

```

1 #Imports the libraries needed to run the script.
2 library(tidyverse)
3 library(fs)
4 library(dplyr)
5 library(stringr)
6
7
8 #FILL THESE
9 folder_path <- "C:\\Users\\barbi\\Desktop\\TEP"
10 output_file <- "C:\\Users\\barbi\\Desktop\\tep-638nm-XploRA-Raman.csv"
11
12
13 #Creates one-column table with the path of every file per rows in the specified folder named "all_of_them".
14 all_of_them <- fs::dir_ls(folder_path)
15 file_names <- list.files(folder_path)
16
17
18 #Creates empty data frame with two columns: Wave Number and Intensity.
19 #write.table(data.frame('Wave Number', 'Intensity'), file = output_file, sep = ",",
20 #append = TRUE, quote = FALSE,
21 #col.names = FALSE, row.names = FALSE)
22
23
24 #Loop that reads every file in the folder ands saves the data in my_content.
25 for (i in seq_along(file_names)) {
26
27   my_content <- read.table(
28     file = all_of_them[[i]], sep="\t", header=TRUE)
29
30   #Creates data frame for my_content.
31   df <- data.frame(my_content)
32
33   #Removes rows 1 to 301 for each *.csv file.
34   header_df <- file_names[i]
35   new_data <- df[-c(1:1),]
36   new_df <- data.frame(new_data)
37   new_df <- new_df %>% dplyr::mutate(sample=header_df)
38
39   #Writes table with the data from all the *.csv files and
40   #exports it in the output_file path.
41   write.table(new_df, file = output_file, sep = ",",
42     append = TRUE, quote = FALSE,
43     col.names = FALSE, row.names = FALSE)
44 }
45
46
47 #Export the created *.csv
48 created_csv <- read_csv(output_file)
49
50
51 #Creates a data frame for created_csv
52 collapsed_csv <- data.frame(created_csv)
53
54
55 #Creates columns "wave_number", "intensity", and "sample_name"
56 colnames(collapsed_csv) <- c("wave_number", "intensity", "sample_name")
57
58 #Removes characters in the sample_name values
59 collapsed_csv <- collapsed_csv %>% mutate_at("sample_name", str_replace, ".txt", "")
60
61
62 #Converts the collapsed_csv data frame from long to wide
63 collapsed_csv <- pivot_wider(collapsed_csv, names_from = sample_name, values_from = intensity)
64
65 #Eliminates last row
66 df <- data.frame(collapsed_csv)
67 df <- df %>% na.omit()
68
69 #Exports the collapsed_csv data frame in an *.csv file
70 write_csv(df, output_file, row.names = FALSE)

```