



## Variable Pathlength Slope Spectroscopy

The SoloVPE System is the technological innovation behind the Slope Spectroscopy® technique. Unlike traditional UV-Vis methods that rely on a single Absolute Absorbance value, Slope Spectroscopy methods use Section Data (Absorbance vs. Pathlength Data) to determine a slope value for quantitation of sample concentration using the Slope Spectroscopy Equation ( $m = ec$ ) which is derived from the Beer-Lambert Law.

### No Dilution

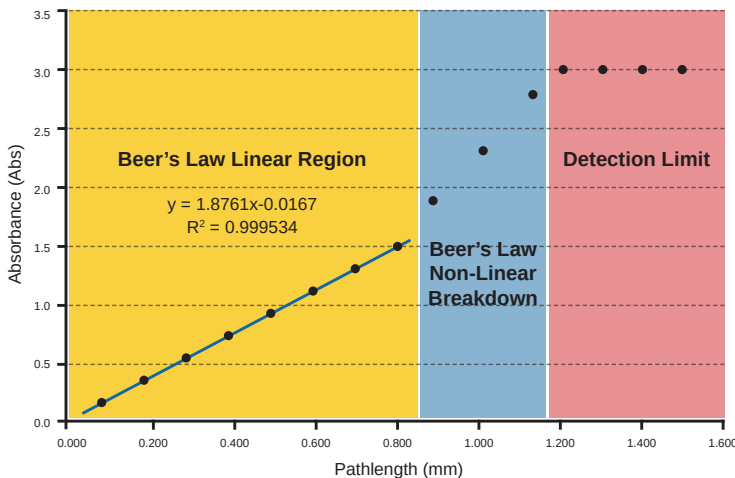
The variable pathlength technology in the SoloVPE allows even highly concentrated samples to be measured usually without dilution and baseline correction. The internationally patented SoloVPE is being deployed throughout global organizations allowing them to realize increased accuracy while saving time and money.

### No Baseline Correction

Typically, all standard abs measurements to calculate concentration have been based on a single abs value. In the case of slope measurements, buffer correction is not required when the slope is equal to zero. Therefore, the chosen buffer is not contributing to the sample and therefore can be eliminated from the method/experiment.

### Proving True Linearity

The  $R^2$  value of the linear regression confirm that the absorbance values are changing proportionally with pathlength in accordance with the Beer-Lambert Law and therefore prove accuracy within every sample tested.



## Features and Benefits

- ✿ No Dilutions
- ✿ Slope based measurements based on  $R^2$  of .999 or higher
- ✿ No Baseline Correction / No Buffer
- ✿ Guaranteed data in linear range of Beer's Law
- ✿ Common Platform UV
- ✿ Repeatability :  $\pm 2\%$
- ✿ Less than 1 minute per sample reading
- ✿ Antibody Concentration Range: .01 mg/ml to 300 mg/ml
- ✿ Minimum volume: < 20  $\mu$ l (Concentration Dependent)
- ✿ Pathlength range: 0.005 mm - 15 mm (Smallest Resolution: 0.005 mm (5  $\mu$ m))
- ✿ Wavelength range: 190nm – 1100nm
- ✿ 21 CFR Part 11 Compliant Software



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