

# AGN-#: EXAMPLE

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## ABSTRACT

The abstract should briefly summarize the entire report, ideally in **150–250 words**. Include:

1. The purpose or objective of the experiment
2. The main methods or procedures used
3. The most significant results
4. A concise conclusion or implication of the findings

Avoid citations, figures, or equations. Keep it self-contained and understandable to someone who hasn't read the rest of the paper.

## INTRODUCTION

The Introduction sets the stage for the reader. Include:

1. Background on the topic and its relevance
2. A brief review of any necessary literature or foundational concepts
3. The motivation for the experiment
4. A clear statement of the objective or hypothesis
5. A sentence or two outlining the structure of the report

## THEORY

This section explains the scientific principles behind the experiment. Use **equations and diagrams as needed**.

1. Define all key variables and assumptions
2. Discuss relevant laws, formulas, or models
3. Include derivations or simplifications as necessary

4. Use the following example to format equations with the `split` environment:

$$\begin{aligned} q'' &= -k \frac{dT}{dx} \\ Q &= \int_A q'' dA = -kA \frac{\Delta T}{L} \end{aligned} \tag{1}$$

5. Explain each step and define all symbols ( $q''$ : heat flux,  $k$ : thermal conductivity, etc.)

Note that to reference an equation, use Equation (1) so that the formatting looks good. For citations, use `\cite{key}`, example: [1], and be sure to run BibTeX after running PDFLaTeX once.

## METHODS AND PROCEDURES

Describe how the experiment was conducted in **step-by-step detail**.

### Experiment

1. Outline materials used (equipment, sensors, etc.)
2. Describe the experimental setup, ideally with a diagram
3. Present step-by-step procedures
4. Mention any calibration or safety steps

### Data Processing

1. Explain how raw data was converted into usable results
2. Mention any software or analysis tools used
3. Describe error analysis techniques or uncertainty estimation
4. Show sample calculations, if applicable

## RESULTS AND ANALYSES

Present the data and analyze what it means.  
Length:

1. Include tables, graphs, and figures as needed
2. Describe trends, patterns, or anomalies
3. Compare with theoretical expectations or literature
4. Include quantitative error analysis
5. Interpret what the results suggest in terms of the experiment's goals

## CONCLUSION

Summarize findings and reflect on implications.

1. Recap the key results and what they mean
2. State whether the hypothesis was supported
3. Discuss sources of error and limitations
4. Suggest improvements or future work
5. Avoid repeating data; focus on broader take-aways

## REFERENCES

1. J. DOE, "A Very Scientific Article," *Journal of Smart People with Big Egos* (2023).