**A Spectrophotometric Study of Fluorescein**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Course\_\_\_\_\_\_\_\_Section\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_

Calibration Curve:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Fluorescein concentration(µM) | Average Absorbance (Absorbance λmax) | Average Intensity (Emission λmax) |
| Standard 1 |  |  |  |
| Standard 2 |  |  |  |
| Standard 3 |  |  |  |
| Standard 4 |  |  |  |
| Standard 5  |  |  |  |
| Standard 6  |  |  |  |
| Standard 7 |  |  |  |
| Standard 8 |  |  |  |
| Standard 9  |  |  |  |
| *(Add any standards needed…)* |  |  |  |
| Max Wavelength (nm) |  |  |  |
| Standards used for Linear Range |  |  |  |
| ‘y=mx+b’ equation |  |  |  |

MDL:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Absorbance | Concentration (µM fluorescein) | Intensity | Concentration(µM fluorescein) |
| Expected Concentration |  |  |  |  |
| Measurement 1 |  |  |  |  |
| Measurement 2 |  |  |  |  |
| Measurement 3 |  |  |  |  |
| Measurement 4 |  |  |  |  |
| Measurement 5 |  |  |  |  |
| Measurement 6 |  |  |  |  |
| Measurement 7 |  |  |  |  |
| Standard Deviation |  |  |
| MDL (µM fluorescein) |  |  |

Fluorescein in Antifreeze Determination:

*(Graphs, procedure for dilutions, and calculations should all be reflected in lab notebook.)*

Quantitation Method Used:\_\_\_\_\_\_\_\_\_\_\_\_\_\_
*(Please note if you change anything from your calibration curve made above.)*

Unknown intensity (I) or absorbance (A) value (specify):\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Concentration of fluorescein in the antifreeze sample (µM):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_