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WET Labs

Scattering Meter Calibration Sheet

11/9/2022
Wavelength: 470   S/N BB3-7882

Use the following equation to obtain "scaled" output values:

$$\beta(\theta_c) \ m^{-1} \ sr^{-1} = \textbf{Scale Factor} \ x \ (\textbf{Output - Dark Counts})$$

- **Scale Factor for 470 nm**   =   1.098E-05 $(m^{-1}sr^{-1})$/counts
- **Output**   =   meter reading   counts
- **Dark Counts**   =   50 counts

  Instrument Resolution   =   1.0   counts   1.10E-05 $(m^{-1}sr^{-1})$

Definitions:

- **Scale Factor**: Calibration scale factor, $\beta(\theta_c)$/counts. Refer to User's Guide for derivation.
- **Output**: Measured signal output of the scattering meter.
- **Dark Counts**: Signal obtained by covering detector with black tape and submersing sensor in water.

Instrument Resolution: Standard deviation of 1 minute of collected data.

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Scattering Meter Calibration Sheet

11/9/2022
Wavelength: 630   S/N BB3-7882

Use the following equation to obtain "scaled" output values:

$$\beta(\theta_c) \text{ m}^{-1} \text{ sr}^{-1} = \textcolor{red}{\textbf{Scale Factor}} \text{ x (Output - Dark Counts)}$$

- **Scale Factor for 630 nm**   =   3.709E-06 $(\text{m}^{-1}\text{sr}^{-1})$/counts
- **Output**   =   meter reading counts
- **Dark Counts**   =   39 counts

  Instrument Resolution   =   1.2   counts   4.34E-06 $(\text{m}^{-1}\text{sr}^{-1})$

Definitions:

- **Scale Factor**: Calibration scale factor, $\beta(\theta_c)$/counts. Refer to User's Guide for derivation.

- **Output**: Measured signal output of the scattering meter.

- **Dark Counts**: Signal obtained by covering detector with black tape and submersing sensor in water.

Instrument Resolution: Standard deviation of 1 minute of collected data.

WET Labs

Scattering Meter Calibration Sheet

11/9/2022
Wavelength: 715

S/N BB3-7882

Use the following equation to obtain "scaled" output values:

$$\beta(\theta_c)\ m^{-1}\ sr^{-1} = \textbf{Scale Factor} \times (\textbf{Output - Dark Counts})$$

- **Scale Factor for 715nm** = 2.854E-06 $(m^{-1}sr^{-1})$/counts
- **Output** = meter reading   counts
- **Dark Counts** = 48 counts

  Instrument Resolution = 1.4   counts   4.02E-06 $(m^{-1}sr^{-1})$

Definitions:

- **Scale Factor**: Calibration scale factor, $\beta(\theta_c)$/counts. Refer to User's Guide for derivation.

- **Output**: Measured signal output of the scattering meter.

- **Dark Counts**: Signal obtained by covering detector with black tape and submersing sensor in water.

Instrument Resolution: Standard deviation of 1 minute of collected data.