Chemistry 513

Scarsdale High School

Periodic Trends

The attached laboratory assignment explores one of the many trends that can be observed within the Periodic Table. Density is a physical property of all materials. In this lab, the density of 3 materials that occur in the same group on the periodic table will be experimentally determined and plotted. From this graph, the density of a fourth element will be predicted. This prediction can easily be compared to the actual value to determine the percent error in the prediction.

The final report for will be shared via Google Doc in <u>ONE</u> report. The content the lab report is described in detail below. The file name **MUST** follow the format listed directly below.

File Name: SHS_HC_LB_sec#_PeriodicTrend_Lname

Note: for "sec#", write only the number – do not include "sec"

Periodic Trends

Lab Report Rubric

- Introduction
- Data Table
- Logger Pro Graph of density vs atomic number
- Germanium Density (Analysis and Conclusion Questions)
- Conclusion

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Lab Report Rubric

Due Date	0 points	≤ 1 week late: -3	≤ 2 week late: -6	> 2 week late: -10	Score
		points	points	points	
	8-10 points	5-7 noints	2-4 noints	0-1	
Introduction	Integrates and	Includes the	Includes some of	Did not discuss	
	discusses the	concepts and	concepts and	concepts and	
	appropriate	principles	principles	principles	
	concepts and				
	principles with				
	the planned				
	experiment				
Data Table	Table included	Table displays the	Data included but	Data not included	
	and clearly	relevant data but	lacks structure		
	displays the	is not well	the structure of a		
	relevant data.	organized	table		
	Data can be				
	easily accessed in				
	the table				
Logger Pro Graph	Graph is fully and	Graph has not	Graph is not	Graph not	
	and properly labeled	been property	information door	included of not	
	describes the	Information	not correspond	reduable	
	information	difficult to	the data		
	internation	understand	collected		
Germanium	Predicted density	Predicted density	Predicted density	Predicted density	
Density	of Ge from the	of Ge from the	of Ge does not	of Ge not	
Prediction	graph is included	graph is included	correspond to	included	
	and the percent		prediction from		
	error is calculated		the graph		
Conclusion	Proper	Results presented	Results presented	No results	
	integration of the	but not		presented	
	experimental	compared to the			
	results as	introduction.			
	compared to the	Error analysis not			
	expected results	supported by			
	proposed in the	data			
	Error analysis	uala			
	supported by				
	experimental				
	data				
				Total Raw Score	
				Adjusted Score	
				(divide by 5)	