Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lab Day & Time: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_

## Data Sheet

### Part 1, Calibration Plot

Mass of ASA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Moles of ASA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Concentration of salicylate ion in stock solution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| Solution | Concentration / *M* |  | Absorbance, *A* |
| A |  |  |  |
| B |  |  |  |
| C |  |  |  |
| D |  |  |  |
| E |  |  |  |

Calibration curve: slope (*m*) \_\_\_\_\_\_\_\_\_\_ y-intercept (*b*) \_\_\_\_\_\_\_\_\_\_ correlation (*R*2) \_\_\_\_\_\_\_\_\_\_

Wavelength of maximum absorbance, λmax \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Slope of Beer’s Law plot \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Molar absorptivity of the iron(III)—salicylate

complex (*M*–1 cm–1) at the maximum wavelength \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Part 2, Analyzing Aspirin Tablets

Tablet brand: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Determination | | | | |
|  | First |  | Second |  | Third |
| Mass of tablet |  |  |  |  |  |
| Absorbance of solution |  |  |  |  |  |
| Concentration of ASA in 100 mL flask / *M* |  |  |  |  |  |
| Concentration of ASA in 250 mL flask / *M* |  |  |  |  |  |
| Moles of ASA in tablet |  |  |  |  |  |
| Mass of ASA in tablet |  |  |  |  |  |
| Percent error |  |  |  |  |  |
| Percent ASA in tablet |  |  |  |  |  |
| Mean percent |  |  |  |  |  |