

Title of the Report

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Abstract

In this experiment we studied a very important physical effect by measuring the dependence of a quantity V of the quantity X for two different sample temperatures. Our experimental measurements confirmed the quadratic dependence $V = kX^2$ predicted by Someone's first law. The value of the mystery parameter $k = 15.4 \pm 0.5$ s was extracted from the fit. This value is not consistent with the theoretically predicted $k_{theory} = 17.34$ s. We attribute this discrepancy to low efficiency of our V -detector.

1 Introduction

The very important physical effect has applications to astronomy, nuclear physics, condensed matter, and more.

2 Theory

Here give a brief summary of the physical effect of interest and provide necessary equations. Here is how you insert an equation. According to references [1-3] the dependence of interest is given by

$$u(\lambda, T) = \frac{8\pi hc\lambda^{-5}}{e^{hc/\lambda kT} - 1}, \quad (1)$$

where T is temperature in Kelvin, c is the speed of light, etc. Don't forget to explain what each variable means the first time that you introduce it.

3 Procedures

Give a schematic of the experimental setup(s) used in the experiment (see figure 1). Give the description of abbreviations either in the figure caption or in the text. Write a description of what is going on.

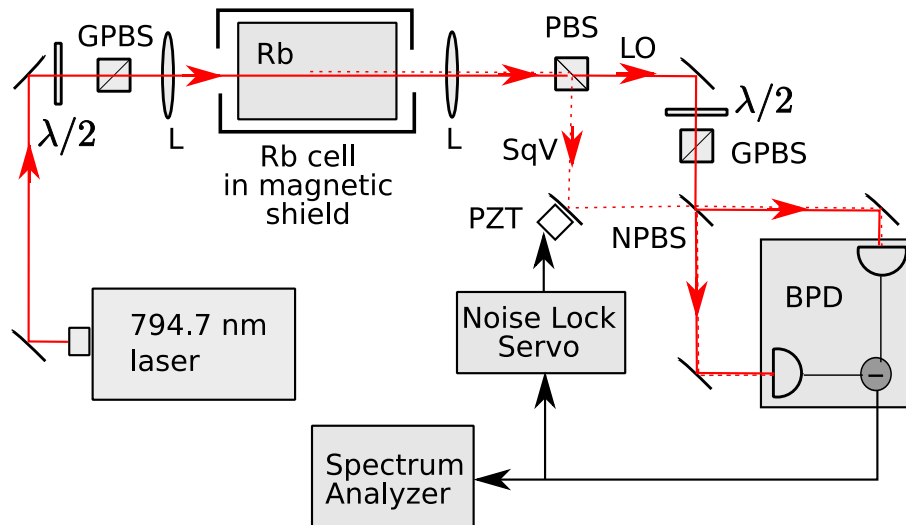


Figure 1: Every figure MUST have a caption.

4 Analysis

In this section you will need to show your experimental results. Use tables and graphs when it is possible. Table 4 is an example.

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Every table needs a caption, too.

x (m)	V (V)
0.0044151	0.0030871
0.0021633	0.0021343
0.0003600	0.0018642
0.0023831	0.0013287

It is also recommended to plot the data graphically to efficiently illustrate any points of discussion. For example, it is easy to conclude that the experiment and theory match each other rather well if you look at Fig. 2.

5 Conclusions

Here you briefly summarize your findings.

References

- [1] A. C. Melissinos and J. Napolitano, *Experiments in Modern Physics*, (Academic Press, New York, 2003).
- [2] N. Cyr, M. Têtu, and M. Breton, *IEEE Trans. Instrum. Meas.* **42**, 640 (1993).
- [3] *Expected value*, available at http://en.wikipedia.org/wiki/Expected_value.

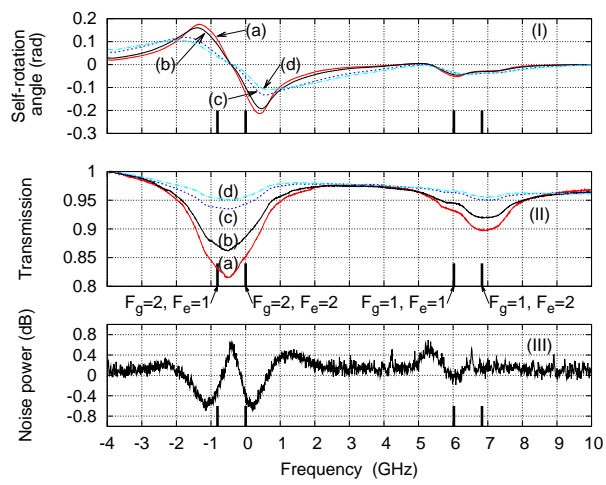


Figure 2: Every plot must have axes labeled.