

Spectrophotometric Determination of Acetylsalicylic Acid

Name: _____

Partner: _____

OBJECTIVE: To quantitatively analyse a commercial ASA tablet using spectrophotometry.

PROCEDURE: As in the chemistry 1210 lab manual, pages _____.

OBSERVATIONS:

DATA:

Mass of weigh boat and ASA (g)	Mass of emptied weigh boat (g)	Mass of reagent grade ASA transferred to flask(g)	Mass of reagent grade ASA transferred to flask (mg)

λ_{\max}	nm
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If less than three sig figs are obtained in absorbance readings, read % T and convert to absorbance

Standard Solution	1.00 mL	2.00 mL	3.00 mL	4.00 mL	5.00 mL	ASA Tablet
Measured Absorbance or % Transmittance						
Average Absorbance						

Mass of ASA tablet (mg)		Company's claimed ASA amount in tablet (mg)	
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GRAPH:

Attach Beer's Law Plot

CALCULATIONS:

Standard Solution	1.00 mL	2.00 mL	3.00 mL	4.00 mL	5.00 mL
Concentration (mg ASA/mL)					

Sample calculation for concentration of standards:

Calculation of ASA concentration of final unknown ASA solution:

Mass ASA in tablet:

% by Mass ASA in the tablet:

RESULTS:

Slope	Y-Intercept	Concentration of ASA in Final solution	Experimentally Determined Mass ASA in Tablet

DISCUSSION:

Did the tablet contain the claimed amount of ASA? If not, give a source of error beyond your reasonable control which could cause the type of error you observed. For example, if your reported mass ASA was smaller than that claimed on the bottle, give a source of error which would cause a low mass of ASA to be determined.

CONCLUSION:**QUESTIONS:**