

Laboratory Report Guideline – Gas Laws

1. Cover Page – Title of the Report, Name, Partner's name, Date, TA name

2. Data

the atmospheric pressure value

letter of the unknown NaNO_2

the data tables for Boyle's, Charles's Laws, and the results for the production of N_2 gas

3. Calculation

an example of the calculation for Boyle's Law – PV calculation

an example of the calculation for Charles's Law – V/T calculation

how was the experimental value of absolute zero determined

calculate the percent difference

Boyle's Law and Charles's Law graphs

calculations for the N_2 gas – see page 27 of the lab manual

calculate the average percent yield for the N_2 production for pure NaNO_2 and the unknown sample

4. Results and Discussion

discuss whether the graphs look like expected or not.

compare the literature and experimental values of absolute zero (explain what possible errors might contribute to the deviation)

compare the theoretical and experimental values for N_2

discuss the experimental results for the unknown samples

general uncertainties from the experiment

5. Conclusion

give an overall summary of the experiment

answer the questions on page 25. Show the calculation for #5

6. References

Reminder: be sure not to use pronouns and make sure all your data tables and calculations have the appropriate units and significant figures