

# A L<sup>A</sup>T<sub>E</sub>XTemplate for your report

Group XXX

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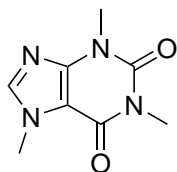
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## **Abstract**

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# 1 Introduction



Scheme 1: Coffein

## 2 Materials and Methods

### 2.1 Materials

### 2.2 Methods

## 3 Results

### 3.1 Determination of the protein concentration

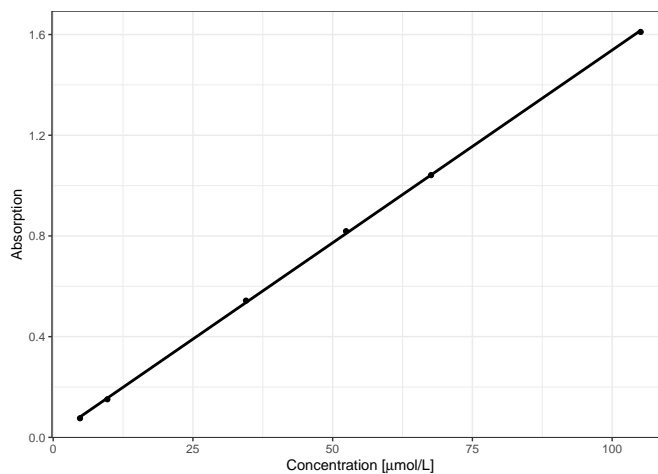


Figure 1: The UV calibration curve.

**Table 1:** The UV calibration curve is listed as a table.

Concentraion	Absorption
4.800	0.076
9.700	0.151
34.500	0.543
52.400	0.819
67.600	1.042
105.100	1.610

## 4 Discussion

## 5 Conclusion

## Appendix

### Data

### R-Script

```
1 ## An example of UV calibration curve and its table
2 ## Contributor: Jun Yin
3 rm(list = ls())
4 setwd("")
5 # Install the following packages prior to use. It takes some time...
6 # install.packages(xtable, "minpack.lm", tidyverse, "scales", rlang, latex2exp
7   )
8 library(xtable) #print tables in LaTeX format
9 library("minpack.lm")
10 library(tidyverse) #Including ggplot2, dplyr, tidyr, stringr, readr, purrr,
11   etc.
12 theme_set(theme_bw())
13 library("scales")
14 library(rlang)
15 library(latex2exp)
16 #####
17 conc <- c(4.8,9.7,34.5,52.4,67.6,105.1) # write concentration here
18 cali_abs <- c(0.0758,0.1512, 0.5431, 0.8189, 1.0415,1.6103) # write UV
19   absorbance
20 summary(lm(cali_abs~conc)) # Read the linear equation here
21 UV <- calicurve <- as.data.frame(cbind(conc, cali_abs))
22 ## The UV plot ####
```

```
22 ggplot(data = UV, mapping = aes(x = conc, y = cali_abs))+
23   geom_point()+
24   geom_smooth(method = "lm", se=FALSE, color= "black")+
25   labs(y="Absorption", x = TeX("Concentration [ $\mu\text{mol/L}$ "])) # change axis
26   labs here
27
28 ## The table ####
29 print(xtable(UV, type = "latex", digits = 3, math.style.exponents = TRUE,
30             caption = "The UV calibration curve is listed as a table."),
31       label = "UV",
32       table.placement = "H",
33       caption.placement = "top",
34       include.rownames = FALSE, include.colnames = TRUE,
35       file = "UV.tex")
```