Lab Report #3
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Collected approximately 25.00mL of Iron Nitrate in 100mL beaker, measuring 5.0mL using a graduated cylinder into 4 different volumetric flasks. Then obtained 30.0mL of the stock salicylic acid solution. Transferred 1.0 mL of salicylic acid solution to the one volumetric flask than filled with distilled water. Then added 5.0mL to another flask. Ten added 10.0mL of the solution to another flask. Added water to another volumetric flask. Measured out 0.3mL of the acne cleanser using the micropipette into another volumetric flask and then added 5.0mL of the Iron nitrate solution using a 5.0mL pipette. Topped up with water. All solutions were purple. Absorbances of solutions using a spectrophotometer. The absorbance of each solution was: a) 1.329. b) 0.109 c) 0.578 d) 0.001 e) 1.256, 1.101, 1.213 f) 1.345

1. Do the in-lab notes provide enough information to successfully repeat and complete the experiment?
No

2. What criteria did you use to determine whether the experiment could be successfully repeated?

- Materials and reagents: The in-lab notes must clearly list all the materials and reagents used, including their quantities and concentrations.
- Procedures: The in-lab notes must provide a detailed description of the procedures followed, including any special instructions or precautions.
- Data and observations: The in-lab notes must record all the data and observations collected, including any unexpected results or problems encountered.

3. Provide examples from the in-lab notes that were helpful in recreating the experiment.
The in-lab notes:

- Specify the volume of iron nitrate and salicylic acid solution used in each volumetric flask.
- Indicate that all the solutions were purple.
- Provide the absorbance of each solution.

4. Provide examples from the in-lab notes where more detail is required that would have aided in repeating the experiment. What extra information is required? Consider all procedures, data, and observations.

The in-lab notes do not specify the concentration of the stock salicylic acid solution. The concentration or molarity of the Iron Nitrate solution needs to be specified. For the flask where 5.0 mL of the Iron Nitrate solution was added using a pipette, the total volume after the addition needs to be mentioned. Consider specifying the precision of the equipment used (e.g., precision of the micropipette).

5. What are your learnings from this exercise concerning the quality of note taking? How will you implement your learnings when you take notes in the future?

I have learned that it is important to be very specific and detailed when taking lab notes. This will ensure that the notes are clear and easy to understand, and that they contain all the information necessary to repeat the experiment.

In the future, I will make sure to include the following information in my lab notes: names and quantities of all materials and reagents used, detailed descriptions of all procedures followed, all data and observations collected, including any unexpected results or problems encountered, concentration of all solutions, type of all equipment used, how absorbance data was analyzed.