrument Parameters
- Measurement Parameters
- Sample Parameters
 - Liquid**
 - Particle
- Data Analysis
 - Normalization

The main area of the window contains the following parameters:

Liquid	<input type="text" value="Water"/>
Viscosity	<input type="text" value="0.888"/> cP
Refractive Index	<input type="text" value="1.330"/>
pH	<input type="text"/>

At the bottom of the window, there are six buttons: Load, Save, Save As..., Delete, OK, and Cancel.

In this window the sample liquid, viscosity and refractive index are indicated.

ASEC SOP Sample Parameters : Particle Window

ASEC - SOP Editor: Default - Sample Parameters:Particle

Brookhaven Instruments

- Identification
- Instrument Parameters
- Measurement
 - Parameters
- Sample Parameters
 - Liquid
 - Particle**
- Data Analysis
 - Normalization

Refractive Index of Particles

Real

Imaginary

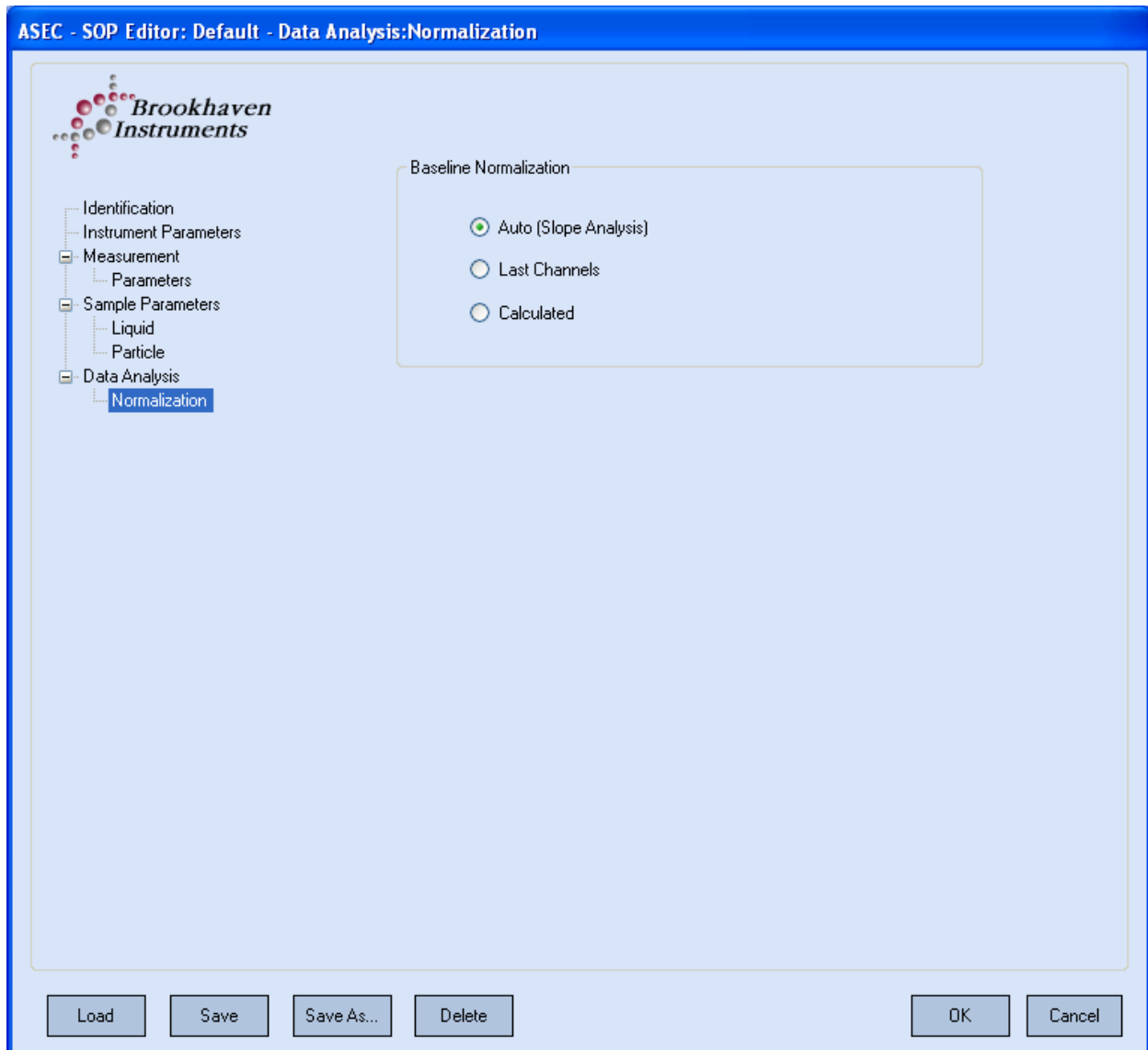
Uniform Spheres Thin Shells

Concentration mg/ml

Load Save Save As... Delete OK Cancel

In this window, particle characteristics are defined. You may enter the concentration of the sample if it is known.

ASEC SOP Data Analysis : Normalization



In this window the correlation function baseline normalization selection is indicated.

ASEC SOP Data Analysis : Size Distribution

SOP ID: Default - Data Analysis:Size Distribution

Brookhaven

SOP ID: Default

Size Distribution

NNLS CONTIN

Range Selection

Threshold: 5.0

Automatically Calculated

Particle Sizing

Manually, Diameter

Min: 5.0 nm

Max: 5000.0

Load Save Save As... OK Cancel

In this window the size distribution settings are indicated. You may choose between NNLS or Contin algorithms.

The threshold can be used to indicate the minimum acceptable peak height, expressed as percentage of the maximum peak.

Automatic range selection can be used to invoke multiple calls to the distribution algorithm until an appropriate size range for the sample distribution is determined. Alternatively, a manual range for the distribution calculations may be used.

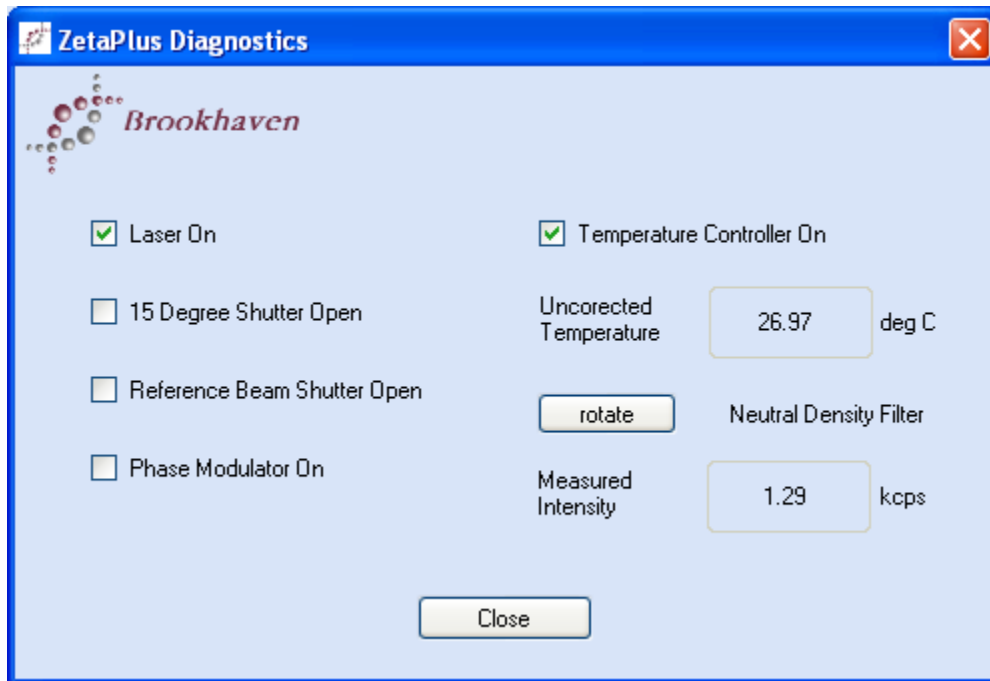
ASEC New Measurement Window : Setup : Incident Power Settings



This window can be accessed from the applications main window by selecting Setup\Incident Power Settings from the ASEC measurement window's main menu.

You should either maximize or optimize the incident power with a full concentrated sample before you begin a measurement.

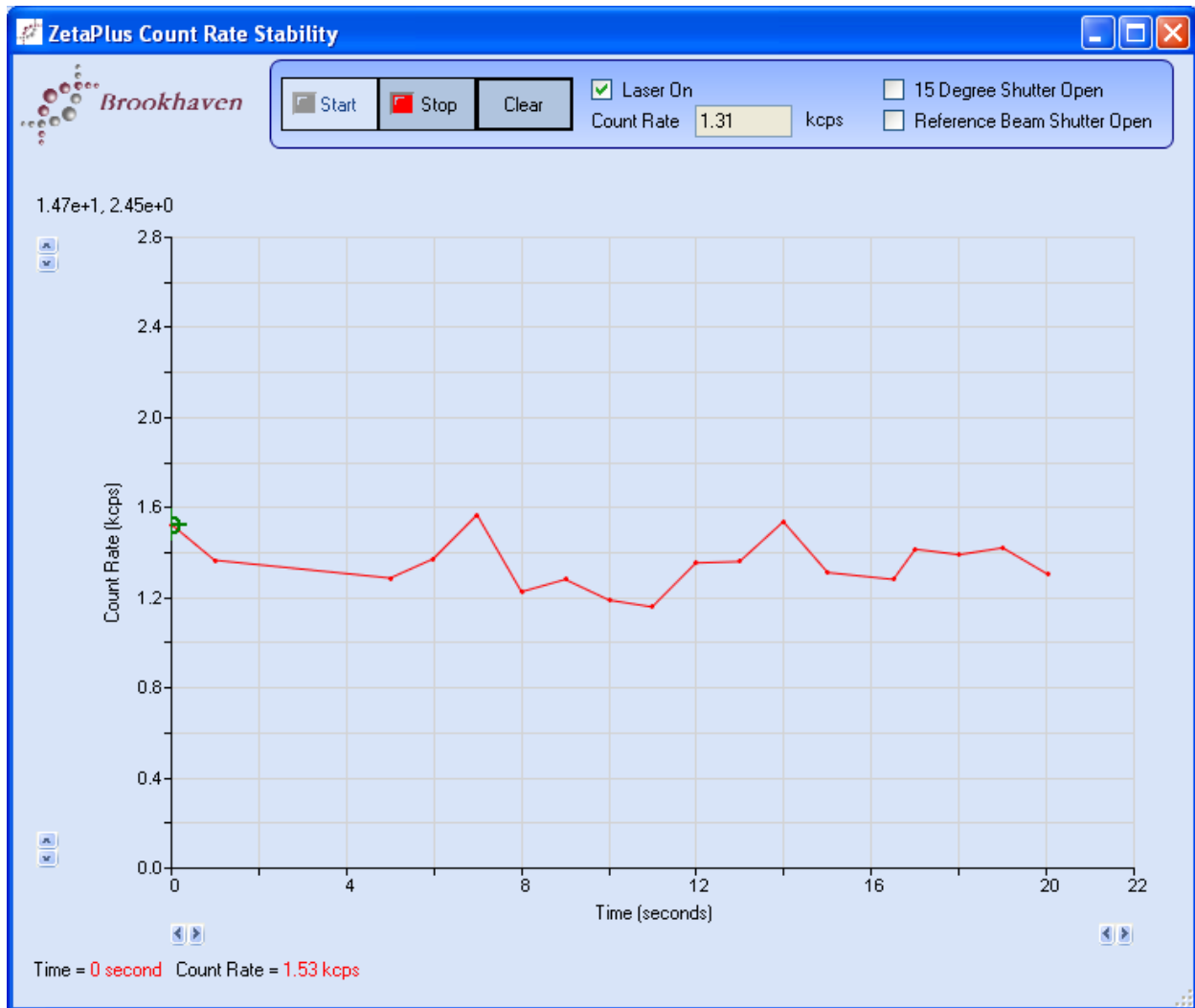
ASEC Setup : Diagnostics : Instrument Hardware Test



Each measurement application that uses a ZetaPlus, ZetaPALS or 90Plus has a diagnostic window that can be accessed from the application's main window by selecting Setup\Diagnostics\Instrument Hardware Test from the window's main menu.

This window provides direct access to the instrument hardware for diagnostic purposes.

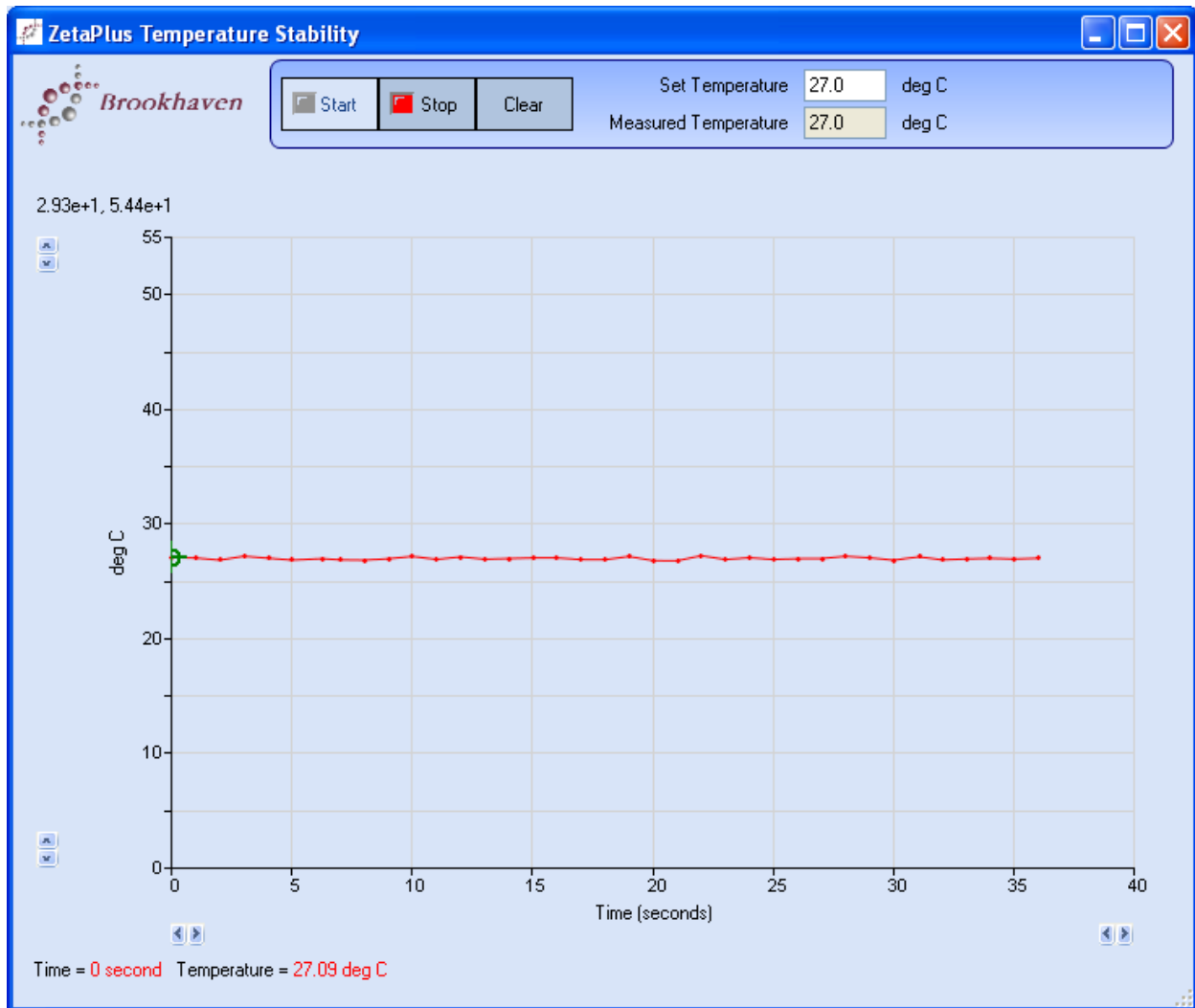
ASEC Setup : Diagnostics : Count Rate Stability



Each measurement application that uses a ZetaPlus, ZetaPALS or 90Plus has a count rate stability window that can be accessed from the application's main window by selecting Setup\Diagnostics\Count Rate Stability Graph from the window's main menu.

This window provides direct access to the instrument hardware for diagnostic purposes.

ASEC Setup : Diagnostics : Temperature Stability



Each measurement application that uses a ZetaPlus, ZetaPALS or 90Plus has a temperature stability window that can be accessed from the applications main window by selecting Setup\Diagnostics\Temperature Stability Graph from the window's main menu.

This window provides direct access to the instrument hardware for diagnostic purposes.