

Preview Report		Experimental Record		Analysis & Discussion		Total	
20		30		30		80	

Grade & Major:	2022, Physics	Group number:	A2
Student name:	杨舒云	Student number:	22344020
Experiment time:	2024//	Teacher's Signature:	

## ET2- 名称 Title

### 【Precautions】

1. The lab report consists of three parts:

- (1) **Prview Report:** Carefully study the experimental manual before class to understand the experimental principles; familiarize yourself with the instruments, equipment, and tools needed for the experiment, and their usage; complete the pre-lab thought questions; understand the physical quantities to be measured during the experiment, and prepare the experimental record forms in advance as required (you may refer to the experiment report template and print it if needed).
- (2) **Experimental Records:** Meticulously and objectively record the experimental conditions, phenomena observed during the experiment, and data collected. Experimental records should be written in ballpoint pen or fountain pen and signed (**Records written in pencil are considered invalid**). **Keep original records, including any errors and deletions; if a correction is necessary due to an error, it must be made according to the standard procedure.** (Records should not be entered into a computer and printed, but handwritten notes can be scanned and printed); before leaving, have the experimental teacher check and sign the records.
- (3) **Data Processing and Analysis:** Process the raw experimental data (except for experiments that focus on learning the use of instruments), analyze the reliability and reasonableness of the data; present the data and results in a standardized manner (charts and tables), including numbering and referencing the data, charts, and tables sequentially; analyze the physical phenomena (including answering the experimental thought questions, writing out the thought process, and citing data as needed according to standards); finally, draw a conclusion.

The experiment report combines the preparation report, experimental records, and data processing and analysis, along with this cover page.

2. Submit the **experiment report** within one week after completing each experiment (under special circumstances, no later than two weeks).

**【Safety】**

- 1.

**【Special Note】**

Special thanks to Huanyu Shi, a senior from the Class of 2019, for providing the L<sup>A</sup>T<sub>E</sub>X template for this experiment report. Due to the absence of an experiment number in the original template, a self-named number has been added for ease of organization on the computer. Additionally, **this experiment report** is being improved towards full English expression, so there may be instances of mixed Chinese and English during this transition period. We appreciate your understanding!

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## 2 XXX

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## 4 XXX

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# XXX

## Preview Report

### 1.1 Purpose

1.

### 1.2 Instruments & Equipment

Number	Name	Quantity	Main parameters (model, measurement range, measurement accuracy, etc.)
1	xxx	1	—

### 1.3 Principle

1.

### 1.4 Thinking Before Experiment

#### Reflection Question 1.1:

这是第一个思考题

#### Reflection Question 1.2:

这是第二个思考题

#### Reflection Question 1.3:

这是第三个思考题

这一行用来展示高亮。

#### 和老婆约会的小曲

(以下也用于展示更改后的无序列表)

- ▶ 使一颗心免于哀伤;
- ▶ 若我不曾见过太阳。

接下来用于展示代码:

Listing 1: 代码记录示例

```
1  # 示例代码
2  import matplotlib.pyplot as plt
3  import numpy as np
4
5  # Data for plotting
6  t = np.arange(0.0, 2.0, 0.01)
7  s = 1 + np.sin(2 * np.pi * t)
8
9  fig, ax = plt.subplots()
10 ax.plot(t, s)
11
12 ax.set(xlabel='time (s)', ylabel='voltage (mV)',
13 title='About as simple as it gets, folks')
14 ax.grid()
15
16 fig.savefig("test.png")
17 plt.show()
```

Major:	Physics	Grade:	2022
Name:	杨舒云	Student number:	22344020
Room temperature:	°C	Experimental location:	
Student's Signature:	In Attachment	Score:	
Experiment time:	2024//	Teacher's Signature:	

XXX

Experimental Record

2.1 Content, Procedures & Results

2.1.1 Operations

1.

2.1.2 Display

The results are shown in Table 1.

Table 1: Examples of table

组 1/序号 i	1	2	3	4	5
$v_{1i}(m/s)$	1.26	1.08	1.00	0.75	0.38
$f_{1i}(Hz)$	40073	40127	40105	40088	40066
组 2/序号 i	1	2	3	4	5
$v_{2i}(m/s)$	1.21	1.06	0.99	0.52	0.57
$f_{2i}(Hz)$	40143	40125	40084	40080	40067
组 3/序号 i	1	2	3	4	5
$v_{3i}(m/s)$	1.15	0.98	0.78	0.59	0.36
$f_{3i}(Hz)$	40135	40115	40092	40070	40044

1.

2.2 Original Data

The original data in the experimental notebook is shown in  
See the Attachment section for the clean of the experimental bench desktop (

Other raw data are shown in

## **2.3   Difficulties**

- 1.**

Major:	Physics	Grade:	2022
Name:	杨舒云	Student number:	22344020
Date:	2024//	Score:	

XXX

Analysis & Discussion

3.1 Data Processing

3.1.1 Analysis

1.

3.1.2 Discussion

1.

3.1.3 Conclusion



3.2 Reflections after Experiment

Reflection Question 3.1:

Reflection Question 3.2:

Reflection Question 3.3:



XXX

## The End

### 4.1 Summary, Thoughts & Acknowledgments

1. Thank you, teacher, for taking the time to read this experimental report, which still has many shortcomings. I hope you can point out the areas that need improvement. I wish you good health, happiness in life, and success in your work!

### 4.2 Attachment

The arrangement of the experimental bench desktop is shown in

The personal signature of the experimental report is shown in **Figure 1**.

The image shows a handwritten signature in black ink, which appears to be '杨舒云' (Yang Shuyun). To the right of the signature is a red square seal with the characters '楊舒雲印' (Seal of Yang Shuyun) in seal script.

Figure 1: signature

All relevant code (Python and LaTeX source code) has been uploaded to Github.

## Reference

- [1] 维基百科. 维基百科 [M]. <https://zh.wikipedia.org>
- [2] 沈韩. 基础物理实验 [M]. 北京: 科学出版社, 2015.