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Chem 1045 Lab

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Post lab questions

1. Is the density an intensive or extensive property?

The intensive property because the density is not determined by the amount of matter present.

2. What is the actual mass of a nickel coin?

The actual mass of the nickel coin is about 4.9-5.0 (g).

3. What is the density of a pure nickel?

The density of pure nickel is 8.912 grams per cubic centimeter. (<http://education.jlab.org/itselemental/ele028.html>)

4. For the graph, why did you place accumulated mass on the y axis when it is the dependent variable? What information did you obtain from the graph?

5. What is the nickel actually composed of and in what proportion? What is the true density of a nickel coin?

The nickel is actually composed of “Cupro-Nickel: 25% Ni, Balance Cu” (http://www.usmint.gov/mint\_programs/circulatingcoins/?action=circnickel). The density of a nickel coin is 8.94 g/cm³ (<http://www.ehow.com/facts_6921914_density-copper-nickel.html>).

6. How does the density determined by your group using the two different methods compare to the true density of a nickel coin?

The density that we calculate is much less than the true density of a nickel coin. This might be because all nickels produced in a U.S government mint are not full nickel. All nickels are a combination of various metals.

7. Which method was the most accurate in your group?

The most accurate method was measuring the nickels individually with the scale and the ruler.