

Results

Data Table 1: Characteristics of Sample Metals

Sample	Description	Mass* (g)	Volume (cm ³)	Density \pm % (g/cm ³)	Identity	Single Atom			
						Mass (g)	Volume (cm ³)	Diameter (cm)	Radius (cm)
1									
2									
3									
4									

*The mass of each sample is a molar mass, since the samples are calibrated to contain one mole of atoms!

Discussion:

- Follow lab grading guidelines
- Summarize what you did
- State the identity of each metal sample and discuss the evidence to support your identification (You need at least 3 different *bits* of evidence)
- Discuss the relation among atomic mass, radius, and density (Remember to support your statements with data!)
- Identify 2—3 sources of error and indicate how these errors might impact the results
- Provide 1—2 suggestions for improving the procedure

Conclusion: You should have a testable statement about the

- *identify of the samples*
- *relation of atomic radius and molar mass*
- *relation of atomic radius and density*

(Note: It is valid to conclude that there is no relation between 2 of the variables, but you must state this if your data do not show a relation!)

Reflection: *Personal commentary about what you learned from this lab.*

